



# Fabasoft Knowledgebase

Fabasoft Support Services

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## Inhalt

1 LAST UPDATED IN 2025 _____	31
2 Missing DocProperties and other issues in Microsoft Word 365_____	31
2.1 Information .....	31
2.2 Solution .....	32
2.2.1 Installing the Fabasoft Folio Client code-signing certificate as a "Trusted Publisher" .....	32
2.2.2 Updating Fabasoft Folio Client in case of an expired code-signing certificate .....	33
3 LAST UPDATED IN 2024 _____	33
4 Creating a dump in Linux _____	33
4.1 Information .....	33
4.1.1 Fetching the pid .....	33
4.1.2 Create the dump .....	33
4.1.3 Run Collect Dump Info.....	34
5 Creating a dump in Microsoft Windows_____	34
5.1 Information .....	34
5.2 Using Windows Task Manager .....	34
5.3 Using Windows Error Reporting (WER).....	34
5.3.1 Windows Debugging Tools .....	35
5.3.2 If Microsoft Visual Studio Just-In-Time Debugger (JIT Debugger) is handling a crash ....	36
5.3.3 References.....	36
6 Error COOSTD-00118: The database option READ_COMMITTED_SNAPSHOT is disabled. _____	36
6.1 Summary .....	36
6.2 Information .....	36
6.3 Solution .....	36
6.4 Links.....	37
6.4.1 Applies to.....	37
7 Renew trusted peer certificates (Folio/Mindbreeze) _____	37
7.1 Summary .....	37
7.2 Solution .....	37
7.2.1 Option 1: Provide a certificate of your corporate CA (recommended) .....	37
7.2.2 Option 2: Re-create a long-term self-signed certificate.....	38
7.3 Installation of the certificates .....	38
7.3.1 Import the new CA to Mindbreeze .....	38
7.3.2 Import the client certificate to Fabasoft Folio.....	39
7.3.3 Applies to.....	39
8 Using Privileged Servlets in Mindbreeze Enterprise _____	39

8.1 Summary .....	39
8.2 Activation of the Privileged Servlets .....	40
8.3 The "find" servlet.....	40
8.4 The "documents" servlet .....	40
9 Enabling TLS security between Microsoft SQL Server and Folio Backend services _____	41
9.1 Information .....	41
9.2 Solution .....	41
9.3 Troubleshooting.....	42
9.3.1 Checking what TLS connection is used .....	42
9.3.2 Enabling TLS 1.2, disabling TLS 1.0 and TLS 1.1 .....	43
9.3.3 "The certificate chain was issued by an authority that is not trusted" error after upgrading SNAC applications .....	43
9.4 Links.....	43
10 How to change the number of web service threads _____	44
10.1 Information .....	44
10.1.1 Windows .....	44
10.1.2 Linux .....	44
10.1.3 Check the current setting .....	45
11 Automated Tasks: Assignment from Service to Task List _____	45
11.1 Information .....	45
11.2 Solution.....	45
11.2.1 Figure out if Fabasoft Folio AT and a Fabasoft Folio AT service is installed .....	45
11.2.2 Figure out the Folio user operating a Fabasoft Folio AT Service .....	45
11.2.3 Figure out the List of Automated Tasks of the service user .....	46
11.2.4 Figure out the Automated Tasks .....	47
12 Adobe Reader / Adobe Acrobat Save As dialog on opened documents _____	47
12.1 Summary .....	47
12.2 Information .....	48
12.3 Solution.....	48
12.4 References .....	48
13 Restore transaction in different kernel message _____	49
13.1 Summary .....	49
13.2 Information .....	49
13.3 Solution.....	50
14 Content Switch Cookie configuration _____	52
14.1 Summary .....	52
14.2 Information .....	52
14.3 "CS Cookie" advanced syntax .....	52

15 Roll out Fabasoft environment variables by UPD files _____	53
15.1 Summary .....	53
15.2 Information .....	53
15.3 Solution.....	54
16 MMC Area backup possibilities _____	55
16.1 Summary .....	55
16.2 Information .....	55
16.2.1 MMC Service Area Mirroring.....	55
16.2.2 Online Backup via MMC Service .....	56
16.2.3 Online Backup via Kernel.....	57
16.2.4 Incremental Offline Backup .....	58
17 Purge outdated incremental backups _____	60
17.1 Summary .....	60
17.2 Information .....	60
17.3 Solution.....	60
18 MMC Service area consistency check _____	61
18.1 Summary .....	61
18.2 Consistency check of MMC Service areas .....	61
18.3 MD5 consistency check .....	61
19 Cleanup of MMC Service areas _____	62
19.1 Summary .....	62
19.2 Information .....	62
19.2.1 Hints for Linux usage of fscadmin .....	62
19.2.2 Parameter overview for cleanup .....	62
19.2.3 Finding out the ID of a specific service.....	63
19.2.4 Cleanup of all areas of an MMC Service .....	63
19.2.5 Cleanup of single area of an MMC Service .....	64
19.2.6 Partial cleanup in CAS areas .....	64
19.2.7 Test cleanup with dryrun.....	64
19.2.8 Best practices for cleanup .....	64
19.2.9 Frequently encountered errors .....	65
19.3 References .....	65
19.3.1 Applies to.....	65
20 Administration Help in Fabasoft eGov-Suite _____	65
20.1 Summary .....	65
20.2 Information .....	65
20.3 Solution.....	66

21 Webservice installation fails - Function AddVDir failed .....	67
21.1 Summary .....	67
21.2 Information .....	67
21.3 Solution.....	68
21.3.1 Move or remove machine key files .....	68
21.3.2 Delete machine keys from applicationHost.config.....	68
21.3.3 Recreate machine keys .....	68
21.4 References .....	69
21.5 Applies to .....	69
22 Used ports in a Fabasoft environment .....	69
22.1 Summary .....	69
22.2 Information .....	69
22.2.1 Communication inside and outside the backend LAN.....	69
22.2.2 Selection of network and operating system ports.....	70
22.2.3 Fabasoft Folio Cache Notification .....	71
22.3 Applies to .....	71
23 Creating and maintaining an up to date setup kit .....	71
23.1 Summary .....	71
23.2 Solution.....	72
23.2.1 Creating the Setup kit .....	72
23.2.2 Maintaining the setup kit.....	72
24 Executing Expressions from command line with fsceval .....	72
24.1 Summary .....	72
24.2 Information .....	72
24.3 Usage .....	73
24.3.1 Preparation on Windows .....	73
24.3.2 Preparation on Linux.....	73
24.3.3 Examples .....	73
24.4 Applies to .....	73
25 Manual Mindbreeze Configuration in Fabasoft Folio .....	73
25.1 Summary .....	74
25.2 Information .....	74
25.3 Solution.....	74
25.3.1 General.....	74
25.3.2 Mindbreeze .....	74
25.3.3 Folio .....	75
25.4 Downloads and References.....	76

26 LAST UPDATED IN 2023 _____	76
27 COO Service memory usage not equivalent to Cache Size Setting _____	76
27.1 Summary .....	76
27.2 Information .....	76
27.3 Solution.....	77
27.4 References .....	77
28 Restricted path access in Fabasoft app.ducx Expression Language _____	77
28.1 Summary .....	77
28.2 Details.....	77
28.3 Solution.....	78
28.3.1 Allow additional paths .....	78
28.3.2 Disable the path restriction.....	78
29 How Workflow Notifications are processed _____	78
29.1 Summary .....	78
29.2 Details.....	78
29.2.1 Background Tasks.....	78
29.2.2 CheckShortDeadline processing .....	79
29.2.3 Processing the Notification Definition Configuration .....	79
29.2.4 Summary .....	80
29.3 Troubleshooting.....	80
30 Workflow Notification Checklist _____	81
30.1 Summary .....	81
30.2 Solution.....	81
30.2.1 1 SMTP Configuration .....	81
30.2.2 2 Check that the Fabasoft Folio AT Service is installed and running.....	81
30.2.3 3 Check that the Fabasoft Folio AT Service user is Privileged User .....	81
30.2.4 4 Check the List of Automated Tasks .....	81
30.2.5 5 Check for CheckDeadline jobs in List of Automated Tasks.....	82
30.2.6 6 Check the Domain/Tenant Notification Definition .....	82
30.2.7 7 Check the user’s notification setting .....	83
31 How to configure Work Steps available in the Fabasoft Mobile App _____	84
31.1 Summary .....	84
31.2 Solution.....	84
32 Setting the MAX_IN_CLAUSE, MAX_OR_CLAUSE and MAX_JOINS parameters _____	85
32.1 Summary .....	85
32.2 Information .....	85
32.3 Solution.....	86

33 Explanation of Digital Code Signatures in Microsoft Windows _____	86
33.1 What is the purpose of digital code signatures? .....	86
33.2 What is the purpose of the countersignature?.....	87
33.3 Why do existing code signatures not expire when the code signing certificate does?.....	87
33.4 Why is it not necessary to re-issue a code signature after the code signing certificate expires? .....	87
33.5 References .....	87
34 Performance optimizations for Microsoft SQL Server _____	88
34.1 Summary .....	88
34.2 Information .....	88
34.3 Solution.....	88
34.3.1 Statistics .....	88
34.3.2 Isolation Mode.....	88
34.3.3 Optimize for Ad hoc Workloads.....	89
34.3.4 Parameterization Forced.....	89
34.3.5 Trace Flags .....	90
34.3.6 Applies to.....	90
35 Error message "Could not execute query" when using full text queries in Folio metadata search	90
35.1 Summary .....	91
35.2 Solution.....	91
36 OpenSSL Error "could not parse PKCS12 file, check password" _____	91
36.1 Summary .....	91
36.2 Solution.....	91
36.3 Details.....	92
36.3.1 Applies to.....	92
37 Internet Explorer 11 retirement information _____	92
37.1 Summary .....	92
37.1.1 Applies to.....	92
38 Large database transaction log backups with Fabasoft COLD Loader _____	93
38.1 Summary .....	93
38.2 Solution.....	93
38.3 Details.....	93
39 LAST UPDATED IN 2022 _____	94
40 Trusted for delegation and Service Principal Names _____	94
40.1 Service Principal Name .....	94
40.2 Trusted for delegation.....	95
41 Unexpected error messages regarding an update of the Fabasoft Folio Browser Extension (Chromium Issue 1338586) _____	95

41.1 Summary .....	95
41.2 Information .....	95
41.3 Solution.....	96
41.3.1 Last known unaffected browser versions .....	96
41.4 Applies to .....	96
42 Touch files in Windows (update Timestamp) _____	96
42.1 Summary .....	96
42.2 Solution.....	96
42.3 Information .....	96
43 No automatic object locks _____	97
43.1 Information .....	97
43.2 Details.....	97
44 Availability of a Universal Web Browser Extension for Google Chrome and Microsoft Edge ____	97
44.1 Summary .....	97
44.2 Information .....	97
44.3 Dependencies .....	98
44.3.1 Fabasoft Folio web browser extension ("Fabasoft Client").....	98
44.3.2 Fabasoft Folio Client and Domain software component versions .....	98
44.3.3 Recommended migration path .....	99
44.4 Information Regarding the Deprecation of Manifest V2 Extensions .....	99
44.5 Information about Firefox extension.....	100
45 Creating a component trace _____	100
45.1 Preliminary Remarks .....	100
45.1.1 Enabling Trace in a Software Component .....	100
45.1.2 Tracing with provided tracing libraries.....	100
45.1.3 Tracing performance.....	100
45.2 Microsoft Windows.....	101
45.2.1 Fabasoft Tracer .....	101
45.2.2 Creating the Trace .....	101
45.2.3 Removing the Trace Version .....	103
45.3 Linux.....	103
45.3.1 Trace Message Logging.....	103
45.3.2 Creating the Trace .....	103
45.3.3 Removing the Trace Version .....	106
45.3.4 Tracing in Linux prior Folio 2015.....	106
46 Creating a trace _____	106
46.1 Client Trace .....	106

46.2 Component Trace .....	106
46.3 Kernel Trace.....	106
46.4 Debug Trace.....	106
47 Decrease the degree of parallelism for performance optimization in Mindbreeze Enterprise ____	107
47.1 Summary .....	107
47.2 Information .....	107
47.3 Solution.....	107
47.3.1 Further performance increases .....	107
48 Fabasoft Folio Client and Microsoft Edge WebView2_____	107
48.1 Summary .....	108
48.1.1 About Microsoft Edge WebView2 .....	108
48.1.2 Fabasoft Folio Client packages.....	108
48.1.3 Using the FolioClient.msi .....	108
49 Fast Web View pdf-opt_____	109
49.1 Summary .....	109
49.2 Solution.....	109
49.2.1 Applies to:.....	109
50 Important Information Regarding the Deprecation of Manifest V2 Extensions in Chromium Based Browsers_____	109
50.1 Summary .....	110
50.2 Information .....	110
50.3 Solution.....	110
50.3.1 Clients With Web Store Access .....	110
50.3.2 Clients Without Web Store Access.....	110
50.4 Applies to .....	110
50.5 References .....	111
51 Recovery Mode for a Fabasoft Domain _____	111
51.1 Summary .....	111
51.2 Information .....	111
51.3 Solution.....	111
51.3.1 Clearing all domain transactions .....	111
51.4 References .....	111
51.4.1 Applies to.....	112
52 LAST UPDATED IN 2021 _____	112
53 Conversion: Disable Visual Basic macro errors despite of disabled macros _____	112
53.1 Information .....	112
53.2 Solution.....	112
53.2.1 Summary .....	112

53.2.2	Change temporary directory of Fabasoft Conversion service .....	112
53.2.3	Mircrosoft Word: Disable macro execution .....	113
53.2.4	Microsoft Word: Add trusted location .....	113
54	Creating SSL certificates for Mindbreeze Client in Windows _____	114
54.1	Summary .....	114
54.2	Information .....	114
54.3	Solution.....	115
54.4	Creating a Certificate Template.....	115
54.4.1	Creating and exporting the SSL certificate .....	115
54.4.2	Removing the passphrase with openssl .....	115
54.4.3	Applies to.....	116
55	MMC cleanup may delete referenced content due to unknown/foreign files in MMC Service areas _____	116
55.1	Summary .....	116
55.2	Details.....	116
55.2.1	How to identify if your system may be affected .....	116
55.3	Solution.....	116
55.3.1	Hotfix information.....	116
55.3.2	Before you have installed the hotfix .....	117
56	Options in case of inefficient queries _____	117
57	Set SPN to use Kerberos authentication _____	118
57.1	Summary .....	118
57.1.1	Signs that indicate a possible Kerberos problem .....	118
57.2	Solution.....	118
57.3	Information .....	119
57.3.1	Applies to.....	119
58	LAST UPDATED IN 2020 _____	119
59	How to close and create an MMC service area _____	119
59.1	Summary .....	119
59.2	Information .....	120
59.2.1	Create a MMC service area .....	120
59.2.2	Closing a MMC service area .....	120
59.2.3	Further information.....	121
59.2.4	Applies to.....	121
60	Constraint Check Error #012: Unique index is missing_____	121
60.1	Information .....	121
60.2	Solution.....	121
60.2.1	Manually create the index .....	121

60.2.2 Permission problems .....	122
60.2.3 Unique constraint problems .....	122
60.3 Applies to .....	122
61 Blocking situations in a Microsoft SQL Server database _____	122
61.1 Summary .....	122
61.2 Information .....	122
61.3 Solution.....	122
61.4 Attention .....	123
61.5 Applies to .....	123
61.6 More useful links.....	123
62 Message FSCVAPP-00106: CheckStackDepth: too many steps on stack; maximum process steps on stack _____	123
62.1 Summary .....	123
62.2 Information .....	123
62.3 Solution.....	124
62.3.1 Increasing the stack size .....	124
63 MMC cleanup may delete referenced content on database failure _____	124
63.1 Summary .....	125
63.2 Details.....	125
63.3 Solution.....	125
63.3.1 About the hotfix.....	125
63.4 Before you have installed the hotfix .....	126
63.5 How to check if the issue occurred.....	126
64 RHEL/CentOS 6.4 and Fabasoft Folio 2013/2014 Update Rollup 3 Update Procedures _____	126
64.1 Summary .....	126
64.2 Information .....	126
64.3 Solution.....	127
64.4 Applies to .....	127
65 LAST UPDATED IN 2019 _____	127
66 Client: Changing the temporary directory _____	127
66.1 Summary .....	127
66.2 Instructions .....	127
66.2.1 Applies to.....	128
67 Information on Oracle Java 8 concerning Fabasoft Folio and Fabasoft Mindbreeze _____	128
67.1 Summary .....	128
67.2 Java Requirements - Fabasoft Folio.....	128
67.3 Java Requirements - Fabasoft Mindbreeze.....	134
67.4 Solution.....	139

68	ORA error codes recognized by Fabasoft Folio COO-Services	139
68.1	Summary	139
68.2	Information	139
68.3	Add further error codes	139
69	Oracle: Distributed transaction timeouts	140
69.1	Summary	140
69.2	Information	140
69.3	Solution	140
69.3.1	Verifying distributed transaction timeout settings	141
69.3.2	Configuring the distributed transaction timeouts	141
69.3.3	Clearing all domain transactions	141
69.4	References	142
69.4.1	Applies to	142
70	Oracle Java Licensing Information	142
70.1	Information	142
70.1.1	Linux (Red Hat Enterprise Linux / CentOS)	142
70.1.2	Microsoft Windows	142
71	PDF objects remain locked after being closed	143
71.1	Summary	143
71.2	Solution	143
72	LAST UPDATED IN 2018	145
73	The true story about Object IDs	145
73.1	Description	145
73.2	Important information	146
73.3	Applies to	146
74	Configure basic authentication for the Mindbreeze configuration site on Linux (via Apache mod_ssl module)	146
74.1	Summary	146
74.2	Information	146
74.3	Solution	146
74.4	Useful links and further documentation	147
75	Backlinks missing from user/group/position activities	148
75.1	Summary	148
75.2	Information	148
75.3	Solution	148
76	"Call was rejected by callee" on conversion server	148
76.1	Summary	148

76.2 Information .....	149
76.3 Solution.....	149
76.3.1 Folio 2014 Spring Release (and above) .....	149
76.3.2 Fabasoft Folio Versions before 2014 Spring Release.....	149
76.4 Applies to .....	149
77 Conversion to PDF-A fails _____	149
77.1 Information .....	149
77.2 Solution.....	150
77.3 Applies To .....	150
78 Creating a client trace _____	150
78.1 Microsoft Windows.....	150
78.1.1 Fabasoft Tracer .....	150
78.1.2 Creating the Trace .....	150
78.1.3 Removing the Trace Version.....	151
78.2 Linux.....	151
78.2.1 Trace Message Logging.....	151
78.2.2 Creating the Trace .....	151
78.2.3 Removing the Trace Version.....	151
79 Creating a debug trace _____	151
79.1 Microsoft Windows.....	152
79.1.1 Fabasoft Tracer .....	152
79.1.2 Creating the Trace .....	152
80 Creating a kernel trace _____	152
80.1 Microsoft Windows.....	152
80.1.1 Fabasoft Folio Kernel Trace Version .....	152
80.1.2 Fabasoft Tracer .....	152
80.1.3 Creating the Trace .....	153
80.1.4 Removing the Trace Version.....	153
80.2 Linux.....	153
80.2.1 Fabasoft Folio Kernel Trace Version .....	153
80.2.2 Trace Message Logging.....	154
80.2.3 Creating the Trace .....	154
80.2.4 Removing the Trace Version.....	155
81 Fabasoft Folio Client with Mozilla Firefox version 52 and above _____	156
81.1 Summary .....	156
81.2 Information .....	156
81.3 Details.....	156

82 Fabasoft iArchive Hotfix - Inconsistencies when objects are restored _____	156
82.1 Summary .....	157
82.2 Information .....	157
82.3 Solution.....	157
82.4 Applies to .....	157
83 Fabasoft Tracer _____	157
83.1 Microsoft Windows.....	158
83.1.1 Commandline Parameters.....	158
83.1.2 Menus.....	158
83.2 Linux.....	159
83.2.1 Commandline Parameters.....	159
83.2.2 Interactive Commands .....	160
84 Firefox has not produced the result file within the maximum allowed time span _____	160
84.1 Information .....	160
84.2 Solution.....	160
85 GPL Ghostscript 9.06 and PDF/A conformance with modern color profiles _____	160
85.1 Overview .....	160
85.2 Details.....	160
86 Hotfix for Microsoft DTC Usage _____	161
86.1 Information .....	161
86.2 Solution.....	161
86.2.1 Applies to .....	161
87 How to change the location of Fabasoft Folio Kernel Caches _____	162
87.1 Information .....	162
87.2 Solution.....	162
87.2.1 Microsoft Windows.....	162
87.2.2 Linux .....	162
87.3 Details.....	163
88 How to create new Certificates for Liferay Portal Integration _____	163
88.1 Summary .....	163
88.2 Solution.....	163
88.2.1 Prerequisites .....	163
88.2.2 Preparation .....	163
88.3 CA & CA - Certificate .....	164
88.3.1 Generate Key and Requests .....	164
88.3.2 Generate CA - Certificate.....	164
88.3.3 Export the CA - Certificate in a *.p12 - File.....	164

88.3.4 Export the CA - Certificate in a *.cer - File.....	164
88.4 Server Certificate .....	164
88.4.1 Generate Key and Requests .....	164
88.4.2 Generate Server Certificate .....	165
88.4.3 Generate Keynodes.....	165
88.4.4 Use Created Certificates .....	165
88.5 Liferay Service Certificate .....	165
88.5.1 Generate Key and Requests .....	165
88.5.2 Generate Server Certificate .....	165
88.5.3 Generate Keynodes.....	165
88.5.4 Export the CA - Certificate in a *.p12 - File.....	165
88.5.5 Import the CA - Certificate in the Truststore.....	166
88.5.6 Exchange Liferay Certificate .....	166
88.6 Starting Liferay .....	166
88.7 Applies to .....	166
89 How to remove a Fabasoft Client / Plugin installation on Windows.....	166
89.1 Summary .....	166
89.2 Solution.....	166
89.2.1 Applies to.....	167
90 Information regarding Mindbreeze search suggestions .....	167
90.1 Summary .....	167
90.2 Solution.....	167
91 Internal Counter Limits .....	168
91.1 Summary .....	168
91.2 Information .....	168
91.2.1 Important notice.....	168
91.3 Solution.....	168
91.3.1 Applies to.....	168
92 Internet Information Services Authentication Configuration for Fabasoft Folio 2014 and newer	168
92.1 Information .....	169
92.2 Layout.....	169
92.3 Additional Information.....	169
92.4 Screenshots.....	170
93 Invalid license specified. License Version is X.Y .....	170
93.1 Information .....	170
93.1.1 Possible reasons: .....	170
93.2 Solution.....	171

94 Java Out Of Memory Exceptions _____	171
94.1 Information .....	171
94.2 Solution.....	171
94.3 Details.....	171
95 Linux: LDAP Authentication and PAM _____	172
95.1 Information .....	172
95.2 Solution.....	172
95.3 Applies to .....	172
96 Loading a Folio license file _____	172
96.1 Offline.....	173
96.1.1 Windows .....	173
96.1.2 Linux .....	174
96.2 Online .....	177
96.3 Frequently asked questions .....	179
96.3.1 Q: License file loaded but still cannot login .....	179
96.3.2 I've destroyed the old license object but it is still used .....	180
97 Logging possibilities _____	180
97.1 Information .....	180
97.1.1 Conversion Logging .....	180
97.1.2 SOAP Logging.....	187
97.1.3 Mailmerge Logging .....	188
97.1.4 Fabasoft Folio Plug-in.....	196
97.1.5 Fabasoft Folio / Fabasoft eGov-Suite software components .....	196
97.1.6 Other .....	196
97.1.7 See also: .....	196
98 Microsoft Internet Information Services Kernel Mode Authentication settings for Fabasoft Folio services _____	196
98.1 Summary .....	196
98.2 Settings for Fabasoft Folio/Fabasoft eGov-Suite .....	196
98.3 Recommendation .....	197
98.3.1 Applies to.....	197
99 Microsoft SQL Server 2005 Service Pack 4 (SP4) _____	197
99.1 Information .....	197
99.2 Applies to .....	197
99.3 Release Notes.....	197
100 Performance Counters not available _____	197
100.1 Information .....	197
100.2 Solution.....	198

100.2.1 Applies to .....	198
101 Save and load COO Service caches _____	199
101.1 Information .....	199
101.2 List the service IDs of the COO Services .....	199
101.3 Save the COO Service cache .....	199
101.4 Load the COO-Service cache.....	199
101.5 Load COO-Service cache by query.....	200
101.6 Further information .....	201
101.7 References .....	201
101.7.1 Applies to .....	201
102 Saving Fabasoft app.telemetry Requests _____	201
103 Saving Windows Event Logs _____	202
104 Scripts for Indexing with Folio Mindbreeze Integration _____	202
104.1 Summary.....	203
104.2 Information .....	203
105 SMTP Configuration Object - Authentication Failed_____	203
105.1 Summary.....	203
105.2 Solution.....	203
105.3 Applies to .....	203
106 SOAP - Out of memory error because of XML text node limit _____	204
106.1 Information .....	204
106.2 Solution.....	204
106.3 Applies to .....	204
107 SQL Stress Tool_____	204
108 Troubleshooting Mindbreeze: No search results from Fabasoft Components _____	204
108.1 Case 1.....	204
108.1.1 Error message .....	204
108.1.2 Cause.....	205
108.1.3 Solution.....	205
108.2 Case 2.....	205
108.2.1 Error message .....	205
108.2.2 Cause.....	205
108.2.3 Solution.....	205
108.3 Case 3.....	205
108.3.1 Error message .....	205
108.3.2 Cause.....	205
108.3.3 Solution.....	206

108.4 Case 4.....	206
108.4.1 Error message .....	206
108.4.2 Cause.....	206
108.4.3 Solution.....	206
108.5 Case 5.....	206
108.5.1 Error message .....	206
108.5.2 Cause.....	206
108.5.3 Solution.....	206
108.6 Case 6.....	206
108.6.1 Error message .....	206
108.6.2 Cause.....	207
108.6.3 Solution.....	207
108.7 Case 7.....	207
108.7.1 Error message .....	207
108.7.2 Cause.....	207
108.7.3 Solution.....	207
108.8 Case 8.....	207
108.8.1 Error message .....	207
108.8.2 Cause.....	207
108.8.3 Solution.....	207
108.9 Case 9.....	207
108.9.1 Error message .....	207
108.9.2 Cause.....	208
108.9.3 Solution.....	208
108.10 Case 10 .....	208
108.10.1 Error message .....	208
108.10.2 Cause.....	208
108.10.3 Solution.....	208
109 Unexpected data exports in Relational Reporting and XML Export with multiple roles _____	208
109.1 Summary.....	208
109.2 Information .....	208
109.2.1 Automatic Role Change .....	208
109.3 Solution .....	209
109.3.1 Solution 1: Disable Automatic Role Change in User Environment.....	209
109.3.2 Solution 2: Disable Automatic Role Change by Transaction Variable .....	209
109.3.3 Fabasoft Folio 2017 and above .....	209
109.3.4 Applies to .....	209
110 Usage of ADERPC-SPNs in modern versions of Microsoft Windows Server _____	209

110.1 Overview .....	209
110.2 Details.....	210
110.3 Creation of SPNs .....	210
111 Collect System Information _____	210
111.1 Summary.....	210
111.2 Information .....	210
111.2.1 Microsoft Windows environment .....	210
111.2.2 Linux environment .....	211
111.2.3 Collected Data .....	211
111.2.4 Applies to .....	211
112 Client-authentication with certificate via WebDAV _____	212
112.1 Summary.....	212
112.2 Information .....	212
112.3 Solution.....	212
112.3.1 Windows 7 .....	212
112.3.2 Windows 10 .....	212
113 Automatic version because of a newer content on the server _____	213
113.1 Summary.....	213
113.2 Use Case .....	213
113.3 Information .....	214
113.3.1 Behaviour in Fabasoft Folio 2012 .....	214
113.3.2 Behaviour in Fabasoft Folio 2013 and above .....	214
113.3.3 Applies to .....	214
114 LAST UPDATED IN 2017 (and before)_____	214
115 Certificate Error Using Fulltext Search in Fabasoft Folio with Mindbreeze Enterprise Search__	214
115.1 Summary.....	214
115.2 Information .....	214
115.2.1 Determining your Fabasoft Folio Kernel version .....	215
115.2.2 Applies to .....	215
116 Bad Request - Size of a request header field exceeds server limit _____	215
116.1 Information .....	216
116.2 Solution.....	216
116.2.1 Applies to .....	216
117 Configuring the MS-DTC for a Fabasoft Folio environment _____	216
117.1 Summary.....	216
117.2 Information .....	216
117.2.1 Possible errors and messages indicating a problem with MSDTC .....	217

117.3 Solution.....	217
117.3.1 Fabasoft Folio Configuration .....	217
117.3.2 Microsoft Windows Configuration .....	217
117.3.3 How to disable MSDTC distributed transactions.....	217
117.3.4 Applies to .....	218
118 Contents may possibly not be saved when using Microsoft Internet Explorer 8.0 _____	218
118.1 Summary.....	218
118.2 Information .....	218
118.3 Solution.....	219
118.3.1 Applies To .....	219
118.3.2 Fixed in Version .....	219
119 Conversion failure with Microsoft Excel 2003 _____	220
119.1 Summary.....	220
119.2 Solution.....	220
119.2.1 Applies to .....	220
120 Conversion of Microsoft Excel fails on Windows Server 2008 _____	220
120.1 Summary.....	221
120.2 Information .....	221
120.3 Solution.....	221
120.3.1 Stopping IIS and Office applications.....	221
120.3.2 Logon with conversion service user and configure Office .....	221
120.3.3 Set Fabasoft printers as default printers for the machine.....	221
120.3.4 Set IIS to load user profile for conversion service user .....	222
120.3.5 Test the settings.....	222
121 Conversion Service FAQ_____	222
121.1 The OpenOffice.org library function "OOoConverter::OOoConnect" returned an error (Conv_ESERVICEMANAGER) .....	222
121.1.1 Error Log shows: .....	222
121.1.2 possible Reason 1 .....	223
121.1.3 Solution.....	224
121.1.4 possible Reason 2 .....	224
121.1.5 Solution.....	224
121.2 Could not connect to OpenOffice.org instance.....	224
121.2.1 Error log shows: .....	224
121.2.2 Reason.....	224
121.2.3 Workaround .....	224
121.3 OpenOffice.org Libraryfunction "OOoConverter::OOoConnect" returned an error (Conv_EINVALID).....	225

121.3.1 Possible Reason 1 .....	225
121.3.2 Resolution Windows .....	225
121.3.3 Resolution Linux .....	225
121.3.4 Possible Reason 2 .....	225
121.3.5 Resolution Linux .....	226
121.3.6 Possible Reason 3 .....	226
121.3.7 Resolution Linux .....	226
121.4 OpenOffice Conversion: Connection timed out .....	226
121.4.1 Resolution Linux .....	226
121.5 I would like to activate/deactivate UpdateFields .....	226
121.5.1 Resolution .....	227
121.6 FSCTLH92.FSCTLHExecuteConversion (Access is denied) .....	227
121.6.1 Possible Resolution 1 .....	227
121.6.2 Possible Resolution 2 .....	227
121.6.3 possible Resolution 3 .....	228
121.7 General error when calling "FSCCNV.FSCCONVConvertWinword" .....	228
121.7.1 Possible Resolution 1 .....	228
121.8 Tips for debugging .....	228
122 COO Service performance with user objects and app.telemetry .....	229
122.1 Summary .....	229
122.2 Solution .....	229
122.2.1 Example snippet of infra.xml .....	229
122.2.2 Location of the infra.xml file .....	229
122.2.3 Applies to .....	229
123 ADE Gui Update incomplete .....	230
123.1 Summary .....	230
123.2 Information .....	230
123.3 Solution .....	230
124 Cross-Site Scripting warning with Internet Explorer 8 and Fabasoft eGov-Suite 8.0 SP1 .....	230
124.1 Summary .....	230
124.2 Information .....	230
124.2.1 Affected systems .....	231
124.3 Solution .....	231
124.3.1 Solution 1 .....	231
124.3.2 Solution 2 .....	231
124.3.3 Solution 3 .....	231
124.3.4 Applies to .....	232
125 Different log pools for web and conversion services .....	232

125.1 Summary.....	233
125.2 Information .....	233
125.3 Solution.....	233
125.3.1 Applies to:.....	233
126 Different page layout and number of pages after conversion to pdf _____	233
126.1 Summary.....	233
126.2 Information .....	234
126.3 Solution.....	234
126.3.1 Applies to .....	234
127 Different results depending on how properties are read in expressions _____	235
128 DLL Registration of Fabasoft Integration for Kofax Capture fails _____	236
128.1 Summary.....	236
128.2 Information .....	236
128.3 Solution.....	236
128.3.1 Applies to .....	240
129 DNS Query - NetBios Fallback _____	240
129.1 Summary.....	240
129.2 Information .....	240
129.3 Solution.....	240
129.3.1 Applies to .....	240
130 DocProperties are truncated after 255 characters _____	240
130.1 Summary.....	241
130.2 Information .....	241
130.3 Solution.....	241
131 DTM can not establish a connection to Oracle XA-Service _____	241
131.1 Summary.....	241
131.2 Information .....	241
131.3 Solution.....	242
131.3.1 Clearing all domain transactions.....	242
131.3.2 Applies to .....	242
132 Empty letter after finalizing a form letter _____	242
132.1 Summary.....	242
132.2 Information .....	243
132.3 Solution.....	243
132.3.1 Hint .....	243
132.3.2 Applies To .....	243
132.3.3 Microsoft Visual Basic Macro to find the locked field .....	243

133 Enable Conversion with Microsoft Word Fill-In Fields _____	244
133.1 Information .....	244
133.2 Solution.....	244
133.2.1 Applies to .....	244
134 Error "INT value = 0: Incompatible type 8" _____	244
134.1 Summary.....	244
134.2 Information .....	245
134.3 Solution.....	245
134.3.1 Upgrade Definition files missing or corrupt .....	245
134.3.2 Missing migration entries in Upgrade Definition files.....	246
134.3.3 Backup strategy.....	246
134.3.4 Applies to .....	247
135 Error when calling fsc cab81.CABExtractFromCAB _____	247
135.1 Summary.....	247
135.2 Soluiton.....	247
135.2.1 Applies to .....	248
136 Experiences with Microsoft Office 2010 and Fabasoft eGov-Suite 8.0 SP1 _____	248
136.1 Summary.....	249
136.2 Information .....	249
136.2.1 DocProperties are trimmed after 254 characters .....	249
136.2.2 Word-Button, Outlook-Button, Text-Insertion-Button do not work.....	249
136.2.3 Problems with Microsoft Office 2010 (x64 Edition) .....	249
136.2.4 Mail merges cannot be opened when another instance of Microsoft Word 2010 is already running.....	250
136.2.5 Microsoft Powerpoint: Document stays locked after closing the document without closing PowerPoint .....	250
136.2.6 Microsoft Project: Document stays locked after closing the document without closing Project .....	250
136.2.7 Authentication dialog when opening documents using WebDAV folder .....	251
136.2.8 Different error symptoms if template folder and/or workgroup template folder is redirected to a network share .....	251
136.2.9 Applies to .....	251
137 Fabasoft Folio 2009 Update and Upgrade Guide _____	251
137.1 Update Fabasoft Folio 2008 to Fabasoft Folio 2009 .....	251
137.2 Update Fabasoft Folio 2008 to Fabasoft Folio Enterprise 2009.....	252
137.3 Update Fabasoft Folio 2008 and Fabasoft iArchive 2008 to Fabasoft Folio Compliance 2009 .....	252
137.4 Upgrade to Another Software Edition of Fabasoft Folio 2009.....	252
138 Fabasoft Folio Plug-In / Client installation possibilities _____	253

138.1 Summary.....	253
138.2 Information .....	253
138.2.1 Windows: .....	253
138.2.2 Apple OSX: .....	254
138.2.3 Linux Ubuntu:.....	254
138.2.4 Deployment via Active Directory: .....	254
138.2.5 Additional notes:.....	254
138.2.6 Text Insertion Add-In.....	254
138.3 References .....	255
139 Fabasoft Folio update from version 8.0 to 9.0 may fail with object definition missing _____	255
139.1 Summary.....	255
139.2 Information .....	255
139.3 Solution.....	255
140 Fabasoft object address reservation during COLD data imports _____	255
140.1 Information .....	256
140.2 Special attention using COLD on a scheduled and/or reoccurring basis.....	256
141 FAQ related to Fabasoft Folio Plug-In / Client usage _____	256
141.1 Summary.....	256
141.2 Information .....	257
141.2.1 Folio Plug-In is installed but content objects won't open inside the related editing application.....	257
141.2.2 Only certain content object don` t open and the error message "To open the document install an associated third party application" is displayed. ....	257
141.2.3 Folio Plug-In is installed and content objects can be opened but the „Fabasoft Folio“ Add-In within Microsoft Word can't be activated. ....	257
141.2.4 Content objects remain locked.....	258
142 Firefox crashes caused by enabled content compression _____	258
142.1 Summary.....	258
142.2 Solution.....	258
142.2.1 Applies to .....	258
143 First connection to ssl enabled website takes 10 seconds _____	258
143.1 Summary.....	259
143.2 Information .....	259
143.3 Solution.....	259
143.3.1 Applies to .....	259
144 First request takes longer than usual _____	259
144.1 Summary.....	259
144.2 Information .....	259

144.3 Solution.....	259
144.3.1 Applies to .....	260
145 FSC Printer Port generates PS instead of PDF .....	260
145.1 Summary.....	260
145.2 Information .....	261
145.3 Solution.....	261
145.3.1 Related Articles.....	261
146 Hotfix for backlink objects .....	261
146.1 Summary.....	261
146.2 Information .....	262
146.3 Solution.....	262
146.3.1 Applies to .....	262
146.3.2 Fix included in following releases .....	262
147 How to change the Mindbreeze service user .....	263
147.1 Summary.....	263
147.2 Instructions .....	263
147.2.1 Applies to .....	263
148 How to change the number of backend service threads .....	263
148.1 Windows .....	264
148.2 Linux.....	264
149 How to enable SQL trace.....	264
149.1 Windows .....	264
149.2 Linux.....	264
150 How to find core dumps in Linux .....	265
151 How to uninstall and remove Fabasoft Folio installation .....	265
151.1 Summary.....	265
151.2 Information .....	265
151.3 Solution.....	265
151.3.1 Applies to .....	266
152 How to use fscadmin.....	266
152.1 Summary.....	266
152.2 Information .....	266
152.3 General information about the provided examples.....	267
152.4 Command Line Parameters .....	267
152.5 Examples: .....	269
153 HTTP 404 is displayed on first call of Fabasoft Folio URL.....	269
153.1 Summary.....	269

153.2 Information .....	269
153.3 Solution .....	269
153.3.1 Applies to .....	270
154 HTTP 404 error when connecting to Fabasoft Web service on Microsoft Windows 2008 R2 ____	270
154.1 Summary .....	270
154.2 Information .....	270
154.3 Solution .....	270
154.4 Applies to .....	270
155 Hyphenation does not work correctly _____	270
155.1 Summary .....	270
155.2 Information .....	271
155.3 Solution .....	271
155.3.1 Workaround .....	271
155.3.2 Applies to .....	271
156 IIS - The module fscvext.dll failed to load. The data is in the error _____	271
156.1 Infomation.....	271
156.2 Solution.....	271
156.2.1 Uninstall Fabasoft Folio web- and conversion services .....	271
156.2.2 Clean up IIS configuration .....	271
156.2.3 Clean up registry .....	271
156.2.4 Clean up file system .....	272
157 Internet Explorer 11: Modal Dialog not working (Fabasoft Installer) _____	272
157.1 Summary.....	272
157.2 Information .....	272
157.3 Solution.....	272
158 Kerberos Authentication will not work on specific clients _____	272
158.1 Summary.....	272
158.2 Information .....	273
158.3 Solution.....	273
158.3.1 Applies to:.....	273
159 Keyboard Operation, Keyboard shortcuts _____	273
159.1 Summary.....	274
159.2 Information .....	274
159.2.1 Shortcut Help .....	274
159.2.2 Useful shortcuts.....	274
159.2.3 Documentation .....	274
159.2.4 Applies to .....	275

160 Known Issues with Postscript Printer Drivers for FSC Printer Ports _____	275
160.1 Drivers with known issues .....	275
160.1.1 Windows 7 .....	275
160.2 Drivers with no known issues* .....	275
160.2.1 Windows XP .....	275
160.2.2 Windows 7 .....	275
160.2.3 Windows 8 .....	275
161 Kofax Capture A disk error occured during a read operation _____	276
161.1 Summary.....	276
161.2 Information .....	276
161.3 Solution.....	276
161.3.1 Applies To .....	276
162 Log file paths under RHEL and CentOS Linux _____	276
162.1 Summary.....	276
162.2 Information .....	277
162.2.1 Setup .....	277
162.2.2 Backendservices .....	277
162.2.3 Webservices .....	277
162.2.4 AT-services.....	277
162.2.5 General .....	277
162.3 Additional Info .....	278
163 Log file paths under Windows environment _____	278
163.1 Summary.....	278
163.2 Information .....	278
163.2.1 Windows Event Logs .....	278
163.2.2 Setup .....	278
163.2.3 Fabasoft Folio Server Management .....	278
163.2.4 Backend .....	279
163.3 Additional Info .....	279
164 Maximum number of supported logical connections exceeded _____	279
164.1 Information .....	279
164.2 Solution.....	279
164.2.1 Reverse Lookup Zones .....	279
165 Memory values in Fabasoft Components Kernel event log entries _____	280
166 Mindbreeze Integration Certificate errors by Microsoft KB-Update 2016 _____	280
166.1 Information .....	280
166.2 Solution.....	281

167 Mindbreeze logfiles _____	281
167.1 Summary.....	281
167.1.1 Gathering Mindbreeze Logs .....	281
167.1.2 Mindbreeze log files and log directories .....	282
167.1.3 Mindbreeze server configuration file .....	283
167.1.4 Fabasoft Folio logfiles during Mindbreeze Index Update .....	283
167.1.5 Objects containing Mindbreeze configuration in Fabasoft Folio .....	283
168 Mindbreeze Web Client not working on Windows 10 with Kerberos _____	284
168.1 Information .....	284
168.2 Solution.....	284
168.2.1 Configure Trusted peer certificate in the Mindbreeze Client Webservice.....	284
168.2.2 Disable "Credential Guard" .....	284
168.3 Details.....	284
169 Name of an object is not shown in the title bar of the browser _____	285
169.1 Summary.....	285
169.2 Solution.....	286
170 Opening Excel Object takes very long _____	286
170.1 Summary.....	286
170.2 Information .....	286
170.2.1 Additional Information about the Protected Mode: .....	286
170.2.2 Solution.....	286
170.2.3 Applies to .....	286
171 Opening zip files with Windows Explorer _____	286
172 Optimize MMC cleanup performance _____	287
172.1 Summary.....	287
172.2 Solution.....	287
172.2.1 Indices for tables fsclogcontentmappinglist and fscvershashes.....	287
172.2.2 Special operator class for this index with PostgreSQL .....	287
172.2.3 Index for table coobject (Oracle only) .....	288
172.2.4 Applies to .....	288
173 Oracle 11g R2 MAX_COMMIT_PROPAGATION_DELAY _____	288
173.1 Summary.....	288
173.2 Information .....	288
173.3 Solution.....	289
173.3.1 Applies to .....	289
174 Oracle: lock held by in-doubt distributed transaction _____	289
174.1 Summary.....	289

174.2 Information .....	289
174.3 Solution.....	289
174.3.1 Applies to .....	290
175 Performance Issues with Oracle 12c .....	290
175.1 Information .....	290
175.2 Solution.....	290
175.2.1 Oracle 12c 12.0/12.1.....	290
175.2.2 Oracle 12c 12.2 .....	291
175.3 Details.....	291
176 Preparing a language string file for translation.....	291
176.1 Summary.....	291
176.2 Information .....	292
176.3 Solution.....	292
177 Run "Synchronize Database Tables" after an update.....	298
177.1 Summary.....	298
177.2 Information .....	299
177.3 Solution.....	299
178 Setup - Could not obtain information about Windows NT group user .....	299
178.1 Summary.....	299
178.2 Information .....	300
178.3 Solution.....	300
178.3.1 Applies to .....	300
179 Slow response working with WebDAV resources on Windows Vista or Windows 7 .....	300
179.1 Summary.....	300
179.2 Information .....	300
179.3 Solution.....	300
179.3.1 Applies to:.....	300
180 SMTP-Configuration options .....	301
180.1 Summary.....	301
180.2 Information .....	301
180.2.1 Applies to .....	302
181 Testing a distributed transaction.....	302
181.1 Summary.....	302
181.2 Information .....	302
181.3 Solution.....	302
181.3.1 Applies to .....	303
182 Unknown is not a valid Win32 application.....	303

182.1 Summary.....	303
182.2 Information .....	304
182.3 Solution.....	304
183 Usage of cURL library in Fabasoft Folio Client _____	305
183.1 Information .....	305
184 Users of one tenant can not log in_____	305
184.1 Summary.....	305
184.2 Information .....	306
184.3 Solution.....	306
184.3.1 Applies to .....	306
185 What you should know about form letters _____	306
185.1 UpdateFieldsAtPrint.....	306
185.2 FolioPluginDocPropertyUpdate.msi / FscCtlDocPropertyUpdate.msi.....	308
185.3 MailMergeCopy .....	309
185.4 Applies to .....	309
185.5 Links .....	309
185.6 Related articles .....	309
186 Word 2016 DocProperty problems after Microsoft Office security update (September 2017) _	309
186.1 Information .....	309
186.2 Solution.....	310
186.3 Details.....	310
186.4 Microsoft Security TechCenter Links .....	310
187 app.telemetry - How to map Fabasoft Folio object addresses to names or references _____	310
187.1 Information .....	310
187.2 Solution.....	310

## 1 LAST UPDATED IN 2025

## 2 Missing DocProperties and other issues in Microsoft Word 365

First published: 24 April 2025 (*gs*)

### 2.1 Information

With update 2502 and newer Microsoft 365 enforces additional requirements for office add-ins, that prevent the Fabasoft Folio Client integration from working correctly unless certain administrative tasks have been performed.

These changes from Microsoft require all add-ins to be code-signed with a current non-expired certificate that has been placed into the "Trusted Publishers" trust store by the client's administrator.

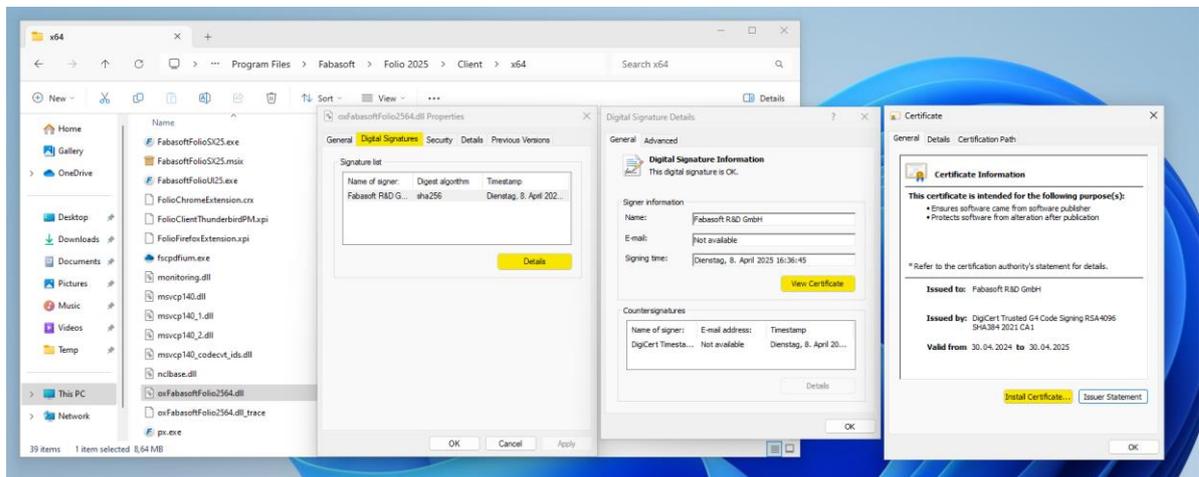
## 2.2 Solution

### 2.2.1 Installing the Fabasoft Folio Client code-signing certificate as a "Trusted Publisher"

If your currently installed version of Fabasoft Folio Client is still under support and has a non-expired code-signing certificate, it is possible to remedy the issue by installing the certificate used to sign "oxFabasoftFolio??64.dll" into the "Trusted Publishers" certificate trust store of the computer.

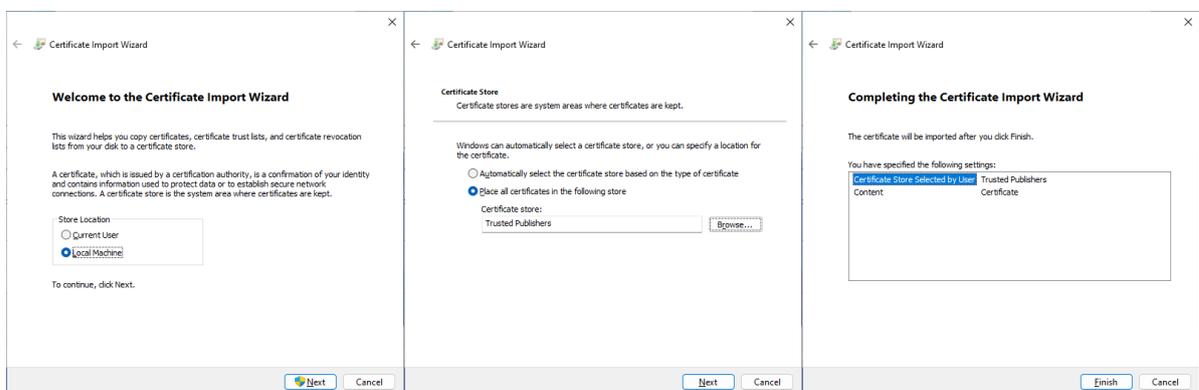
#### 2.2.1.1 Get the certificate used to sign "oxFabasoftFolio??64.dll"

Navigate to "C:\Program Files\Fabasoft\Folio 20??\Client\x64" and open the properties of the "oxFabasoftFolio??64.dll" file, in the properties window open the tab "Digital Signatures", select the file's signature in the "Signature list", open the signature via the "Details" button and then view the certificate via the "View Certificate" button.



#### 2.2.1.2 Install the certificate as a "Trusted Publisher"

In the dialog with the certificate select the "Install Certificate..." button, in the selected certificate import wizard select the option "Local Machine", then "Place all certificates in the following store" and select the trust store "Trusted Publishers" via the "Browse" button and at the last page finish the installation of the certificate.



It should be possible to deploy these certificates via Microsoft Windows Active Directory, please

refer to the relevant documentation provided by Microsoft. (ex. [Distribute Certificates to Client Computers by Using Group Policy](#))

### 2.2.2 Updating Fabasoft Folio Client in case of an expired code-signing certificate

If the certificate used to sign your currently installed version of the Fabasoft Folio Client has expired, adding the certificate to the trust store will have no effect, since Microsoft Office doesn't check the counter signature and therefore doesn't trust expired certificates.

In this case please contact Fabasoft Support to inquire if a build with a currently valid certificate is available for your version of the Fabasoft Folio Client. (Presently only available for Fabasoft Folio Client 2023 and newer.)

## 3 LAST UPDATED IN 2024

## 4 Creating a dump in Linux

First published: 16 December 2024 (*cf, gs*)

### 4.1 Information

This article explains the creation of a memory dump of Fabasoft services, including fetching the correct pid, in Linux.

Solution

#### 4.1.1 Fetching the pid

##### 4.1.1.1 Get PID for Fabasoft Folio Web services / Conversion services

```
ps ax | grep WebService
```

```
[root@EDITIONSDEM034 ~]# ps ax | grep WebService
20787 ?        S          0:00 supervise WebService_100
22538 ?        S          0:00 supervise WebService_101
29946 ?        S          0:09 ./WebService_100 -f /etc/fabasoft/web/WebService_100.conf -DFOREGROUND -DVEXT
29970 ?        S          0:09 ./WebService_101 -f /etc/fabasoft/web/WebService_101.conf -DFOREGROUND -DVEXT
29991 ?        Ss1       5:29 ./WebService_100 -f /etc/fabasoft/web/WebService_100.conf -DFOREGROUND -DVEXT
30005 ?        Ss1       0:00 ./WebService_101 -f /etc/fabasoft/web/WebService_101.conf -DFOREGROUND -DVEXT
2215264 pts/0    S+        0:00 grep --color=auto WebService
[root@EDITIONSDEM034 ~]#
```

Because of Apache, Folio Web/Conversion services use two process id's per service. The correct PID (tagged on the left) of the Web/Conversion service for a memory dump is the `s1` type (tagged in the middle) service. With multiple services, the service number is contained in the path (100, 101, etc).

##### 4.1.1.2 Get PID for COO/MMC Services, AT Services

Directly get the PID of the respective service, e.g.

- Using `ps aux | grep <Servicename>`
- `fscgmt list all`

#### 4.1.2 Create the dump

Run

```
gcore -a <pid>
```

The memory dump is saved in the current directory as `core.<pid>`, e.g. `core.29991`.

`gcore` may need to be installed for first usage.

### 4.1.3 Run Collect Dump Info

To collect all libraries to debug the memory dump, run the tool [Collect Dump Info](#).

## 5 Creating a dump in Microsoft Windows

Last update: 16 December 2024 (*cf*)

### 5.1 Information

In the following section we will list multiple possibilities for creating a memory dump in Microsoft Windows

### 5.2 Using Windows Task Manager

In order to create a dump of a live process follow these steps:

- Start the Windows Task Manager.
- Switch to the processes tab or Details Tab according to Windows version
- Right click on the process you want to dump.
- Select "Create dump file" from the context menu.
- A dump will be created in `C:\Users\UserName\AppData\Local\Temp`
- When the dump file creation was successful you can confirm the dialog by pressing "OK"

### 5.3 Using Windows Error Reporting (WER)

The collection of dumps via the WER can be configured via the Windows registry:

The following values have to be defined in the key

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\Windows Error Reporting\LocalDumps
```

- **DumpFolder** : The path where the dump files are to be stored. If you do not use the default path, then make sure that the folder contains ACLs that allow the crashing process to write data to the folder. For service crashes, the dump is written to service specific profile folders depending on the service account used. For example, the profile folder for System services is `%WINDIR%\System32\Config\SystemProfile` . For Network and Local Services, the folder is `%WINDIR%\ServiceProfiles` . *Type* : REG\_EXPAND\_SZ *Default* : `%LOCALAPPDATA%\CrashDumps`
- **DumpCount** : The maximum number of dump files in the folder. When the maximum value is exceeded, the oldest dump file in the folder will be replaced with the new dump file. *Type* : REG\_DWORD *Default* : 10
- **DumpType** : Specify one of the following dump types:
  - 0: Custom dump
  - 1: Mini dump
  - 2: Full dump (recommended for dumps of Fabasoft products)

*Type* : REG\_DWORD *Default* : 1

- **CustomDumpFlags** : The custom dump options to be used. This value is used only when DumpType is set to 0. The options are a bitwise combination of the MINIDUMP\_TYPE enumeration values. *Type* : REG\_DWORD *Default* : MiniDumpWithDataSegs | MiniDumpWithUnloadedModules | MiniDumpWithProcessThreadData.

For further information please see Microsoft Learn: [Collecting User-Mode Dumps](#).

### 5.3.1 Windows Debugging Tools

These tools are provided by Microsoft and can be obtained by visiting [Debugging Tools for Windows](#).

#### 5.3.1.1 Using WinDbg

As part of the debugging tools WinDbg can be attached to any process and log crashes accordingly.

Here is a basic description of the WinDbg process:

- Start WinDbg.exe
- Menu File -> Attach to a process -> Select the process you want to debug or use F6
- Continue the process with „g“
- In case of a crash, this will be logged accordingly (with the possibility of a debug break or a call of breaking of the Windows Debugging Tools).
- To save the dump use ".dump /f ".

For a in depth description of the options available with WinDbg please visit [Debugging Using The Windows Debugger - WinDbg](#).

#### 5.3.1.2 Using ADPlus

ADPlus is another debugger that is contained in the Windows Debugging Tools, for an in depth description how to use it see [Advanced troubleshooting for Windows start-up issues](#).

Here are some basic command lines that may be used in connection with Fabasoft products:

- Using the script in crash mode to monitor crashing processes:  
cscript adplus.vbs -pn w3wp.exe -crash -o c:\dump -quiet -nodumponfirst
- To monitor for processes that are not yet running (for example reoccurring AT Service processes) you can use this command line (example with adplus.exe):  
adplus.exe -Crash -pmn cooats2.exe -o c:\dump -NoDumpOnFirst

#### 5.3.1.3 cdb Debugger as Postmortem debugger

If you are using a system that is not able to create dumps using WER (e.g. Microsoft Windows Server below 2008), you can use cdb (also available from the Windows Debugging Tools) to automatically create these dumps.

The following settings have to be added to the registry of the affected server:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AeDebug]
"Auto"="1"
"Debugger"="\"C:\\Program Files\\Debugging Tools for Windows\\cdb.exe\" -p %ld -c \".dump -ma -u c:\\dump.dmp;q\" -e %ld -g"
```

For further information on postmortem debugging, visit [Enabling Postmortem Debugging](#).

### 5.3.2 If Microsoft Visual Studio Just-In-Time Debugger (JIT Debugger) is handling a crash

In some cases, Visual Studio writes its own debugger to the registry, so other debugging options (for example WER debugging) does not work.

To disable Visual Studio JIT debugger, delete the following registry keys:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AeDebug\Debugger
```

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\ .NETFramework\DbgManagedDebugger
```

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows NT\CurrentVersion\AeDebug\Debugger
```

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\ .NETFramework\DbgManagedDebugger
```

### 5.3.3 References

Microsoft Learn: [Manually generate a memory dump file](#)

Microsoft Learn: [Collecting User-Mode Dumps](#)

Microsoft Learn: [Debugging Tools for Windows](#)

Microsoft Learn: [Debugging Using The Windows Debugger - WinDbg](#)

Microsoft Learn: [Advanced troubleshooting for Windows start-up issues](#)

Microsoft Learn: [Enabling Postmortem Debugging](#)

## 6 Error COOSTD-00118: The database option READ\_COMMITTED\_SNAPSHOT is disabled.

First published: 10 December 2024 (*cf*)

### 6.1 Summary

Using Fabasoft Folio 2025 or above with Microsoft SQL Server, you may receive an Event Log message *COOSTD-00118: The database option READ\_COMMITTED\_SNAPSHOT is disabled.*

This is due the Microsoft SQL Server database isolation level READ\_COMMITTED\_SNAPSHOT is mandatory starting with Fabasoft Folio 2025.

### 6.2 Information

The database isolation level defines, how data in concurrent transactions are isolated from each other. The database isolation level prevents conflicts and dirty reads on parallel transactions.

For consistency, starting with Fabasoft Folio 2025, the Fabasoft Backend services expect the database isolation level READ\_COMMITTED\_SNAPSHOT, that is regression tested in the development cycle.

This isolation level also prevents the SQL Server error

```
Error: Invalid Query. Your query resulted in the following error message: "Error 1205: [Microsoft][ODBC SQL Server Driver][SQL Server]Transaction (Process ID xx) was deadlocked on lock resources with another process and has been chosen as the deadlock victim. Rerun the transaction."
```

### 6.3 Solution

To validate the current isolation level:

```
SELECT is_read_committed_snapshot_on FROM sys.databases WHERE database_id = DB_ID();
```

returns 1 (enabled) or 0 (disabled) for the current database.

```
SELECT name, is_read_committed_snapshot_on FROM sys.databases;
```

lists all databases with the READ\_COMMITTED\_SNAPSHOT option 1 (enabled) or 0 (disabled).

```
ALTER DATABASE [database] SET READ_COMMITTED_SNAPSHOT ON;
```

enables the READ\_COMMITTED\_SNAPSHOT for the database [database].

*Hint: Enable this option for all Fabasoft databases, also on distributed database servers.*

## 6.4 Links

Microsoft information about READ\_COMMITTED\_SNAPSHOT

[https://learn.microsoft.com/en-us/sql/t-sql/statements/alter-database-transact-sql-set-options?view=sql-server-ver16#read\\_committed\\_snapshot--on--off-](https://learn.microsoft.com/en-us/sql/t-sql/statements/alter-database-transact-sql-set-options?view=sql-server-ver16#read_committed_snapshot--on--off-)

Advanced information about isolation levels

<https://www.sqlservercentral.com/articles/isolation-levels-in-sql-server>

### 6.4.1 Applies to

- Fabasoft Folio 2025 and above
- Fabasoft eGov-Suite 2025 and above

## 7 Renew trusted peer certificates (Folio/Mindbreeze)

First published: 11 August 2021 (*cf, ck*)

Last update: 6 December 2024 (*ck*)

### 7.1 Summary

The search communication between Fabasoft Folio and Fabasoft Mindbreeze Enterprise is secured by a certificate.

During the setup of the integration between Folio and Mindbreeze those certificates need to be created and installed.

If the created certificates expire, searching the Mindbreeze index within Fabasoft Folio will not work anymore and error messages will be thrown in the Windows Event log / Linux system log.

This documentation explains the procedure to create or renew the trusted peer certificates.

Hint: Creating an SSL certificate for the Mindbreeze Client webservices, see the article [Creating SSL certificates for Mindbreeze Client in Windows](#).

### 7.2 Solution

#### 7.2.1 Option 1: Provide a certificate of your corporate CA (recommended)

Use this option if you have a public key infrastructure (PKI) in your infrastructure and know how to create client certificates. Client certificates are not meant as SSL certificates!

Prepare the following files from your CA:

- The CA certificate in X509 PEM format (if you use intermediate CA's, use the CA issued the client certificate)
- The client certificate in X509 PEM format (make sure that the certificate is issued as Client certificate not Server certificate)

- The private key of the client certificate in PEM format
- The pass-phrase of the client certificate.

Continue with the chapter " Installation of the certificates ".

## 7.2.2 Option 2: Re-create a long-term self-signed certificate

Use this option if you don't have a public key infrastructure (PKI) set up, or you don't need your corporate-owned certificates for the communication between Fabasoft Folio and Mindbreeze. Remember that the communication is still secured. This is the easier option to set-up.

A zip archive with all necessary files needed in this article is provided here:

<https://at.cloud.fabasoft.com/folio/public/3lwxuo1qfco642alyzdbh7jp5d>

To create certificates with a longer expiration period, follow these steps:

- Create a new folder and unzip the files from the archive (openssl.exe, openssl.cnf, createcertificate.js)
- Make a backup of the file *createcertificate.js* (e.g. by copying the file)
- Edit createcertificate.js
- In the first appearance of the *shell. Run* command line (near the bottom of the file) change the parameter *-days 365* to *-days 3650* (this means 10 years instead of 1 year)
- Save and close the file
- Open the *openssl.cnf* file
- Search for the config value *default\_days* (default value is 365)
- Change the config value to 3650 days
- Save and close the file
- Delete the *index.txt* file.
- On a command prompt, change to the *the folder you have created* and run the modified *createcertificate.js* by entering **cscript.exe //b createcertificate.js**
- The created certificates are directly located the directory. The following files are needed in the next steps: **ca-cert.pem, request.key, request.pem, passwd** .
- You also need to export the certificate for use in the client services. In the same folder in the command line run the command **openssl pkcs12 -in request.pem -inkey request.key -export -out client.p12** and when asked for a password for the export hit enter twice, so that the resulting pkcs12 certificate is not secured with a password.

Continue with the chapter " Installation of the certificates ".

## 7.3 Installation of the certificates

### 7.3.1 Import the new CA to Mindbreeze

- Open the Mindbreeze Configuration Website (usually <http://localhost:23000> on the Mindbreeze server)
- Navigate to the *Certificates* tab
- Upload the *ca-cert.pem* certificate. After the upload, the CA is visible under the "Available CAs" section.
- Upload the client.p12 and select the new certificate in the properties of all client services in the option "Credential Certificate"

- Select the new certificate as " *Trusted peer* ". You may delete unneeded CAs in this section.

Current Trusted CA Information			
All trusted peers must present a valid SSL Certificate issued by:			
CN=Mindbreeze Enterprise Search, O=Fabasoft R&D GmbH, L=Linz, S=Upper Austria, C=AT			
Available CAs			
Trusted Peer	Certificate Issuer	Certificate Subject	Expiration
<input checked="" type="checkbox"/>	CN=Mindbreeze Enterprise Search, O=Fabasoft R&D GmbH, L=Linz, S=Upper Austria, C=AT	CN=Mindbreeze Enterprise Search, O=Fabasoft R&D GmbH, L=Linz, S=Upper Austria, C=AT	02.11.2031 14:48:59 

- Make sure that the Mindbreeze processes get restarted after you have changed the CA.

### 7.3.2 Import the client certificate to Fabasoft Folio

- Import the *request.pem* file to Fabasoft Folio.
- Copy the object to the clipboard.
- In Folio, navigate to Domain Administration / Domain Objects / Services .
  - **Do this step for every "Indexing Service" object:**
  - Edit the Indexing Service object
  - Paste the client certificate to the property *Client certificate*
  - Enter the directory and filename to the *Private key* string property. The *request.key* file needs to be copied to each webserver at this location. UNC paths are not valid.
  - Enter the pass-phrase from the **passwd** file to *Pass-phrase of private key* . Copy & Paste might paste needless whitespaces, so compare the number of characters.
  - Please remember to copy the request.key file to every webserver.

After a recycle of the Fabasoft Folio webservices, the new configuration takes place.

### 7.3.3 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

when connected to a Mindbreeze Enterprise installation

## 8 Using Privileged Servlets in Mindbreeze Enterprise

First published: 4 December 2024 (ck)

Last updated: 4 December 2024 (ck)

### 8.1 Summary

Using the "Privileged Servlets" allows to directly access all information about objects in a Mindbreeze index.

This circumvents all ACL and access checks, so it is vital to make sure that while the servlets are active, only administrative users have direct network access to the Mindbreeze server that hosts the index.

## 8.2 Activation of the Privileged Servlets

To activate the Privileged Servlets for an index, the checkbox "Disable Unrestricted Privileged Servlets" in the *Advanced* settings of the index must be **unchecked**, and then the settings must be saved. To make sure that the servlets are active, it is recommended to restart the *mesnode* service.



After the required information is obtained, it is recommended that the servlets are deactivated immediately.

## 8.3 The "find" servlet

Using the *find* servlet, accessible at

`http://[servername]:[indexport]/find`

it is possible to search the index for different keywords. Usually the COO address of objects is used here. The result is a list of objects currently stored in the index. The most important information is located in the first column: the *docid*, the internal identifier of the object within the index.

## Query documents

Due to security restrictions search functionality in this servlet is restricted to system metadata category, categoryinstance, fqcategory, mes:key, url, extension, mes:uniformdocid, mes:date, mes:size, store:creationdate, store:modificationdate, mes:lang, mes:nonfilterable, mes:filteredbymetadataonly, datasource/mes:key only.

Query:

Query Protobuf Textual:

Order by:

Order Direction:

Group by:

Group By Parent Reference:

Group By Parent Reference Mode:

Summarize by property:

Order summarized by:  Order direction:

Output Format:

Expand Query:

Diacritic Similar Terms:

Requested Properties (CSV):

## 8.4 The "documents" servlet

Using the documents servlet, accessible at

`http://[servername]:[indexport]/documents`

all metadata, information and also the raw text contents of an object can be accessed. Usually the *docid* obtained from the *find* servlet is used here, in conjunction with the Output Format "Item", as this format contains the most detailed information about the object.

## Browse Document by ID or Key

By docID:

By Key:

By UniformItemID:

Output Format:

Deleted documents:

## 9 Enabling TLS security between Microsoft SQL Server and Folio Backend services

First published: 3 December 2014 (*cf*)

### 9.1 Information

Fabasoft Folio Backend services support TLS communication between COO Services and Microsoft SQL Server. TLS encryption can be enabled by the Fabasoft Backend services registry after a successful Fabasoft Folio installation.

All current Microsoft ODBC, OLE DB and SQL Server Native Client versions support at least TLS 1.2. Using the "SQL Server" driver (the default driver used by Fabasoft Folio) uses TLS 1.0.

### 9.2 Solution

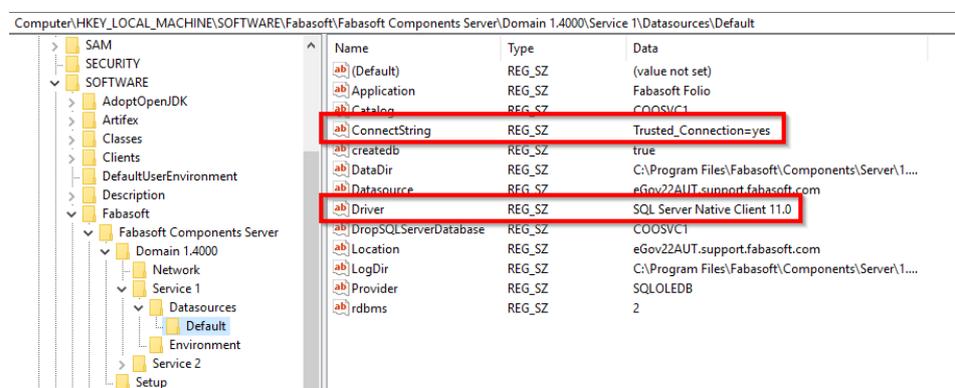
To use TLS, first install Fabasoft Folio Backend services without TLS support enabled. The required registry keys are created during the initial installation of Fabasoft Folio. To install Fabasoft Folio, make sure that Microsoft SQL Server allows unsecured connections for the initial Fabasoft Folio installation.

