

ADONIS/ADOIT Connect for Confluence

Installation Manual

Version 5.0 - English



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1. Overview

This document describes the installation of the *ADONIS/ADOIT Connect for Confluence* app (also referred to as *ADO Connect* in the remainder of the document) for *Atlassian Confluence* as well as the setup and configuration for connecting it to an *ADONIS NP* and/or *ADOIT* installation.

The installation consists of the following main steps:

1. Configuration and preparation of ADONIS NP and/or ADOIT.
2. Installation of the ADO Connect app in Atlassian Confluence.
3. Configuration of the REST connection from ADO Connect to ADONIS NP and/or ADOIT.

The installation package contains the following items:

- **confluence**: this folder contains the ADO Connect app for Atlassian Confluence.

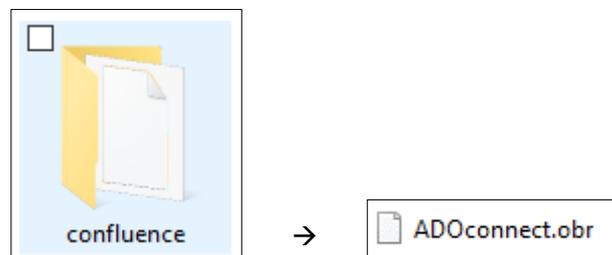


Figure 1: The installation package

2. Configuration of the ADONIS NP / ADOIT

NOTE: *In order to use ADO Connect, the Standard RESTful services module must be licensed and enabled!*

1. Open the **Administration Toolkit**.
2. Go to **Library Management** component and then to the **Component Settings** tab.
3. Go to **Standard RESTful services** → **General** page.
 - Enable MFB REST globally
 - Configure the **Settings of the local REST security context** by adding a **Key** and generating a **Secret** (this can be done automatically by the Generate Secret button).
 - In the **Technical user** setting, select a technical user for the REST context. Available technical users are displayed in the table.

If no user is available, go to **User Management** and create a technical user (this user must have **Trusted Login**).

You can assign one or more repository to the chosen technical user and therefore selecting what content should be available within REST.

NOTE: All content that the technical user has access to, will also be available via the ADO Connect macros in Confluence for all Confluence users.

For further information, please see chapter 6.1 “Restricting access to ADONIS NP / ADOIT content”.
 - [Optional] In the **Cache Path** setting, setup an absolute path on the webserver machine, accessible by ADONIS NP, where REST cache can be saved. The path should be dedicated to this purpose and not shared with other services. ADONIS NP will take care of managing it. Doing so will improve the response time for REST.

Please note: if it is a SaaS ADONIS NP / ADOIT environment hosted by BOC Group then the **Cache Path** setting change must be requested from the **Key Account Manager**.

