MakeDoc

# MakeDoc - User Manual

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CUSTOMER'S

LOGO

# Contents

# 1. Preface

MakeDoc for TIBCO is used to generate HTML, PDF and DOCX formatted documentation for TIBCO BusinessWorks, TIBCO BusinessEvents, TIBCO iProcess projects and TIBCO EMS Servers. The application is written in Java and is portable among different operating systems. Documentation can be generated from a TIBCO BW/BE/iProcess project folder, EMS Servers, TIBCO Designer EAR archives. MakeDoc for TIBCO can generate documentation from related design-time libraries (.projlib files) when configured properly.

The generated documentation is detailed and well organized. Text documentation is generated for all important components of TIBCO BW/BE/iProcess projects and EMS servers. The graphical representation of TIBCO BW processes, BE state machines and BE concept views is similar to the TIBCO Designer. XSD and WSDL diagrams are generated as well.

MakeDoc for TIBCO first creates the document in DITA format. The DITA format is transformed into the user selected formats: HTML, PDF and DOCX.

The **HTML document** is hyper-linked, which makes navigation easy and fast. The document consists of HTML documents organized in a tree structure. The main document index.html is stored in the snapshot_dir\html folder. Other files associated with the HTML document are saved in subfolders.

The **PDF document** is hyper-linked too. The contents of this document is also displayed in bookmarks. The document is stored in the snapshot_dir\pdf folder.

The **Microsoft Office Word 2007 Open XML Macro-Enabled Document** (.docm) file can be generated as well. The Microsoft Office Word is professional-looking document, which allows user fully customize generated documentation. The document is stored in the snapshot_dir\docx folder.

The generated document has the same contents in all output formats.

MakeDoc also provides **Quality Assurance** feature. This tool is able to check whether defined rules were followed in chosen projects and shows all occurences of violations of these rules. Quality Assurance output is generated with Project and Cross-reference part of documentation or as a standalone HTML document, which can be also opened from MakeDoc main window.

The next feature is **CrossReference**. This tool is able to start generating documentation of more then one documentation project type. It means that you can generate documentation of BW projects, BE projects in one step. And also make link between these projects.

The last but not least is **Repository Analyst** feature. This tool is able to compare two generated documentation and identify changes between these outputs.

# 2. MakeDoc Modules

MakeDoc has modular architecture based on OSGI industry standard.

Following modules are currently available:

- Base Module
- TIBCO Products
    - TIBCO BusinessWorks Module
    - TIBCO BusinessEvents Module
    - TIBCO EMS Module
    - TIBCO iProcess Module
- CrossReference Module
- RepositoryAnalyst Module
- QualityAssurance

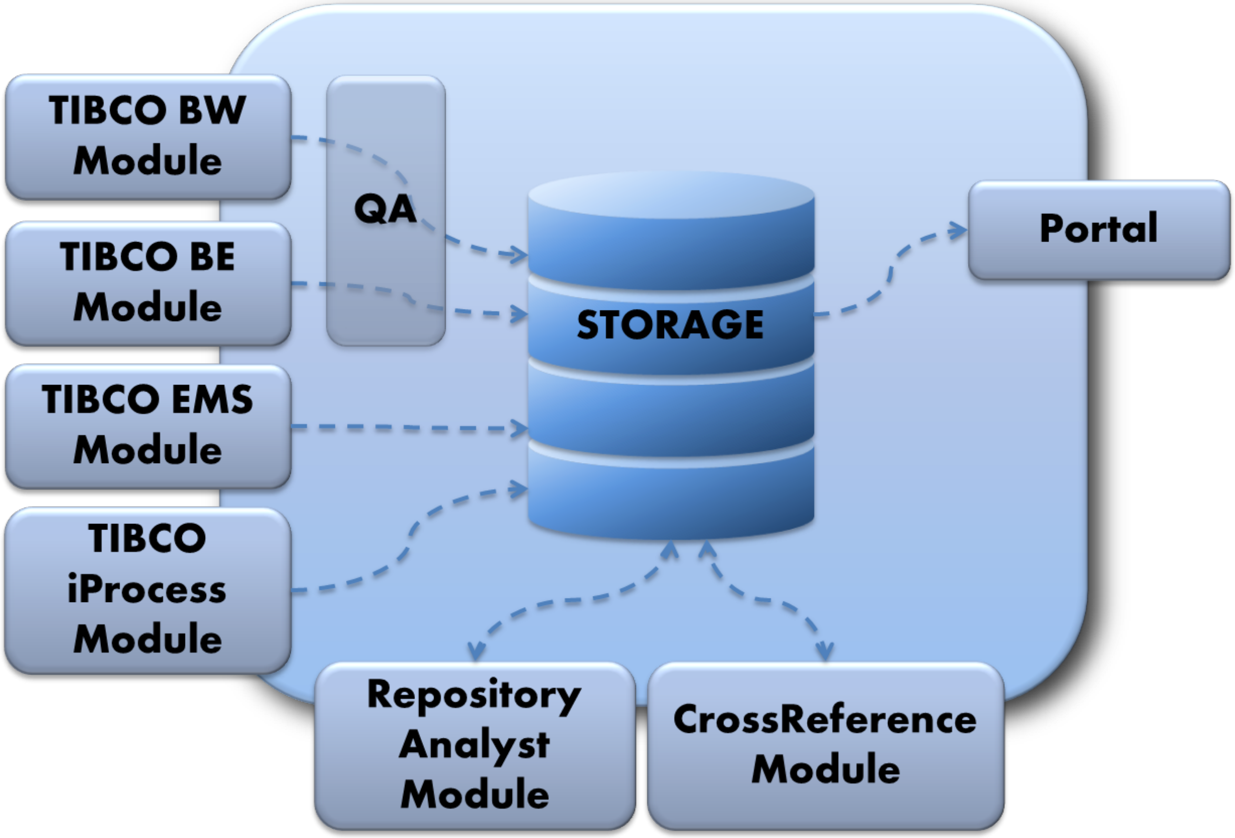


Figure1. MakeDoc Modular Architecture

## 2.1. Base Module

Base Module is prerequisite for all other modules. It must be installed before all others. You can image this like chassis of a car.