After the installation, edit the following registry hives, located in:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain 1.4000\Service 1\Datasources\Default
```

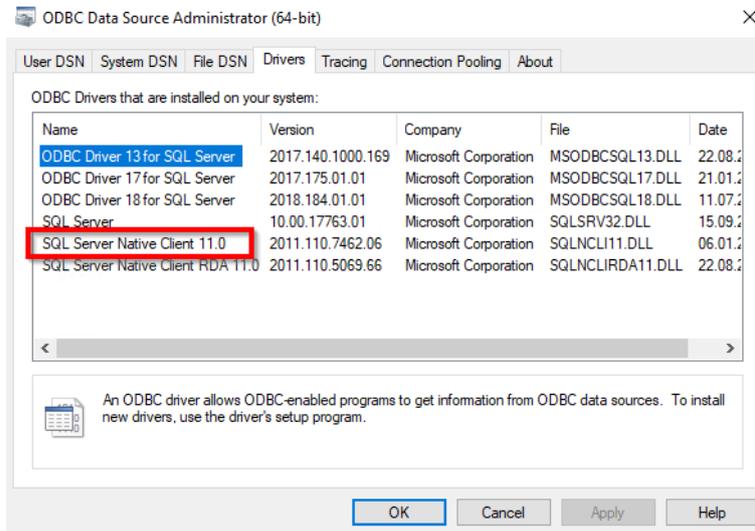
DWORD "ConnectionString": Trusted\_Connection=yes

DWORD "Driver": SQL Server Native Client 11.0



The `service 1` hive represents the first COO Service. Repeat this for all COO Services hives.

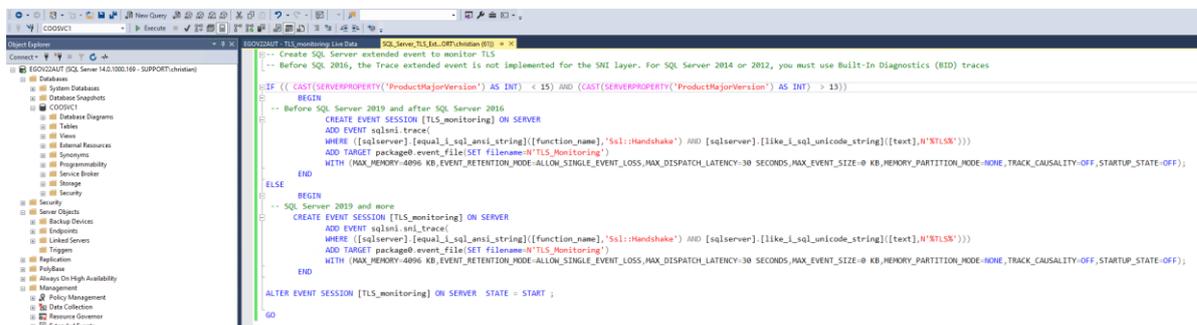
The driver name "SQL Server Native Client 11.0" may change (e.g. with a higher SQL Server version). To check the driver name, open the Windows-App "ODBC Data Sources (64-bit)" and open the "Drivers" tab to check the installed drivers.



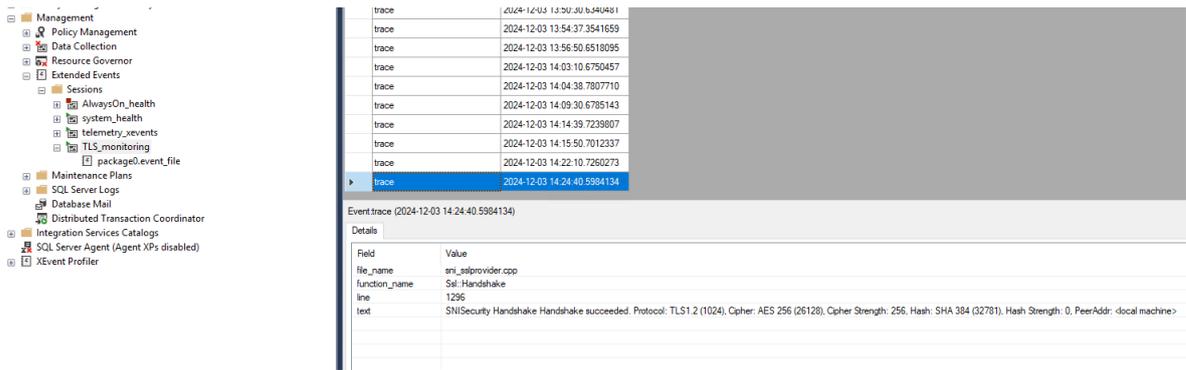
## 9.3 Troubleshooting

### 9.3.1 Checking what TLS connection is used

In the Links sections you find an SQL script "SQL Script to create SQL Extended trace for TLS monitoring" that creates an Extended event trigger in SQL Server to trace TLS connection information.



Output of the tracing:



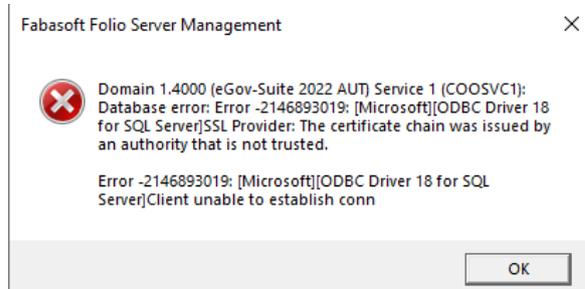
You can start and stop this tracing in SQL Server Management Studio / <Your Server> / Management / Extended Events / TLS\_monitoring. You also can remove this tracing by deleting the "TLS\_monitoring" item.

### 9.3.2 Enabling TLS 1.2, disabling TLS 1.0 and TLS 1.1

As TLS 1.0 and TLS 1.1 are already deprecated and therefore should be disabled in Microsoft Windows, and TLS 1.2 or TLS 1.3 should be used. In the Links section the **Registry Key to disable TLS 1.0 and TLS 1.1, and enable TLS 1.2 (ZIP file)** download is an example of a registry key to disable TLS 1.0/1.1 and enable TLS 1.2. The download is a ZIP with the regfile export packaged.

### 9.3.3 "The certificate chain was issued by an authority that is not trusted" error after upgrading SNAC applications

When using the Microsoft ODBC Driver or OLE DB Driver for SQL Server from Microsoft, the Fabasoft Folio Server Management may return the following SQL Client error:



This is caused by ODBC Driver starting with version **18**, and OLE DB Driver starting with version **19**.

Solution 1: For ODBC, use the ODBC Driver for SQL Server 17.

Solution 2: For OLE DB, use the OLE DB Driver for SQL Server 18.x.

There might be additional solutions with added `ConnectionString` parameters.

See Microsoft's website for further information: "The certificate chain not trusted error"

<https://learn.microsoft.com/en-us/troubleshoot/sql/database-engine/connect/certificate-chain-not-trusted?tabs=ole-db-driver-19>

## 9.4 Links

Download ODBC Driver for SQL Server

<https://learn.microsoft.com/en-us/sql/connect/odbc/download-odbc-driver-for-sql-server?view=sql-server-ver16>

SQL Script to create SQL Extended trace for TLS monitoring (ZIP file)

<https://at.cloud.fabasoft.com/folio/public/1yk4g67x5ux553pi0231hladdl>

Registry Key to disable TLS 1.0 and TLS 1.1, and enable TLS 1.2 (ZIP file)  
<https://at.cloud.fabasoft.com/folio/public/1b1783pl2e9eh2o2bq9sqtchp5>

Troubleshooting The certificate chain not trusted error  
<https://learn.microsoft.com/en-us/troubleshoot/sql/database-engine/connect/certificate-chain-not-trusted?tabs=ole-db-driver-19>

## 10 How to change the number of web service threads

First published: 22 October 2018

Last update: 15 October 2024 (*cf*)

### 10.1 Information

The Fabasoft Folio Webservice handles incoming requests in a thread pool. This article describes how to change the number of threads in the thread pool in case of a necessity.

#### 10.1.1 Windows

##### Set the Registry Key

HKEY\_CURRENT\_USER\Software\Fabasoft\Environment\FSCVEXT\_MAXTHREADS  
and the Value „(Default)“ to the number of Kernel Threads.  
The default value is 8.

##### Example

Windows Registry Editor Version 5.00

```
[HKEY_CURRENT_USER\Software\Fabasoft\Environment\FSCVEXT_MAXTHREADS]  
@="16"
```

After a restart/recycle of the Webservice your changes will be applied.

##### Hint

The HKEY\_CURRENT\_USER hive needs to be from the webservice user. You alternatively can deploy the setting via the upd files (see Roll out Fabasoft environment variables by UPD files)

#### 10.1.2 Linux

The maximum number of threads is defined via the environment variable FSCVEXT\_MAXTHREADS.

To create this environment variable, follow these steps:

```
mkdir  
/etc/fabasoft/settings/users/fscsrv/Software/Fabasoft/Environment/FSCVEXT_MAXTHREA  
DS  
  
echo -n "16" >  
/etc/fabasoft/settings/users/fscsrv/Software/Fabasoft/Environment/FSCVEXT_MAXTHREA  
DS/registry.default  
  
chown fscsrv.fsc  
/etc/fabasoft/settings/users/fscsrv/Software/Fabasoft/Environment/FSCVEXT_MAXTHREA  
DS -R
```

This example creates a setting of 16 threads per Webservice.

The default value is 8.

After a restart/recycle of the Webservice your changes will be applied.

### 10.1.3 Check the current setting

You can check the current configuration with the URL

`http://<webserver>/<vdir>/fscasp/content/bin/fscvext.dll?h`

This lists the currently used `FSCVEXT_MAXTHREADS` parameter.

## 11 Automated Tasks: Assignment from Service to Task List

First published: 31 January 2018 (*cf*)

Last update: 11 October 2024 (*cf*)

### 11.1 Information

This article explains how to find out if Fabasoft Folio AT is installed, if it has running AT services and what List of Automated Tasks is processed.

This step-by-step guide is suitable for Microsoft Windows and Linux environments.

### 11.2 Solution

#### 11.2.1 Figure out if Fabasoft Folio AT and a Fabasoft Folio AT service is installed

On the desired server, open the Fabasoft Folio Server Management (Windows) or Fabasoft Web Management (Linux).

Open the tree *Computers* and your computer.

- If you can see a tree node "Automated Tasks", then the Fabasoft Automated Task binaries are installed on that computer.
- If you open the "Automated Tasks" node and can see services on the right pane, also Fabasoft Automated Tasks services are configured. Multiple services are possible on one server.

The State shows the current running state of the service, the Autostart flag shows if the service is automatically started when the operating system starts.

**Microsoft Windows:** The listed services are operated by the Windows user listed in the column "Startup Service Account". In a Fabasoft Folio domain, each Windows user should only run one Fabasoft Folio AT Service.

**Linux:** The AT Service by default is running under the `fscsrv` user. If in the service directory `/var/opt/Fabasoft/instances/COOATService_*/env/` an `FSC_LOGIN` file exists, the string in the file is used as the login name of this service (the `*` represents the service id, e.g. `COOATService_200`)

To add a string, use the command

```
echo -n desired_user > /var/opt/Fabasoft/instances/COOATService_*/env/FSC_LOGIN
```

Remember the login name for the next steps.

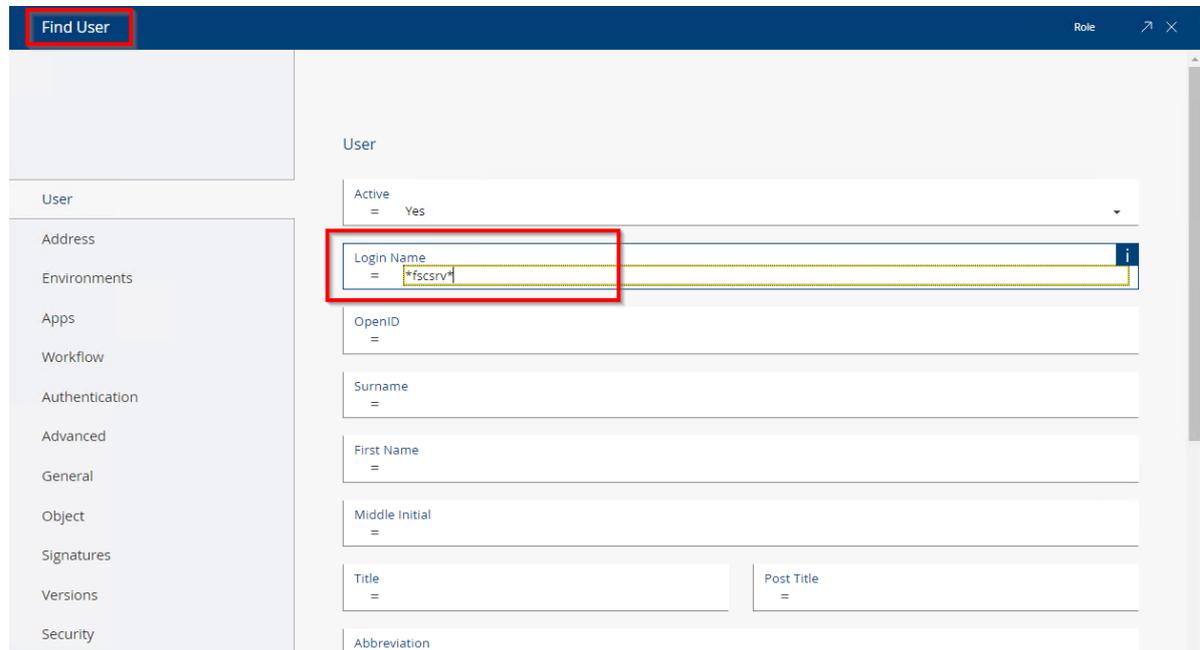
#### 11.2.2 Figure out the Folio user operating a Fabasoft Folio AT Service

The "Startup Service Account" listed in Fabasoft Folio Server Management (Windows) or in the `FSC_LOGIN` file (Linux) is the login name running the AT Service.

To find the matching Fabasoft Folio user, search for object class *User* with the appropriate login name.

Your search should result in one *User* object. Setup may create a "Fabasoft Folio AT Service" user if you assigned an own login during setup.

The Fabasoft Folio AT Service is executed in the context and with access permissions of the found user object.



### 11.2.3 Figure out the List of Automated Tasks of the service user

The object *List of Automated Tasks* contains the *Automated Task* objects that are executed by the Fabasoft Folio AT Service. Multiple *List of Automated Tasks* may exist to run different *Automated Tasks* with different AT Services.

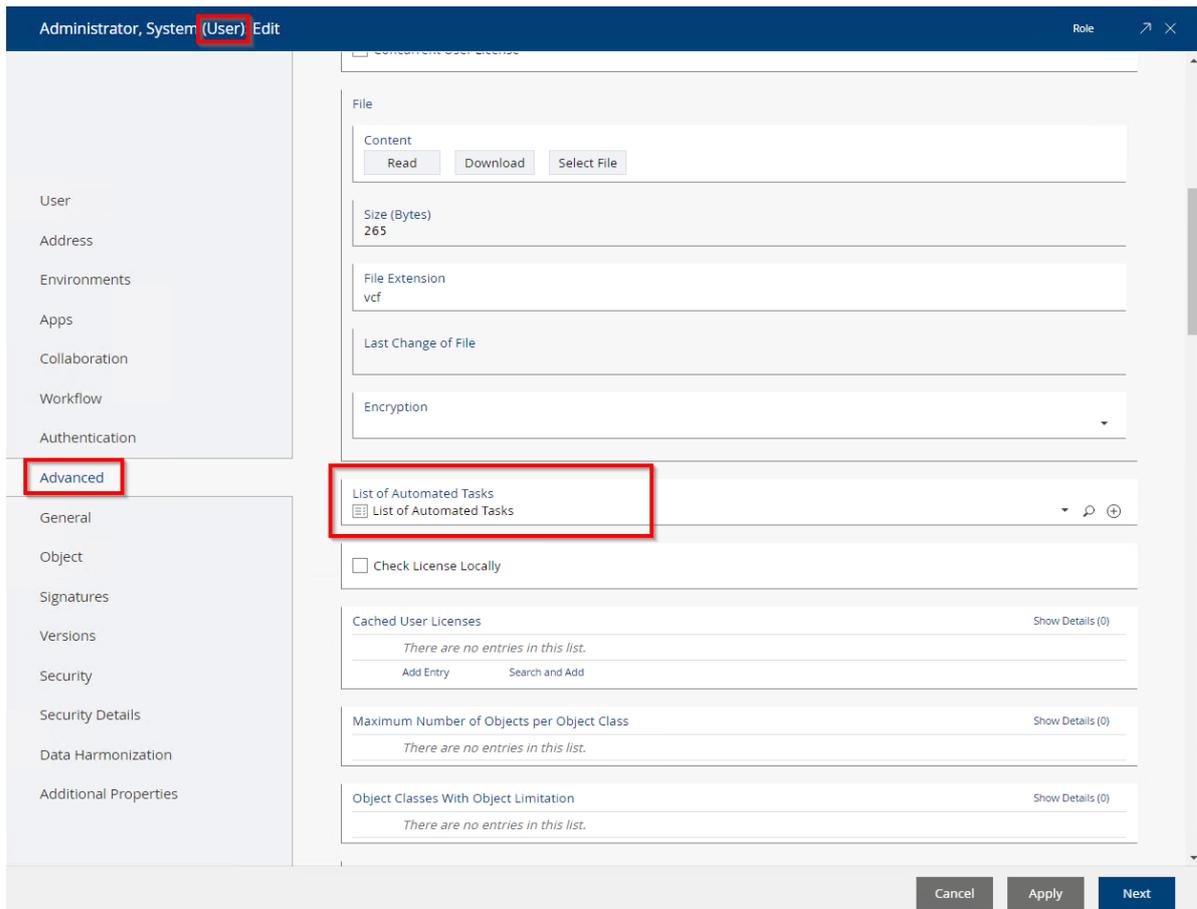
The *List of Automated Task* object is assigned in the *User* object of the service user in the "Advanced" tab.

Open the service user object and navigate to the tab *Advanced*. Look out for the object link property *List of Automated Tasks*.

Every service user has to have a different *List of Automated Tasks* object assigned.

If this property is empty, the AT Service will search for *List of Automated Tasks* object where it is owner, and uses the first hit.

If multiple Fabasoft Folio AT Services run with the same login, they will process the same *List of Automated Tasks* object and the same *Automated Tasks*. In that case, it is recommended to assign a unique *List of Automated Tasks* object.



### 11.2.4 Figure out the Automated Tasks

Open the assigned *List of Automated Tasks* object in Explore mode.

The listed *Automated Tasks* are processed if they are in the states *Activated* or *Running* . The are not processed if they are in the states *Disabled* or *Finished* .

In every *Automated Task* object in the History section, you can check the finished executions. By default, only errors are logged. To see every execution in the History, change the property *Configuration of History* from *Log Errors* to *Log Every Run*.

## 12 Adobe Reader / Adobe Acrobat Save As dialog on opened documents

First published: 30 July 2024 (cf)

### 12.1 Summary

When opening a pdf document from Fabasoft Folio / eGov-Suite for editing in Adobe Reader or Adobe Acrobat, and save the changes with the "Save" menu or *Save* button, Adobe unexpectedly opens a "Save As..." dialog, instead of directly save (overwrite) the opened document.

The "Save As..." dialog does not open the current folder of the file, therefore a new file is created at another location.

In further consequence the changed file is not uploaded to Fabasoft Folio / Fabasoft eGov-Suite.

An inexperienced user therefore may assume data loss (but the file got saved by Adobe Reader/Acrobat to a local directory).

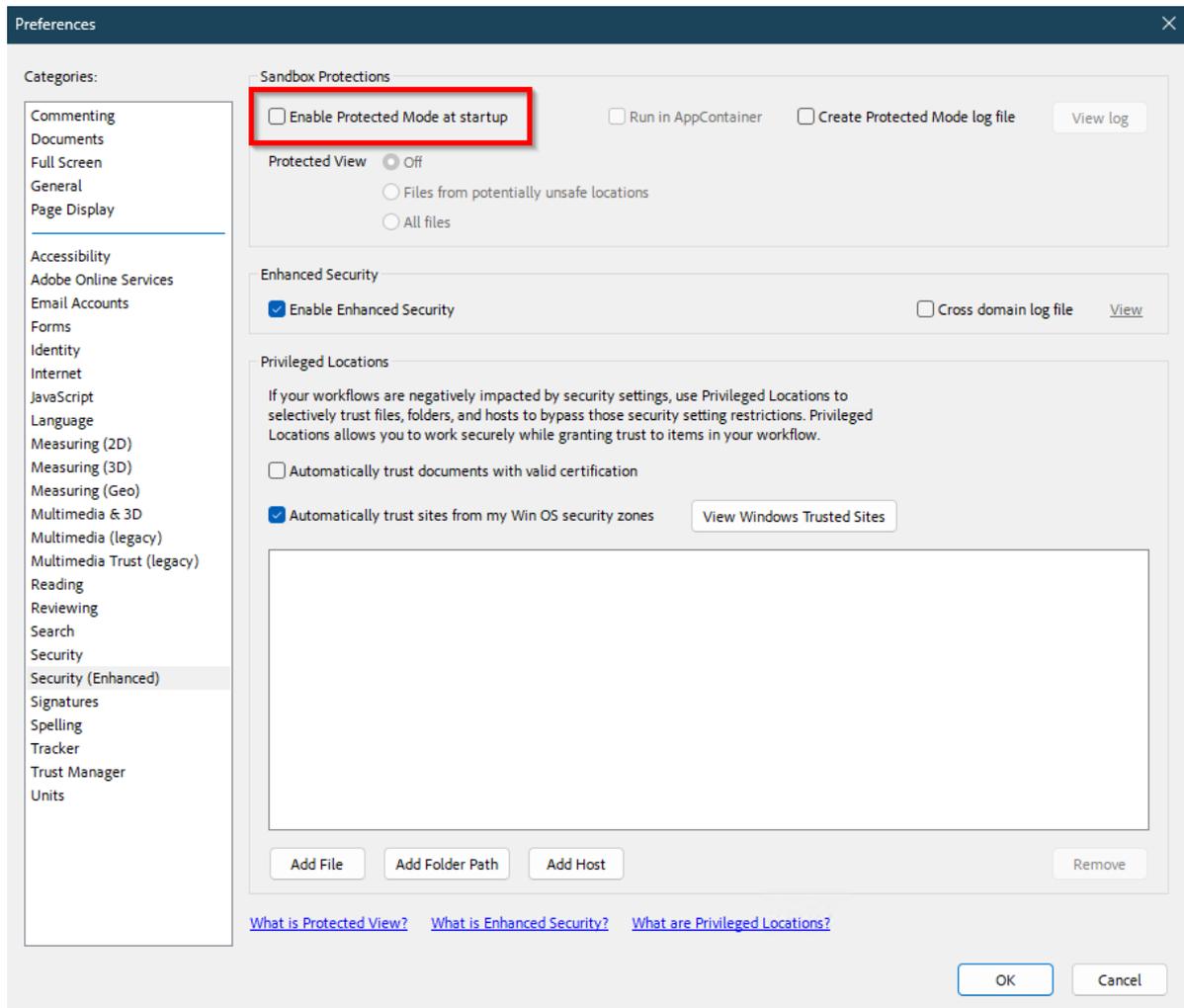
## 12.2 Information

The behaviour is caused by Adobe Readers / Adobe Acrobats so-called "Protected Mode". The Protected Mode sandboxes the document with limited features for the document. Please consult the Adobe website for details.

Fabasoft has no influence to the behaviour of this 3<sup>rd</sup> party application, therefore cannot change this manner of Adobe.

## 12.3 Solution

You can disable the Protected Mode in Adobe Readers / Adobe Acrobats Preferences in the section Security (Advanced).



The setting can be rolled out by Windows Registry or Active Directory Group Policy. See the References for details.

It is on your responsibility to disable this protection. Please read Adobe's documentation about the possible security impact.

## 12.4 References

Adobe "Protected Mode" feature: <https://helpx.adobe.com/reader/using/protected-mode-windows.html>

Adobe Sandbox Protections: <https://www.adobe.com/devnet-docs/acrobatetk/tools/AppSec/sandboxprotections.html>

## 13 Restore transaction in different kernel message

First published: 7. April 2023 (cf)

Last update: 5 August 2024 (cf)

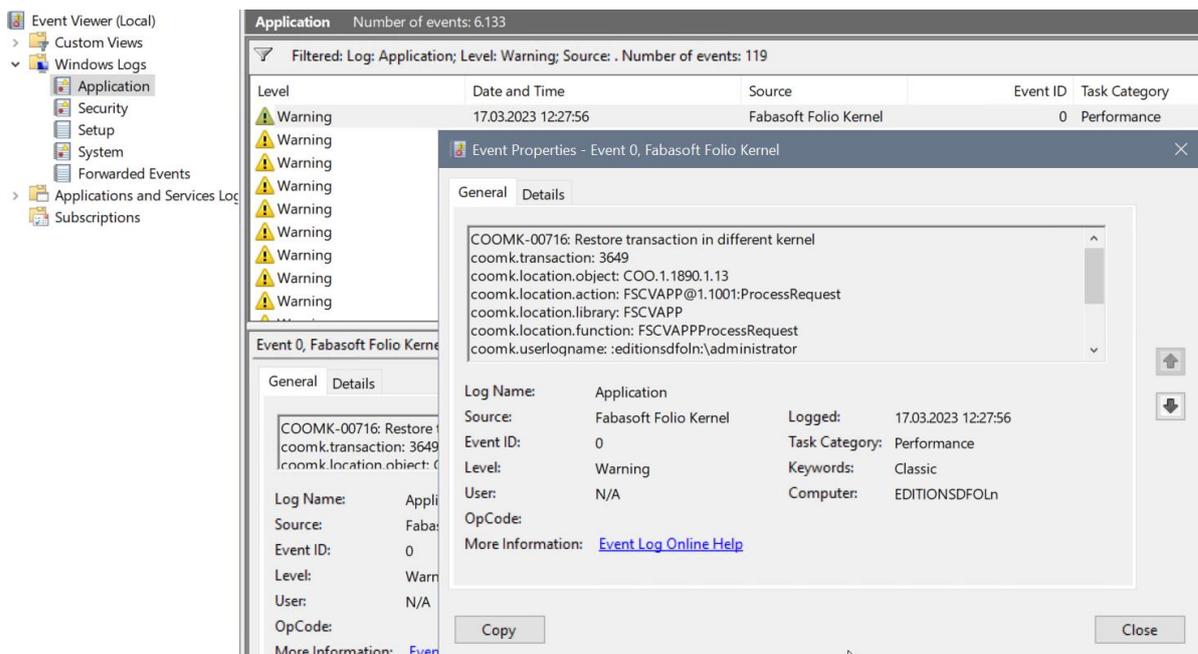
### 13.1 Summary

In your webserver logs (Linux) or Application Eventlog (Windows) you may experience warning messages "Restore transaction in different kernel".

This message predicates, that a transaction started on a Fabasoft Kernel instance has been continued on another Fabasoft Kernel instance, so the Kernel instance has changed during a transaction.

Depending on the amount of such messages, it can indicate a configuration problem with your load balancer.

### 13.2 Information



Fabasoft Folio Webservices are stateless, meaning, no transaction state is held on the webserver, but is transferred with every request from and to the Webbrowser Client. If a request with an open transaction is received by a Fabasoft Kernel instance (e.g. a Fabasoft Folio Web service) that had not opened that specific transaction, the Kernel can restore the open transaction and execute the request without error.

Restoring a transaction on a different Kernel instance is done without data loss, but may have a performance impact, as the new Kernel instance is required to load all involved objects of the transaction. To indicate this possible performance impact, the warning message "Restore transaction in different kernel" is triggered.

In distributed Fabasoft Folio environments, web requests usually are balanced by a load balancer, sending different requests to different Fabasoft Folio Web services. To keep a user session on the same Web service, co-called "Session Affinity" (or "Stickiness") is configured on the load balancer. For Session Affinity configuration on the load balancer Fabasoft recommends the "Cookies" setting

with a lifetime of around 4 to 8 hours. Therefore, a user balanced to a specific Web service “sticks” to this Web service. As transactions are started *and* committed on the same Web service, the Web service has all required objects in cache when a transaction is committed.

### 13.3 Solution

The “restore transaction in different kernel” warning may appear occasionally also with correct configuration of the load balancer because of special situations, that do not indicate a configuration problem. For example:

- Users keep their web browsers open overnight, and Web services are recycled in the night by normal maintenance. This may also happen with open documents.
- Users keep their web browsers or documents open during maintenance time.
- Users change their location, e.g. moving from office desk to home office with open web browser or documents.
- Computers switch to energy saving mode during longer absence (e.g. lunch break or a meeting).
- Web services or web servers were restarted by the administrators on purpose.

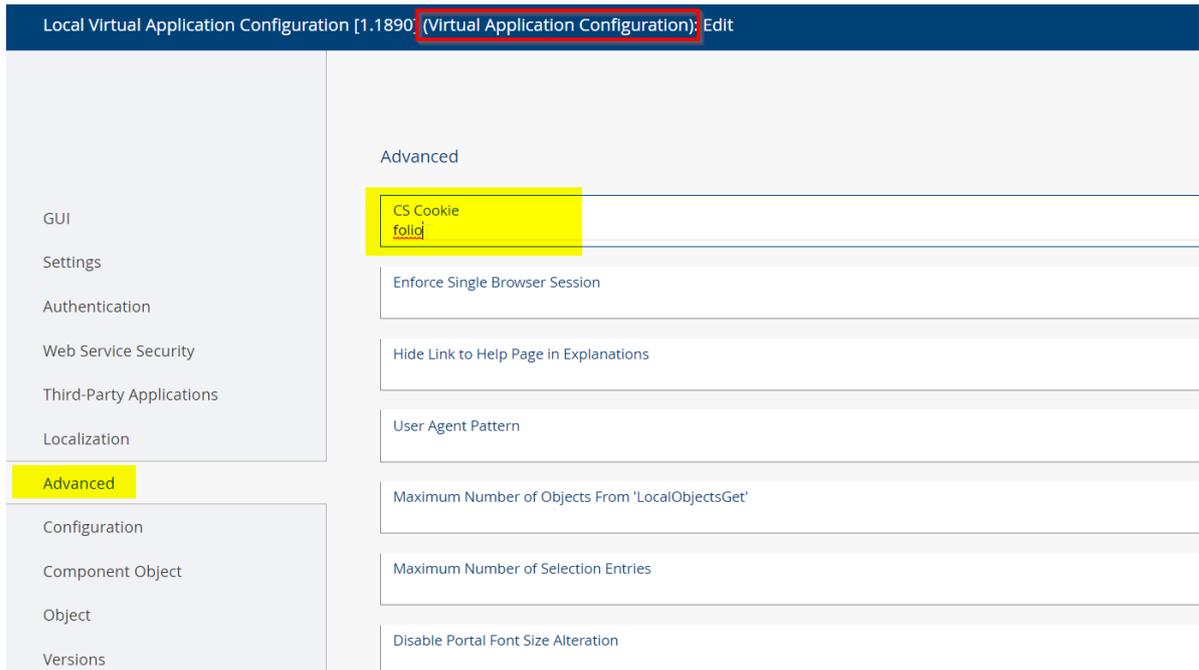
In that cases, a new Kernel instance receives the request, either because the Kernel was restarted, or the load balancer rebalances the user session.

In that situations, the occasionally occurring warnings can be ignored.

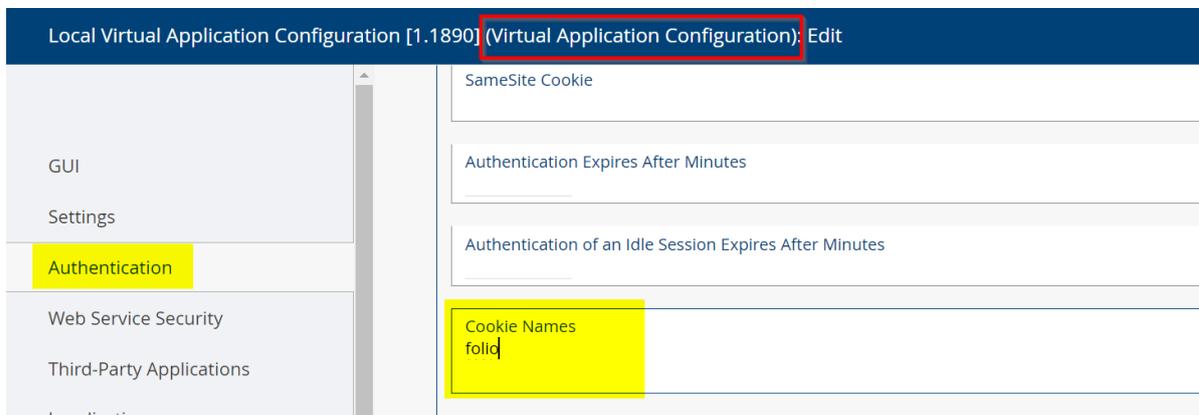
On the other hand, if many warnings appear, especially from the same users over the same day, a configuration problem of the Session Affinity may be the reason.

Double-check these configurations:

- Load Balancer: Is Session Affinity / Stickiness enabled
- Load Balancer: Is the Session Affinity type configured to be “Cookies”
- The “SSL Session ID” setting may also be possible if SSL is used
- Load Balancer: If required, is a Cookie name set
- Load Balancer: Is the Session Affinity timeout set to around 4 to 8 hours
- Fabasoft Folio: In the Current Domain object / Component Configuration / *Virtual Application* configuration:
  - Advanced tab: CS Cookie correspond to the load balancer cookie name
  - (This setting is only required if Fabasoft Folio should create the cookie, not the load balancer.)



- Authentication tab: The Cookie Names property also contains the name of the cookie.
- (This setting is especially required for the Fabasoft Folio Client to use the load balancer cookie for downloading/uploading documents)



- *Folio versions below 2025:* The *Portal Configuration* object in your domain configuration, on the "Portal Configuration" tab, set the "Cookies of the Authorized User" ([FSCPORTAL@1.1001:cfgauthusercookies](#)) with your cookie name.
- (The "Cookie Names" property from above, in older versions of Folio was only transferred to the Folio Client with selected authentication types. Therefore the "Cookies of the Authorized User" also should be set with Folio version below 2025).

As load balancers may have different setting names and characteristics, please consult your load balancer vendor for details about Session Affinity configuration.

## 14 Content Switch Cookie configuration

First published: 13 June 2024 (cf)

Last update: 5 August 2024 (cf)

### 14.1 Summary

The Content Switch Cookie ("CS Cookie") setting in the Virtual Application Configuration allows the administrator to force Fabasoft Folio to set a cookie to be used by the load balancer to distinguish users/user sessions, to balance and stick users to the same web servers.

If the load balancer creates a cookie by itself, the CS Cookie setting is not required and can be kept empty. Nonetheless, the *Virtual Application* configuration / Cookie Names still needs to be configured. See article "Restore transaction in different kernel message".

### 14.2 Information

Fabasoft recommends that the load balancer should set and evaluate its own cookie for session affinity. In that case, the *CS Cookie* setting is not required.

If the load balancer cannot set, but only evaluate an existing cookie, the *CS Cookie* setting can be used.

The approach to configure session affinity / stickiness for the load balancer is:

1. Check for the "Session Affinity" or "Stickiness" feature of the load balancer. Set the "Session Affinity" or "Stickiness" to "Cookies". (The load balancer feature may be named differently on your brand).
2. In the case the cookie cannot be set but only evaluated by the load balancer, define a specific cookie name for this environment. (if you have several load balancer groups for different installations, make sure to use different cookie names).
3. In your Fabasoft Folio installation, open your *Virtual Application* Configuration object. On the "Advanced" tab, set the "CS Cookie" name equal as set on the load balancer (see advanced options for the CS Cookie below).
4. To transfer the CS Cookie also to the Fabasoft Folio Client (for the Fabasoft Folio Client to use the same web server as the web browser) also set the name on the "Cookie Names" property on the "Authentication" tab. (see the article Restore transaction in different kernel message)
5. Folio versions below 2025: Open the *Portal Configuration* object in your domain configuration (or create one). On the "Portal Configuration" tab, set the "Cookies of the Authorized User" ([FSCPOTAL@1.1001:cfgauthusercookies](#)) with your CS Cookie name.

The webservices need to be restarted for the changes to apply.

Fabasoft does not configure load balancers for our customers, but will support your load balancer responsible with information required for Fabasoft Folio / Fabasoft eGov-Suite.

### 14.3 "CS Cookie" advanced syntax

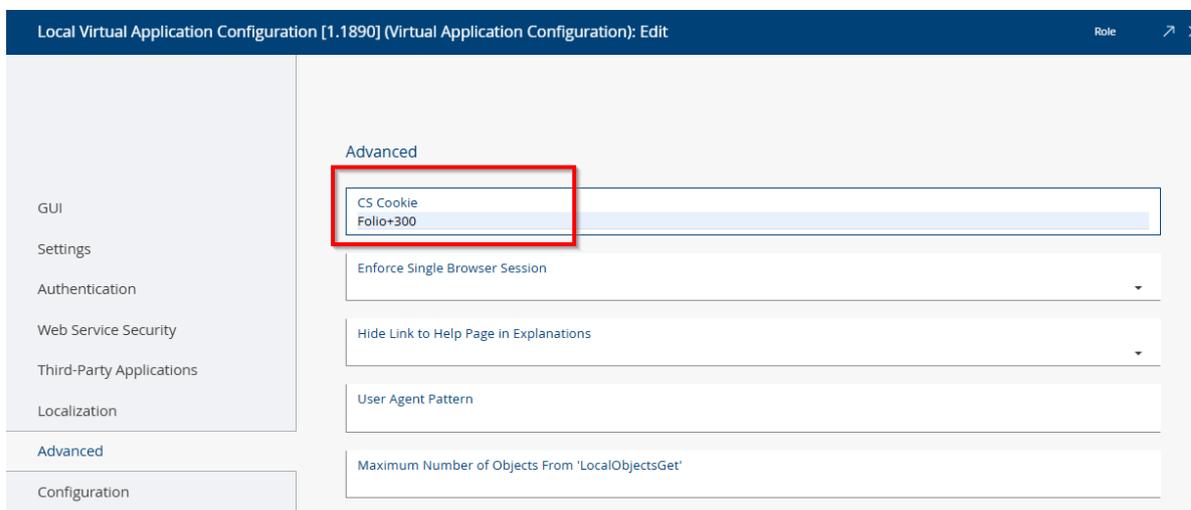
This property is used to define a content switch cookie like the following:

```
Cookiename[+cookie_timeout_in_minutes][=USERADDRESS]
```

Examples:

FscCookie	A cookie named "FscCookie" is set with <i>default</i> expiration of 6 hours.
-----------	--

	The cookie value is a hash of the webservice process environment that stays fixed until restart of the webservice (default).
FscCookie+300	A cookie named "FscCookie" is set with expiration of 5 hours. The cookie value is a hash of the webservice process environment that stays fixed until restart of the webservice (default).
FscCookie+300=USERADDRESS	A cookie named "FscCookie" is set with expiration of 5 hours. The USERADDRESS keyword sets the cookie value to the user object address (COO address).



## 15 Roll out Fabasoft environment variables by UPD files

First published: 24 April 2024 (*cf*)

### 15.1 Summary

Fabasoft software has several environment variables that can override the default behaviour of mainly the Fabasoft Folio Kernel (see the White Paper [Fabasoft Folio Environment Variables](#)).

Under Microsoft Windows, these parameters are located in the HKEY\_CURRENT\_USER registry key, meaning that these environments are user based.

By the usage of so-called upd files it is possible to distribute Folio environment variables to all users of a server, and also distribute these settings to a farm of servers.

### 15.2 Information

The Folio environment variables are read by the Fabasoft Folio Kernel are user-based in the HKEY\_CURRENT\_USER (tangible in the HKEY\_CURRENT\_USER\Software\Fabasoft\Environment key), so the key is read by the specific user running the Fabasoft Folio Kernel.

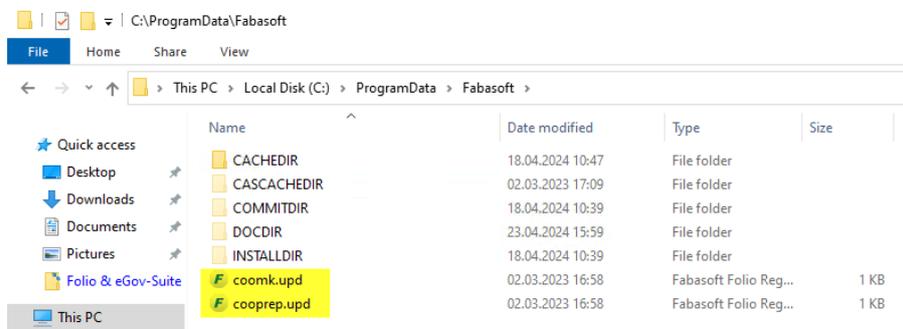
Therefore, a Kernel running with the Web service user reads other environment variables than an AT Service user, or fscaval or fscadmin command-line executions using an administrative Windows user. Also, new/first-time logged on Windows accounts may not inherit specific environments set for other users.

This may lead to the problem, that settings on the same server may disperse on the same server.

With Fabasoft upd files, you can set environment variables to a text file, that are taken over to the Windows registry by every Kernel instance independent of the Windows user. This allows you to create user-independent Fabasoft environment settings on a machine, and also copy and roll-out the upd files to multiple servers.

### 15.3 Solution

On a Fabasoft Folio Kernel installation (e.g. Web service, Conversion Service, AT Service,...) the Fabasoft Folio Setup creates the C:\ProgramData\Fabasoft folder that may be known for the INSTALLDIR, DOCDIR and other cache folders.

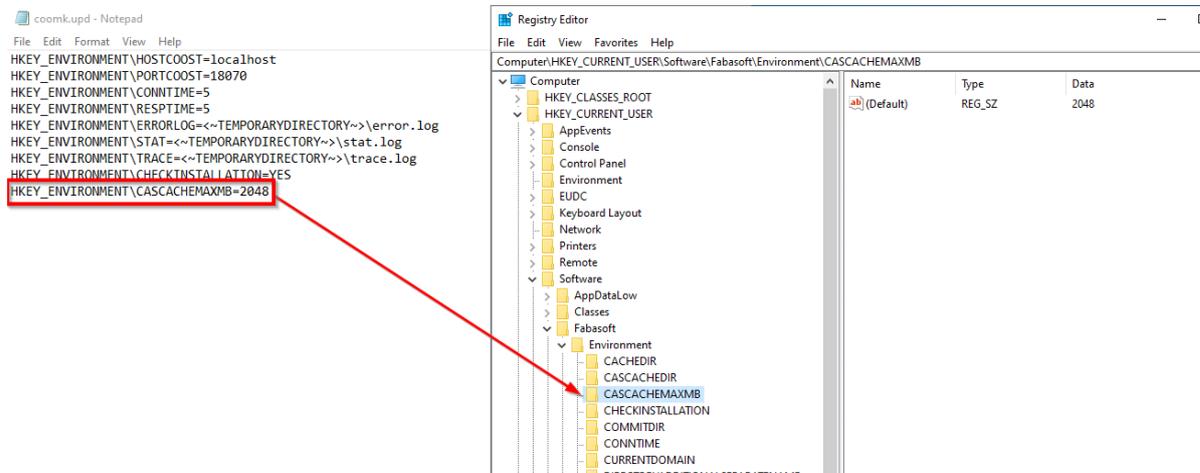


This directory also contains the coomk.upd and cooprep.upd files, that contains the settings that are transferred to the registry during Kernel startup:

- cooprep.upd is processed before the bootstrap (automatic update of components).
- coomk.upd is processed before the actual Kernel instance is started.

*We recommend to set environment variables in both files equally.*

The keyword HKEY\_ENVIRONMENT represents the users Environment registry key.



The settings are transferred from the upd files to the registry before the specific Kernel instance is started.

You can roll out these files to multiple servers to distribute settings to your infrastructure.

Only Kernel instances like Web services, Conversion services, AT services, fscadmin and fsceval, consider these files. The Backend services (COO and MMC Services) do not consider upd files.

## 16 MMC Area backup possibilities

First published: 8 April 2024 (*cf*)

Last updated: 24 April 2024 (*cf*)

### 16.1 Summary

The MMC Service areas contain high volume of data and therefore are critical in backup and recovery time for planning the backup and in the case of a disaster recovery.

For this reason, Fabasoft has multiple functions implemented to easify backup and recovery, and take advantage of point-in-time recovery for MMC Service areas.

This article explains the basic principles of these backup functions.

### 16.2 Information

Basic knowledge about Fabasoft Folio administration, and the operation of MMC Services and MMC Service areas is recommended for implementing these functionalities.

For support on evaluating the best backup solution in your infrastructure, we recommend to contact your project responsible.

#### Overview

- MMC Service Area Mirroring: MMC data are mirrored to two or multiple location for redundancy. In the case of one location fails, read and write operations are done on the remaining locations.
- Online Backup via MMC Service: Every change in the MMC Service area is backedup in a date-based backup directory on-the-fly. This backup is done by the MMC Service. Every change is hold in a directory by day. In case for an emergency, the backup can be restored by copying back the data via operating system or the fscadmin tool.
- Online Backup via Kernel: This backup is identical to the *Online Backup via MMC Service*, but can be used if Direct Access is in use. The backup is created by all the *Kernel instances* instead of the MMC Service.
- Incremental Offline Backup: The created backup structure is day-base like the *Online Backup via MMC Service*, but the backup needs to be triggered by the fscadmin tool regularly. This allows backups to slower devices without performance impact compared to the on-the-fly variants.

#### 16.2.1 MMC Service Area Mirroring

Mirroring reads and writes the MMC Service area data on at least two storage points (directories, volumes, UNC shares or mount points).

To configure mirroring for an MMC Service area:

- Edit the appropriate MMC Service and open the desired MMC Service area in the MMC Service (mirroring is a per-area setting).
- Add at least a second path to the property "Directory on Server".

- If your domain uses Direct Access, also set at least a second path in "Path to Directory on Server" (this path needs to be accessible by all Kernel instances). If "Path to Directory on Server" currently is empty, Direct Access is not in use.
- After saving the changes, in the *Fabasoft Folio Server Management (Windows) / Fabasoft Web Management (Linux)* the function Synchronize Registry is required.

All future changes are simultaneously written to both (or all) directories. Reading of contents is done in a round-robin fashion.

The screenshot shows the configuration page for MMCSVC1 (MMC Service). The 'MMC Service Areas (1 of 1)' section contains the following fields:

- Name: MMCSVC1
- Start Point (UTC): 01.01.1996
- End Point (UTC): DD.MM.YYYY
- Type: Content Addressed Storage (CAS)
- Change Mode: All Operations
- Log Changes
- Directory on Server: /var/opt/fabasoft/lib/mmc/1.1890/MMCSVC1 and /mount/fabasoft/mmc/1.1890/MMCSVC1 (highlighted with a red box)
- Shared Cache Name (CAS):
- Backup Directory on Server (Online):

Synchronizing the MMC areas implicitly is performed during an MMC Cleanup.

To synchronize the areas without cleanup, use this command line:

```
fscadmin --action cleanup --service <mmcsvc-id> --synonly --host <hostname> --port <port>
```

To limit the runtime of the synchronization, use the `--limit` parameter:

```
fscadmin --action cleanup --service <mmcsvc-id> --synonly --limit <minutes> --host <hostname> --port <port>
```

## 16.2.2 Online Backup via MMC Service

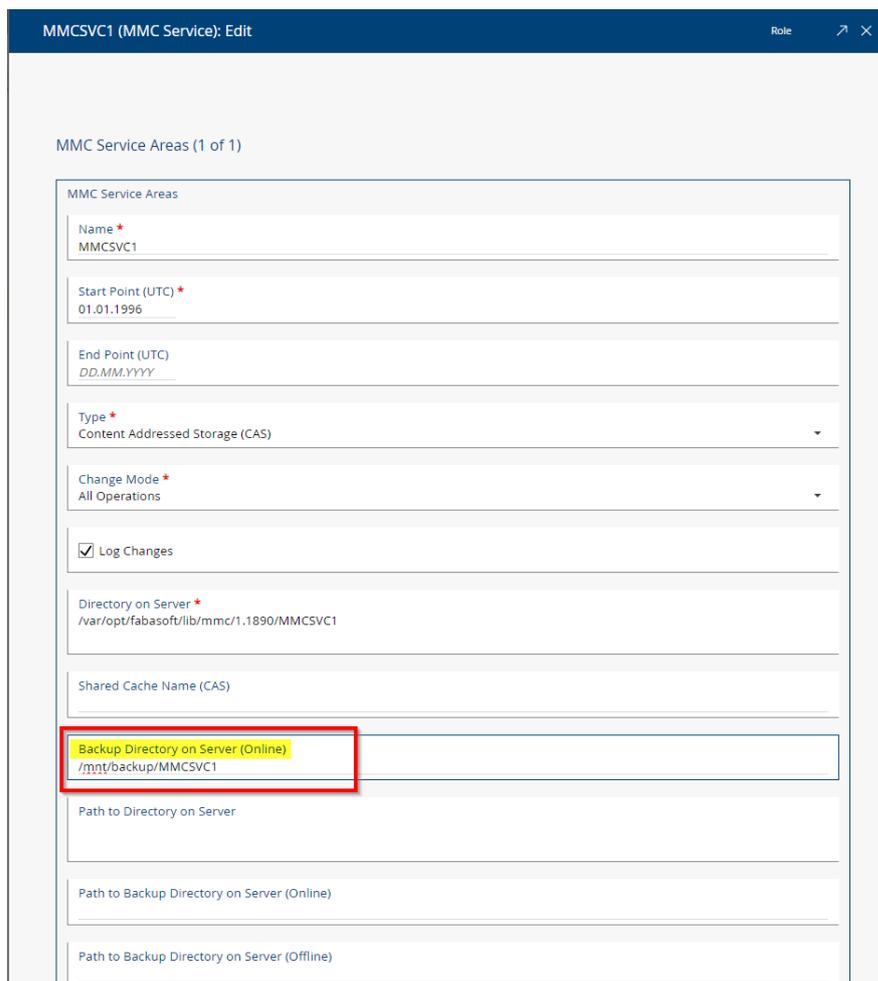
Online Backup creates backups of every change in the MMC Service area to a configured backup path during runtime (on-the-fly). The backup is written by the MMC Service. The backups are organized on a daily basis.

In the event of a disaster recovery, these incremental backups can be restored additionally to the last conventional full backup.

To configure Online Backup via MMC Service:

- Edit the appropriate MMC Service and open the desired MMC Service area in the MMC Service (Online backup is a per-area setting).
- Configure the backup path in the property **"Backup Directory on Server (Online)"**.
- After saving the changes, in the *Fabasoft Folio Server Management* (Windows) / *Fabasoft Web Management* (Linux) the function Synchronize Registry is required.
- Make sure that the backendservice user (Linux: fcsrv) has write permissions to the backup path.

All future changes are simultaneously written to the original and the backup path.



The screenshot shows the 'MMC Service Areas (1 of 1)' configuration window. The 'MMC Service Areas' section contains several fields: Name (MMCSVC1), Start Point (UTC) (01.01.1996), End Point (UTC) (DD.MM.YYYY), Type (Content Addressed Storage (CAS)), Change Mode (All Operations), Log Changes (checked), Directory on Server (/var/opt/fabasoft/lib/mmc/1.1890/MMCSVC1), Shared Cache Name (CAS), Backup Directory on Server (Online) (highlighted in red, containing /mnt/backup/MMCSVC1), Path to Directory on Server, Path to Backup Directory on Server (Online), and Path to Backup Directory on Server (Offline).

The backup directory layout is created as:

`/<year>/<month>-<day>/<casstructure>`

For example: `/mnt/backup/MMCSVC1/2024/04-17`

The `<casstructure>` in the backup directory is equal to the CAS structure in the MMC Service area. If a recovery is needed, the structure directly can be restored to the original MMC Service area, or `fscadmin` (see `--syncfrombackup`) can be used.

### 16.2.3 Online Backup via Kernel

Online Backup via Fabasoft Folio Kernel creates backups of every change in the MMC Service area to a configured backup path during runtime (on-the-fly), equal to the Online Backup via MMC Service.

In difference to the backup via MMC Service, this backup is written by the specific Fabasoft Folio Kernel. Therefore, also Direct Access needs to be configured for this area.

The backups are organized on a daily basis.

In the event of a disaster recovery, these incremental backups can be restored additionally to the last conventional full backup.

To configure Online Backup via Kernel:

- Edit the appropriate MMC Service and open the desired MMC Service area in the MMC Service (Online backup is a per-area setting).
- Configure the backup path in the property **"Path to Backup Directory on Server (Online)"**.
- For this setting to apply, all Fabasoft Folio Kernel instances need to be restarted.
- Make sure that the specific services users (Linux: fscsrv) have write permissions to the backup path.

All future changes are simultaneously written to the original and the backup path.

The screenshot shows the 'MMC Service Areas (1 of 1)' configuration window for 'MMCSVC1'. The 'Path to Backup Directory on Server (Online)' field is highlighted with a red box and contains the value '/mnt/backup/mmc/1.1890/MMCSVC1'. Other fields include 'Name' (MMCSVC1), 'Start Point (UTC)' (01.01.1996), 'End Point (UTC)' (DD.MM.YYYY), 'Type' (Content Addressed Storage (CAS)), 'Change Mode' (All Operations), 'Log Changes' (checked), 'Directory on Server' (/var/opt/fabasoft/lib/mmc/1.1890/MMCSVC1), 'Shared Cache Name (CAS)', 'Path to Directory on Server' (/mnt/mmc/1.1890/MMCSVC1), and 'Path to Backup Directory on Server (Offline)'. The window has 'Cancel', 'Apply', and 'Next' buttons at the bottom.

The layout of the backup, and the restore procedure are equal to Online Backup via MMC Service.

#### 16.2.4 Incremental Offline Backup

This backup type differs to the other types as this type is not done "on-the-fly", but need to be explicitly called, e.g. by a script in a scheduled task / cron job. The created backup is a on-time snapshot of all MMC Service area changes of the current day.

The advantage of externaly ("offline") triggering the backup is the independence to the speed of the backup volume. In all "on-the-fly" scenarios the speed of writing the backup directly affects the user experience, whereas with offline backup, only the backup process itself is affected by the backup volume speed.

In the event of a disaster recovery, the incremental backups can be restored additionally to the last conventional full backup.

To configure Incremental Offline Backup:

- Edit the appropriate MMC Service and open the desired MMC Service area in the MMC Service (the Offline backup is a per-area setting).
- Configure the backup path in the property "**Path to Backup Directory on Server (Offline)**".
- Make sure that the calling user of the backup has write permissions to the backup path.

The screenshot shows the 'MMCSCV1 (MMC Service): Edit' window. The 'Path to Backup Directory on Server (Offline)' field is highlighted with a red box and contains the path '/mnt/offlinebackup/MMCSCV1'. Other fields include 'Start Point (UTC)' (01.01.1996), 'End Point (UTC)' (DD.MM.YYYY), 'Type' (Content Addressed Storage (CAS)), 'Change Mode' (All Operations), 'Log Changes' (checked), 'Directory on Server' (/var/opt/fabasoft/lib/mmc/1.1890/MMCSCV1), 'Shared Cache Name (CAS)', 'Backup Directory on Server (Online)', 'Path to Directory on Server', 'Path to Backup Directory on Server (Online)', 'Backup Date (UTC)' (DD.MM.YYYY hh:mm:ss), 'Cleanup Date (UTC)', and 'Cleaned up Until (UTC)'. Buttons for 'Cancel', 'Apply', and 'Next' are at the bottom.

To run an offline backup, execute the following command on the server where you want to perform the backup:

```
fscadmin --action cleanup --service <mmcsvc-id> --synonly --synctobackup <yyyy-mm-dd> --offlinebackup -h <hostname> -p <port>
```

- **<mmcsvc-id>** represents the service id of the MMC Service the area contains to. Potentially it also requires the `--areadir` parameter to specify the specific area.
- **<yyyy-mm-dd>** represents the day that should be backedup. In your backup script, compose this parameter by assembling the current date.
- **<hostname>** and **<port>** are the connection details to your COOSVC1 service.

For example:

```
fscadmin --action cleanup --service 3 --synconly --synctobackup 2024-04-24 --offlinebackup -h localhost -p 18070
```

Run this command in the interval you want to update the backup. The offline backup is created incrementally for the specified date, therefore the run time is relatively short for each run.

The execution does not delete files from the backup, even if files disappear on the source area.

The backup directory layout is created as:

```
/<year>/<month>-<day>/<casstructure>
```

For example: `/mnt/backup/MMCSV1/2024/04-17`

The `<casstructure>` in the backup directory is equal to the CAS structure in the MMC Service area. If a recovery is needed, the structure directly can be restored to the original MMC Service area, or `fscadmin` (see `--syncfrombackup`) can be used.

Older backups are not cleaned automatically and need to be processed separately.

## 17 Purge outdated incremental backups

First published: 02 May 2024 (*cf*)

### 17.1 Summary

With the incremental backup options explained in MMC Area backup possibilities, incremental backup directories for every day are created. These backup directories aren't cleaned automatically, and it has little advantage to keep old backups.

The Fabasoft tool `cleanbackup` provides an easy way to delete outdated backups.

### 17.2 Information

Incremental backups are important only in the timespan the data haven't been backed up by a periodic full backup (e.g. in the night). As soon as another (backup) solution has backed up the data, an old incremental backup gets obsolete and can be purged.

Cleaning up the backup can be performed with `fscadmin --cleanupbackup <YYYY-MM-DD>`, but a more convenient way is the `cleanbackup` tool.

### 17.3 Solution

The `cleanbackup` tool needs to have access to the file system the backups reside.

Usage: `cleanbackup <Options>`

#### Mandatory Options

- `-root <path>` Path to CAS backup directory that should be cleaned up
- `-days <days>` Minimum number of passed days since the deletion of a file in the CAS area for deleting it in the CAS backup directory too

#### Optional Options

- `-verbose` Additionally print deleted files and directories
- `-casdeletion <path>` Override path to the casdeletion directory

#### Example

```
cleanbackup -root /mnt/offlinebackup/MMCSV1 -days 7 -verbose
```

The tool checks all incremental backups and deletes all backup directories older than <days> days. It is not required to specify a defined date to delete (as the `fscadmin --cleanupbackup` requires).

## 18 MMC Service area consistency check

First published: 28 March 2024 (*cf*)

### 18.1 Summary

Fabasoft Folio provides *two ways* of consistency checks for your MMC Services data: A consistency check between database and MMC Service areas, and an MD5 check for data consistency of files.

This article explains the usage of both consistency checks.

### 18.2 Consistency check of MMC Service areas

This consistency check is available for every MMC area type. The check reads and calculates paths from the database, and checks the availability of the corresponding files in the MMC Service area. Missing files are reported to the logfile.

Use this call for running the consistency check:

```
fscadmin --action checkconsistency --service 2 --logfile <log>
```

- `--action checkconsistency` Checks the existence of all referenced files in the target MMC Service
- `--service 2` executes against the specified MMC Service id
- `--logfile <log>` logs to the specified filename

#### Hints for running checkconsistency

- The specified service id needs to be from an MMC Service (not COO Service)
- The runtime may be very long, as every database entry needs to be checked against the filesystem. The procedure also creates some database and filesystem load.
- This check does not validate the integrity of the files itself. It only checks for the existence of the files.

### 18.3 MD5 consistency check

This check is only available for the MMC area type *Content Addressed Storage (CAS)*.

This check processes every file in the MMC Service area, re-calculates the MD5 hash of the content, and compares the hash to the filename (that, in CAS, consists of the MD5 hash). The check reports all files where the binary-calculated MD5 hash does not correspond to the filename.

This check does not communicate to COO and MMC Services. The tool needs access to the MMC Service area path.

#### Commandline syntax

```
Usage: checkcas [Options] [Commands]
```

Options:

```
-verbose
```

```
-threads <number of threads>
```

Commands:

```
-root <directory path>
```

```
-check <directory path> <report file>
```

## Examples

Checking the full MMC Service area from the root (base) path. A json logfile is automatically generated in the <root>/logchecks/ subfolder of the MMC Service area.

```
checkcas -root "C:\MMC\MMCSVC1"
```

Checking the full MMC Service area, but write the log to another destination:

```
checkcas -check "C:\MMC\MMCSVC1" c:\logs\logfile.json
```

Verbose output and multiple threads (faster but more load):

```
checkcas -verbose -threads 4 -root "C:\MMC\MMCSVC1"
```

## 19 Cleanup of MMC Service areas

Last updated: 26 March 2024 (*cf*)

### 19.1 Summary

Files in the MMC Service areas are not deleted during normal operation to preserve past MMC data in case of a required database restore.

For cleaning up those MMC Service areas the tool *fscadmin* is used. This tool deletes all files in the targeted MMC Service or MMC Service area that are unreferenced in the database.

### 19.2 Information

The tool *fscadmin* is installed with the Fabasoft Server Management.

By calling *fscadmin.exe* (Windows) respectively *fscadmin* (Linux) the command-line help is displayed.

For general information about *fscadmin* see the article [How to use fscadmin](#).

#### 19.2.1 Hints for Linux usage of fscadmin

- Under Linux, *fscadmin* needs to be called as *fscsrv* user.
- In Linux you might need to set the `--host` and `--port` parameter. Host and port are the listen hostname and port of COO Service 1. For example:  

```
fscadmin --host foliobel --port 18070 --action list
```

#### 19.2.2 Parameter overview for cleanup

This overview only considers parameters required for the cleanup process.

Some parameters of the `cleanup` action are related to backup and recovery and are also skipped in this article.

```
fscadmin <arguments>
```

Arguments:

- `-a|--action cleanup` Type of action to execute
- `-s|--service <service>` Execute against this service (the ID of the specific MMC Service)
- `-t|--time <days>` Cleanup unreferenced files saved before now-days. This will keep the files change in the last <days> days, to allow point-in-time recovery of the database without restoring the MMC Service areas.
- `[-l|--logfile <log>]` Path to logfile (default: `fscadmin.log`). You should consider to use a separate logfile for each MMC Service.

- [-d|--areadir <name>] Cleanup specified area. The name specified is the unique "Name" of the MMC Service area. Use this to reduce the required time. Active areas commonly store more unreferenced files than closed areas.
- [-c|--casrange <start>-<end>] Restrict to the directories specified by the range (format: xx-xx; e.g. 00-3f). This is another option to reduce processing time. Use this to alternate different ranges on different executions, e.g. 00-3f, 40-7f, 80-bf, c0ff)
- [-v|--verbose] Log detailed information. The log will contain the specific filenames that have cleaned up.
- [--casdeletion <directory>] By default, casdeletion logs are saved to the logs\casdeletion\ folder in the MMC Service path. Write additional casdeletion logs to another directory
- [-u|--dryrun] Only generate logs as if actions are performed. You can use this to test, what files *would* be cleaned up.
- [-h|--host <ip>] IP address or hostname of the host of COO Service 1 (COOSVC1). (Linux only)
- [-p|--port <port>] TCP port of COO service, usually 18070. (Linux only)

Please consider that some of the parameters are not available in older Fabsoft Folio versions.

### 19.2.3 Finding out the ID of a specific service

The --service parameter specifies the concerning MMC Service by it's *service id* (instance number) or *object address*. You'll find the service id in the Domain Administration / Services as "Instance Number".

Name	Domain	Instance Number	Service Active	Version Number	List
<input type="checkbox"/> Document Transformation Service	FolioDEMONightly				
<input type="checkbox"/> Push Notification Service	FolioDEMONightly				
<input type="checkbox"/> COOSVC1	FolioDEMONightly	1	Yes	240400	
<input type="checkbox"/> MMCSVC1	FolioDEMONightly	2	Yes	240400	

If you don't have access to the web interface, you can acquire the service list with id's with the following command:

```
fscadmin --action list
```

```
C:\>fscadmin --action list
Fabasoft Folio Administration Tool 24.0.0.134
Copyright (c) Fabasoft R&D GmbH, A-4020 Linz, 1988-2023.
-----
ID  Name           Object Class  Address
-----
2   MMCSVC1         MMC-Service  COO.1.4000.1.3
1   COOSVC1         COO-Service  COO.1.4000.1.2
```

### 19.2.4 Cleanup of all areas of an MMC Service

This is the shortest possible commandline for cleaning up a full MMC Service:

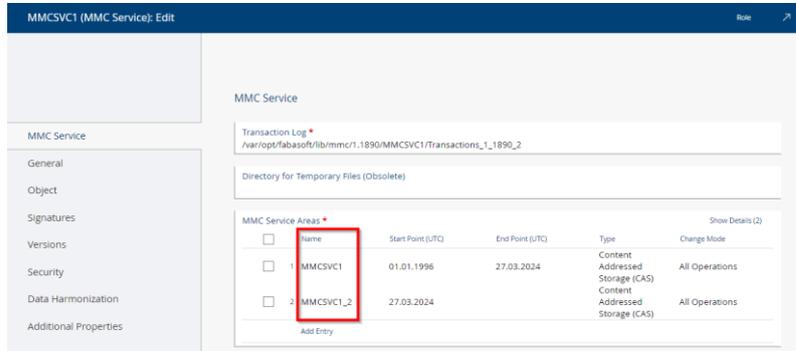
```
fscadmin --action cleanup --service 2 -time 7
```

- --service 2 executes the cleanup against all MMC Service areas of MMC Service with ID 2.
- --time 7 restricts the cleanup to files older than 7 days.

You need to call the cleanup for every MMC Service separately.

## 19.2.5 Cleanup of single area of an MMC Service

Cleaning up a single area of an MMC Service allows you to alternate, e.g. different areas on different weekends. Typically, the current (active) area produces more unreferenced files as the users are working in this area. Closed areas produce less unreferenced files.



The name of the area refers to the "Name" column inside of the MMC Service.

```
fscadmin.exe --action cleanup --service 2 --areadir MMCSVC1_2 --time 7 --logfile C:\temp\MMCSVC1_2.log
```

- `--areadir MMCSVC1_2` restricts to the specific MMC service area
- `--logfile C:\temp\MMCSVC1_2.log` logs to the specified file. We recommend setting the `logfile` parameter for an easier analysis in case of an error.

## 19.2.6 Partial cleanup in CAS areas

Another way to alternate the cleanup is to specify a `casrange` in the CAS area. CAS uses directories from 00 to FF (hex). You can limit the cleanup to a specific range.

```
fscadmin.exe --action cleanup --service 2 --areadir MMCSVC1_2 --casrange 00-7f --time 7
```

- `--areadir MMCSVC1_2` The `casrange` parameter does not explicitly require the `areadir` parameter, but makes sense to reduce the amount of cleanup time.
- `--casrange 00-7f` cleans up the first half of the CAS area (00-7f, 80-ff). Limit the range you your needs.

## 19.2.7 Test cleanup with dryrun

Adding the parameter `--dryrun` to the parameter list will execute the cleanup processing but skips the actual deletion of the files. A logfile also will be created.

## 19.2.8 Best practices for cleanup

- Cleanup your MMC Service areas in off-peak times, as the cleanup will produce some database and file system load.
- The Fabasoft Folio Backendservices need to be up and running during cleanup.
- Most customers do the cleanups via script during the weekend. Alternating the cleanups (different services, different areadirs) may be used to reduce runtime.
- The first call of a cleanup may take quite longer, as more files need to be processed. Following cleanups will perform faster.
- No data are lost and no inconsistency will occur if you cancel or kill the cleanup process.
- Closed MMC Service areas expectedly will clean less unreferenced files than active areas. Therefore, less frequent scheduling of closed area cleanup has little impact to storage usage.

- In the case of a nearly full MMC volume, consider to run a cleanup to release used space.
- Not running cleanup for around a year may release around 2/3 of the used space in active areas.
- Files saved in a Fabasoft Folio version (time travel feature) are by design not deleted by the cleanup (as the versions of the objects reference these files).

### 19.2.9 Frequently encountered errors

- *Execution failed. (No method found for action "COOSYSTEM@1.1:CleanupContentAreas" in object class "COOSYSTEM@1.1:COOService")*  
Reason: The target service is a COO Service (but should be an MMC Service).
- *Error: Service not found*  
Reason: Target service ID is not existant
- *Action not supported*  
Cause: Spelling mistake at the parameter `--action`
- *Error: MMC Service MMCSVC1 is locked by System Administrator*  
Cause: You have locked the MMC Service object in the web interface

## 19.3 References

- How to use fscadmin

### 19.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

## 20 Administration Help in Fabasoft eGov-Suite

First published: 26. March 2024 (*cf*)

### 20.1 Summary

The document *Administration Help Fabasoft Folio (eng).pdf*, explaining common administration and configuration tasks for both Fabasoft Folio and Fabasoft eGov-Suite, is not available in your your Fabasoft eGov-Suite installation. In Fabasoft Folio, you reach the Administration Help by pressing F1 in the Domain Administration.

The newest version of the document (for the latest Fabasoft Folio version) is available online ([Administration Help Fabasoft Folio \(eng\)](#)).

This article explains how to get this document for your current Fabasoft eGov-Suite installation.

### 20.2 Information

Fabasoft eGov-Suite provides its own User help ("Benutzerhilfe") that is available via the F1 hotkey. Your customer solution may provide another help for your organization.

The Administration help therefore is not available directly via the hotkey.

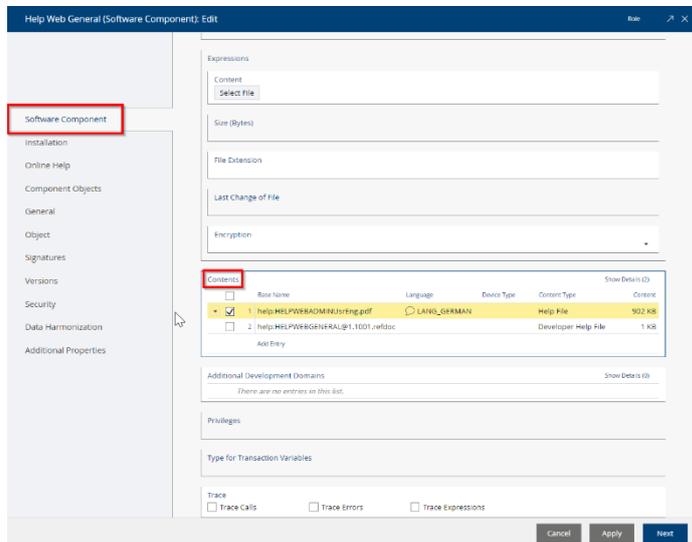
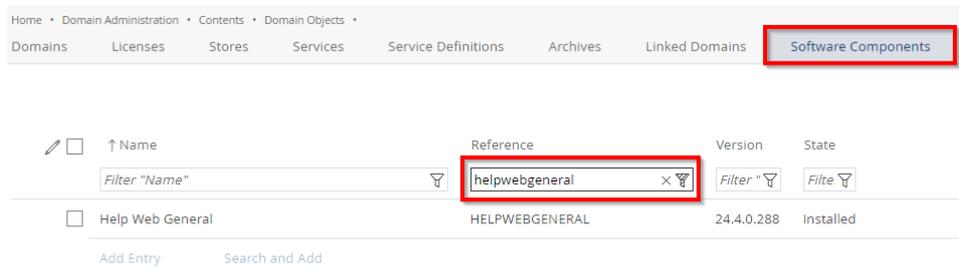
## 20.3 Solution

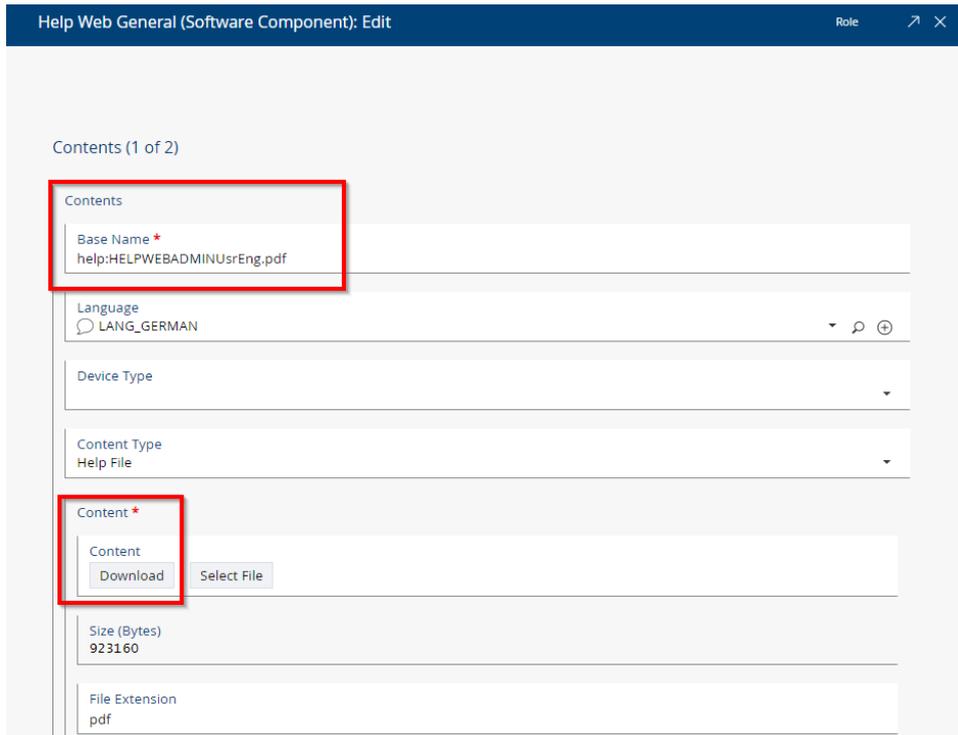
The *Administration Help Fabasoft Folio (eng).pdf* is still stored in your Fabasoft eGov-Suite installation, but has no hotkey assigned.

To extract the pdf, follow these steps (see screenshots below):

- Navigate to the Domain Administration / Object List / Software Components
- Locate the software component HELPWEBGENERAL ([HELPWEBGENERAL@1.1001](#))
- Open the software component, and scroll to the *Contents* property.
- Open line 1 (Base Name: help:HELPWEBADMINUsrEng.pdf).
- Download the content.
- If desired you can import the pdf as any other document to your installation.

Screenshots:





## 21 Webservice installation fails - Function AddVDir failed

First published: 21. February 2024 (cf)

Last updated: 22. February 2024 (cf)

### 21.1 Summary

In specific circumstances the Fabasoft Folio Webservices or Conversion Services installation fails under Microsoft Windows. Analyzing the `fscsetup-msi-install_*.log` file, the error *Function AddVDir failed* shows up.

This may be caused by missing or corrupted IIS machine keys.

### 21.2 Information

Microsoft IIS protects its configuration with so-called machine keys. Missing or corrupted machine keys prevents software like PowerShell, or the Fabasoft Setup, to automatically add configurations, as the Virtual Directory (VDir).

Machine keys *may* get corrupted for example by:

- On a system crash
- On an improper shutdown
- When the machine got cloned (e.g. Virtual Machines)

Errors regarding this issue:

- Fabasoft Setup immediately fails when reaching the Web Services or Conversion Services task.
- The `fscsetup-msi-install_*.log` logfile, located in `C:\Program Files\Fabasoft\Components\Setup`, shows the error *CallWebCA - Function AddVDir failed (Error: 0)*

- The Windows Eventlog *may* show an error *Keyset does not exist ( exception from HRESULT : 0x8009000D)*

Resetting the machine keys will solve this issue.

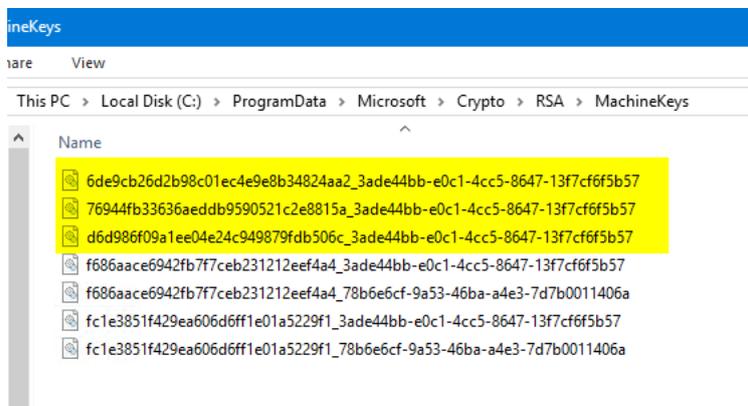
## 21.3 Solution

### 21.3.1 Move or remove machine key files

Open the directory *C:\ProgramData\Microsoft\Crypto\RSA\MachineKeys\*

Rename or delete these files:

- 6de9cb26d2b98c01ec4e9e8b34824aa2\_\* (iisConfigurationKey)
- d6d986f09a1ee04e24c949879fdb506c\_\* (NetFrameworkConfigurationKey)
- 76944fb33636aeddb9590521c2e8815a\_\* (iisWasKey)



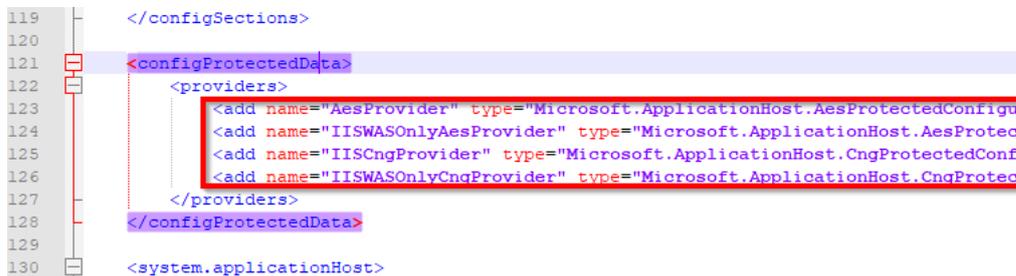
### 21.3.2 Delete machine keys from applicationHost.config

Open the directory *C:\Windows\System32\inetsrv\Config*

Edit the *applicationHost.config* file with an editor.

Search for the XML tag `<configProtectedData> / <providers>`

Remove the content between the `<providers>` and `</providers>` tag.



### 21.3.3 Recreate machine keys

Open a command prompt – make sure you're in Administrator mode.

Run the following command:

```
%windir%\system32\inetsrv\iissetup.exe /install SharedLibraries
```

```

Administrator: Command Prompt
C:\Users\Administrator>%windir%\system32\inetsrv\iissetup.exe /install SharedLibraries
Failed = 0x80070005
C:\Users\Administrator>_

```

If the error appears like in the screenshot, you can ignore this.

Double-check your *applicationHost.config* file that the `<providers>` tag got refilled with entries.

Restart IIS by executing `iisreset`. The Fabasoft Folio Webservice and Conversion Service now should be installable.

## 21.4 References

Microsoft Tech Community: <https://techcommunity.microsoft.com/t5/iis-support-blog/keyset-does-not-exist-exception-from-hresult-0x8009000d-or-or/ba-p/342955>

## 21.5 Applies to

- Fabasoft Folio Webservices and Conversion Services under Microsoft Windows

## 22 Used ports in a Fabasoft environment

First published: 3 November 2017

Last updated: 1 February 2024

### 22.1 Summary

This article describes TCP/IP ports used in Fabasoft Folio installations. The article also touches ports used by network infrastructure and operating systems but makes no claims of being complete.

### 22.2 Information

#### 22.2.1 Communication inside and outside the backend LAN

Ports used inside the backend LAN are printed "normal" into the backend LAN in "bold " and out from the backend LAN in " italic ".

Ports	Protocol/Service	Used by
10000-10004	app.telemetry	Port 10001 is used for communication between app.telemetry Server and Agents Ports 10000, 10002-10004 are used for app.telemetry Server internal communication
18070-....	RPC	Fabasoft Backend services (COO-/MMC-Services). Every service uses one port, default ports starts with 18070 increasing

80 (81, 82, ...)	http	Fabasoftware Web services, Fabasoftware Conversion services under Microsoft Windows (IIS). Ports 81 and above are used when multiple service installations are used (configurable).
443 (444, ...)	https (SSL)	Fabasoftware Web services, Fabasoftware Conversion services under Microsoft Windows (IIS). Ports 444 and above are used when multiple service installations are used (configurable).
17060 (17061...)	http	eServices under Linux.
17070 (17071...)	http	Fabasoftware Conversion services under Linux. Ports 17071 and above are used when multiple service installations are used.
17080 (17081...)	http	Fabasoftware Web services under Linux. Ports 17081 and above are used when multiple service installations are used.
17088	http	Web Management Console under Linux
17999	RPC	Fabasoftware Management Service
23000	http	Mindbreeze Administration Web Console
23100-...	https	Mindbreeze Service Ports (Index Service, Query Service, Filter Service) as defined in the Mindbreeze configuration

The webservice ports visible for clients depend on the usage of a load balancer.

### 22.2.2 Selection of network and operating system ports

Ports	Protocol/Service	Used by
22 (TCP)	SSH	Linux SSH Sessions
25 (TCP)	SMTP	Simple Mail Transfer Protocol (used if Fabasoftware web and/or AT services are configured to send email notifications)
53 (TCP/UDP)	DNS	Name resolution
88 (TCP/UDP)	Kerberos	Kerberos Authentication
123 (UDP)	NTP	Time synchronisation
135 (TCP/UDP)	RPC	Windows RPC (for all Windows based services)
389 (TCP/UDP)	LDAP	LDAP and AD
636 (TCP/UDP)	LDAP SSL	LDAP and AD

3389 (TCP/UDP)	RDP	Microsoft Remote Desktop Connection
1025-5000, 49152-65535 (TCP)	AD	Dynamic ports for Active Directory communication

For a complete list of Active Directory communication ports see [Active Directory and Active Directory Domain Services Port Requirements](#) .

List of TCP and UDP port numbers  
[http://en.wikipedia.org/wiki/List\\_of\\_TCP\\_and\\_UDP\\_port\\_numbers](http://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers)

Please note:

- Not all ports are used in every environment
- Some ports are configurable and may differ from this table. This table uses default ports of the Fabasoft Setup.
- Ports may differ depending on the existence and network location of additional components, for example authentication servers, mail servers
- This list raises no claim to completeness. Please test your environment carefully.

### 22.2.3 Fabasoft Folio Cache Notification

Fabasoft Folio by default enables the UDP Multicast Caching notifications. Another caching mechanism is Event Queue, that is disabled by default. For details see the White Paper "[Fabasoft Folio Cache Notification](#)".

#### UDP Multicast

With UDP Multicast Caching notifications enabled (this is default), the Fabasoft Folio Backendservices and Fabasoft Kernel instances communicate with Fabasoft Folio Kernel instances via UDP Multicast. The multicast address and port are configured in the *Current Domain* object. The multicast address and port default to an initially random value in the 224.0.0.x address range and random port.

Therefore, Backendservers and Kernel instances (web servers, conversion servers, etc.) should be located in the same subnet, and these UDP multicast messages should not be blocked by firewalls.

### 22.3 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)
- Fabasoft eCRM-Suite (all versions)

## 23 Creating and maintaining an up to date setup kit

First published: 4 August 2017

Last updated: 2 February 2024

### 23.1 Summary

When receiving multiple hotfixes from Fabasoft Support it is mandatory to apply them in the correct order. Otherwise some components may be overwritten with older versions, thereby reverting hotfixes and possibly leading to system instability.

The easiest way to achieve this, is by creating and maintaining an up to date setup kit as described below. We highly recommend that you back up this kit as it represents the current software level of your installed system.

**Note:** Depending on your environment it may be necessary to maintain multiple setup kits, please ensure that only the correct setup kit is used to update a System!

## 23.2 Solution

In order to create a consistent installation medium for your system please follow these steps:

### 23.2.1 Creating the Setup kit

In this step we explain how to create a Setup kit for further use.

- Copy the contents of the latest installation medium (usually an iso image) to your hard drive.
- Collect all applicable hotfixes, while making sure they *match the installation mediums version* and are newer than the installation medium.
- Copy each hotfix folder structure to the installation folder on you hard drive. Hotfixes usually are arranged to represent the folder structure of the original installation medium (e.g. containing a Setup folder with further folders replacing the original's kit files). To decide which files to replace please follow the guidelines below:
  - If the timestamps of the installation medium and the extracted Hotfix files are correct, then the newest file should always replace the older file.  
This is the preferred method, as the timestamps are more accurate than a manual ordering.
  - If the timestamps are out of order, please ensure that the hotfixes are applied in the order you have received them.
- For Linux systems it is mandatory to ensure that all rpm files contained in the installation medium are of the newest version only.  
If any older rpm files are left over from the original installation medium or other hotfixes they must be removed

The above guide is also applicable if you receive a new Setup kit with a newer build, but have Hotfixes that need to be applied anyway.

### 23.2.2 Maintaining the setup kit

To keep the created kit up to date we recommend that you add any hotfixes to the setup kit before applying them to the system.

## 24 Executing Expressions from command line with fsceval

First published: 14 September 2017

Last updated: 31 January 2024

### 24.1 Summary

To execute expressions from command line, the tool `fsceval` is available on every Fabasoft Folio server.

### 24.2 Information

The `fsceval` tool is provided on all Fabasoft servers in a domain environment. Please be advised that this tool will initialize a Kernel instance.

## 24.3 Usage

### 24.3.1 Preparation on Windows

`fsceval` executes in the context of the logged in Windows user. `fsceval` will read the host and port of the COO Service 1 from the current user's environment variables (Windows Registry `HKEY_CURRENT_USER\Software\Fabasoft\Environment`) therefore it is not required to pass the host and port parameters.

### 24.3.2 Preparation on Linux

When using `fsceval` on a Linux system, for all calls, you are required to specify `-host <hostname>` and `-port <port>`, where these specify host and port of the COO Service 1.

You need to login as `fscsrv`:

```
su - fscsrv
```

Alternatively of specifying `-host` and `-port`, you can set shell environments:

```
export HOST=<Backendserver (COO Service 1)>
export PORT=<PORT_COOSVC1> //z.B: 18070
export LD_LIBRARY_PATH=/opt/fabasoft/share/eval/
```

### 24.3.3 Examples

Here are some common usage examples:

#### Direct expression call

```
fsceval -eval "COO.2127.9900.1.13.CheckContentConsistency() "
```

#### Run expression from a file

```
fsceval -file filewithscript.exp
```

#### Run expression from a file and output redirection to logfile

```
fsceval -file filewithscript.exp 2>&1 > logfile.log
```

#### Run expression from a file and trace output to screen

```
fsceval -file filewithscript.exp -tracetoconsole
```

## 24.4 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)

## 25 Manual Mindbreeze Configuration in Fabasoft Folio

First published: 9 January 2024 (*ck, cf*)

Last updated: 26 April 2024 (*cf*)

## 25.1 Summary

Starting with Fabasoft Folio/eGov-Suite 2023, the Fabasoft Folio Setup does not include the Mindbreeze Integration anymore and therefore, the pre-configuration of Mindbreeze relevant settings and files is not done automatically anymore.

## 25.2 Information

In former Fabasoft Folio/eGov-Suite versions, for the Mindbreeze integration in Folio, you had to first install Mindbreeze Enterprise, followed by the Fabasoft Folio Setup with the "Mindbreeze Integration" option. This installed a Fabasoft Folio Kernel on the Mindbreeze server, registered Fabasoft Folio libraries into Mindbreeze, and furthermore pre-configured certificates and Mindbreeze relevant objects in Fabasoft Folio. The Kernel was used for interaction between Mindbreeze and Fabasoft Folio, furthermore the Kernel ACL check was performed in that way.

To prevent compatibility issues between the used Fabasoft Folio version and Mindbreeze version, in newer Fabasoft Folio/eGov-Suite versions the installation of a Fabasoft Folio Kernel on the Mindbreeze server was removed. Instead, a web-based communication between Mindbreeze and Fabasoft Folio was established.

The Solution part of this article explains the configuration of the web-based communication, and the manual steps for creating certificates and configuration objects in Fabasoft Folio/eGov-Suite.

## 25.3 Solution

This is a short summary of steps to perform the configuration of Mindbreeze integration to Fabasoft Folio. For detailed information, please contact a Fabasoft Consultant or Fabasoft Enterprise Support.

### 25.3.1 General

- Create a domain user for Mindbreeze
  - The user must have a valid HTTP SPN set on the Mindbreeze server
  - The user later will be running the Mindbreeze services, so should have local admin privileges
- Check that the Fabasoft Folio Web Services have basic authentication enabled. These Fabasoft Web Services later will be queried by the Mindbreeze servers.

### 25.3.2 Mindbreeze

- Adapt and import MESPluginTemplate.zip (Download: [MESPluginTemplate](#))
  - Open zip file
  - Enter the correct URL for all occurrences of <location>.  
Example: <location><http://egov.installation/fsc/mesapi></location>  
This URL is the endpoint needed later in the Mindbreeze configuration.
  - Zip again, making sure that there are only the files in the zip, and no folders, and upload in the Mindbreeze section "Plugins"
- Generate and import certificates
  - Create the certificates according to the KB article mostly option B will be used, creating self signed certificates.  
<https://help.supportservices.fabasoft.com/index.php?topic=doc/Knowledge-Base/renew-trusted-peer-certificates-foliomindbreeze.htm>
  - Therefore, download the script package including the necessary data: [openssl](#)
  - Generate the P12 Trusted Peer certificate for the client service with this command:  
`openssl pkcs12 -export -in request.pem -inkey request.key -out`

<filename>.p12

(you will get asked for a password for the export, hit enter twice for an empty password)

- Upload the resulting files (cacert.pem, and the .p12 file) in the section "Certificates"
- Activate the checkbox next to the CA certificate "Trusted Peer", and save
- Create Index
  - Set everything to default. The path to the index needs to be without spaces, otherwise the producer/consumer sync will not work.
  - Set the Data Source according to this screenshot:

Data Source	Access Node	
Fabasoft Components (Fabasoft Components) ID: c445d672-921f-4ce3-8957-4c53963395f8	mindbreezeproducer.support.fabasoft.com	<span>Disable</span> <span>Refresh</span> <span>Trash</span>

Setup

Category: Fabasoft Components

Category Instance: Default

Source Name: Fabasoft Components

- Create Filter Service
  - Adjust the filter plugins according to your needs
- Create Client Service
  - Set trusted peer certificate
  - Select Query Engine (i.e. the index)
- Set the user
  - Create credential and endpoint in the Network tab. Username needs to be the same user you are using for the Mindbreeze service user in Folio. Endpoint is the url set in the <location> tag in the plugin zip, e.g. <http://egov.installation/fsc/mesapi>

Credentials

mes

Name: mes

Type: Username/Password

Username: support\mesproducer\_mes

Domain:

Password: .....

Endpoints

http://mindbreezesource.support.fabasoft.com/fs...

Location: http://mindbreezesource.support.fabasoft.com/fsc/mes

Credential: mes

### 25.3.3 Folio

- Create a user account for Mindbreeze using the Windows account created in the beginning
  - User must have a user role with admin rights assigned

- User must be in the list of "Privileged Users" in the Domain object.
- Create FilterServiceObject
  - Enter URL, specify file extensions that may be sent for filtering.
- Create IndexingServiceObject
  - Enter URLs of the Indexing Service and the Query Service (you can use the path /nosample with the Query Service for better performance)
  - Set certificates (again according to the White Paper)
  - Enter Mindbreeze user in the Mindbreeze configuration as "User with access to integration web service".
  - Link your Indexingservice object in all COO Stores of your domain.

## 25.4 Downloads and References

- Download Plugin Template  
<https://at.cloud.fabasoft.com/folio/public/1njptin3sdp242y5uriucuuu2b/download>
- Download MESOpenSSL.zip scripts  
<https://at.cloud.fabasoft.com/folio/public/0wr842tu7g7d814e8ljx9xg8ft/download>
- KB article Renew trusted peer certificates (Folio/Mindbreeze)
- KB article Set SPN to use Kerberos authentication

## 26 LAST UPDATED IN 2023

### 27 COO Service memory usage not equivalent to Cache Size Setting

First published: 12. December 2023 (*cf, gs*)

#### 27.1 Summary

Every Fabasoft Folio COO-Service uses RAM for caching objects. The *Maximum Cache Size (MB)* can be adjusted in every COO Service object in the Domain Administration / Domain Objects / Services. Changing the *Maximum Cache Size (MB)* is applied directly without restart of the COO Services.

The *Maximum Cache Size (MB)* setting is not directly reflected by the memory usage of the process. The COO Service process may be bigger (or much bigger) in memory than configured in the cache setting.

This behaviour is by design of Fabasoft Folio COO Service memory management.

#### 27.2 Information

The Fabasoft Folio COO-Service assigns memory to process the requested operations, and assigns memory for object cache. This memory is managed in memory pools held by the glibc memory routines.

This means, that if any request by a Fabasoft Folio Kernel needs much processing memory, this memory is allocated from the operating system, used and formally freed. But the glibc heap memory management keeps freed memory for re-use on demand. Therefore, currently unused memory is not returned to the operating system.

The required processing memory depends on request count, user count, maximum/used threads, result sizes/object counts on specific requests, also on implementation details like Get actions (needs to read objects to calculate values). In one sentence, it is dependent to the general load of the specific COO Service.

## 27.3 Solution

An unexpected high memory usage for a COO Services means that it has to process requests with high amount of temporary memory demand.

Reducing the *Maximum Cache Size (MB)* usually will not help, because more objects are dropped from the cache, but freed up into the "ready-for-re-use" pooled memory, not affecting the process memory.

We recommend to increase the physical memory / assigned VM memory of the backendserver to allow bigger process memory.

Also increasing the *Maximum Cache Size (MB)* for the specific COO Service can increase memory usage and performance, as cached objects will reduce processing memory.

To completely free the assigned memory of the COO Services, a restart of the services is required.

There are no "memory management" or "garbage collection" settings for glibc, therefore Fabasoft cannot control the size of "ready-to-re-use" pooled memory.

## 27.4 References

[https://sourceware.org/glibc/wiki/MallocInternals#Free\\_Algorithm](https://sourceware.org/glibc/wiki/MallocInternals#Free_Algorithm) (glibc Wiki)

## 28 Restricted path access in Fabasoft app.ducx Expression Language

First published: 27 October 2023 (*cf*)

### 28.1 Summary

Starting with Fabasoft Folio 2024, Fabasoft eGov-Suite 2024 (Service Track) and Fabasoft eGov-Suite 2023 September Release (Feature Track) the app.ducx Expression Language's features SetFile, GetFile and further functions are restricted to Fabasoft Folio's specific temporary directories by default.

To use these functions outside of Folio's temp directories, an environment variable with allowed paths needs to be set. Furthermore, this security feature can be disabled.

### 28.2 Details

The file system restriction of the app.ducx Expression Language pertains all functions that can read or write to the filesystem, such as SetFile, GetFile, GetFileEx and file constructors.

By default, the following directories are excluded from the restriction:

- DOCDIR (precise, the path that is set as the DOCDIR environment variable)
- TMPDIR (precise, the path that is set as the TMPDIR environment variable)

Furthermore, calls from `fsceval`, `cooload` and `cooprep` are excluded from the restriction.

This implies that any action, bulk job, import, constructor, wrapper et cetera cannot read or write files outside of the mentioned directories.

In case an implementation tries to read or write outside of the allowed paths, an error message and exception will occur:

Internal Error: Writing to \*path\* is not allowed

Internal Error: Reading from \*path\* is not allowed

Internal Error: Removing from \*path\* is not allowed

## 28.3 Solution

See [Definition of Environment Variables](#) to get used with Fabasoft environment variables.

### 28.3.1 Allow additional paths

To allow additional paths to read, the environment variable CONTENTRESTRICTPATHRO can be set on the specific kernel instance or server. For the variable, use the PATH formatting of the operating system.

To allow additional paths to write, the environment variable CONTENTRESTRICTPATHRW can be set on the specific kernel instance or server. For the variable, use the PATH formatting of the operating system. Writable paths implicitly are also readable.

Please notice the difference of path separation in Windows (use a ";" semicolon) and Linux (use a ":" colon)

Examples

Windows

```
[HKEY_CURRENT_USER\Software\Fabasoft\Environment\CONTENTRESTRICTPATHRW]
@="c:\\temp\\first_path\\;c:\\temp\\second_path\\"
```

Linux

File content of CONTENTRESTRICTPATHRW:  
/tmp:/usr/workdir

### 28.3.2 Disable the path restriction

*Caution: Disabling the path restriction is a security issue as every user/administrator/developer having access to app.ducx Expressions may access paths on your (web) servers with the Fabasoft Folio Web Service security context.*

The environment variable ENABLECONTENTRESTRICTPATH defaults to *true* if not set.

To completely disable the path restriction, set this environment variable to *false*.

## 29 How Workflow Notifications are processed

First published: 05 October 2023 (*cf*)

### 29.1 Summary

This article gives insights how Fabasoft Folio/eGov-Suite internally processes the email notification for workflow events like "New Activity Received".

### 29.2 Details

#### 29.2.1 Background Tasks

When a notification email for workflow activities needs to be sent, this is not done immediately but scheduled by a so-called "Background Task", added to the "Background Tasks" property in the activity.

The background task assigned to the activity is "Send Notifications" ([COOWF@1.1:DeadlineSendNotifications](#)). This Definition for Background Tasks object defines the duration as "Short", therefore the Automated Task with action [FSCSCHEDULE@1.1001:CheckShortDeadlines](#) is processing this kind of background tasks.

The schedule of your Automated Task [FSCSCHEDULE@1.1001:CheckShortDeadlines](#) defines in what interval these background tasks are processed. Without that Automated Task, email notification is not processed.

### 29.2.2 CheckShortDeadline processing

The Fabasoft Folio AT Service starts the CheckShortDeadlines action.

For each "Send Notification" background task, the AT Service switches context to the user that has triggered the next activity to get startable.

Example:

*Mr. Huber* finished his activity, so the next activity for *Mrs. Miller* is changed to the state "Startable". As *Mr. Huber* (the predecessor) set the next activity to "Startable", the AT Service logs on as *Mr. Huber* and sends the notification in *Mr. Hubers* context to *Mrs. Miller*. The AT Service also uses the domain/tendant configuration of *Mr. Huber*, e.g. the SMTP server configured in his tendant.

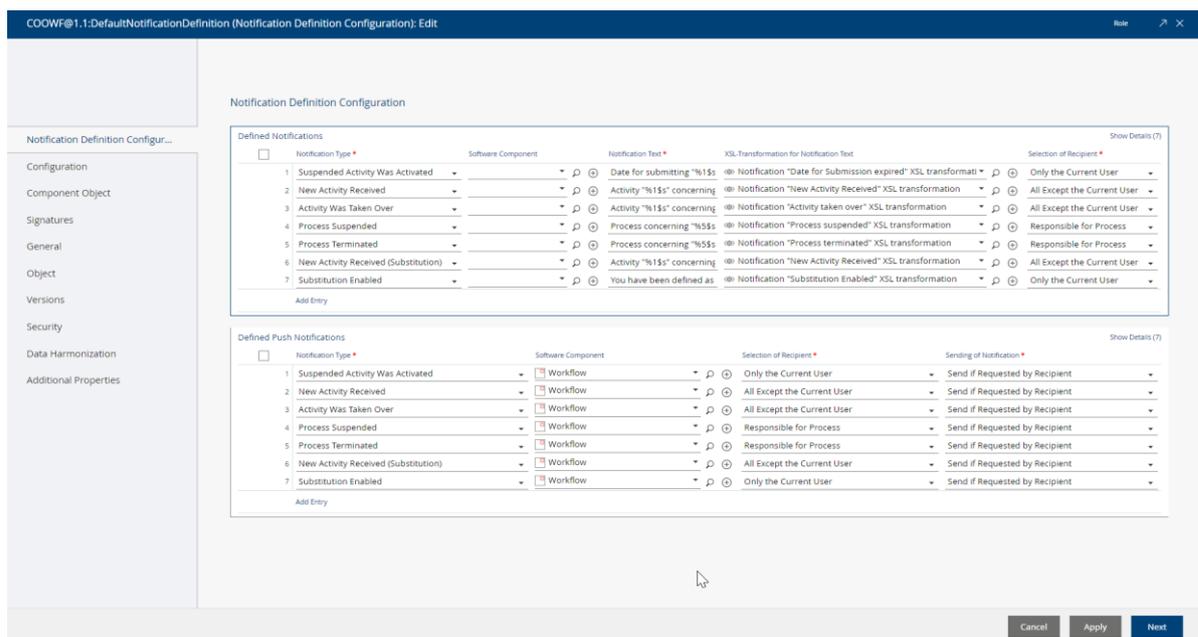
As for every background task (thus every activity) the context is switched to the specific predecessor, also permissions (ACLs) are applied for the predecessor.

In any case that the predecessor has no access to the object of the activity, a fallback situation applies:

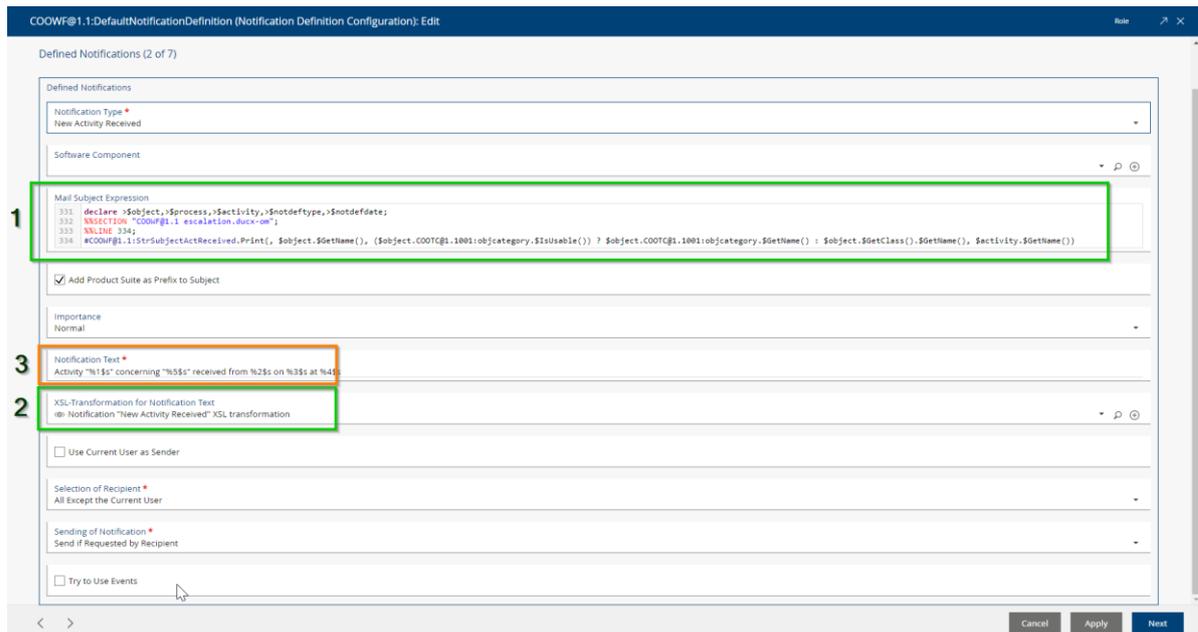
- The AT Service removes the "Send Notifications" (COOWF@1.1:DeadlineSendNotifications) background task
- It schedules another background task "Send Notifications (Users Have Participated in Workflow)" (COOWF@1.1:DeadlineSendRestrictedNotifications). This background task instead of using the predecessor uses the process owner (by default).
- This fallback should allow the notification to be sent also if the predecessor has no access rights to the object of the activity.

### 29.2.3 Processing the Notification Definition Configuration

The Notification Definition Configuration defines the domain/tendant defaults for email notifications. The screenshot is from the Fabasoft Folio Default Notification Definition (COOWF@1.1:DefaultNotificationDefinition), but the Fabasoft eGov-Suite or your solution may define different settings.



This definition defines for every notification type how the notification email should look:



In **1.** the subject of the email is calculated. It usually contains information about the event.

In **2.** an XSL Transformation object is assigned. The XSL Transformation is evaluated and generates an HTML email body.

If, for any reasons, the XSL transformation fails, the plain text field **3.** Is used as a fallback.

The resulting text from **3.** is shorter and not formatted as this usually results from the XSL transformation. Therefore, users may refer to “corrupted” or “truncated” email notifications.

Reasons for a failing XSL transformation can be erroneous code in the XSL file, but also permission issues on requesting object data may lead to failed XSL evaluation. Remember, that the background task is fulfilled in the context of the predecessor of the activity, or the process owner in fallback situation.

### 29.2.4 Summary

- Action [FSCSCHEDULE@1.1001:CheckShortDeadlines](#) needs to be scheduled by an Automated Task.
- Workflow notifications create a “Send notifications” in the Background Tasks property of the activity.
- The AT Service processing of each background task is done in the context of the predecessor/initiator of the now startable activity.
- If in any case the predecessor has no access to the “Applied to” object of the activity, another background task “Send notifications (Users Have Participated in Workflow)” is scheduled, that is executed as the process owner user.
- The XSL transformation is performed as the appropriate user as mentioned before.
- If the XSL transformation fails, instead of the XSL transformation the “Notification Text” property is used as the mail body.

## 29.3 Troubleshooting

See the chapter Workflow Notification Checklist to configure the AT Service and Automated Tasks at first.

To analyse workflow notifications, use the app.telemetry logpool for the AT Service and filter to the *CheckShortDeadline* action.

Please note that in the app.telemetry request list (list in the upper area) the error column might be 0 even if errors occur. You should click the request in the upper list and have a look to the "Error" tab on the lower list for errors like "ACCERR\_DENIED".

## 30 Workflow Notification Checklist

First published: 05 October 2023 (*cf*)

Last updated: 11 December 2023 (*cf*)

### 30.1 Summary

This article is a checklist how to analyse issues with the workflow notification emails. Please see the Administration Help for detailed information about the mentioned steps.

This information is applicable from Fabasoft Folio/eGov-Suite 2019.

### 30.2 Solution

Walk through the following steps to check your workflow notification configuration.

#### 30.2.1 1 SMTP Configuration

Check that the mail server configured in your SMTP configuration is accessible by your Fabasoft Folio AT Server. Possibly it is required to open ports on the firewall, and allow relaying of emails.

Mails are sent via the smtp server that is configured in the SMTP configuration of the sender's users tenant.

#### 30.2.2 2 Check that the Fabasoft Folio AT Service is installed and running

Email notification is processed by the Fabasoft Folio AT Service.

#### 30.2.3 3 Check that the Fabasoft Folio AT Service user is Privileged User

Get the operating system user of the AT service:

- Windows: The configured Windows user for the AT Service can be found in *Fabasoft Folio Server Management* at the service entry, or in Windows' *Services* app (services.msc) at the AT Service entry.
- Linux: On the AT server, check the `/var/opt/Fabasoft/instances/COOATService_*/env/FSC_LOGIN` file for the user used to login. If the file does not exist, the user is `fscsrv`.

Find the Fabasoft Folio user by matching the login string property to the found operating system user.

Check that the found Folio user is set in the *Current Domain | Primary Domain* object on tab *System Configuration* in the *Privileged Users* property.

Without that permission, the AT Service user cannot send emails in context of the sending user.

#### 30.2.4 4 Check the List of Automated Tasks

In the AT service users object, on the *Advanced* tab, check the property *List of Automated Tasks*:

- If a *List of Automated Tasks* object is set, this list is used by this AT service user.

- If no object is set, the fallback is, that the first *List of Automated Tasks* object with AT service user as *owner* is used. If multiple *List of Automated Tasks* objects exist with that owner, the situation is undefined (not sure what list is used).

### 30.2.5 5 Check for CheckDeadline jobs in List of Automated Tasks

For correct processing of Background Tasks, multiple CheckDeadline actions need to be called within Automated Tasks. See the [Administration Help](#) chapter "*Scheduling*" for the list of CheckDeadline jobs required for your actual Fabasoft Folio/eGov-Suite version.

A guide to find the Administration Help of your current Fabasoft Folio/eGov-Suite installation, see at the bottom of this chapter.

The following actions are required in Automated Tasks:

- For email notification, an FSCSCHEDULE@1.1001:CheckShortDeadlines job is required. This action actually is sending the notification emails. Please configure these jobs as explained in the [Administration Help chapter "Scheduling"](#).
- For long-term suspended activities a COOWF@1.1:CheckLongTermActivities job is required. The action is checking for activities currently on long-term deadline that undercut the long-term deadline stage, and brings them back to the normal suspended activities list in the worklist. To configure this job, follow the instructions in the [Administration Help chapter "Long-Term Suspended Activities"](#).
- For suspended activities to return to the worklist, an COOWF@1.1:CheckExpiredActivities job is required. This action is checking for activities whose deadline has reached to come back to the worklist. It schedules the background task to send the email notification (that subsequently is processed by CheckShortDeadlines). To configure this AT job, please follow the instructions in the White Paper ["Configuration of Workflow Escalations" chapter "Creating Automated Tasks"](#).

To configure each of these actions:

- Check if you may already have Automated Tasks configured that calls these actions.
- Check that these Automated Tasks are activated and have valid begin and reoccurring time scheduled.
- Check the History list of the Automated Tasks that no errors have occurred.

#### How to find your Administration Help for your Folio/eGov-Suite version

- Navigate to your Domain Administration / Domain Objects / Software Components.
- Find the Software Component "*Help Web General*" (HELPWEBGENERAL)
- Open the Software Component and scroll to the "*Contents*" property.
- Download the content referred as "*help:HELPWEBADMINUsrEng.pdf*".

### 30.2.6 6 Check the Domain/Tenant Notification Definition

- Locate the Workflow configuration of your domain/tenant (*Domain/Tenant* object / tab *Components Configuration / Workflow*). Consider the common inheritance rules for configuration objects.
- In the *Workflow* configuration, on tab *Others* check the *Notification Definition*. Consider the common inheritance rules for configuration objects.
- In the *Notification Definition*, in the *Defined Notifications* list, different use-cases have defined a *Sending of Notifications*:
  - *Send Always* will send the notification without possible user intervention.
  - *Send if Requested by Recipient* allows the receiving user to enable or disable this notification type.

- *Send if Not Denied by Recipient* will send the notification if the user has not explicitly disabled this notification.
- *Never Send* will not send the notification and won't allow a user to enable it.

Check that the requested notification type (e.g. "New Activity Received") is configured and has set an appropriate *Sending of Notification* setting.

Notification Type	Software C.	Mail Subject Expression	Add Product Sub.	Importance	Notification Text	XSL Transformation for Notification Text	Use Ca.	Selection of Recipient	Sending of Notification
1 Suspended Activity Was Activated		226 [SELECTION "%COO#F] 227 [DLTHE 239; 228 (#FV.COOP#;1:3# 229	✓	Normal	Date for submitting "%1\$s" concerning "%5\$s" expired on %	[SELECTION "Date for Submission expired" XSL	⌵	Only the Current User	Send if Requested by Recipient
2 New Activity Received		231 [SELECTION "%COO#F] 232 [DLTHE 233; 233 [COOP#;1:1:3r=3#	✓	Normal	Activity "%1\$s" concerning "%5\$s" received from %2\$s on %	[SELECTION "New Activity Received" XSL transf	⌵	All Except the Current User	Send if Requested by Recipient
3 Activity Was Taken Over		233 [SELECTION "%COO#F] 234 [DLTHE 235; 235 [COOP#;1:1:3r=3#	✓	Normal	Activity "%1\$s" concerning "%5\$s" was taken over by %2\$s o	[SELECTION "Activity taken over" XSL transform	⌵	All Except the Current User	Send if Requested by Recipient
4 Process Suspended		235 [SELECTION "%COO#F] 236 [DLTHE 237; 237 [COOP#;1:1:3r=3#	✓	Normal	Process concerning "%5\$s" was suspended by %2\$s on %3\$	[SELECTION "Process suspended" XSL transform	⌵	Responsible for Process	Send if Requested by Recipient
5 Process Terminated		237 [SELECTION "%COO#F] 238 [DLTHE 239; 239 [COOP#;1:1:3r=3#	✓	Normal	Process concerning "%5\$s" was terminated by %2\$s on %3\$	[SELECTION "Process terminated" XSL transform	⌵	Responsible for Process	Send if Requested by Recipient
6 New Activity Received (Substitution)		239 [SELECTION "%COO#F] 240 [DLTHE 241; 241 [COOP#;1:1:3r=3#	✓	Normal	Activity "%1\$s" concerning "%5\$s" received from %2\$s on %	[SELECTION "New Activity Received" XSL transf	⌵	All Except the Current User	Send if Requested by Recipient
7 Substitution Enabled		241 [SELECTION "%COO#F] 242 [DLTHE 243; 243 [COOP#;1:1:3r=3#	✓	Normal	You have been defined as the substitute of %1\$s. Due to the	[SELECTION "Substitution Enabled" XSL transfo	⌵	Only the Current User	Send if Requested by Recipient

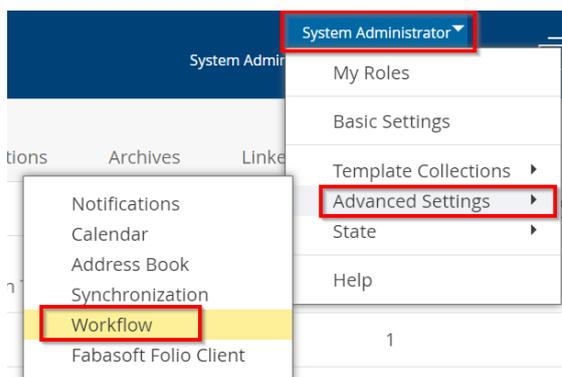
### 30.2.7 7 Check the user's notification setting

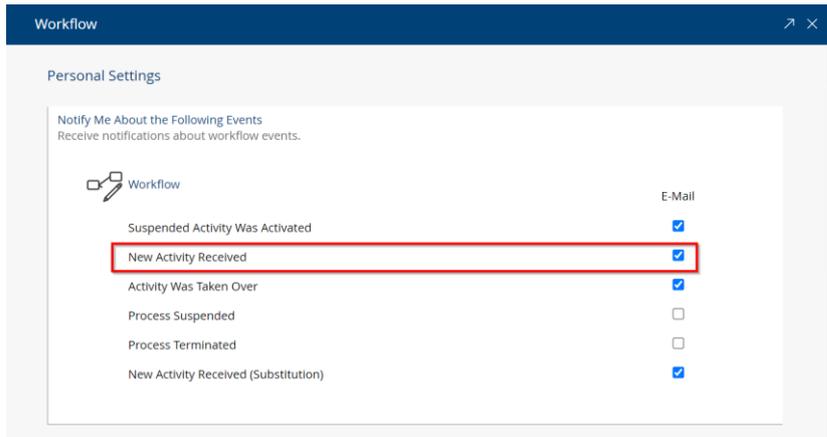
The user can define what notifications should be received.

At the user's dropdown, open *Advanced Settings / Workflow*.

In the appearing overlay, set the notifications that should be received (e.g. "New Activity Received").

Hint about mistaking: The setting *Advanced Settings / Notifications* is not the configuration of email notifications in Workflow.





## 31 How to configure Work Steps available in the Fabasoft Mobile App

First published: 26 May 2023 (cw)

### 31.1 Summary

Not all Work Steps are useful in the Mobile app, therefore they are filtered by Fabasoft eGov-Suite default settings. With the current CP it is possible to enable individual Work Steps for the Mobile app.

### 31.2 Solution

#### Main Customization Point

Currently, only Work Steps with an Action (`COOWF@1.1:wfwaction`) may be used within the Fabasoft Mobile App. Each desired Action must be configured via `customize`

```
CPCContextExpressions<COOWF@1.1:ActivityInstance,
COOELAK@1.1001:FilterMobileWorkItems>.
```

#### Example

```
customize CPCContextExpressions<COOWF@1.1:ActivityInstance,
COOELAK@1.1001:FilterMobileWorkItems> {
    cfgexpression = expression {
        [
            #COOELAK@1.1001:SignAcceptDraft,
            #COOELAK@1.1001:SignDenyDraft,
            #COOELAK@1.1001:SignApproved,
            #COOELAK@1.1001:SignDenyApproval,
            #COOELAK@1.1001:SignViewed
        ]
    }
}
```

Additionally, take note of the following issues

(1) Ensure to define (appropriate) Work Step Symbols for your Work Steps, because these Symbols are displayed in the Mobile App.

Example

```
activity ... {  
    ...  
    step Agree leave {  
        caption = FSCWFEXT@15.1001:StrWSApprove;  
        execute = COOELAK@1.1001:SignApproved;  
        symbol = COODESK@1.1:UISymbolClosed;  
    }  
    ...  
}
```

A missing Symbol Definition or the usage of the Fallback Symbol `COODESK@1.1:SymbolNext` leads to a confusing multiple Display of this Symbol in the Fabasoft Mobile App.

(2) Currently, also the first Development Approach for Executing Work Steps on the Fabasoft Mobile App still exists: Via Customization Point *CPMobileAppMapping* (Workflow Web Service Configuration) it was/is possible to define a Replacement for a Virtual Application Work Step to be executed within the Fabasoft Mobile App.

As long as `FSCMOBILEAPPS@1.1001:cpusevappsonmobileclientsusevappsonmobile` is set to true within the current „Mobile Apps Configuration“, Virtual Applications can directly be executed within the Fabasoft Mobile App and a *CPMobileAppMapping* is not necessary.

Especially for Signature Wrapper Actions just like `COOELAK@1.1001:SignApproved` there should be no *CPMobileAppMapping* for `COOELAK@1.1001:ObjectSignObjects`.

## 32 Setting the MAX\_IN\_CLAUSE, MAX\_OR\_CLAUSE and MAX\_JOINS parameters

First published: 28 April 2023 (*cf*)

### 32.1 Summary

The Fabasoft COO-Services uses IN clauses, OR clauses and JOINS in their SQL queries to request data from the database. This is used to collect the data of objects from the different data tables, and to apply filters for database queries.

These parameters set a limit of maximum IN, OR and JOIN clauses. In some situations, the database system is not capable of using that many IN, OR or JOIN combinations, so it is possible to adjust Fabasoft default values.

You only should adjust the parameters if your database produces errors because of that queries, or in coordination with Fabasoft.

### 32.2 Information

The parameters are set as database parameters in the Fabasoft Folio COO Service object.

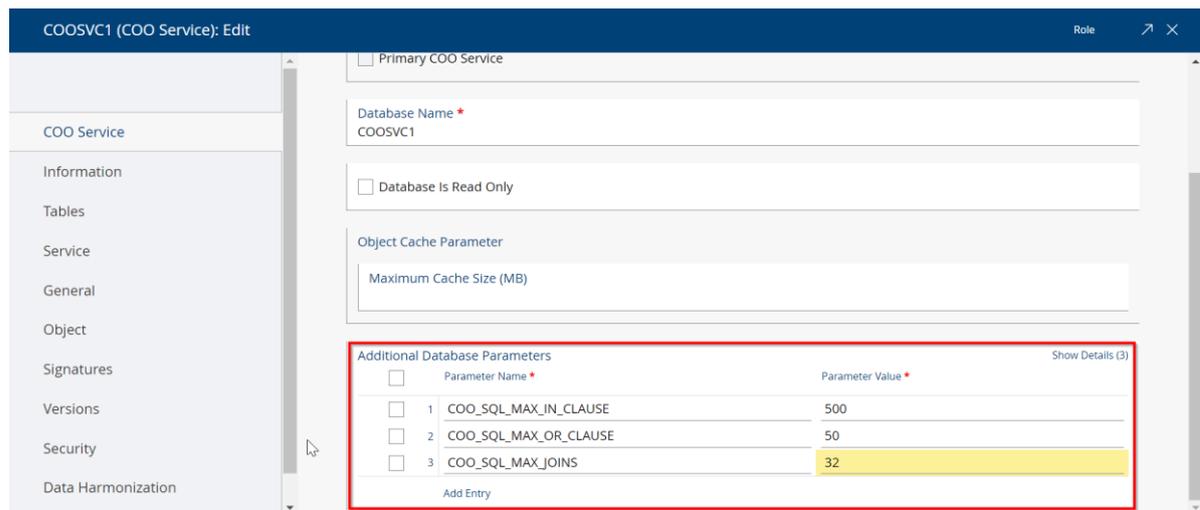
The parameters and default values are:

Parameter	Default value
-----------	---------------

COO_SQL_MAX_IN_CLAUSE	500
COO_SQL_MAX_OR_CLAUSE	50
COO_SQL_MAX_JOINS	32

These parameters are used as default, if no parameter is set in the COO Service object.

### 32.3 Solution



If you want to set one of the parameters, navigate to the Domain Administration / Services tab.

- Edit the COO Service object
- Add the required parameter to the "Additional Database Parameters" property.
- Save the object.
- Repeat this for every COO Service you want to adjust.
- After changing the parameters, open the Fabasoft Server Management, navigate to the domain and run "Synchronize Registry".
- **This will restart your Fabasoft Folio Backendservices. This should be done in a planned downtime.**

Keep in mind, that changing one value has direct impact to the other type of query. For example, reducing the IN clauses will cause the COO Service to create queries with more OR clauses, and vice versa. Therefore, reducing all parameters may lead to query errors, as the queries cannot fulfill the requirements.

## 33 Explanation of Digital Code Signatures in Microsoft Windows

Last update: 20 April 2023 (gs)

### 33.1 What is the purpose of digital code signatures?

A digital code signature, or code signature for short, validates that a program file has been published by a specific developer and has not been changed since then by providing the following information:

- A hash of the program files content, signed with the developers Code Signing Certificate.
- A Code Signing Certificate for the developer or publisher of an application, issued and signed by a Certificate Authority (CA), that is trusted by the operating system.

- A countersignature proving that the signing of the file occurred at a specific time and date, also issued and signed by a trusted Certificate Authority (CA).

### 33.2 What is the purpose of the countersignature?

The attached countersignature verifies that the signing of the program file occurred at a specific time and date with a specific code signing certificate, that way it is possible to verify that a code signature was created with a valid code signing certificate.

This is achieved by signing the following information with a time stamping certificate from a trusted Certificate Authority (CA):

- The timestamp of the creation of the countersignature from the CA server that is issuing this signature, to prove that the CA received the counter signing request at a specific point in time.
- The actual signature value, so the hash signed by the code signing certificate, of the program file in question, which links the countersignature to a specific program file and code signing certificate.

### 33.3 Why do existing code signatures not expire when the code signing certificate does?

Because of the countersignature by a trusted Certificate Authority (CA), the operating system is able to validate that the code signing certificate used to sign the program file was valid at the time of the creation of the signature.

Furthermore the intended purpose of the expiration of the code signing certificate, is still observed, since it still enforces a relatively small period of validity for any given signature key, as a precaution in case of theft of that key.

### 33.4 Why is it not necessary to re-issue a code signature after the code signing certificate expires?

The purpose of expiration dates on certificates is to reduce the usefulness of any potentially stolen signing key, by forcing the thief to show their hand early, before the stolen key becomes useless.

This rotation of keys is very important for things like webservices because they continually issue new signatures potentially every few microseconds, without any way to verify if the signing key is still only in the possession of the service provider at that time.

But the countersignature on a code signature proves exactly that point, even if a thief gains access to a code signing certificate after it has expired, they can't forge or modify an existing code signature because of the following properties:

- Trying to change the file itself would invalidate the existing signature, so the thief would have to create a new one with the stolen certificate.
- Modifying the existing signature or using a different certificate, invalidates the countersignature since the signature value is no longer the same as the one that was signed, so the thief would have to get a new countersignature.
- But since the new countersignature contains a timestamp, that is beyond the control of the thief, from a time after the certificate expires, the newly created signature with a valid countersignature is useless, since the certificate was already expired when it was created.

### 33.5 References

- [Time Stamping Authenticode Signatures \(Microsoft Learn\)](#)

## 34 Performance optimizations for Microsoft SQL Server

First published: 2018 (*cf*)

Last update: 7 April 2023 (*cf*)

### 34.1 Summary

This article describes the optimization settings for Microsoft SQL Server when used in conjunction with Fabasoft Folio/Fabasoft eGov-Suite installations.

The settings described in this article were determined in collaboration with Microsoft and customers using Fabasoft Folio.

Warning: The settings described in this article are designed to benefit Fabasoft Folio databases, if any other databases are hosted on the database server please double check the effect of these settings on these databases.

Warning: Experience with Microsoft SQL Server and understanding of Microsoft SQL Server settings is required for these changes.

### 34.2 Information

Please see the corresponding Microsoft articles for further information about the settings. The settings are be thought as suggestions that need to be tested individually for your environment.

### 34.3 Solution

In this section you will find all the settings that may be changed in order to improve the Fabasoft Folio databases performance.

#### 34.3.1 Statistics

The default behaviour of SQL Server is to only create statistics for the first index column. In Fabasoft Folio's atval tables (e.g. atstrval), Fabasoft Folio uses clustered indexes with four columns. Because SQL Server has no statistics for indexed columns 2 to 4, the execution plans are not optimal.

By executing `sp_createstats` with parameter `'indexonly'`, all columns of the index are considered for the statistics.

By executing `sp_createstats` with parameter `'fullscan'`, statistics are recomputed with the full set of data (not only a sample set of data).

Run `sp_createstats` every time you create or modify indexes (also when creating new Fabasoft Folio COO-Services and using table definitions). The settings are saved at the indexes.

Run `sp_updatestats` on a regular basis. Consider, that `sp_updatestats` can run several minutes on large databases.

```
sp_createstats 'indexonly','fullscan'
```

```
sp_updatestats
```

#### 34.3.2 Isolation Mode

In the following situation:

- In one transaction data is updated and/or inserted. For this transaction the table is locked by the SQL Server.

- In a second transaction (e.g. another user) runs a SELECT to this table, querying data.

As per default the SQL Server will halt the execution of the SELECT statement, waiting for the COMMIT of the UPDATE/INSERT statement, and present the new data to the SELECT statement. Using the settings below you can influence this behavior, when set the SQL Server will copy the old data to a session tempdb table ("snapshot"), issue the UPDATE/INSERT on this tempdb table and commit them to the main table.

During the running UPDATE/INSERT transaction, the SELECT statement can directly read the old values without delay.

With this optimization you can improve the overall Fabasoft Folio performance, but the snapshot isolation mode will raise the usage and size of tempdb.

For details see:

- [http://msdn.microsoft.com/en-us/library/ms189050\(SQL.90\).aspx](http://msdn.microsoft.com/en-us/library/ms189050(SQL.90).aspx)

Warning: The Fabasoft Folio COO-Services may need to be stopped for changing the isolation mode.

Change the Isolation Mode of each Fabasoft Folio database to "Read Committed Snapshot"

```
ALTER DATABASE SET ALLOW_SNAPSHOT_ISOLATION ON
ALTER DATABASE SET READ_COMMITTED_SNAPSHOT ON
```

### 34.3.3 Optimize for Ad hoc Workloads

Fabasoft Folio uses a generic database model, therefore many different queries are generated by the Fabasoft Folio query engine. SQL Server's default behavior is to cache all the execution plans of used queries. Because of the varieties of queries, SQL Server uses a big amount of memory to save execution plans that are never used again. By optimizing SQL Server for Ad hoc workloads, SQL Server reduces the number of execution plans stored in memory, releasing memory for other caches.

For details see:

- <http://msdn.microsoft.com/en-us/library/cc645587.aspx>
- <http://blogs.technet.com/b/josebda/archive/2009/03/19/optimize-for-ad-hoc-workloads-in-sql-server-2008.aspx>

```
SP_CONFIGURE 'show advanced options',1
RECONFIGURE
GO
SP_CONFIGURE 'optimize for ad hoc workloads',1
RECONFIGURE
GO
```

### 34.3.4 Parameterization Forced

With forced parameterization Microsoft SQL Server will automatically create parametered queries from plain queries. Query plans of parameterized queries can be reused, optimizing query performance for similar queries.

Important: Please verify the database performance especially after setting this parameter because of different timing results at our customers.

For details see:

- <http://technet.microsoft.com/en-us/library/ms175037.aspx>

Change the Parameterization Mode of each Fabasoft Folio database to FORCED

```
ALTER DATABASE SET PARAMETERIZATION FORCED WITH NO_WAIT
```

### 34.3.5 Trace Flags

Microsoft SQL Server can detect when the leading column of a statistics object is ascending and can mark it as ascending. A statistics object that belongs to an ascending column is branded as „ascending“ after three updates on the statistics. Fabasoft Folio uses the ascending objid in all indexes. Microsoft SQL Server usually will detect the ascending behaviour of this column (after at least 3 times of updating the statistics).

To check if the detection worked, run:

```
DBCC TRACEON(2388);
```

```
DBCC SHOW_STATISTICS(, )
```

```
Example: DBCC SHOW_STATISTICS(coobject, coobjectIX)
```

"Leading column Type" should be "Ascending".

If the Leading column Type is not Ascending for indexes with objid as primary column, and you have updated statistics in a regular basis, you can force quick updating statistics before every query run. This may improve performance for several queries, but can also decrease the overall performance since statistics will always be updated.

Warning: Use these trace flags only if your database engine did not detect the ascending behaviour of objid.

Set these Trace-flags:

- Trace-flag 2389
- Trace-flag 2390

For details see:

- <http://blogs.msdn.com/b/ianjo/archive/2006/04/24/582227.aspx>

### 34.3.6 Applies to

- Microsoft SQL Server
- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)

## 35 Error message "Could not execute query" when using full text queries in Folio metadata search

First published: 10 March 2023 (ck)

## 35.1 Summary

Some full-text searches from Folio search may result in the following error:

*Your full-text query results in the following error message: "Could not execute query (Could not parse response)".*

This occurs especially when searching for full text content of documents. Exact identification of the behavior: A search for "ALL" in this field would yield correct results.

## 35.2 Solution

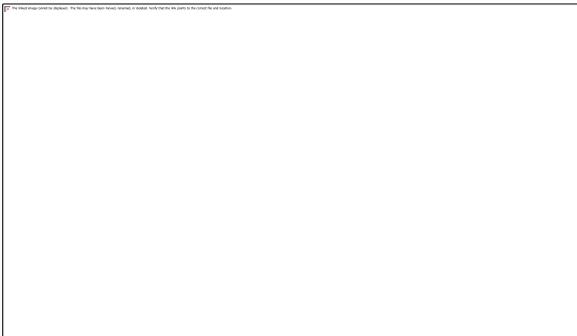
In this case you can disable the option *"Enable Unparsed Term Series to Terms Transformer"* in the advanced Index properties on the Mindbreeze Configuration Page as a workaround, then the search will work correctly again.

## 36 OpenSSL Error "could not parse PKCS12 file, check password"

Last update: 02 February 2023 (*ck, gs, cf*)

### 36.1 Summary

The supported encryption algorithms for PKCS12 certificates have been updated in Fabasoft Folio/eGov-Suite from 2023, which can lead to the following error message when a https call is done by the Folio Kernel, e.g. for a Mindbreeze Enterprise Search, or calls to a business application.



### 36.2 Solution

The error is due to the library upgrade to the more recent OpenSSL 3, which dropped support for certain cryptographic primitives commonly used in older certificates.

In the case that a specific certificate is rejected, you can check the algorithms used in the certificate file with the following command:

```
openssl pkcs12 -info -nokeys -nocerts -in client.p12
```

A typical algorithm no longer supported would be `pbeWithSHA1And40BitRC2-CBC`, the output would look like this (NOK):

```
MAC: sha1, Iteration 2048
MAC length: 20, salt length: 8
PKCS7 Encrypted data: pbeWithSHA1And40BitRC2-CBC, Iteration 2048
Certificate bag
PKCS7 Data
Shrouded Keybag: pbeWithSHA1And3-KeyTripleDES-CBC, Iteration 2048
```

The latest default algorithm would be `Openssl AES-256-CBC` looking like this (OK):

```
MAC: sha1, Iteration 2048
MAC length: 20, salt length: 8
PKCS7 Encrypted data: PBES2, PBKDF2, AES-256-CBC, Iteration 2048, PRF
hmacWithSHA256
Certificate bag
PKCS7 Data
Shrouded Keybag: PBES2, PBKDF2, AES-256-CBC, Iteration 2048, PRF hmacWithSHA256
```

An old pkcs12 certificate can be brought up-to-date by exporting all parts of the certificate and re-encrypting and repackaging the file, with modern encryptions settings.

An example:

```
openssl pkcs12 -nokeys -in client.p12 > certs.pem
openssl pkcs12 -nocerts -in client.p12 > keys.pem
openssl pkcs12 -in certs.pem -inkey keys.pem -export -out client_new.p12 -certpbe
aes-256-cbc -keypbe aes-256-cbc
```

### 36.3 Details

- The affected certificates may be the certificates loaded in the Fabasoft Folio/Fabasoft eGov-Suite installation (e.g. in the Mindbreeze Indexing Service object).
- The affected certificates may also be located on the other side, e.g. the HTTPS certificate of your business application server that interacts with Fabasoft Folio/Fabasoft eGov-Suite, if it is still using SHA-1.
- The Windows Certificate Export wizard may offer *TripleDES-SHA1* as a default encryption, which is not compatible to OpenSSL 3. Select the AES256-SHA256 encryption instead.

#### 36.3.1 Applies to

- Fabasoft Folio 2023 and above
- Fabasoft eGov-Suite 2023 and above

## 37 Internet Explorer 11 retirement information

Last update: 02 February 2023 (*cf*)

### 37.1 Summary

Microsoft announced several dates in the year 2023 of automatic disabling of Internet Explorer 11 functionality in MSIE 11 Desktop App Retirement FAQ.

If your organisation still uses Microsoft Internet Explorer 11, please see this Microsoft article:

<https://techcommunity.microsoft.com/t5/windows-it-pro-blog/internet-explorer-11-desktop-app-retirement-faq/ba-p/2366549>

Please also consider Fabasoft's Software Product Information (SPI) remark about support lifetime of third-party products:

*A certain version of a third-party product integrated into any Fabasoft software product is supported by Fabasoft as long as the software product itself is supported by the third-party itself. For instance, a particular version of an integrated Microsoft software product is only supported by Fabasoft until the date on which the Microsoft "Extended Support Phase" for this product version ends.*

#### 37.1.1 Applies to

- All Fabasoft Folio/eGov-Suite versions that had supported Microsoft Internet Explorer

## 38 Large database transaction log backups with Fabasoft COLD Loader

Last update: 01 February 2023 (cf)

### 38.1 Summary

Using Fabasoft COLD Loader can lead to large transaction log / redo log backups in the database. The reason might not be the imported data, but the Log object of the import. The Log object also may lead to slow imports.

### 38.2 Solution

Check the following object classes for the configured logging options:

- Data Import Control objects (class FSCCOLD@1.1001:DataImportControl)
- Data Import objects (class FSCCOLD@1.1001:DataImport)
- Data Import (Component Object) objects (class FSCCOLD@1.1001:DataImportComponentObject)

Check the Logging Mode set at these objects. If currently set to Full Log, change this to No Log or Log Errors.

Furthermore, check the size of the current Log Object and preferably you unlink the current Log object (the next run will create a new object).

The screenshot shows the configuration window for a Data Import Control object. The 'Logging Mode' is currently set to 'Full Log' and the 'Log Object' is 'FSCFOLIOIMPORT@1.1001:Import51Case Log'. A red box highlights these two settings. Other settings include 'Data Source Type', 'Data Source', 'Data Source Object', 'Table', 'Number of Records for Commit' (set to 'At Least'), 'Number of Threads', 'First Record', and 'Number of Records to Be Read'. The 'Maximum Number of Entries in Log' is also visible. At the bottom, there are 'Cancel', 'Apply', and 'Next' buttons.

### 38.3 Details

The Log object stores every run in an aggregate list entry. Every list entry contains the imported objects amount and, furthermore the textual logfile. The list entry of a running import (e.g. "x

Objects refreshed”) is updated and committed on the fly during the import, therefore every created/updated/failed entry reinduces a database commit. As the internal management of the aggregate requires a full database write of the aggregate, the required update statements to manage the log are considerable.

This exponentially increase of database updates for the log object increases the transaction log backup size of the database. Also, these updates require more and more time, that slows down the import.

Therefore, if no import log is required, best option is to disable logging by setting the No Log option, or – if required - the Log Errors option.

## 39 LAST UPDATED IN 2022

## 40 Trusted for delegation and Service Principal Names

First published: 2018 (*cf*)

Last update: 07 December 2022 (*cf*)

This is an overview of the Windows Active Directory features *Service Principal Name* and *Trusted for Delegation* to clarify the background and difference of this features, and their need in a Fabasoft Folio environment.

### 40.1 Service Principal Name

A *Service Principal Name* (SPN) in a Windows Active Directory environment assigns the right to host a service class (for example HTTP) on a defined hostname in the network. Service Principal Names are required for successful Kerberos authentication.

Defining an SPN for the Fabasoft Folio Web service user means that the Web service user gets permission from Active Directory to host a web service under the assigned hostname.

For example:

A user tries to access the Fabasoft Folio Web service under <http://folio.mydomain.com/fsc>.

The Folio Web service, in our example running under the AD user mydomain\folioweb, requests Kerberos verification for the user at the AD domain controller. If no SPN is set, AD will deny the authentication request, because the Web service user folioweb itself has no permission to host a web service on the server (hostname) folio.mydomain.com.

To permit hosting the web service, an SPN has to be set for the user folioweb, with hostname folio.mydomain.com.

Find detailed information about setting SPNs in the KB articles

- Set SPN to use Kerberos authentication
- Usage of ADERPC-SPNs in modern versions of Microsoft Windows Server

Summary:

- Set a Service Principal Name to the service user for every hostname users should access.
- This is at least necessary for the hostname of the Load Balancer users should access, or (if no Load Balancer is in use) for the hostnames of the web server users should directly access
- To access the Mindbreeze Client Webservice, also SPNs are required.
- For easier administration, we recommend to set SPNs for every webservice and conversion service, both hostnames only and Full Qualified Host Name (FQDN).

- It is not allowed to set the *same* hostname for *different* users. Active Directory (Kerberos) will block all authentication requests to these hostnames.

## 40.2 Trusted for delegation

The *Trusted for Delegation* right on a user account in Active Directory enables that service user to act as any user that has authenticated against the service.

For example:

You have set Trusted for Delegation on the Fabasoft Folio Web service user mydomain\folioweb (this is not recommended!).

If a user mydomain\huber uploads a file to the Fabasoft Folio Webclient, the Fabasoft Folio webservice can use the user's context to temporarily save the file in the DOCDIR directory, before it is uploaded to the Backend servers. This file is created as owner mydomain\huber. If Mister Huber has no permissions to create a file in the DOCDIR directory, the Fabasoft Folio Web service will fail.

Without Trusted for Delegation the file will be stored in the context of the Folio Web service user mydomain\folioweb. Only that user needs permission to the DOCDIR directory.

Summary:

- Fabasoft Folio Web services do not need Trusted for Delegation permission.
- Optionally (and normally not used at our customers), it is possible to use Kerberos authentication between Folio Web services and Folio Conversion services - in that case, Trusted for Delegation needs to be set at the Conversion service user. Without this permission, Basic Authentication is used between Web and Conversion services. See the Folio Installation White Paper for details of enabling Kerberos authentication.
- For a Mindbreeze Client Web service, Trust for Delegation is required and set during the Mindbreeze Setup. See the Mindbreeze Installation White Paper for details.

## 41 Unexpected error messages regarding an update of the Fabasoft Folio Browser Extension (Chromium Issue 1338586)

Last update: 29 June 2022 (*gs*)

### 41.1 Summary

While working with a Chromium based Browser, like Google Chrome or Microsoft Edge, the error message "The web browser extension was updated. To continue, you must reload the web browser page (e.g. by pressing the F5 key)." is displayed even though no changes to the browser extensions or the local installation of the Fabasoft Folio Client have been performed, in this situation certain operations like opening documents or copying objects to the clipboard will no longer work and repeatedly trigger these error messages.

### 41.2 Information

The cause of these messages is a problem introduced in Chromium 103 where extensions that were installed via Group Policies, by using the ExtensionInstallForceList setting, will be re-installed every time Microsoft Windows refreshes the Group Policies, which by default is every 4 hours.

This issue has been recorded as [Issue 1338586](#) for the Chromium project and was introduced with Chromium 103 and according to the currently available information should be fixed with Chromium 104.

## 41.3 Solution

The currently only available method to address the issue is to downgrade Google Chrome and Microsoft Edge to the previous not affected release version 102 and to wait for the release of version 104 which should include a fix for this issue.

### 41.3.1 Last known unaffected browser versions

- Google Chrome 102.0.5005.61
- Microsoft Edge 102.0.1246.50

## 41.4 Applies to

- Fabasoft Folio 2016 and newer
- Fabasoft eGov-Suite 2016 and newer

## 42 Touch files in Windows (update Timestamp)

Last update: 25 October 2022 (*cf*)

### 42.1 Summary

Sometimes it is necessary to update a files timestamp without changing the content (e.g. replacing a .dll file).

This operation is called "touching" and there is even a command called touch for use on Linux systems.

There are multiple ways to accomplish this operation in Microsoft Windows, but the easiest one is using the copy command.

### 42.2 Solution

Use the following syntax in any Windows shell to update the timestamp of a file to the current system time:

```
copy /b filename.ext +,,
```

`/b` is the parameter for binary mode.

`filename.ext` must be replaced with the name of the file to be touched.

The `+` is used to merge files. When used as shown above this means *source = destination*.

### 42.3 Information

For further information visit the copy command-line reference: <http://technet.microsoft.com/en-us/library/bb490886.aspx>

#### Why is this necessary?

Fabasoft Folio uses an "automatic update feature" on the Kernel-based servers (Web server, Conversion server etc.) called "Bootstrap". During the Bootstrap the server checks if newer files (for example DLLs to execute the Fabasoft Folio Kernel) are located in your Fabasoft Folio domain. If files in the domain are newer then at the local system, these new files are copied from the Backend server to the local server.

One situation you possibly need to touch a file is, if you try to create a Kernel trace and you need to overwrite the original dll with a trace dll provided by Fabasoft. The "Bootstrap" may detect that the trace dll is older than the original one, and overwrites the trace dll. The original dll will not trace and the recorded trace will stay nearly empty (no tracing output).

## 43 No automatic object locks

Last update: 21 October 2022 (*cf*)

### 43.1 Information

From Fabasoft Folio 2016, changes of objects always require an object lock by the method COOSYSTEM:ObjectLock. Changing of an object without lock will fail with an error.

### 43.2 Details

In versions earlier to Folio 2016, the Fabasoft Folio Kernel applied an automatic lock when changing attributes without locking. This led to an information in the log „Automatic lock for object ... set“ if the automatic lock was successful, or a warning „Automatic lock for object ... failed“ in case the automatic lock failed (e.g. when the object is already locked by another user).

The automatic locking feature was removed in Folio 2016 as this could lead to unexpected or unwanted behavior, especially in cases of an automatic lock failed, the current transaction was not aborted, meaning that the changes got committed even though the object might be locked by another user.

Therefore with Fabasoft Folio 2016 and above, explicit locking is absolutely essential before changing any object properties programmatically.

Changing objects without lock will fail with an error.

## 44 Availability of a Universal Web Browser Extension for Google Chrome and Microsoft Edge

Last update: 3 August 2022 (*cf*)

### 44.1 Summary

Please note: Fabasoft eGov-Suite uses the underlying technology of Fabasoft Folio, therefore web browser extension and client parts are named Fabasoft Folio, but applies also to Fabasoft eGov-Suite.

The Fabasoft Folio Client and Fabasoft Folio extension both are required to open and edit documents in a Fabasoft Folio and Fabasoft eGov-Suite environment. The Fabasoft Folio web browser extension is required to communicate to the Fabasoft Folio Client.

Fabasoft has introduced an universal, multi-version web browser extension for Google Chrome and Microsoft Edge. This universal web browser extension supports multiple major versions of Fabasoft Folio / Fabasoft eGov-Suite simultaneously, therefore a release update of the Fabasoft Folio / Fabasoft eGov-Suite domain does not require to update the Fabasoft Folio web browser extension anymore. (The Fabasoft Folio Client still needs to be installed for each Folio / eGov-Suite version).

### 44.2 Information

Due to policy-changes in Google Chrome Web Store (and Microsoft Edge Add-ons) there is a risk that Google/Microsoft may remove and disable the version-based Fabasoft Folio web browser extensions ("Fabasoft Folio 2017", "Fabasoft Folio 2020", et cetera). Fabasoft currently cannot

predict if Google or Microsoft will execute this new policies that would lead to an automatic removal of that Fabasoft Folio extensions from your installed clients.

For this reason, Fabasoft introduced an universal Fabasoft Folio web browser extension for Google Chrome and Microsoft Edge, called "Fabasoft Client". This extension will universally work together with Fabasoft Folio Clients of all Fabasoft Folio versions.

The introduction of the universal Fabasoft Folio web browser extension required the enhancement of the Fabasoft Folio Client that was also backported to older Fabasoft Folio versions, and also required adjustment in the Folio Domain components.

Therefore, there are dependencies between

- Folio web browser extension (Chrome/Edge)
- Fabasoft Folio Client
- Fabasoft Domain (software components)

## 44.3 Dependencies

### 44.3.1 Fabasoft Folio web browser extension ("Fabasoft Client")

The universal Fabasoft Folio web browser extension ("Fabasoft Client extension") for Google Chrome is available in the stores:

Google Chrome Web Store: <https://chrome.google.com/webstore/detail/fabasoft-client/alcqpfqkdjbabelklflpfkooadcfgoao>

Microsoft Edge Add-Ons Store: <https://microsoftedge.microsoft.com/addons/detail/fabasoft-client/fabncpfbjhdplfapghonnbhnenohncpp?hl=en-US>

The traditional version-based extensions ("Fabasoft Folio 2016", "Fabasoft Folio 2017",...) can be installed in parallel with the universal extension ("Fabasoft Client").

### 44.3.2 Fabasoft Folio Client and Domain software component versions

For the universal extension to work, changes were required both in the Fabasoft Folio Client (installed on the clients) and the server-side Domain components.

The following matrix shows the Fabasoft Folio Client and Domain components build numbers for different Folio versions that work with the version-based extension and the universal extension:

Fabasoft Folio version	Fabasoft Folio Client and Domain components with old version-based extension	Fabasoft Folio Client and Domain components with new universal extension
<b>Fabasoft Folio 2021 Update Rollup 1</b> <b>Fabasoft eGov-Suite Update Rollup 1</b>	not available anymore	shipped with Release (no action required)
<b>Fabasoft Folio 2020 Update Rollup 5</b> <b>Fabasoft eGov-Suite 2020 Update Rollup 5</b>	Builds up to 20.1.5.49 (FSCVAPP, FSCSCM up to 20.1.5.48)	Builds from 20.1.5.50 (FSCVAPP, FSCSCM from 20.1.5.49)

<b>Fabasoft Folio 2019 Update Rollup 3 Fabasoft eGov-Suite 2019 Update Rollup 3</b>	Builds up to 19.2.3.230 (FSCVAPP, FSCSCM up to 19.2.3.126)	Builds from 19.2.3.231 (FSCVAPP, FSCSCM from 19.2.3.127)
<b>Fabasoft Folio 2017 R1 Update Rollup 7</b>	Builds up to 17.4.7.7 (FSCVAPP up to 17.4.7.7)	Builds from 17.4.7.9 (FSCVAPP from 17.4.7.9)
<b>Fabasoft Folio 2017 R1 Fabasoft eGov-Suite 2017 R1</b>	Builds up to 17.4.0.68 (FSCVAPP up to 17.4.0.68)	Builds from 17.4.0.70 (FSCVAPP from 17.4.0.70)
<b>Fabasoft Folio 2016 Update Rollup 7 Fabasoft eGov-Suite 2016 Update Rollup 7</b>	Builds up to 16.0.11.80 (FSCVAPP up to 16.0.11.80)	Builds from 16.0.11.81 (FSCVAPP from 16.0.11.81)

- All major releases and Update Rollup versions below the mentioned versions use the old, version-based extension, and cannot work with the universal extension.
- All major releases and Update Rollup versions higher than the mentioned versions use the new, universal extension.
- Keep in mind, that it is possible to install both the version-based extension and the universal extension to have most compatibility.

Both the Fabasoft Folio Client and the Domain components are available as hotfix package at Fabasoft Enterprise Support. To request this package, please open a Support Ticket including your exact Fabasoft Folio version.

#### 44.3.3 Recommended migration path

For a fluent migration to the universal web browser extension, Fabasoft recommends this sequence:

- Request the hotfix package via a Fabasoft Enterprise Support Ticket
- Update your clients to the latest Fabasoft Folio Client of your proper Folio version. The updated Fabasoft Folio Client supports both the new universal web browser extension as well as the old version-based web browser extension.
- Update your Fabasoft Folio Domain components to a version including universal extension support.
- Install the "Fabasoft Client" web browser extension in your clients Google Chrome / Microsoft Edge browsers.
- Remove the old version-based web browser extension.

#### 44.4 Information Regarding the Deprecation of Manifest V2 Extensions

Both Google and Microsoft have announced that they will no longer support Manifest V2 browser extensions in their browsers starting in 2023, for more information about this change and how it applies to the Fabasoft Client extensions please refer to Important Information Regarding the Deprecation of Manifest V2 Extensions in Chromium Based Browsers.

## 44.5 Information about Firefox extension

The universal Firefox web browser extension and Fabasoft Folio Client is included from within Fabasoft Folio/eGov-Suite 2021 Update Rollup 1. As Firefox extensions are not managed by Google/Microsoft stores but locally, there is no risk that the old extension will be removed from the stores and your clients. Therefore, the universal Firefox web browser extension is not backported to older Fabasoft Folio/eGov-Suite versions.

So no action is required when using Firefox web browser.

## 45 Creating a component trace

Last update: 3 March 2022

### 45.1 Preliminary Remarks

Please keep in mind, on what servers tracing takes place when you enable tracing in a Software Component, or you install a tracing library.

#### 45.1.1 Enabling Trace in a Software Component

For enabling a Component trace via the Software Component "Trace" flags, no special library is required or needs to be replaced. This tracing functionality is built into the shipped Software Components.

If you enable the Trace flags in one or more Software Components, this leads to:

- The Kernel instance used, where you actively have enabled the Trace flag, immediately begins to trace.
- Every other Kernel instance, on that server and on all other servers, starts to trace not until you restart that Kernel instances.

Therefore, to directly start tracing of a use case, enable the Trace flags and run the use case on the same Kernel instance as you have activated the Trace flags. Other Kernel instances will recognize the Trace flags not until Kernel restart. Especially using Load Balancers will require you to connect directly to a webserver and run the use case on that server, otherwise the user might be on another Kernel instance.

Don't forget to disable the Trace flags after tracing is finished, otherwise with next Kernel restart all servers will start to trace.

#### 45.1.2 Tracing with provided tracing libraries

In some situations, when a Software Component trace does not include the required information, Fabasoft's Engineering can create a special tracing library that includes more trace information. In that case, the original (shipped) library needs to be replaced by the tracing library for the duration of the trace recording.

When copying the tracing library to the appropriate Folio directory, it requires to stop and later restart the Kernel instances on that server. After installing the trace library, all Kernel instances of that server will trace with the tracing library.

Therefore, don't forget to restore the original library after trace recording, and restart the Kernel instances thereafter.

#### 45.1.3 Tracing performance

Enabling Component traces impacts the performance, dependent to the volume the Software Component is used and trace code is implemented. This performance impact is independent to the

fact if tracer / tracer.exe is running or not. The tracer binary is only an instrument to collect the traces and has no influence if traces are sent or not.

Therefore, don't forget to disable the Trace flags in the Software Components, and to restore the original library/libraries after you have finished the trace recording.

## 45.2 Microsoft Windows

This article describes the steps necessary to trace activities of Fabasoft Folio components. This includes for instance tracing versions of libraries as fscvapp.dll, fscvport.dll or simply activating certain settings in a running kernel instance.

### 45.2.1 Fabasoft Tracer

In order to capture the trace messages from the Kernel the Fabasoft Tracer tracer.exe has to be started, for more information about the usage please see Fabasoft Tracer.

### 45.2.2 Creating the Trace

If the instructions from the Service Desk Ticket include a trace version of a certain library, please make sure to follow any additional steps for replacing the library, as provided by the support engineer.

To create the trace the following steps have to be performed:

- Open the properties of the software component, or components, that should be traced.
- In the software component activate the settings "Trace Calls", "Trace Errors" and "Trace Expressions" at the bottom of the first page, and commit these changes.

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- Prepare the steps necessary to reproduce the problem.
- Start the Fabasoft Tracer.
- Try to reproduce the problem.
- When the problem occurs, save the tracer output to a file using the menu "File->Save".
- Deactivate the settings "Trace Calls", "Trace Errors" and "Trace Expressions" inside the component.
- Upload the trace file to the Fabasoft Support Service Desk.

Please ensure that only trace message information from process, thread and module are recorded, this can be achieved by using the Fabasoft Tracer menu "Settings->Output->Default".

Please only start the Fabasoft Tracer when you are ready to reproduce the problem. This ensures that only trace messages that are related to the problem are recorded and helps in the analysis of the trace.

### 45.2.3 Removing the Trace Version

To remove the trace versions of any provided library, stop the services on the server, delete the trace version of the files from their respective directories and execute the command "cooprep - complete".

## 45.3 Linux

This article describes the steps necessary to trace activities of Fabasoft Folio components. This includes for instance tracing versions of libraries as libfscvapp.so, libfscvport.so or simply activating certain settings in a running kernel instance.

### 45.3.1 Trace Message Logging

For collecting the traces, the tracer tool is used to log these messages, for more information about the usage please see Fabasoft Tracer.

### 45.3.2 Creating the Trace

If the instructions from the Service Desk Ticket include a trace version of a certain library, please make sure to follow any additional steps for replacing the library, as provided by the support engineer.

To create the trace the following steps have to be performed:

- Open the properties of the software component, or components, that should be traced.

- In the software component activate the settings "Trace Calls", "Trace Errors" and "Trace Expressions" at the bottom of the first page, and commit these changes.

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- Start a terminal.
- Login to the Fabasoft Folio service user.  
su - fscsrv
- Prepare the steps necessary to reproduce the problem.
- Start the Fabasoft Tracer and redirect, or tee, the output to a file, e.g.  
tracer -out /tmp/trace.trc  
or  
tracer -tee /tmp/trace.trc
- Try to reproduce the problem.
- When the problem occurs, close the tracer binary (Ctrl-C).
- Deactivate the settings "Trace Calls", "Trace Errors" and "Trace Expressions" inside the component.
- Upload the trace file to the Fabasoft Support Service Desk.

### 45.3.3 Removing the Trace Version

To remove the trace versions of any provided library, stop the services on the server, delete the trace version of the files from their respective directories and execute the command "cooprep -complete".

### 45.3.4 Tracing in Linux prior Folio 2015

Prior to Fabasoft Folio 2015, the Linux tracer binary did not exist, and trace messages were written in the log file of the appropriate instance:

Web Services: /var/opt/fabasoft/log/web/WebService\_.error.log

AT Services: /var/opt/fabasoft/instances/COOATService\_/log/main/current

fsceval: outputs the trace messages to the current console, in order to record this trace messages the console output has to be redirected:

fsceval -file > /tmp/tracefile.trc

## 46 Creating a trace

Last update: 11 February 2022

### 46.1 Client Trace

For detailed information on how to create a client trace, see [Creating a client trace](#).

### 46.2 Component Trace

For detailed information on how to create a component trace, see [Creating a component trace](#)<http://www.fabasoft.com/en/knowledgebase/creating-component-trace>.

### 46.3 Kernel Trace

For detailed information on how to create a kernel trace, see [Creating a kernel trace](#).

### 46.4 Debug Trace

For detailed information on how to create a debug trace, see [Creating a debug trace](#).

## 47 Decrease the degree of parallelism for performance optimization in Mindbreeze Enterprise

Last update: 16 May 2022 (*ck*)

### 47.1 Summary

When Mindbreeze Enterprise 2021 or above is used in conjunction with Fabasoft Folio/eGov-Suite 2022 and later, performance issues with queries can be mitigated by setting a fixed number of query threads per index in the Mindbreeze Configuration.

### 47.2 Information

The Mindbreeze setting " Query Threads per Index " ( `querythreadsperindex` ) limits the query threads per index, and by default is 0, that means, Mindbreeze automatically adjusts the thread on it's demand. The automatic mode will highly use multi-threading that in some situations might degrade the performance of the server.

Therefore, with the parameter " Query Threads per Index " ( `querythreadsperindex` ) setting to a number above 0, Mindbreeze will use the set number of threads.

### 47.3 Solution

The number of threads per index should be calculated for each index individually with this formula:

Number of physical Cores on the Server / Number of Buckets across all Indices on the Server \*  
Number of Buckets in the Index

e.g.

$32 \text{ cores} / 40 \text{ buckets\_sum} * 18 \text{ buckets\_index} = 14,4 = 15 \text{ Query Threads per Index.}$

The result needs to be entered under " Query Threads per Index " in the " Advanced Settings " of the index.

This also can be set by the command "mesconfig attrset" , example:

```
mesconfig attrset querythreadsperindex 15 Index[@queryport=23300]
```

(it is important to include the square brackets in the command)

This will set the option to a value of 15 for the index with query port 23300.

#### 47.3.1 Further performance increases

Further performance increases can be achieved by setting

- the option „Enable Precomputed ACLs“ to „Force“
- the option „Number of ACL Precomputation Threads“ to the same value as „Query Threads per Index“.

## 48 Fabasoft Folio Client and Microsoft Edge WebView2

Last update: 23 February 2022 (*cf*)

## 48.1 Summary

Fabasoft Folio provides Add-Ins for Microsoft Office applications to directly interact with Fabasoft Folio inside of Microsoft Office applications.

As Microsoft stops support for Internet Explorer 11, Fabasoft switches the default library for Office Add-Ins to the recommended Microsoft WebView2 library, starting with Fabasoft Folio 2022.

### 48.1.1 About Microsoft Edge WebView2

Microsoft Edge WebView2 is an HTML/CSS/JavaScript library based on the Microsoft Edge rendering engine to embed web technologies into native apps.

WebView2 is automatically included as part of the operating system in Microsoft Windows 11.

For earlier Windows versions, WebView2 can be installed by the Evergreen Installer, or deployed by Windows Server Update Services or other deployment tools by the System Administrator.

Furthermore, an application can ship with the WebView2 library inside the app package. This way of supplying WebView2 does not install WebView2 on Windows, and the library is only available for the supplying application.

For more information about WebView2 see: <https://docs.microsoft.com/en-us/microsoft-edge/webview2/>

### 48.1.2 Fabasoft Folio Client packages

Starting with Fabasoft Folio 2022 the Fabasoft Folio Client is available in two MSI-Installer packages:

- FolioClient.msi
- FolioClient-Win11.msi

The FolioClient.msi package size is about 400 MB and includes the WebView2 library. This installation package is working on every supported client as the WebView2 library is included in the package.

The FolioClient-Win11.msi package size is about 60 MB and does not include the WebView2 library. Installing this package requires to have the WebView2 Runtime already installed, either by using Windows 11 (that already ships with WebView2), or by installing the WebView2 with the Evergreen installer or software distribution.

### 48.1.3 Using the FolioClient.msi

Whenever the FolioClient.msi is installed, the installer checks, if WebView2 is already available in the operating system.

- If WebView2 is available in the operating system, the installer does not copy the WebView2 library to the Folio Client directory.
- If WebView2 is not available in the operating system, the installer will copy the library to the Folio Client directory.
- In that case, WebView2 library will be used from the Folio Client directory.

As the WebView2 library copied to the Folio Client directory is only updated when installing a newer FolioClient.msi, the operating system does not manage this directory for WebView2 security updates.

Fabasoft recommends:

- Install Microsoft Edge WebView2 by the Evergreen installer or a software deployment tool to your clients, if WebView2 is not natively included with your Windows version.
- Thereby, security updates are managed by Windows Update features or your deployment tool.

- Deploy the FolioClient.msi or FolioClient-Win11.msi to your clients

## 49 Fast Web View pdf-opt

Last update: 25 October 2022 (*cf*)

### 49.1 Summary

"Fast Web View" was introduced with Fabasoft Folio / eGov-Suite 2013.

When using "Fast Web View" converted PDF documents are converted a second time and implicitly restructured to enable viewing/downloading each page of the PDF singularly. User may read the first page of the PDF even though the download did not finish yet. Usually GhostScript is used as conversion tool in order to create those overviews. Despite being a useful feature the "Fast Web View" may have a noticeable negative impact on performance of the conversion services and in some cases it is recommended to deactivate the additional conversion to the restructured format (pdf-opt).

Update: With Fabasoft Folio / eGov-Suite 2019, generating the Fast Web View was removed from the product because of customer feedback about weak performance and conversion stability.

### 49.2 Solution

To enable/disable the fast web view functionality the checkbox "Prefer "Fast Web View" using PDF" in the Conversion Configuration must be set accordingly.

First you need to determine currently used conversion configuration located in the current domain. Therefore open the properties of the current domain object and move to the tab "Components Configuration".

Locate the entry "Conversion" (FSCCONV@1.1001:conversioncfg).

If there is no configuration specified, move to the top and open the superior domain type.

Repeat this step until a "Conversion" configuration object is set.

After you located the configuration, open its properties and (e.g. for disabling the fast web view) set the option "Prefer "Fast Web View" using PDF" to false.

Afterwards a restart/recycle of the webservices is needed in order to effectively change the setting on all webservers.

Note: Although most conversion settings are configured in the FSCCONV@1.1001:ExternalConversionConfiguration, by default the configuration located in the current domain inherits these settings (if not set).

The "Prefer "Fast Web View" using PDF" option is set to TRUE by default, therefore it is not inherited and you have to set it manually.

#### 49.2.1 Applies to:

- Fabasoft Folio 2013 until Fabasoft Folio 2017
- Fabasoft eGov-Suite 2013 until Fabasoft eGov-Suite 2017

## 50 Important Information Regarding the Deprecation of Manifest V2 Extensions in Chromium Based Browsers

Last update: 3 August 2022 (*gs*)

## 50.1 Summary

Both Google and Microsoft have announced that they will no longer support Manifest V2 browser extensions in their browsers starting in 2023.

This change will prevent old versions of the Fabasoft Folio Client from communicating with the browser and will disable functionality like opening documents or copying objects into the clipboard.

## 50.2 Information

Based on the currently available information [Google Chrome](#) will no longer be able to use Manifest V2 extensions starting in January 2023, while [Microsoft Edge](#) will continue limited support until June 2023.

Because of this change in the browsers it will be necessary to migrate existing installations of the old version specific Fabasoft Folio browser extensions to the new universal extension [Fabasoft Client](#) !

The current scheduling information regarding this transition can be accessed in the online documentation of [Google Chrome](#) and [Microsoft Edge](#), but as of now we recommend to start the migration to the universal extension as soon as possible.

## 50.3 Solution

Existing installations older than Fabasoft Folio 2021 or Fabasoft eGov-Suite 2021 may require the installation of a hotfix and an update of the locally installed Fabasoft Folio Client to support the universal Fabasoft Client extension, as documented in [Availability of a Universal Web Browser Extension for Google Chrome and Microsoft Edge](#).

If you are already using the new universal Fabasoft Client extension the steps required for support of Manifest V3 depend on your local environment and are as follows:

### 50.3.1 Clients With Web Store Access

Existing installations of the universal browser extension [Fabasoft Client](#) via the web stores should have already been updated to a newer version with support for Manifest V3 and will not be affected by the deprecation of Manifest V2.

### 50.3.2 Clients Without Web Store Access

Existing local deployments of FolioChromeExtension.crx, that can not be updated via the web stores, may require an update to version 22.0.1.10 or newer to support Manifest V3, if you do not currently have access to an installation kit with this or a newer version please contact the Fabasoft Support.

## 50.4 Applies to

- Fabasoft Folio 2016
- Fabasoft Folio 2017 R1
- Fabasoft Folio 2019
- Fabasoft Folio 2020
- Fabasoft eGov-Suite 2016
- Fabasoft eGov-Suite 2017 R1
- Fabasoft eGov-Suite 2019
- Fabasoft eGov-Suite 2020

## 50.5 References

- Availability of a Universal Web Browser Extension for Google Chrome and Microsoft Edge
- <https://developer.chrome.com/blog/mv2-transition/>
- <https://docs.microsoft.com/en-us/microsoft-edge/extensions-chromium/developer-guide/manifest-v3>

## 51 Recovery Mode for a Fabasoft Domain

Last update: 11 February 2022 (*cf*)

### 51.1 Summary

When there is a problem with the Fabasoft Folio Domain Transaction Log, it is possible to start the Fabasoft domain into Recovery Mode in order to clear this log.

### 51.2 Information

In the case of a miss-configuration between the Fabasoft Folio Backendservices and the database services, it is possible that transactions in the Fabasoft Domain neither cannot be executed nor reverted and therefore stay in the distributed transaction log.

Such issue can be fixed by creating a consistent state and clearing the open transactions on both the Fabasoft Folio and database side.

**Warning:** Please be advised that it is imperative that a consistent domain state is achieved before taking this action. Otherwise data-loss may occur!

### 51.3 Solution

**Warning:** Please consider that the solutions provided below require a complete domain restart!

**Warning:** Please be advised that all uncommitted transactions will be discarded during this guide. **This may lead to data loss!**

#### 51.3.1 Clearing all domain transactions

- Stop all COO-services of the affected domain.  
**Note:** Before stopping the COO-services ensure that all kernel instances have been stopped.
- Start all COO-services into recovery mode in order to [clear all DTM-logs](#).
- Once again stop all COO-services
- Check if there are any pending transactions left on the database.
- If there are any transactions left, execute a rollback according to the database documentation
- Restart all stopped COO-services in normal mode
- Restart the stopped kernel instances and thoroughly test the domain

### 51.4 References

For detailed Information on recovery mode and Oracle Databases please see our other knowledge-base articles

- [Distributed transaction timeouts using Oracle](#)
- [Troubleshooting: DTM cannot establish a connection to Oracle XA-Service](#)
- [Oracle: lock held by in-doubt distributed transaction](#)

- [Fabasoft Folio Help 5.2 Recovery Mode](#)

#### 51.4.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-suite (all versions)

## 52 LAST UPDATED IN 2021

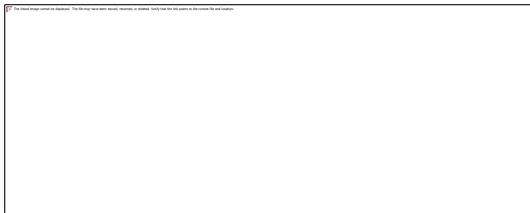
### 53 Conversion: Disable Visual Basic macro errors despite of disabled macros

Last update: 17 February 2021 (*cf*)

#### 53.1 Information

For security reasons, on all conversion servers, the macro execution of Microsoft Office applications should be disabled. Fabasoft Conversion services also include a logic to automatically close opening dialogs that are shown by Microsoft Word and other Microsoft Office applications, to skip and proceed the conversion.

From a customer, Fabasoft got knowledge of a special warning dialog shown by Microsoft Visual Basic (VBA), that is displayed even though macro notification is disabled in Microsoft Word. Furthermore, the Fabasoft Conversion service cannot access and close this dialog because of Windows security mechanisms.



#### 53.2 Solution

##### 53.2.1 Summary

The following steps show how to change the TEMP directory of the Fabasoft Conversion services, disable macros in Microsoft Word, and add the new location to the trusted locations of Microsoft Word.

For more information about trusted locations in Microsoft Word, see Microsoft Knowledgebase <https://support.microsoft.com/en-us/office/add-remove-or-change-a-trusted-location-7ee1cdc2-483e-4cbb-bcb3-4e7c67147fb4>

All steps need to be done on the conversion server (or all conversion servers) and with the conversion service user logged in to Windows .

##### 53.2.2 Change temporary directory of Fabasoft Conversion service

By default, the TEMP directory of Fabasoft Folio Kernel is located in the %TEMP%\Fabasoft directory of the Conversion service Windows user.

For the change of the trusted locations of Microsoft Word, it is required to change the location of this directory, as Microsoft Word implicitly does not allow the %TEMP% directory as a trusted location.

- Create a new folder for Fabasoft temporary files, e.g. C:\FOLIOTEMP, with permissions for the Folio Conversion service user.
- Change Fabasofts \*.upd files:
- In Windows Explorer, navigate to C:\ProgramData\Fabasoft
- Edit both files, coomk.upd and cooprep.upd:
- Add a line (or change, if already exists):  
HKEY\_ENVIRONMENT\TEMPDIR=C:\FOLIOTEMP  
or with the path of your new directory

Add a line (or change, if already exists):  
HKEY\_ENVIRONMENT\DOCDIR=C:\FOLIOTEMP  
or with the path of your new directory

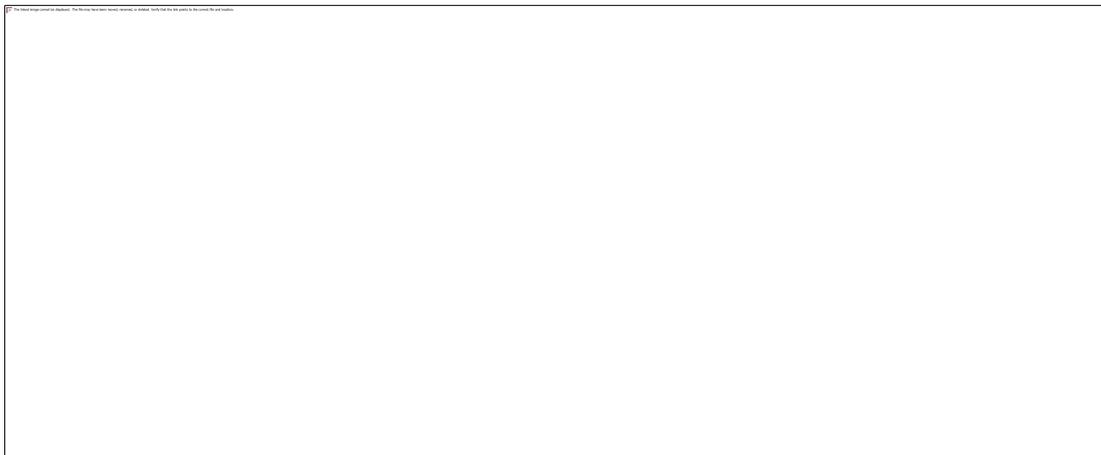
- Save both files and restart the Conversion service.

For further information about Fabasoft Folio Environment Variables, check our documentation:  
<https://help.folio.fabasoft.com/index.php?topic=doc/Fabasoft-Folio-Envir...>

### 53.2.3 Microsoft Word: Disable macro execution

For security reasons, you always should keep macro execution disabled on all Conversion servers.

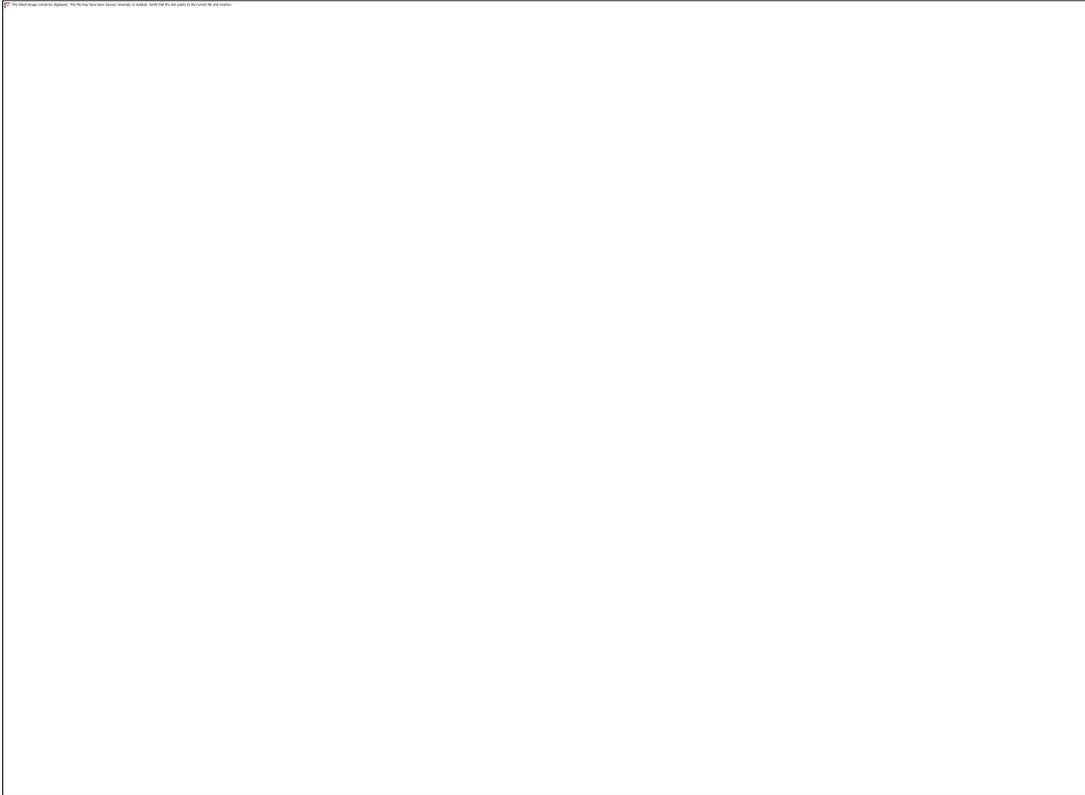
- Still with the Conversion service user logged in, start Microsoft Word
- Navigate to File / Options
- In the Options window, select Trust Center and Trust Center Settings...
- In the Macro Settings, select Disable all macros without notification .



### 53.2.4 Microsoft Word: Add trusted location

The dialog from VBA does not appear, when the file is opened from a trusted location. Therefore, we add the new folder C:\FOLIOTEMP to Word's trusted locations:

- In the already opened Trust Center , navigate to Trusted locations .
- Press the button Add new location... and navigate to the new folder C:\FOLIOTEMP
- Also activate the checkbox Subfolders of this location are also trusted
- Save the settings



If you still have issues, please contact Fabasoft Support.

## 54 Creating SSL certificates for Mindbreeze Client in Windows

Last update: 14 January 2021 (*cf, ck*)

### 54.1 Summary

In a default Mindbreeze installation, a self-signed SSL webserver certificate is issued for use of the Mindbreeze Client Service. On the client webbrowsers, this may bring up security warnings about the untrusted or unsecure certificate.

In an enterprise environment with an own public-key-infrastructure (PKI) we recommend to use an SSL certificate issued by your own PKI for the Mindbreeze Client Service.

Please note: If you import an SSL certificate issued by a Windows PKI, Mindbreeze may misinterpret the certificate as a CA instead of an SSL certificate. This issue is induced by the missing certificate field "Basic Constraints" Mindbreeze is using to identify an SSL certificate. This guide will show how to create a certificate including this field.

Hint: For creating certificates for the communication/authentication between Fabasoft Folio and Mindbreeze Enterprise, please see the article [Renew trusted peer certificates \(Folio/Mindbreeze\)](#).

### 54.2 Information

The Mindbreeze Enterprise Client Service (the Mindbreeze Web Userinterface) uses SSL encryption. The default self-signed certificate will not be trusted by your clients therefore security warnings will appear. If you use an SSL certificate from your Windows Active Directory integrated PKI, your SSL certificate is issued by your own CA. Your CA is trusted automatically in your Active Directory domain, so no more security warnings will come up.

## 54.3 Solution

This guide refers to a Microsoft Windows 2008 PKI and consists of three steps:

- Creating a Certificate Template including the needed field "Basic Constraints".
- Creating and exporting the SSL certificate.
- Removing the passphrase with openssl

## 54.4 Creating a Certificate Template

To understand the following steps, please read the following external guide first:

<http://www.derekseaman.com/2012/05/how-to-create-custom-microsoft-ca-ssl.html>

- With the guide linked, create a Certificate template by duplicating the default template " *Web Server*".
- Open the properties of the new template
- On the *Request Handling* tab, enable the "Allow private key to be exported".
- On the *Extensions* tab, edit the *Basic Constraints* extension. Check "Enable this extension".
- Commit the template changes by clicking *OK*.

### 54.4.1 Creating and exporting the SSL certificate

See the section "Request new certificate" in the (same) article:

<http://www.derekseaman.com/2012/05/how-to-create-custom-microsoft-ca-ssl.html>

- With the guide linked, create a Certificate request in the MMC *Certificates* snap-in.
- Use the new certificate template created above.
- Edit the *Certificate request* properties. On the *Subject* tab, you have to set at least a *Common name* (the value usually is the FQDN of your server)
- After you have enrolled the certificate, can export the certificate from the "Personal" certificates. Use the option "Yes, export the private key". Enter a temporary passphrase.
- Copy the generated .pfx file to your Mindbreeze server.

### 54.4.2 Removing the passphrase with openssl

The generated .pfx file has a passphrase set, but Mindbreeze requires a certificate without passphrase. Therefore, with openssl the .pfx file needs to be converted to a .p12 file without passphrase:

- Open a command prompt on your Mindbreeze server (where the Fabasoft Mindbreeze Integration is installed).
- Change to the directory C:\Program Files\Fabasoft\Components\MindbreezeIntegration (where openssl is located by default)
  - Run the following commands:

```
openssl pkcs12 -in <filename>.pfx -nodes -out <filename>.pem (enter the passphrase you defined at creation time)
openssl pkcs12 -export -in <filename>.pem -out <filename>.p12 (do not set a passphrase during the export)
```
- The exported certificate .p12 can be imported in the Mindbreeze Management under the Certificates tab, and assigned to a Client Service.

*Please note: In the MindbreezeIntegration directory also the self-signed certificates are located. Please check to use the correct certificates created by your openssl calls.*

### 54.4.3 Applies to

- Mindbreeze Enterprise Client Service (all versions)

## 55 MMC cleanup may delete referenced content due to unknown/foreign files in MMC Service areas

Last update: 22 February 2021 (*cf*)

### 55.1 Summary

Fabasoft found an issue in the MMC cleanup functionality in Fabasoft Folio/eGov Suite 2020 and 2021 that may delete content from MMC Service areas that should not be deleted.

The issue occurs if foreign files are placed to the MMC Service areas. The MMC Service areas are only managed by Fabasoft Folio, no foreign files (files not created by Fabasoft Folio) should be placed there.

A hotfix for this issue is available. See the Solutions section.

### 55.2 Details

The MMC Service cleanup functionality may delete files in the MMC Service area if the following conditions occur:

- The MMC Service area is of type CAS (Content Addressed Storage).
- A "foreign" file (a file not created by Fabasoft Folio) is placed into the hash-based file structure of CAS.
- The Fabasoft Folio functionality "Cleanup of MMC Service areas" is called by the fscadmin tool or an expression.

If these conditions apply, the "foreign" file disorganizes the cleanup algorithm and can lead to the deletion of many files in a CAS top-level folder.

#### 55.2.1 How to identify if your system may be affected

The issue only may occur with Fabasoft Folio/eGov-Suite 2020 and 2021, and only with Content Addressed Storage (CAS). Other versions and storage types are not affected.

To identify the issue, strfind or grep your MMC cleanup logfiles for this message:

File 'path to foreign file' will not be removed because the length of the hash is invalid

If you have such messages with cleanup runs with Folio 2020/2021, you likely may be affected.

Keep in mind, that you may be only affected, if the cleanup procedure was done with Folio 2020/2021, but not with earlier versions.

### 55.3 Solution

Fabasoft will provide a hotfix to correct this issue for Fabasoft Folio/eGov-Suite 2020 and 2021. Versions below 2020 are not affected.

#### 55.3.1 Hotfix information

The hotfix requires the replacement of the coomk.dll / libcoomk.so at least at the systems the cleanup is executed from. The hotfix package will include the full COOSYSTEM component, that contains the coomk.dll / libcoomk.so file for your operating system.

The issue is fixed within the following versions and build numbers:

- Fabasoft Folio/eGov-Suite 2020 Update Rollup 1 (build 20.1.1.97 and above)
- Fabasoft Folio/eGov-Suite 2020 Update Rollup 2 (build 20.1.2.86 and above)
- Fabasoft Folio/eGov-Suite 2020 Update Rollup 3 (build 20.1.3.56 and above)
- Fabasoft Folio/eGov-Suite 2020 Update Rollup 4 (build 20.1.4.44 and above)
- Fabasoft Folio/eGov-Suite 2021 (build 21.1.0.354 and above)
- and all Fabasoft Folio/eGov-Suite versions and Update Rollups above.
- Fabasoft Folio/eGov-Suite 2019 and below is not affected by the issue

If you have an installation kit equal or above the mentioned build number, the hotfix is already included with your installation kit. You don't need to request the hotfix.

For installation kits that are below the mentioned build numbers:

For Fabasoft Support customers, please open a ticket including your exact Fabasoft Folio / Fabasoft eGov-Suite version (including build number).

For Fabasoft customers without active Fabasoft Support contract, please contact Fabasoft Support via e-mail including the mentioned information.

### 55.3.2 Before you have installed the hotfix

Fabasoft recommends to temporary disable the MMC Service area cleanup functionality until the hotfix is installed in your environment.

## 56 Options in case of inefficient queries

Last update: 27 August 2021

Fabasoft Folio and the Fabasoft eGov-Suite are both providing mechanisms to prevent long running queries from being executed. This mechanism will interrupt the execution of this query if specific query restrictions are met. Fabasoft Folio Backend services: During a query, the Fabasoft Server rejects all objects that do not match the query restrictions. There are two server options, COO\_QUERY\_ACLRESTRFACTOR (default=20) and COO\_QUERY\_ACLRESTRMIN (default=5000). These options can be used to abort long running queries based on ACL restrictions.

If the server checked more than COO\_QUERY\_ACLRESTRMIN objects and the \* COO\_QUERY\_ACLRESTRFACTOR is less than the number of objects checked, the query is aborted and an error message is returned ("Inefficient query").

Possible values for COO\_QUERY\_ACLRESTRFACTOR are between 0 and 9999999, possible values for COO\_QUERY\_ACLRESTRMIN are between 250 and 9999999.

If the values for this query restrictions can be changed by adding the desired values as additional parameter for each COO-Service. (in the property COOSYSTEM@1.1:svrparameters; Please note that changing these parameters will need a „Synchronize Registry Entries“ via Server Management)

Fabasoft Folio Kernel: There is also a query restriction limit in the Fabasoft Folio Kernel which is driven by the environment variables QUERYRESTRLEVEL (default=5000) and QUERYRESTRFACTOR (default=20). If the Fabasoft Server found more than objects, the user must have the right to find more than 1/ of the objects. In each case you can ease the restriction by increasing the value.

Be careful when changing these settings, because the default settings are designed to prevent high system load based on long running queries.

The description how to set the environment variables in general can be found in the whitepaper „Environment Variables in Fabasoft Folio.pdf“

## 57 Set SPN to use Kerberos authentication

Last update: 11 January 2021 (*cf*)

### 57.1 Summary

If you connect to the URL of your Fabasoft Folio webserver from a remote client, you might get login prompts and "401.2 Access denied" messages. This is usually caused by a missing SPN for the webservice user.

This article describes how to set a SPN for your webservice user.

#### 57.1.1 Signs that indicate a possible Kerberos problem

- Local call of <http://localhost/fsc> works
- Access from another client shows an authentication dialog for 3 times, but denies access with http 401.2 Access denied
- Accessing from another client works, if the IP of the server is used instead of the hostname ( <http://192.168.0.10/fsc> )

### 57.2 Solution

To fix this behaviour, you have to set SPNs for your webservice user.

#### Creating Service Principal Names (SPN) under Windows

Prerequisites:

- You need to have Domain Administrative permissions to set SPNs.
- You need the Windows tool `setspn.exe`. This is usually installed on Windows domain controllers and newer versions of Windows. For Windows Server 2003 the "Microsoft Support Tools" can be installed to get `setspn.exe`. It's not necessary to have the tool installed on the Fabasoft servers, but on any desired server or workstation.

#### Syntax

List current SPNs for a given user:

```
setspn.exe -l domain\user
```

This will display all SPN for the given user. In a Fabasoft Folio environment the user is that user that runs the Fabasoft Folio webservice. A user can have multiple SPNs set to host multiple webserver or hostnames.

Add a new SPN for a webserver:

```
setspn.exe -a http/hostname.domain.com domain\user  
setspn.exe -a http/hostname domain\user
```

and are the hostname and the full qualified hostname of the server. is the user that runs your Fabasoft Folio webservice.

We recommend to always set the SPN for the (short) hostname and the (long) full qualified domain name. To access the web interface of the conversion servers, SPNs need to be set too.

Note: If you use a load balancer in your environment, it is necessary to also set a SPN for the URL of your load balancer.

## Workaround

If you are not able/allowed to set the SPNs in Active Directory, there are two workarounds:

- Use the IP address to access the server instead of the hostname. Kerberos is only used with hostnames, not with IP addresses.
- Disable Kerberos authentication at your webserver(s). A detailed description can be found in Microsoft's Knowledge Base <http://support.microsoft.com/kb/215383/en-us>.

Note: Fabasoft recommends not to use these workarounds, if the SPNs can be set. Use these workarounds only temporarily.

## 57.3 Information

In a Microsoft Windows environment, the Fabasoft Folio Web services run with a specified domain user (webservice user). In Active Directory, the web service user needs to have permissions to run a service (in this case http) in the domain. This permission is set by the SPN. Also, other applications need to have set SPN, for example Microsoft SQL Server.

If the SPN is not set and the webserver requests the clearance of the user login at the AD controller, the AD controller deny the clearance request because the webservice user is not allowed to run a webservice (SPN missing). Hence the failed clearance, the user gets an access denied error message.

A very detailed article about SPN's can be found in the Microsoft Knowledge Base <http://support.microsoft.com/kb/929650/en-us>.

### 57.3.1 Applies to

- Microsoft IIS
- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)
- Fabasoft eCRM-Suite (all versions)

## 58 LAST UPDATED IN 2020

### 59 How to close and create an MMC service area

Last update: 19 November 2020 (*cf*)

#### 59.1 Summary

Fabasoft MMC services uses the file system to save multimedia contents (documents). Every MMC service can manage multiple MMC service areas, whereby one MMC service area needs to be set as the active area.

An MMC service area refers to an entry point, which is the "root" directory for the area.

In this article we explain how to correctly close an MMC service area and create a new MMC service area.

## 59.2 Information

Please follow these steps to close an Fabasoft MMC service area and create a new MMC service area.

Notice: It's mandatory to create a new area if you close the current active area, so documents can be stored fluently.

### 59.2.1 Create a MMC service area

Notice: You should first create the new area before closing the old one..

- Edit the desired MMC service object in the Services tab in the Fabasoft Domain Administration .
- Create a new line in the MMC service areas aggregate.
- In the MMC service area form set a descriptive name for the new area.
- Set Start Point (UTC) to a future date. So the earliest date for the new area is the date of tomorrow .
- Leave the End Point (UTC) empty.
- Choose the Type for the new area:
  - Content Addressed Storage (CAS) is the standard type which organises documents by the content hash. This type supports Single Instance Content Store and Splitpoints.
  - One Directory per Day (Change Date) is used for compatibility reasons and organises documents by the change date. Single Instance Content Store and Splitpoints are not supported with this storage type.
- Leave the Change Mode in the state All Operations .
- Set Log Changes to Yes .
- Enter the Directory on Server . This is the entry point for this area. If you enter multiple directories, all documents are stored in every directory (like mirroring).
- The additional properties are not mandatory to create the new area. For information about these properties see the Fabasoft White Paper "Content Addressed Storage.pdf" on the Fabasoft DVD.
- Click Next to finish the input.

### 59.2.2 Closing a MMC service area

- Edit the desired MMC service object in the Services tab in the Fabasoft Domain Administration .
- Open the line of the desired area you want to close.
- Set End Point (UTC) to a future ate. So the earliest date to close the area is the date of tomorrow .  
Important: If you have created a new area as described before, use the same date to close the area.
- As long as this area is active leave the Change Mode in All Operations . Change the state to Read Only or Read and Delete Only not until the new area is active.
- Click Next to finish the input.

To commit the changes press Apply or Next .

When the new MMC service area got active (starting with the Start Point (UTC) ) you can set the Change Mode of the closed area to Read Only or Read and Delete Only .

### 59.2.3 Further information

- If documents stored in a closed area with Change mode set to Read Only or Read and Delete Only are changed (edited), the changed document will be saved in the current active area and an object version will be created automatically. This automatism of creating an object version is by design and cannot be disabled.
- If documents stored in a closed area with Change mode still set to All Operations are changed (edited), the changed document will be saved in the closed area .
- Never change the Start Point (UTC) and End Point (UTC) of already used areas. This will mess up the document organisation and can lead to inconsistency or even to data loss.
- Never use the current date (today) to close or start a new area. This will mess up the document organisation and can lead to inconsistency or even to data loss. Always use future dates.
- The End Point (UTC) of the closed area and the Start Point (UTC) of the new area needs to be the same date. Background: The date is saved in UTC, meaning 01.02.2011 is recognized as "01.02.2011 0:00". If you would create the new area with the date of the following day, you would have a time gap of 1 day without active area.

### 59.2.4 Applies to

- Fabasoft eGov-Suite
- Fabasoft Folio
- Fabasoft eCRM-Suite

## 60 Constraint Check Error #012: Unique index is missing

Last update: 13 November 2020 (*cf*)

### 60.1 Information

Fabasoft Folio COO-Services do a check of its default database indexes on every startup, and tries to create these indexes if they are missing. These indexes are required for performance and consistency.

If a COO-Service detects a missing index, and cannot create it if missing, the error Constraint Check Error #012 is logged.

In the case a missing index could not be created, the COO-Service does not stop to operate, but ignores the missing index and continues. The operation of your environment is ensured.

### 60.2 Solution

This is an example message that is logged by the COO-Service:

```
Error: COOSTD-00117: Unique index ' ind_aggval_ataggval ' on ' ataggval(objid,aggval)' is missing.
For more information, please refer to the Fabasoft Support Knowledge Base using the event ID
#012
```

The message contains the name of the index that is missing, and the database table and columns included to this index.

Double-check the existence of the index directly on your database system.

#### 60.2.1 Manually create the index

Take care! Before starting changes on your production environment, test this in a test or clone environment.

To get information about the problem, try to create the index manually. This is an example statement for the above error message. Change the example to fit the information of the error message in your system.

Consider that the syntax may vary depending on the database system. Select the correct database/tablespace creating the index.

Use the database login of your COO-Services to reproduce any permission problems.

```
CREATE UNIQUE INDEX ind_aggval_ataggval ON ataggval (objid, aggval);
```

### 60.2.2 Permission problems

In case of permission problems, check the permissions of the COO-Service user to create and alter table indexes.

### 60.2.3 Unique constraint problems

If the index creation fails because of unique constraint / duplicate key error, this indicates inconsistency in the table data.

The Fabasoft COO-Services only creates unique indexes on data that by design are unique. The unique indexes also ensure consistency on inserting and updating data by the COO-Service.

As the circumstances that lead to these inconsistencies vary, we suggest to contact Fabasoft Enterprise Support via a Support Ticket, including the type of system (production, clone, test,...), the database system, the error message, and every further information you've already collected.

## 60.3 Applies to

- Fabasoft Folio 2020 (and above)
- Fabasoft eGov-Suite 2020 (and above)

## 61 Blocking situations in a Microsoft SQL Server database

Last update: 29 May 2020 (*cf*)

### 61.1 Summary

Based on the user behaviour and the load on a specific Fabasoft production environment it can be possible that you notice situations in your Microsoft SQL Server database where a long running query blocks other SQL statements. This can lead to blocked threads of the Fabasoft COO service that is using this database and in worst case to a system outage until the long running transaction is finished.

### 61.2 Information

This behaviour can be triggered by the fact that some SQL statements lock a row or the whole database table (due to lock escalation of Microsoft SQL Server). This means that other queries have to wait until the first statement is finished. Fabasoft Support noticed this behaviour in Fabasoft Folio or Fabasoft eGov-Suite installations with Microsoft SQL Server versions  $\geq 2005$ .

### 61.3 Solution

Fabasoft recommends identifying and optimizing long running transactions (e.g. with Fabasoft app.telemetry) that are leading to such a situation. Nevertheless there is a possibility to change the isolation level in Microsoft SQL Server to "READ\_COMMITTED\_SNAPSHOT" to reduce the impact of

long running queries. Please find more information about isolation levels on the following Microsoft web pages:

- [Isolation Levels in the Database Engine](#)

## 61.4 Attention

All changes to the database presuppose a consistent backup of the whole database and stopped Fabasoft COO-Services. Fabasoft has not made regression tests (especially due to performance and stability) with the lock level described in this article. If you experience problems when testing this lock level in your installation please contact Fabasoft Support.

## 61.5 Applies to

- Microsoft SQL Server 2005
- Microsoft SQL Server 2008
- Microsoft SQL Server 2008 R2

## 61.6 More useful links

- [Understanding Row Versioning-Based Isolation Levels](#)
- [Working with Snapshot Isolation](#)

## 62 Message FSCVAPP-00106: CheckStackDepth: too many steps on stack; maximum process steps on stack

Last update: 23 December 2020 (*cf*)

### 62.1 Summary

This article informs about the backgrounds of the eventlog message FSCVAPP-00106: CheckStackDepth: too many steps on stack; maximum process steps on stack .

The message is triggered, if a user opens more vapp instances (e.g. overlays) in the web client then the maximum specified stack size (default Windows: 135 / Linux: 256). In the case that this message appears in the log, the mentioned user was dropped out from the vapp stack and is redirected to the initial location in the web client.

### 62.2 Information

The vapp stack holds information about recursively opened vapps. Overlays or search results are examples of that kind of vapps. For easier reading, the following example is talking about overlays.

When a user opens the properties of an object, the object is opened in an overlay in the web client (increases the vapp stack size).

Inside of the shown overlay, a user may open the properties of a linked object inside of the overlay, or opens a search for an object. Therefore, the new opened vapp increases the vapp stack size again.

Continuing to again open vapps inside vapps inside vapps... will further increase the vapp stack size. Closing a vapp (e.g. an overlay) will decrease the stack.

All the data of the opened vapps are stored in this stack. As holding this stack requires memory for every entry, the stack size is limited.

The default limit of this stack in Microsoft Windows environments is 135 elements.

The default limit of this stack in Linux environments is 256 elements.

This limit is very high and it is very uncommon, that a user reaches this limit.

If the stack size is exceeded, Fabasoft Folio assumes an erroneously behaviour e.g. of a virtual application, and completely closes the stack as a cleanup measure.

For the user in the web client, this appears as a closing of all overlays. The user is taken back to the start point before opening the first vapp of the stack. No message is shown to the user.

The web server logs a message to the log:

FSCVAPP-00106: CheckStackDepth: too many steps on stack; maximum process steps on stack: 135 and the user that was affected. The message also contains the current set maximum limit, by default 135.

## 62.3 Solution

If this is a singular case, you usually can ignore the message.

In the case that the message is logged regularly, Fabasoft recommends to qualify the use-case of the user(s) that triggered the message. It may point out inconvenient design of the use-case, or an error in the virtual application.

### 62.3.1 Increasing the stack size

Fabasoft recommends not to increase the stack size as long as the affected use-case was not analyzed in depth.

Kernel environment variable

FSCVAPP\_MAX\_STACKDEPTH

Default: 135

Minimum: Windows 135 / Linux 256

Maximum: -

The maximum stack size is operating system dependent. If the maximum stack size is set to high and the limit is nearly reached, the Fabasoft Folio Web Service may crash with an exception.

Therefore, Fabasoft does not support to increase the maximum stack size without arrangement with Fabasoft Support. Please contact Fabasoft Support if you have a demand to increase the value.

#### 62.3.1.1 Applies to

- Fabasoft Folio 2019 UR3 (19.2.3.107 and above)
- Fabasoft Folio 2020 UR2 (20.1.2.79 and above)
- Fabasoft Folio 2020 UR3 (20.1.3.46 and above)
- All higher Update Rollups of the mentioned versions
- Fabasoft Folio 2021 and above

## 63 MMC cleanup may delete referenced content on database failure

Last update: 6 July 2020 (*cf*)

## 63.1 Summary

Fabasoft found an issue in the MMC cleanup functionality in a specific error condition that may lead to deletion of content in an MMC Service area, that is still referenced in the database and therefore shouldn't be deleted.

The issue is unlikely to appear as it is dependent to several specific conditions that must apply together. These conditions are explained in the Details part of the article.

Nevertheless, of the unlikeliness of this conditions, Fabasoft recommends to disable the MMC cleanup functionality temporarily and install our hotfix for this issue.

The issue is independent of the used database system.

## 63.2 Details

The MMC Service cleanup functionality may delete files in the MMC Service area if all of the following conditions occur:

- A connection issue with the database occurred, e.g. a cluster failover or a short outage of the network connection from the COO-Service to the database.
- The COO-Services stayed online throughout this connection issue to the database.
- Later, after the database is online again, an MMC cleanup is started.
- The Kernel processing the cleanup functionality gets a COO-Service thread assigned that already had an open connection to the database since before of the database outage.
- The open connection to the database was never used since of the outage of the connection to the database.
- A single database request to query data about an object to query the MMC file location uses the orphaned open database connection.

If all conditions are met, the database query may not return correct object data for the MMC file locations. In result of the missing data of the database, the cleanup functionality may assume a file or subset of files are not needed anymore in the system and will delete them mistakenly.

This situation can only appear once as the COO Service automatically reconnects to the database. But for the affected query of the failure, the file or files in the MMC Service area may have been deleted.

## 63.3 Solution

Fabasoft provides a hotfix to correct this issue for all Fabasoft Folio / Fabasoft eGov-Suite versions.

For Fabasoft Support customers, please open a ticket including your exact Fabasoft Folio / Fabasoft eGov-Suite version (including build number).

For Fabasoft customers without active Fabasoft Support contract, please contact Fabasoft Support via e-mail including the mentioned information.

With transmission of the hotfix, Fabasoft Support will add further information about how to install the hotfix.

### 63.3.1 About the hotfix

The hotfix fixes the `coostd.exe` (Windows environments) respectively `coostd` (Linux environments). In a ready installed environment, this single file can be swapped in a short maintenance downtime. It is not necessary to run the setup or to install a Software Component.

The hotfix package is a ZIP file and will contain:

- Single coostd.exe (Windows environments) and coostd (Linux environments): The appropriate file can be exchanged on all your backend servers during a planned downtime.
- Installation Package: This can be copied into your installation kit to integrate the hotfix
- \Setup\ComponentsBase\Services\WINDOWS\_X64\FscServer.msi
- \Setup\ComponentsBase\Services\LINUX\_RHEL\_X64\fsc-services-<buildnumber>.rpm

Build numbers including the hotfix:

- 2013 Update Rollup 6 : From installation kit 13.0.13.43 (Binary version: 13.0.13.43)
- 2014 Update Rollup 6 : From installation kit 14.0.13.58 (Binary version: 14.0.13.58)
- 2016 Update Rollup 5 : From installation kit 16.0.9.49 (Binary version: 16.0.9.49)
- 2016 Update Rollup 6 : From installation kit 16.0.10.98 (Binary version: 16.0.10.98)
- 2016 Update Rollup 7: From installation kit 16.0.11.64 (Binary version: 16.0.11.64)
- 2017 R1: From installation kit 17.4.0.58 (Binary version: 17.4.0.16)
- 2017 R1 Update Rollup 6: From 17.4.6.8 (Binary version: 17.4.6.0)
- 2019 Update Rollup 1: From installation kit 19.2.1.185 (Binary version: 19.2.1.7)
- 2020 : From installation kit 20.1.0.345 (Binary version: 20.1.0.9)

If your version is not listed, please contact Fabasoft Support. We will create the appropriate hotfix for your Fabasoft Folio/eGov-Suite version.

## 63.4 Before you have installed the hotfix

Fabasoft recommends to temporary disable the MMC area cleanup functionality until the hotfix is installed in your environment.

## 63.5 How to check if the issue occurred

The concrete occurrence of the issue is not logged as the database failure is not recognized by the cleanup feature. An indication of happened database connection problems are several Windows Event Log / COO-Service Error Log messages before and during the cleanup run. When such messages appear and the hotfix isn't installed yet, you should stop the cleanup processing to avoid the occurrence of the failure.

The fscadmin tool provides a consistency check for files in the MMC Service areas ( -action checkconsistency ). This check cannot explicitly allocate missing files from this issue, but will output all potentially missing files without any information of the type and time of occurrence.

## 64 RHEL/CentOS 6.4 and Fabasoft Folio 2013/2014 Update Rollup 3 Update Procedures

Last update: 6 November 2020

### 64.1 Summary

Due to some changes in the mod\_status Apache module our Fabasoft Folio Web Service had to be modified, thus creating new dependencies that will be summarized in this article.

### 64.2 Information

On 2014-07-23 Red Hat released the advisory [RHSA-2014:0920-1: Important: httpd security update](#) detailing fixes to some httpd-packages. The fixed vulnerabilities could allow an attacker to launch a

denial of service attack or execute arbitrary code if certain conditions were met, for details see the CVEs linked in the Red Hat security advisory.

Due to the nature of the updates to some of the Apache modules, which may also be installed on a RHEL/CentOS 6.4 system, our Fabasoft Folio Web Service had to be modified accordingly in order to restore functionality and incorporate the security fixes. These changes to the Apache Modules and the Fabasoft Folio Web Services are dependent on each other. Therefore it is necessary to update both the Fabasoft Folio Web Service and the Apache modules at the same time, otherwise the Fabasoft Folio Web Service will fail to start.

### 64.3 Solution

When updating the Fabasoft Folio Web Service or the Apache libraries on a RHEL/CentOS 6.4 you have to make the following considerations:

- When applying a Fabasoft Folio Web Service Hotfix that has a version listed in the "Applies to" section or above, the RHEL/CentOS system has to be updated accordingly.
- When applying the latest Apache modules with a version listed in the "Applies to" section or above, you have to apply a Hotfix to your Fabasoft Folio Web Service with a build-number equal or above those mentioned in the "Applies to" section.

### 64.4 Applies to

- Fabasoft Folio 2013 Update Rollup 3 - Build 13.0.10.23 and above
- Fabasoft Folio 2014 Update Rollup 3 - Build 14.0.10.32 and above
- Fabasoft eGov-Suite 2013 Update Rollup 3 - Build 13.0.10.23.11 and above
- Fabasoft eGov-Suite 2014 Update Rollup 3 - Build 14.0.10.32.17 and above

in combination with

- httpd-2.2.15-31 for i686 and x86\_64 and above

## 65 LAST UPDATED IN 2019

### 66 Client: Changing the temporary directory

Last update: 30 October 2019 (*cf*)

#### 66.1 Summary

Since Fabasoft Folio Version 2013 Winter Update Rollup 1 it is possible to modify the directory of temporary files created when opening a file in Fabasoft Folio. In order to change this directory a registry key must be set.

Please consider that these changes apply per user only.

#### 66.2 Instructions

Follow these steps to accomplish this modification:

- Open the registry editor.
- Navigate to the following registry key:  
Folio 2013 - Folio 2015:  
HKEY\_CURRENT\_USER\Software\Fabasoft\WebClient\BaseSettings\Enterprise  
Folio 2016 and above:

HKEY\_CURRENT\_USER\Software\Fabasoftware\WebClient\ConfigValues\Enterprise 16 (for Folio versions after 2016, replace 16 by the version number, e.g. for Folio 2017 use 17 , ...)

- Create a key named *DocDir* if it does not exist yet.
- Select the *DocDir* key and set the default value to the desired directory.

You may also use a registry (.reg) file to create the key as well as set the default value for you. In the given example below the temporary directory is set to "C:\Temp".

Fabasoftware Folio 2013-2015

```
Windows Registry Editor Version 5.00
[HKEY_CURRENT_USER\Software\Fabasoftware\WebClient\BaseSettings\Enterprise\DocDir]
"@="C:\\Temp"
```

Fabasoftware Folio 2016 and above

```
Windows Registry Editor Version 5.00
[HKEY_CURRENT_USER\Software\Fabasoftware\WebClient\ConfigValues\Enterprise16\DocDir]
"@="C:\\Temp"
```

After changing the temporary directory, the Folio Client needs to be restarted.

### 66.2.1 Applies to

- Fabasoftware Folio 2013 Winter Release Update Rollup 1 and above
- Fabasoftware eGov-Suite 2013 Winter Release Update Rollup 1 and above

Tags:

## 67 Information on Oracle Java 8 concerning Fabasoftware Folio and Fabasoftware Mindbreeze

Last update: 9 January 2019

### 67.1 Summary

This article provides a quick information concerning Oracle Java 8 in combination with Fabasoftware Folio and Fabasoftware Mindbreeze. In case of updating your Fabasoftware Folio 2013 or 2014 to Update Rollup 6 (13.0.13 respectively 14.0.13) an upgrade to Oracle Java SE Runtime Environment 8 is required. Additionally, Fabasoftware Mindbreeze has to be upgraded to version 2015.

### 67.2 Java Requirements - Fabasoftware Folio

Prior to Fabasoftware Folio 2013 and 2014 Update Rollup 6: Oracle Java SE Runtime Environment 7 is required.

Since Fabasoftware Folio 2013 and 2014 Update Rollup 6: Oracle Java SE Runtime Environment 8 is now mandatory.

**Fabasoft  
Folio  
Version**

Fabasoft  
Folio  
2013

Fabasoft  
Folio  
2013

Fabasoft  
Folio  
2014

Fabasoft  
Folio  
2014

## 67.3 Java Requirements - Fabasoft Mindbreeze

**Mindbreeze  
Version**

Fabasoft  
Mindbreeze  
2014 Winter

Fabasoft  
Mindbreeze  
2014 Spring

Fabasoft  
Mindbreeze  
2015

## 67.4 Solution

In order to keep your environments on a SPI compatible state when updating to Fabasoft Folio 2013 Update Rollup 6 or Fabasoft Folio 2014 Update Rollup 6 the following steps are required:

- Update Oracle Java SE Runtime Environment to version 8
- Upgrade your Mindbreeze installation to version 2015 (including Java 8)

Note: Fabasoft Folio versions 2013 and 2014 prior Update Rollup 6 have to use Oracle Java 7. Despite not being officially supported Fabasoft Mindbreeze 2015 may be used with Oracle Java 7.

## 68 ORA error codes recognized by Fabasoft Folio COO-Services

Last update: 13 November 2019 (*cf*)

### 68.1 Summary

Fabasoft Folio, more precisely the Fabasoft Folio COO-Services, has built-in error handling for about a dozen of ORA error codes. If one of that error codes is received, the COO-Service is trying to retry the query, and on further errors, will finally force a reconnect to the Oracle Instant Client.

### 68.2 Information

This Oracle error codes are hardcoded into Fabasoft Folio to retry the query, and finally to force a reconnect to the database:

- ORA-00028 ("Your session has been killed")
- ORA-01012 ("Not logged on")
- ORA-01403 ("No data found OCI error")
- ORA-03113 ("End-of-file on communication channel")
- ORA-03114 ("Not connected to Oracle")
- ORA-03135 ("Connection lost")
- ORA-12570 ("TNS packet reader failure")
- ORA-12571 ("TNS packet writer failure")
- ORA-25401 ("Cannot continue fetches")
- ORA-25402 ("Transaction must roll back")
- ORA-25408 ("Cannot safely replay call")

It is not possible to disable the error handling of the mentioned error codes, but it is possible to extend the list of error codes.

### 68.3 Add further error codes

Adding further error codes should only be done with agreement from Fabasoft Support. Adding inappropriate error codes may lead to further errors, and unpredictable behaviour of the Oracle Database and Fabasoft Folio.

Follow these steps for every COO-Service object in Fabasoft Folio:

- Navigate to the Domain Administration / Domain Objects / Services
- Edit the COO-Service object
- On the COO-Service tab of the COO-Service object, create a new line at the aggregate property Additional Database Parameters (COOSYSTEM@1.1:coosrvparameters)
- Name of the Parameter: CommunicationErrorCodes

- Value of the Parameter: <Number of the error code> (remove training zeros, e.g. for ORA-03113 write 3113)
- Use only the numbers without the ORA- prefix. If you add multiple error codes, split the codes with : (colon)
- Save the COO-Service object

Example codes

1012:1403:3113

(The codes of the example are taken from the above list, therefore already hardcoded in Fabasoft Folio and not needed to specify explicitly).

After you have changed all COO-Service objects, open the Fabasoft Folio Server Management, navigate to your domain, and run All Tasks / Synchronize registry entries from the context menu. Caution , this will restart all backend services of the domain.

Double-check the values in the registry of the backend servers:

HKEY\_LOCAL\_MACHINE\Software\Fabasoft\Fabasoft Component Server\Domain x.y\Service x\Environment now should contain the CommunicationErrorCodes key.

## 69 Oracle: Distributed transaction timeouts

Last update: 6 February 2019 (*cf*)

### 69.1 Summary

When using an Oracle database in conjunction with the Fabasoft Folio Distributed Transaction Manager (DTM), while having incorrectly configured distributed transaction timeouts, there may be database errors on commit or other actions concerning transactions.

### 69.2 Information

When using the Fabasoft Folio DTM with an Oracle database, there are rare conditions that may lead to a number of pending transactions on your database. Due to this commit and rollback may be impaired, leading to errors on usage of the affected domain.

Example

```
Data Access Error: Database system error: ORA-02089: COMMIT is not allowed
in a subordinate session
```

These errors are potentially caused by incorrectly configured distributed transaction timeouts:

- DISTRIBUTED\_LOCK\_TIMEOUT - configured on the Oracle database  
This value determines the timeout for distributed transactions in the Oracle Database.
- SesTm - configured in the Windows registry  
This value determines the timeout for database sessions in the Fabasoft DTM.
- FSCDTM\_TXLOG\_TIMEOUT - configured in the Windows registry  
This value determines the timeout for distributed transactions in the Fabasoft DTM.

### 69.3 Solution

**Warning:** Please consider that both solutions provided below require a complete domain restart!

### 69.3.1 Verifying distributed transaction timeout settings

In order to verify the currently active timeout settings for your domain please execute the following steps on your backend servers :

- Check the values of these Fabasoft Folio DTM registry-keys. If no value is defined the default values will be used.
- 
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain x.y\Service z\Datasources\Default\SesTm (default: 99)
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain x.y\Service z\Datasources\Default\FSCDTM\_TXLOG\_TIMEOUT (default: 90)
- (Domain x.y is your domain id, Service z are all entries of the COO Services)
- Check the value of the *DISTRIBUTED\_LOCK\_TIMEOUT* with the following query:

```
select value from v$parameter where upper(name) =  
'DISTRIBUTED_LOCK_TIMEOUT'
```

### 69.3.2 Configuring the distributed transaction timeouts

In order to change the distributed transaction timeout settings for your domain please execute the following steps:

- Define values for all settings according to the formula:  
"FSCDTM\_TXLOG\_TIMEOUT " (default: 90) < " SesTm " (default: 99) < "  
DISTRIBUTED\_LOCK\_TIMEOUT " (recommended: 300).
- Stop all kernel instances
- Stop all COO-services of the affected domain.  
**Note:** Before stopping the COO-services ensure that all kernel instances have been shut down.
- Check and if necessary change the value of the " *DISTRIBUTED\_LOCK\_TIMEOUT* " setting on the Oracle database.
- Check and if necessary change the value of the " SesTm " and " FSCDTM\_TXLOG\_TIMEOUT " setting in the registry of each connected service  
**Note:** When using Linux the registry path is mapped to a directory structure in /etc/fabasoft/settings. For more information about managing registry keys under Linux consult the white paper „Fabasoft Folio Environment Variables“.
- *HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\ Domain x.y\Service z | Datasources\Default\SesTm*
- *HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\ Domain x.y\Service z | Datasources\Default\FSCDTM\_TXLOG\_TIMEOUT*
- Start all stopped COO-services
- Start the stopped kernel instances and thoroughly test the domain

### 69.3.3 Clearing all domain transactions

After ensuring that the settings described above are correctly configured

- Stop all COO-services of the affected domain.  
**Note:** Before stopping the COO-services ensure that all kernel instances have been stopped.
- Start all COO-services into recovery mode in order to [clear all DTM-logs](#).

- Once again stop all COO-services
- Verify the registry settings of all COO-services
- Check if there are any pending transactions left on the Oracle database.

```
select * from sys.dba_pending_transactions
select * from dba_2pc_pending
```

- If there are any transactions left, execute a rollback according to [http://docs.oracle.com/cd/B28359\\_01/server.111/b28310/ds\\_txnman005.htm#A...](http://docs.oracle.com/cd/B28359_01/server.111/b28310/ds_txnman005.htm#A...)
- Restart all stopped COO-services in normal mode
- Restart the stopped kernel instances and thoroughly test the domain

## 69.4 References

For further information regarding the use of the Fabasoft Folio Distributed Transaction Manager please refer to [White Paper - Fabasoft Folio Distributed Transaction Manager](#)

### 69.4.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-suite (all versions)

while using an Oracle database

## 70 Oracle Java Licensing Information

Last update: 11 July 2019 (*cf*)

### 70.1 Information

Due to changes in the licensing program for Oracle Java valid by January 2019, customers are required to license Oracle Java for business, commercial or production use. This will apply for all public updates for Oracle Java SE released after January 2019 .

[https://java.com/en/download/release\\_notice.jsp](https://java.com/en/download/release_notice.jsp)

According to the mentioned Oracle article, the Oracle Java versions listed in the Software Product Information (SPI) of all currently released Fabasoft Folio and Fabasoft eGov-Suite versions are not affected of the terms of the new licensing program.

To avoid mandatory (Oracle Java) license fees in the future, Fabasoft is migrating to a free and open-source implementation of the Java platform. From the current point of view, the following roadmap will be pursued:

#### 70.1.1 Linux (Red Hat Enterprise Linux / CentOS)

- OpenJDK (which will be maintained by Red Hat)

#### 70.1.2 Microsoft Windows

- Adopt OpenJDK (maintained by the AdoptOpenJDK community)

This new Java support will be released starting with the following version:

- Fabasoft Folio and Fabasoft eGov-Suite 2019

This support of the open Java platform will not be released for Fabasoft Folio 2016 / Fabasoft eGov-Suite 2016 and Fabasoft Folio 2017 R1 / Fabasoft eGov-Suite 2017 R1 (also not in future Update Rollups of these product versions).

Supported versions will be listed in the Software Production Information document (SPI) of the corresponding version.

Please consider this information especially if you are using project specific implementations, or if you have dependencies to other Java implementations. A premature evaluation of your implementation concerning side effects is advised.

This article is subject of change and will be updated as matters progress.

## 71 PDF objects remain locked after being closed

Last update: 7 November 2019 (*cf*)

### 71.1 Summary

When you open a PDF object with the Fabasoft web browser client and then close it after viewing/editing, the Fabasoft Folio Plug-in doesn't recognize the closing of the document, resulting in the object remaining locked for an unspecified period of time.

Attention: This registry keys are not required in Fabasoft Folio / Fabasoft eGov-Suite 2016 and above. If you have an issue with locked pdf objects in Fabasoft Folio / Fabasoft eGov-Suite 2016 and above, please contact Fabasoft Support.

### 71.2 Solution

Change/Add the registry values below according to your version of Adobe Acrobat or Adobe Acrobat Reader.

When closing the PDF document, verify that the application itself is closed as well, otherwise the Fabasoft Folio Plug-in might not be able to recognize the closing of the document.

#### Adobe Acrobat Reader 5.0:

```
Windows Registry Editor Version 5.00
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACRORD32]
"Window"="Acrobat%"
"Class"="AdobeAcrobat, Afx:%"
"Class0"="Afx:%"
"Class1"="MDIClient"
"Class2"="Afx:%"
"LockVerbs"="Print%"
```

#### Adobe Acrobat 5.0 (Standard or Professional):

```
Windows Registry Editor Version 5.00
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACROBAT]
"Window"="Adobe%"
"Class"="AdobeAcrobat, Afx:%"
"Class0"="Afx:%"
```

```
"Class1"="MDIClient"  
"Class2"="Afx:%"  
"LockVerbs"="Print%
```

### Adobe Reader 6.0:

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACRORD32]  
"Window"="Adobe%"  
"Class"="AdobeAcrobat, Afx:%"  
"Class0"="AdobeAcrobat"  
"Class1"="MDIClient"  
"Class2"="Afx:%"  
"LockVerbs"="Print%"
```

### Adobe Acrobat 6.0 (Standard or Professional):

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACROBAT]  
"Window"="Adobe%"  
"Class"="AdobeAcrobat, Afx:%"  
"Class0"="AdobeAcrobat"  
"Class1"="MDIClient"  
"Class2"="Afx:%"  
"LockVerbs"="Print%"
```

### Adobe Reader 7.0:

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACRORD32]  
"Window"="Adobe%"  
"Class"="AdobeAcrobat, Afx:%"  
"Class0"="AdobeAcrobat"  
"Class1"="MDIClient"  
"Class2"="AcrobatMDIChildWnd"  
"LockVerbs"="Print%"
```

### Adobe Acrobat 7.0 (Standard or Professional):

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACROBAT]  
"Window"="Adobe%"  
"Class"="AdobeAcrobat, Afx:%"  
"Class0"="AdobeAcrobat"
```

```
"Class1"="MDIClient"  
"Class2"="AcrobatMDIChildWnd"  
"LockVerbs"="Print%"
```

## Adobe Reader 8.0:

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\AcroRd32]  
"Window"="%Adobe Reader%" "Class"="AcrobatSDIWindow"  
"Class0"="AcrobatSDIWindow"
```

## Adobe Acrobat 8.0 (Standard or Professional) and later:

```
Windows Registry Editor Version 5.00  
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\ACROBAT]  
"Window"="%Adobe Reader%" "Class"="AcrobatSDIWindow"  
"Class0"="AcrobatSDIWindow"
```

## 72 LAST UPDATED IN 2018

### 73 The true story about Object IDs

Last update: 6 February 2018 (*ad*)

This article describes how the Fabasoft Components kernel calculates new Object IDs.

#### 73.1 Description

When a new object is created the Fabasoft Components kernel asks the Fabasoft Components COO service for the next available Object ID.

The Object ID is the last part of the Object Address, e.g.

COO.1234.100.2.170

Object ID: 170

The Fabasoft Components COO service stores the highest Object ID for each Fabasoft Components COO store in an internal table. This counter is always incremented. Therefore the Object ID of a newly created object should normally always be higher than other objects of the same Fabasoft Components COO store.

But there are special situations where the Fabasoft Components kernel allocates more than one Object ID from the Fabasoft Components COO service and holds a local Object ID cache.

If the Fabasoft Components kernel has a valid Object ID cache for the given store, the IDs for newly created objects are always used from the cache. In this case the Fabasoft Components kernel does not ask the Fabasoft Components COO service for a new Object ID or if the cached Object ID is still valid (because he has allocated these IDs before, so that no one else can use them). This is done due to performance optimization (e.g. for importing data with Fabasoft COLD) .

The Object ID cache is persisted in the COMMITDIR of each Fabasoft Components kernel installation.

## 73.2 Important information

- Do not manipulate the COMMITDIR because of possible unexpected behaviours or possible data loss!
- The usage of one COMMITDIR for different Fabasoft Components kernel installations is strictly forbidden.
- Do not delete the COMMITDIR within regular maintenance (like daily recycling the web services) as this may lead to "object id loss". If the Object ID cache is deleted, these ID's are lost and every Kernel instance will acquire new object id's.
- If you plan to clone your server with one or more Fabasoft Components kernel installations (e.g. web server) you have to make sure that all COMMITDIR directories are cleared when the Fabasoft Components kernel installations are stopped before creating the image for the roll out.

## 73.3 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

## 74 Configure basic authentication for the Mindbreeze configuration site on Linux (via Apache mod\_ssl module)

First published: 9 February 2018

Last updated: 17 January 2023 (*cf*)

### 74.1 Summary

In order to only grant specific users access to the Mindbreeze configuration on Linux it is possible to place the configuration site behind a reverse proxy requiring basic authentication.

This article describes the necessary steps to set up the proxy, a sample proxy configuration is available as download below.

The sample sets up a proxy at port 8443 which redirects <https://Mindbreeze:8443/config> to <http://Mindbreeze:23000>

On Windows exists the possibility to define administrators on the [Administrators-Tab](#).

Download  [SampleProxyConfiguration](#)

### 74.2 Information

To restrict the direct access to the configuration the port of the Mindbreeze configuration site will be blocked from external hosts, therefore only allowing connections made from the local host and connections established via proxy. This means on the host itself the Mindbreeze configuration site will still be accessible to any user. Users who access the Mindbreeze configuration site via proxy (which is the only possible way except being directly connected to the host) must authenticate themselves via basic authentication.

### 74.3 Solution

Installing the Apache HTTP Server and the Module mod\_ssl:

```
yum install httpd mod_ssl
```

## Adding the sample proxy configuration to the default Apache HTTP Server Configuration httpd.conf:

Download the sample proxy configuration ( [SampleProxyConfiguration](#)) and copy it to `/etc/httpd/conf/`

Include the proxy.conf by adding the following line to the configuration file

```
/etc/httpd/conf/httpd.conf :
```

```
Include conf/proxy.conf
```

## Creating a SSL-Certificate for the Proxy:

It is necessary to define a SSL certificate in PEM Format ( [https://httpd.apache.org/docs/2.4/mod/mod\\_ssl.html#sslcertificatefile](https://httpd.apache.org/docs/2.4/mod/mod_ssl.html#sslcertificatefile) ) as well as the corresponding private key (

[https://httpd.apache.org/docs/2.4/mod/mod\\_ssl.html#sslcertificatekeyfile](https://httpd.apache.org/docs/2.4/mod/mod_ssl.html#sslcertificatekeyfile) ).

Store the certificate as `/etc/admin/certificates/ca.crt` and the private key as

```
/etc/admin/certificates/ca.key .
```

The names and paths of the certificate and private key can be changed in lines 77 and 79 of the sample proxy configuration.

For initial testing you can create a self-signed certificate via openssl, in a production environment please use certificates from your public key infrastructure (PKI).

## Check the Apache HTTP Server configuration:

If there are no syntax errors and the SSL-certificate and private key are available at the specified location, see chapter2 - this check should return "Syntax OK".

```
apachectl configtest
```

## Define which users are allowed to open the Mindbreeze configuration site (set up basic authentication via htpasswd):

When executing the following command you need to specify a password for the user which is stored encrypted at `/etc/admin/htaccess/htpasswd` . The path is specified in line 143 of the sample proxy configuration.

```
htpasswd -c /etc/admin/htaccess/htpasswd user
```

## Configure Iptables:

Accepting connections to the management port 23000 from source localhost:

```
iptables -A INPUT -p tcp -s localhost --dport -j ACCEPT
```

Denying all connections to destination port 23000

```
iptables -A INPUT -p tcp --dport 23000 -j DROP
```

Due to iptables rules being a chain, connections from localhost to port 23000 are allowed (rule no. 1), external connections are dropped because of rule no. 2.

## 74.4 Useful links and further documentation

Sample Proxy Configuration Download -  [SampleProxyConfiguration](#)

Apache HTTP Server - <https://httpd.apache.org/>

mod\_ssl Module - [http://httpd.apache.org/docs/2.4/mod/mod\\_ssl.html](http://httpd.apache.org/docs/2.4/mod/mod_ssl.html)

htpasswd - <https://httpd.apache.org/docs/2.4/programs/htpasswd.html>

iptables - <https://wiki.centos.org/HowTos/Network/IPTables>

## 75 Backlinks missing from user/group/position activities

Last update: 31 January 2018

### 75.1 Summary

In Fabasoft Folio/eGov-Suite 2012 to 2014, an issue is known with user/group/position activities, where the backlinks to assigned activities may not be correctly inserted. Due to this the affected activities might not be shown for the assigned user/group/position.

On the other side it is possible, that completed activities may be left over in the assigned activities, this may lead to longer load times if a high number of completed activities is present for a certain user/group/position/organisational unit.

The issue is fixed in current builds of the named product versions. If you do not use a current build or the latest Update Rollup, a hotfix is available from Fabasoft.

### 75.2 Information

Due to the nature of the issue any user/group/position may be affected but users/groups/positions that are involved in a high number of (parallel) activities are at an especially high risk of being affected. There is currently no known scenario where information on the activity backlink is lost, as only one the user/group/position side of the backlink is lost and may be restored with information stored in the affected activity.

### 75.3 Solution

A hotfix for this issue and all affected versions is available. Please contact Fabasoft Support including your current version and build number.

Due to the nature of the issue the hotfix will only apply to newly created backlinks, therefore the following scripts have been developed to analyse and if necessary fix the activity backlinks in your system.

These scripts are independent of the Hotfix mentioned above and you can run the **Collect Activities** script on your system now to see if it is affected by the issue.

For instructions on executing the following scripts please refer to the knowledge base article <https://help.supportservices.fabasoft.com/index.php?topic=doc/Support-Tools/scripts-for-missing-activities.htm>

<http://www.fabasoft.com/en/knowledgebase/executing-expressions-without-expression-tester> If you need any further assistance please contact Fabasoft Support.