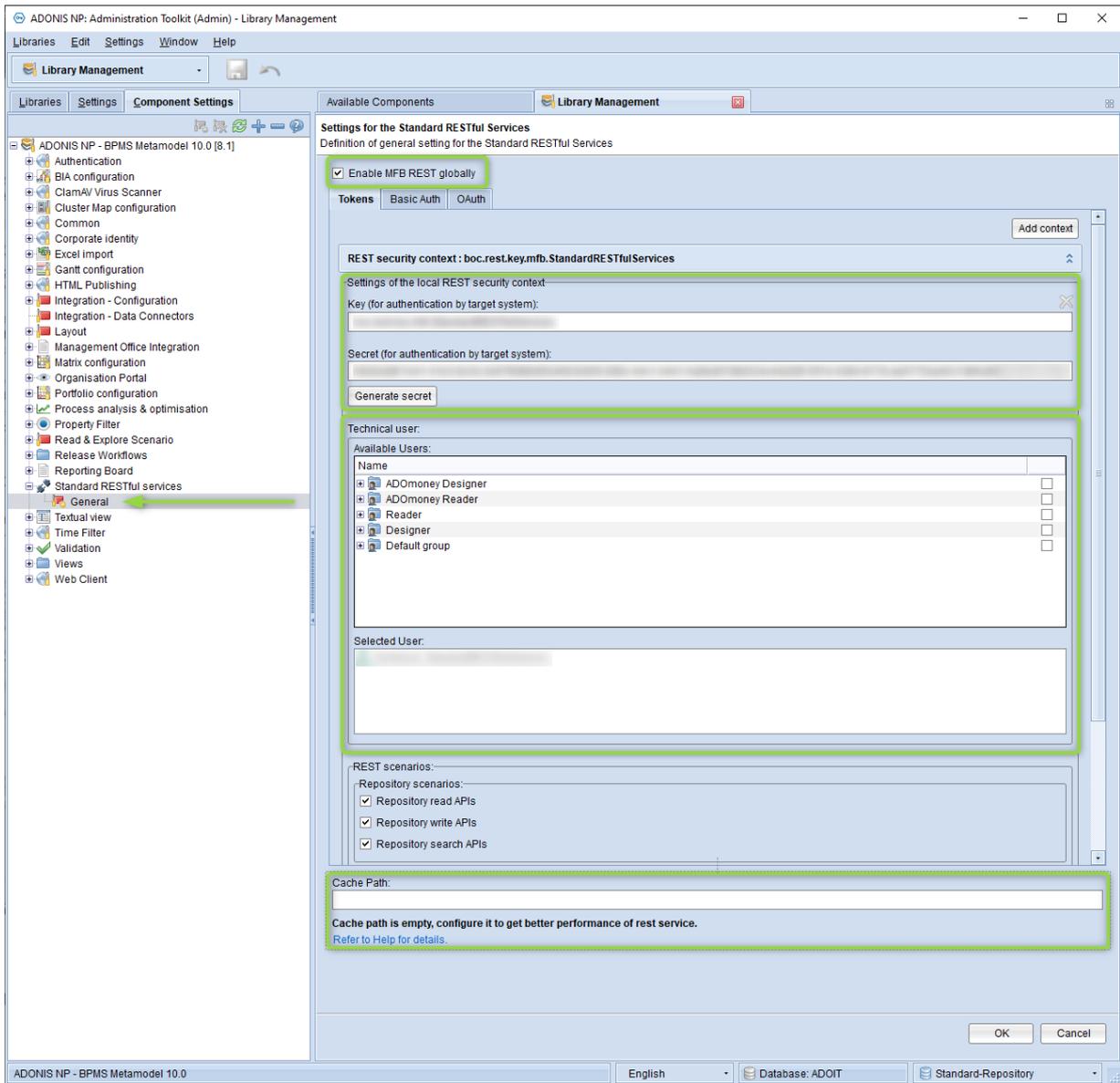


Figure 2: Standard RESTful services settings

4. Go to **Web Client** → **System** page.
 - Configure the **Base URL** to match the web client URL.
 - In **Technical Users**, select the same technical user from the previous step.

