

ADONIS Connect for Power BI

Version 3.0





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1. Scenario Overview

The ADONIS Connect for Power BI scenario enables a connection between the data stored in ADONIS and Power BI.

Note: This document focuses on the integration with ADONIS. Integration with ADOIT and ADOGRC is also possible.

The current version of the module supports the following features:

- Quick start with the predefined template: Use the predefined dashboard to visualize your key BPM data in Power BI. By inserting your URL, the dashboard will automatically be updated with your data from ADONIS.
- **Reports:** It is possible to embed your Power BI dashboard in MS Teams or MS PowerPoint to keep your colleagues in the loop of the current state of your Process Management Portfolio.
- **Real-time Synchronization:** View your ADONIS data in real-time in Power BI by synchronizing your dashboard or configure the dashboard to update itself at certain intervals.
- **Personalize your dashboard:** Change the colors, content and shapes of your graphic presentations quickly and easily by leveraging the data from your ADONIS repository without coding.

The following image shows one page of the predefined template in Power BI containing data retrieved from ADONIS:



Figure 1: Dashboard in Power BI showing Risks that are connected to Processes in ADONIS.

2. Architecture

The connection between ADONIS and Power BI is realized through the usage of the ADONIS Standard REST API. Power BI needs the BASE URL of the ADONIS version that the user is currently using. How this is done will be demonstrated in the next chapter.

3. Setup

3.1 Prerequisites

ADONIS 11.0 or higher and Power BI Desktop 2.9 or higher must be installed.

However, the following description is done by using ADONIS 14.0.

Note: If you use an older version than ADONIS 14.0, please go to Chapter 6 after completing step 3 of chapter 3.2.

3.2 Unlock Basic Authentication in Administration Toolkit

1. Library Management

To access the ADONIS data in Power BI, Basic Authentication must first be allowed in the Administration Toolkit. In order to do this, open Administration Toolkit and click on the "Library Management" menu. Then click on "Component Settings" and expand the list of Component Settings by clicking on the plus sign. Further, open "Standard RESTful services" and double-click on "General".



Figure 2: Open Standard RESTful services in ATK.

2. Enable MFB REST globally

Now, you have to enable Standard RESTful Services globally in the "Token" tab to use the authenticated REST API. Nothing else has to be done in the "Token" tab.



Figure 3: Enable Standard RESTful services.

3. Configure Settings for Basic Authentication

Now switch to the next tab "Basic Auth" and make sure that basic authentication is enabled. Further, enable all repository scenarios as shown in Figure 4. After checking all scenarios click on "OK" to save your changes. Make sure to **restart the Application Server** before you open ADONIS in the Web Client for the next step.

Settings for the Standard RESTful Services Definition of general setting for the Standard RESTful Services	
Enable Standard RESTful Services globally Tokens Basic Auth OAuth 2.0 JWT	•
 ✓ Enable basic authentication REST scenarios: ✓ Repository scenarios: ✓ Repository read APIs ✓ Repository write APIs ✓ Repository search APIs 	111
Users read APIs Users write APIs Users write APIs	
Metamodel read APIs	·
OK Cancel	

Figure 4: Enable Basic Authentication.

4. Enable Basic Authentication for ADONIS

Basic Authentication is turned off by default in ADONIS. If you want to use the REST API with Basic Authentication, you need to adapt the "Security settings" on the Admin Page. To open the Admin Page open a web browser and navigate to the BASE URL of your respective ADONIS installation, which could look as follows: "http://<SERVER_NAME>:<TOMCAT_PORT>/ADONIS14_0/admin.view".

Note: This example uses ADONIS 14.0, please use your ADONIS version which should be 14.0 or higher for this configuration. Also, to use the Admin Page, the user must have access rights to the Administration Toolkit.

Next, enter your credentials (if needed) and log in. Once you are logged in, click on the three dots (...) on the top left corner and **click on** "Authentication".



Figure 5: Admin View in ADONIS.

You will be lead to a new site, where you can configure your authentication settings. Click on the "Security settings" button.

*				
SAML settings 🛡 Security	v settings 🗮 Licence Warnings 🛛 🏥 L	Language 🗸 🏾 🏦 Upload Certificates	① Tracing S Reset Con	figuration 🛛 🛓 Download Template
Connectors				
Standard Login	Type:STANDARD Enabled			
IDM Login	Type:IDM Disabled			
SAML 1	Type:SAML Disabled LDAP coupling: Disabled			

Figure 6: Open Security settings.