## 76 "Call was rejected by callee" on conversion server

Last update: 8 March 2018 (cf)

### 76.1 Summary

The error message "Call was rejected by callee" is send to the Conversion server Event log and conversion of Microsoft Word documents stops working.

This article describes a possible issue that could lead to this error message.

## 76.2 Information

The error message "Call was rejected by callee" is returned to Fabasoft Folio by Microsoft Words OLE component. Microsoft Word OLE may stop working in the case that too many temporary files are located in a Microsoft Word temporary folder.

Fabasoft uses Microsoft OLE to open and handle Microsoft Word (and other Microsoft Office applications) without user interaction on the Fabasoft Folio Conversion servers. Microsoft Word creates temporary files that are deleted after processing. In the case that Microsoft Word stalls with a document that cannot be handled by Fabasoft Folio (for example a password protected document), Fabasoft Folio will kill the Microsoft Word process after a given timeout (default 60 seconds). Microsoft Word then will not delete the temporary file. If too many temporary files are stored, Microsoft Word rejects the processing with the error "call was rejected by callee".

## 76.3 Solution

### 76.3.1 Folio 2014 Spring Release (and above)

Fabasoft Folio will detect the temporary files folder of Microsoft Office and will automatically delete old, unneeded files on the conversion server.

### 76.3.2 Fabasoft Folio Versions before 2014 Spring Release

The Microsoft Office temporary folder may be located at following paths:

- Office 2010
  - c:\windows\system32\config\systemprofile\appdata\local\microsoft\windows\temporary internet files\content.word
  - c:\windows\systemwow64\config\systemprofile\appdata\local\microsoft\windows\temporary internet files\content.word
- Office 2013
  - C:\Windows\System32\config\systemprofile\AppData\Local\Microsoft\Windows\INet Cache\Content.Word
  - C:\Windows\System32\config\systemprofile\AppData\Local\Microsoft\Windows\INet Cache\Content.MSO

Fabasoft recommends to clean-up this folder on a regular basis (for example by a Windows Scheduled Task on the weekend).

Further informations can be found in this Microsoft Knowledge Base article:

<http://support.microsoft.com/kb/211632>

## 76.4 Applies to

- Fabasoft Folio on Microsoft Windows until/including 2014 Winter Release
- Fabasoft eGov-Suite on Microsoft Windows until/including Fabasoft eGov-Suite 2014

## 77 Conversion to PDF-A fails

Last update: 21 February 2018

### 77.1 Information

You may receive an error code 1 while converting a content object into a PDF/A object:

The command line conversion returns with error code: 1

- You're using GPL Ghostscript as conversion tool.
- Converting a Note object to PDF works properly.

## 77.2 Solution

The ICC profile can't be found in your PDFA\_def.ps file. (located e.g. in C:\Program Files\gs\gs\lib ) because you're using double quotes and single backslashes in the path:

```
/ICCPfile ("C:\Program Files\gs\gs\sRGB_IEC61966-2-1_no_black_scaling.icc")
```

The GPL Ghostscript Syntax does not allow the use of double quotes in the file path. Furthermore you have to use double backslashes (for Microsoft Windows). Your ICC profile path should look like these (either one depending on your syntax - please also ensure the correct usage or the parenthesis):

```
/ICCPfile (C:\\Program Files\\gs\\gs\\sRGB_IEC61966-2-1_no_black_scaling.icc)
```

```
/ICCPfile (C:/Program Files/gsgs/sRGB_IEC61966-2-1_no_black_scaling.icc)
```

## 77.3 Applies To

All conversion servers using GPL Ghostscript.

```
Das ist ein Text
Das ist ein Text
```

Das ist ein normaler Text

## 78 Creating a client trace

Last update: 8 March 2018

### 78.1 Microsoft Windows

This article describes the steps necessary to trace the client activities of Fabasoft Folio, this includes for instance tracing the opening of contents, synchronization of objects and mail merge of documents.

#### 78.1.1 Fabasoft Tracer

In order to capture the trace messages from the Fabasoft Folio Client the Fabasoft Tracer "tracer.exe" has to be started on the client, for more information about the usage please see Fabasoft Tracer.

#### 78.1.2 Creating the Trace

If the instructions from the Service Desk Ticket include a trace version of the client components, please make sure to follow any additional steps for replacing these components, as provided by the support engineer.

To create the trace the following steps have to be performed:

- Copy the Fabasoft Tracer on to the client.
- Close all open browser windows, and stop the Fabasoft Folio Client systray component.
- Replace the client components with the trace versions provided by the support engineer if applicable.
- Start the Fabasoft Tracer.

- Start the browser and navigate to the Fabasoft Folio Webclient
- Try to reproduce the problem.
- When the problem occurs, save the tracer output to a file using the menu "File->Save".
- Upload the trace file to the Fabasoft Support Service Desk.

Please ensure that only trace message information from process, thread and module are recorded, this can be achieved by using the Fabasoft Tracer menu "Settings->Output->Default".

Please only start the Fabasoft Tracer when you are ready to reproduce the problem. This ensures that only trace messages that are related to the problem are recorded and helps in the analysis of the trace.

### 78.1.3 Removing the Trace Version

To remove the trace versions of any provided library, close all browser windows and stop the Fabasoft Folio Client systray component, delete the trace version of the files from their respective directories and replace them with backups of the non trace versions.

## 78.2 Linux

This article describes the steps necessary to trace the client activities of Fabasoft Folio, this includes for instance tracing the opening of contents, synchronization of objects and mail merge of documents.

### 78.2.1 Trace Message Logging

In order to log trace messages the Fabasoft Folio Client libraries have to be replaced by specific trace versions, provided by the support, the normal versions of the plugin libraries do not support tracing.

### 78.2.2 Creating the Trace

To create the trace the following steps have to be performed:

- Close all open Firefox windows.
- Start a terminal.
- Create a backup of the libraries in `/usr/lib/mozilla/plugins`.
- Replace the libraries, in `/usr/lib/mozilla/plugins`, with the trace versions provided by the support engineer.
- Start Firefox and navigate to the Fabasoft Folio Webclient.
- Try to reproduce the problem.
- When the problem occurs, copy the tracer output in `~/FolioPlugin.trc` to a new file.
- Upload the trace file to the Fabasoft Support Service Desk.

### 78.2.3 Removing the Trace Version

To remove the trace versions of any provided library, close all browser windows, delete the trace version of the files in `/usr/lib/mozilla/plugins` and replace them with backups of the non trace versions created in step 3.

## 79 Creating a debug trace

Last update: 8 March 2018

## 79.1 Microsoft Windows

This article describes the steps necessary to create a debug trace of a third party application, this includes the messages and activities that would normally be visible after attaching the Microsoft Windows Debugger to the application.

### 79.1.1 Fabasoft Tracer

In order to capture the debug messages from the application Fabasoft Tracer "tracer.exe" has to be started on the client and attached to the application's process, for more information about the usage please see Fabasoft Tracer.

### 79.1.2 Creating the Trace

To create the trace the following steps have to be performed:

- If the debug trace should be recorded from the application startup onwards:
  - Start the application from inside the Fabasoft Tracer using the menu "Trace->Debug...".
  - Otherwise attach the Fabasoft Tracer to the already running application using the menu "Trace->Attach..." and the process id of the application that you want to trace.
- Try to reproduce the problem.
- When the problem occurs, save the tracer output to a file using the menu "File->Save".
- Upload the trace file to the Fabasoft Support Service Desk.

Please only start the Fabasoft Tracer when you are ready to reproduce the problem. This ensures that only trace messages that are related to the problem are recorded and helps in the analysis of the trace.

## 80 Creating a kernel trace

Last update: 8 March 2018

This article describes the steps necessary to create a kernel trace of activities of Fabasoft Folio components.

### 80.1 Microsoft Windows

In order to be able to trace the activities of the Fabasoft Folio Kernel with the Fabasoft Tracer, the Kernel DLL `coomk.dll`\* has to be replaced with a special trace version.

#### 80.1.1 Fabasoft Folio Kernel Trace Version

The trace version of `coomk.dll` can be found at the following locations:

- In the directory "`Setup/ComponentsBase/Trace/<platform>`" on the Fabasoft Folio installation disc or image.

\*In versions prior to Fabasoft Folio 2010 Winter Release the file was named `coomkXX.dll` where XX is the version number of the release.

#### 80.1.2 Fabasoft Tracer

In order to capture the trace messages from the Kernel the Fabasoft Tracer "tracer.exe" has to be started, for more information about the usage please see Fabasoft Tracer.

### 80.1.3 Creating the Trace

To create the trace the following steps have to be performed:

- Stop the Fabasoft Folio web-, AT- and/or conversion service.
- Rename the file "coomk.dll" in the Kernel installation directory to "coomk.dll.noTrace" .
- Copy the trace version of "coomk.dll" into the Kernel installation directory.
- Set the environment variable "CHECKINSTALLATION" to "CHECKINSTALLATION=COMPONENTS" . This can be done either by editing the Registry value at  
`HKEY_CURRENT_USER\Software\Fabasoft\Environment`  
with the service user that runs the Kernel or via editing the .upd files ( coomk.upd and cooprep.upd ) located at C:\ProgramData\Fabasoft .
- Start the Fabasoft Folio web-, AT- and/or conversion services necessary to reproduce the problem.
- Prepare the steps necessary to reproduce the problem.
- Start the Fabasoft Tracer.
- Try to reproduce the problem.
- When the problem occurs, save the tracer output to a file using the menu "File->Save".
- Upload the trace file to the Fabasoft Support Service Desk.

Please ensure that only trace message information from process, thread and module are recorded, this can be achieved by using the Fabasoft Tracer menu "Settings->Output->Default".

Please only start the Fabasoft Tracer when you are ready to reproduce the problem. This ensures that only trace messages that are related to the problem are recorded and helps in the analysis of the trace.

### 80.1.4 Removing the Trace Version

If you want to stop using the trace version of the Kernel perform the following steps:

- Stop the Fabasoft Folio web-, AT- and/or conversion service.
- Delete the trace version of the file "coomk.dll".
- Rename the file "coomk.dll.noTrace" back to "coomk.dll" .
- Restore the environment variable "CHECKINSTALLATION" to its initial state by setting it to "CHECKINSTALLATION=yes".
- Start the Fabasoft Folio web-, AT- or conversionservice.

## 80.2 Linux

In order to be able to trace the activities of the Fabasoft Folio Kernel with the Fabasoft Tracer, the Kernel library libcoomk.so\* has to be replaced with a special trace version.

### 80.2.1 Fabasoft Folio Kernel Trace Version

The trace version of libcoomk.so can be found at the following locations:

- In the directory "Setup/ComponentsBase/Trace/<platform>/" on the Fabasoft Folio installation disc or image.

\*In versions prior to Fabasoft Folio 2010 Winter Release the file was named libcoomk.so.XX where XX is the version number of the release.

## 80.2.2 Trace Message Logging

Prior to Fabasoft Folio 2015 trace messages in Linux were written in the log file of the appropriate instance:

- Webservices:  
Webservices write trace messages into  
"/var/opt/fabasoft/log/web/WebService\_<id>.error.log" .
- AT-Services:  
AT-Services write into "/var/opt/fabasoft/instances/COOATService\_<id>/log/main/current" .
- FSCEval:  
FSCEval outputs the trace messages to the current console, in order to record this trace messages the console output has to be redirected.

- 
- 
- 
- 

```
fsceval -file <path_to_script> > /tmp/tracefile.trc
```

Newer versions use the tool "tracer" to log these messages, for more information about the usage please see [Fabasoft Tracer](#) .

## 80.2.3 Creating the Trace

To create the trace the following steps have to be performed:

- Start a terminal.
- Login to the Fabasoft Folio service user.
  - 1.
  - 2.
  3. 

```
su - fscsrv
```
  - 4.
- Locate any opened "libcoomk.so" , which represent a single kernel instance each.
  - 5.
  - 6.
  7. 

```
lsof |grep libcoomk.so
```
  - 8.

Stop the Fabasoft Folio web-, AT- and/or conversion service.

The following 2 steps must be executed for every "libcoomk.co" in every directory previously found.

Copy the file "libcoomk.so" in the directories, for instance "/opt/fabasoft/share/eval/" to "libcoomk.so.noTrace" .

- 9.
- 10.
11. 

```
cp /opt/fabasoft/share/eval/libcoomk.so  
/opt/fabasoft/share/eval/libcoomk.so.noTrace
```
- 12.

Copy the trace version of "libcoomk.so" into the directories, for instance "/opt/fabasoft/share/eval/" and replace the file that is there.

```
13.  
14.  
15.          cp /<installdisc>/Setup/ComponentsBase/Trace//libcoomk.so  
           /opt/fabasoft/share/eval/  
16.
```

Start the Fabasoft Folio web-, AT- and/or conversion services necessary to reproduce the problem.

Prepare the steps necessary to reproduce the problem.

Start the Fabasoft Tracer or flush the log file if you are using a version prior to Fabasoft Folio 2014 Spring Release

```
17.  
18.  
19.          cp /dev/null /var/opt/fabasoft/<path_to_logfile>  
20.
```

Try to reproduce the problem.

When the problem occurs, save the log file in Fabasoft Tracer or if you are using a version prior to Fabasoft Folio 2014 Spring Release copy the log file using the following command:

```
21.  
22.  
23.          cp /var/opt/fabasoft/<path_to_logfile> /tmp/tracefile.trc  
24.
```

Upload the trace file to the Fabasoft Support Service Desk.

## 80.2.4 Removing the Trace Version

If you want to stop using the trace version of the Kernel perform the following steps:

- Start a terminal.
- Login to the Fabasoft Folio service user.

```
1.  
2.  
3.          su - fscsrv  
4.
```

- Stop the Fabasoft Folio web-, AT- and/or conversion service.
- Copy the file "libcoomk.so.noTrace" back to "libcoomk.so" and replace the trace version.

```
5.  
6.  
7.          cp /opt/fabasoft/share/eval/libcoomk.so.noTrace  
           /opt/fabasoft/share/eval/libcoomk.so
```

8.

- Start the Fabasoft Folio web-, AT- or conversionservice.

## 81 Fabasoft Folio Client with Mozilla Firefox version 52 and above

Last update: 27 July 2018

### 81.1 Summary

Mozilla Firefox disabled the Add-On interface NPAPI starting with Firefox Version 52. Firefox Add-Ons using the NPAPI are automatically disabled in Firefox Version 52 and above.

Fabasoft Folio has used the NPAPI from Firefox, but with announcement of the deprecation of the NPAPI, Fabasoft re-developed it's Firefox Add-On to further support the Fabasoft Folio Client with newer versions of Mozilla Firefox.

This article lists Fabasoft Folio versions that work with Firefox V52 and above.

Notice: This article does not change the Software Product Information (SPI) of your current Fabasoft Folio version. If you intend to use software versions not listed in the SPI, please do appropriate tests with that software.

### 81.2 Information

Fabasoft Folio Client version and build numbers that operate with Firefox 52 and above

Fabasoft Version	Build number	New Firefox extension available
Before Fabasoft Folio 2016	-	NO
Fabasoft Folio 2016 Release up to UR3	16.0.4 - 16.0.7	NO
Fabasoft Folio 2016 UR4 and above	16.0.8 - 16.0.x	YES
Fabasoft Folio 2017 and above	17.x	YES

### 81.3 Details

The new installation of the Fabasoft Folio Client by running FolioClient.msi will install the Folio Client (including the Tray Icon). For communication from Firefox to the Folio Client, the Firefox Add-On FolioFirefoxExtension.xpi (in the same directory as FolioClient.msi) needs to be installed additionally, when preinstalling or rolling out the software.

For a manual installation by the user, the browser wellness factor is shown in the "Account" button on the top right corner. If it shows a red exclamation mark, the details will offer to install the Firefox Add-On as well as the Folio Client.

## 82 Fabasoft iArchive Hotfix - Inconsistencies when objects are restored

Last update: 6 February 2018 (cf)

## 82.1 Summary

Under the prevailing circumstances data changes can occur when archived objects are restored. A hotfix is available from Fabasoft.

## 82.2 Information

Under the following circumstances data changes or data corruption can occur for involved objects:

- Fabasoft iArchive is in use, AND
- CSV migrations are in use to convert object classes from older versions "on-the-fly", AND
- objects with older object classes were archived with Fabasoft iArchive, AND
- these objects are restored with the Fabasoft iArchive feature using a CSV migration table

During the restore the following data changes or corruption may occur to the object:

- The issue only occurs if the object class needs CSV migration.
- The sort ordering of all non-migrated aggregates of all versions (including current) is reversed (data change)
- The sort ordering of the version aggregate is reversed, resulting in:
  - the version table cannot be read
  - no version can be read

## 82.3 Solution

A hotfix is available for this issue. Fabasoft urgently recommends customers using Fabasoft iArchive to request and install the available hotfix. Please create a ticket in Fabasoft Service Desk or contact us via [support@fabasoft.com](mailto:support@fabasoft.com) and include your version-information and build numbers for quick processing.

## 82.4 Applies to

- Fabasoft Folio 2009 to 2011 (all quarterly releases)
- Fabasoft Folio 2012 Winter Release (lower than 12.0.7.78)
- Fabasoft eGov-Suite 8.0 SP1
- Fabasoft eGov-Suite 2012 AUT (Release build)

in combination with

- Fabasoft iArchive

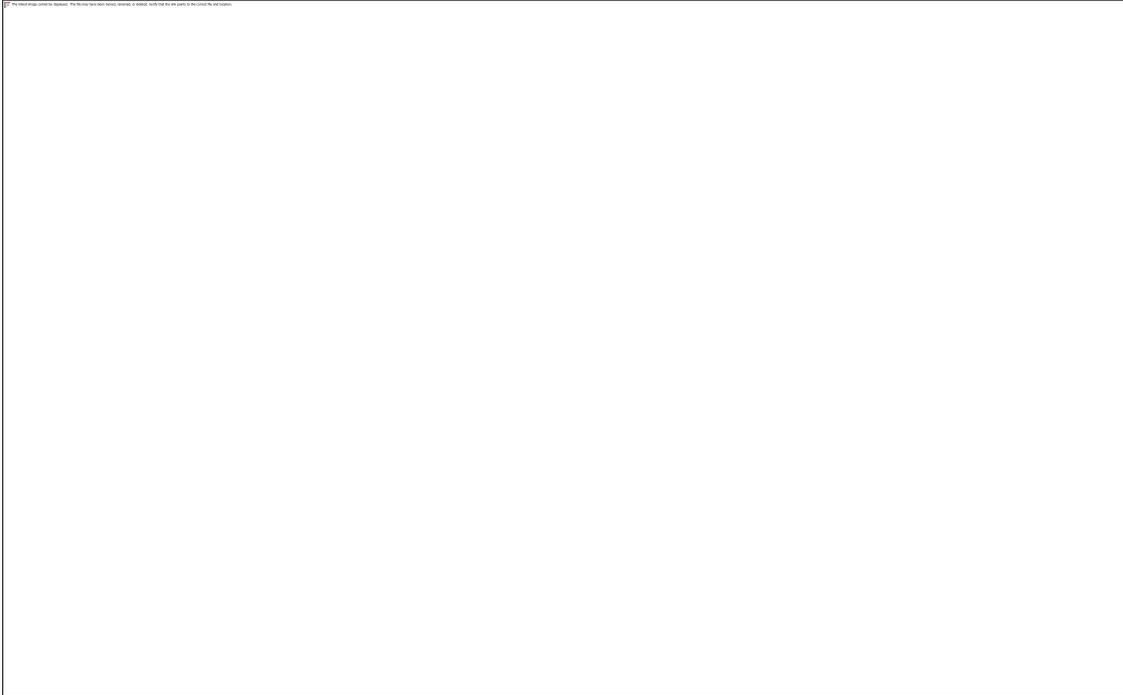
Note: Fabasoft eGov-Suite 2012 DEU, BAY and CHE already include the hotfix.

## 83 Fabasoft Tracer

Last update: 8 March 2018

## 83.1 Microsoft Windows

The Fabasoft Tracer "tracer.exe" is a tool for capturing trace messages from various components of a Fabasoft Folio installation , such as the Fabasoft Folio Kernel and the Fabasoft Folio Client .



The file tracer.exe can be found at the following locations:

- In the directory "Setup/ComponentsBase/Trace/<platform>/" on the Fabasoft Folio installation disc or image.
- In the directory "%ProgramFiles%/Fabasoft/Components/Management/Tools" on any Windows server where a Fabasoft Folio Kernel has been installed.

### 83.1.1 Commandline Parameters

Usage: tracer.exe [-out <path> [-nogui]]

- -out <path>  
Redirect the trace messages to a file, this file may be split into multiple parts if the amount of trace messages exceeds a certain limit (100 000 lines).
- -nogui  
Normally used together with "-out <path>", starts the tracer without a graphical user interface, useful when tracing via a Terminal Server session.

### 83.1.2 Menus

- File->Open  
Opens a previously recorded tracefile for analysis.
- File->Save  
Save the current trace output to a file for later analysis.
- File-Redirect  
Redirect all new trace messages to a file.
- Copy  
Copy the currently selected text to the clipboard.
- Clear  
Remove all currently displayed trace messages.

- Select  
Search for a specific string inside the trace, select the results by using the + or F3 key to search downwards and the - or F4 key to search upwards.
- Run->Start  
Restart a previously stopped trace session.
- Run->Stop  
Stop the current trace session.
- Trace->
  - Processes  
Output a list of the currently running processes.
  - Threads  
Output a list of the threads of all currently running processes.
  - Modules  
Output a list of the loaded libraries of all currently running processes.
  - Windows  
Output a list of all currently opened application windows.
  - Debug...  
Start an application and attach the current instance of the Fabasoft Tracer as a debugger.
  - Attach..  
Attach the current instance of the Fabasoft Tracer to an already running application as a debugger.

Any other settings should normally be set to the defaults, special settings that are required will be mentioned in the Service Desk Ticket when requesting the trace.

## 83.2 Linux

The Fabasoft Tracer "tracer" on Linux is a tool, available from Fabasoft Folio 2015 onwards, for capturing trace messages from various components of a Fabasoft Folio installation , such as the Fabasoft Folio Kernel and the Fabasoft Folio Client.

The binary tracer can be found at the following locations:

- In the directory "Setup/ComponentsBase/Trace/<platform>/" on the Fabasoft Folio installation disc or image.
- In the directory "/opt/fabasoft/bin" on any Linux server where a Fabasoft Folio Kernel, version 15.0 or higher, has been installed.

### 83.2.1 Commandline Parameters

Usage: tracer [-out <path> [-tee <path>]]

- -out <path>  
Redirect the trace messages to a file and do not display them in the console, this file may be split into multiple parts if the amount of trace messages exceeds a certain limit (100 000 lines).
- -tee <path>  
Display trace messages in the console and save them to the specified file , this file may be split into multiple parts if the amount of trace messages exceeds a certain limit (100 000 lines).

## 83.2.2 Interactive Commands

- SPACE  
Start/stop the capturing of trace messages.
- CTRL+L  
Remove all currently displayed trace messages.
- Q  
Exit the tracer.

Any other settings should normally be set to the defaults, special settings that are required will be mentioned in the Service Desk Ticket when requesting the trace.

## 84 Firefox has not produced the result file within the maximum allowed time span

Last update: 21 February 2018

### 84.1 Information

During conversion on Linux using Firefox you may receive this error message:

Firefox hasn't produced the result file within the maximum allowed time span

ps2pdf cannot be found in folder /usr/bin but in /usr/local/bin . This program is necessary to convert postscript files into pdf files and is provided by Ghostscript.

### 84.2 Solution

Create a symbolic link from /usr/local/bin/ps2pdf to /usr/bin/ps2pdf

```
ln -s /usr/local/bin/ps2pdf /usr/bin/ps2pdf
```

## 85 GPL Ghostscript 9.06 and PDF/A conformance with modern color profiles

Last update: 31 July 2018

### 85.1 Overview

When using the current color profiles from [www.color.org](http://www.color.org) the PDF/A documents generated with GPL Ghostscript produce the error "The value of the key N is 4 but must be 3." in most validators.

### 85.2 Details

This error message is generated because the definition file "PDF\_A\_def.ps" of Ghostscript 9.06 expects that all non grayscale color profiles are using the CMYK color space, which is no longer true for the recommended color profiles from [www.color.org](http://www.color.org), this assumption can be changed by editing the definition file.

To change the assumed color profile of Ghostscript 9.06 simple change the value **4** to **3** in the following line inside the file "PDF\_A\_def.ps" as shown below:

```

[{{icc_PDFa}} <</N systemdict /ProcessColorModel get /DeviceGray eq {1} {
4
} ifelse >> /PUT pdfmark

[{{icc_PDFa}} <</N systemdict /ProcessColorModel get /DeviceGray eq {1} {
3
} ifelse >> /PUT pdfmark

```

## 86 Hotfix for Microsoft DTC Usage

Last update: 20 February 2018

### 86.1 Information

Latest analysis has shown situations where the stability of a Two-Phase-Commit needs to be improved when using the Microsoft Distributed Transaction Coordinator (MSDTC).

Please note: Without the hotfix Fabasoft Folio did a gently fallback to transactions without Microsoft DTC, without errors and warnings. Applying the hotfix changes this behaviour to a strict mode, meaning problems with Microsoft DTC will prevent transactions and lead to error messages.

Therefore we strictly recommend checking the correctness of the Microsoft DTC configuration in your infrastructure before applying the hotfix. Details on the [configuration of the Microsoft DTC and the corresponding error messages](#) can be found [here](#).

There is also a continuative Fabasoft Knowledge Base article on [how to test a distributed transaction](#).

### 86.2 Solution

A hotfix (coostd.exe and coomk.dll) is available for all supported versions of Fabasoft Folio / Fabasoft eGov-Suite and will be provided via our support team. Please contact Fabasoft Support (or respectively your TAM-contact) if you are interested in this hotfix.

Important: It is essential to apply the hotfix for both coostd.exe (Fabasoft Folio backend servers) and coomk.dll (all Fabasoft Folio servers) for a stable result. Do not apply only one of the two hotfix files.

It is recommended to test the functionality of a distributed transaction during the maintenance window after the hotfix is installed.

#### 86.2.1 Applies to

- Fabasoft Folio on Microsoft Windows and Microsoft SQL-Server (all versions)
- Fabasoft eGov-Suite on Microsoft Windows and Microsoft SQL-Server (all versions)
- Fabasoft eCRM-Suite on Microsoft Windows and Microsoft SQL-Server (all versions)

## 87 How to change the location of Fabasoft Folio Kernel Caches

Last update: 31 January 2018

### 87.1 Information

The Fabasoft Folio Kernel (e.g. Webservices, Conversion services) persists temporary files ("Fabasoft Folio Kernel Caches") to re-use cache data also after a shutdown and restart of the Fabasoft Folio Kernel.

The base location of the Fabasoft Folio Kernel Caches usually is

- Microsoft Windows: C:\ProgramData\Fabasoft
- Linux: /var/opt/fabasoft/cache

The path locations are persisted to the Windows Registry or Linux /etc/fabasoft/settings on the first start of the Fabasoft Folio Kernel.

There are several subdirectories that are used for Fabasoft Folio Kernel Caches (CACHEDIR, COMMITDIR, DOCDIR, CASCACHEDIR...) with an own entry in the Registry settings. The used Fabasoft Environment Variables are listed in the whitepaper "Fabasoft Folio Environment Variables.pdf" included on your installation kit.

### 87.2 Solution

#### 87.2.1 Microsoft Windows

The easiest way to change the Fabasoft Folio Kernel Cache paths is by modifying \*.upd files. upd-Files contain Fabasoft Environment variables to be written to the Registry hive of the current service user (HKEY\_CURRENT\_USER\Software\Fabasoft\Environment) before the Fabasoft Kernel starts.

- Locate the coomk.upd and cooprep.upd files in the directory C:\ProgramData\Fabasoft
- Change or add the following lines:
- HKEY\_ENVIRONMENT\LOCALDATADIR=
- HKEY\_ENVIRONMENT\CACHEDIR=
- HKEY\_ENVIRONMENT\ DOCDIR =
- HKEY\_ENVIRONMENT\ COMMITDIR =
- HKEY\_ENVIRONMENT\ LOGDIR =
- HKEY\_ENVIRONMENT\ CASCACHEDIR =
- Make sure you have changed or added the same lines in both the coomk.upd and cooprep.upd files.
- When a Fabasoft Folio Kernel starts, it first will copy these settings to it's HKEY\_CURRENT\_USER Registry hive and then use the new settings to start the Kernel. This will also happen in new Fabasoft Folio services are installed later.

#### 87.2.2 Linux

You can directly change the Environment variables in the /etc/fabasoft/settings/users/fscsrv/Software/Fabasoft/Environment directory.

- Move into the appropriate subdirectory (e.g. CACHEDIR)

- Modify the existing registry.default file and enter the new path. Do not enter line-breaks because this will break the file.
- If the setting does not exist, create the directory, and create the registry.default file by echo -n > registry.default. The -n option avoids to create a line-break.

### 87.3 Details

Starting with Fabasoft Folio 2016, the Folio Kernel does not save binary data anymore in the CACHEDIR folder. On Kernel start, all data are re-read from the COO-Services.

The COMMITDIR folder contains a information files of currectly reserved object id's and aggregate id's for each Kernel. To optimize performance, each Kernel pre-allocates and locally manages blocks of object id's and aggregate id's that are already marked as used in the databases. On shutdown, the used and free id's of that blocks are stored in the COMMITDIR directory, and read at startup, to fill up the local block. If you delete COMMITDIR, each Kernel will allocate a new block, and the unused local id's are lost ind the address space. This leads to a faster growing of id usage.

The DOCDIR is used for temporary saved documents that are processed. Especially on conversion servers it is used for the source and destination files. In some situations, when the Kernel loses context to a document, documents may stay in the directory. DOCDIR can be savely cleared when all Kernel instances are closed.

The CASCACHEDIR is used as read cache for CAS MMC service areas. Documents are cached and served directly from the CASCACHEDIR if the document hash from the database is found in this directory. The size and cleanup interval can be controlled by environment variables (that can be set in the .upd files as well). Like the DOCDIR, the CASCACHEDIR can be deleted savely when all Kernel instances are closed.

The LOGDIR is present for legacy reasons and is usually empty on recent Fabasoft Folio versions.

## 88 How to create new Certificates for Liferay Portal Integration

Last update: 8 March 2018

### 88.1 Summary

This how-to describes what must be done to renew your Liferay Portal Certificates.

### 88.2 Solution

#### 88.2.1 Prerequisites

- openssl
- keytool (Java)

#### 88.2.2 Preparation

- Open "/etc/fabasoft/web/ssl.conf"
- Note path of following 3 lines:

```
    SSLCertificateFile
/var/opt/fabasoft/instances/WebService_103/servercert.pem
```

```
SSLCertificateKeyFile
/var/opt/fabasoft/instances/WebService_103/serverkeynodes.pem
SSLCACertificateFile /var/opt/fabasoft/instances/WebService_103/cacert.pem
```

This is the path where the certificates for the eServices are stored. The new certificates have to be placed in this folders.

## 88.3 CA & CA - Certificate

Following statements are necessary to create a Certificate Authority, the dedicated keys, requests and certificates.

### 88.3.1 Generate Key and Requests

```
openssl req -config -new -keyout .pem -out .pem -passout "pass:" -batch
```

### 88.3.2 Generate CA - Certificate

```
openssl ca -config -subj "" -out .pem -days -batch -keyfile .pem -
selfsign -passin "pass:" -infile .pem
```

subj could possibly look like this: "/C=AT/ST=Upper Austria/L=Linz/O=Fabasoft AG/CN=Fabasoft Local eService CA"

### 88.3.3 Export the CA - Certificate in a \*.p12 - File

```
openssl pkcs12 -export -in .pem -inkey .pem -out .p12 -name "CaCertificate"
-passin "pass:" -passout "pass:"
```

### 88.3.4 Export the CA - Certificate in a \*.cer - File

```
openssl x509 -in .pem -out .cer -outform DER
```

## 88.4 Server Certificate

This certificate has to be available on the webservice.

### 88.4.1 Generate Key and Requests

```
openssl req -config -new -keyout .pem -out .pem -subj "" -passout "pass:"
-days -batch
```

subj could possibly look like this: "/CN=servicedesktest.support.fabasoft.local"

## 88.4.2 Generate Server Certificate

```
openssl ca -config -policy policy_anything -out .pem -batch -infiles .pem
```

## 88.4.3 Generate Keynodes

```
openssl rsa -in .pem -out .pem
```

## 88.4.4 Use Created Certificates

Stop all Fabasoft Folio WebServices. In order to use the created certificates copy them to the right file system locations (noted at the beginning). Make sure all certificates and keys have the same permissions as the originals had.

## 88.5 Liferay Service Certificate

Important: It is necessary that the CN of the liferay certificate is a loginstring of the Liferay Service User in the Fabasoft Folio installation.

### 88.5.1 Generate Key and Requests

```
openssl req -config -new -keyout .pem -out .pem -subj "" -passout "pass:"  
-days -batch
```

subj could possibly look like this: "/CN=liferaysvc"

### 88.5.2 Generate Server Certificate

```
openssl ca -config -policy policy_anything -out .pem -batch -infiles .pem
```

### 88.5.3 Generate Keynodes

```
openssl rsa -in .pem -out .pem
```

### 88.5.4 Export the CA - Certificate in a \*.p12 - File

```
openssl pkcs12 -export -in .pem -inkey .pem -out keystore.p12 -name  
"CaCertificate" -passin "pass:" -passout "pass:"
```

### 88.5.5 Import the CA - Certificate in the Truststore

```
keytool -import -trustcacerts -alias "" -file cacert.cer -keystore truststore.jks -noprompt -storepass
```

alias could possibly look like this: "Fabasoft Local eService CA"

### 88.5.6 Exchange Liferay Certificate

To exchange the truststore and the liferay service user certificate two files have to be edited and the generated files have to be copied to the tomcat directory (webapps/ROOT/WEB-INF/certs).

In the following two files the passwords for the truststore and the keystore have to be edited:

- webapps/ROOT/WEB-INF/classes/portal-ext.properties
- webapps/fscportlet/WEB-INF/portlet.xml

## 88.6 Starting Liferay

Liferay can now be started. In order to get fully functionally portlets these portlets have to be instanced newly, so that the new certificates are choosen.

## 88.7 Applies to

- Fabasoft Folio (Linux)
- Fabasoft eGov-Suite (Linux)
- Liferay

## 89 How to remove a Fabasoft Client / Plugin installation on Windows

Last update: 31 January 2018

### 89.1 Summary

Usually you can simply remove your Fabasoft Folio Client / plugin installation by un-installing it from the control panel.

If it is necessary to completely remove a Fabasoft Folio Client / plugin and all its configuration, please follow our guide provided below.

### 89.2 Solution

Please follow the steps outlined below to remove the installation:

- Uninstall all currently installed Fabasoft Folio Client and Fabasoft Folio Plugin components. If the Fabasoft Cloud Client is installed on the client, it should be removed as well.
- Remove existing registry entries:
- HKEY\_CURRENT\_USER\Software\Fabasoft
- HKEY\_CURRENT\_USER\Software\Microsoft\Office\AddIns\  
In this key there may be multiple entries pertaining to the Fabasoft Folio Client, please remove all keys beginning with FSC or Folio

Please be aware that all these keys are on a per user basis

- If you are using the Office Addins for Microsoft Word it may be necessary to reset the "Normal.dotm" (%APPDATA%\Microsoft\Templates). this is caused by the fact that Microsoft Word may save the activation settings for Addins into the "Normal.dotm".

**Warning: This will reset the default document settings for Microsoft Word and may have unintended consequences, we advise you back up the Normal.dotm file before this step.**

- Remove any remaining directories.
- C:\Program Files\Fabasoft
- C:\Program Files (x86)\Fabasoft (or any other installation path you chose)
- C:\Users\%user%\AppData\Local\Fabasoft
- %TEMP%\Fabasoft (per user)
- %TEMP%\fsc.client (per user)

In rare cases the de-registration of the used DLL-Files may not be completed in the uninstall process, these files may be de-registered using the tool regsvr32.

### 89.2.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

## 90 Information regarding Mindbreeze search suggestions

Last update: 12 June 2018

### 90.1 Summary

In case of configuration deficiencies in Fabasoft Folio or the Fabasoft eGov-Suite, objects may be indexed without proper ACL information in the Mindbreeze index.

As no ACL information is available, a potential hit must be considered "searchable" and the final access check will be performed via the Fabasoft kernel. This will basically result in a slow search performance as many objects (those without ACL information) must be checked.

The storing of ACL information in the Mindbreeze index is designed to serve as performance optimization. Being able to reject possible hits based on the ACL info stored in the index and furthermore to avoid access-checking every possible hit via the Fabasoft kernel. If an ACL cannot be indexed, a default ACL is inserted into the Mindbreeze index, which grants every user the right to search for the object, although it might be discarded during the final access check.

In terms of search suggestions this may be problematic, because suggestions are solely checked against the ACL information in the Mindbreeze index. This may lead to search suggestions based on unauthorized objects, although these objects cannot be found due to the final access check in the Fabasoft kernel.

### 90.2 Solution

To deactivate Mindbreeze search suggestions in Mindbreeze version 2017 and higher, you can uncheck the related options in the client service configuration (Suggest Settings, Initial Suggest Settings).

To deactivate Mindbreeze search suggestions in versions prior to Mindbreeze 2017, please contact Fabasoft Support for a workaround.

For using the Mindbreeze search suggestions, please contact the Fabasoft project team for a proper configuration of Fabasoft Folio or the Fabasoft eGov-Suite.

## 91 Internal Counter Limits

Last update: 30 October 2018

### 91.1 Summary

This article describes the limitations on two internally used counters for aggregates and contents, and how to check these counters in your environment.

### 91.2 Information

Fabasoft Folio uses an integer value for numbering of aggregates and contents per COO-Service. These counters have a range of 2,147,483,648 values each. This number should not be reached.

Partial ranges of these internal counters are pre-allocated by every Kernel instance. On every shutdown of the Kernel, the last used value of the Kernel is preserved in the COMMITDIR of this Kernel instance, and re-used on startup.

#### 91.2.1 Important notice

If you use Kernel restart scripts that clear the cache directories, please ensure that these scripts exclude the COMMITDIR directory. Frequently clearing the COMMITDIR directory will lead to a massively higher allocation of these counter values than expected in normal operation.

### 91.3 Solution

Please execute the following query against every COO-Service database and check if any of the **idvalue** counters are larger than 1,500,000,000, or negative.

```
SELECT * FROM coomaxid WHERE idtype=4 OR idtype=2;
```

If any of these values exceed the limit of approximately 1.500.000.000, please open a Service Desk Ticket with the Fabasoft Support and include the previously generated output.

#### 91.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

## 92 Internet Information Services Authentication Configuration for Fabasoft Folio 2014 and newer

Last update: 8 March 2018

## 92.1 Information

Fabasoft Folio 2014 and newer use a changed Internet Information Services authentication configuration due to performance optimizations that allow some static resources, like objectclass icons, to be loaded without authentication.

Because of this changes to the authentication settings should no longer be made at the virtual directory level and should instead be defined at "Website (Default Website)/Virtual Directory (FSC)/FSCASP/content/bin".

## 92.2 Layout

This is a general overview of the new authentication layout as it is used by Fabasoft Folio 2014 and newer, for convenience it also includes the default settings used by the setup.

- **Website (Default Website)** : Anonymous Authentication (User: IUSR)
  - **Virtual Directory (FSC)** : Anonymous Authentication (Application Pool Identity)
    - **FSCASP**
      - **content**
        -

**bin** Authentication methods chosen by the Administrator.

Default used by Setup:

- Basic Authentication
- Windows Authentication without Kernel-Mode (Negotiate, NTLM)

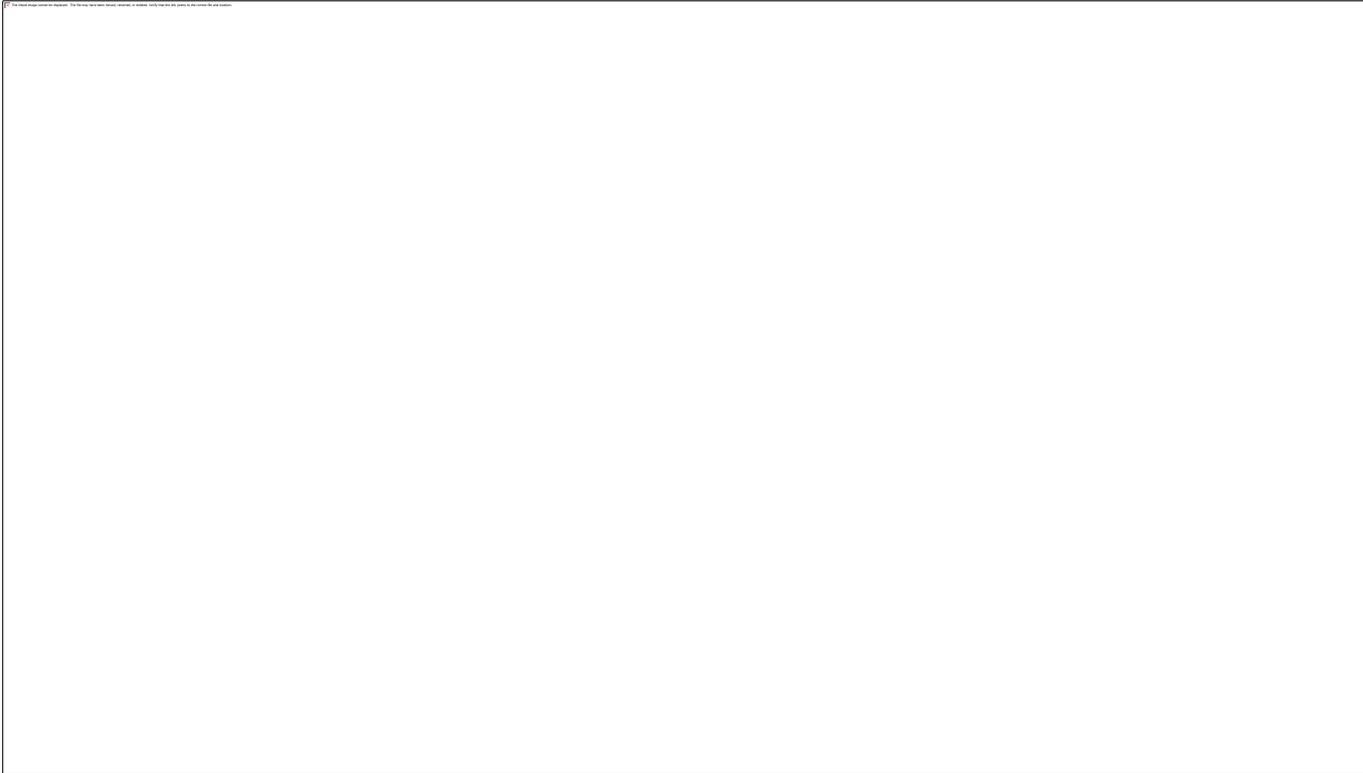
## 92.3 Additional Information

Any changes to this layout outside of "Website (Default Website)/Virtual Directory (FSC)/FSCASP/content/bin" can lead to complications when trying to access the Fabasoft Folio Webclient.

Keep in mind, that changes to the authentication configuration on a higher level in the hierarchy will be inherited to lower levels. Therefore, to revert changes, you have to walk through all levels of the shown layout and revise your changes.

The change to another Folio authentication methods in the Folio VAPP config (for example SAML) only requires the change of the bin authentication method in IIS. Do not change the authentication method on another level.

## 92.4 Screenshots



Default settings used by setup

## 93 Invalid license specified. License Version is X.Y

Last update: 21 February 2018

### 93.1 Information

After choosing the license file in your setup wizard a message box shows:

```
Invalid license specified.  
License Version is X.Y
```

#### 93.1.1 Possible reasons:

- You've copied your setup kit from DVD onto network share and not all files have been copied. (e.g.: setup\*.\*, autorun.inf )
- Command dos2unix not installed.
- File /tmp/setup/autorun.inf is empty after starting the setup.
- First Softwareproduct listed in COOSWCLM@1.1:swproducts contains wrong version number.

## 93.2 Solution

To make sure setup works correctly copy the whole setup kit onto a network share, install dos2unix and restart the setup.

If there are still issues with the license contact [licensing@fabasoft.com](mailto:licensing@fabasoft.com)

## 94 Java Out Of Memory Exceptions

Last update: 13 September 2018

### 94.1 Information

Each Fabasoft Folio Kernel instance starts its own Java Environment to process Java code and also 3rd-party Java libraries. Although the Java environment is running inside of the Fabasoft Folio Kernel process, it has its own memory management.

If the Java environments runs out of memory processing a request, an error message similar to `java.lang.OutOfMemoryError: Java heap space` is thrown to the Eventlog or Webservice log. This occurs when the Java environment has to handle large amounts of data.

Situations where this error may occur:

- Converting documents, e.g. conversions to PDF on the conversion server
- Merging PDF documents, e.g. for the PDF overview on the web server
- Handling large amounts of data within SOAP calls

With Fabasoft environment variables it is possible to control the size of Java's heap (memory) size.

### 94.2 Solution

The default memory limit used by the Fabasoft Folio Kernel is 512 MByte (before 2016 UR7: 256 MB). To adjust this limit, create the following Fabasoft Environment variable.

Best practice to create new Fabasoft Environment variables is to edit the `coomk.upd` and `cooprep.upd` files on your server (web, conversion,...):

```
HKEY_ENVIRONMENT\JAVAHEAPSIZEMAX=1024m
```

For the changes to take effect, please restart all Fabasoft Kernel instances on the server. You can further enlarge the limit to fit your needs. The Java memory management will use as many memory as requested. Java's garbage collector will reduce the actually assigned memory if it is not used anymore.

### 94.3 Details

This Java environment is started with the following memory default parameters:

Initial minimum heap size: 64 MByte (corresponds to the Java parameter `-Xms64m`)

Maximum heap size: 512 MByte (before 2016 UR7: 256 MB) (corresponds to the Java parameter `-Xmx512m`)

All Fabasoft Environment variables, including all Java memory parameters, are listed in the Fabasoft White Paper "Fabasoft Folio Environment Variables" included in your installation kit.

## 95 Linux: LDAP Authentication and PAM

Last update: 15 March 2018

### 95.1 Information

Under Linux, the LDAP configuration for the Fabasoft Folio Webservices is done in the Virtual Application Configuration (Default: FSCVAPP@1.1001:DefaultConfig).

With that single configuration, by default it is not possible to request special password input from the user when signing objects.

If additional password request for signing objects is required, PAM (Linux Pluggable Authentication Modules) needs to be configured.

As the webbrowser caches the credentials after successful Apache LDAP authentication, Fabasoft Folio can be configured to use the PAM architecture for a "second" login to sign objects when using LDAP. The configuration of PAM takes place in `/etc/pam_ldap.conf`

In the case that the LDAP server hostname changes and Folio is configured to ask for a password on signing, the LDAP hostname change needs to be reflected in the Folio Virtual Application Configuration as well as in the `/etc/pam_ldap.conf` configuration file.

### 95.2 Solution

Please see the White Paper Authentication With LDAP (Basic).pdf issued in your installation kit, or visit the [online version of the White Paper](#) for full documentation of the LDAP configuration.

### 95.3 Applies to

Fabasoft Folio (all versions)  
Fabasoft eGov-Suite (all versions)

## 96 Loading a Folio license file

Last update: 8 March 2018

From time to time it is necessary for you as an Administrator to load a new license file into your domain either because your current license file expired or your license file has been extended for new users or new Software Components .

There are some possibilities for you to get this done. You may load the license file using the Server loader (offline) or the client loader (online).

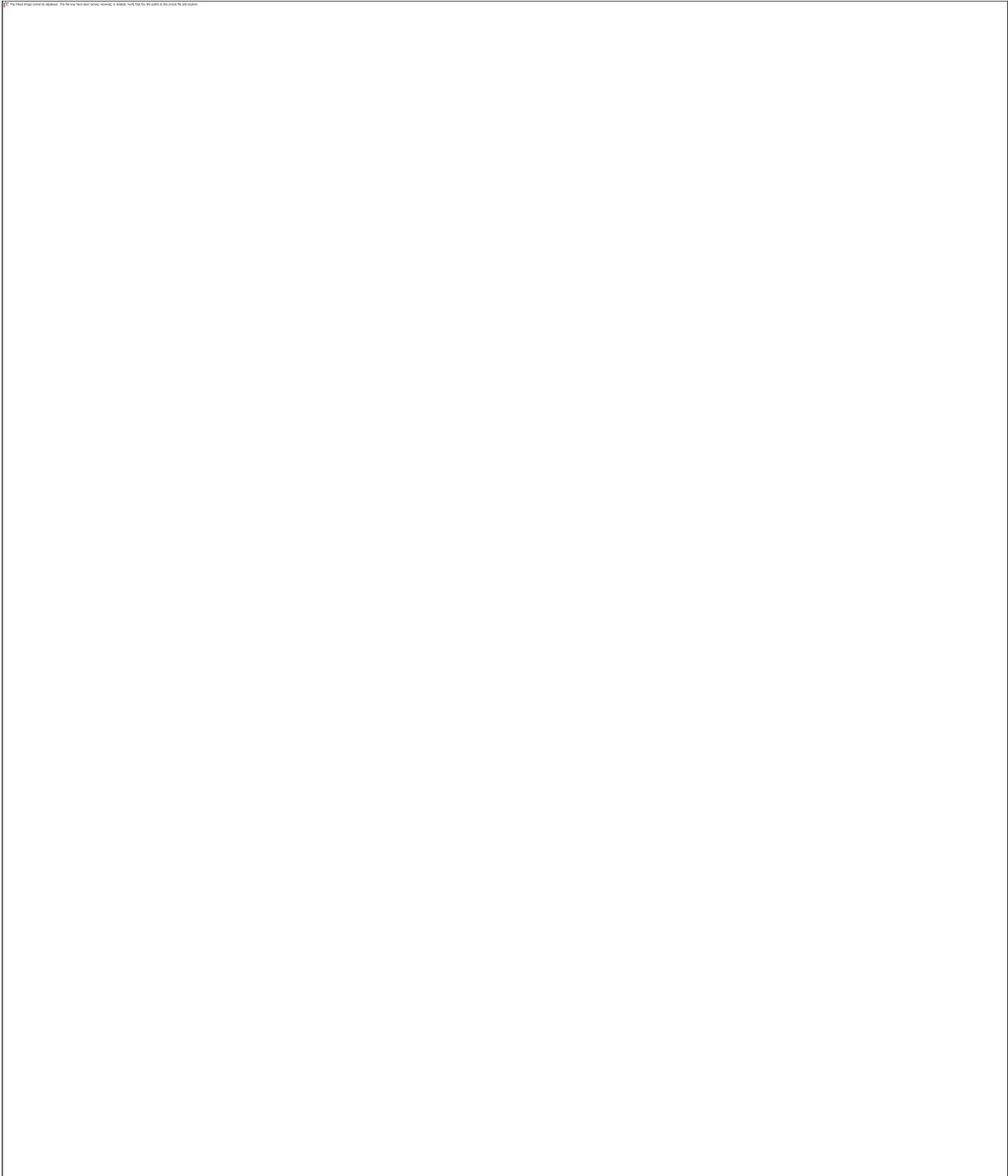
The OFFLINE variant is commonly used in a maintenance window whereas the ONLINE variant is used for 24/7 production systems .

## 96.1 Offline

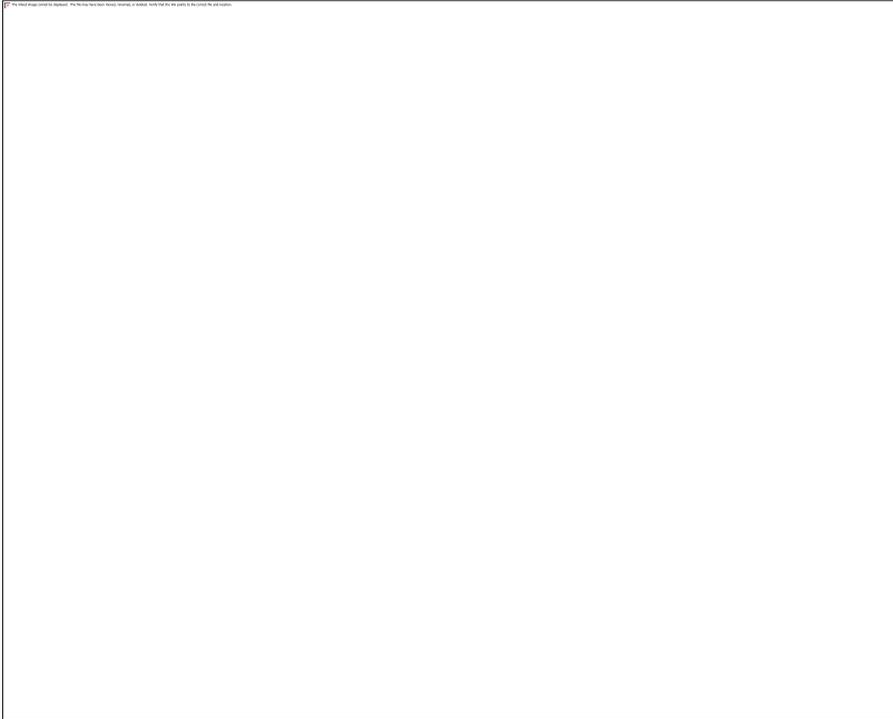
### 96.1.1 Windows

Loading a license file by using the Fabasoft Folio Server Management .

Narrow down to your domain in the tree and open the context menu and select All Tasks -> Load



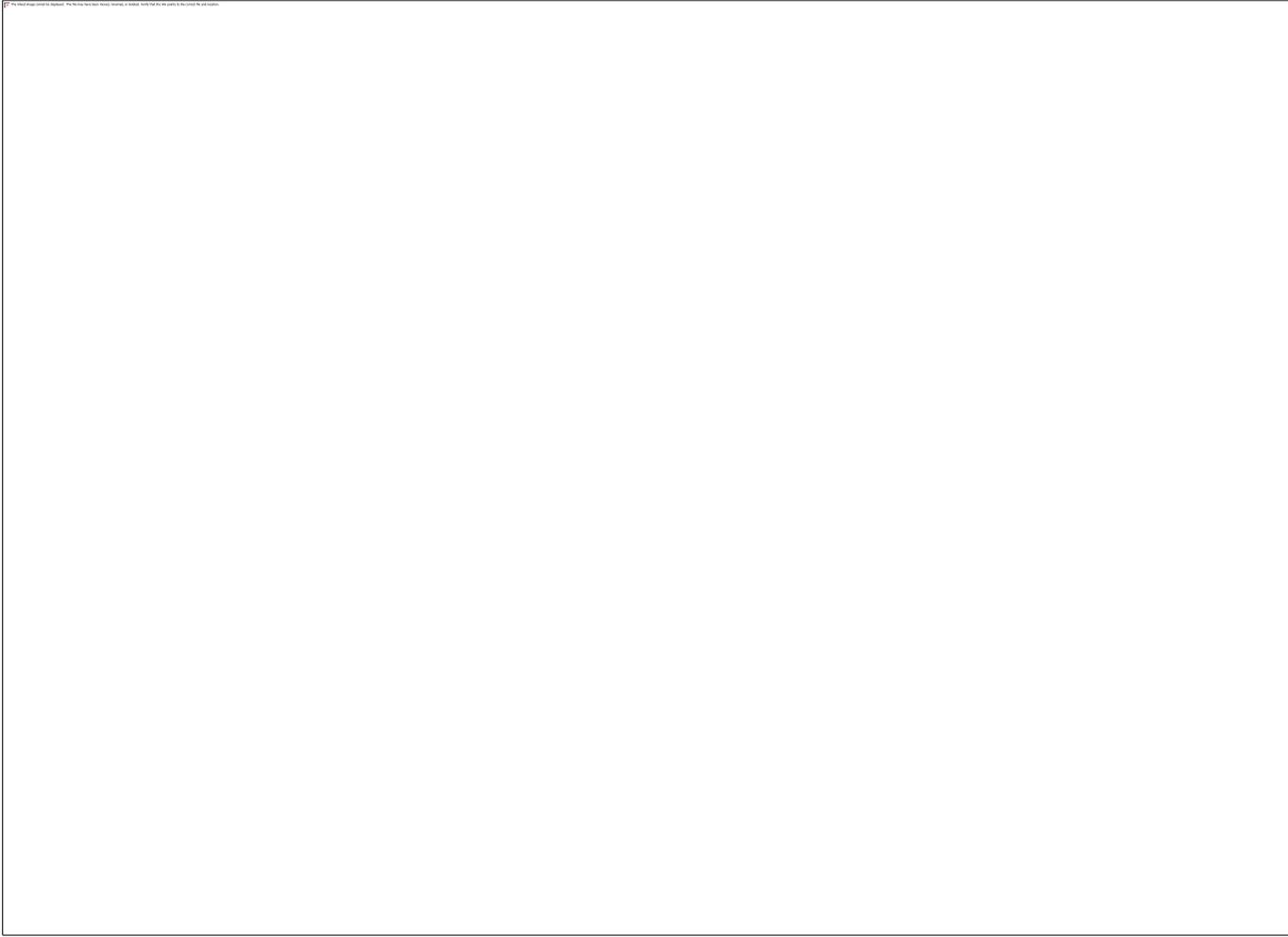
Change to the License tab and press Browse to search for the license file.



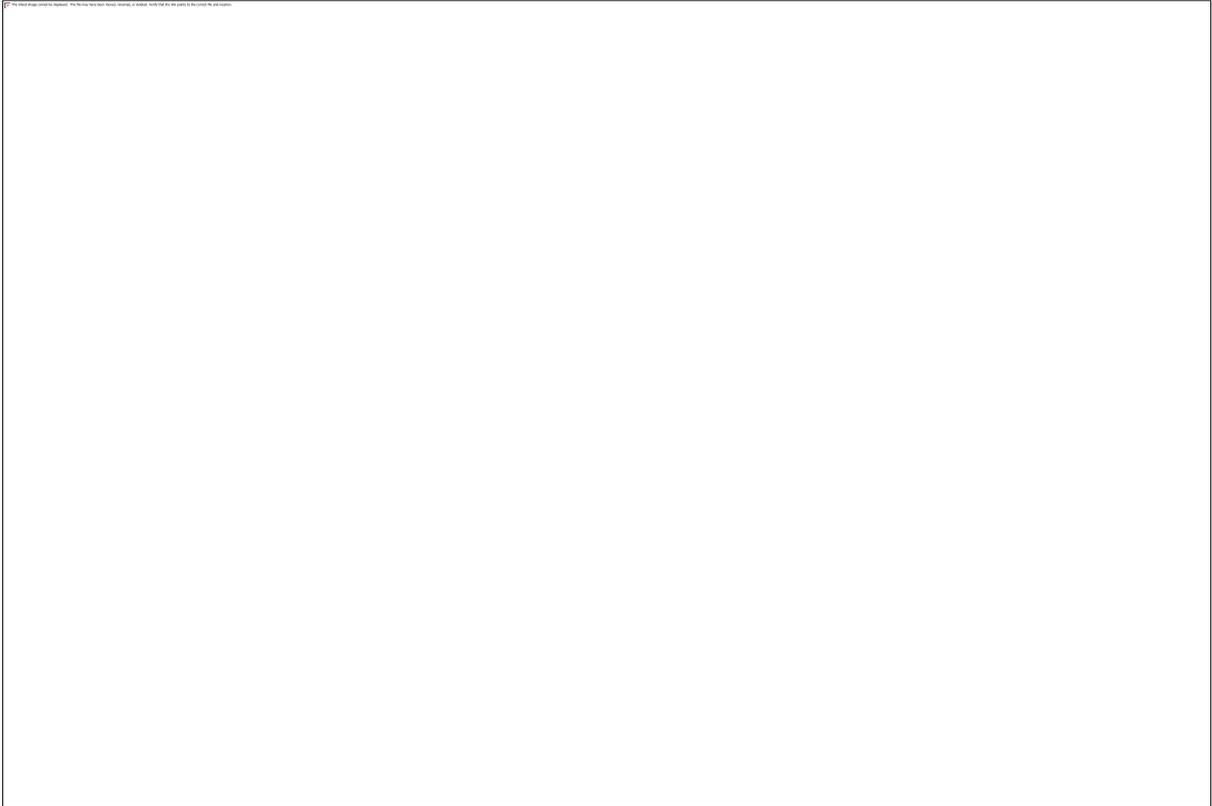
Click on OK to start the upload.  
Afterwards restart every Kernel instance (iisreset)

### 96.1.2 Linux

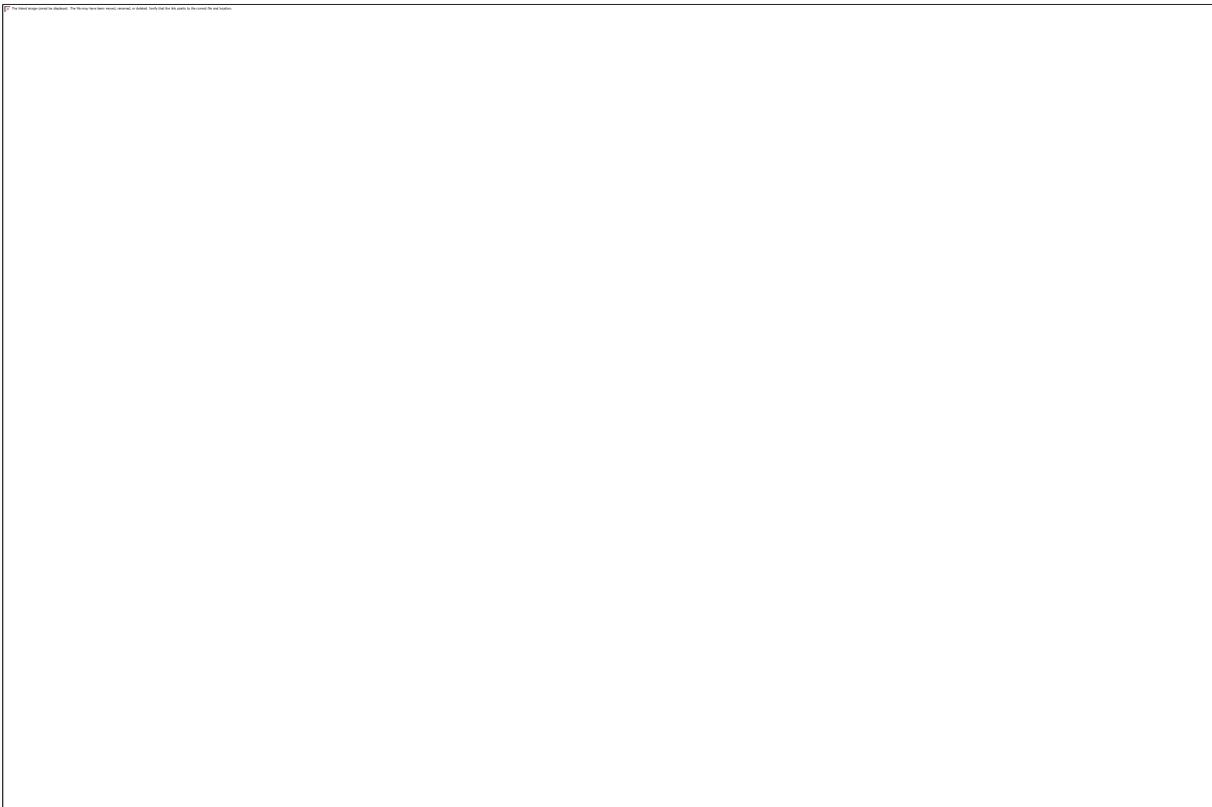
Loading a license file by using the Fabasoft Folio Web Management .  
Narrow down to your domain in the tree,open context menu and select Load...



Press the Forward Button to get to the Load: Software Product Licenses menu.



Press Add License... to search for the license file.  
Keep in mind that user fscsrv must have according read access to the license file!



Press the Forward Button until the upload starts.  
Afterwards restart every Kernel instance ( iisreset )

## 96.2 Online

Import the license file per Drag&Drop in an Administration Tool Folder.

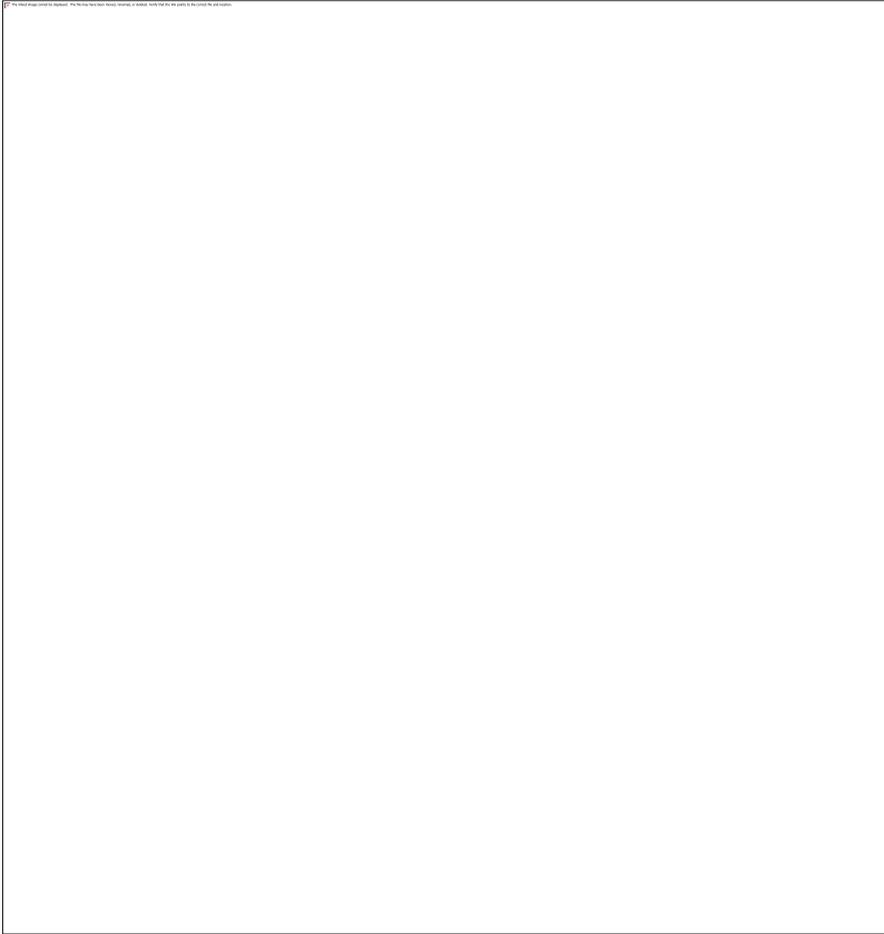
Afterwards press the menu button Load Content as shown bellow.

Hint: This button may be hidden in certain projects. Have a look in the \*Tools\* menu instead.



Remove ghost or old license object from current domain

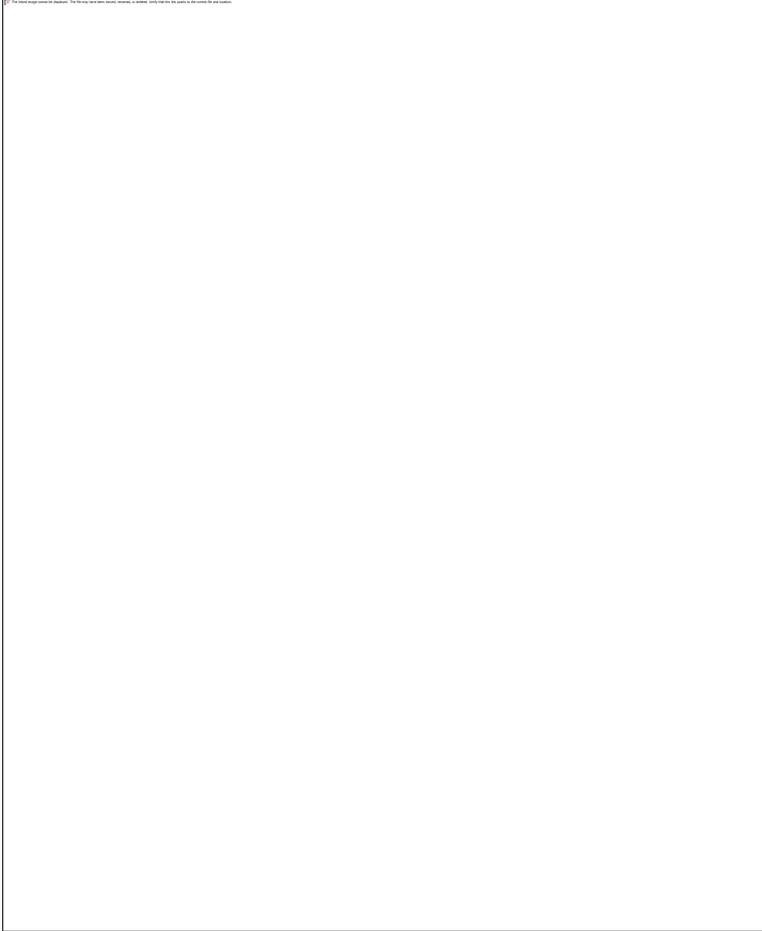
Open your current domain object.



Remove ghosts and old license objects by Menu Remove or Cut .



Recycle the Fabasoft Webservices.



## 96.3 Frequently asked questions

### 96.3.1 Q: License file loaded but still cannot login

A1: Check whether the license file matches your environment by opening the license file with a Text editor.

Check the NAT address, CPU type, Operating System, Database and CPU Type:

```
COOSWCLM@1.1:servers2 = (  
COOSWCLM@1.1:servercpu = CPU_X86;  
COOSWCLM@1.1:serveros2 = OS2_WINDOWS;  
COOSWCLM@1.1:serverdb = DB_SQLSERVER;  
COOSWCLM@1.1:servermacaddr = 55-66-77-88-99-00;  
...
```

Check the expiration date:

```
COOSWCLM@1.1:keyexpirydate = 2011-10-31 21:59:59;
```

A2: Kernel not restarted after loading the license file.

```
iisreset or fscmgmt restart
```

### 96.3.2 I've destroyed the old license object but it is still used

A: You may use a (global) waste basket .

The license object has not really been destroyed but only marked as (deleted). You have to permanently remove the license object.

## 97 Logging possibilities

Last update: 20 February 2018

### 97.1 Information

In this section the logging possibilities and the way to activate them are listed.

#### 97.1.1 Conversion Logging

If you encounter problems while converting documents then you can enable the conversion logging mode to log the SOAP-requests of the conversion to the file system.

Conversion Logging saves the input and output files of a conversion to a directory to analyse the transferred data. In the directory you find the input.\* file and the converted output.\* file. If no output-File exists, conversion has failed.

The logging can be activated both on the Fabasoft web server and on the Fabasoft conversion server, depending on which part shall be analyzed. The activation and deactivation of this logging can be done live.

Note: Please be aware of possible performance issues during conversion when logging.

##### 97.1.1.1 Registry Keys

To activate the logging you have to create the key

```
KEY_LOCAL_MACHINE\Software\Fabasoft\FSCCONV@1.1001
```

and add the following values:

- LogDetailFolder (REG\_SZ) with "Value Data: e. g. <"c:\Test">  
This specifies an existing folder on the file system where the logging information should be placed.
- LogDetailCount (REG\_DWORD) "Value Data: e. g. <"5"> within this key. (5 procedures )  
This specifies the number of logging entries to be made. This value is decremented each time a conversion operation is logged. If the counter reaches zero, the logging mode will be disabled

#### 97.1.1.1.1 Microsoft Windows

On a Microsoft Windows Server you may use the following registry key:

Note: This parts are exports of Windows Registry. In case you edit the Registry with regedit.exe, use single backslash for path assignments.

```
Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001]
"LogDetailFolder"="c:\\temp"
"LogDetailCount"=dword:0000005
```

#### 97.1.1.1.2 Linux (starting with Fabasoft Folio 2016)

On Linux with Fabasoft Folio 2016 or higher, use the following commands to enable the logging

```
su - fscsrv
fscsrv> mkdir /etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCCONV@1.1001
fscsrv> mkdir /tmp/conv-logs
fscsrv> echo -n "/tmp/conv-logs" >
/etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCCONV@1.1001/LogDetailFolder
fscsrv> echo -n "10" >
/etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCCONV@1.1001/LogDetailCount
```

#### 97.1.1.1.3 Linux (prior Fabasoft Folio 2016)

On Linux with Fabasoft Folio prior Version 2016, use the following commands to enable the logging

```
su - fscsrv
fscsrv> mkdir /etc/fabasoft/settings/machine/Software/Fabasoft/FSCCONV@1.1001
fscsrv> mkdir /tmp/conv-logs
fscsrv> echo -n "/tmp/conv-logs" >
/etc/fabasoft/settings/machine/Software/Fabasoft/FSCCONV@1.1001/LogDetailFolder
fscsrv> echo -n "10" >
/etc/fabasoft/settings/machine/Software/Fabasoft/FSCCONV@1.1001/LogDetailCount
```

### 97.1.1.2 Created Files

**output**

input.\*

output.\*

status.log

## 97.1.2 SOAP Logging

If you encounter problems with a business application integration via SOAP you can enable the OWS logging.

In the LogDetailFolder, one folder, containing the received and sent XML files as well as the accompanying HTTP header, will be created for each SOAP call received by the web server.

Note: Please be aware of possible performance issues during SOAP calls when logging.