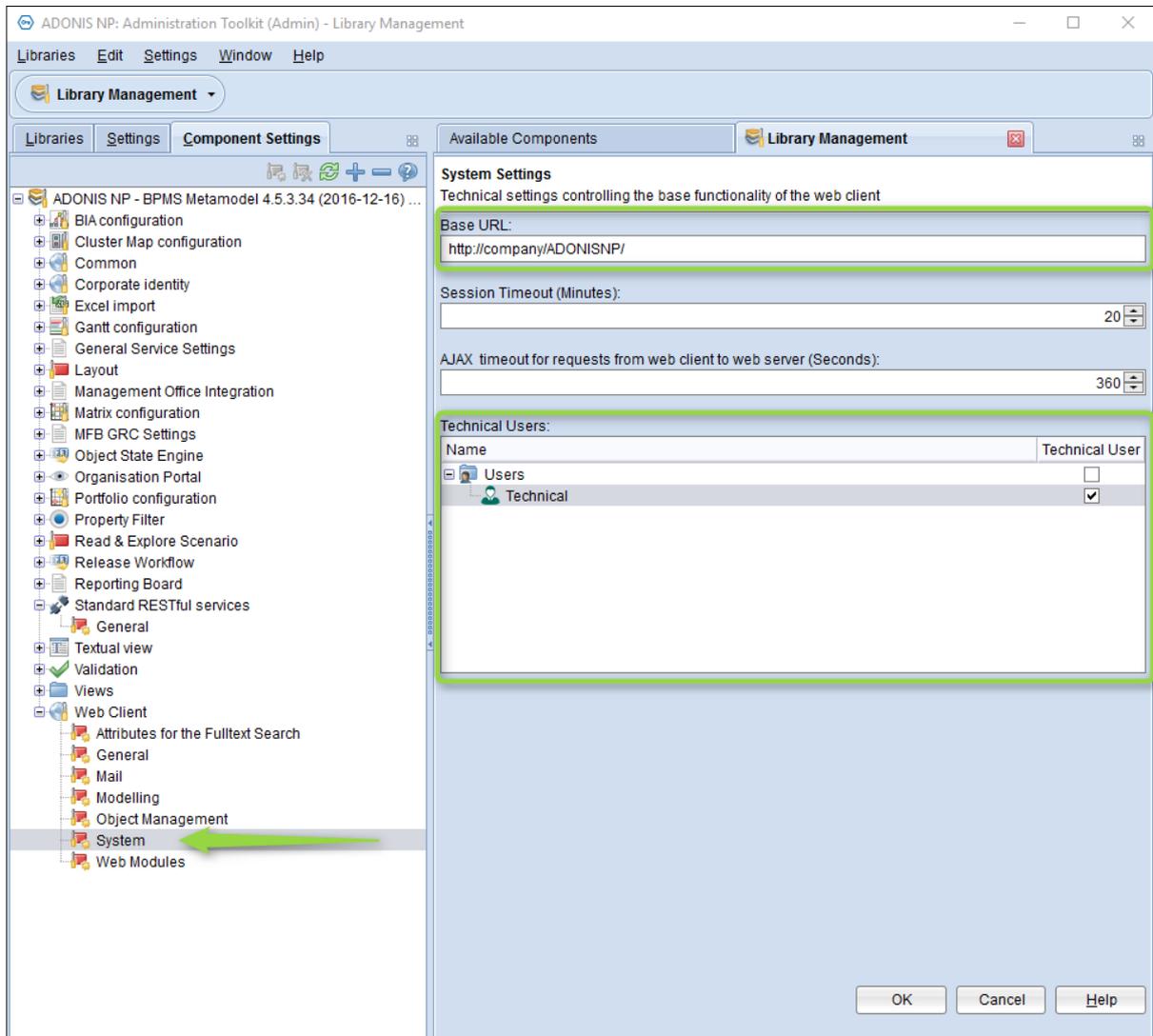


Figure 3: Web Client System settings

3. Installation of the ADO Connect app in Atlassian Confluence

This chapter describes the steps to install the **ADO Connect** app in Atlassian Confluence.

Before installing the app, make sure that the distribution file from the installation package '*ADOconnect.obr*' is accessible to your computer, either at via the file system or via an URL.

Steps to manually upload the ADO Connect app in Confluence:

1. From the application's administration console, click the Manage apps.
2. Click the Upload app link at the top right side of the page. The following dialog appears:

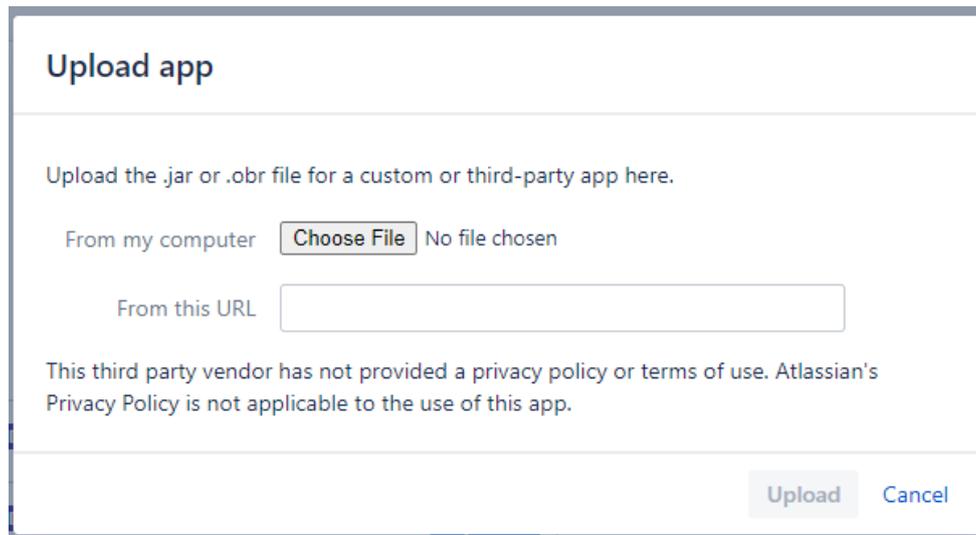


Figure 4: Upload an app in Confluence

3. Enter the location of the JAR or OBR file to upload using the file chooser or by specifying a network location by entering a URL. In this case you want to select the '**ADOconnect.obr**' file.
4. **Click Upload.**

A confirmation message appears when the app is successfully installed.

5. If prompted, restart your application to have your change take effect.

You can now manage the app from the user-installed app list on the Manage apps page.

The ADO Connect configuration page can be reached from the Admin Configuration or by the Manage apps page

4. Configuration of the REST connection

Once the ADO Connect app has been installed in Confluence, the connection settings to ADONIS NP and/or ADOIT must be configured:

- In Confluence, go to **General Configuration**
- Navigate to **ADO Connect Configuration**
- Change the configuration for the product in use (ADONIS NP/ADOIT; see Figure 7) and hit **Save**