A new window will pop up with JSON code. You only have to allow basic authentication for all IP addresses by putting "allow all" between the brackets. Search for the keyword "rest". The code in the security settings should look like this after editing:



Figure 7: Allow Basic Authentication as Admin.

After saving your changes in the JSON code, make sure to save your changes in the admin view before logging out.

* •••		: 🖻	> 0	Help	
					×
🖼 SAML settings 🛛 🛡 Sec	urity settings 🔚 Licence Warnings 🍈 Language 🗸 🛓 Upload Cettificates 🕥 Tracing 🧐 Reset Configuration 🛓 Download Template				
Connectors					_
Standard Login	Type STANDARD Enabled LDAP coupling: Disabled		ŗ	Û	
IDM Login	Type/DM Disabled LDAP-coupling Disabled		ŗ	Û	
SAML 1	Type SANL Disabled LDAP coupling: Disabled	۵	ŗ	Û]
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Figure 8: Save changes.

4. Test the ADONIS Connect for Power BI

Perform the following steps to test the ADONIS Connect for Power BI and fill the template with your BPM data.

- Start the services for ADONIS and open ADONIS in the browser. Then copy the BASE URL of your ADONIS version.
 Example: If you are running the web client locally, the URL should look like this: "http://localhost:8000/ADONIS14_0"
- 2. Open the predefined template that you have received from us via e-mail. A window should pop up asking you to enter your BASE URL:

Template for Process Mangemen	t Portfolio		
REST Basis URL 🛈			

Figure 9: Rest Basis URL.

3. Then enter the URL you copied earlier and add /rest/2.0/ at the end. **Example:** "http://localhost:8000/ADONIS14_0/rest/2.0/".

Note: Make sure that the ADONIS services are running, as Power BI pulls the ADONIS data directly from the ADONIS web client.

4. The data will not be able to load at first because you have to insert your ADONIS credentials to access the data in Power BI. A window will pop up, in which you have to switch to the "Basic" tab and enter your credentials.

	Access Web content	\times
Anonymous	http://localhost:8220/ADONIS14_0/rest/2.0/repos	
Windows	The password won't be encrypted when sent.	
Basic	User name	
Web API	Password	
Organizational account	Select which level to apply these settings to	
	http://localhost:8220/ADONIS14_0/rest/2.0 *	
	Connect Cancel]

Figure 10: Enter ADONIS credentials in Power BI.

5. Once all these steps have been completed, the template should be filled with your data and your data will be visualized in Power BI.



Figure 11: Power BI template with your ADONIS data.

5. Security

The fact that Basic Authentication has to be permitted for Power BI means that it is also generally enabled.

However, this should not cause any security problems, as the user's credentials as well as the repository and query ID are also required to gain access to the data

6. ADONIS 11.0 – 13.0

In ADONIS 11.0 - ADONIS 13.0 it is not possible to allow Basic Authentication in the Admin View of ADONIS. Step 4 in chapter 3.2 is therefore not to be executed. The rest remains the same. Instead of step 4, however, the following must be done:

Under the path webapps/<ADO>/WEB-INF/rest/RESTAuthorization.xml authentication must be allowed in the web application. To do this, one must remove the comments around <entry key="REST_BASIC_AUTHENTICATION">true</entry>. Open the file in a program where you can edit (e.g. Notepad). Then delete the comments as mentioned above.

The code should look this in the end:

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
<properties>
<comment>Trusted RESTful callers with their secret key</comment>
<!-- True of the rest authentication secret is encrypted, otherwise false -->
<entry key="ENCRYPTED">true</entry>
<!-- The key and its secret.
If the ENCRYPTED flag is set to true then the secret must be encoded via ADOxx API ado.util.encrypt
(recommended). -->
<!--<entry key="%KEY%">%SECRET%</entry>-->
</entry key="%KEY%">%SECRET%</entry>-->
</entry key="%KEY%">%SECRET%</entry>-->
</entry key="REST_BASIC_AUTHENTICATION">true</entry>

Make sure to restart the Web Server and the Application Server. After completing this step, you can continue by doing the steps described in chapter 4.