### 97.1.2.1 Registry Keys

To activate the logging you have to create the key

```
HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCOWS@1.1001
```

and add the following values:

- LogDetailFolder (REG\_SZ) with "Value Data: e. g. <"c:\Test">  
This specifies an existing folder on the file system where the logging information should be placed.
- LogDetailCount (REG\_DWORD) "Value Data: e. g. <"5"> within this key. (5 procedures )  
This specifies the number of logging entries to be made. This value is decremented each time a SOAP request is logged. If the counter reaches zero, the logging mode will be disabled

#### 97.1.2.1.1 Microsoft Windows

On a Microsoft Windows Server you may use the following registry key:

Note: This parts are exports of Windows Registry. In case you edit the Registry with regedit.exe, use single backslash for path assignments.

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCOWS@1.1001]
```

```
"LogDetailFolder"="c:\\temp"
```

```
"LogDetailCount"=dword:00000005
```

#### Linux (starting with Fabasoft Folio 2016)

On Linux use the following commands to enable the logging

```
su - fscsrv
fscsrv> mkdir /etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCOWS@1.1001
fscsrv> mkdir /tmp/conv-logs
```

```
fscsrv> echo -n "/tmp/conv-logs" >
/etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCOWS\@1.1001/LogDetailFolder
fscsrv> echo -n "10" >
/etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/FSCOWS\@1.1001/LogDetailCount
```

### 97.1.2.1.2 Linux (prior Fabasoft Folio 2016)

On Linux use the following commands to enable the logging

```
su - fscsrv
fscsrv> mkdir /etc/fabasoft/settings/machine/Software/Fabasoft/FSCOWS@1.1001
fscsrv> mkdir /tmp/conv-logs
fscsrv> echo -n "/tmp/conv-logs" >
/etc/fabasoft/settings/machine/Software/Fabasoft/FSCOWS\@1.1001/LogDetailFolder
fscsrv> echo -n "10" >
/etc/fabasoft/settings/machine/Software/Fabasoft/FSCOWS\@1.1001/LogDetailCount
```

### 97.1.3 Mailmerge Logging

If you encounter problems while creating serial letters with mail merge you can enable mail merge logging on the client for the current user.

#### 97.1.3.1 Registry Keys

To activate the logging you have to create the key  
HKEY\_CURRENT\_USER\Software\Fabasoft\COOCIS and add the following value:

- LogMailMerge (REG\_SZ) with "Value Data: e. g. <"c:\temp\mailmerge">  
This specifies an existing folder on the file system where the logging information should be placed.

##### 97.1.3.1.1 Microsoft Windows

On a Microsoft Windows Server you may use the following registry key:

Note: This part is an export of Windows Registry. In case you edit the Registry with regedit.exe, use single backslash for path assignments.

```
Windows Registry Editor Version 5.00

[HKEY_CURRENT_USER\Software\Fabasoft\COOCIS]
"LogMailMerge"="c:\\temp"
```

### 97.1.3.2 Created Files

**output**

datasource.doc

series<Nr.>.doc

soapreq<Nr.>.xml

soapresp<Nr>.xml

template.doc

#### 97.1.4 Fabasoft Folio Plug-in

The Fabasoft Folio Plug-in writes trace statements by default. Therefore, you only have to activate the Fabasoft tracer on the client machine .

#### 97.1.5 Fabasoft Folio / Fabasoft eGov-Suite software components

For each software component of Fabasoft Folio / Fabasoft eGov-Suite you can activate a logging. Just set the desired level of logging in the property "Trace" of an object of the class "Software Component" and start the Fabasoft tracer.

Note: Please be aware of possible performance issues during logging.

#### 97.1.6 Other

There are various other logging possibilities and information outside the Fabasoft products like logs of the operating system (Microsoft Windows eventlog, /var/log/messages), database logs, the Process Monitor (file-, registry- and process/thread-activities) or Wireshark (network protocol analyzer).

[Fabasoft app.telemetry](#) is a perfect tool for analyzing. Give it a try.

#### 97.1.7 See also:

- [Creating a trace](#)
- [Collect system information](#)
- [Support Information Tool](#)
- [Client Information Tool](#)
- [How to find core dumps in Linux](#)
- [Creating a dump in Microsoft Windows](#)
- [Collect Dump Info](#)

## 98 Microsoft Internet Information Services Kernel Mode Authentication settings for Fabasoft Folio services

Last update: 8 March 2018

### 98.1 Summary

Microsoft Internet Information Services 7 and newer offer the ability to use a module in kernel mode for authenticating user requests. This setting is enabled by default and offers normal web services quicker authentication for requests and gives administrators the ability to manage application pool credentials more precisely.

### 98.2 Settings for Fabasoft Folio/Fabasoft eGov-Suite

Unfortunately Kernel Mode Authentication is not compatible with Fabasoft Folio and Fabasoft eGov-Suite services. The reason for this is that the authentication tokens of a request, that are needed to correctly identify and authenticate the user in the Fabasoft Folio or Fabasoft eGov-Suite domain context, are not available when using Kernel Mode Authentication, which may lead to problems when trying to login via the web client or opening documents via the Fabasoft Folio Client.

## 98.3 Recommendation

It is therefore recommended to disable Kernel Mode Authentication for all Fabasoft Folio/Fabasoft eGov-Suite web-, conversion and e-services, to ensure that users do not experience problems when trying to log-in. Fabasoft Folio/Fabasoft eGov-Suite 2014 and newer disable Kernel Mode Authentication by default via the web.config file, it should therefore not be necessary to change any settings unless Kernel Mode Authentication has been enabled manually.

### 98.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

## 99 Microsoft SQL Server 2005 Service Pack 4 (SP4)

Last update: 21 February 2018

### 99.1 Information

Microsoft released the 4th Service Pack for Microsoft SQL Server 2005 in December 2010.

The Service Pack in combination with Fabasoft eGov-Suite 8.0 SP1 and Fabasoft eCRM-Suite 8.0 SP1 works very well based on our test results using a single server domain installation.

Please note that not all functionalities of the Fabasoft products have been tested, no performance tests were executed and Microsoft SQL Server 2005 SP4 is still not listed as supported platform for Fabasoft eGov-Suite 8.0 SP1.

If you have additional feedback based on your tests please contact [support@fabasoft.com](mailto:support@fabasoft.com)

In case of eventually upcoming problems Fabasoft can provide support with regards to the customer's Fabasoft Premier Support / Fabasoft Support Agreement (policies for support enquiries referring to a technology subject that, according to the relevant software product information, is not supported).

### 99.2 Applies to

- Fabasoft eGov-Suite 8.0 SP1
- Fabasoft eCRM-Suite 8.0 SP1

### 99.3 Release Notes

[Microsoft SQL Server 2005 SP4 Release Notes](#)

## 100 Performance Counters not available

Last update: 20 February 2018

### 100.1 Information

The Fabasoft Folio-Counter registration is handled during the setup of the Fabasoft Folio or eGov-Suite components, in some circumstances this registration with the Windows Performance Counters may be incomplete.

## 100.2 Solution

In order to add the Fabasoft Folio-Counters to the available counters execute the following steps:

- Verify the content of the Registry Key

1.

2.

3.

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\COOPerformance\Performance
```

4.

- Check if the entries *Library* and *PrefIniFile* exists
- Check if the file referenced in the *Library* entry exists on the server
- In the command line, Issue the command

5.

6.

7. `unlodctr COOPerformance`

8.

to remove any old Fabasoft Folio-Counters

- Register the Fabasoft Folio-Counters with the one of the following commands, depending on the library path in the registry:

○

○

```
lodctr "C:\Program Files\Fabasoft\Components\Kernel\cooctr.ini"
```

○

○

○

○

```
lodctr "C:\Program Files\Fabasoft\Components\Base\cooctr.ini"
```

○

○

○

○

```
lodctr "C:\Program Files\Fabasoft\Components\Server\CooSrv\data\cooctr.ini"
```

○

○

### 100.2.1 Applies to

- Fabasoft Folio

- Fabasoft eGov-Suite

## 101 Save and load COO Service caches

Last update: 20 February 2018

### 101.1 Information

The tool `fscadmin` is installed with the Fabasoft Server Management.

By calling `fscadmin.exe` respectively `fscadmin` the command-line help is displayed.

For further information see our [How to use fscadmin](#) article.

### 101.2 List the service IDs of the COO Services

Every COO Service and MMC Service has a unique service id. This id is displayed in the Fabasoft Domain Administration folder under the "Services" tab.

With `fscadmin` it's also possible to list the service ids. You can use this command:

```
fscadmin --action list
```

The service ids of the COO Services are required for the further steps.

### 101.3 Save the COO Service cache

Use the following command to save the COO Service cache of one COO Service to disk:

```
fscadmin --action savecache --service <serviceid> --file <servicecache.txt>
```

For example

```
fscadmin --action savecache --service 1 --file C:\temp\cache_coosvc1.txt
```

This command creates (or overwrites) a text file `cache_coosvc1.txt` for COO Service id 1. In the text file, every object in the COO Service cache is listed as a human readable COO address.

The call of this action has no impact to the system performance.

Note: No other metadata than the object addresses are stored in this text file.

#### Best practice

- Create a batch file or shell script to call `fscadmin savecache` for every COO-Service. Every COO-Service should have an own file (e.g. `cache_coosvc1.txt`, `cache_coosvc2.txt`, ...).
- Create a Windows Scheduled Task respectively a cron job to run the script on a daily basis. Select the runtime in a way, that the script executes before the usual maintenance time. For example, schedule the script at 17:00 if your maintenance time usually starts at 18:00.

### 101.4 Load the COO-Service cache

Use the following command to load the COO-Service cache of one COO-Service from disk:

```
fscadmin -action loadcache -service <serviceid> -file <servicecache.txt>
```

Hint: Compared to the savecache action, only the action parameter changes to loadcache. All other parameters keep the same.

For example:

```
fscadmin -action loadcache -service 1 -file C:\temp\cache_coosvc1.txt
```

This command reads the text file cache\_coosvc1.txt and reads all metadata of the listed object addresses from the database to the COO-Service 1 cache.

Note: The call of the loadcache action CAN HAVE impact to the system performance, as all data must be read from the database. Use the loadcache action in non-core time.

### Best practice

- Create a batch file or shell script to load the caches of every COO-Service from its own file (e.g. cache\_coosvc1.txt, cache\_coosvc2.txt, ...).
- Do NOT create a scheduled task.
- Run the script manually after system maintenance, if the COO-Services had to be stopped and restarted.

The script will load all data from the database to the COO-Service caches. This can take - depending to the cache size and objects in the cache file - an hour or more.

## 101.5 Load COO-Service cache by query

You can use one or more Fabasoft queries to load data to the COO-Service cache. This can be done additionally or instead of using the savecache/loadcache functionality.

Note: If you use loadcache and loadbyquery together, please keep in mind, that the COO-Services caches are organised as first-in-first-out cache. Previously loaded objects may be dropped from cache if you load additional objects.

To load objects by a query, use this syntax:

```
fscadmin -action loadbyquery -service <serviceid> -query '<Fabasoft Query'>
```

For example:

```
fscadmin -action loadbyquery -service 1  
-query 'SELECT objname FROM FSCFOLIO@1.1001:CollaborationFolder  
WHERE .COOSYSTEM@1.1:objmodifiedat >= 2011-08-01 00:00:00'
```

This action loads all Team objects changed after 1st Aug. 2011 to the COO-Service cache.

Hint: You can create your query in the Fabasoft Webbrowser client. Use the "Edit query" button in the search form. To see the "Edit query" button, enable the "Show query" checkbox in your environment.

## 101.6 Further information

The size of the Fabasoft COO-Service caches can be configured in the COO-Service objects, property "Maximum Cache Size (MB)" in the Fabasoft Domain Administration. The default value is 1024.

Objects are held in cache in a first-in-first-out manner, whereby the last accessed time is considered.

If the used cache size reaches the limit of 80%, a periodic clearing process attempts to keep the cache below 100% of the configured cache size.

## 101.7 References

- [How to use fscadmin](#)

### 101.7.1 Applies to

- Fabasoft Folio (2007 and later)
- Fabasoft eGov-Suite (7.0 and later)
- Fabasoft eCRM-Suite (7.0 and later)

## 102 Saving Fabasoft app.telemetry Requests

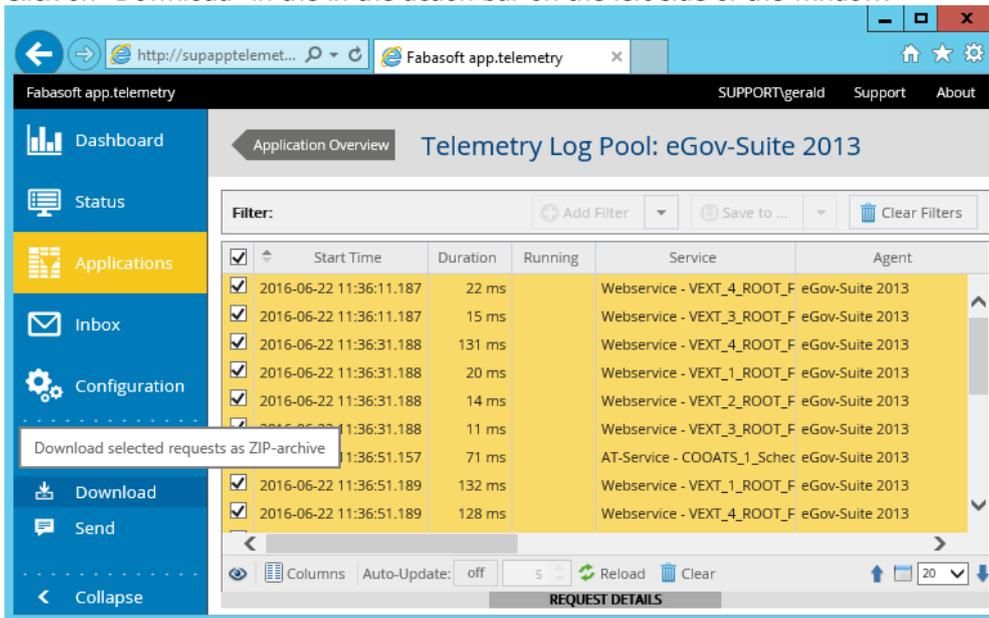
Last update: 8 March 2018

This article describes the steps necessary to save Fabasoft app.telemetry requests for later analysis.

To save Fabasoft app.telemetry requests the following steps have to be performed:

- Open the "Applications" view in the Fabasoft app.telemetry web client.
- Select the Log Pool from which you want to save the requests.
- Open the requests view by clicking on "View requests of this log pool".
- Filter the visible requests according to your own or the parameters provided by the support engineer.
- Select the requests that you want to save.

- Click on "Download" in the in the action bar on the left side of the window.



- Use the option "Selected requests" to export a zip file containing all request data
- Upload the saved Fabasoft app.telemetry Requests to the Fabasoft Support Service Desk.

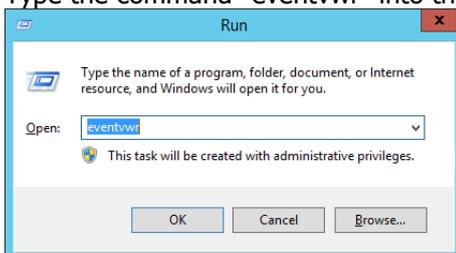
### 103 Saving Windows Event Logs

Last update: 8 March 2018

This article describes the steps necessary to save Microsoft Windows Event Logs for later analysis.

To save an Event Log the following steps have to be performed:

- Open the "Run" dialog by pressing Win+R.
- Type the command "eventvwr" into the textbox and press Return or click OK.



- In the Event Viewer navigate to "Windows Logs" and select the log that you want to save.
- Open the context menu and execute the command "Save All Events As...".
- Select a filename and save the file in EVTX or EVT format.
- Upload the event logs to the Fabasoft Support Service Desk.

Please ensure that no filter is applied to the Event Logs before saving them, to ensure that all the necessary information is saved.

### 104 Scripts for Indexing with Folio Mindbreeze Integration

Last update: 26 November 2018

## 104.1 Summary

This article contains the downloadable scripts from the Fabasoft Folio White Paper "Fabasoft Integration for Fabasoft Mindbreeze Enterprise.pdf".

## 104.2 Information

Please read the quoted White Paper for further information. The download is a ZIP file containing all scripts from the White Paper.

The scripts need to be adjusted for your environment. Pay attention to the comments in the scripts.

[MES-Index-Scripts](#)

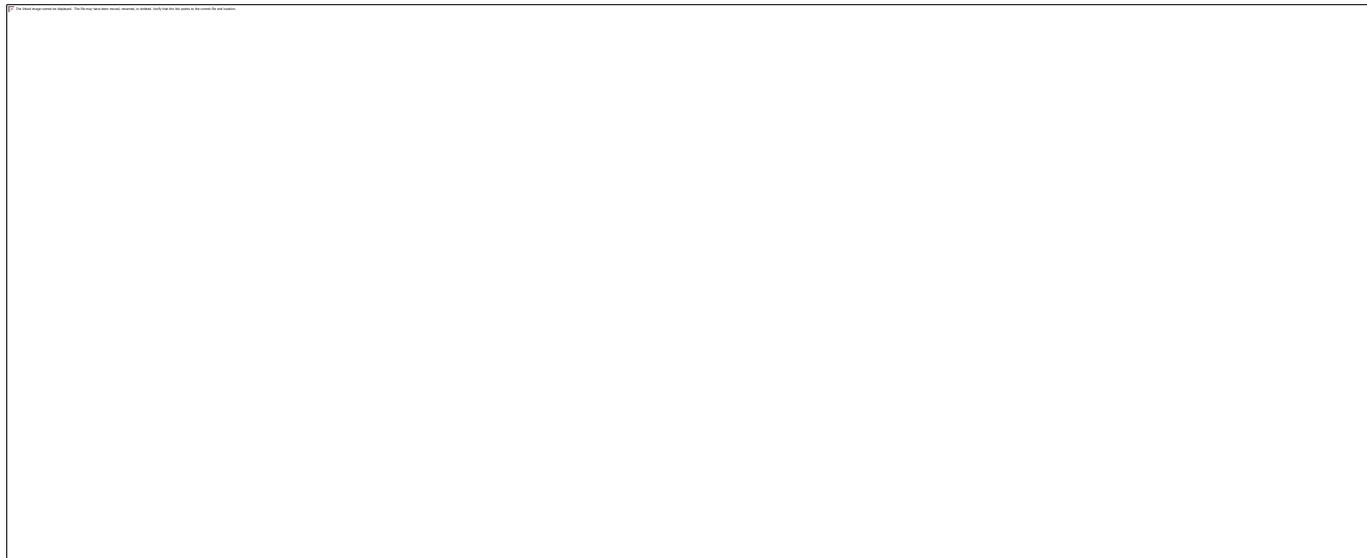
SHA-1: b90c238b96353a63e6aada5eca49026780a42638

## 105 SMTP Configuration Object - Authentication Failed

Last update: 21 February 2018

### 105.1 Summary

With adding the parameters „username“ and „password“ as an additional information to the SMTP configuration object, Fabasoft Folio tries to authenticate with the SMTP server. If the SMTP server only allows basic authentication without encryption, Fabasoft Folio sends an AUTH PLAIN, which is not implemented in most SMTP servers.



### 105.2 Solution

To ensure security, configure the SMTP server to accept only allowed IP addresses. Allow the IP addresses of the Fabasoft Folio web server and so clients who are not valid, cannot send emails via this SMTP server.

### 105.3 Applies to

- Fabasoft Folio 2008 SP1

## 106 SOAP - Out of memory error because of XML text node limit

Last update: 21 February 2018

### 106.1 Information

A XML text node limit for SOAP requests was introduced with Fabasoft Folio 2011 Winter Release. The limit for each text node is 10 MB.

Therefore if you use Fabasoft's SOAP interface to transmit data to Fabasoft Folio and your data is larger than 10 MB, you might get an error message like this one:

error: xmlSAX2Characters: huge text node: out of memory .

The limit of 10 MB for XML text nodes was introduced in Fabasoft Folio 2011 Winter Release because of performance issues converting documents from base64 to binary format. Fabasoft recommends to change the 3rd party SOAP interface to use SOAP with Attachments (SwA) to avoid large XML transmissions and base64/binary conversions.

### 106.2 Solution

- Reduce the size of the base64 coded attachments
- Change to SOAP with Attachments (SwA)

### 106.3 Applies to

- Fabasoft Folio 2011 Winter Release (and later)
- Fabasoft eGov-Suite 2012 (and later)

## 107 SQL Stress Tool

Last update: 6 February 2018

SQLStress is a tool to stress test a Microsoft SQL Server installation. Its main purpose is to find infrastructure problems within an installation. It can also be used for hardware sizing, system tuning or benchmarking. The focus is on simplicity. You should be up and running within minutes.

<http://www.sqlstress.com/>

## 108 Troubleshooting Mindbreeze: No search results from Fabasoft Components

Last update: 31 January 2018

In the section below, a variety of error messages is listed and furthermore the cause and solution are provided.

To receive a descriptive error message a "Fulltext" search must be executed in Fabasoft Folio.

### 108.1 Case 1

#### 108.1.1 Error message

Your full-text query results in the following error message: "Could not execute query (Problem with the local certificate. CURLcode: CURLE\_SSL\_CERTPROBLEM)". Try to reformulate your query pattern.

### 108.1.2 Cause

Incorrect, expired certificate or wrong passphrase.

### 108.1.3 Solution

Certificate, keyfile and the password must be checked and if necessary renewed. The CA for the client certificate located in the Mesmaster must not be expired either.

Further information regarding the creation and installation of Mindbreeze certificates can be found in the following article: [Renew trusted peer certificates \(communication between Folio and Mindbreeze\)](#)

---

## 108.2 Case 2

### 108.2.1 Error message

Your full-text query results in the following error message: " A problem occurred somewhere in the SSL/TLS handshake. You really want the error buffer and read the message there as it pinpoints the problem slightly more. Could be certificates (file formats, paths, permissions), passwords, and others. CURLcode: CURLE\_SSL\_CONNECT\_ERROR)". Try to reformulate your query pattern.

### 108.2.2 Cause

The CA certificate, and/or the key pair uses an already unsupported/unsecure algorithm, therefore the underlying API used by Folio and/or Mindbreeze block the request.

This may appear, if the self-signed certificates created by the Folio Mindbreeze Integration are still in use (for example by extending the lifetime of the certificates). Double-check the certificates for Signature algorithm. It should be a safe algorithm like SHA256 . md5 is unsafe and may be blocked.

### 108.2.3 Solution

The CA, the certificate, the keyfile and the password must be renewed. Follow the instructions to renew the trusted peer certificates. Before creating the certificates, modify the openssl.cnf and replace any existence of default\_md with default\_md = sha256, and set default\_bits = 4096.

Further information regarding the creation and installation of Mindbreeze certificates can be found in the following article: [Renew trusted peer certificates \(communication between Folio and Mindbreeze\)](#)

---

## 108.3 Case 3

### 108.3.1 Error message

Your full-text query results in the following error message: "Could not execute query (HTTP-Status 500: Internal Server Error: A trusted client certificate is required for privileged users)". Try to reformulate your query pattern.

### 108.3.2 Cause

Wrong CA-certificate in the Mesmaster or certificate not marked as "Trusted Peer".

### 108.3.3 Solution

Check CA located in the Mesmaster whether it expired or is not marked as "Trusted Peer". Further information regarding the creation and installation of Mindbreeze certificates can be found in the following article: [Renew trusted peer certificates \(communication between Folio and Mindbreeze\)](#)

---

## 108.4 Case 4

### 108.4.1 Error message

Your full-text query results in the following error message: "A connection with the server could not be established. The Indexing Service might not be running". Try to reformulate your query pattern.

### 108.4.2 Cause

Mindbreeze services are not running or the connection is blocked.

### 108.4.3 Solution

Start the Mindbreeze services and check the access.

---

## 108.5 Case 5

### 108.5.1 Error message

Your full-text query results in the following error message: "Could not execute query (Couldn't resolve host. The given remote host was not resolved. CURLcode: CURLE\_COULDNT\_RESOLVE\_HOST)". Try to reformulate your query pattern.

### 108.5.2 Cause

Wrong hostname or localhost instead of FQDN at the Queryservice-URL of the Indexing Service object in Folio.

### 108.5.3 Solution

Check the FQDN as well as the port of the Mindbreeze Server entered in the Indexing Service object. Blank lines may also trigger this message, therefore check for and remove any blank lines from the list.

---

## 108.6 Case 6

### 108.6.1 Error message

Your full-text query results in the following error message: "Could not execute query (Problem with the CA cert (path? access rights?). CURLcode: CURLE\_SSL\_CACERT)". Try to reformulate your query pattern.

## 108.6.2 Cause

Missing hostname in the Mindbreeze licence or a restart of the services has not been performed.

## 108.6.3 Solution

Restart the Mindbreeze services and check the certificates provided with the licence.

---

## 108.7 Case 7

### 108.7.1 Error message

Your full-text query results in the following error message: "Could not execute query (HTTP-Status 500: Internal Server Error: Attempted to read or write protected memory. This is often an indication that other memory is corrupt.)". Try to reformulate your query pattern.

### 108.7.2 Cause

Mindbreeze Crawler set to ReadOnly. (pause symbol)

### 108.7.3 Solution

Set the Mindbreeze Index to Read/Write.

---

## 108.8 Case 8

### 108.8.1 Error message

Your full-text query results in the following error message: "Could not execute query (The remote server's SSL certificate was deemed not OK. CURLcode: CURLE\_SSL\_PEER\_CERTIFICATE)". Try to reformulate your query pattern.

### 108.8.2 Cause

1. The Mindbreeze licence contains a wrong or incomplete hostname.
2. The Indexing Service URL List and Search Service URL List in the index service object in Fabasoft Folio are filled with wrong or incomplete hostnames.

### 108.8.3 Solution

1. Check the licence as well as the certificates and if necessary request a new licence.
  2. Check the index service object for any incomplete hostnames. (The URL's must be FQDN)
- 

## 108.9 Case 9

### 108.9.1 Error message

Your full-text query results in the following error message: Could not execute query (HTTP-Status 401: Unauthorized: You are not authorized to access Fabasoft Mindbreeze Enterprise . Try to reformulate your query pattern.

## 108.9.2 Cause

A restart of the Mindbreeze Node was not successfully performed and therefore the previous certificate is still active.

## 108.9.3 Solution

Restart the mesnode process. If necessary kill frozen processes.

---

## 108.10 Case 10

### 108.10.1 Error message

"Database system does not support full text search." or "Fulltextsearch for MMC Service "MMCSVCxyz" is not activated".

### 108.10.2 Cause

One or more COO-stores do not have an indexing service assigned.

### 108.10.3 Solution

Check the stores and if necessary assign indexing services to them. If no stores are displayed, use the refresh button in the ribbon bar.

## 109 Unexpected data exports in Relational Reporting and XML Export with multiple roles

Last update: 31 January 2018

### 109.1 Summary

You export data with Fabasoft Relational Reporting, XML-Export by XSLTransformObject or other methods to export data from Fabasoft Folio. Your user has more than one user role with different access rights to the export data.

In this situation it may occur that your exported data include data that your current role should not be able to access (but other roles would), or data are missing.

This behaviour is caused by a feature called "Automatic role change". This article explains how this feature works and how you can avoid an automatic role change on data exports.

### 109.2 Information

#### 109.2.1 Automatic Role Change

If a function tries to read or write data to an object it cannot access because of the ACL, the Fabasoft Kernel examines if the user has a user role that is allowed to access the object. If a valid user role could be found, the Kernel automatically changes to this user role and can access the data. Inside one Fabasoft Transaction, the Kernel will only fulfill one single role change.

After this automatic role change, the Fabasoft Kernel continues to access data with the changed user role. If - inside the same transaction - the Kernel hits an object that cannot be accessed with

the new role, it will not do another role change but stays in the latest role. Therefore, it cannot access the objects.

On exporting data, with Relational Reporting or XSLTransformObject, this behavior may lead to export results with data that cannot be accessed with the initial user role, or missing data that should be accessible with the initial role.

### 109.3 Solution

There are two possible solutions to disable automatic role change. Use the best matching way for your use-case.

#### 109.3.1 Solution 1: Disable Automatic Role Change in User Environment

The User Environment include a property usrenvnorolechange that is not accessible in the user interface.

With fsceval (Windows and Linux) or Expression Tester (exprtest.exe - Windows) it is possible to change the property:

Example:

Presumption is, COO.2010.100.1.12345 is the user environment of the user.

```
COO.2010.100.1.12345.ObjectLock(true, true);  
COO.2010.100.1.12345.usrenvnorolechange = true;  
cootx.Commit();
```

#### 109.3.2 Solution 2: Disable Automatic Role Change by Transaction Variable

Inside the used transaction, set the following transaction variable:

```
#TV.TV_NOAUTOROLECHANGE = true;
```

#### 109.3.3 Fabasoft Folio 2017 and above

As the Automatic Role Change is deprecated since Fabasoft Folio 2013, starting with Fabasoft Folio 2017 the feature is removed.

#### 109.3.4 Applies to

- Fabasoft Folio below 2017
- Fabasoft eGov-Suite below 2017

## 110 Usage of ADERPC-SPNs in modern versions of Microsoft Windows Server

Last update: 27 July 2018

### 110.1 Overview

Modern versions of Microsoft Windows Server, from Windows Server 2012 onwards, require the creation of ADERPC SPNs for all Fabasoft Folio Backend Servers.

These SPNs are required for both Windows and Linux operated Fabasoft Folio Backend Services.

## 110.2 Details

According to our experience with multiple Fabasoft Folio installations using modern Microsoft Windows Server versions, potentially in combination with modern Windows Domain Functional Levels, newer versions of Microsoft Windows Server require the creation of ADERPC SPNs for all servers that are running Fabasoft Folio COO Services.

If these SPNs are missing it is possible for a diverse set of issues to occur, from the inability of clients to login to the Fabasoft Folio Webclient, or problems when trying to open content objects on a client, to the simple editing of objects.

The following error messages are indicators that the creation of ADERPC SPNs is required:

- Cannot login: Network error; error in security package function "InitializeSecurityContext" - errno: -2146892969
- Cannot login: Object "<COO address>" has been deleted
- COO Service "<COO service name>" is not available

## 110.3 Creation of SPNs

To create the required ADERPC SPNs you can use the following command, that should be executed once for each Fabasoft Folio backend server, on a Windows AD domain connected server with domain administration privileges:

```
setspn -A ADERPC/<FQDN of the backend server> <User that is running the COO service>
```

### Example

```
setspn -A ADERPC/cooservice.egov.example.com addomain\coouser
```

## 111 Collect System Information

Last update: 4 August 2017

### 111.1 Summary

The integrated feature "Collect System Information" collects logs, system parameters and library information into a folder (Windows) respectively a ZIP archive (Linux) to deliver to Fabasoft Support as part of a service request.

This should be done in case of system failures or unexpected behaviour of the Fabasoft Folio Backendservices.

### 111.2 Information

The feature "Collect System Information" is part of Fabasoft Folio Server Management (Windows) / Fabasoft Components Web Management Console (Linux).

Hint: In earlier Fabasoft versions the *Fabasoft Folio Server Management* was called *Fabasoft Components Server Management*. The usage of the tool is similar.

#### 111.2.1 Microsoft Windows environment

- On a server - usually Backend server - run "Fabasoft Folio Server Management" from the Start menu (Start / All Programs / Fabasoft Folio / Fabasoft Folio Server Management)

- If the desired server (e.g. Backend server) is not listed in the Fabasoft Folio Server Management, right-click Computers and select New Fabasoft Folio Server Registration... . Enter the hostname of the desired server.
- Expand the tree under Computers and right-click the item Fabasoft Folio at ... . From the context menu select All Tasks / Collect System Information.
- The collected files are located in \Server\CooSrv\Support (usually C:\Program Files\Fabasoft\Components\Server\CooSrv\Support\). Please create a ZIP containing this folder and attach it to the Fabasoft Service Request.

*Notice:* Web- and Conversion Servers cannot be added to the Fabasoft Folio Server Management, therefore Collect System Information cannot be used on these servers.

## 111.2.2 Linux environment

### 111.2.2.1 Option 1: Fabasoft Folio Web Management Console

- In a web browser, open the Fabasoft Folio Web Management Console (usually <http://servername:17088> )
- If the desired server is not enlisted, click Setup / Server Registry and select the desired server.
- Expand the tree under Computers and right-click the item Fabasoft Folio at ... . From the context menu select Collect System Information .

### 111.2.2.2 Option 2: fscadmin utility

- Login as user: fscsrv
- Execute the following command line

```
fscadmin -a collectsysinfo
```

- Collected data will be written as tar.gz file in the following directory: /opt/fabasoft/Support

For further information on how to use the fscadmin tool see: [How to use fscadmin](#)

## 111.2.3 Collected Data

The collected data are stored in a compressed .tar.gz file located in /opt/fabasoft/Support.

Please remember, that the Linux logfile /var/log/messages can only be added to the .tar.gz archive if the fscsrv user has permissions to access this log.

To analyze a Linux core dump of a Fabasoft Folio service, additional information is required, please refer to the [Collect Dump Info](#) KB article.

For information on how to find core dumps please refer to the [How to find core dumps in Linux](#) KB article

The collected file can be extracted in the following way:

```
tar xzf .tar.gz
```

## 111.2.4 Applies to

- Fabasoft Folio

- Fabasoft eGov-Suite

## 112 Client-authentication with certificate via WebDAV

Last update: 4 August 2017

### 112.1 Summary

This article is about client-authentication with certificate via WebDAV for your Fabasoft installation.

### 112.2 Information

If you want to connect to your Fabasoft installation with the login-method „certificate“ via WebDAV, you have to set different settings according to your operation system.

### 112.3 Solution

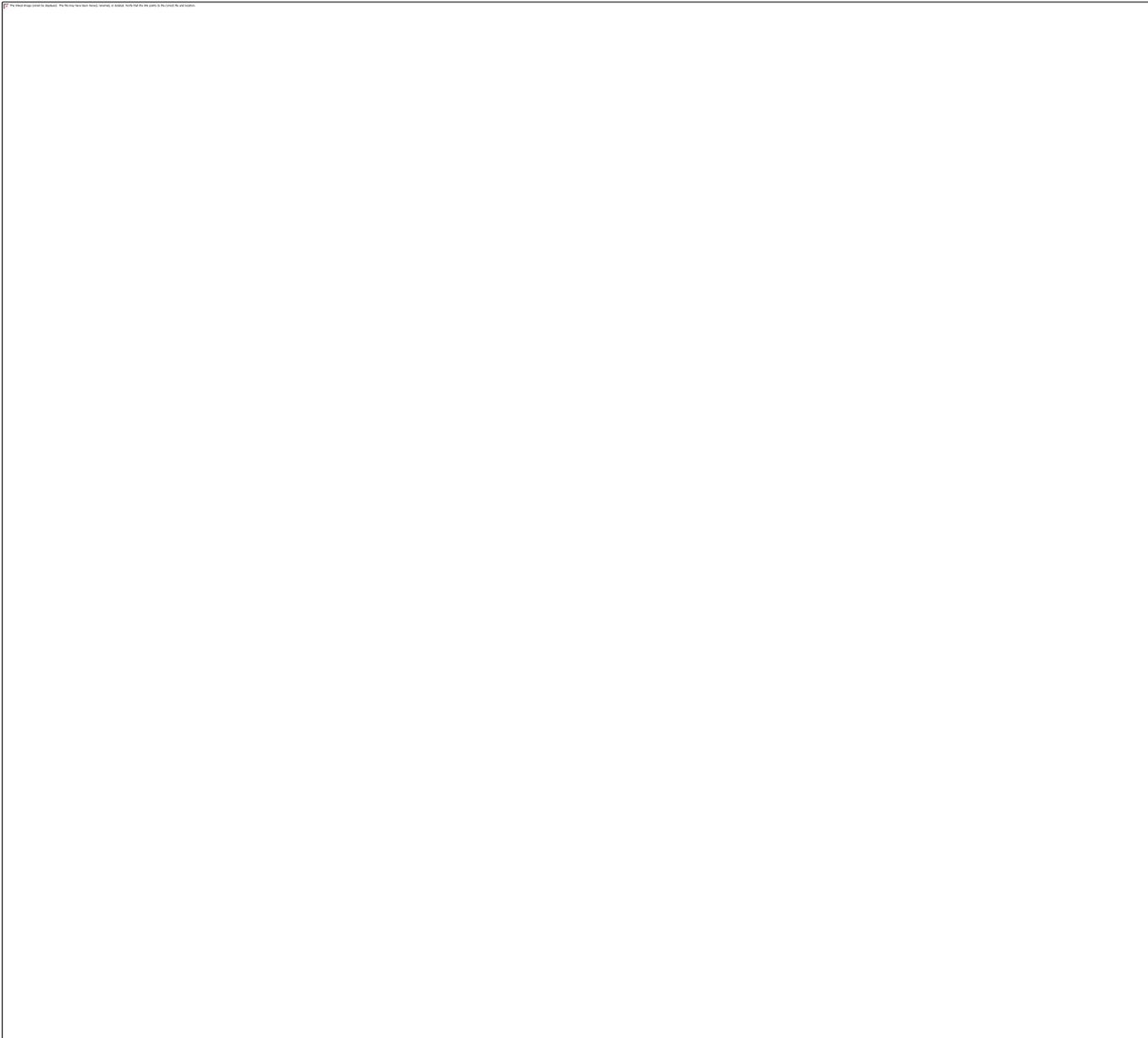
#### 112.3.1 Windows 7

You have to install the following hotfix from Microsoft Windows: <https://support.microsoft.com/de-de/kb/2489177>

#### 112.3.2 Windows 10

You have to add your certificate to your credential manager:





- Fabasoft Folio
- Fabasoft eGov-Suite

## 113 Automatic version because of a newer content on the server

Last update: 4 August 2017

### 113.1 Summary

This article describes the common behavior of different Fabasoft Folio versions of the following use case.

### 113.2 Use Case

- User *A* opens a document.

- User *A* loses the connection to Fabasoft Folio. (for example, due to network issues, hibernation, change of location etc.)
- Because the plugin is not able to refresh the object lock, the previously opened object is unlocked after 8 minutes.
- Meanwhile, user *B* opens the document from the server and saves changes back to the server.
- User *A* regains the connection. He also performed changes in the document.
- As soon as User *A* saves the document, the plugin uploads user *A*'s document, notices that the document was also changed by user *B* and creates an automatic version of the document of user *B* (because user *B*'s document is older than user *A*'s). User *A* is informed that the system created a version of another change on the server.
- The document created by user *A* is now the latest version of the object.

## 113.3 Information

### 113.3.1 Behaviour in Fabasoft Folio 2012

In Fabasoft Folio 2012 the plugin runs in the context of the web browser. As soon as the browser is closed the plugin is neither able to perform the object lock nor to upload the document. As soon as a web browser is opened the connection can be established again and the document is able to be uploaded. Same occurs if the network connection is temporarily lost.

### 113.3.2 Behaviour in Fabasoft Folio 2013 and above

In Fabasoft Folio 2013 and higher the plugin runs in the context of its own process. Therefore the use case described above can only occur if the network connection is lost. As soon as the network connection can be established again the plugin is going to upload the document.

### 113.3.3 Applies to

- Fabasoft Folio 2012 (and above)

## 114 LAST UPDATED IN 2017 (and before)

### 115 Certificate Error Using Fulltext Search in Fabasoft Folio with Mindbreeze Enterprise Search

Last update: 4 August 2017

#### 115.1 Summary

This is an urgent information for the error "Could not execute query (Problem with the CA cert (path? access rights?). CURLcode: CURLE\_SSL\_CACERT" appearing when using a fulltext search within Fabasoft Folio / Fabasoft eGov-Suite using Mindbreeze Enterprise Search.

#### 115.2 Information

This error occurs in the following situation:

- Mindbreeze Enterprise Search is used as fulltext engine, AND
- a user searches within Fabasoft Folio / Fabasoft eGov-Suite using fulltext search, AND

- Fabasoft Kernel version (coomk.dll / libcoomk.so) is below the versions listed at the end of this article

This issue is caused by an error in the certificate handling of Fabasoft Folio / Fabasoft eGov-Suite.

In the meantime it is still possible to use the Mindbreeze Client Service Webinterface for fulltext searches. With this search Fabasoft Folio / Fabasoft eGov-Suite results will still be returned.

Important: If your build number is equal or higher the listed build numbers, this error may also occur if your self-signed certificate is no longer valid. In this case, please visit our [Troubleshooting Mindbreeze: No search results from Fabasoft Components](#) article for a solution.

It is not possible to fix this by creating new certificates. Please do not try to fix this issue by re-issuing new certificates in your infrastructure.

## 115.2.1 Determining your Fabasoft Folio Kernel version

### 115.2.1.1 Microsoft Windows

Open the Properties on the file C:\Program Files\Fabasoft\Components\Kernel\coomk.dll

### 115.2.1.2 RedHat or CentOS Linux

Use the fscversion command on the libcoomk.so file.

## 115.2.2 Applies to

This issue applies to all listed Fabasoft Kernel versions below this build numbers. Fabasoft Folio versions from 2016 (16.x) and above are not affected.

- 9.2.5164
- 12.0.7.173
- 12.0.8.51
- 13.0.7.126
- 13.0.9.31
- 13.0.10.32
- 13.0.11.20
- 13.0.12.18
- 13.0.13.29
- 13.1.7.95
- 14.0.7.81
- 14.0.9.30
- 14.0.10.34
- 14.0.11.21
- 14.0.13.30
- 15.0.4.37
- 15.0.5.20

## 116 Bad Request - Size of a request header field exceeds server limit

Last update: 4 August 2017

## 116.1 Information

A user connects to a Fabasoft Folio Webservice running under a Linux operating system and get the following error message as response:

Bad Request Your browser sent a request that this server could not understand. Size of a request header field exceeds server limit.

Authorization : Negotiate

This indicates that the Kerberos Token Size of the users Kerberos token exceeds the limit of the Apache web server. This token is sent as request header field "Authorization" in every web request.

## 116.2 Solution

To increase Apache's limit for the Request Header Size, add the following line to every *WebService\_\*.conf* in the */etc/fabasoft/web* directory (for example, : *WebService\_100.conf*, *WebService\_101.conf* etc.)

```
LimitRequestFieldSize 16384
```

Default value is 8190.

For further details, see the Apache documentation at

<http://httpd.apache.org/docs/2.2/de/mod/core.html#limitrequestfieldsize>

### 116.2.1 Applies to

- Fabasoft Folio under Linux (all versions)

## 117 Configuring the MS-DTC for a Fabasoft Folio environment

Last update: 4 August 2017

### 117.1 Summary

This article describes the steps to configure *Microsoft Distributed Transaction Coordinator* (MSDTC) in a Fabasoft Folio environment.

*MSDTC* is used in Microsoft Windows environments with Microsoft SQL Server. Enviroments using Oracle or PostgreSQL instead use Fabasoft's own implementation, *Distributed Transaction Manager* (DTM).

**Please note:** A hotfix for Fabasoft Folio (and subordinated Fabasoft eGov-Suite and eCRM-Suite) is available to improve MS-DTC usage of Fabasoft Folio. Fabasoft recommends to install this hotfix. See [details about the hotfix](#) .

### 117.2 Information

Distributed transactions ensure the consistency of transactions across the borders of a database/tablespace. Fabasoft Folio uses 2-phase-commit with distributed transactions to ensure consistency. If the distributed transaction coordinator fails, Fabasoft Folio will result in errors indicating a DTC problem.

### 117.2.1 Possible errors and messages indicating a problem with MSDTC

The following error messages indicate a problem with MSDTC. The messages may appear in the Webbrowser client, Windows Eventlog of backend- and other Folio servers, and/or Fabasoft Tracer output.

- No DTC found
- Cannot commit distributed transaction
- Bootstrap error: Unable to contact the Microsoft DTC
- Could not prepare distributed transaction
- The transaction manager has disabled its support for remote/network transactions
- The transaction has already been implicitly or explicitly committed or aborted
- New transaction cannot enlist in the specified transaction coordinator

### 117.3 Solution

**Note:** In the following, *Microsoft Distributed Transaction Coordinator* is abbreviated as *MSDTC* for easier readability.

#### 117.3.1 Fabasoft Folio Configuration

- In the Current Domain object, check if the property " Use 2-phase-commit" is activated. This needs to be enabled (default) to use distributed transactions.

#### 117.3.2 Microsoft Windows Configuration

- Make sure MSDTC is configured as cluster resource in a cluster environment (usually backend servers and database servers).
- Make sure MSDTC is started on other servers using Fabasoft Folio Kernel (web servers, conversion servers, Mindbreeze servers etcetera)
- On non-clustered servers using Fabasoft Folio, in Windows Services, we recommend to change the startup type from *Automatic (Delayed Start)* to *Automatic* . Otherwise the Fabasoft Folio Kernel may fail to connect to MSDTC after a server restart.
- Enable MSDTC **Network DTC Access** on **every** Fabasoft Folio Server (backend, web server, conversion servers, etcetera) according to Microsofts recommendations:
  - 
  - Windows 2008: [http://technet.microsoft.com/en-us/library/cc753510\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc753510(v=ws.10).aspx)
  - Windows 2003: <http://support.microsoft.com/kb/817064/en-us>
- On clustered servers, make sure to set these settings in the Clustered DTC, not the Local DTC.
- If Windows Firewall is enabled on the servers, create a Windows Firewall exception for MSDTC: [http://technet.microsoft.com/en-us/library/cc725913\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc725913(v=ws.10).aspx)
- For other Firewall software, enable MSDTC network communication according to the possibilities of your Firewall software.

After the changes were performed, test distributed transactions as explained in [this Fabasoft KB article](#) .

#### 117.3.3 How to disable MSDTC distributed transactions

**Warning:** It is strongly recommended to leave distributed transactions enabled. Disabling distributed transactions means that multiple database transactions inside a Fabasoft Folio transaction are not monitored anymore. If a single database transaction inside a Folio transaction

fails, Folio is not able to rollback the other database transactions. This may lead to inconsistency in the database.

In the case of problems configuring MSDTC you can disable the MSDTC usage.

This can be done in two ways:

- Disabling MSDTC usage per Kernel/Server instance
- Disabling MSDTC for the whole Fabasoft Folio Domain.

#### 117.3.3.1 Disabling MSDTC usage per Kernel/Server instance

- Logon as the webservice (or other service's Windows user)
- Open regedit.exe and navigate to HKEY\_CURRENT\_USER\Software\Fabasoft\Environment
- Create a string value named *ENABLEDTC* with the value *False*
- Restart the webservice or Kernel instance

#### 117.3.3.2 Disabling MSDTC usage for the whole Fabasoft Folio Domain

- Open the Fabasoft Webbrowser Client
- Navigate to the Domain Administration, Domain objects
- Open the Current Domain object
- Uncheck the property *Enable 2-Phase Commit* and apply the change.
- Restart all Kernel instances to apply the change.

If you cannot open the Fabasoft Webbrowser Client because of a MSDTC error, first disable MSDTC by the environment variable.

Please re-enable MSDTC usage after you have fixed MSDTC in your environment.

#### 117.3.4 Applies to

- Fabasoft Folio on Microsoft Windows and Microsoft SQL-Server (all versions)
- Fabasoft eGov-Suite on Microsoft Windows and Microsoft SQL-Server (all versions)
- Fabasoft eCRM-Suite on Microsoft Windows and Microsoft SQL-Server (all versions)

## 118 Contents may possibly not be saved when using Microsoft Internet Explorer 8.0

Last update: 4 August 2017

### 118.1 Summary

You have opened a document in Fabasoft Folio or the Fabasoft eGov-Suite and the changes are not saved to the server. There is no error message on the client but the changed document is usually stored in a temporary directory on the client.

### 118.2 Information

Microsoft Internet Explorer 8.0 apparently uses a pool of processes to display individual pages. This pool of processes is filled depending on the number of open windows / tabs. Unused processes are removed after some time from the pool (in our test scenario there where two processes for one open tab, 5 processes for 4 tabs, then one process for 3 additional tabs).

If Microsoft Internet Explorer 8.0 removes a process with an open instance of a Fabasoft Tools Manager, this can lead to a situation where an open document (opened from Fabasoft Folio / Fabasoft eGov-Suite) cannot be saved back to Fabasoft Folio / Fabasoft eGov-Suite.

### 118.3 Solution

A possible solution for this issue is to configure a longer delay before Microsoft Internet 8.0 shuts down processes as described in the following article:

[Closing an IE 8 TAB does not immediately close the spawned iexplore.exe process](#)

For Fabasoft eGov-Suite 8.0 SP1 and Fabasoft Folio 2009 Fall Release (and newer) Fabasoft released a hotfix to prevent such situations. Please contact [support@fabasoft.com](mailto:support@fabasoft.com) to obtain this hotfix.

#### 118.3.1 Applies To

- Fabasoft Folio 2009 Fall Release
- Fabasoft Folio 2010 Winter Release
- Fabasoft Folio 2010 Spring Release
- Fabasoft eGov-Suite Version 8.0 SP1

As Microsoft Internet Explorer 8.0 is not officially supported in versions prior Fabasoft eGov-Suite 8.0 SP1 and Fabasoft Folio 2009 the described configuration of Microsoft Internet Explorer 8.0 is the only possibility to solve the issue.

#### 118.3.2 Fixed in Version

- Fabasoft Folio 2010 Summer Release
- Fabasoft Folio 2009 Fall Release + hotfix
- Fabasoft eGov-Suite Version 8.0 SP1 + hotfix

If you have already installed hotfixes for Fabasoft Folio 2009 Fall Release please check the following minimum change date of the installed software components (change date in the file system of the installed software components):

#### **Software component file minimum change date**

fscvapp.coo	2010-08-24
fscvenc.coo	2010-08-17
fscvport.coo	2010-06-30
fscvwf.coo	2010-08-03
wf.coo	2010-06-17

If you do not have the files of the installed software components please check the following DLLs in your Fabasoft Folio installation:

#### **Software component file minimum change date**

fscvapp92.dll	9.2.5.67
---------------	----------

### **Software component file minimum change date**

fscvenv92.dll	9.2.5.61
fscvport92.dll	9.2.5.63
cmswf92.dll	9.2.5.62
coowfb92.dll	9.2.5.62

For the Fabasoft eGov-Suite Version 8.0 SP1 please check the minimum versions above (of Fabasoft Folio 2009 Fall Release) and the following files or DLLs.

### **Software component file minimum change date**

elak.coo	2010-08-03
fscvgov.coo	2010-08-03

### **Software component file minimum change date**

elak.dll	8.1.6.135
fscvgv81.dll	8.1.6.135
vgvctl81.dll	8.1.6.135

## **119 Conversion failure with Microsoft Excel 2003**

Last update: 4 August 2017

### **119.1 Summary**

When converting an Excel File to PDF the conversion fails

### **119.2 Solution**

In Microsoft Excel 2003, the conversion to PDF fails if the active sheet has set the number of copies for printing to greater than 1. This is independent from the number of sheets in total and the position of the active sheet.

#### **119.2.1 Applies to**

- Microsoft Office 2003

## **120 Conversion of Microsoft Excel fails on Windows Server 2008**

Last update: 4 August 2017

## 120.1 Summary

On Microsoft Windows Server 2008, the conversion of Microsoft Excel objects to PDF fails when no user is logged on at the conversion server.

## 120.2 Information

Microsoft Windows Server 2008 provides local printers only to logged on users (in Microsoft Windows Server 2003 local printers were available also without a logged on user). Therefore the conversion service user cannot use the Fabasoft Postscript printers and the conversion fails.

## 120.3 Solution

Please follow all these steps on the conversion server to resolve the issue. You should remove the conversion server from the Fabasoft conversion configuration before or do the steps in service time.

### 120.3.1 Stopping IIS and Office applications

- Stop IIS with IISRESET /STOP
- Stop all running Microsoft Office applications. You can do this by running a cmd shell and execute
- TASKKILL -F -IM winword.exe
- TASKKILL -F -IM excel.exe

### 120.3.2 Logon with conversion service user and configure Office

- Logon locally as conversion service user
  - If you get a notice that Windows is creating a temporary user profile, you should reboot the machine, log on as another user (not conversion service user) and start over at the first step.
- Start all Microsoft Office applications (Word, Excel, Powerpoint) and do all necessary configuration.
- If necessary, insert the SQLSecurityCheck and DefaultCPG keys to the registry.
- To double-check start all Microsoft Office again.
- Log off and re-logon with another user
- Double-check if the conversion user profile was created in the C:\Users directory

### 120.3.3 Set Fabasoft printers as default printers for the machine

- Logon with the conversion service user
- Check Windows printers. Fabasoft Conversion printers should have been created already.
- Open regedit.exe
- Export HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\Current Version\Devices
- Export Key HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\Current Version\PrinterPorts
- In both exports, replace HKEY\_CURRENT\_USER by HKEY\_USERS\DEFAULT don't miss the dot at .DEFAULT
- Import both registry files. This will make these printers default for new user profiles and service users without profile)

#### 120.3.4 Set IIS to load user profile for conversion service user

- Open IIS
- Navigate to the Application Pools
- Open the "Advanced Settings" of the conversion services Application Pool(s)
- Set "Load User Profile" to True .
- Restart the machine.

#### 120.3.5 Test the settings

- After the machine restart, do not log on.
- Try to convert Microsoft Excel objects.

##### 120.3.5.1 Applies to

- Fabasoft eGov-Suite 8.0 SP1
- Microsoft Office 2007
- Microsoft Windows Server 2008

This Excel conversion behavior was fixed in later versions of Fabasoft Folio/eGov-Suite.

## 121 Conversion Service FAQ

Last update: 4 August 2017

### 121.1 The OpenOffice.org library function "OOoConverter::OOoConnect" returned an error (Conv\_ESERVICEMANAGER)

#### 121.1.1 Error Log shows:

```
Event Type: Error
Event Source: Fabasoft Components
Event Category: Application
Event ID: 0
Date: 08.04.2009
Time: 10:31:35
User: N/A
Computer: VMFOLIO2008
Description:
The OpenOffice.org library function "OOoConverter::OOoConnect" returned an error
(Conv_ESERVICEMANAGER).
Object: COO.200.100.1.2106876
Action: FSCTLH@1.1001:ExecuteConversion
Library: FSCTLH81
Function: FSCTLHExecuteConversion
Source: Fabasoft Components FSCTLH@1.1001
```

User: FABASOFT\websvc  
Process: 4400 (0x00001130) [W3WP]  
Thread: 4068 (0x00000FE4)  
Version: 8.1.6.23  
System: Win2k3 5.02 Build 3790 Service Pack 2.00  
Memory: 1396320/2142252/1629020

Event Type: Error

Event Source: Fabasoft Components

Event Category: Application

Event ID: 0

Date: 08.04.2009

Time: 10:31:35

User: N/A

Computer: VMFOLIO2008

Description:

HTTP status code: 500 Internal Server Error

Error description: The OpenOffice.org library function "OOoConverter::OOoConnect" returned an error (Conv\_ESERVICEMANAGER).

HRESULT: 0x80040214

Method: GET

URL:

/fsc/fscdav/CALL?ACTION=COO.1.1001.1.87351&OBJ=COO.200.100.1.2106876&ARG=COO.200.100.1.2106876&ARG2=odt&RES=ARG3&ARG4=0&dx=COO.1.1001.1.116800&ax=COO.1.1001.1.91492&cx=Z1R1xS9wrFDWnDkV&lx=COO.1.1.1.10&tz=2d120&cs=COO.1.1001.1.91460&fx=0&hx=00-50-56-18-04-83&NAME=/test.pdf

Object: COO.200.100.1.12

Action: FSCVAPP@1.1001:ProcessWebDAVRequest

Library: FSCDAVEXT81

Function: FSCDAVProcessRequest

Source: Fabasoft Components FSCVAPP@1.1001

User: FABASOFT\administrator

Process: 4400 (0x00001130) [W3WP]

Thread: 6584 (0x000019B8)

Version: 8.1.6.23

System: Win2k3 5.02 Build 3790 Service Pack 2.00

Memory: 1395764/2141940/1629028

## 121.1.2 possible Reason 1

Command line parameter localhost has been replaced by the fully qualified hostname

```
soffice -headless -accept=socket,host=vmfolio2008,port=8100;urp
```

### 121.1.3 Solution

Replace fully qualified hostname by localhost as described in Whitepaper "Installation of Fabasoft Components Services on .pdf"

```
soffice -headless -accept=socket,host=localhost,port=8100;urp
```

### 121.1.4 possible Reason 2

Configuration object FSCTLH@1.1001:StdOleAutomationHost has more OpenOffice.org ports defined in property "OpenOffice.org Instance Configuration" than the conversion server offers.

e.g. 8100, 8101 and 8102 defined in FSCTLH@1.1001:StdOleAutomationHost  
but /etc/fabasoft/watcher.conf shows :

```
OOINSTANCES=1
```

1 OpenOffice Instance would mean only port 8100 would be listened.

### 121.1.5 Solution

According to the example above you have to set it up to 3 OpenOffice Instances starting with port 8100:

```
OOINSTANCES=3
```

## 121.2 Could not connect to OpenOffice.org instance

### 121.2.1 Error log shows:

```
Apr7 04:02:34 logger[30387]: starting DISPLAY=:99
LD_LIBRARY_PATH=/opt/openoffice.org2.4/program
/opt/openoffice.org2.4/program/soffice -headless -norestore -invisible '-
accept=socket,host=localhost,port=8100,tcpNoDelay=1;urp;' >& /dev/null &
Apr7 04:02:40 logger[30449]: Could not connect to OpenOffice.org instance
```

### 121.2.2 Reason

Welcome wizard of OpenOffice appeared each time the watcher daemon has been started, though the wizard has been completed as user convuser\_N! Found out by starting soffice without parameters as user convuser\_N after restarting the watcher daemon. It seems to be a OpenOffice bug. Removing the profile folder of OpenOffice did not solve the problem.

### 121.2.3 Workaround

Adding parameter "nofirststartwizard" in /etc/fabasoft/watcher.conf and restarting watcher daemon by executing /etc/init.d/watcherd restart

```
# WARNING: only change this if you know what you are doing!
OOSTARTUP_PARAMETERS="-headless -nofirststartwizard -norestore -invisible \"'-
accept=socket,host=\$OOHOST,port=\$OOPORT,tcpNoDelay=1;urp;'\\""
```

### 121.3 OpenOffice.org Libraryfunction "OOoConverter::OOoConnect" returned an error (Conv\_EINVALID)

```
ReportEvent: HTTP status code: 500 Internal Server Error
```

#### 121.3.1 Possible Reason 1

OpenOffice path not addet to PATH Variable.

#### 121.3.2 Resolution Windows

- Add OpenOffice directory to PATH Variable.

```
PATH=;C:\Program Files\OpenOffice.org \program
```

#### 121.3.3 Resolution Linux

```
vi /var/opt/fabasoft/instances/WebService_/env/LD_LIBRARY_PATH
```

In the file add the following paths: /usr/lib /lib /opt/openoffice.org/program

Example:

```
/opt/fabasoft/share/web/WebService_100/asp/content/bin:/opt/fabasoft/share/web/Web
Service_100/asp/content/bin/INSTALLDIR/Domain_1_1:
/opt/fabasoft/share/web/WebService_100/asp/content/bin/INSTALLDIR/Domain_1_1001:
/usr/lib/java/jre/lib/i386:/usr/lib/java/jre/lib/i386/client:/usr/lib:/lib:/opt/op
enoffice.org2.3/program
```

- Restart WebService

#### 121.3.4 Possible Reason 2

Invalid library oostubhost in folder /opt/fabasoft/share/eval

```
dmesg
```

would show

```
ooostubhost[9040] trap divide error rip:f7ef320b rsp:ffcfde30 error:0
ooostubhost[9084] trap divide error rip:f7f8220b rsp:ffc37d70 error:0
```

### 121.3.5 Resolution Linux

Copy ooostubhost from Install-Kit ./Setup/ComponentsBase/ to /opt/fabasoft/share/eval Look for further libraries using:

```
find /opt/fabasoft/share -name "ooostubhost"
```

and replace it accordingly.

Afterwards restart the Conversion-Webservice.

### 121.3.6 Possible Reason 3

/opt/fabasoft/share/eval/libooostub.so not in executable format.

```
[root@~]# ldd /opt/fabasoft/share/eval/libooostub.so
ldd: warning: you do not have execution permission for
`/opt/fabasoft/share/eval/libooostub.so'
not a dynamic executable
```

### 121.3.7 Resolution Linux

```
chmod +x /opt/fabasoft/share/eval/libooostub.so
```

## 121.4 OpenOffice Conversion: Connection timed out

The reason might be that OpenOffice starts very slowly due to a name lookup of its own hostname. That leads to Health check timeout and a continuous restart of the OpenOffice instance.

### 121.4.1 Resolution Linux

Edit /etc/hosts and add an entry for localhost and for the IP address of the machine:

```
127.0.0.1 localhost.localdomain localhost
myconvserver.support.fabasoft.local
```

## 121.5 I would like to activate/deactivate UpdateFields

Beginning with version Fabasoft Folio 2009 Fall Release (9.2.5) it is possible to activate or deactivate the behavior of the conversion server according to update the DocProperties before printing or not.

### 121.5.1 Resolution

Component FSCCONV must be at least from build nr. 9.2.5.99

activate (default value)

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001]
```

```
"UpdateFieldsAtPrint"=dword:00000001
```

deactivate

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001]
```

```
"UpdateFieldsAtPrint"=dword:00000000
```

## 121.6 FSCTLH92.FSCTLHExecuteConversion (Access is denied)

### 121.6.1 Possible Resolution 1

#### 1. Stop Webservices

```
iisreset /stop
```

#### 2. Delete INSTALLDIR

Windows Server 2008: C:\ProgramData\Fabasoft\INSTALLDIR

#### 3. Start Webservices

```
iisreset /start
```

### 121.6.2 Possible Resolution 2

Conversion Server Eventlog might show:

```
The machine-default permission settings do not grant Local Activation permission for the COM Server application with
```

```
CLSID
```

```
{000209FF-0000-0000-C000-000000000046}
```

```
to the user SUPPORT\conv_egov925 SID
```

```
(S-1-5-21-800838583-923196457-1120335376-1804)
```

from address LocalHost (Using LRPC). This security permission can be modified using the

Component Services administrative tool

### Check DCOM Configuration Settings

Hint: CLSID {000209FF-0000-0000-C000-000000000046} stands for Microsoft Winword with CLSID {00020906-0000-0000-C000-000000000046}

- Start dcomcnfg.exe (Start menu -> Run)
- Component Services -> Computers -> My Computer -> DCOM Config -> {00020906-0000-0000-C000-000000000046}
- Activate Launch Permission for Conversion service user
- Restart Conversion Server

### 121.6.3 possible Resolution 3

Check file permission for Conversion service user:

- C:\ProgramData\Fabasoft
- C:\Program Files\Fabasoft\Components\Web\1\_CONV
- iisreset

Hint: Process Monitor (procmon) is your friend <http://technet.microsoft.com/de-de/sysinternals/bb896645>

## 121.7 General error when calling "FSCCNV.FSCCONVConvertWinword"

### 121.7.1 Possible Resolution 1

Check if 32-Bit Office Version is installed on your conversionserver

### 121.8 Tips for debugging

- Stop watcher daemon:

```
/etc/init.d/watcherd stop
```

- Disable xhost access control as root:

```
xhost +
```

- Change to user convuser\_1:

```
su - convuser_1
```

- start OpenOffice:

```
soffice
```

If OpenOffice starts within 5 seconds everything's should be OK!

## 122 COO Service performance with user objects and app.telemetry

Last update: 4 August 2017

### 122.1 Summary

In environments with a high number of user objects (or a high number of deactivated users) Fabasoft app.telemetry could cause short but recurring COO-Service thread load. To keep the list of users up-to-date the refresh is recurring and takes a few seconds to load all user objects.

### 122.2 Solution

Reduce the refresh interval of your app.telemetry installation by editing the infra.xml of Fabasoft app.telemetry:

- Locate the infra.xml file on the Fabasoft app.telemetry server (see below)
- Make a backup of your infra.xml (for example by copying it to infra.xml.backup)
- Add the following line at line 3 of your infra.xml

The parameter "filterrefreshtimeout" defines the refresh interval. (the value is in seconds; 86400 sec = 1 day)

Default Value (without the explained line): 3600 seconds (1 hour)

#### 122.2.1 Example snippet of infra.xml

This is an example of the first lines of a customized infra.xml

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
...
...
...
```

#### 122.2.2 Location of the infra.xml file

##### 122.2.2.1 Windows

Windows 2008: C:\ProgramData\Fabasoft app.telemetry\infra.xml

Windows 2003: C:\Documents And Settings\All Users\Application Data\Fabasoft app.telemetry\infra.xml

##### 122.2.2.2 Linux

/etc/app.telemetry/infra.xml

#### 122.2.3 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)

- Fabasoft app.telemetry (>= 2011 Summer Release)

## 123 ADE Gui Update incomplete

Last update: 4 August 2017

### 123.1 Summary

When applying an update to a Fabasoft installation there may be a lock on the *adegui.dll*, thereby leading to a failure when applying an update to this dll.

### 123.2 Information

An not yet determined issue with file locks on the *adegui.dll* may lead to a failure to correctly replace the file while applying updates to a Fabasoft installation.

A system affected by this issue will sometimes show erratic behavior, but most of the times the affected kernel instance will not boot correctly.

### 123.3 Solution

In order to verify if your system is affected by this issue please check all installed version of the *adegui.dll* against the one provided on your installation medium.

Please be aware that *adegui.dll* may be located in multiple directories and has to have matching version in all locations!

If the version on the system does not match the one on the installation medium please follow these steps:

- Manually shut down all Fabasoft services on the affected system
- Check the Task Manager for still active Fabasoft processes and wait for the complete shutdown
- Rerun the update of your Fabasoft installation
- Verify that the *adegui.dll* version matches the one on the provided installation medium

## 124 Cross-Site Scripting warning with Internet Explorer 8 and Fabasoft eGov-Suite 8.0 SP1

Last update: 4 August 2017

### 124.1 Summary

With an Internet Explorer update deployed by Windows Update, the Cross-Site Scripting Filter (XSS-Filter) of Internet Explorer was updated. With this update installed at the client, the Fabasoft eGov-Suite does not work as expected.

### 124.2 Information

Information about the Microsoft Security Bulletin MS11-099 can be found at <http://technet.microsoft.com/security/bulletin/MS11-099>.

When you work in the Fabasoft eGov-Suite / Fabasoft Folio using Microsoft Internet Explorer and a new window is opened (e.g. by editing an object), you get a warning in the browsers Information Bar, Internet Explorer has modified this page to prevent a potential cross-site scripting attack. Click here for more information... . The window you opened stays empty.

### 124.2.1 Affected systems

Our current tests and feedback of our customers confirm this behaviour at least for the following configuration:

- Fabasoft eGov-Suite 8.0 SP1 or Fabasoft Folio 2009, with
- Microsoft Internet Explorer 8 and Microsoft Internet Explorer 9, and
- Microsoft MS11-099 update (released 13.11.2011) installed

UPDATE: Fabasoft could verify that the behaviour also may occur with current Fabasoft Folio 2011 and Fabasoft Folio 2012 installations if VAPPs are opened in a new window (instead of the overlay technology). This issue is fixed in Fabasoft Folio 2012 Summer Release.

### 124.3 Solution

#### 124.3.1 Solution 1

The Internet Explorer zone "Local Intranet" has disabled the XSS-Filter by default. If you run Fabasoft eGov-Suite in the "Trusted sites" zone, move the URL to the "Local Intranet" zone. This will avoid the behaviour.

This setting can be rolled out by a domain policy.

Note: Please double-check, that XSS filter is disabled in the "Local Intranet" zone. If this is not the case, use solution 2.

#### 124.3.2 Solution 2

Use this workaround to disable the XSS filter for the used security zone in Internet Explorer and re-enable the functionality of Fabasoft eGov-Suite:

- Open Microsoft Internet Explorer
- Open "Internet Options"
- Change to the "Security" tab
- Select the zone where your Fabasoft eGov-Suite installation resides (usually "Local intranet" or "Trusted sites") and click "Custom level"
- Set option "Enable XSS Filter" in the "Scripting" area to "Disable".

This setting can be rolled out by a domain policy.

#### 124.3.3 Solution 3

Use this workaround to let IIS send a special http header telling the client to disable the XSS filter for this specific webserver. This configuration is done on the webserver and therefore the easiest way to implement. No client configuration is necessary.

##### 124.3.3.1 Windows Server 2008

- Open Internet Information Services (IIS) Manager on your Fabasoft webserver
- Dependend to the location you want to set the http header, select the computer name (for a global setting) or each FSC directory (for individual setting)
- Open the feature "HTTP Response Headers"
- Add a new HTTP Response header with following values:
- Name: X-XSS-Protection
- Value: 0

- Save the value by clicking OK and restart IIS (e.g. by iisreset)

### 124.3.3.2 Windows Server 2003

- Open Internet Information Services (IIS) Manager on your Fabasoft webservers
- Dependend to the location you want to set the http header, select the element "Web Sites" (for a global setting) or each FSC directory (for individual setting) and right-click "Properties"
- Open the tab "HTTP Headers"
- In the area "Custom HTTP headers", click "Add..." and enter the following values:
  - Name: X-XSS-Protection
  - Value: 0
- Save the value by clicking OK and restart IIS (e.g. by iisreset)

### 124.3.3.3 RedHat / Apache Servers

1. Open /etc/fabasoft/web/Webservice\_.conf for each Webservice
2. Add the module mod\_headers

```
LoadModule headers_module /usr/lib64/httpd/modules/mod_headers.so
```

3. Add a line

```
Header set X-XSS-Protection "0"
```

for example into Directory section

```
Options FollowSymLinks
AllowOverride None
Order allow,deny
Allow from all
Header set X-XSS-Protection "0"
```

4. Restart the Webservice

### 124.3.4 Applies to

- Fabasoft eGov-Suite 8.0 SP1 / 2012
- Fabasoft Folio 2009 to 2012 Spring Release
- Microsoft Internet Explorer 8/9

## 125 Different log pools for web and conversion services

Last update: 4 August 2017

## 125.1 Summary

When installed on different servers the log pools for web- and conversion-server may be separated by name.

## 125.2 Information

In the app.telemetry web client requests from both the conversion service and the web server are filed as *Webservice* in the *Application Tier* filter.

This is due to the fact that the conversion service is basically a web server with extended functionality.

## 125.3 Solution

Warning: This solution is only applicable if the conversion service is running on a separate machine! In addition the conversion service will be filed as a separate Application in the app.telemetry web client.

In the registry we can change the name with which the conversion server registers itself with the app.telemetry.

You can either change the SuiteName in the HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft registry key or use this registry key file:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft]
"SuiteName"="Fabasoft eGov-Suite"
```

After the suite name has been changed, you must issue a iisreset on the conversion server. Now you can define a new log pool in the Fabasoft app.telemetry using your newly issued name.

You may delete the old conversion service registration from the services if you wish to.

### 125.3.1 Applies to:

- Fabasoft Folio
- Fabasoft eGov-suite

when connected to an app.telemetry server

## 126 Different page layout and number of pages after conversion to pdf

Last update: 4 August 2017

```
.responsive-example-table td, .responsive-example-table th { text-align: left!important; }
```

### 126.1 Summary

You may notice that the number of pages or the layout in the Adobe PDF file you got after converting or finalizing the document differs from the original Microsoft Word Document.

Example

Format	Number of pages
Microsoft Word Document (docx)	65 pages
Adobe PDF	63 pages

There is a difference in page numbers, but the content of the files is the same!

## 126.2 Information

Microsoft Word tries to represent the result on screen you will get if you print on the printer that is currently selected. So after opening the document it uses the default Windows printer settings including print quality settings. If you change the printer settings word adjusts the layout to correspond to the new printer driver.

The conversion server might be configured to use a different (default-) printer driver than the client and so after converting the document to Adobe PDF the layout and the number of pages might have changed.

Test table

Printer	Pages after opening	Printer quality
PDFCreator	64 pages	600 dpi (default)
	64 pages	2400 dpi
	63 pages	1200 dpi
Adobe PDF	63 pages	1200 dpi (default)
	65 pages	144 dpi
	65 pages	300 dpi
	64 pages	600 dpi
	64 pages	2400 dpi
Fax	65 pages	200 dpi (default)

## 126.3 Solution

Resolution options are explained in the article <http://word.mvps.org/faqs/Formatting/TextReflow.htm>

You have to use the same printer quality settings, default printer settings on every Fabasoft Conversion server to get consistent conversion results.

### 126.3.1 Applies to

- Microsoft Word 2003
- Microsoft Word 2007
- Microsoft Word 2010

## 127 Different results depending on how properties are read in expressions

Last update: 4 August 2017

When properties of objects are read in Fabasoft expressions and then used as in-parameters for methods different results can appear depending on the way the properties are read.

- Option 1: Reading the property via

```
%3Cobject%20allow%3D%22autoplay%22%3E.%3A%20The%20attribute%20definition%20of%20the%20target%20attribute%20is%20regarded%3C%2Fobject%3E
```

By clicking on the video, your IP address will be transmitted to YouTube and YouTube will know that you have watched the video.

- Option 2: Reading the property via

```
%3Cobject%20allow%3D%22autoplay%22%3E.GetAttributeValue%28%2C%20%29%3A%20Due%20to%20technical%20reasons%20the%20attribute%20definition%20cannot%20be%20regarded%3C%2Fobject%3E
```

By clicking on the video, your IP address will be transmitted to YouTube and YouTube will know that you have watched the video.

This behavior has practical consequences especially when DATETIME-properties are read as the attribute definition defines whether date and time are stored in local time or UTC.

Example: COO.10.7715.3.7602.TESTSWC@10.7715:testdate was set to 31.12.2008 in GUI.