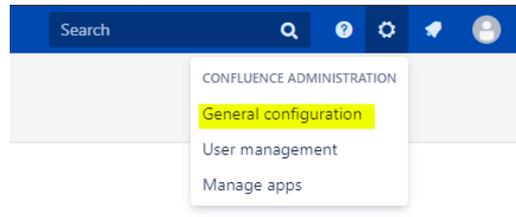


Figure 6: Confluence General configuration

The following settings must be configured to establish a connection to ADONIS NP/ADOIT:

| | |
|----------------------------------|---|
| Base URL | <p>The base URL used to access the BOC Product.</p> <p><u>When using Single-Sign on (SSO) with ADONIS NP/ADOIT:</u> If an authentication server such as IIS is used to handle SSO between the client (typically the web browser) and ADONIS NP/ADOIT, this authentication server must not be used as the base URL. <u>Enter the URL of ADONIS NP/ADOIT running directly on the Tomcat instead.</u></p> <p>Also see chapter 7.3 "The connection from ADO Connect prompts for authentication".</p> |
| REST Identifier | <p>The identifier provided for authentication (configured in the Admin Toolkit)</p> |
| REST Secret Key | <p>The secret key provided for authentication (configured in the Admin Toolkit)</p> |
| Use cache for modelgroups | <p>Improves performance for large repositories. This is optional and disabled by default.</p> <p>For more information, see chapter 6.4 "How is the cache for modelgroups working?"</p> |
| Languages | <p>Defines the available languages for the ADO Query Table macro and Metamodel data.</p> <p>Only languages, that are supported by your ADONIS/ADOIT license must be entered here.</p> |

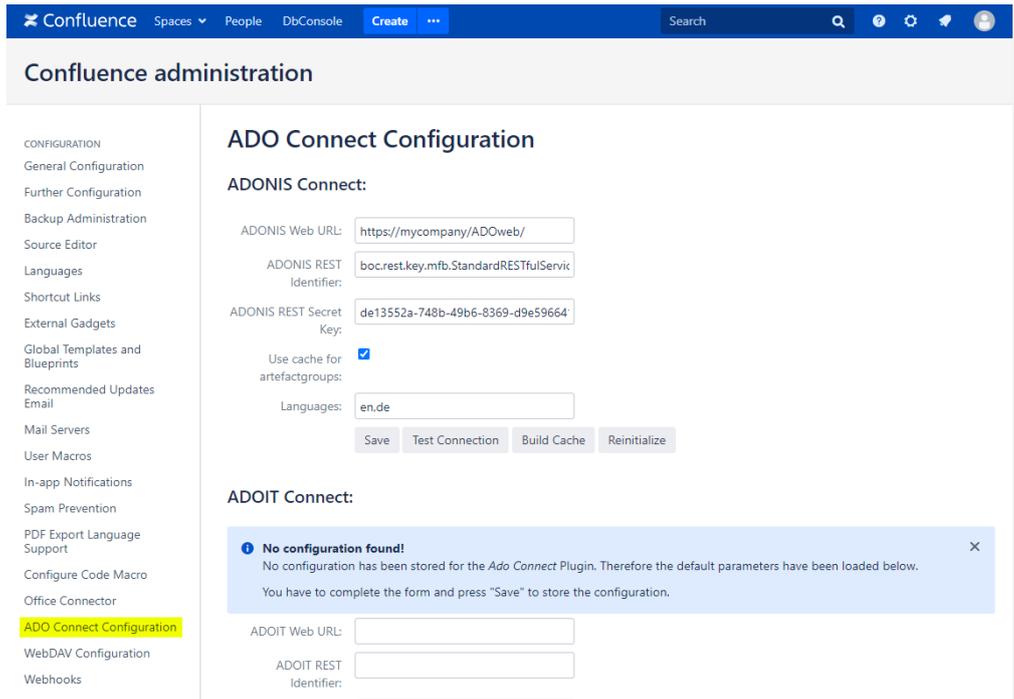


Figure 5: ADO Connect Configuration

The following buttons are available on the configuration page:

| | |
|------------------------|---|
| Save | Saves the current configuration |
| Test Connection | Tests the connection to the configured instance of ADONIS NP/ADOIT Important: The configuration must be saved before the connection can be tested |
| Build Cache | Builds up the ADONIS NP/ADOIT cache for the REST interface |
| Reinitialize | Triggers the re-initialization to update the following components: <ul style="list-style-type: none"> • Cache for model and object groups: This retrieves the current state of the model and object groups from ADONIS NP/ADOIT and caches them. • The REST version: Depending on the used version of ADONIS NP/ADOIT, the REST version is determined during the startup of Confluence. If an upgrade of ADONIS NP/ADOIT has been performed, but Confluence is not restarted, this will update the used REST version accordingly. • The Metamodel: Depending on the used version of ADONIS NP/ADOIT, the Metamodel data is retrieved and cached. |

5. How to disable unused macros

In case ADO Connect is configured for a single product, either ADONIS NP or ADOIT, it makes sense to disable the macros for the unused product. Additionally, macros can also be removed for other reasons, if they are not required.

Steps to disable a macro

1. Navigate to the "Confluence Administration" and to "Manage Apps".
2. Expand "ADO Connect for Confluence" and the list of modules.
3. There are many different modules listed. It is important to only disable modules that are listed in the table below, otherwise the functionality of ADO Connect will not work anymore.