From end-user perspective there are three topics that brought by Base Module and therefore covered by this document:

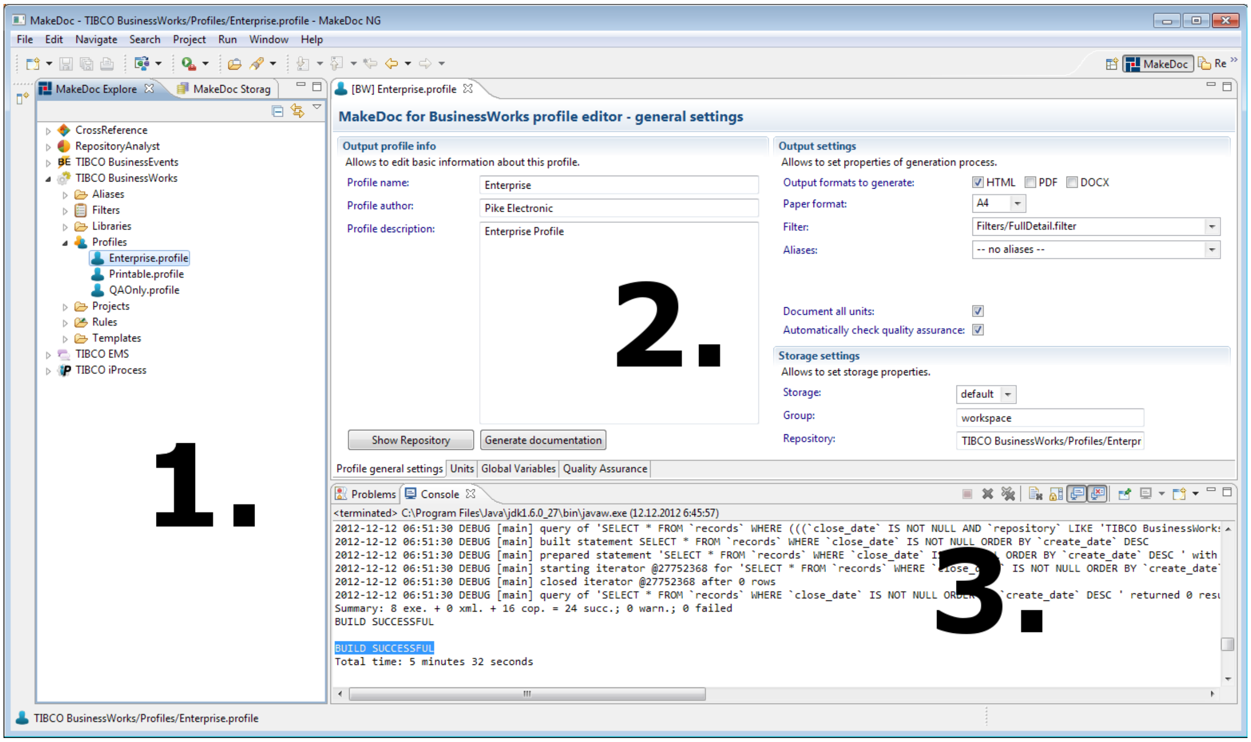
- Configuration principles
- GUI principles
- MakeDoc Storage
- MakeDoc Portal

## 2.1.1. Common GUI Principles

Base Module defines GUI principles that are common for all other modules. Complete MakeDoc GUI is Eclipse based application. Please refer Eclipse documentation for details.

### 2.1.1.1. Standard Workspace

Upon startup following workspace is displayed.



MakeDoc for BusinessWorks profile editor - general settings

**Output profile info**

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author: Pike Electronic

Profile description: Enterprise Profile

**Output settings**

Allows to set properties of generation process.

Output formats to generate: ☑ HTML □ PDF □ DOCX

Paper format: A4

Filter: Filters/FullDetail.filter

Aliases: -- no aliases --

Document all units: ☑

Automatically check quality assurance: ☑

**Storage settings**

Allows to set storage properties.

Storage: default

Group: workspace

Repository: TIBCO BusinessWorks/Profiles/Enterpr

```
<terminated> C:\Program Files\Java\jdk1.6.0_27\bin\javaw.exe (12.12.2012 6:45:57)
2012-12-12 06:51:30 DEBUG [main] query of 'SELECT * FROM `records` WHERE (((`close_date` IS NOT NULL AND `repository` LIKE 'TIBCO BusinessWork:
2012-12-12 06:51:30 DEBUG [main] built statement SELECT * FROM `records` WHERE `close_date` IS NOT NULL ORDER BY `create_date` DESC
2012-12-12 06:51:30 DEBUG [main] prepared statement 'SELECT * FROM `records` WHERE `close_date` I          ORDER BY `create_date` DESC ' with
2012-12-12 06:51:30 DEBUG [main] starting iterator @27752368 for 'SELECT * FROM `records` WHERE `close_       IS NOT NULL ORDER BY `create_date`
2012-12-12 06:51:30 DEBUG [main] closed iterator @27752368 after 0 rows
2012-12-12 06:51:30 DEBUG [main] query of 'SELECT * FROM `records` WHERE `close_date` IS NOT NULL OR        `create_date` DESC ' returned 0 resu
Summary: 8 exe. + 0 xml. + 16 cop. = 24 succ.; 0 warn.; 0 failed
BUILD SUCCESSFUL

BUILD SUCCESSFUL
Total time: 5 minutes 32 seconds
```