Reading the property via option 1 and formatting via COOSYSTEM@1.1:Format(...) :

```
coort.Trace(COOSYSTEM@1.1:Format(COO.10.7715.3.7602.TESTSWC@10.7715:testdate,"yymmdd")[4]);
```

returns 090101

Reading the property via option 2 and formatting:

```
coort.Trace(COOSYSTEM@1.1:Format(COO.10.7715.3.7602.GetAttributeValue(coort,"TESTSWC@10.7715:testdate",0),"yymmdd")[4]);
```

returns 081231.

The technical background is that the Fabasoft kernel is not able to determine the underlying attribute definition (including the property „Disable Conversion“) and therefore treats the DATETIME value like any value returned from an external ActiveX call.

Conclusio: Reading properties in expressions should be done via option 1 (

```
%3Cobject%20allow%3D%22autoplay%22%3E.%29%20whenever%20possible.%20If%20it%20is%20by%20any%20reason%20absolutely%20necessary%20to%20use%20option%20%20an%20explicit%20typecast%20to%20the%20desired%20attribute%20definition%20has%20to%20be%20used.%20For%20the%20example%20listed%20above%20this%20would%20look%20like%20the%20following%3A%3C%2Fobject%3E
```

By clicking on the video, your IP address will be transmitted to YouTube and YouTube will know that you have watched the video.

```
coort.Trace(COOSYSTEM@1.1:Format(TESTSWC@10.7715:testdate(COO.10.7715.3.7602.GetAttributeValue(cootx, "TESTSWC@10.7715:testdate",0)), "yymmdd")[4]);
```

## 128 DLL Registration of Fabasoft Integration for Kofax Capture fails

Last update: 4 August 2017

### 128.1 Summary

During the installation of the Kofax Capture Export Connector an error occurs while registering a dll with the system. (regsvr32 - Error Code 3 - ERROR\_PATH\_NOT\_FOUND)

### 128.2 Information

During the installation of the Fabasoft Integration for Kofax Capture external factors, such as insufficient rights of the installing user, may prevent the setup from updating the PATH environment variable.

Due to this the installation of the Kofax Capture Export Connector may fail because the path of fscvrl.dll from the Fabasoft Integration for Kofax Capture cannot be determined.

### 128.3 Solution

If the path of the the Fabasoft Integration for Kofax Capture installation is missing from the systems PATH environment variable you can use the following workaround to manually add the path and complete the installation.

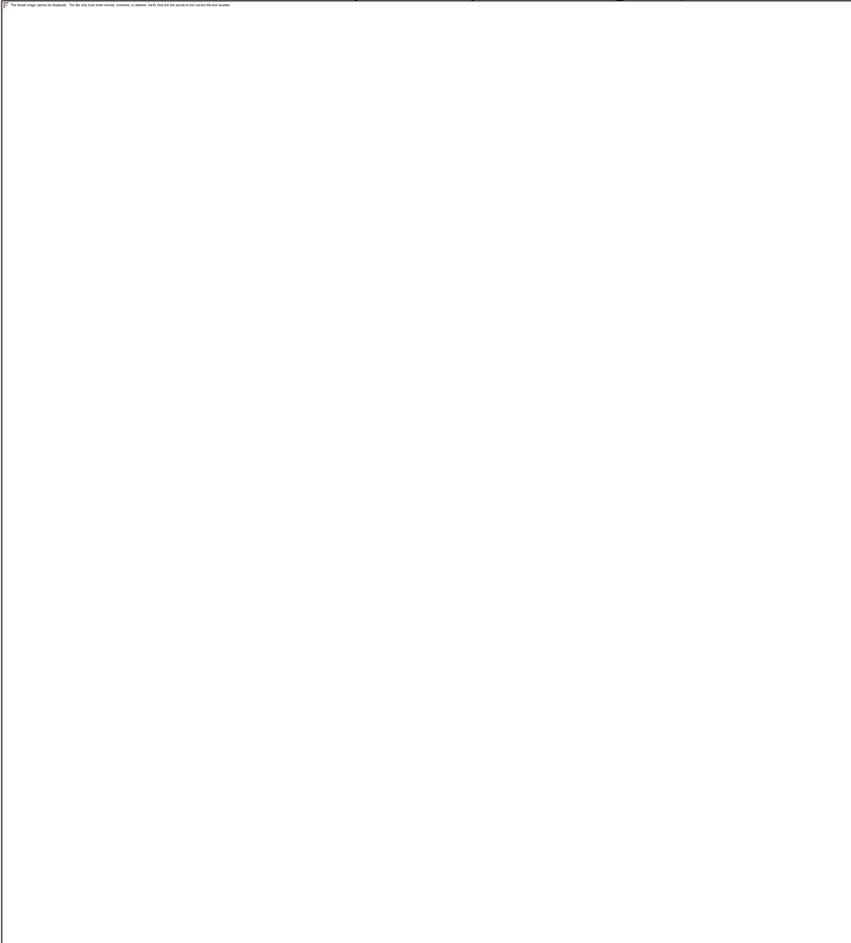
- On the Start menu/On the Desktop, right-click Computer.
- On the context menu, click Properties.



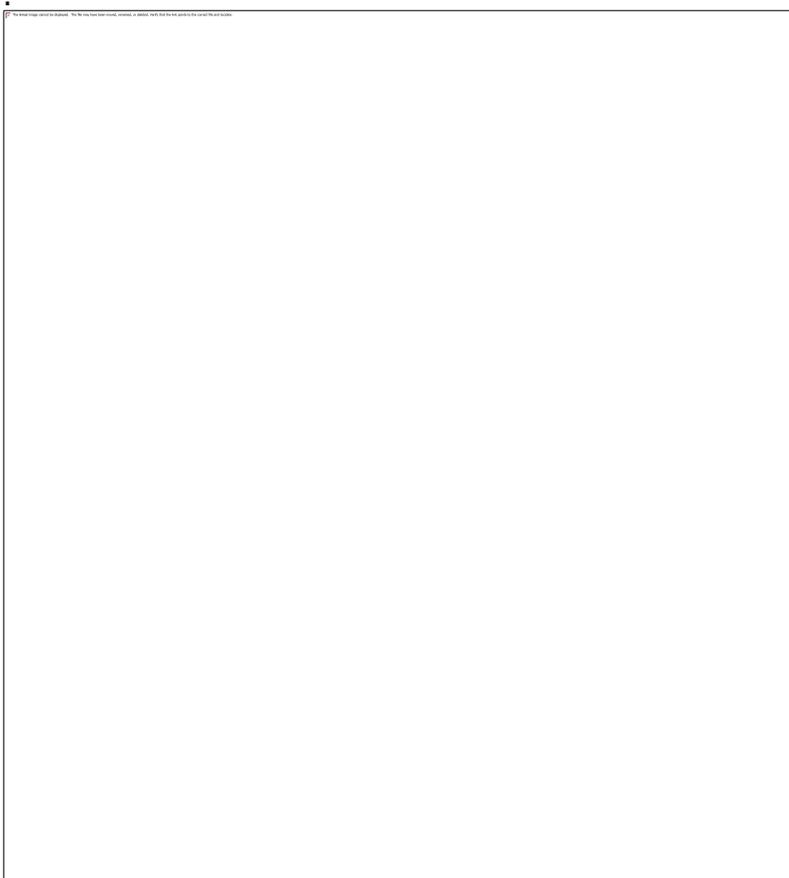
- In the System dialog box, click Advanced system settings.



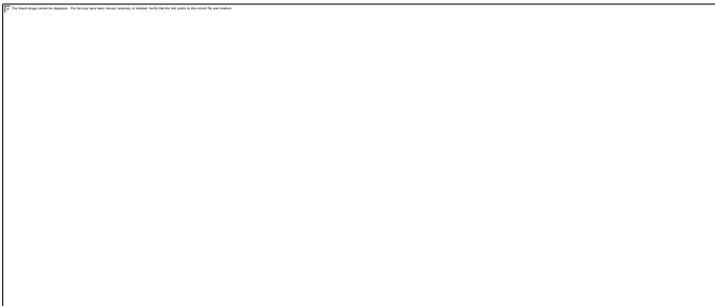
- On the Advanced tab of the System Properties dialog box, click Environment Variables.



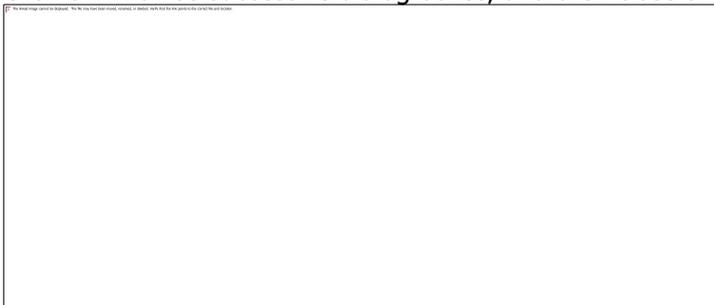
- In the System Variables box of the Environment Variables dialog box, scroll to Path and select it, then click the lower of the two Edit buttons in the dialog box.

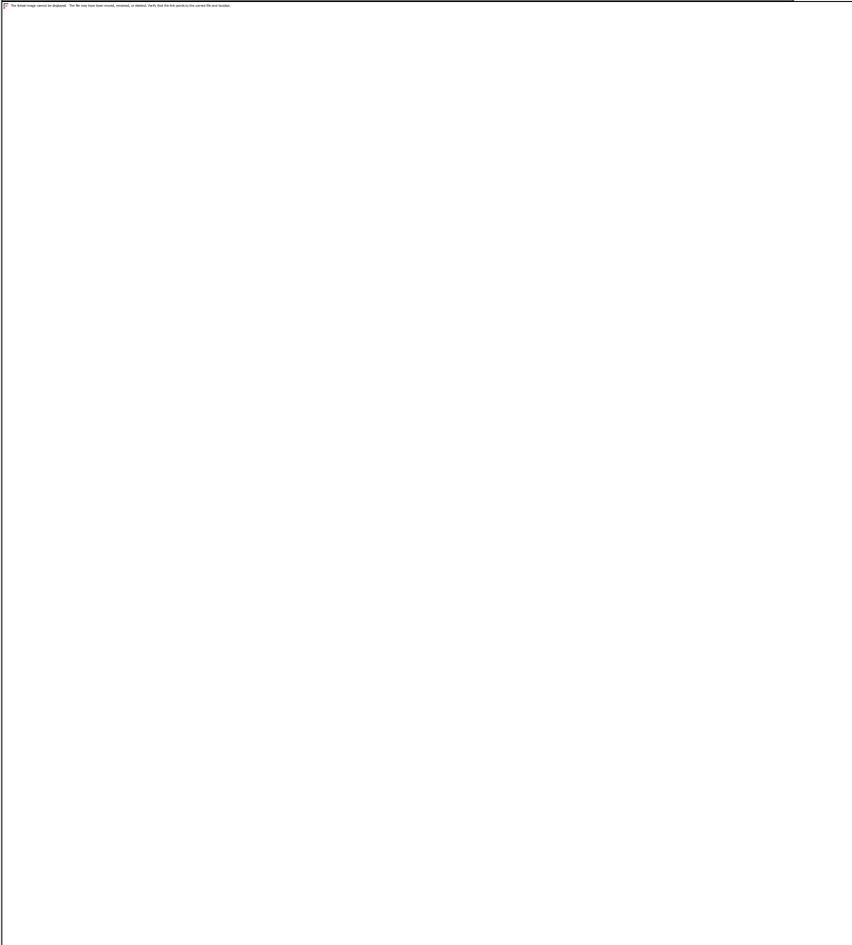
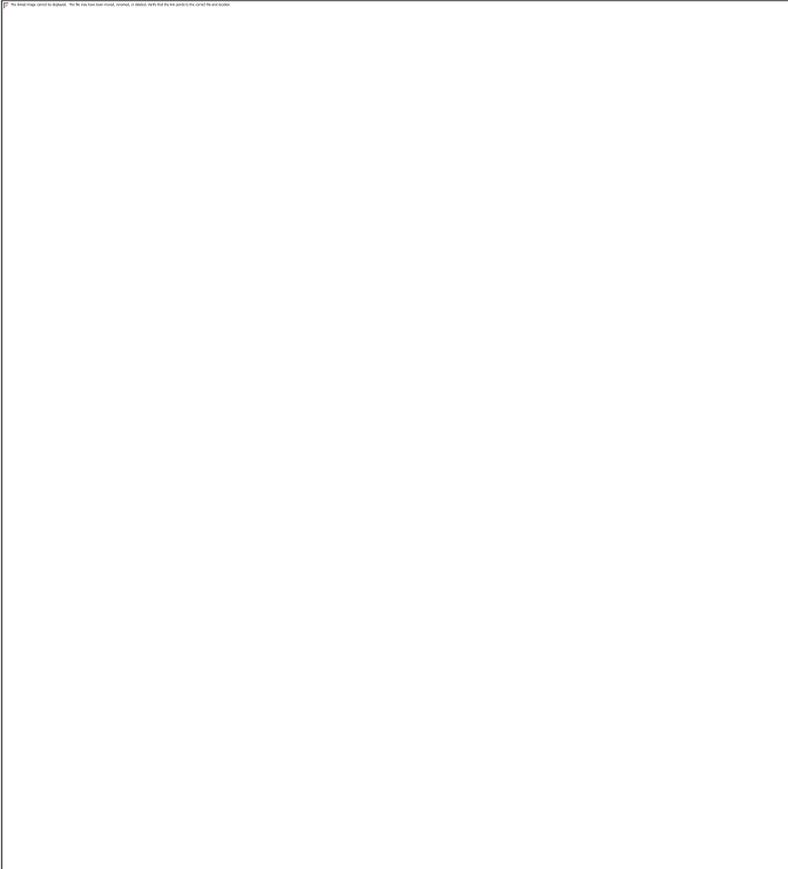


- In the Edit System Variable dialog box, scroll to the end of the string in the Variable value box and add a semicolon (;).
- Depending on you system add one of the following paths after the semicolon:
- For 32bit Systems: "C:\Program Files\Fabasoftware\Folio\WebClient"
- For 64bit Systems: "C:\Program Files (x86)\Fabasoftware\Folio\WebClient"



- Click OK in three successive dialog boxes, and then close the System dialog box.





### 128.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

when using Kofax Capture integration

## 129 DNS Query - NetBios Fallback

Last update: 4 August 2017

### 129.1 Summary

On a Microsoft Windows Server 2012 with *Microsoft Failover Clustering* / *Microsoft Cluster Services* enabled, an excess number of network timeouts may be caused by an enabled NETBIOS look up on the *Microsoft Failover Cluster Virtual Adapter*

### 129.2 Information

On a Microsoft Windows server with *Microsoft Failover Clustering* / *Microsoft Cluster Services* enabled, a new network adapter named "*Microsoft Failover Cluster Virtual Adapter*" is automatically created. The functionality of this adapter is described in this [Technet Blog Post](#).

This automatically created network adapter uses [APIPA](#) to allocate an IP addresses, due to this no DNS Server is configured on this network adapter.

When resolving a name on this adapter the DNS look up fails and a NETBIOS fallback may be triggered. If this NETBIOS fallback also fails a delay may be introduced in dependent communications, possibly leading to timeouts. These timeouts may affect Fabasoft server communication.

### 129.3 Solution

If you see NETBIOS lookup errors on the *Microsoft Failover Cluster Virtual Adapter*, this behavior may be influenced using the `DNS_QUERY_FALLBACK NETBIOS (0x00020000)` flag. **For details please contact you Microsoft Support representative**

#### 129.3.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-suite (all versions)

running on

- Microsoft Windows 2012 with Microsoft Failover Clustering / Microsoft Cluster Services

## 130 DocProperties are truncated after 255 characters

Last update: 4 August 2017

## 130.1 Summary

If you use Microsoft Office's DocProperty functionality with Fabasoft Folio or Fabasoft eGov-Suite, you may recognize that DocProperties with more than 255 characters get truncated to 255 characters.

## 130.2 Information

The Microsoft specification for DocProperties in the old Microsoft Office formats .doc, .xls and .ppt did not specify any size limit for DocProperties (there is a theoretical limit of 4 GB of the file format).

The Microsoft specification for DocProperties in the new Microsoft Office 2007+ formats .docx, .xlsx and .pptx specifies a size limit for DocProperties of 255 characters.

Starting with Microsoft Office 2010, Office applications began to also truncate DocProperties in the old Microsoft Office formats.

Fabasoft uses Microsoft APIs to write DocProperties to both old and new formats. Currently Fabasoft software itself does not truncate DocProperties, but the used Microsoft APIs do.

Therefore, Fabasoft cannot ensure that DocProperties longer than 255 characters survive the Microsoft Office processes during open, save, mail merge and conversion.

## 130.3 Solution

Fabasoft has information from own tests and our customers, that Microsoft APIs will truncate DocProperties in some circumstances, but not in others.

Due to that unsteadiness we recommend to not use DocProperties longer than 255 characters.

Fabasoft can suggest one of this ways to avoid long DocProperties (the first way is preferred):

- Change to Office fields. Fabasoft has routines to push the result of Kernel Expressions to Microsoft Office fields.
- Create multiple DocProperties in your Microsoft Office templates. In Folio, split longer texts to different DocProperties with 255 characters in size.

## 131 DTM can not establish a connection to Oracle XA-Service

Last update: 4 August 2017

### 131.1 Summary

The error message "XA\_PREPARE failed" with errorcode xaerr= '-3' indicates that the Distributed Transaction manager (DTM) could not connect to the Oracle XA-Service.

Whenever this happens the DTM subsequently tries to rollback the transaction. This rollback therefore can not be accomplished because the Oracle Database already rolled back but without the DTM knowing. From now on the DTM still tries to rollback continuously until a timeout is reached.

### 131.2 Information

To resolve this issue, a start of the COO-Services in the "Recovery Mode" must be done. The "Recovery Mode" implicitly purges the DTM logs. (<http://help.fabasoftfolio.com/doc/Fabasoft-Folio-Distributed-Transaction-Manager/recovery-mode.htm>)

Additionally pending transactions must be deleted in the Oracle Database.

## 131.3 Solution

**Warning:** Please consider that the solution provided below requires a complete domain restart!

### 131.3.1 Clearing all domain transactions

After ensuring that the settings described above are correctly configured

- Stop all COO-services of the affected domain.  
**Note:** Before stopping the COO-services ensure that all kernel instances have been stopped.
- Start all COO-services into recovery mode in order to [clear all DTM-logs](#).
- Once again stop all COO-services
- Check if there are any pending transactions left on the Oracle database.

```
select * from sys.dba_pending_transactions
select * from dba_2pc_pending
```

- If there are any transactions left, execute a rollback according to [http://docs.oracle.com/cd/B28359\\_01/server.111/b28310/ds\\_txnman005.htm#A...](http://docs.oracle.com/cd/B28359_01/server.111/b28310/ds_txnman005.htm#A...)
- Restart all stopped COO-services in normal mode
- Restart the stopped kernel instances and thoroughly test the domain

### 131.3.2 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-suite (all versions)

while using an Oracle database

## 132 Empty letter after finalizing a form letter

Last update: 4 August 2017

### 132.1 Summary

You may see an empty letter after you've finalized your form letter. If you try manually to finish the mail merge by pressing Finish & Merge ==> Edit individual Documents...



you may get this error message:

Word found locked fields during the update. Word cannot update locked fields.

## 132.2 Information

There might be locked Microsoft Word fields (DocProperties, Mergefields, etc.) in your form template.

## 132.3 Solution

Open the series letter and unlock all fields by pressing CTRL+A to select the whole document and afterwards CTRL + SHIFT + F11 to unlock the fields.

### 132.3.1 Hint

To lock a field press: CTRL + F11

### 132.3.2 Applies To

- Microsoft Word 2003
- Microsoft Word 2007
- Microsoft Word 2010

### 132.3.3 Microsoft Visual Basic Macro to find the locked field

```
Sub FindLock()  
,  
' FindLock Macro  
,  
Dim iField As Integer  
Dim vResponse As Variant  
  
For iField = 1 To ActiveDocument.Fields.Count  
    If ActiveDocument.Fields(iField).Locked Then  
        ActiveDocument.Fields(iField).Select  
        vResponse = MsgBox("Continue Searching?", vbYesNo)  
        If vResponse = vbNo Then Exit For  
    End If  
Next iField  
  
End Sub
```

## 133 Enable Conversion with Microsoft Word Fill-In Fields

Last update: 4 August 2017

### Summary

When converting Microsoft Word documents containing Fill-In Fields using Microsoft Word as conversion tool, the conversion does not succeed and is terminated due to a timeout. The reason for this behaviour is as in the process of saving (converting) the document as PDF each Fill-In Field triggers a dialogue box asking for user input. Basically it would be possible to deactivate the "update fields before printing" feature in Microsoft Word, unfortunately the DocProperty functionality would be disabled as well. Therefore an additional conversion setting via Windows registry was created, allowing to disable Microsoft Word Fill-In Fields only.

### 133.1 Information

Disabling Fill-In Fields during the conversion triggers a check of all existing fields in the document and convertig the latest content of Fill-In Fields to plain text. Therefore you might experience a negative peformance impact during conversion.

### 133.2 Solution

To disable Micorosoft Fill-In Fields during the conversion create a new key in the Windows registry of the conversion server at HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001\DisableWordFillIn (DWORD) and set its value to 1.

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001]  
"DisableWordFillIn"=dword:00000001
```

#### 133.2.1 Applies to

- Fabasoft Folio 8.0 SP1 and higher
- Fabasoft eGov-Suite 8.0 SP1 and higher

## 134 Error "INT value = 0: Incompatible type 8"

Last update: 4 August 2017

### 134.1 Summary

In the following situations you may get an error message "INT value = 0: Incompatible type 8" (or different datatypes other than INT, or different type values other than 8):

- Reading an object version (of former Folio versions)
- Reading archived objects (of former Folio versions)
- Cleanup of MMC service areas

This message is shown in the log or trace output when the "On-the-fly" migration of objects from former Folio versions did not finish properly.

**Please note:** A hotfix is available correcting issues with the version migration ("On-the-fly" migration). In the hotfix list of your Fabasoft Folio / Fabasoft eGov-Suite version, look up the ID FOLIX07827 and compare the version number to the version number of your coostd.exe / coostd library on the backend servers, to find out if the hotfix is already installed.

- [Available hotfixes for Fabasoft Folio and Fabasoft eGov-Suite](#)

## 134.2 Information

The Upgrade Definition feature is a built-in tool to do object migrations between different Fabasoft Folio versions.

The CSVs in the backend migration folders are used in three ways:

- During the release update, all *current* versions are migrated to the data types of the current Fabasoft Folio version. During the update process, the objects are migrated and written to the database. After that migration, objects are stored in the current data types. No further migration is needed to read/change the object.
- Fabasoft Folio object *versions* created with former Folio versions are **not** permanently migrated in step 1. On every start of the COO-Service, the content of the CSV files is read to the COO-Service memory. If the Fabasoft Folio Kernel requests an object version, the COO-Service "on-the-fly" migrates the object version to the current data model and presents the object to the Kernel. The migrated version is not persisted in the database.
- Objects archived with Fabasoft iArchive cannot be migrated in step 1 (the archive is usually read-only). Because Fabasoft iArchive is a kernel-based product, the archived object is not read from the COO-Service, therefore the COO-Service cannot do the "on-the-fly" migration. In fact, the COOSVC1 service reads the CSV files during start and presents a *view* of the migration information in the Current Domain object. This information is not persisted in the database - the view is generated from the CSV files every COO-Service restart. When an archived object is requested, the Fabasoft Folio Kernel migrates the archived object to the current data model, using the view from the COO-Service. The migrated object also is not persisted back to the archive.

This means, even if the CSV migration files on the backends were correct and consistent during the release update (step 1), losing or corrupting the CSV file later can lead to problems reading object versions and archived objects (both created with former Folio versions).

The MMC cleanup feature reads the metadata of objects and object versions to calculate if files may be deleted or not. That's why you can see such error messages ("incompatible type") in the cleanup logs in case your system has the depict issue. As the error does not affect the calculation to keep files or not, affected objects will be cleaned up as expected.

## 134.3 Solution

This behaviour can have two main reasons. One or both reasons may apply.

### 134.3.1 Upgrade Definition files missing or corrupt

The setup process copies Upgrade Definition files (also called "CSV migration") from the Setup Kit to all Backend servers. The file path of this migration files is:

**Windows:** C:\Program Files\Fabasoft\Components\Server\CooSrv\files\migration

**Linux:** /var/opt/fabasoft/instances/files/migration

Before a release update process, the CSV files delivered from Fabasoft Solutions need to be patched ("Solution Migration"), so object references in the CSV get replaced by object addresses. The

resulting CSV file needs to be copied back to the Setup kit (this is not an automatic process and will be performed by the operator).

During the following Setup process, the patched CSV files are copied to the backend servers (see path above).

- If you run the Setup process at a later time (e.g. updating only the Solution), and you do not manually return the patched CSV files to the Setup kit, the Setup process will copy unpatched CSV files to the backend servers. The "On-the-fly" migration therefore does not work (properly) anymore.
- If you manually deleted or changed the CSV files on the backend servers, the required CSV files may not be found anymore and the "On-the-fly" migration therefore does not work (properly) anymore

**Attention:** Before performing file operations in the following sections, please create a backup of the **migration** folder of **all** backend servers

Check if the migration folders are consistent

- On the *Setup kit* under the Setup folder, search for all appearances of CSV files (in a migration folder).
- Compare the file names and file count with the files on the backend migration folder. *All files from the Setup kit should appear in the backend migration folders.*
- Compare the file content of primary backend server and all other backend servers (e.g. in a cluster environment). *The files on the primary and additional backend servers should have the same count and content.*
- Check that the CSV files should not contain references (please keep in mind that the last column is a note column and can be ignored). *No CSV file should contain object references or expressions.*
- If you have lost correct migration files, consider to restore the migration folders from a tape backup with an empty folder as destination. In this way, you can double-check the current and older files in the migration folders.

Please remember, before changing/copying any files, create a backup of the migration folders of **all** backend servers.

If you have doubts, please contact the Fabasoft Support.

### 134.3.2 Missing migration entries in Upgrade Definition files

Upgrade definitions are used to migrate objects, object classes, datatypes from former Fabasoft Folio versions to the current version. In the CSV files that migrations are specified.

If a CSV Upgrade Definition does not cover all possible changes, the migration process may not run and a wrong datatype might be sent to the Folio Kernel.

Example:

*INT value = 0: Incompatible type 8* means: A INT value 0 was sent to the kernel, but the Kernel expected a value of datatype OBJECT (8). The reason may be, that the new datatype of a property should be object, but the old INT value was not covered by the migration.

If you were able to validate missing Upgrade Definition entries, please contact your project manager for support.

### 134.3.3 Backup strategy

As the above explanation illustrated, the migration folders on the Backend servers are very important.

We recommend to adapt your backup strategy to backup the migration folders on a regular basis.

### 134.3.4 Applies to

- Fabasoft Folio (2010 and above)
- Fabasoft eGov-Suite (2012 and above)

## 135 Error when calling fscab81.CABExtractFromCAB

Last update: 4 August 2017

### 135.1 Summary

Symptoms Error after scanning an image document using a Windows Webservice.



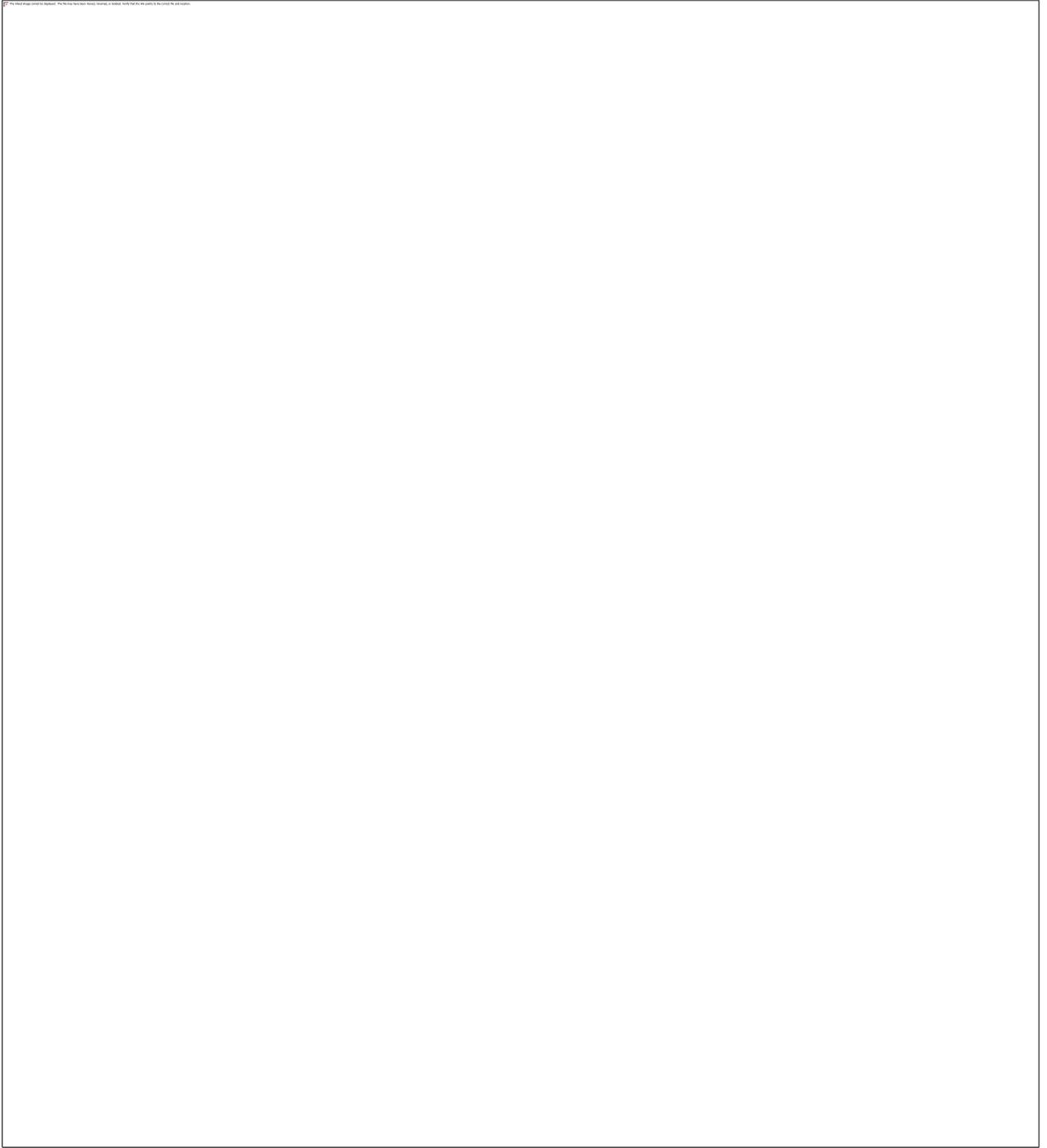
Webservice Eventlog might show:

```
Application error
Error: COO.1.1.1.2662/COOSYSTEM@1.1:DLLERR_FAILURE
Text: DLL: Error when calling "fscab81.CABExtractFromCAB"
(The system cannot open the device or file specified. (0x8007006E/2147942510))
Object: 10.7800.1.16{Administrator, System}[____R_____:1]
Action: 1.1001.1.75804[____RC____D__ :1]
Library: fscab81
Function: CABExtractFromCAB
User: SUPPORT\web_elex80sp1
Process: 2224 (0x000008B0) [W3WP]
Thread: 2912 (0x00000B60)
Version: 9.2.5.67
System: Win2k3 5.02 Build 3790 Service Pack 2.00
```

Cause System Variables TMP and TEMP have been modified from %SystemRoot%\TEMP to another value.

### 135.2 Solution

- Set System Variables TMP and TEMP back to %SystemRoot%\TEMP



- Restart the Fabasoft Webservice.

### 135.2.1 Applies to

- Fabasoft eGov-Suite (Windows Webservices)
- Fabasoft eCRM-Suite (Windows Webservices)

## 136 Experiences with Microsoft Office 2010 and Fabasoft eGov-Suite 8.0 SP1

Last update: 4 August 2017

## 136.1 Summary

As Microsoft Office 2010 has been released at a later date than Fabasoft eGov-Suite/eCRM-Suite 8.0 SP1, Microsoft Office 2010 could not be tested in conjunction with Fabasoft Folio 2009 Fall Release or the Fabasoft eGov-Suite/eCRM-Suite 8.0 SP1. Therefore Microsoft Office 2010 is not listed in the Software Product Information (SPI) and is officially not supported.

This article is about experiences, workarounds and known issues we found based on customer feedback and own tests. Although Microsoft Office 2010 is not supported in Fabasoft eGov-Suite 8.0 SP1, we collected feedback from our customers and own tests.

Note: The information is provided "as-is" and may be incomplete. All information is subject to change.

## 136.2 Information

Basic content handling (open/save) showed no noticeable problems with Microsoft Office 2010 (32-bit). The usage of the 64-bit (or x64) edition of Microsoft Office is not recommended.

The following issues are known:

### 136.2.1 DocProperties are trimmed after 254 characters

Information: DocProperties in Microsoft Office 2010 are truncated after 254 characters. This even happens when the document or the DocProperties are not changed.

Solution: This is a general Microsoft Word 2010 behavior and cannot be influenced by Fabasoft. If you are using DocProperties longer than 254 characters you might have to switch to text modules or Word bookmarks with kernel expressions. We also suggest to contact Microsoft. Eventually Microsoft will fix this issue to restore earlier Office behavior.

### 136.2.2 Word-Button, Outlook-Button, Text-Insertion-Button do not work

Information: The Word-Button, Outlook-Button and Text-Insertion-Buttons do not load. This is caused by the new ribbon control of Microsoft Office 2010.

Solution: With the release plugins of Fabasoft eGov-Suite 8.0 SP1 these buttons cannot be used. The Fabasoft Folio Word and Outlook plugins of Fabasoft Folio 2010 and Fabasoft Folio 2011 operate with Microsoft Office 2010 and can be used together with the Fabasoft Tools Manager aka Folio Plugin. Please note this mixed constellation is officially not supported and you have to test for potential side-effects.

Note: The button controls of Fabasoft Folio 2012 and above cannot be used together with Fabasoft eGov-Suite 8.0 SP1 since the used registry entries have changed.

### 136.2.3 Problems with Microsoft Office 2010 (x64 Edition)

Information: After a document has been opened for editing a misleading "Save as" dialog appears while closing the document.

Solution: Currently there is no solution for this issue. If Microsoft Office x64 edition is used the automatic mapping between the opened object and the associated application window is not possible. Therefore the Fabasoft Tools Manager is not able to keep track of opened or closed windows and applications. Microsoft recommends - independent of any Fabasoft-specific issue - the usage of the Microsoft Office 2010 32-bit edition (see [http://www.microsoft.com/oem/en/products/office/pages/office\\_2010\\_build.aspx](http://www.microsoft.com/oem/en/products/office/pages/office_2010_build.aspx)).

### 136.2.4 Mail merges cannot be opened when another instance of Microsoft Word 2010 is already running

Information: If you try to open a mail-merge while another instance of Microsoft Word 2010 is already running, the mail-merge will not open.

Solution: Set the following registry key for every user working on clients running Microsoft Office 2010:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_CURRENT_USER\Software\Fabasoft\COOCIS]
"CacheWinword"=dword:00000001
```

### 136.2.5 Microsoft Powerpoint: Document stays locked after closing the document without closing PowerPoint

Information: If you close a Powerpoint document, but leave the Powerpoint application open, the object is not unlocked.

Solution: Set the following registry key for every user working on clients running Microsoft Office 2010:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\POWERPNT]
"Class"="PPTFrameClass"
"Class0"="PPTFrameClass"
"Window"="%Microsoft PowerPoint%"
```

### 136.2.6 Microsoft Project: Document stays locked after closing the document without closing Project

Information: If you close a MS Project document, but leave the application open, the object is not unlocked.

Solution: Set the following registry key for every user working on clients running Microsoft Office 2010:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\WINPROJ]
"NoDDE"=dword:00000001
```

### 136.2.7 Authentication dialog when opening documents using WebDAV folder

Information: If you have configured WebDAV folders to use with Fabasoft eGov-Suite 8.0 SP1 and you open an Office document from the WebDAV folder, you get an authentication dialog. This also happens for every document, even if you entered your credentials already during opening the first document.

Solution: This behaviour occurs if you use basic authentication without SSL to authenticate against Fabasoft eGov-Suite and WebDAV folders. Microsoft Office 2010 does not cache credentials anymore (different from Office 2007 and earlier), that's why a authentication dialog appears for every document that is opened via WebDAV.

Microsoft recommends to use Kerberos authentication or SSL encryption for WebDAV folders (see also <http://support.microsoft.com/kb/2123563/en-us>).

With Kerberos authentication no authentication dialog is displayed.

### 136.2.8 Different error symptoms if template folder and/or workgroup template folder is redirected to a network share

This issue is valid for all Fabasoft Folio / Fabasoft eGov-Suite versions.

Known Symptoms:

- Error during mail merge: "Command failed"
- Error during mail merge: "Merge to new document split failed with: undefined"
- Possibly: Folio function "Send" / "Send as PDF" fails

Solution: These errors may occur if the user template folder and/or the workgroup template folder of Microsoft Office applications redirect to a network share. These folder settings of Microsoft Office by default redirect to a local directory in the user profile. This problems are addressed by a Microsoft Office Hotfix KB 2553912 <http://support.microsoft.com/kb/2553912/en-us>.

It is recommended to install this Microsoft hotfix package, or change the template folders back to a local disk.

### 136.2.9 Applies to

- Fabasoft eGov-Suite Version 8.0 SP1
- Fabasoft eCRM-Suite Version 8.0 SP1
- Fabasoft Folio 2009 Fall Release
- Microsoft Office 2010

## 137 Fabasoft Folio 2009 Update and Upgrade Guide

Last update: 4 August 2017

### 137.1 Update Fabasoft Folio 2008 to Fabasoft Folio 2009

This guide describes the update of a Fabasoft Folio 2008 installation to Fabasoft Folio 2009.

## 137.2 Update Fabasoft Folio 2008 to Fabasoft Folio Enterprise 2009

The update of Fabasoft Folio 2008 without Fabasoft iArchive 2008 should work out of the box using the "Update existing Fabasoft services and products" functionality of the Fabasoft Folio setup using the new license file.

## 137.3 Update Fabasoft Folio 2008 and Fabasoft iArchive 2008 to Fabasoft Folio Compliance 2009

The update of Fabasoft Folio 2008 including Fabasoft iArchive 2008 needs some manual preparations.

- Execute the "Update existing Fabasoft services only" functionality of the Fabasoft Folio setup. Ensure that only the features "Fabasoft Components Server Management" and "Fabasoft Components Backend Services" are selected.
- Remove the software edition objects EditionFolio@1.1 and EditionArchive@1.1 from the database:

```
loader -delprod EditionFolio@1.1 -delprod EditionArchive@1.1
```

- Load the software edition object of EditionFolioCompliance@1.1 using Fabasoft Components Server Management or the Fabasoft Web Management Console.

```
loader -load Setup/EditionFolioCompliance/Package/product.coo
```

- Execute the "Update existing Fabasoft services and products" functionality of the Fabasoft Folio setup using the new license file.

## 137.4 Upgrade to Another Software Edition of Fabasoft Folio 2009

- Remove the old software edition object from the database:
- EditionFolioHome@1.1

```
loader -delprod EditionFolioHome@1.
```

- EditionFolioTeam@1.1

```
loader -delprod EditionFolioTeam@1.1
```

- EditionFolioEnterprise@1.1

```
loader -delprod EditionFolioEnterprise@1.1
```

- EditionFolioCompliance@1.1

```
loader -delprod EditionFolioCompliance@1.1
```

- Load the software edition object of the new software edition into the domain using Fabasoft Components Server Management or the Fabasoft Web Management Console:
- EditionFolioTeam@1.1

```
loader -load Setup/EditionFolioTeam/Package/product.coo
```

- EditionFolioEnterprise@1.1

```
loader -load Setup/EditionFolioEnterprise/Package/product.coo
```

- EditionFolioCompliance@1.1

```
loader -load Setup/EditionFolioCompliance/Package/product.coo -load
Setup/ComponentArchive/Package/product.coo
```

- Execute the "Update existing Fabasoft services and products" functionality of the Fabasoft Folio setup using the new license file.

## 138 Fabasoft Folio Plug-In / Client installation possibilities

Last update: 4 August 2017

### 138.1 Summary

The following article describes summarized Fabasoft Folio Plug-In / Client installation possibilities for various supported client environments.

### 138.2 Information

Please refer to the SPI Whitepaper which is included inside the "Documents" folder on your installation media to find out the supported client environments for your product version.

All Fabasoft Folio client related installation packages can be found on the installation media under "Setup\ComponentWeb\Client\" folder.

#### 138.2.1 Windows:

As described in the White Paper „Fabasoft Folio Plug-In“ make sure that you are logged in as an administrator prior the installation.

Open your account area from the Web Client and click on „Install now“ underneath the „Fabasoft Folio Plug-In“ description. Double click the downloaded file to start the installation process.

An alternative way would be to install the Plug-In from the command line in case of activated „UAC“ (User Account Control). The command line needs to be started with administrator privileges.

To start a command prompt as an administrator

- Click Start, click All Programs, and then click Accessories.
- Right-click Command prompt, and then click Run as administrator.

- If the User Account Control dialog box appears, confirm that the action it displays is what you want, and then click Continue.

### 138.2.2 Apple OSX:

The installation of the „Fabasoft Folio Plug-In“ for OSX based systems can be performed by following these steps.

Open your account area from the Web Client and click on „Install now“ underneath the „Fabasoft Folio Plug-In“ description. Double click the downloaded file to start the installation process.

An alternative way would be to find the „FolioPlugin.pkg“ inside „Setup/ComponentsWeb/Client/FolioPlugin.pkg“ within the Fabasoft Folio installation media.

Please note that you have to provide administrator account credentials during the setup in order for the installation to be successful.

### 138.2.3 Linux Ubuntu:

The installation of the „Fabasoft Folio Plug-In“ for Ubuntu based systems can be performed by following these steps.

Open your account area from the Web Client and click on „Install now“ underneath the „Fabasoft Folio Plug-In“ description. This will download „folioclient\_i386.deb“ onto your computer. Double click on „folioclient\_i386.deb“ which should bring up the „Ubuntu Software Center“ from where you can start the installation.

An alternative way would be to install the package through command line. To do so please execute the following command:

```
sudo dpkg -i /folioclient_i386.deb
```

Please note that you have to provide administrator account credentials during the setup in order for the installation to be successful.

### 138.2.4 Deployment via Active Directory:

The deployment via Active Directory is described in the white paper „Deployment of ActiveX Controls via Microsoft Windows Active Directory“. Please consult the mentioned whitepaper about this installation and deployment possibility.

### 138.2.5 Additional notes:

Based on the Client configuration there might be further steps necessary to enable a successful Folio Plug-In interaction with the Web-Service. Usually such steps are indicated by a yellow triangle on the top right of your account area.

Open your Account area to find out which additional steps are required to enable the needed functionality.

### 138.2.6 Text Insertion Add-In

The text insertion add-in for Microsoft Office Word is installed during the Folio Plug-In installation.

To enable the COM add-in, select „File“ and click „Options“. In the dialog box, click „Add-Ins“, select „COM Add-Ins“ in the Manage drop-down list box and click „Go“. In the dialog box that is opened, select „Fabasoft Folio“ and click „OK“.

The next time you open a Word content object from Fabasoft Folio you should be able to see and use the additional Fabasoft Folio buttons from within the „Insert“ tab of Microsoft Office Word.

### 138.3 References

- [White Paper Fabasoft Folio Client](#)
- [White Paper Fabasoft Integration for Microsoft Office](#)
- [White Paper Deployment of ActiveX Controls via Microsoft Windows Active Directory](#)

## 139 Fabasoft Folio update from version 8.0 to 9.0 may fail with object definition missing

Last update: 4 August 2017

### 139.1 Summary

During update from Fabasoft Folio 2008 to Fabasoft Folio 2009 the setup process fails with this message:

```
Error: Attribute "FSCRSS@1.1001:objfeed": object definition missing
```

```
Found in definition of FSCRSS@1.1001:RSSFeedConfigurationClass  
"FSCRSS@1.1001:DefaultConfiguration", input file  
"..\\Setup\\ComponentsBase\\Package\\fscrss.coo", line 740
```

### 139.2 Information

- Reference of property FSCRSS@.1.1001:objfeed changed to FSCRSS@.1.1001:feedcontainerconf
- Property has been extended by another software component

### 139.3 Solution

Delete software component FSCRSS@1.1001 before updating the domain.

```
set HOST=  
set PORT=  
loader -delcomp FSCRSS@1.1001
```

## 140 Fabasoft object address reservation during COLD data imports

Last update: 4 August 2017

## 140.1 Information

Fabasoft COLD is framework to import data to a Fabasoft Folio domain from a datasource like SQL databases or CSV text files. Data from different data tables can be combined by key attributes and objects can be linked together. The data imports are defined in the object class "Data Import" (FSCCOLD@1.1001:DataImport).

Fabasoft COLD is designed to bulk import big amounts of data. The Data Import object class uses two properties to improve import performance:

- Number Of Records for Commit
- Number Of Threads

To optimize the time to create new objects, COLD preallocates COO addresses for new objects. The preallocation size of object addresses uses this formula:

Preallocated object addresses = Number Of Records for Commit \* Number Of Threads \* 2

For example, if you set the COLD import to *150* records to commit (bulk size) and *10* threads, COLD will preallocate blocks of *3000* object addresses. If the Fabasoft Kernel does not need all the object addresses it preallocated for running the data import, it will use these addresses for other new objects of that COO Store. It will also reuse the left preallocated addresses for the next COLD data import.

## 140.2 Special attention using COLD on a scheduled and/or reoccurring basis

For reoccurring (e.g. scheduled) COLD data imports, please consider the following special behaviours:

- COLD uses the object placement of the imported object classes. For performance reasons, if a preallocated address block is full during the import, COLD will preallocate a new address block in the *same COO-Store* as the last block was assigned. This may lead to uneven allocation if more than one COO Store is used in the placement. **Please regularly check free object addresses in the COO Stores.**
- On shutdown of the Fabasoft Kernel, the Kernel saves the preallocated address block in the *COMMITDIR* cache directory. If you delete the *COMMITDIR* directory, the Kernel will forget about preallocated addresses and will start a new block after the forgotten block. This may fill up COO Stores earlier than expected. **Do not delete the COMMITDIR directory on a server using COLD data imports.**
- In Fabasoft Folio versions below Fabasoft Folio 2014, backlink objects do not observe object placement, but will be created in the same COO Store as the dependend object. **Therefore, consider an object address buffer in the COO Stores you import data.** We recommend an address buffer of 1 to 2 million object addresses.
- If a COO Store reaches the address limit you considered to use as buffer, create new COO Stores and assign the object placement in the object classes.

## 141 FAQ related to Fabasoft Folio Plug-In / Client usage

Last update: 4 August 2017

### 141.1 Summary

The following article describes summarized solution possibilities to frequent customer questions related to Fabasoft Folio Plug-In / Client usage.

## 141.2 Information

### 141.2.1 Folio Plug-In is installed but content objects won't open inside the related editing application.

- Please open the local registry and try to find the related Fabasoft Keys under :
  - 
  - `[HKEY_CURRENT_USER\Software\Fabasoft]`

Those keys are usually written once the Plug-In is installed and additionally synced with your domain the first time you log in with your credentials. If the Registry Keys are missing that could indicate a possible problem with permissions. Double check if the necessary rights are given in order for the Registry Keys to be written by the involved user.

- Please check the valid MAPI-Configuration (COOMAPI@1.1:MAPIConfiguration) for your domain and make sure the setting for „Host and Root URL for HTML Mail“ is equal to the browser domain.
- Please check if all the necessary settings related to Browser-Plugin interaction are correctly set. Those issues are usually indicated and described by a yellow triangle within your account area. For example, make sure that the browser domain is listed within the Local Intranet or Trusted sites inside Internet Explorer.

### 141.2.2 Only certain content object don't open and the error message "To open the document install an associated third party application" is displayed.

- Please make sure the related third party application is installed and mapped to the object in question. To verify (assuming a windows environment) the object mapping download it to your local file system, right click on the object and open properties. Inspect the "Opens with" element and make sure that the correct application is specified. For example "Word" for "Microsoft Office Word" objects.

### 141.2.3 Folio Plug-In is installed and content objects can be opened but the „Fabasoft Folio“ Add-In within Microsoft Word can't be activated.

- Please make sure that you have opened at least one Microsoft Office Word content object from Fabasoft Folio before usage.
- Please open the local registry and try to find the related Fabasoft Key which controls the Add-In Activation under:
  - 
  - `[HKEY_CURRENT_USER\Software\Microsoft\Office\Word\AddIns\FolioPM.AddInWord]`

Please make sure that the „Loadbehaviour“ value is set to „3“ which stand for activated.

- If the Key is set correctly but the Add-In still does not load please remove the Add-In from within Microsoft Office Word by selecting „File“ and click „Options“. In the dialog box, click „Add-Ins“, select „COM Add-Ins“ in the Manage drop-down list box and click „Go“. In the dialog box that is opened, select „Fabasoft Folio“ and click „Remove“. Now try to add the Add-In manually by clicking Add from within the same dialog box and select „axFabasoftFolio64.dll“ from:
  -

- „C:\Program Files (x86)\Fabasoft\Folio\Client\x64“

Please note that this path can vary based on your OS

#### 141.2.4 Content objects remain locked.

- Try to open the locked content object and then wait about eight minutes. If the object is not being edited anymore the lock should be release by then.
- Please make sure that the content object in question is not being edited or left open from an alternative Workstation. Content object locks persist till the object in question is fully closed from within the editing application.
- In certain rare occasions it can happen that the content object remains "stuck" in the "ActiveDocuments" registry key which is responsible for sending out the lock refresh and keeping the lock persistence. Please close all open browser instances and the Fabasoft Folio Plug-In / Client on the related user workstation. Open the registry and navigate to the following key:
  - 
  - [HKEY\_CURRENT\_USER\Software\Fabasoft\WebClient\ActiveDocuments]

The content object entries are included in the sub keys identified by file0, file1, file2 and so on. Try to identify which sub key holds the locked object and delete it. The lock should be released afterwards.

## 142 Firefox crashes caused by enabled content compression

Last update: 4 August 2017

### 142.1 Summary

Mozilla Firefox crashes on the action „ Compare contents „ with a Microsoft Windows web server because content compression is activated. One possible reason is that content compression has been enabled during app.strudl Software-Telemetry server setup. In Microsoft Windows Server 2003, this setting is global, which means that Fabasoft Folio also tries to use this feature.

### 142.2 Solution

So if Fabasoft Folio and the app.strudl Software-Telemetry server application are running on the same server content compression has to be disabled, to ensure that both products work properly.

#### 142.2.1 Applies to

Fabasoft Folio 2009 Fall Release (9.2.5)

## 143 First connection to ssl enabled website takes 10 seconds

Last update: 4 August 2017

## 143.1 Summary

The connection to a service that is secured with SSL/TLS (https://) takes up to 10 seconds.

## 143.2 Information

When establishing a connection to a site secured with SSL/TLS, some browsers verify the sites certificates for revocation by querying the issuing certificate authority.

When the connection to the revocation list is not possible, for example due to a firewall, the connection is held for about 10 seconds until a timeout is triggered

## 143.3 Solution

Ensure that browsers that verify certificates against revocation lists are able to connect to the certificate authorities in question

### 143.3.1 Applies to

- All Fabasoft products

when using a secured connection and a browser that verifies certificate revocations.

## 144 First request takes longer than usual

Last update: 4 August 2017

### 144.1 Summary

This article describes possible reasons for the first request to the Fabasoft eGov-Suite or Fabasoft Folio is taking longer than usual.

### 144.2 Information

The most common reasons for the first request taking longer are:

- Invalid addresses of Fabasoft Mindbreeze or Fabasoft app.telemetry servers configured in the configuration objects located in the Fabasoft eGov-Suite / Fabasoft Folio.
- The target server URL contained in those configuration objects can not be reached due to the servers being offline.

### 144.3 Solution

First of all check whether the Fabasoft Mindbreeze Server as well as the Fabasoft app.telemetry server are available.

If they are the corresponding configuration objects must be checked.

Checking the Fabasoft app.telemetry Configuration:

- Move to current domain object
- Open the tab "System Configuration" and scroll down to the end of this tab.
- Check the value of the option "Fabasoft app.telemetry Webserver URL".

Checking the Fabasoft Mindbreeze Configuration:

- Move to current domain object

- Open the tab "Components Configuration".
- Open the Mindbreeze configuration object.
- At the end of the tab "Mindbreeze Cofiguration" there is the option "Web Client Service URL" which has to be checked.

### 144.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

with Fabasoft app.telemetry or Mindbreeze intregation configured

## 145 FSC Printer Port generates PS instead of PDF

Last update: 4 August 2017

### 145.1 Summary

Eventlog shows:

```

Object: COO.20.70.1.1044073
Action: FSCTLH@1.1001:ExecuteConversion
Library: FSCTLH80
Function: FSCTLHExecuteConversion
Source: Fabasoft Components FSCTLH@1.1001
User: FABABM100\Administrator
Process: 3056 (0x00000BF0) [W3WP]
Thread: 872 (0x00000368)
Version: 8.0.6.111
System: Win2k3 5.02 Build 3790 Service Pack 2.00
Memory: 2242604/3299060/4293143320

Error-Code: 1. (stdout: Error: /undefined in
E*t600R&l0o1E*p0x0Y*c0t5611x8178Y&u600D*r0F&l0S&n8WdDefault&l0H&l26a8c1E*p0x0Y*c0t
5611x8178Y&l1X*b0M*v1N*v1O*11840*v6W

```

Operand stack:

Execution stack:

```

%interp_exit .runexec2 --nostringval-- --nostringval-- )
Object: COO.20.70.1.1044073
Action: FSCTLH@1.1001:ExecuteConversion
Library: FSCTLH80
Function: FSCTLHExecuteConversion
Source: Fabasoft Components FSCTLH@1.1001

```

User: FABABM100\Administrator  
Process: 3056 (0x00000BF0) [W3WP]  
Thread: 872 (0x00000368)  
Version: 8.0.6.111  
System: Win2k3 5.02 Build 3790 Service Pack 2.00  
Memory: 2252116/3307276/4293143320

Error-Code: 1.  
Object: COO.20.70.1.2908  
Action: FSCTLH@1.1001:ExecuteConversion  
Library: FSCTLH80  
Function: FSCTLHExecuteConversion  
Source: Fabasoft Components FSCTLH@1.1001  
User: FABABM100\Administrator  
Process: 3056 (0x00000BF0) [W3WP]  
Thread: 872 (0x00000368)  
Version: 8.0.6.111  
System: Win2k3 5.02 Build 3790 Service Pack 2.00  
Memory: 2255924/3315404/4293144344

## 145.2 Information

The conversion from ps to pdf using Ghostscript failed because of the ps file format. The printer selected as described in Installation and Configuration of Fabasoft Components Printer Ports.pdf Point 6 Select a postscript printer and click Next does not generate valide postscript files.

## 145.3 Solution

Change the driver of your printer to a postscript printer (postfix PS; e.g. HP Color LaserJet PS )

Example:

Printers and Faxes --> --> Properties --> Advanced --> New Driver --> HP --> HP Color LaserJet PS )

### 145.3.1 Related Articles

- [Known Issues with Postscript Printer Drivers for FSC Printer Ports](#)

## 146 Hotfix for backlink objects

Last update: 4 August 2017

### 146.1 Summary

A hotfix is available for a possible data inconsistency of backlink objects in a special and rare situation.

One known appearance that may be caused by this issue are missing activities in the worklist of users.

Please read the detailed information that show up the constellation that leads to this problem.

## 146.2 Information

The issue only affected systems with

- UDP and Multicast Protocol enabled, and
- heavy concurrent load on objects with backlinks

Fabasoft was able to construct a situation in a labour environment that proved the possibility of backlink data inconsistency. In rare situations the following scenario could lead to such data inconsistencies of backlink objects:

- The UDP and Multicast Protocol is enabled and working in the domain.
- An object with it's Backlink object is cached in the object cache of a Kernel instance.
- A user changes the object and implicitly the backlink object. By the change of the objects, the COO-Service sends an "object change" notifications to all Kernels in the infrastructure (UDP and Multicast protocol).
- Because of a short network outage or network overload, another kernel instance could not receive the object change notification (because UDP is used, there is no guarantee that UDP packages reach the destination servers).
- The Kernel instance recognises the UDP package loss (because of the missing package number) and sets all cached objects to "Dirty".
- In this situation, the Kernel did not correctly set also the cached backlink object to "Dirty". Therefore, continuing with inconsistent backlink data.
- In the following, Kernel 1 continues with the correct backlink data, but Kernel 2 continues with dirty data.
- If Kernel 2 persists additional changes to the object or backlink object, it will persist the dirty cached data to the database and overwrite the correct backlink data.
- It also may appear that Kernel 2 displays the cached dirty data until the Kernel instance is restarted. In this situation, dirty data are displayed but not written to the database.

## 146.3 Solution

A hotfix (coomk.dll) is available for all supported versions of Fabasoft Folio / Fabasoft eGov-Suite and will be provided via our support team. Please contact Fabasoft Support (or respectively your TAM-contact) if you are interested in this hotfix.

### 146.3.1 Applies to

- Fabasoft Folio 2007 until (including) Fabasoft Folio 2014
- Fabasoft eGov-Suite 7.0 until (including) Fabasoft eGov-Suite 2014

### 146.3.2 Fix included in following releases

- Fabasoft eGov-Suite 2013
- Fabasoft Folio 2013 Update Rollup 2
- Fabasoft Folio 2014 Update Rollup 2
- Fabasoft Folio 2014 Summer Release
- and all following releases.

## 147 How to change the Mindbreeze service user

Last update: 4 August 2017

### 147.1 Summary

This article provides an overview of the required steps for changing the Mindbreeze service user while keeping the current Mindbreeze configuration.

### 147.2 Instructions

Requirements for the new service user:

- User must be trusted for delegation.
- The Service Principal Names (SPN) for the new service user must be set.  
(Note: When setting the SPN's for the new service user, the SPN's of the previous service user must be deleted)
- The service user must be a local administrator.

Further informations about accomplishing these settings can be found in these Mindbreeze white papers:

- "Documentation - Windows" (Chapter 9.1 - 9.2)
- "Documentation - Linux" (Chapter 5).

These white papers are located in the installkit at \Setups\Additions.

After checking the prerequisites for the new Mindbreeze service user follow these steps:

- Move to the user directory of the current Mindbreeze service user. Create a Backup of the Mindbreeze directory located at %userprofile%\AppData\Roaming
- Open the run prompt and enter "services.msc".
- Move to the service "Mindbreeze Management Node" and open the properties.
- Change the user in the tab "Log on" to the new Mindbreeze service user.
- Perform the same steps for the "Mindbreeze Node" service.
- Copy the previously backed up Mindbreeze directory to the new Mindbreeze service users user profile.
- Restart the Mindbreeze services. (Mesnode and Mesmaster)

#### 147.2.1 Applies to

- Fabasoft Mindbreeze (all versions)

## 148 How to change the number of backend service threads

Last update: 4 August 2017

The Fabasoft Folio backend service handles incoming requests in a thread pool. This article describes how to change the number of threads in the thread pool in case of a necessity.

## Note

When you customize your Fabasoft Folio COO-Service threads be aware that your database allows at least the same number of connections. (n of threads \* n of COO-Services ; example: 16 threads \* 4 Services = 64 connections)

### 148.1 Windows

Edit following path in your Registry: HKLM\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain 10.7780\Service New String Value = „WorkerThreads“ Value of WorkerThreads = n of WorkerThreads

#### Example:

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain  
10.7780\Service 1]
```

```
"WorkerThreads"="16"
```

### 148.2 Linux

change the value at /etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/Fabasoft\ Components\ Server\Domain\ 1.3145\Service\ /WorkerThreads

#### Example

```
echo -n "16" > /etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/Fabasoft\  
Components\ Server\Domain\ 1.3145\Service\ 1/WorkerThreads
```

## Note

You must edit the WorkerThreads for each service separately. After restarting the Fabasoft Folio COO- or MMC Service your changes will be applied.

## 149 How to enable SQL trace

Last update: 4 August 2017

The SQL Trace is a logging possibility that shows all SQL Statements sent from Fabasoft backend services to the database instance.

Note: After you finished the trace set the Key Value form YES to NO. Please note that enabling SQL trace might have an impact on overall system performance.

### 149.1 Windows

- Navigate to the following registry key on your backend server. (Your service ID may need to be adapted)

```
HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\Fabasoft Components Server\Domain  
<x.y>\Service <z>\Datasources\Default
```

- Create a STRING-Value named `TraceSQL` with the value `YES`
- Restart your Fabasoft COO-Service and start the Fabasoft tracer.exe

### 149.2 Linux

Issue the following command on your backend server. Adjust the domain id and service id to your environment.

```
su - fscsrv echo -n "yes" >
/etc/fabasoft/settings/machine/SOFTWARE/Fabasoft/Fabasoft\ Components\
Server\Domain\ 1.3145\Service\ 1/Datasources/Default/TraceSQL
```

Restart your Fabasoft COO-Service. The SQL Statements are written into  
/var/opt/fabasoft/instances/COOService\_1\_3145\_/log/main/current

## 150 How to find core dumps in Linux

Last update: 4 August 2017

The easiest way to find core dumps in Linux is to search with the following command:

```
find /var/opt/fabasoft -name "core*"
```

If you found a core file on your system you can easily find out which service crashed by executing:

```
gdb -core
```

To analyze the core file collect the system information with the [Collect Dump Info](#) tool and send it to [support@fabasoft.com](mailto:support@fabasoft.com)

## 151 How to uninstall and remove Fabasoft Folio installation

Last update: 4 August 2017

### 151.1 Summary

Under Windows, Fabasoft Folio can be uninstalled by the "Programs and Features" (Microsoft Windows Server 2008) or "Add/Remove Programs" (Microsoft Windows Server 2003) wizards of the operating system.

Under some circumstances it can be necessary to do a manual cleanup of a system. This guide shows the recommended way.

### 151.2 Information

A clean uninstall may be required in some rare situations, for example if the corresponding Folio domain does not exist anymore, after a setup failure or if you just want to make sure the system is clean.

For normal uninstall this procedure is not required.

### 151.3 Solution

- Do a backup to be able to restore the system in case of a problem
- Run the operating system uninstall wizard "Programs and Features" (Microsoft Windows Server 2008) or "Add/Remove Programs" (Microsoft Windows Server 2003) to uninstall all Fabasoft Folio components.
- Stop Internet Information Services (
- Open the Windows Task Manager and kill all processes relevant to Fabasoft Folio (e.g. by iisreset /stop )
- Delete the following registry keys (Fabasoft software keys):
- HKEY\_LOCAL\_MACHINE\Software\Fabasoft
- HKEY\_CURRENT\_USER\Software\Fabasoft
- HKEY\_USERS\DEFAULT\Software\Fabasoft

- HKEY\_USERS\\Software\Fabasoft (these hives represent the CURRENT\_USER hive of all users on the system, including service users)
- Delete the Windows service keys in HKEY\_LOCAL\_MACHINE\\SYSTEM\\CurrentControlSet\\Services
- COOATS\_1 Fabasoft Folio AT-Service (if multiple AT-Services are used, also COOATS\_<2,3,...>)
- coommd Fabasoft Folio Management Service
- COOPerformance Registered performance classes
- COOService\_\_ COO Services with major/minor domain id and service ID
- MMCService\_\_ MMC Services with major/minor domain id and service ID
- Restart the system
- Delete the following folders (in a standard installation). Not every folder needs to be present.
- C:\\Program Files\\Fabasoft
- C:\\Windows\\Temp\\Fabasoft
- C:\\ProgramData\\Fabasoft (Windows Server 2008)
- C:\\Users\\\\AppData\\Local\\Fabasoft (Windows Server 2008) - do this for every user directory
- C:\\Documents And Settings\\Application Data\\Fabasoft (Windows Server 2003)
- C:\\Documents And Settings\\\\Local Settings\\Application Data\\Fabasoft (Windows Server 2003) - do this for every user directory
- If the permission to directories is denied, try to take ownership to the directories. If it still fails, double-check, if Fabasoft services are still running.

After this procedure, no references to Fabasoft Folio or Fabasoft Folio domains exist and a clean re-installation can be done.

Warning: For future or older Fabasoft Folio releases, this guide may change and additional steps might be necessary.

### 151.3.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)
- Fabasoft eCRM-Suite (all versions)

## 152 How to use fscadmin

Last update: 4 August 2017

### 152.1 Summary

fscadmin is a supporting tool which is used to manage Fabasoft Components services.

### 152.2 Information

The tool fscadmin is installed with the Fabasoft Server Management and located in the following directory:

- Microsoft Windows  
%ProgramFiles%\\Fabasoft\\Components\\Management\\fscadmin.exe
- Linux  
/opt/fabasoft/bin/fscadmin

Note: Usually the tool is accessible by the path environment variable.

By calling `fscadmin.exe` respectively `fscadmin` the commandline help is displayed.

### 152.3 General information about the provided examples

All given examples were written for Microsoft Windows. If you are using Linux watch out for some differences:

- In Linux the syntax is a little bit different. Arguments are written with a doubledash (e.g. "--action"). Furthermore there is possibility to shorten the syntax (e.g. "-a" for "--action"). For further information see the `fscadmin` help.
- In Linux you might set the hostname as well as the port while in Microsoft Windows these informations are not necessary. Host and port is the listen hostname and port of COO-Service 1. For example:

```
fscadmin --host --port -a list
```

### 152.4 Command Line Parameters

Arguments:

`-action`

Type of action to execute

`-service`

Execute against this service

`[-host ]`

IP address of COO service host

`[-port ]`

TCP port of COO service

Linux only:

`-princ|--principal`

Kerberos principal for backend communication (optional)

`cleanup, backup, checkconsistency:`

`[-logfile ]`

Path to logfile (default: `fscadmin.log`)

`cleanup:`

`[-time ]`

Cleanup unreferenced files saved before now-days

`[-areadir ]`

Cleanup specified area

`[-casrange -]`

Restrict to the directories specified by the range (format: xx-xx;  
e.g. 00-3f)

This option cannot be used in conjunction with `synctobackup` or  
`syncfrombackup`

`[-synonly]`

Synchronize CAS areas without removing unreferenced files

`[-synctobackup [,]]`

Synchronize written CAS contents to daily backup directories without  
removing

unreferenced files (date format: YYYY-MM-DD)

`[-syncfrombackup [,]]`

Synchronize written CAS contents from daily backup directories without  
removing

unreferenced files (date format: YYYY-MM-DD)

`savecache, loadcache:`

`[-file ]`

Filename for reading or writing cached object IDs

`loadbyquery:`

`[-query ]`

Fabasoft Folio Query for cache initialization

Actions:

`list`

List all services in this domain

`cleanup`

Cleanup content area

`backup`

Backup content area

`checkconsistency`

Check content consistency

`savecache`

Save cache of a COO Service

`loadcache`

Load cache of a COO Service

`loadbyquery`

Load query results in COO Service Caches

`collectsysinfo`

Collect system information

Linux only:

`updatemode`

Enable or disable the update mode

setdtmbackupmode

Set DTM backup mode for all COO services and  
retrieve a consistent backup state for all  
database instances part of the domain

Service:

ID of a service

Object address of a service

all

Use all services in this domain

Please consider that some of the parameters are not available in older Fabsoft Folio versions.

## 152.5 Examples:

```
fscadmin.exe -action list
```

```
fscadmin.exe -action backup -service all
```

```
fscadmin.exe -action cleanup -service 2 -host 192.168.40.236 -port 18070 -logfile  
C:\fscmmcl.log -time 30
```

## 153 HTTP 404 is displayed on first call of Fabasoft Folio URL

Last update: 4 August 2017

### 153.1 Summary

With RealNetworks Real Player Addon installed in Microsoft Internet Explorer, it could happen to get a HTTP 404 error when you first connect to Fabasoft Folio.

### 153.2 Information

- You connect to Fabasoft Folio with the URL, for example by entering the URL in your Internet Explorer, or by clicking a link in Microsoft Outlook.
- In Internet Explorer, the error HTTP 404 is displayed.
- You press F5 to refresh the page. The Fabasoft Webbrowser Client now starts as expected.

### 153.3 Solution

A customer could find out that the RealNetworks RealPlayer Add-On for Internet Explorer can lead to this behaviour.

To prevent this behaviour, disable the RealPlayer Add-On by choosing:

- Tools / Manage Add-Ons

- Select the RealPlayer Add-On and click "Disable".

### 153.3.1 Applies to

- Fabasoft Folio (all releases)
- Microsoft Internet Explorer

## 154 HTTP 404 error when connecting to Fabasoft Web service on Microsoft Windows 2008 R2

Last update: 3 November 2017

### 154.1 Summary

Under some circumstances you get an error HTTP 404 when connecting to a Fabasoft Web service on Windows 2008 R2. The [Enter] page is displayed (so authentication works correctly), but the redirect to the fscvext.dll fails with HTTP 404. In IIS log you see the substatus code 404.8 - "hidden namespace of hidden segment error".

### 154.2 Information

This behaviour occurs on some installations of Microsoft Windows Server 2008 R2, but we could not identify it on all Microsoft Windows 2008 R2 installations. The IIS feature "Request filtering" blocks content within the BIN directory.

See also [Use Request Filtering](#)

### 154.3 Solution

Remove the filtering of the BIN directory in IIS:

- Open the Internet Information Services (IIS) Manager.
- Navigate to the affected web site.
- Open the "Request Filtering" module and remove the "BIN" entry.

### 154.4 Applies to

- Fabasoft Folio (all releases)
- Windows Server 2008 R2

## 155 Hyphenation does not work correctly

Last update: 4 August 2017

### 155.1 Summary

After finalizing your Microsoft Word-Document you may recognize that some words are hyphenated incorrectly.

## 155.2 Information

- Conversion server uses Microsoft Office 2007
- Language formatting: German (Germany)

## 155.3 Solution

Microsoft Hotfix available: <http://support.microsoft.com/kb/960500/en-us>

### 155.3.1 Workaround

Set language formatting to "German (Austria)" or to "German (Switzerland)"

### 155.3.2 Applies to

- Microsoft Office 2007

## 156 IIS - The module fscvext.dll failed to load. The data is in the error

Last update: 22 November 2017

### 156.1 Information

This behavior may occur, if you revert your web- or conversion server to an earlier version of Fabasoft Folio.

fscvext.dll is the ISAPI module responsible to redirect web request to the Fabasoft Kernel.

Fabasoft registers its ISAPI module fscvext.dll in IIS. If the uninstallation misses removing the modules entries, it may fail to start an older version of Fabasoft Folio.

### 156.2 Solution

#### 156.2.1 Uninstall Fabasoft Folio web- and conversion services

Please uninstall the Fabasoft Folio web- and conversion services on that server.

#### 156.2.2 Clean up IIS configuration

After the uninstallation, please consult the following files, searching for entries with fscvext:

- %windir%\system32\inetsrv\config\ApplicationHost.config
- C:\inetpub\wwwroot\web.config

Remove all entries referring to fscvext.dll. Keep the XML configuration well-formed, therefore care for the correct tags.

Notepad++: If you are using Notepad++, please install the 64-bit version as the 32-bit version will open the wrong IIS configuration file.

#### 156.2.3 Clean up registry

Additionally, clean up the Windows Registry:

- HK\_LOCAL\_MACHINE\Software\Fabasoft\Web

Remove the entire registry hive.

#### 156.2.4 Clean up file system

- C:\Program Files\Fabasoft\Components\Web

Delete the entire directory

### 157 Internet Explorer 11: Modal Dialog not working (Fabasoft Installer)

Last update: 4 August 2017

#### 157.1 Summary

Due to an issue introduced by a recent Microsoft Internet Explorer update some modal dialog elements, used during a Fabasoft Setup, may not work correctly.

#### 157.2 Information

An issue was introduced with the [MS14-080: Cumulative security update for Internet Explorer: December 9, 2014](#) that leads to some modal dialog options no longer working on systems using the Internet Explorer 11. For further information please refer to [Some web application modal dialog boxes don't work correctly in Internet Explorer 11 after you install update 3008923](#)

Due to the fact that the Fabasoft Setup for Windows systems is using some of these modal dialog elements, it is possible that interface elements in the Fabasoft Setup are no longer responsive. This may lead to situations where the Fabasoft Setup cannot be completed.

#### 157.3 Solution

Even though there is a specific patch available for this issue we recommend you install the update [MS15-009: Description of the security update for Internet Explorer: February 10, 2015](#), if you experience any of the issues described in this article.

### 158 Kerberos Authentication will not work on specific clients

Last update: 4 August 2017

#### 158.1 Summary

Kerberos authentication does not work on specific Windows clients.

Browser returns pop-up for username and password.

The DNS cache of the client shows an uppercase letter in the Record Name, whereas the Hostnames on Linux server and DNS server have been configured throughout in lower case.