The screenshot shows the 'ADO Connect for Confluence' administration page. At the top, there is a header with the ADO Connect logo and a yellow circle with the number '1'. Below the header, there are two buttons: 'Configure' and 'Disable'. The main content area is divided into two columns. The left column contains a 'Loading screenshots...' placeholder. The right column contains metadata: 'Version: 5.0.0', 'Vendor: BOC Group', and 'App key: com.boc.confluence.plugin.ADO.confluence'. To the right of this metadata is a blue link that says '57 of 57 modules enabled' with a yellow circle and the number '2'. Below this is a list of modules. The 'ADONIS Search' module is highlighted with a yellow circle and the number '3', and has a 'Disable' button next to it. The list of modules includes: ADONIS Properties Macro Settings, ADOIT Properties Macro Settings, ADOconfluence: Generic Web Resources, ADONIS Query Table, ADOIT Query Table, ADOconfluence: TableMacro Web Resources, ADONIS Search, ADOIT Search, ADOconfluence: SearchMacro Web Resources, ADONIS Model List, ADOIT Model List, ADOconfluence: ModelListMacro Web Resources, ADONIS Model Search, ADOIT Model Search, ADOconfluence: ModelSearchMacro Web Resources, ADONIS Model Image, ADOIT Model Image, ADOconfluence: ModelImageMacro Web Resources, ADONIS Model Viewer, ADOIT Model Viewer, ADOconfluence: ModelViewerMacro Web Resources, ADONIS Object & Model Properties, ADOIT Object & Model Properties, ADOconfluence: HeaderMacro Web Resources, and ADO Header Space Admin Web Resources.

Figure 6: ADO Connect modules

Please be aware, that **disabling macros does not prevent access** to any data. Even with all macros disabled, a user can still access all data of the Technical User via the REST API through Confluence.

Therefore, it is important to understand, that any **restrictions to access data from ADONIS or ADOIT must be applied via the access rights of the Technical User.**

This table contains what modules should be disabled in order to disable a specific ADO Connect macro:

| | |
|---|--|
| ADONIS Model Image | adonis-model-image-macro |
| ADONIS Model Viewer | adonis-model-viewer-macro |
| ADONIS Model Search | adonis-model-search-macro |
| ADONIS Model List | adonis-modellist-macro |
| ADONIS Object & Model Properties | adonis-header-macro adonis-space-admin-header-resources space-admin-adonis-header space-admin-adonis-header-2 adonis-header-plugin-space-admin-action adonisspacesettings |
| ADONIS Query Table | adonis-table-macro |
| ADONIS Search | adonis-search-macro |
| ADOIT Model Image | adoit-model-image-macro |
| ADOIT Model Viewer | adoit-model-viewer-macro |
| ADOIT Model Search | adoit-model-search-macro |
| ADOIT Model List | adoit-modellist-macro |
| ADOIT Object & Model Properties | adoit-header-macro adoit-space-admin-header-resources space-admin-adoit-header space-admin-adoit-header-2 adoit-header-plugin-space-admin-action adoitspacesettings |
| ADOIT Query Table | adoit-table-macro |
| ADOIT Search | adoit-search-macro |

6. Appendix

6.1 Restricting access to ADONIS NP / ADOIT content

Please be aware, that from within Confluence itself, you cannot effectively restrict access to any data of ADONIS NP or ADOIT, by using typical Confluence mechanisms alone, such as:

- Confluence space permissions
- Page restrictions
- Disabling macros
- etc.

This is due to the fact, that any Confluence user who can edit a page (e.g. in his personal space) can always include an ADO Connect macro and browse the objects & models in the repository (e.g. via the macro editor). Even if the user would not have any edit rights at all, ADO Connect continues to act as a proxy for authenticated Confluence users to the ADONIS NP/ADOIT REST interface, which still allows access to a limited set of APIs, that are needed for the macros to work.

Therefore, the proper way to limit access to ADONIS NP/ADOIT content, is to use the technical user configured in ADONIS NP/ADOIT for ADO Connect to restrict access (see chapter 2 “Configuration of the ADONIS NP / ADOIT”). Any requests from ADO Connect are processed by ADONIS NP/ADOIT within the context of this technical user. As such, the full power of the permission system within ADONIS NP and ADOIT can be used to control, what data will be available in Confluence and what data should not be accessible.

This includes, restricting access to:

- individual objects and models or entire object- & model-groups
- to object types and model types (e.g. all processes, all documents, all applications, ...)
- individual attributes & relations (globally or for a specific object-/model-type)
- based on object-/model-lifecycle state (e.g. only released processes or applications; only available in combination with a release workflow)

6.2 How to enable ADO Connect logging

By default, every Confluence plugin are configured to log *WARN* and *ERROR* levels.