Figure2. Standard Workspace

1. **MakeDoc Explorer**

   Shows MakeDoc projects.
2. **Dialogs**

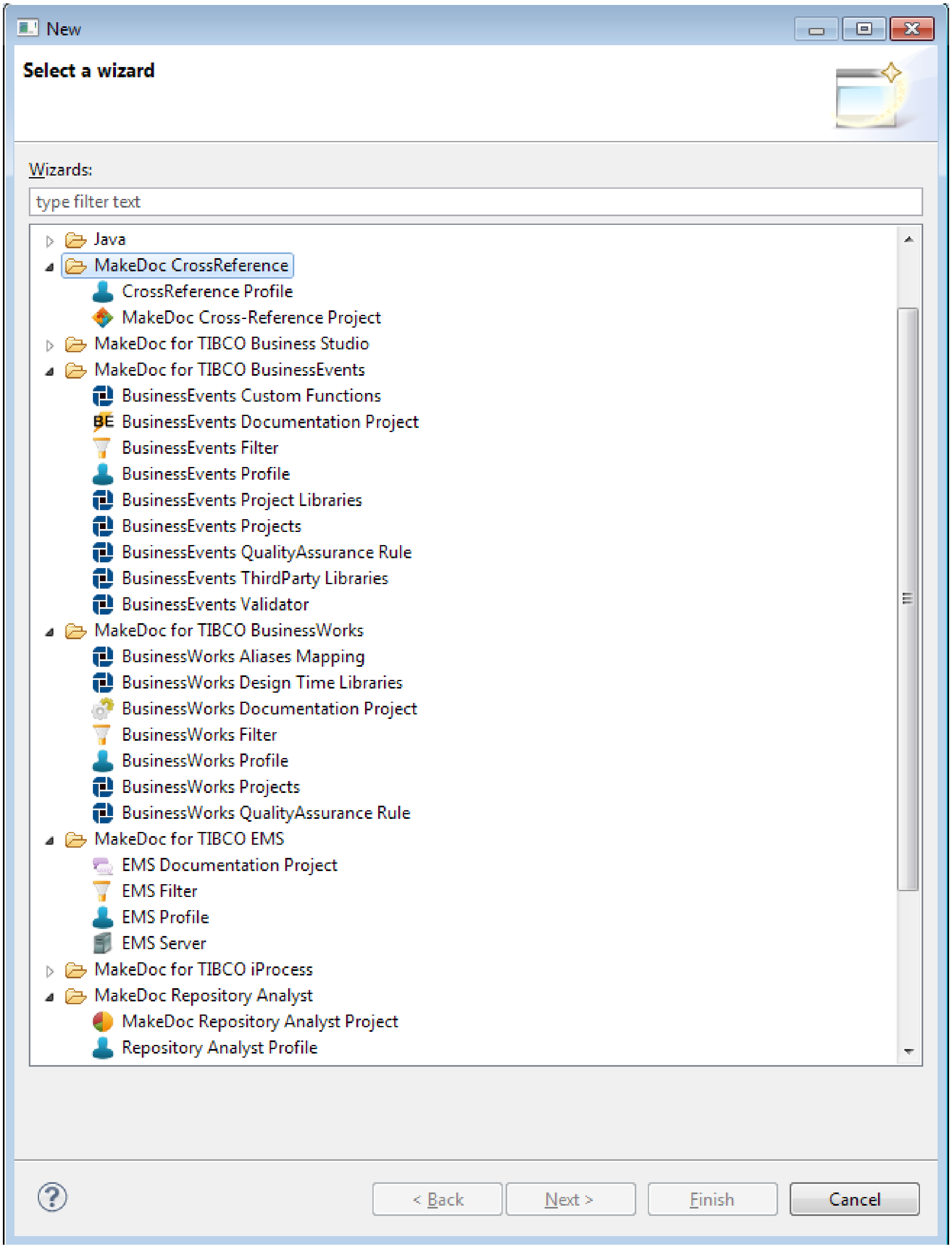
   All dialogs appears in this location.
3. **Console**

   After triggering generation process, the logs are displayed at this place.
4. **Problems**

   Validation works over the entire workspace and results (errors) are displayed right here.

### 2.1.1.2. Wizards

Every installed MakeDoc module has unique sets of objects that can compose its project. These objects are either projects or files within the projects. There is create wizard for each object.



New

Select a wizard

Wizards:

type filter text

- Java
- MakeDoc CrossReference
  - CrossReference Profile
  - MakeDoc Cross-Reference Project
- MakeDoc for TIBCO Business Studio
- MakeDoc for TIBCO BusinessEvents
  - BusinessEvents Custom Functions
  - BusinessEvents Documentation Project
  - BusinessEvents Filter
  - BusinessEvents Profile
  - BusinessEvents Project Libraries
  - BusinessEvents Projects
  - BusinessEvents QualityAssurance Rule
  - BusinessEvents ThirdParty Libraries
  - BusinessEvents Validator
- MakeDoc for TIBCO BusinessWorks
  - BusinessWorks Aliases Mapping
  - BusinessWorks Design Time Libraries
  - BusinessWorks Documentation Project
  - BusinessWorks Filter
  - BusinessWorks Profile
  - BusinessWorks Projects
  - BusinessWorks QualityAssurance Rule
- MakeDoc for TIBCO EMS
  - EMS Documentation Project
  - EMS Filter
  - EMS Profile
  - EMS Server
- MakeDoc for TIBCO iProcess
- MakeDoc Repository Analyst
  - MakeDoc Repository Analyst Project
  - Repository Analyst Profile

**Figure3. List of Wizards**

Once wizard is finished object is added into project.

### 2.1.2. Configuration

Base Module defines principles that are common for all other modules.

Main MakeDoc configuration location is

```
${user_home}/MakeDocConfig
```

. Every module has its own configuration file stored under this directory. For module specific configuration please refer Module's documentation.

Base Module configuration is stored in file

```
general.properties.
```

. There are several important properties.

| Parameter | Default value | Description |
|---|---|---|
| general.makedoc.prod | Set during installation. | Location where MakeDoc is installed. |
| general.licence.file | ${user.home}/MakeDocConfig/license/customer.key | Location of license key. |
| general.storages.register | JSON format | Register of storages, their locations. For details refer Storage documentation. |
| general.storages.portal.* | ' | Location of Portal templates and output directory. For details refer Portal documentation. |

### 2.1.3. Storage

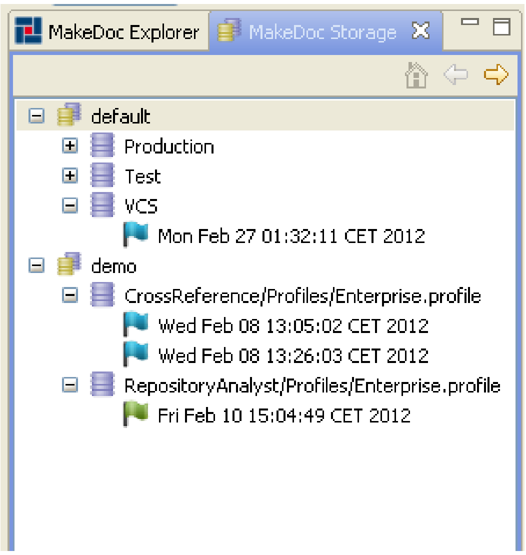
Storage is mutual component that maintains all generated documents. Every time MakeDoc generates documentation it is stored into separated directory on a hard disk and some Metadata goes also into embedded H2 SQL database.

Storage SQL database is started automatically after starting GUI or ANT job.

#### 2.1.3.1. GUI

Storage GUI is available upon startup as a stand-alone tab.

It displays on the first level storages available on system. The second level shows Repositories. Records are displayed on last level.



default
Production
Test
VCS
Mon Feb 27 01:32:11 CET 2012
demo
CrossReference/Profiles/Enterprise.profile
Wed Feb 08 13:05:02 CET 2012
Wed Feb 08 13:26:03 CET 2012
RepositoryAnalyst/Profiles/Enterprise.profile
Fri Feb 10 15:04:49 CET 2012

**Figure4. Storage GUI**

If Storage GUI is not visible go to Window->Show View->Other select MakeDoc->Storage.