```
ipconfig /displaydns
host.support.fabasoft.local
-----
Record Name . . . . . : Host.support.fabasoft.local
Record Type . . . . . : 1
```

```
Time To Live . . . . . : 14389
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . : 192.168.12.200
```

Therefore the client requests a Kerberos ticket for HTTP/  
[Host.support.fabasoft.local@SUPPORT.FABASOFT.LOCAL](#), that does not match the entry on the Linux webserver krb5.keytab file:

```
[root@support ~]# klist -kt /etc/fabasoft/krb5.keytab
Keytab name: FILE:/etc/fabasoft/krb5.keytab
KVNO Timestamp          Principal
-----
5 11/15/11 18:38:02 HTTP/host.support.fabasoft.local@SUPPORT.FABASOFT.LOCAL
5 11/15/11 18:38:02 ADERPC/host.support.fabasoft.local@SUPPORT.FABASOFT.LOCAL
```

## 158.2 Information

Kerberos is case SENSITIVE !

On the desktop of the client a link to Fabasoft Folio WebDAV has been created with uppercase spelling.

During startup Windows is pre-loading all links on the desktop, so the client loaded the uppercase spelling into the DNS cache. As a result the Kerberos ticket has also been requested with the uppercase letter.

## 158.3 Solution

Correct the link on the desktop and make sure it matches exactly the keytab entry.

You can temporarily delete the DNS cache and the Kerberos ticket on the client by using these commands

```
ipconfig /flushdns
klist purge
```

klist is part of the [Windows Server 2003 Resource Kit Tools](#)

### 158.3.1 Applies to:

- Windows Clients
- Linux Webserver with Kerberos authentication

## 159 Keyboard Operation, Keyboard shortcuts

Last update: 4 August 2017

## 159.1 Summary

This article describes the context-sensitive shortcut help and the location of the Fabasoft Folio User Help documentation on the Fabasoft Folio or Fabasoft eGov-Suite Setup Kit.

## 159.2 Information

Please be aware of changes that may have been made during different Fabasoft Folio / Fabasoft eGov-Suite versions. Especially in older versions of Fabasoft Folio different shortcuts may not be available. Please use to the User [#Documentation] for a full list of shortcuts.

### 159.2.1 Shortcut Help

A context-sensitive shortcut help can be opened anywhere in the Webbrowser Client by pressing Ctrl-Shift-? (question mark)

### 159.2.2 Useful shortcuts

- Alt-W for the Next button
- Alt-A or ESC key for the Cancel button
- Alt-S to open the search form
- Ctrl-A/Ctrl-C/Ctrl-X/Ctrl-V for select all , copy , cut and paste
- Ctrl-Z for Undo
- Del key removes a pointer
- Shift-Del combination deletes an object .
- In a form, press Ctrl-Shift and hover over a property to see the property reference in the status bar (older Folio releases)
- In a form, press Ctrl-Shift-# (Hash) or Ctrl-Shift-F9 to switch to the "reference view" - all properties are displayed with their property reference (newer Folio releases)
- Hold the shift key to open the properties page in a new window.

### 159.2.3 Documentation

On a installed system the Fabasoft Folio User Help can be opened or downloaded by pressing the ? button on the top left in the user interface. These documents (language specific) are located also in the install kit.

In these documents you will find a chapter Keyboard Operation (English) or Tastaturbedienung (German).

In a Fabasoft Folio Kit the PDF's are located:

- \Setup\EditionFolioCompliance\Package\Help
- \Setup\EditionFolioEnterprise\Package\Help
- \Setup\EditionFolioGovernance\Package\Help

In a Fabasoft eGov-Suite Kit the PDF's are located:

- \Setup\EditionFolioGovernance\Package\ETC

## 159.2.4 Applies to

- Fabasoft Folio (all releases)
- Fabasoft eGov-Suite (all releases)

## 160 Known Issues with Postscript Printer Drivers for FSC Printer Ports

Last update: 4 August 2017

### 160.1 Drivers with known issues

#### 160.1.1 Windows 7

- HP LaserJet 2300 Series PS
- The driver generates an invalid Postscript file if the printer job name exceeds 160 characters in length
- HP LaserJet 2300L Series PS
- The driver generates an invalid Postscript file if the printer job name exceeds 160 characters in length
- HP Universal Printing PS
- The driver generates an invalid Postscript file if the printer job name exceeds 160 characters in length

This lists all printer drivers who have known issues when used with the Fabasoft Printer Ports, this list is incomplete and will be updated if a new issue with a printer driver has been confirmed. If you are experiencing problems with a printer driver that is not on this list please notify the support and test if one of the printer drivers with no known issues fixes your problem.

### 160.2 Drivers with no known issues\*

#### 160.2.1 Windows XP

- HP Color LaserJet PS
- HP LaserJet 2100 Series PS
- HP LaserJet 2200 Series PS (MS)
- Xerox Phaser 1235 PS
- Xerox 4510 PS

#### 160.2.2 Windows 7

- HP Color LaserJet 2800 Series PS
- Xerox Phaser 6120 PS
- Xerox Phaser 6130N PS
- Xerox Phaser 6180N PS

#### 160.2.3 Windows 8

- HP Color LaserJet 2700 PS Class Driver
- HP LaserJet 2300 PS Class Driver



## 162.2 Information

The underneath content is structured by service or procedure in which the according log file is used.

### 162.2.1 Setup

- Log file: fscsetup.log
  - Contains: Information about the Fabasoft Folio setup.
  - Full path: `"/tmp/fscsetup.log"`
- 
- Log file: loader.log
  - Contains: Information about the Fabasoft Folio server loader.
  - Full path: `"/var/opt/fabasoft/log/loader.log"`
- 

### 162.2.2 Backendservices

- Log file: current
  - Contains: Mainly information of blocked threads.
  - Full path: `"/var/opt/fabasoft/instances/COOService_/log/main/current"`
- 

### 162.2.3 Webservices

- Log file: WebService\_.error.log
  - Contains: Errors, trace messages, etc of the specific web-service.
  - Full path: `"/var/opt/fabasoft/log/web/WebService_.error.log"`
- 
- Log file: WebService\_.access.log
  - Contains: Access log of the Fabasoft Web-service.
  - Full path: `"/var/opt/fabasoft/log/web/WebService_.access.log "`
- 
- Log file: WebService\_.conf
  - Contains: Webservice configuration possibilities (for example the log behavior can be changed).
  - Full path: `"/etc/fabasoft/web/WebService_.conf"`
- 

### 162.2.4 AT-services

- Log file: current
  - Contains: General automatic task information.
  - Full path: `"/var/opt/fabasoft/instances/COOATService_/log/main/current"`
- 

### 162.2.5 General

- Log file: messages
- Contains: General log information from the Linux system and also important information for any Fabasoft Folio service.
- Full path: `"/var/log/messages"`

## 162.3 Additional Info

To automate the collection of relevant log files you can revert to the *Collect System Information* procedure described in the "[Collect System Information](#)" knowledge base article.

## 163 Log file paths under Windows environment

Last update: 4 August 2017

### 163.1 Summary

The following article lists Fabasoft Folio relevant log files underneath Windows environment and describes their content.

### 163.2 Information

The underneath content is structured by service or procedure in which the according log file is used.

---

#### 163.2.1 Windows Event Logs

Event logs record events taking place in the execution of a system in order to provide an audit trail that can be used to understand the activity of the system and to diagnose problems. They are essential to understand the activities of complex systems.

Fabasoft Folio service specific information is written in the Application Log part of every Fabasoft Folio server which is usually the first location to diagnose possible issues with the environment.

To access Windows Event Logs please open the "Event Viewer" on the related system. The procedure is described in the following [Microsoft article](#)

---

#### 163.2.2 Setup

- Log file: fscsetup.log
  - Contains: Temporary logfile with Information about the Fabasoft Folio setup.
  - Full path: "C:\Windows\Temp\fscsetup\fscsetup\fscsetup.log"
- 
- Log file: loader.log
  - Contains: Information about the Fabasoft Folio server loader.
  - Full path: "C:\Program Files\Fabasoft\Components\Server\CooSrv\files\loader.log"
- 

#### 163.2.3 Fabasoft Folio Server Management

- Log file: coomgmt.log
  - Contains: General Information related to Fabasoft Folio environment and Server Management tasks
  - Full path: "C:\Program Files\Fabasoft\Components\Server\CooSrv\files\coomgmt.log"
- 
- Log file: coomgmt.err
  - Contains: Information related to Fabasoft Folio Server Management

- Full path: "C:\Program Files\Fabasoftware\Components\Server\CooSrv\files\coomgmt.err"
- 

### 163.2.4 Backend

- Log file: coo.err
  - Contains: Information related to the COO Service on the designated port
  - Full path: "C:\Program Files\Fabasoftware\Components\Server\CooSrv\files\coo.err"
- 

- Log file: mmc.err
- Contains: Information related to the MMC Service on the designated port
- Full path: "C:\Program Files\Fabasoftware\Components\Server\CooSrv\files\mmc.err"

### 163.3 Additional Info

To automate the collection of relevant log files you can revert to the *Collect System Information* procedure described in the ["Collect System Information"](#) knowledge base article.

## 164 Maximum number of supported logical connections exceeded

Last update: 4 August 2017

### 164.1 Information

This error indicates that a service has exceeded its maximum number of allowed connections (Default: 12288).

Due to this no new connections may be established, thereby this error may lead to performance degradation.

In case of the Fabasoftware Folio Backendservices this error will be recorded in the Backend error log. This log can be found at `|Components|Server|CooSrv|files|cooXXXXX.err` (whereby XXXXX is the port number of the COO Service)

For example, the log of a standard installation COO Service 1 would be found at `C:\Program Files\Fabasoftware\Components\Server\CooSrv\files\coo18070.err`

You can use the operating system tool "netstat" to get a listing of the current connections.

### 164.2 Solution

Due to the nature of this error there are multiple causes and a further analysis is needed in any case.

To get a rough overview of where the connections to the service are coming from and what their current status is, you can use the *netstat* system tool.

#### 164.2.1 Reverse Lookup Zones

One of the identified causes for this error are incorrectly configured reverse lookup zones.

This guide by Microsoft explains how to verify your DNS settings: [Verifying Your Basic DNS Configuration](#)

## 165 Memory values in Fabasoft Components Kernel event log entries

Last update: 4 August 2017

```
.responsive-example-table td, .responsive-example-table th { text-align: left!important; }
```

In event log entries of the Fabasoft Components Kernel you can find information about the current memory usage, e.g.

```
Sizable RPC call
Function: COOSTAttrSelInsInit
Time: 0 seconds
Size: 562623 bytes
Object: COO.10.123.3.26067
Action: COOWF@1.1:AttrWorkListItemsGet
Library: COOWFB70
Function: COOWFAttrWorkListItemsGet
User: DOMAIN\USERNAME
Process: 5236 (0x00001474) W3WP
Thread: 2656 (0x00000A60)
Version: 7.0.7.44
System: Win2k3 5.02 Build 3790 Service Pack 2.00
Memory: 357044/2265096/920852
```

Description of the memory values (KByte):

Memory: 357044/2265096/920852

### **Available Memory Available Virtual Memory Available Process Virtual Memory**

357044	2265096	920852
--------	---------	--------

## 166 Mindbreeze Integration Certificate errors by Microsoft KB-Update 2016

Last update: 4 August 2017

### 166.1 Information

Fabasoft Support figured out that a Microsoft Update from January or February 2016 causes Mindbreeze Integration stop to work with the following certificate error:

A problem occurred somewhere in the SSL/TLS handshake. You really want the error buffer and read the message there as it pinpoints the problem slightly more. Could be certificates (file formats, paths, permissions), passwords, and others. CURLcode: CURLE\_SSL\_CONNECT\_ERROR".

Fabasoft Folio customers are only affected in the following situation:

- The self-signed certificates created by the Fabasoft Folio Mindbreeze Integration, that only should be used for the period of installing the own CA-signed certificates, are still used for the authentication of Fabasoft Folio to Mindbreeze Enterprise.

Your environment is NOT affected if you already have created certificates with your own CA.

The configuration file for OpenSSL used to generate the self-signed certificates has used the MD5 key algorithm, that is meanwhile known to be insecure. Currently we assume that one of the Microsoft updates from January or February 2016 Security Advisory disables the usage of MD5-secured certificates. New Fabasoft Folio releases already use an OpenSSL configuration file that creates SHA256-secured certificates.

## 166.2 Solution

If the MD5 algorithm was used in your certificates, it is recommended to change the certificates before you install Microsoft updates from January or February 2016. Otherwise the above error could occur and fulltext search out of Folio will not work anymore.

- Fabasoft recommends to use the own Public Key Infrastructure to create a key pair that should be used in Fabasoft Folio for Mindbreeze authentication.
- If this is not possible, it is recommended to create new self-signed certificates with the more secure algorithm sha256.

Please follow the steps in these articles:

- <https://www.fabasoft.com/en/knowledgebase/troubleshooting-mindbreeze-no-...> in the section mentioned the "CURLE\_SSL\_CONNECT\_ERROR" error.
- <https://www.fabasoft.com/en/knowledgebase/renew-trusted-peer-certificate...> about how to renew certificates and deploy them to Fabasoft Folio and Mindbreeze.

If you need help rolling out new certificates, please contact Fabasoft Support.

## 167 Mindbreeze logfiles

Last update: 9 August 2017

### 167.1 Summary

This article provides a general overview of various logfiles created by Mindbreeze and a simple guide to gather those. Additionally logfiles created in combination with Fabasoft Folio as well as the correlation of different component objects created by Mindbreeze in Fabasoft Folio are described.

#### 167.1.1 Gathering Mindbreeze Logs

When submitting Mindbreeze Logs it is always best to include as much information as possible, thus supplying the entire Mindbreeze log directory.

In case the delivery of the complete log directory is not possible (e.g. due to it's size) we can further differentiate issues and the related logfiles.

Please keep in mind that the Mindbreeze service log directories for specific services (index, client, filter, ...) are further divided into subdirectories, each representing the timespan between service restarts.

In most cases supplying e.g. the latest three subdirectories (information up to three service restarts in the past) for a specific service is sufficient.

##### 167.1.1.1 Single Logfiles to include in any case :

- log-mesnode.txt
- log-mesmaster.txt
- log-messdkcsandbox--Index\_[Ports]

### 167.1.1.2 Log directories to include when facing different issues:

#### 167.1.1.2.1 No search result / Authentication issues when using the Mindbreeze Web Client:

- Index (Query) Service Log
- Client Service Log

#### 167.1.1.2.2 No search result when searching in Fabasoft Folio:

- Index (Query) Service Log

#### 167.1.1.2.3 Insufficient search results / Objects cannot be indexed or filtered

- Index (Query) Service Log
- Filter Service Log

#### 167.1.1.2.4 Any Mindbreeze configuration related issues

- Mindbreeze Server configuration - [mesconfig.xml](#)

### 167.1.2 Mindbreeze log files and log directories

The directory Mindbreeze logfiles are created in may be changed in the "Advanced Settings" in the Mindbreeze server configuration. The default directories for Windows and Linux are:

Windows: C:\Users\\AppData\Local\Temp  
Linux: /var/opt/mindbreeze/log

In the Mindbreeze log directory the following directories and single logfiles are located:

File	Description
log-mesnode.txt	information about the Mindbreeze node process and the state of various subprocesses
log-mesmaster.txt	information about the Mindbreeze master process itself
log-messdkcsandbox--Index_[Ports]	information about the communication between Mindbreeze and the Fabasoft Kernel
log-messdknetsandbox2.txt	information about .net based filter plugins

Note: Fileextensions of log files (.log, .txt) may vary based on the operating system and the Mindbreeze version in use.

Subdirectory	Description
Client Service Log	log-mesclientservice-<client-port>
Index (Query) Service Log	log-mesindex-<index-path>

Subdirectory	Description
Filter Service Log	log-mesfilterservice-<port>
Crawler Service Log	log-mescrawler-launchedservice-<Category>_<Source Name>
Log directories for specific C based filter plugins	log-messdkcsandbox2-Default-Filter@[ort]-[PluginName] ...
Log directories for specific Java based filter plugins	log-messdkjvasandbox2-Filter@[Port] ...

### 167.1.3 Mindbreeze server configuration file

The Mindbreeze server configuration is saved in the *mesconfig.xml* file. By default the containing directory is located at:

```
Windows: C:\Users\<mindbreeze service user>\AppData\Roaming\Mindbreeze\Enterprise Search\Server
Linux: /var/opt/mindbreeze
```

### 167.1.4 Fabasoft Folio logfiles during Mindbreeze Index Update

%userprofile% represents the user profile of the Fabasoft Folio Service user. For scheduled updates, this is usually the AT Service user.

Directory	Description	Default location
error.log	Created when the Indexing Service Object cannot create or update the index and the log location is not set manually	%userprofile%\AppData\Local\Temp\Fabasoft
BuildIndex.log	Contains information about the indexing process	Only created when log location set manually
RecoverIndex.log	Contains information about the recovering index process	

Log location may be set in the Mindbreeze Indexing Service object in Fabasoft Folio in the property "Directory for Log Files".

### 167.1.5 Objects containing Mindbreeze configuration in Fabasoft Folio

Object	Description	Location in Fabasoft Folio
Mindbreeze Indexing Service	Contains the indexing service configuration	Domain Administration - Domain Objects - Services

<b>Object</b>	<b>Description</b>	<b>Location in Fabasoft Folio</b>
Mindbreeze Filter Service	Contains the filter service configuration	Domain Administration - Domain Objects - Services
Mindbreeze Configuration Object	Contains the configuration of which files and properties are indexed	Domain Administration - Domain Objects - Current Domain - Components Configuration - Mindbreeze *
Administration Configuration Object	The tab "Search" contains several properties to optimize performance of the ACL Check	Domain Administration - Domain Objects - Current Domain - Components Configuration - Administration *

\* If the property is empty move to the parent configuration located in the "Domain Type" property.

## 168 Mindbreeze Web Client not working on Windows 10 with Kerberos

Last update: 14 December 2017

### 168.1 Information

With Kerberos Single-Signon activated, Windows 10 clients cannot connect to a Mindbreeze Client Webservices. Authentication is denied.

This behaviour is caused by the new Windows 10 functionality "Credential Guard" that restricts delegation of Kerberos tickets, that is necessary to authenticate and communicate between services.

### 168.2 Solution

The issue can be solved in two different ways:

#### 168.2.1 Configure Trusted peer certificate in the Mindbreeze Client Webservice

Using Trusted peer certificates, the Mindbreeze Client Webservice authenticates to the Mindbreeze Index services using the certificate.

If you need support activating trusted peer certificates, please contact Fabasoft Support.

#### 168.2.2 Disable "Credential Guard"

Please follow the explanation from this Microsoft article: <https://docs.microsoft.com/en-us/windows/access-protection/credential-gu...>

### 168.3 Details

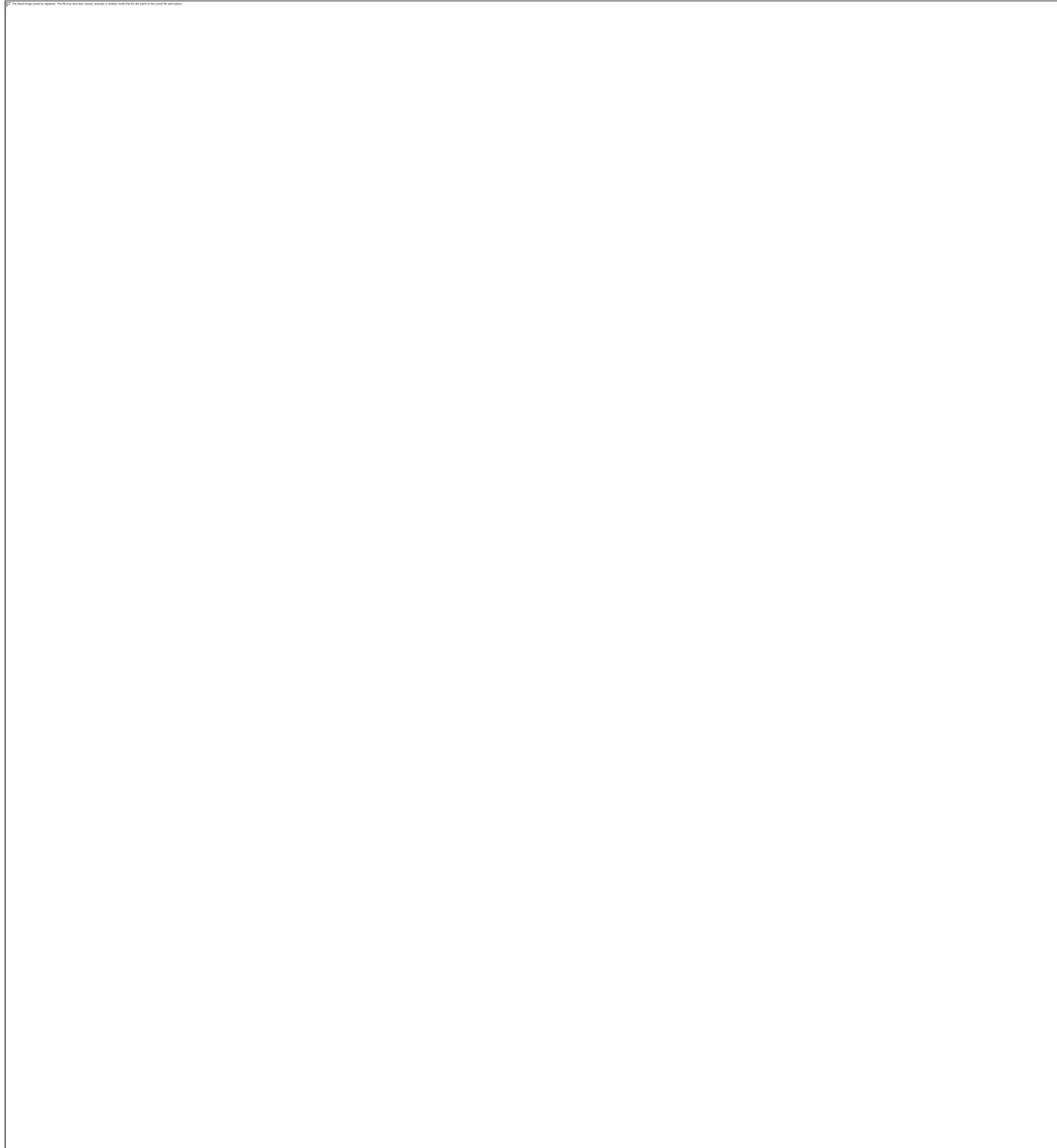
Read more information about Credential Guard in the Microsoft TechNet: <https://technet.microsoft.com/en-us/itpro/windows/keep-secure/credential...>

## 169 Name of an object is not shown in the title bar of the browser

Last update: 4 August 2017

### 169.1 Summary

The name of an object will not be shown in the title bar of a browser popup when an object has been opened with double clicking the object itself (e.g. file object, outgoing document,...). Instead of that, the whole URL is shown.



This behaviour is based on the browser option "Allow script-initiated windows without size or position constraints" in Microsoft Internet Explorer. You can find this option on...

Tools->Internet Options->Security->"Your selected zone"->Custom Level->Miscellaneous->Allow script-initiated windows without size or position constraints.

## 169.2 Solution

For displaying the name of an object, you have to set this option to "enabled". If the affected site is listed in the zone "local Intranet" and the the standard configuration is set, this option is set by default. But if the affected site is listed in the zone "Trusted Sites" with the standard configuration set you have to explicitly set this option to "enabled".

## 170 Opening Excel Object takes very long

Last update: 4 August 2017

### 170.1 Summary

Opening an Excel object using Microsoft Internet Explorer may take a very long time (about a minute) until the Excel file is ready to use.

### 170.2 Information

Internet Explorer Protected Mode activated.

In Protected Mode, Internet Explorer cannot modify user or system files and settings without user consent. Protected Mode requires the user to confirm any activity that tries to put something on your machine or start another program.

#### 170.2.1 Additional Information about the Protected Mode:

[Understanding and Working in Protected Mode Internet Explorer](#)

#### 170.2.2 Solution

Turn off Protected Mode

#### 170.2.3 Applies to

- Microsoft Internet Explorer 7
- Microsoft Internet Explorer 8

combined with

- Microsoft Windows Vista
- Microsoft Windows 7

## 171 Opening zip files with Windows Explorer

Last update: 22 August 2017

Beginning with Fabasoft Folio Plugin Version 9 below-mentioned registry entries are necessary to open zip files with Windows integrated zip feature:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_CURRENT_USER\Software\Fabasoft\Classes\CompressedFolder\shell\Open\Command]
@="%SystemRoot%\Explorer.exe \"%L\""
"DelegateExecute"="{11dbb47c-a525-400b-9e80-a54615a090c0}"
"backup"="%SystemRoot%\Explorer.exe /idlist, \"%I\", \"%L\""

[HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\Explorer]
"AllowRun"=dword:00000001
```

## 172 Optimize MMC cleanup performance

Last update: 4 August 2017

### 172.1 Summary

In large environments, the process of cleaning up MMC Service areas may take very long. This article explains the creation of additional database indices to reduce the cycle time of the cleanup process.

Note: (Because of the different database model this article is not valid for Fabasoft Version 6 and below.)

### 172.2 Solution

#### 172.2.1 Indices for tables fsclogcontentmappinglist and fscvershashes

The following indices can boost cleanup performance up to 10 times depending on the database system.

Note: This improvement is only valid for MMC service areas using Content Addressed Storage (CAS).

Create the following database index for fsclogcontentmappinglist (please use the syntax according to your database system):

- Table fsclogcontentmappinglist
- Columns: objlogmaphash, objid (the ordering of the columns is mandatory)

Create the following database index for fscvershashes (please use the syntax according to your database system):

- Table fscvershashes
- Columns: vershash, objid (the ordering of the columns is mandatory)

#### 172.2.2 Special operator class for this index with PostgreSQL

With PostgreSQL - instead of the above indexes - use the following indices with the operator class `varchar_pattern_ops`, otherwise indices are not used.

```
CREATE INDEX CONCURRENTLY ind_fsclogcontentmappinglist_objlogmaphash
ON fsclogcontentmappinglist (objlogmaphash varchar_pattern_ops);
CREATE INDEX CONCURRENTLY ind_fscvershashes_vershash
ON fscvershashes (vershash varchar_pattern_ops);
```

### 172.2.3 Index for table coobject (Oracle only)

Oracle database uses Full-Table scans in case of IS NULL clauses, because Oracle does not save NULL values in the index. The Fabasoft cleanup process uses IS NULL clauses to identify archived objects.

Note: This improvement is independent of the MMC service area storage type.

Please refer to the following [article](#) that explains this Oracle issue.

The following index workarounds this problem by indexing an additional (in fact needless) column to get NULL values to the index:

- Table coobject
- Columns: objid, objarchstoreid

This index can speed up the cleanup process for additional 5-15%.

### 172.2.4 Applies to

- Fabasoft Folio (all versions from Folio 2007)
- Fabasoft eGov-Suite (all versions from eGov-Suite 2007)

## 173 Oracle 11g R2 MAX\_COMMIT\_PROPAGATION\_DELAY

Last update: 4 August 2017

### 173.1 Summary

In the Fabasoft Folio White Paper "Oracle Database Preparation Guide.pdf" chapter "Installation" the Oracle Parameter MAX\_COMMIT\_PROPAGATION\_DELAY is documented to set to 0 for Real Application Cluster (RAC) environments.

This parameter was deprecated and removed by Oracle for Oracle Database 11g R2 and above. The parameter was replaced by the parameter \_IMMEDIATE\_COMMIT\_PROPAGATION, that defaults to TRUE. This default has the same effect than the old parameter set to 0.

Therefore in Oracle 11g R2 RAC both MAX\_COMMIT\_PROPAGATION\_DELAY and \_IMMEDIATE\_COMMIT\_PROPAGATION don't need to be changed.

Note: This only applies for Oracle Real Application Cluster installations. Normal Oracle Database installations are not affected.

### 173.2 Information

The MAX\_COMMIT\_PROPAGATION\_DELAY parameter sets the delay to deploy inserted and updated data across the RAC nodes. The default value is 700, meaning the maximal time to distribute COMMITs to other RAC nodes can be 7 seconds. This may lead to inconsistent reads when concurrency occurs for the same data on different RAC nodes. Therefore Fabasoft recommends in

the white paper to set the MAX\_COMMIT\_PROPAGATION\_DELAY parameter to 0 to avoid "unique constraint violated" error messages.

In Oracle 11g R2 Oracle changed the default behaviour to always deploy commits immediately to other RAC nodes, so inconsistency is avoided. The MAX\_COMMIT\_PROPAGATION\_DELAY parameter was removed. Therefore, for Oracle 11g R2 the MAX\_COMMIT\_PROPAGATION\_DELAY need not to be set.

To double-check that the default value \_IMMEDIATE\_COMMIT\_PROPAGATION of Oracle 11g R2 is set to TRUE, you can run this query:

```
SELECT ksppinm, kspstvl FROM x$ksppi x, x$ksppcv y
WHERE x.indx = y.indx AND ksppinm = '_immediate_commit_propagation'
```

### 173.3 Solution

Assumed you have an Oracle Real Application Cluster installation:

- Below Oracle 11g R2 set the MAX\_COMMIT\_PROPAGATION\_DELAY to 0.
- From and above Oracle 11g R2 do not set this parameter and leave \_IMMEDIATE\_COMMIT\_PROPAGATION in default value TRUE.

Without Oracle Real Application Cluster the settings do not apply.

#### 173.3.1 Applies to

- Oracle Database 11g R2 using RAC
- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)
- Fabasoft eCRM-Suite (all versions)

## 174 Oracle: lock held by in-doubt distributed transaction

Last update: 4 August 2017

### 174.1 Summary

This article describes the error message triggered as a result of a locked resource in a pending transaction as well as the solution.

Error message:

"ORA-01591: lock held by in-doubt distributed transaction"

### 174.2 Information

An attempt was made to access resource that is locked by a dead two-phase commit transaction that is in prepared state.

### 174.3 Solution

**Warning:** Please consider that the solution provided below requires a complete domain restart!

- Stop all COO-services of the affected domain.  
**Note:** Before stopping the COO-services ensure that all kernel instances have been stopped.
- Check if there are any pending transactions left on the Oracle database.

```
select * from sys.dba_pending_transactions
select * from dba_2pc_pending
```

- If there are any transactions left, execute a rollback according to [http://docs.oracle.com/cd/B28359\\_01/server.111/b28310/ds\\_txnman005.htm#A...](http://docs.oracle.com/cd/B28359_01/server.111/b28310/ds_txnman005.htm#A...)
- Restart all stopped COO-services
- Restart the stopped kernel instances and thoroughly test the domain

### 174.3.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-suite (all versions)

while using an Oracle database

## 175 Performance Issues with Oracle 12c

Last update: 12 December 2017

### 175.1 Information

We got information from a customer that upgrading the underlying Oracle Database 11g to Oracle Database 12c brought up obvious performance issues with Fabasoft Folio / Fabasoft eGov-Suite products.

For example, the startup time of the Fabasoft Folio Backendservices in a test environment increased from 90 seconds to about 1 hour.

Oracle introduced a new feature Adaptive Query Optimization in Oracle 12c to better estimate statistics and optimize plans. In the system of the mentioned customer this led to the performance issues.

This feature is enabled by default and can be turned off by a database setting.

Fabasoft welcomes new optimizations in our underlying software to optimize stability and performance, therefore we suggest to keep the default setting if you do not notice any performance impact. If you can verify any performance impacts, we recommend to temporarily turn off the new Oracle feature. Please re-evaluate the performance from time to time in a test environment after installing Oracle updates and/or fixes.

### 175.2 Solution

#### 175.2.1 Oracle 12c 12.0/12.1

Use the following system setting to disable Adaptive Query Optimization:

```
ALTER SYSTEM SET OPTIMIZER_ADAPTIVE_FEATURES = FALSE SCOPE=BOTH;
```

(Default is TRUE)

Hint: The settings from Oracle 12.2 were backported to 12.1. See

<https://support.oracle.com/epmos/faces/DocContentDisplay?id=2187449.1>

Before changing settings, please verify if your Oracle 12.1 database may already have installed this backport.

## 175.2.2 Oracle 12c 12.2

Oracle has splitted the Optimizer Adaptive Features into two settings:

```
ALTER SYSTEM SET OPTIMIZER_ADAPTIVE_PLANS = FALSE SCOPE=BOTH;
```

(Default is TRUE)

```
ALTER SYSTEM SET OPTIMIZER_ADAPTIVE_STATISTICS = FALSE SCOPE=BOTH;
```

(Default is FALSE)

## 175.3 Details

Please visit Oracle Support for details about the Adaptive Optimization feature.

Weblinks:

<https://oracle-base.com/articles/12c/adaptive-query-optimization-12cr1>

[https://bdrouvot.wordpress.com/2014/10/17/watch-out-for-optimizer\\_adaptive\\_features-as-it-may-have-a-huge-negative-impact/](https://bdrouvot.wordpress.com/2014/10/17/watch-out-for-optimizer_adaptive_features-as-it-may-have-a-huge-negative-impact/)

[http://www.ludovicocaldara.net/dba/tag/optimizer\\_adaptive\\_features/](http://www.ludovicocaldara.net/dba/tag/optimizer_adaptive_features/)

<http://kerryosborne.oracle-guy.com/2013/11/12c-adaptive-optimization-part-1/>

## 176 Preparing a language string file for translation

Last update: 4 August 2017

### 176.1 Summary

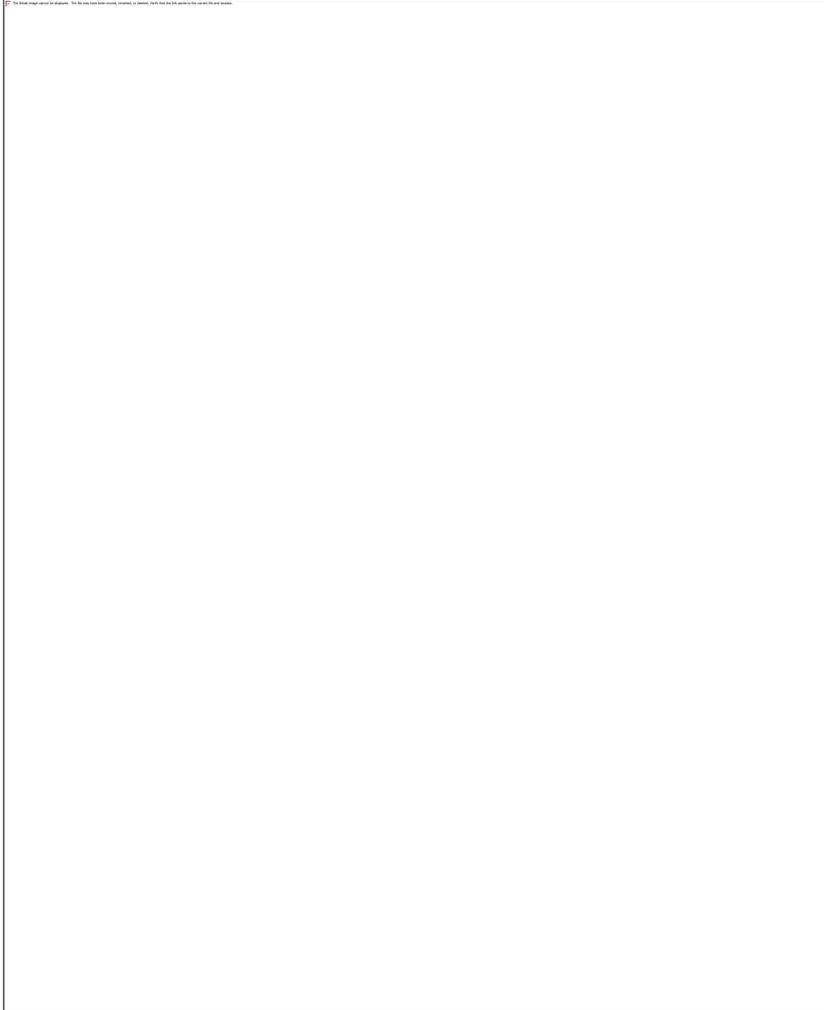
This article describes how to load language strings from a text file (exported from a Fabasoft eGov-Suite 2012 installation) into a Fabasoft eGov-Suite 2013 installation and export it again with updated references. The new file can then be sent to a translation agency for translating the missing strings.

## 176.2 Information

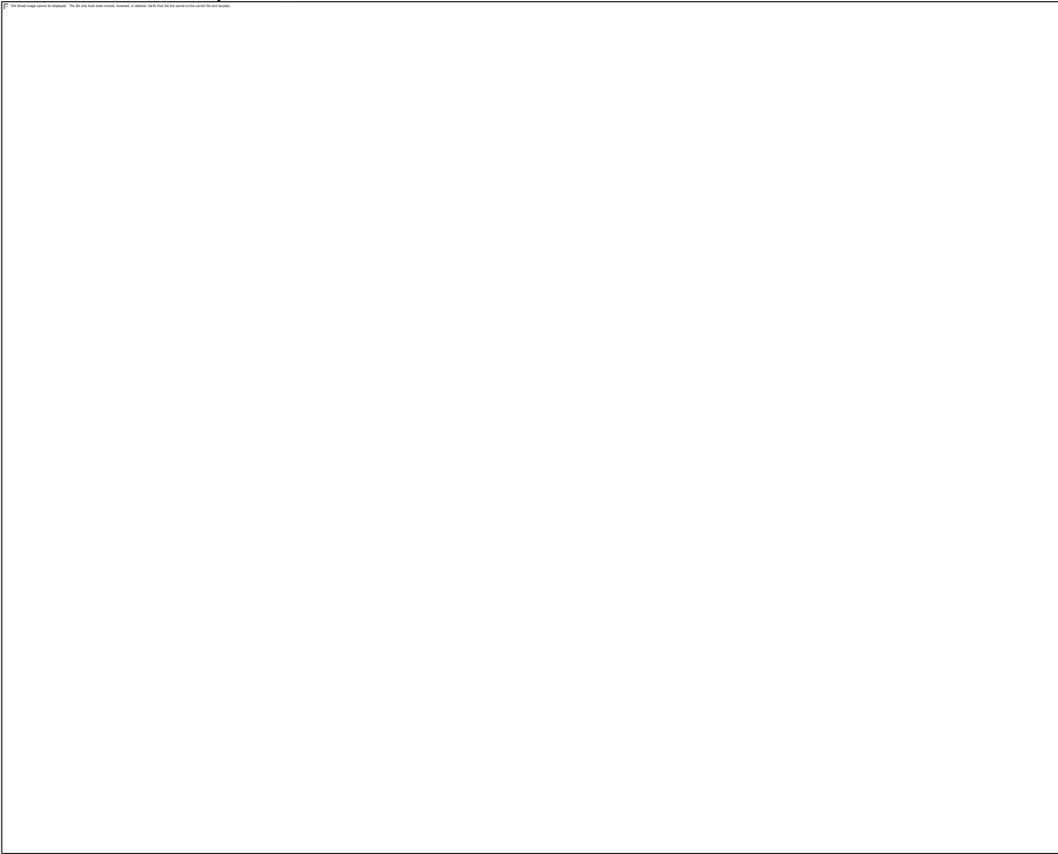
The following instructions make use of the Bulgarian language. It is assumed that the language string file from the Fabasoft eGov-Suite 2012 (which contains the Bulgarian translations) already exists. It is also assumed that an Fabasoft eGov-Suite 2013 installation, running on Windows Server 2008, is available.

## 176.3 Solution

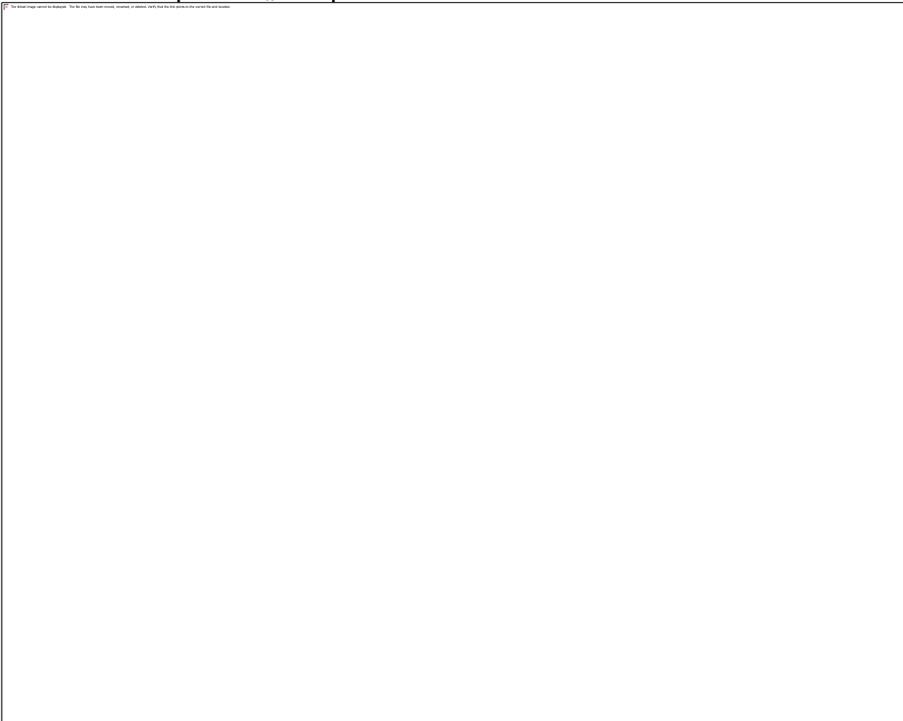
- Start the Fabasoft Folio Server Management of the Fabasoft eGov-Suite 2013 installation:



- Select the menu option „Load“ from the context menu of the domain:

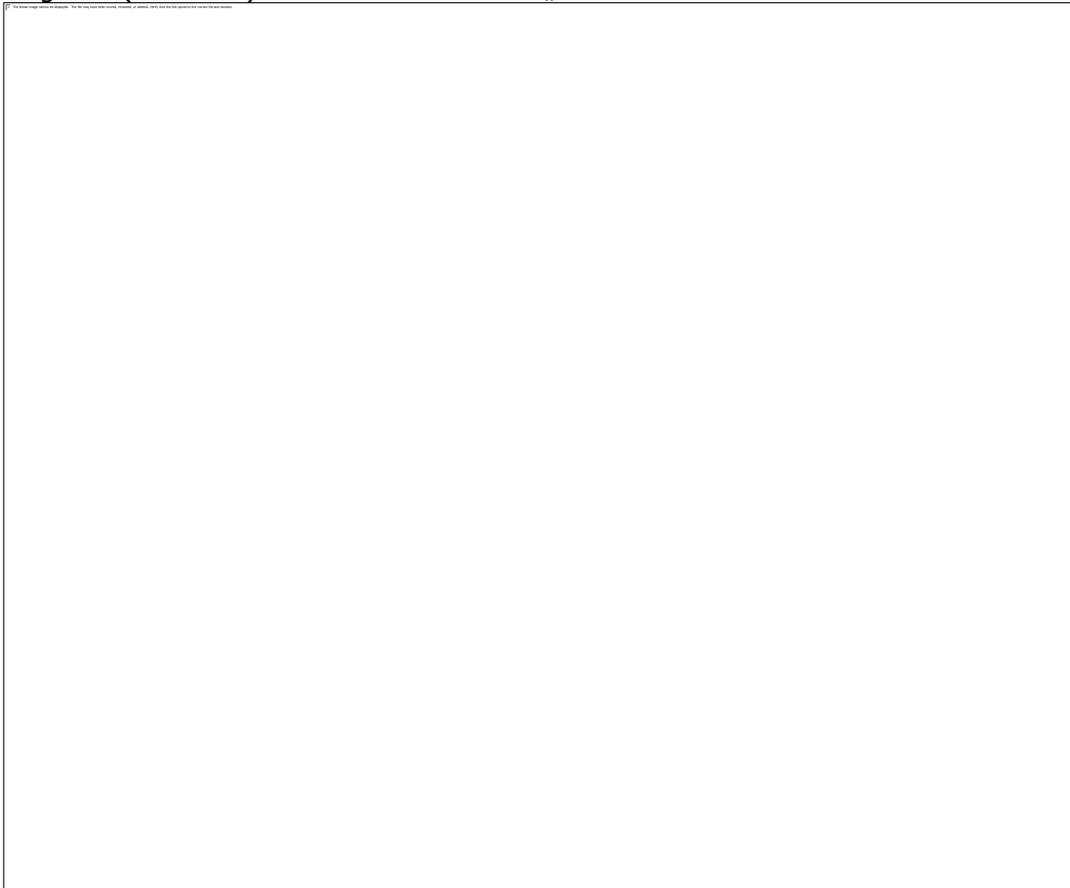


- Select the component „ComponentsLDK“ from the Fabasoft eGov-Suite 2013 installation disc:



- Select the entry „Fabasoft Folio/LDK and click on the button „Edit“.

- Select the checkbox for the language which you would like to install. For this example choose Bulgarian (????????) and click on the button „OK“:



- Click on „OK“ again to start installing the new language.
- After the services have restarted open a command prompt on the server.
- Load the Bulgarian translations from the file into the Fabasoft eGov-Suite 2013 installation by executing the following commands:

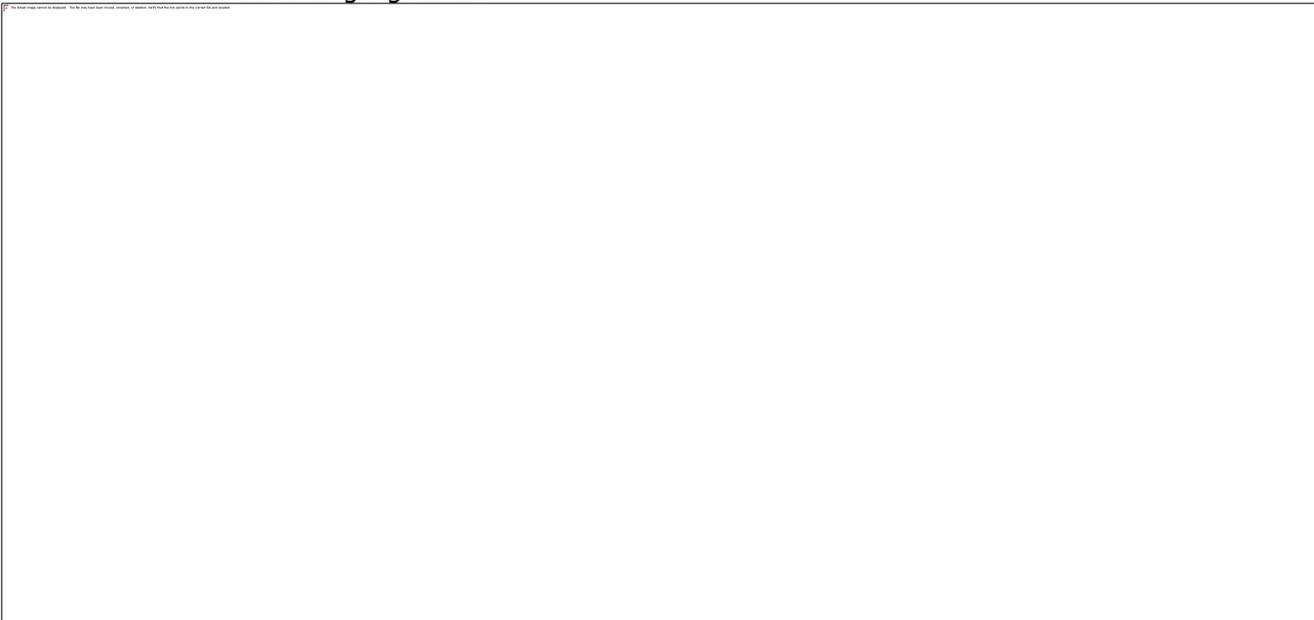
```
set HOST=localhost
set PORT=18070
loader -langlang LANG_BULGARIAN -langload translation_strings_2012.txt
```

- Restart the Fabasoft Folio Backendservices and Fabasoft Folio Webservices after loading the file has completed.
- Log in with the System Administrator account and check if the translations were successfully loaded:

- Set the option „Multilingual Input“ in the user environment to „true“:



- Open the properties of a component object (for example object class „Folder“) and check if a translation for the loaded language exists:



- Open a command prompt again and execute the following commands to export the translations into new files again, which will then contain new additional entries from the Fabasoft eGov-Suite 2013 installation:

```
set HOST=localhost

set PORT=18070

loader -langlang LANG_ENGLISH -langlang LANG_GERMAN -langlang LANG_BULGARIAN -
langfile ComponentELAK.txt -langcomp ComponentELAK@1.1

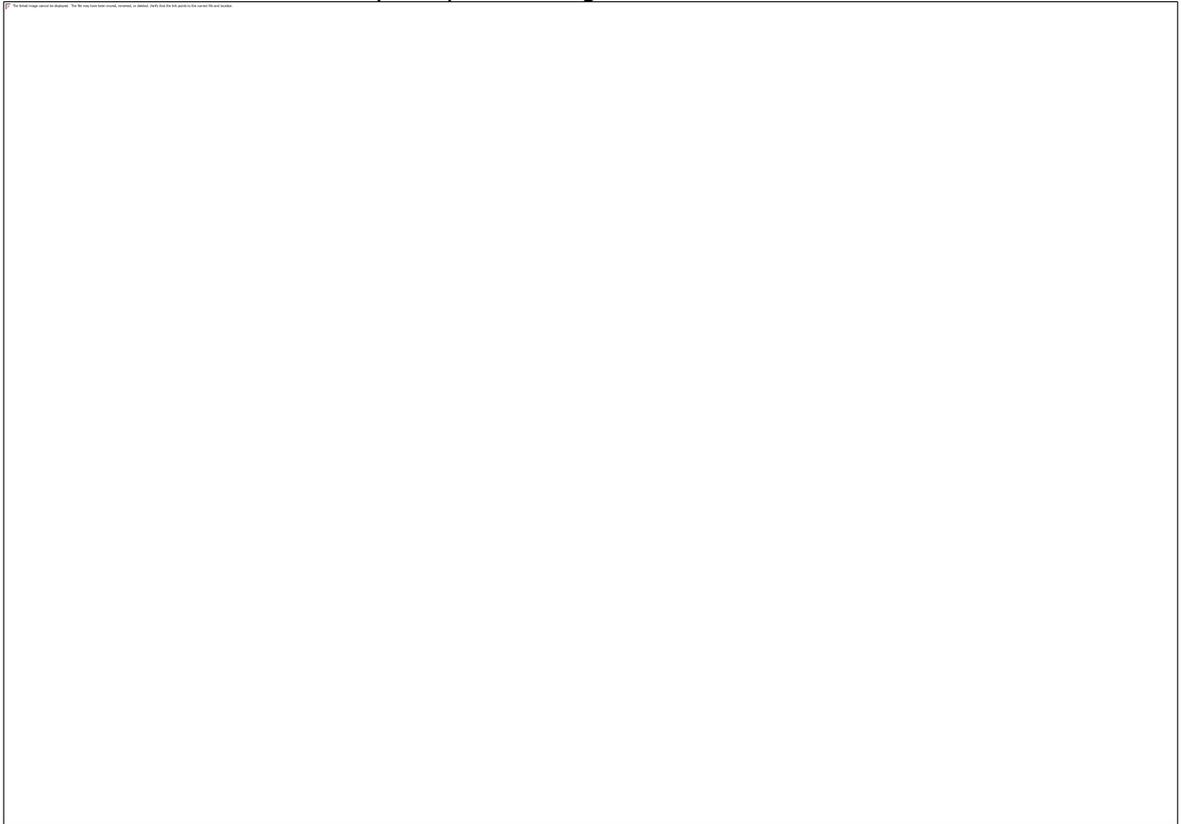
loader -langlang LANG_ENGLISH -langlang LANG_GERMAN -langlang LANG_BULGARIAN -
langfile EditionGovAUT.txt -langcomp EditionGovAUT@1.1

loader -langlang LANG_ENGLISH -langlang LANG_GERMAN -langlang LANG_BULGARIAN -
langfile EditionGovCCA.txt -langcomp EditionGovCCA@1.1

loader -langlang LANG_ENGLISH -langlang LANG_GERMAN -langlang LANG_BULGARIAN -
langfile EditionFolioCompliance.txt -langcomp EditionFolioCompliance@1.1
```



- Click on „Finish“ to close the import options dialog of Excel.



- Save the spreadsheet as a dedicated Excel document. This file can now be send to a translation agency for translating the missing strings:



## 177 Run "Synchronize Database Tables" after an update

Last update: 4 August 2017

### 177.1 Summary

After a Fabasoft Folio / Fabasoft eGov-Suite update, the Fabasoft Server management may display a warning " *Database synchronization required for COO-Service ...* " during the start of a service. These warnings are also written to the event log / system log of the backend servers.

In that case, synchronizing database tables *is absolutely necessary*.

*Important: Ignoring this warning after an update can lead to data inconsistency.*

After an update, pay additional attention to the backendserver event logs / system logs.

See the section *Information* for further details.

## 177.2 Information

During the Fabasoft Folio update procedure, so-called Upgrade Definitions (also known as "CSV migration") is performed against the database. This migration process is used for example to change object classes, attributes and move property values (see the Information section of article [Incompatible type 8](#) for further details about Upgrade Definitions).

After such changes the database configuration needs to be synchronized in some cases. The Fabasoft Folio COO-Service will warn the administrator if this is the case.

## 177.3 Solution

After your successful Fabasoft Folio / Fabasoft eGov-Suite update, restart all Fabasoft Folio backend services. Wait some minutes until the domain configuration thread of the Fabasoft Folio COO-Services has finished.

If the warning ( *Database synchronization required for COO-Service ...* ) appears, or if you can find it in the application event logs (Windows) / system logs (Linux) on one of the backend servers, perform the following steps:

- Shut down your kernel instances (web services, conversion services, AT, etcetera).
- In the Fabasoft Folio Server Management on the backend server, navigate to *Domains /*.
- Right-click the Fabasoft Folio COO-Service which raised the warning and select *All Tasks / Synchronize Database Tables*.
- Your service will restart and synchronize the updated object model to the database. **This step may take some time.**
- Repeat the steps for all Fabasoft Folio COO-Services, which raised the warning (it is also possible to perform the task in the Fabasoft Folio Server Management for the whole domain).
- After the synchronization has finished, check the event log / system log again. If the message is thrown again, retry the steps above.
- If the event log / system log message is still thrown, please contact Fabasoft Support for assistance.

## 178 Setup - Could not obtain information about Windows NT group user

Last update: 4 August 2017

### 178.1 Summary

Fabasoft Setup may fail at the beginning of step Installing Fabasoft Folio Backend Services with a database system error

```
error: A database system error occurred: SQLSTATE: 42000, Error: 15404, Severity: 16, State: 19
```

```
Microsoft OLE DB Provider for SQL Server: Could not obtain information about Windows NT
```

```
group/user '\', error code 0x5.
```

## 178.2 Information

This error might occur if you have changed the hostname of your Microsoft SQL Server.

## 178.3 Solution

Remove and Reinstall Microsoft SQL Server.

### 178.3.1 Applies to

- Fabasoft Folio on Windows platforms (all releases)
- Fabasoft eGov-suite on Windows platforms (all releases)

when used with

- Windows SQL Server 2005
- Windows SQL Server 2008

## 179 Slow response working with WebDAV resources on Windows Vista or Windows 7

Last update: 4 August 2017

### 179.1 Summary

Slow WebDAV response may appear using Microsoft Windows Vista or Microsoft Windows 7 if "Automatically detect settings" is enabled in the Internet Explorer proxy settings.

A Microsoft Knowledge Base article is available under <http://support.microsoft.com/kb/2445570> describing this issue.

### 179.2 Information

When Auto-Proxy detection is enabled, Internet Explorer waits for the detection timeout for each WebDAV request. This will slow down the WebDAV response.

### 179.3 Solution

In Internet Explorer, go to *Tools / Internet Options*, select the *Connections* tab and click *LAN settings*.

De-select the option Automatically detect settings .

#### 179.3.1 Applies to:

- Windwos Vista
- Windwos 7

## 180 SMTP-Configuration options

Last update: 13 October 2017

### 180.1 Summary

This article describes the available configuration options for a SMTP-configuration object

### 180.2 Information

A configured e-mail server environment is required for the use SMTP from within Fabasoft Folio. The e-mail server can be configured in an instance of FSCSMTP@1.1001:Configuration.

Following parameters can be defined:

- **SMTP Client Type**  
In this field it is defined how the SMTP server is used for sending an e-mail. Currently, there is only one client type allowed: Internal.
- **Server**  
In this field the hostname or IP address of the SMTP server is defined.
- **Port**  
In this field the port at the SMTP server, which should be used for sending an e-mail is defined.
- **Sender E-Mail Address (on Behalf of)**  
In this field a default sender can be defined. This means that the e-mail will be delivered "on behalf of". Example: "[office@fabasoft.com](mailto:office@fabasoft.com)".  
The e-mail (sent by user David Porter) then contains:  
"[office@fabasoft.com](mailto:office@fabasoft.com) on behalf of [david.porter@fabasoft.com](mailto:david.porter@fabasoft.com)"
- **Expression for Computing the Sender Name**  
A Fabasoft Kernel Expression to calculate the sender name which is displayed in an e-mail client.

Example:

```
"Mr. David Porter".
```

An e-mail client then would show:

```
"Mr. David Porter "
```

Another example which generates the sender name based on the users first- and surname:

```
STRING @sendername;  
@sendername=coouser.userfirstname + " " + coouser.usersurname  
return @sendername;
```

- **Additional Info**  
Additional information for the SMTP server can be configured as key/value pairs. Currently the implementation considers the following keys:
- **content-charset:**  
A specific content char set for the e-mail transfer (Default: UTF-8)
- **timeout:**  
Timeout threshold for the SMTP server session (in milliseconds)
- **password:**  
Used for authentication at the SMTP server

- username:  
Used for authentication at the SMTP server

### 180.2.1 Applies to

- Fabasoft Folio (all versions)
- Fabasoft eGov-Suite (all versions)

## 181 Testing a distributed transaction

Last update: 4 August 2017

### 181.1 Summary

This article is a description how to test distributed transactions in a Fabasoft Folio environment with more than one COO-Service.

**Please note:** A hotfix for Fabasoft Folio (and subordinated Fabasoft eGov-Suite and eCRM-Suite) is available to improve MS-DTC usage of Fabasoft Folio. Fabasoft urgently recommends to install this hotfix. See [details for this hotfix](#).

### 181.2 Information

Microsoft Distributed Transaction Coordinator (MSDTC) is used to control transactions spanning to more than one COO-Service in an SQL Server environment (Microsoft Windows). MSDTC is a Microsoft Windows service and needs to be available on all servers involved to the distributed transaction (SQL Server, Fabasoft Backendservers, Webservers,...)

Fabasoft Distributed Transaction Manager (DTM) is used to control transactions spanning to more than one COO-Service in an Oracle or PostgreSQL environment (Microsoft Windows and Linux). Fabasoft DTM is implemented in the COO-Service binary. No 3rd party or operating system services are used.

Distributed transactions ensure the consistency of transactions across the borders of a database/tablespace.

### 181.3 Solution

To test distributed transactions it is necessary to insert/update multiple objects in one (distributed) transaction. A distributed transaction is only initialized, if database changes span to at least two COO-Services (databases/tablespaces). As opposed to this, multiple changes in one database/tablespace do not perform a distributed transaction, but a normal transaction.

This example explains how to create two objects in different databases/tablespaces, so a distributed transaction is used.

**Summary:** This guide shows interesting perfmon counters, and how to perform a distributed transaction by creating two objects using different COO-Services.

#### 1. Run Perfmon (MSDTC only)

- On the backend server, open perfmon.exe (Windows Performance Monitor)
- Add following counters:
-

- Distributed Transaction Coordinator / Active Transactions : Shows the currently open distributed transactions
- *Distributed Transaction Coordinator / Committed Transactions* : Shows the number of committed transactions since MSDTC startup
- *Distributed Transaction Coordinator / Aborted Transactions* : Shows the number of aborted transactions since MSDTC startup

## 2. Find object classes with different object placements

- Create an Administration Tool
- Search for *Object class* , restrict the search to *Placement | COO-Stores for new objects is any value* . This will find all object classes that have a dedicated object placement to COO-Stores. *Keep in mind, that this placement is also valid for derived object classes.*
- **Please note:** Different COO-Stores may use the same COO-Service, therefore check which COO-Store is assigned to which COO-Service. This can be done by opening the properties of the COO-Store objects.
- Select two object classes that definitely use different COO-Services.

## 3. Create a distributed transaction

- Create another *Administration Tool* . Open the new *Administration Tool* object by the context menu *Properties* (do not double-click the object).
- In the *Properties* window in the object list, create a new object with the + symbol. Use one of the object classes figured out above. If applicable, finish the constructor form by pressing Next
- Again, with the + symbol create a second object using the second object class.
- After this, you have two new objects in the object list of the *Administration Tool* . Press the *Next* or *Apply* button. This will perform a distributed transaction including the COO-Services of the two object classes.
- The Perfmon Counter *Committed Transactions* should have increased by 1.
- If no error occurs, the distributed transaction was correctly committed.

## 4. Repeat the test for COO-Services on different backendservers (e.g. cluster environment)

To ensure that MSDTC is working also in a distributed environment (cluster), retry the above test with COO-Services on different backendservers.

### 181.3.1 Applies to

- Fabasoft Folio on Microsoft Windows and Microsoft SQL-Server (all versions)
- Fabasoft eGov-Suite on Microsoft Windows and Microsoft SQL-Server(all versions)
- Fabasoft eCRM-Suite on Microsoft Windows and Microsoft SQL-Server (all versions)

## 182 Unknown is not a valid Win32 application

Last update: 4 August 2017

### 182.1 Summary

After double-clicking a Content object you may receive this warning message in the Event Viewer:

Event Type:           Warning

Event Source: Fabasoft Tool Manager  
Event Category: Internal  
Event ID: 0  
Date:  
Time:  
  
User: N/A  
Computer:  
Description:  
Could not start command '"\fsc.client\dav\contentobject.zip"'  
Error: is not a valid Win32 application. (0x000000C1/193)  
User:  
Process: 2776 (0x00000AD8) [IEXPLORE]  
Thread: 2500 (0x000009C4)  
Version: 9.1.3.20  
System: Win2k3 5.02 Build 3790 Service Pack 2.00  
Memory: 1276444/2839988/1893724

## 182.2 Information

(Default) value for given extension (e.g. ".zip" or ".tif") is undefined. This may have happened when installing a third party application.

```
[HKEY_CLASSES_ROOT\.zip]
"Content Type"="application/x-zip-compressed"
"PerceivedType"="compressed"
```

```
[HKEY_CLASSES_ROOT\.tif]
"Content Type"="image/tiff"
"PerceivedType"="image"
```

## 182.3 Solution

Set (Default) value back to original value.

```
[HKEY_CLASSES_ROOT\.zip]
"Content Type"="application/x-zip-compressed"
"PerceivedType"="compressed"
@="CompressedFolder"
```

```
[HKEY_CLASSES_ROOT\.tif]
"Content Type"="image/tiff"
```

```
"PerceivedType"="image"
@="TIFFImage.Document"
```

The „@“ character refers to the „(Default)“ registry value

## 183 Usage of cURL library in Fabasoft Folio Client

Last update: 14 December 2017

Starting with Fabasoft Folio 2016 UR3 (16.0.7) the Fabasoft Folio Client is enhanced by a second library to communicate with the Fabasoft Folio Webservices.

The old library is WinInet, the newer library is cURL.

In the following table the default behaviour and the registry key to enable the new library is listed for the different Update Rollups.

Update Rollup (Build)	Default library	Registry key to enable alternative library
2016 UR2 (16.0.6)	WinInet	not available (cURL not implemented)
2016 UR3 (16.0.7)	WinInet	HKEY_CURRENT_USER\Software\Fabasoft\WebClient\ConfigValues\Enterprise16\ HTTP_USECURL =True to enable cURL
2016 UR4 (16.0.8)	WinInet	HKEY_CURRENT_USER\Software\Fabasoft\WebClient\ConfigValues\Enterprise16\ HTTP_USECURL_AUTODETECT =True to enable cURL
2016 UR5 (16.0.9) and above	cURL	HKEY_CURRENT_USER\Software\Fabasoft\WebClient\ConfigValues\Enterprise16\ HTTP_USECURL_AUTODETECT =False to enable WinInet

Fabasoft Folio Client 2017 and above all use cURL as http library. The WinInet-Library is not available in Folio 2017 and above.

### 183.1 Information

Fabasoft switched from WinInet to cURL because this library enables more possibilities and more control over file transfers (e.g. incremental uploads) and authentication mechanisms and cookie handling.

## 184 Users of one tenant can not log in

Last update: 4 August 2017

### 184.1 Summary

Users of the domain/tenants are able to log in to the domain normally, while users of one tenant are not able to access the domain.

## 184.2 Information

One Licence Model for Fabasoft is a "Concurrent User Licence" allowing a set number of users to work concurrently on a domain/tenant.

This setting can be controlled for each domain/tenant separately.

## 184.3 Solution

Verify that the issued licence and the selected "Concurrent User Licence" flag in the tenant match.

- Open the licence pertaining to the affected tenant
- Check the *Number of Concurrent User Licences* for your *Software Product Suites*  
If the property is empty it means the software product suite doesn't use concurrent user licences
- Set the flag *Concurrent User License* in the tenant configuration accordingly

### 184.3.1 Applies to

- Fabasoft Folio
- Fabasoft eGov-Suite

when using one or multiple tenants

## 185 What you should know about form letters

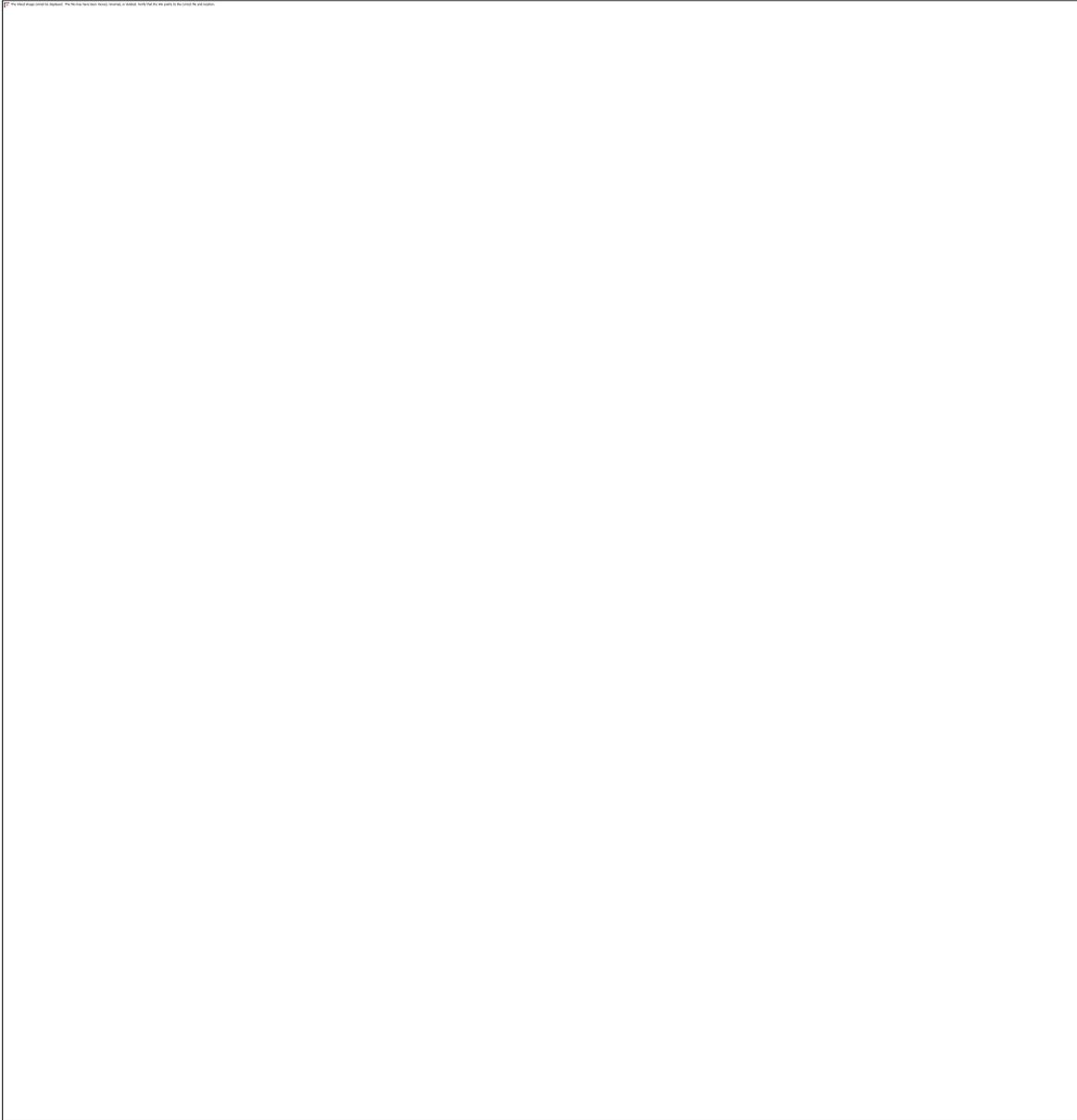
Last update: 4 August 2017

You have some options to configure and control the conversion server and the resulting PDF output, that may be important to you especially if you use Microsoft Word fields or form letters.

### 185.1 UpdateFieldsAtPrint

You can set UpdateFieldsAtPrint on the conversion server. This option allows you to set whether Microsoft Word should update all Microsoft Word fields before printing the document or not.

This option corresponds to this Microsoft Word setting:



and can be simulated by using this Microsoft Word Macro:

```
Sub myUpdateFieldsAtPrint()  
    ActiveDocument.Fields.Update  
End Sub
```

To configure UpdateFieldsAtPrint create the following registry key:

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft\FSCCONV@1.1001]  
"UpdateFieldsAtPrint"=dword:00000000
```

To activate UpdateFieldsAtPrint set the dword value to 1 .

## 185.2 FolioPluginDocPropertyUpdate.msi / FscCtlDocPropertyUpdate.msi

The MSI file FolioPluginDocPropertyUpdate (earlier known as FscCtlDocPropertyUpdate.msi ) can be found in the installation kit Setup\ComponentsWeb\Client .

After you've installed the package you have to make sure it has been activated. To do this logon as conversion service user and start Microsoft Word.

Goto Word options ==> Add-Ins ==> Manage "COM Add-ins" ==> Go ...



This Add-In updates all DOCPROPERTY (type = wdFieldDocProperty) fields after the document has been opened. It will not update other fields!

It is equal to the following Microsoft Word Macro:

```
Sub MyDocPropertyUpdate ()  
    Dim aStory As Range  
    Dim aField As Field  
  
    For Each aStory In ActiveDocument.StoryRanges  
        For Each aField In aStory.Fields  
            If aField.Type = wdFieldDocProperty Then
```

```
        aField.Update
    End If
Next aField
Next aStory
End Sub
```

### 185.3 MailMergeCopy

```
[HKEY_CURRENT_USER/Software/Fabasoft/COOCIS]
MailMergeCopy = dword:00000001
```

With this setting on the client machine the document will be copied while mail merging, so the default template ( normal.dotm ) on the client is not used for the new document.

### 185.4 Applies to

- Microsoft Word 2003
- Microsoft Word 2007
- Microsoft Word 2010

### 185.5 Links

UpdateFieldsAtPrint: [http://msdn.microsoft.com/en-us/library/aa224273\(v=office.11\).aspx](http://msdn.microsoft.com/en-us/library/aa224273(v=office.11).aspx)  
WdFieldType Enumeration: [http://msdn.microsoft.com/en-us/library/bb213727\(v=office.12\).aspx](http://msdn.microsoft.com/en-us/library/bb213727(v=office.12).aspx)

### 185.6 Related articles

- [Empty letter after finalizing a form letter](#)
- [Logging possibilities](#)

## 186 Word 2016 DocProperty problems after Microsoft Office security update (September 2017)

Last update: 14 December 2017

### 186.1 Information

We got informed of customers that information in Word documents is lost after the installation of September 2017 security update KB 4011039 and KB3213656 for Microsoft Office 2016.

Symptoms are missing data in table cells (normal text, DocProperties, mail merge fields) when Word documents are opened and finalized. We already could reproduce the symptoms.

The issue is introduced by the following Microsoft fixes:

- KB4011039 (Microsoft Word 2016)
- KB3213656 (Microsoft Word 2016)

Clients and Conversion servers using Microsoft Office 2016 are affected.

The issue is Microsoft Office 2016 specific and independent to Folio at all, or to a specific Fabasoft Folio/eGov-Suite version. The Microsoft Office issue however affects Fabasoft Folio / Fabasoft eGov-Suite use-cases.

## 186.2 Solution

At the current situation, please prevent your systems (clients and conversion servers using Microsoft Office 2016) to install these hotfixes.

If you already have installed these fixes, we suggest to uninstall these fixes.

## 186.3 Details

For Fabasoft could reproduce the issue with Microsoft Office 2016:

- If a Word template has vertical merged table cells, the content of the table cell is not displayed.
- The content of the merged cell is not lost, also after saving the content. When you uninstall the fixes, the content reappears.
- The issue can also occur if Microsoft Office 2016 is used only on the Conversion servers. Clients may see the content on their client (with other Office version, or fix not installed). Converting the document by an affected Conversion server will lead to empty table cells on the finalized PDF.

Microsoft already included the behavior to the "Known issues" of these hotfixes and stated to address the issue in the October 2017 update.

## 186.4 Microsoft Security TechCenter Links

Microsoft KB4011039

Microsoft KB3213656

[Microsoft information about the issue](#)

## 187 app.telemetry - How to map Fabasoft Folio object addresses to names or references

First published: 4 August 2017 (*cf*)

Last update: 3 August 2023 (*cf*)

### 187.1 Information

Fabasoft Folio object addresses (a.k.a. COO-addresses) are exact but quite meaningless in respect to the character of the object they represent. It is mainly for the sake of optimization that the Fabasoft app.telemetry instrumentation of Fabasoft Folio uses the 64-bit integer representation of the addresses to pass object identity information. Whereas the conversion to the "COO-Address" format has been coded into Fabasoft app.telemetry, a more user friendly way of presenting Fabasoft Folio objects is still available.

### 187.2 Solution

Please refer to the Fabasoft app.telemetry Knowledge Base article [Fabasoft Folio Object Address Resolution](#).