To get more information about ADO Connect, enable the *INFO* log as described:

- In Confluence, go to **General Configuration**
- Navigate to **Logging and Profiling**
- Enter a new log entry `com.boc.confluence.plugin` and select *INFO* as logging level:

Logging and Profiling 1

Performance Profiling
Profiling is currently OFF.
[Enable Profiling](#)

SQL Logging
[Enable SQL Logging](#)

Log4j Logging
Log level is currently Production.
[Production](#) [Diagnostic](#)

OR:
Customize specific logging settings

Add New Entry

| Class/Package Name | New Level |
|--|---|
| 2 <input type="text" value="com.boc.confluence.plugin"/> | 3 <input type="text" value="INFO"/> 4 Add entry |

Existing Levels

| Class/Package Name | Current Level | New Level |
|--|---------------|--|
| atlassian-monitor | INFO | <input type="text" value="INFO"/> Remove |
| atlassian.plugin | INFO | <input type="text" value="INFO"/> Remove |
| com.atlassian.bonnie | INFO | <input type="text" value="INFO"/> Remove |
| com.atlassian.confluence.admin.actions | INFO | <input type="text" value="INFO"/> Remove |
| com.atlassian.confluence.admin.actions.SystemInfoOnStartup | INFO | <input type="text" value="INFO"/> Remove |
| com.atlassian.confluence.cache.DefaultCacheConfigManager | INFO | <input type="text" value="INFO"/> Remove |
| com.atlassian.confluence.cache.DefaultCacheSettingsManager | INFO | <input type="text" value="INFO"/> Remove |

Additionally, *DEBUG* level can be used to further diagnostic issues, especially if requested from the BOC Hotline.

6.3 How to enable the cache for model and object groups?

To enable the cache for model and object groups:

- In Confluence, go to **General Configuration**
- Navigate to **ADO Connect Configuration**
- Toggle the check box “Use cache for artefactgroups”
- Press Reinitialize to initialize the cache

Confluence administration

CONFIGURATION

General Configuration

Further Configuration

Backup Administration

Languages

Shortcut Links

External Gadgets

Global Templates and Blueprints

Recommended Updates Email

Mail Servers

User Macros

In-app Notifications

Spam Prevention

PDF Export Language Support

Configure Code Macro

Office Connector

ADO Connect Configuration

WebDAV Configuration

Webhooks

ADO Connect Configuration

ADONIS Connect:

ADONIS Web URL:

ADONIS REST Identifier:

ADONIS REST Secret Key:

Use cache for artefactgroups: **1**

Languages:

Save

Test Connection

Build Cache

Reinitialize

2

3

ADOIT Connect:

ADOIT Web URL:

ADOIT REST Identifier:

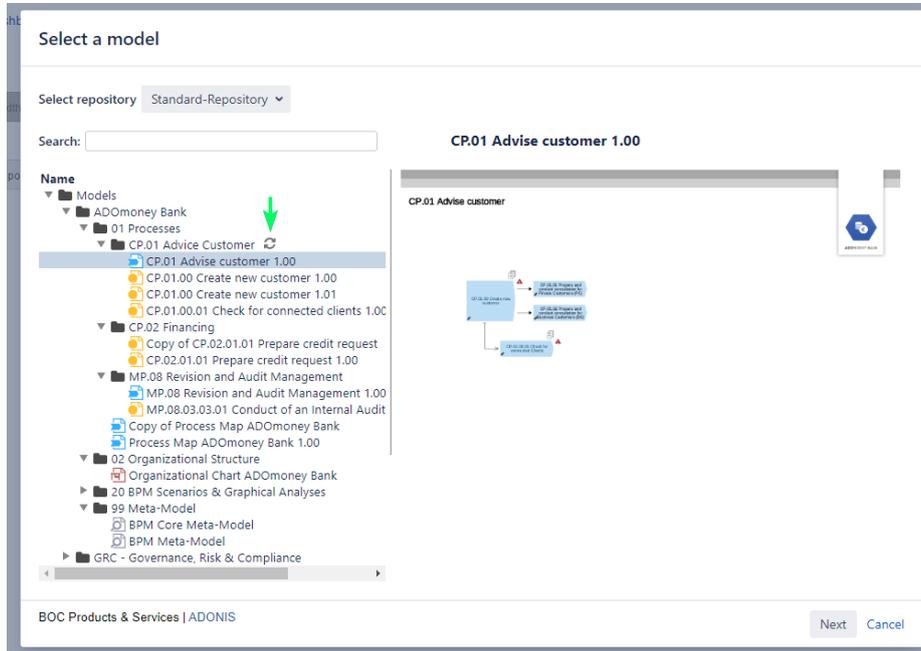
ADOIT REST Secret Key:

.. . . .