It provides following functionality:

- **Browse generated outputs.** Generated documentation/logs/folders can be accessed via right->click menu or through buttons.
- **Regenerate outputs.** You can regenerate formats of the given snapshot.
- **Delete generated outputs.** Generated documentation (outputs) can be deleted via right->click menu. Several records can be selected by holding Shift or Ctrl button, these records can be also deleted together. Or all groups or repositories can be deleted via context menu.
- **Clean storage.** Storage can get into inconsistent state due to manual or administrative tasks. I.e. deletion of some records directly on disk. In this case it is necessary synchronized internal SQL database against disk directory. This can take a while on large installations.

### 2.1.3.2. ANT Interface

Besides GUI Interface there is also command-line interface, that enables Administrators interact with Storage from scripts.

To use ANT Interface use following in User_Home/MakeDocConfig directory:

```
ant -f commons storage.COMMAND
```

Following commands are available:

- **storage.start** It starts storage process.
- **storage.stop** It stops storage process.
- **storage.drop** It completely wipes out complete storage.
- **storage.cleanup** Storage can get into inconsistent state due to manual or administrative tasks. I.e. deletion of some records directly on disk. In this case it is necessary synchronized internal SQL database against disk directory. This can take a while on large installations.
- **storage.portal** It recreates web portal interface. See more Portal Module documentation for more details.

### 2.1.3.3. Configuration

Configuration of all storages are kept in ~/MakeDocConfig/general.properties file. Example of code:

```
general.storages.register={"storages":[      {         "name":"default",         "d
bLocation":"~/MakeDocConfig/storages/default.db",         "recLocation":"~/MakeDocC
onfig/storages/default"      }]}
general.storages.register={"storages":[      {         "nam
e":"default",         "dbLocation":"~/MakeDocConfig/storages/default.db",
   "recLocation":"~/MakeDoc
general.storages.register={"storages":[      {
     "name":"default",         "dbLocation":"~/MakeDocConfig/storages/default.d
b",         "recLocation"
general.storages.register={"storages":[      {
     "name":"default",         "dbLocation":"~/MakeDocConfig/storages/default.d
b",         "recLocation"
general.storages.register={"storages":
[      {         "name":"default",         "dbLocation":"~/MakeDocConfi
g/storages/default.db",
general.storages.register={"storage
s":[      {         "name":"defa
ult",         "dbLocation":"
 "name":
"
```

There can be defined more than one storage. Typically only one "default" storage is sufficient. Several modules like RepositoryAnalyst or CrossReference can work only on records stored within one storage.

## 2.1.4. Portal

Portal automatically creates web portal of all MakeDoc storages. This feature especially used on server installations.

### 2.1.4.1. Setup

Portal using template engine that enables generate several views to MakeDoc repository. It comes out of the box with predefined templates. Beside these predefined templates end-user also can create own templates. The engine is FreeMarker so the templates has to comply FreeMarker Templates Language.

Portal requires two directories as input. The first contains all templates. The second directory is output directory for generated html. Location of these directories is stored in general.properties file:

```
        general.storages.portal.src=${user.home}/MakeDocConfig/portal/src         gene
ral.storages.portal.out=${user.home}/MakeDocConfig/portal/out
        general.storages.por
tal.src=${user.home}/MakeDocConfig/portal/src         general.storag
src=${user
```

### 2.1.4.2. Generated Output

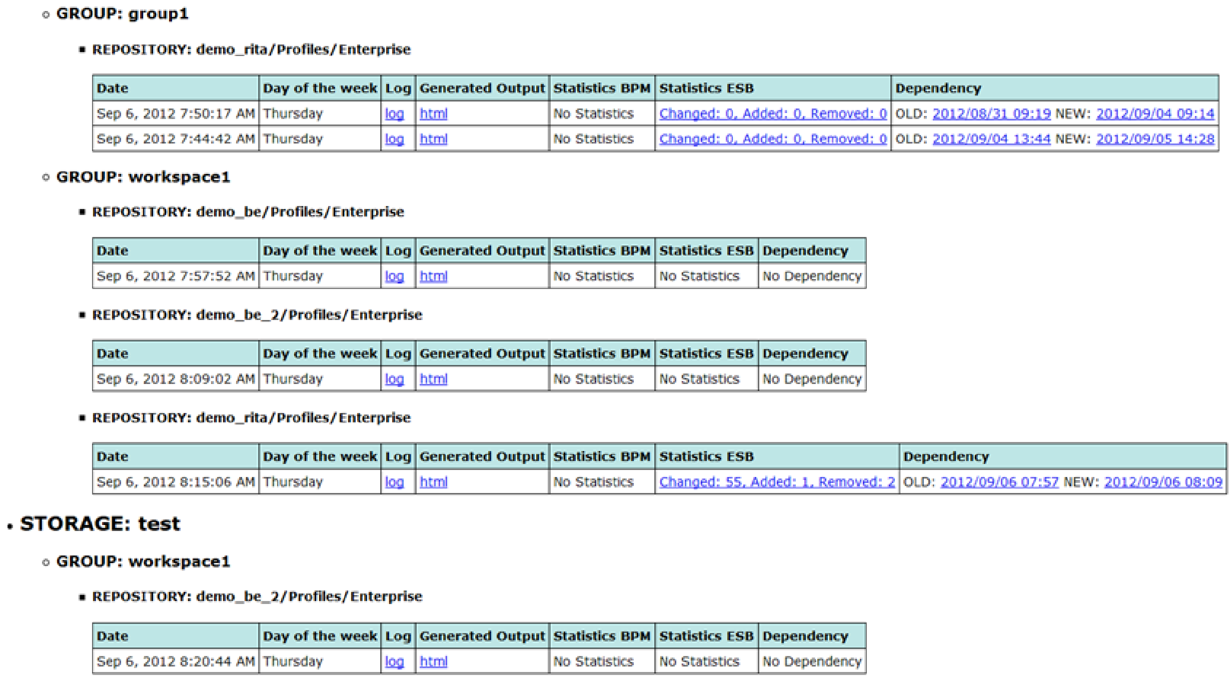
Portal generates a HTML output and describe your MakeDoc Storage environment. It also provides easy way how to get MakeDoc outputs. Portal has 2 basic layouts:

- **Single page layout** - all storages are displayed at one page as a list of storages.
- **Multi page layout** - storages are displayed as a list of links to separated pages on the main page.

Every record in table has 6 columns and represents output of one generation process.

- **Date -** date of the generation process.

- **Day of week** - which day of the week.
- **Generated output** - set of the formats (HTML, PDF, DOCX), that was generated and they are displayed like a direct links to these outputs.
- **Statistics BPM** - this column contains statistics when generated output of BPM is Repository Analytics type. Displays counts of added, changed, removed items of the projects as links to the RA outputs.
- **Statistics ESB** - this column contains statistics when generated output of ESB is Repository Analytics type. Displays counts of added, changed, removed items of the projects as links to the RA outputs.
- **Dependency** - contains compared snapshots (OLD and NEW), when generated output is Repository Analytics type.



○ **GROUP: group1**

■ **REPOSITORY: demo_rita/Profiles/Enterprise**

| Date | Day of the week | Log | Generated Output | Statistics BPM | Statistics ESB | Dependency |
|---|---|---|---|---|---|---|
| Sep 6, 2012 7:50:17 AM | Thursday | log | html | No Statistics | Changed: 0, Added: 0, Removed: 0 | OLD: 2012/08/31 09:19 NEW: 2012/09/04 09:14 |
| Sep 6, 2012 7:44:42 AM | Thursday | log | html | No Statistics | Changed: 0, Added: 0, Removed: 0 | OLD: 2012/09/04 13:44 NEW: 2012/09/05 14:28 |

○ **GROUP: workspace1**

■ **REPOSITORY: demo_be/Profiles/Enterprise**

| Date | Day of the week | Log | Generated Output | Statistics BPM | Statistics ESB | Dependency |
|---|---|---|---|---|---|---|
| Sep 6, 2012 7:57:52 AM | Thursday | log | html | No Statistics | No Statistics | No Dependency |

■ **REPOSITORY: demo_be_2/Profiles/Enterprise**

| Date | Day of the week | Log | Generated Output | Statistics BPM | Statistics ESB | Dependency |
|---|---|---|---|---|---|---|
| Sep 6, 2012 8:09:02 AM | Thursday | log | html | No Statistics | No Statistics | No Dependency |

■ **REPOSITORY: demo_rita/Profiles/Enterprise**

| Date | Day of the week | Log | Generated Output | Statistics BPM | Statistics ESB | Dependency |
|---|---|---|---|---|---|---|
| Sep 6, 2012 8:15:06 AM | Thursday | log | html | No Statistics | Changed: 55, Added: 1, Removed: 2 | OLD: 2012/09/06 07:57 NEW: 2012/09/06 08:09 |

• **STORAGE: test**

○ **GROUP: workspace1**

■ **REPOSITORY: demo_be_2/Profiles/Enterprise**

| Date | Day of the week | Log | Generated Output | Statistics BPM | Statistics ESB | Dependency |
|---|---|---|---|---|---|---|
| Sep 6, 2012 8:20:44 AM | Thursday | log | html | No Statistics | No Statistics | No Dependency |

**Figure5. Portal example**

## 2.2. TIBCO BusinessWorks Module

TIBCO BusinessWorks module allows user to generate documentation from selected TIBCO BusinessWorks sources, such as directories with sources or EARs, and TIBCO BusinessEvents up to version 3.0.

### 2.2.1. Configuration

Configuration of MakeDoc for TIBCO BusinessWorks module is stored in ${user.home}/MakeDocConfig/falcon.properties.

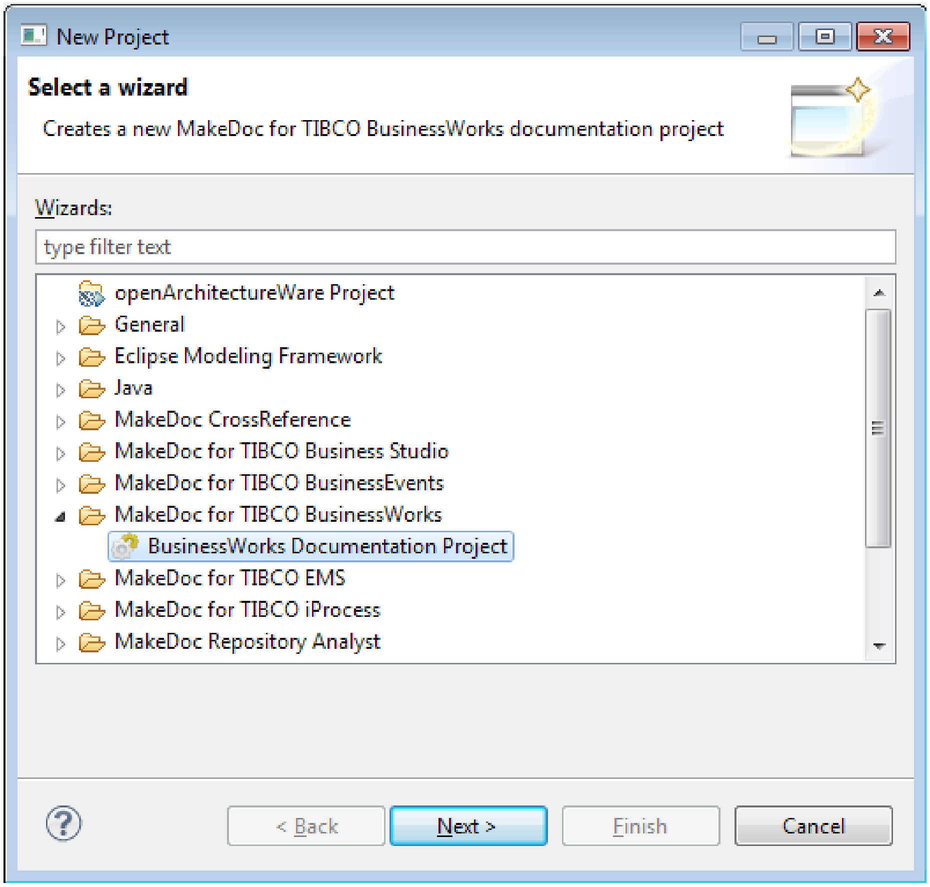
Property file contains:

```
 # falcon engine internal configuration falcon.config=${user.home}/MakeDocConfig/fal
con/engine.properties settings.module=FALCON settings.type=SNAPSHOT # paths to TIBCO
 products # TIBCO home tibco.home_path= # TIBCO BusinessWorks home tibco.bw_home= #
 TIBCO BusinessEvents home (up to 3.0) tibco.oldbe_home= # TIBCO runtime agent home
 tibco.tra_home=
 # falcon engine internal configuration falcon.config=${user
.home}/MakeDocConfig/falcon/engine.properties settings.module=FALCON settings.type
=SNAPSHOT # paths to TIBCO products # TIBCO home tibco.home_path= # TIBCO BusinessWorks
 home tibco.bw_home= # TIBCO BusinessEvents home (up to 3.0) tibco.oldbe_home=
 # TIBCO runtime agent home tibco.
 # falcon engine intern
al configuration falcon.config=${user.home}/MakeDocConfig/falcon/engine
.properties settings.module=FALCON settings.type=SNAPSHOT # paths to TIBCO
 products # TIBCO home tibco.home_path= # TIBCO BusinessWorks home tibco.bw_home= #
TIBCO BusinessEvents home (up to 3.0)
 # falcon engine intern
al configuration falcon.config=${user.home}/Ma
keDocConfig/falcon/engine.properties settings.module=FALCON settings.type=S
NAPSHOT # paths to TIBCO products # TIBCO home tibco.home_path= # TIBCO BusinessWorks home
tibco.bw_home= # TIBCO BusinessE
 # falcon engine intern
al configuration falcon.
config=${user.home}/MakeDocConfig/falcon/engine.properties settings.module=FAL
CON settings.type=SNAPSHOT # paths to TIBCO products # TIBCO home tibco.home_pat
h= # TIBCO BusinessWorks home tibco.bw_
 # falcon engine intern
al configuration fal
con.config=${user.home}/MakeDocConfig/falcon/engine.properties settings.m
odule=FALCON settings.type=SNAPSHOT # paths to TIBCO products # TIBCO home tibco.hom
e_path= # TIBCO BusinessWorks home tibco.b
 # falcon engine intern
al configuration fal
con.config=${user.home}/MakeDocConfig/falcon/engine.properties settings.
module=FALCON settings.type=SNAPSHOT # paths to TIBCO products # TIBCO home tibco.h
ome_path= # TIBCO BusinessWorks home tibco
 # falcon engine intern
al configuration fal
con.config=${user.home}/MakeDocConfig/falcon/engine.prop
erties settings.module=FALCON settings.type=SNAPSHOT # paths to TIBCO products #
TIBCO home tibco.home_path= # TIBCO
 # falcon engine intern
al configuration fal
con.config=${user.home}/MakeDocConfig/falcon/engine.
properties settings.module=FALCON settings.type=SNAPSHOT # paths to TIBCO products
 # TIBCO home tibco.home_path= #
 # falcon engine intern
al configuration
 falcon.config=${user.home}/MakeDocC
onfig/falcon/engine.properties settings.module=FALCON settings.type=SNAPSH
OT # paths to TIBCO products # TIBCO home tibco.h
 # falcon engine intern
al configuration
 falcon.config=${user.home}/MakeDocC
onfig/falcon/engine.properties settings.module=FALCON settings.
type=SNAPSHOT # paths to TIBCO products # TIBCO
 # falcon engine intern
al configuration
 falcon.config=${user.home}/MakeDocC
onfig/falcon/engine.properties settings.module
=FALCON settings.type=SNAPSHOT # paths to
 # falcon engine intern
al configuration
 falcon.config=${user.home}/MakeDocC
onfig/falcon/engine.properties settings.m
odule=FALCON settings.type=SNAPSHOT #
tings.ty
```