6.4 How is the cache for model and object groups working?

If the use cache for model and object groups setting is enabled, an in-memory cache of the group data of ADONIS/ADOIT is created in Confluence. What this means is that editing macros, as well as the *Model Search*, *Model List*, and *Object & Model Properties* macros, are faster.

Additionally, when editing macros, it is now possible to reload a specific sub-tree:



When this happens, a re-caching of the model group data is also triggered.

Furthermore, a re-caching is also triggered by a new ADO Connect scheduler:

Confluence administration

Scheduled Jobs

| Job | Status | Last Execution | Next Execution | Avg. Duration | Actions |
|-----------------------------------|------------------|---------------------------|---------------------------|---------------|---------------------------------------|
| Back Up Confluence | Scheduled | | Mar 18, 2020 02:00 | 0 | Run - Edit - Disable |
| Check Cluster Safety | Scheduled | Mar 17, 2020 15:02 | Mar 17, 2020 15:03 | 12 | History - Run - Edit - Disable |
| Clean Journal Entries | Scheduled | | Mar 18, 2020 02:00 | 0 | Run - Edit - Disable |
| Clean Old Audit Records | Scheduled | | Mar 18, 2020 00:00 | 0 | Run - Edit - Disable |
| Clean Temporary Directory | Scheduled | | Mar 18, 2020 04:00 | 0 | Run - Edit |
| Clear Expired Mail Errors | Scheduled | | Mar 18, 2020 03:00 | 0 | Run - Edit |
| Clear Expired Remember Me Tokens | Scheduled | | Mar 20, 2020 00:00 | 0 | Run - Edit |
| Cluster Cache Compaction | Scheduled | Mar 17, 2020 15:00 | Mar 17, 2020 16:00 | 11 | History - Run - Disable |
| COIS: Model Groups Cache | Scheduled | Mar 17, 2020 15:00 | Mar 17, 2020 15:30 | 10 | History - Run - Edit - Disable |
| Conversion Queue Monitor | Scheduled | Mar 17, 2020 15:03 | Mar 17, 2020 15:03 | 3 | History - Run - Edit - Disable |
| Deferred File Deletion | Scheduled | Mar 17, 2020 14:50 | Mar 17, 2020 15:05 | 4 | History - Run - Disable |
| EhCache Cache Compaction | Scheduled | Mar 17, 2020 15:00 | Mar 17, 2020 15:05 | 5 | History - Run - Disable |
| Email Daily Reports | Scheduled | | Mar 18, 2020 00:00 | 0 | Run - Edit - Disable |
| Flush Edge Index Queue | Scheduled | Mar 17, 2020 15:02 | Mar 17, 2020 15:03 | 6 | History - Run - Disable |
| Flush Local Task Queue | Scheduled | Mar 17, 2020 15:02 | Mar 17, 2020 15:03 | 3 | History |
| Flush Mail Queue | Scheduled | Mar 17, 2020 15:02 | Mar 17, 2020 15:03 | 2 | History - Run - Edit - Disable |
| Flush Task Queue | Scheduled | Mar 17, 2020 15:02 | Mar 17, 2020 15:03 | 2 | History - Run - Disable |
| Jira Metadata Cache Configuration | Scheduled | Mar 17, 2020 14:20 | Mar 17, 2020 15:20 | 78 | History - Run - Edit |
| Publish Daily Statistics | Scheduled | | Mar 18, 2020 04:00 | 0 | Run - Disable |
| Publish Periodic Events | Scheduled | | Mar 18, 2020 02:15 | 0 | Run - Disable |
| Purge Old Job Run Details | Scheduled | | Mar 17, 2020 23:00 | 0 | Run - Edit |

By default, it is configured to run every 30 minutes from 7 AM to 18 PM. This is configurable, but we recommend to not make it faster than every 5 minutes in order to not overload the servers.

7. Troubleshooting

7.1 The class icons are missing from the macros

The web base URL in the system settings of ADONIS NP/ADOIT must be configured to include the web application name, for example: `https://mycompany.org/ADOIT_91/`.

7.2 How to solve SSL handshake: "sun.security.validator.ValidatorException: PKIX path building failed"

Indication

```
Error in Confluence log file: sun.security.validator.ValidatorException: PKIX path building failed: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested target
```

Description

This error indicates a problem with the encrypted communication (TLS) from *Confluence* to *ADONIS NP/ADOIT*. The validation of the certification chain cannot be established.

For more information and a general solution, read the Atlassian support article "[Connecting to SSL services](https://confluence.atlassian.com/kb/connecting-to-ssl-services-802171215.html)" (<https://confluence.atlassian.com/kb/connecting-to-ssl-services-802171215.html>)

Solution

- Ensure that a recent Java version is installed that includes the required global and intermediate certificates.