### 2.2.2. Setup

This chapter provides step-by-step tutorial how to automatically generate documentation for TIBCO BusinessWorks integration projects by the help of MakeDoc for TIBCO BusinessWorks (BW) module. In this chapter some terms defined in previous chapters are used.

To successfully generate TIBCO BusinessWorks documentation we need to create instance of MakeDoc for TIBCO Business Works project. To do so go to File -> New -> Other or use shortcut Ctrl+N. Then expand MakeDoc for TIBCO Business Works folder and choose MakeDoc for TIBCO Business Works documentation project.



New Project

**Select a wizard**

Creates a new MakeDoc for TIBCO BusinessWorks documentation project

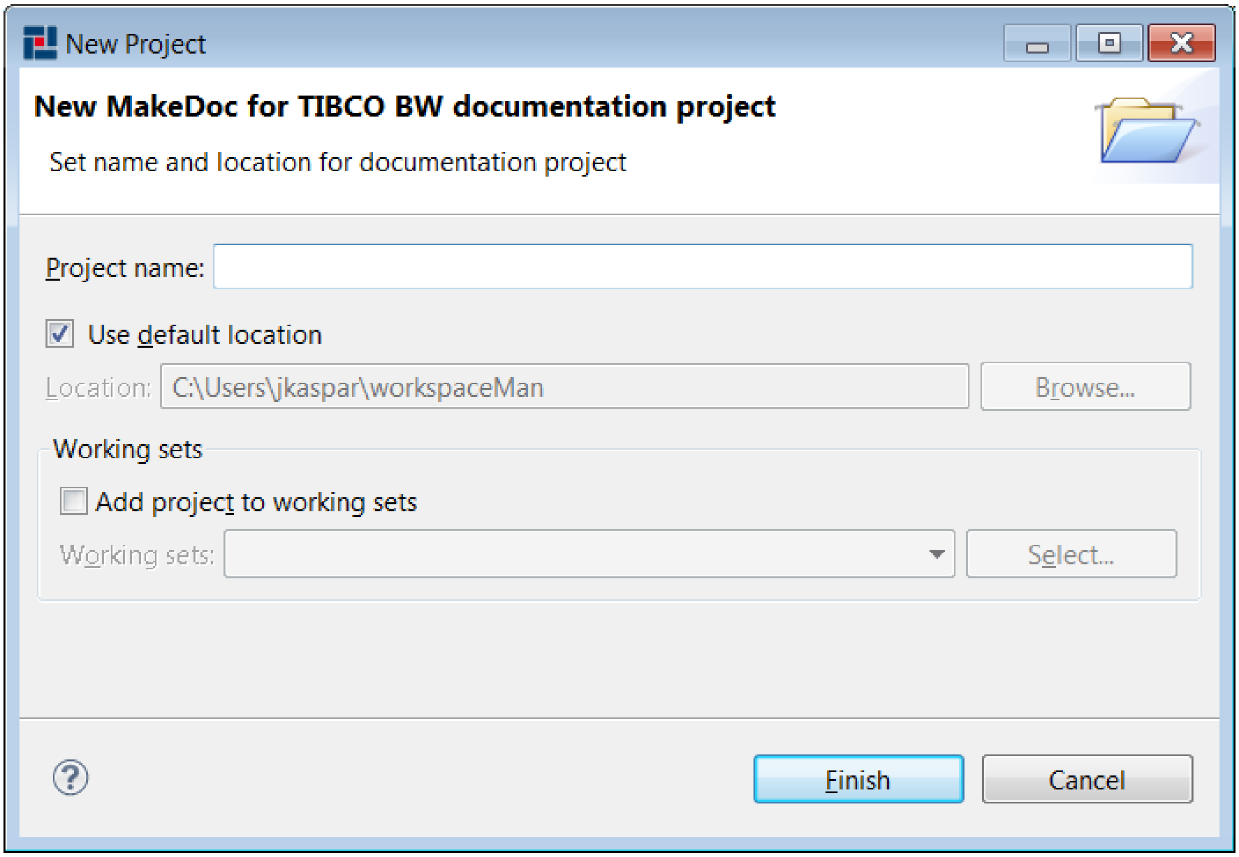
Wizards:

type filter text

- openArchitectureWare Project
- General
- Eclipse Modeling Framework
- Java
- MakeDoc CrossReference
- MakeDoc for TIBCO Business Studio
- MakeDoc for TIBCO BusinessEvents
- MakeDoc for TIBCO BusinessWorks
  - BusinessWorks Documentation Project
- MakeDoc for TIBCO EMS
- MakeDoc for TIBCO iProcess
- MakeDoc Repository Analyst

**Figure6. Creating new MakeDoc for BW documentation project**

MakeDoc shows wizard which helps us to create our MakeDoc BW documentation project. We need to provide project name and click Finish. This name distinguish this project from other created projects.



New Project

**New MakeDoc for TIBCO BW documentation project**

Set name and location for documentation project

Project name:

☑ Use default location

Location: C:\Users\jkaspar\workspaceMan

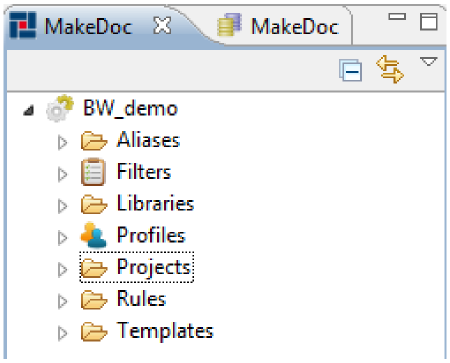
Working sets

☐ Add project to working sets

Working sets:

Figure7. **Setting the name of the new project**

MakeDoc will now create BW documentation project with basic structure.



- BW_demo
  - Aliases
  - Filters
  - Libraries
  - Profiles
  - Projects
  - Rules
  - Templates

Figure8. **Initial documentation project structure**

Remember that MakeDoc uses file-based philosophy. Almost every element in MakeDoc terminology is represented by a file.

These elements are:

- **Project (.project)** - represents one integration project (in this case one TIBCO BW project), term documentation unit can be used too in next paragraphs.
- **Library (.library) -** optional, represents one TIBCO BW Design time library (DTL)

- **Aliases (.aliases)** - optional, represents alias to DTL mapping. More than one alias can be mapped to one DTL.
- **Profile (.profile)** - uses all previously defined elements to define one specific MakeDoc for TIBCO BW run.

Note: folder "Templates" contains XSL templates and other files needed to generate documentation for TIBCO BW. By editing these templates user can influence final appearance of generated documentation. Purposes of folders Filters and Rules are explained in other parts of this user manual.

For every type of file corresponding folder is created. It is recommended to use corresponding folders for files but it is not necessary.

In following parts we will create all these elements to successfully generate our documentation.

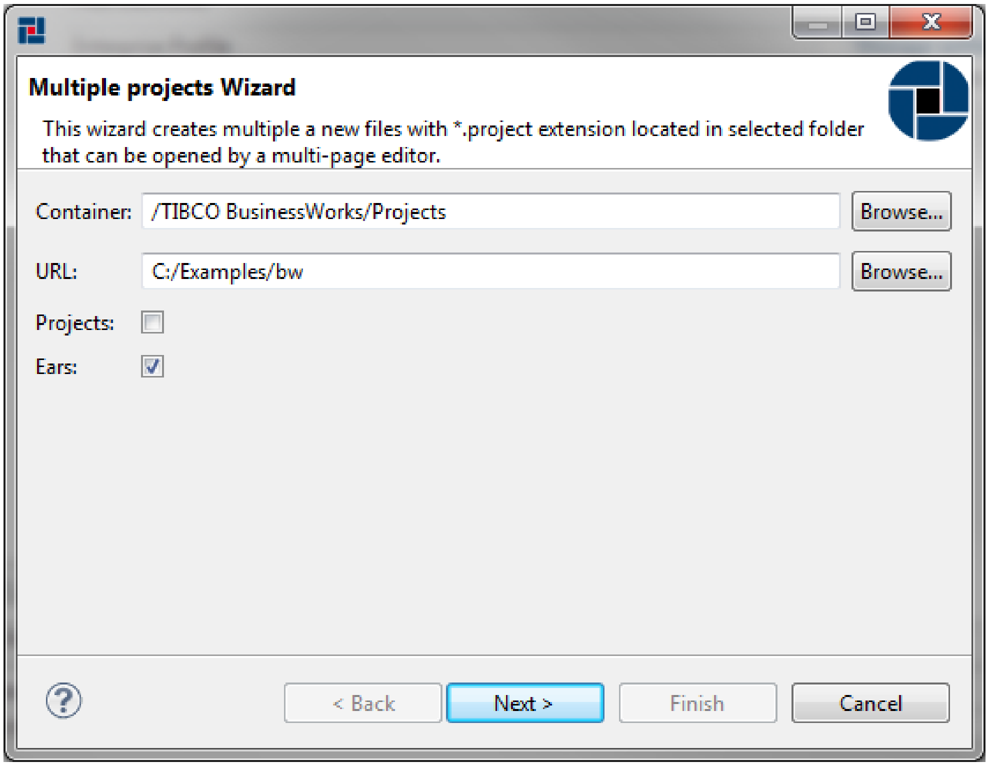
### 2.2.2.1. Working with projects

Integration projects are in MakeDoc represented by files with .project extension in general. Let's create some of these files. We can create more .project files in one step in batch manner.

At first try to create one .project file. We can create it by adding source folder or deployment file. Right-click on Projects folder in MakeDoc Explorer and choose New->BusinessWorks project.