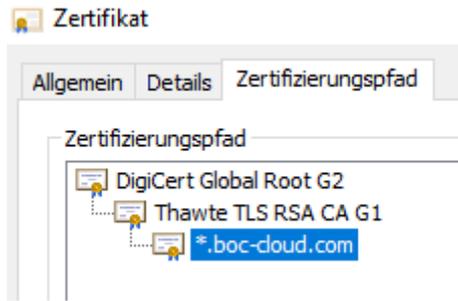
For *SaaS Customers of ADONIS NP/ADOIT*, these certificates are *DigiCert Global Root G2* and *Thawte TLS RSA CA G1*.

The following Java versions have the certificates included:

- *Java 1.8.0_91* or newer (<https://www.oracle.com/technetwork/java/javase/8u91-relnotes-2949462.html>)
- *Java 1.7.0_101* or newer (https://www.oracle.com/technetwork/jp/java/javase/documentation/javase7supportreleasenotes-1601161.html#R170_101)
- Alternatively, you can download and manually import the certificates in the *Java keystore* (*site certificate*) and *Java truststore* (*global* and *intermediate CA certificates*), as described in the Oracle support article "[Working with Certificates and SSL](https://docs.oracle.com/cd/E19830-01/819-4712/ablqw/index.html)" (<https://docs.oracle.com/cd/E19830-01/819-4712/ablqw/index.html>).
- **Note:** If you use a custom keystore location, make sure that you provide JVM options as parameters (also see the support article for further details):

```
-Djavax.net.ssl.keyStore=<path to keystore>
-Djavax.net.ssl.keyStorePassword=changeit
-Djavax.net.ssl.trustStore=<path to truststore>
-Djavax.net.ssl.trustStorePassword=changeit
```

The certificates can be viewed and downloaded, when accessing the ADONIS NP/ADOIT webclient via the webbrowser by clicking on the lock icon (SSL info).

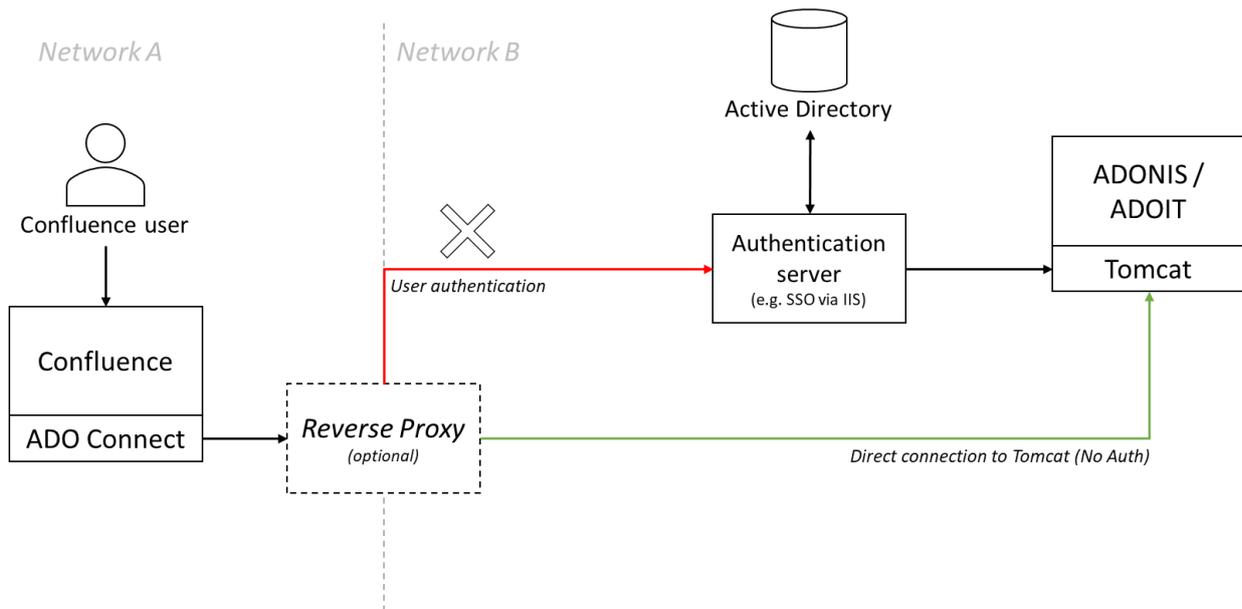


Please be aware, that if you import the *.*boc-cloud.com* certificate manually into your *Java keystore*, your certificate will not automatically be updated, when a new version of the certificate is used.

The typical validity and update cycle for the *.*boc-cloud.com* certificate is two years.

7.3 The connection from ADO Connect prompts for authentication

This can happen if the requests from *ADO Connect* do not go directly to the *Tomcat* of *ADONIS / ADOIT*, but instead go through an *Authentication server*.



Make sure that the *ADO Connect* is configured with a direct connection to the *Tomcat* of *ADONIS / ADOIT* and that no authentication is required (Server to Server connection).