Because adding units one by one is not effectively in most cases, MakeDoc can add multiple units in one step for you. For this purpose New Multiple BusinessWorks projects wizard was designed. Right-click on Projects and choose New->BusinessWorks projects. Navigate to ${MAKEDOC_HOME}/demo/tibco/input-/1/bw. MakeDoc will search for all TIBCO BW Projects stored in this folder. It is possible to search for:

- source folders
- deployments
- both - folders and deployments



Multiple projects Wizard

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

Container: /TIBCO BusinessWorks/Projects

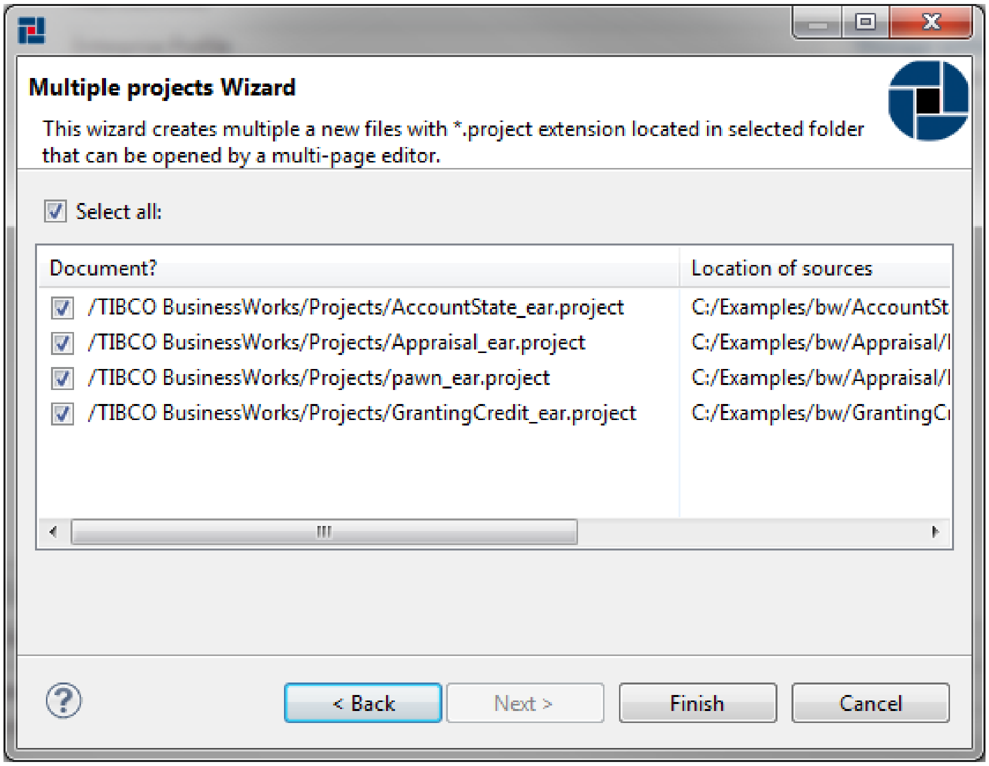
URL: C:/Examples/bw

Projects: □

Ears: ☑

Figure9. New Multiple BusinessWorks projects wizard

Let's say that we would like to add deployments only so uncheck "Projects" and click Next. Wizard automatically detects deployments configurations if there is configuration file with same name in folder with target deployment.



**Multiple projects Wizard**

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ /TIBCO BusinessWorks/Projects/AccountState_ear.project | C:/Examples/bw/AccountSt |
| ☑ /TIBCO BusinessWorks/Projects/Appraisal_ear.project | C:/Examples/bw/Appraisal/I |
| ☑ /TIBCO BusinessWorks/Projects/pawn_ear.project | C:/Examples/bw/Appraisal/I |
| ☑ /TIBCO BusinessWorks/Projects/GrantingCredit_ear.project | C:/Examples/bw/GrantingCı |

Figure10. New Multiple BusinessWorks projects wizard - search results

Click Finish to add all deployment files. Projects folder now contains four items as shows following image.

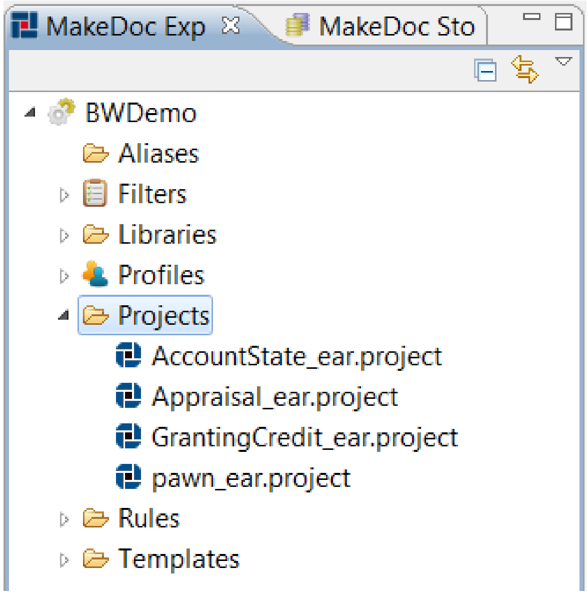
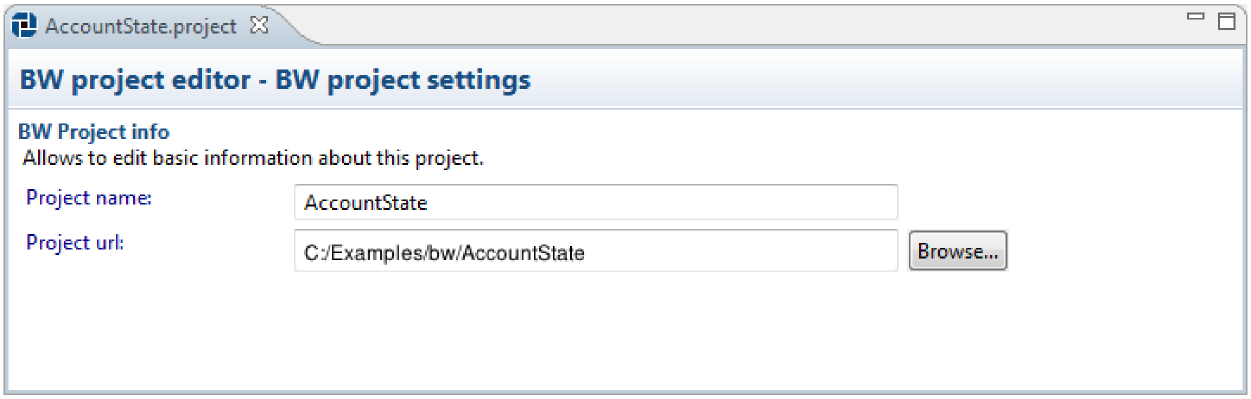


Figure11. **MakeDoc Explorer - added units**

So we have successfully added new units we need to document. To be able to change configuration of existing projects MakeDoc provides project editor. This editor starts when .project file is clicked.



BW project editor - BW project settings

BW Project info

Allows to edit basic information about this project.

Project name: AccountState

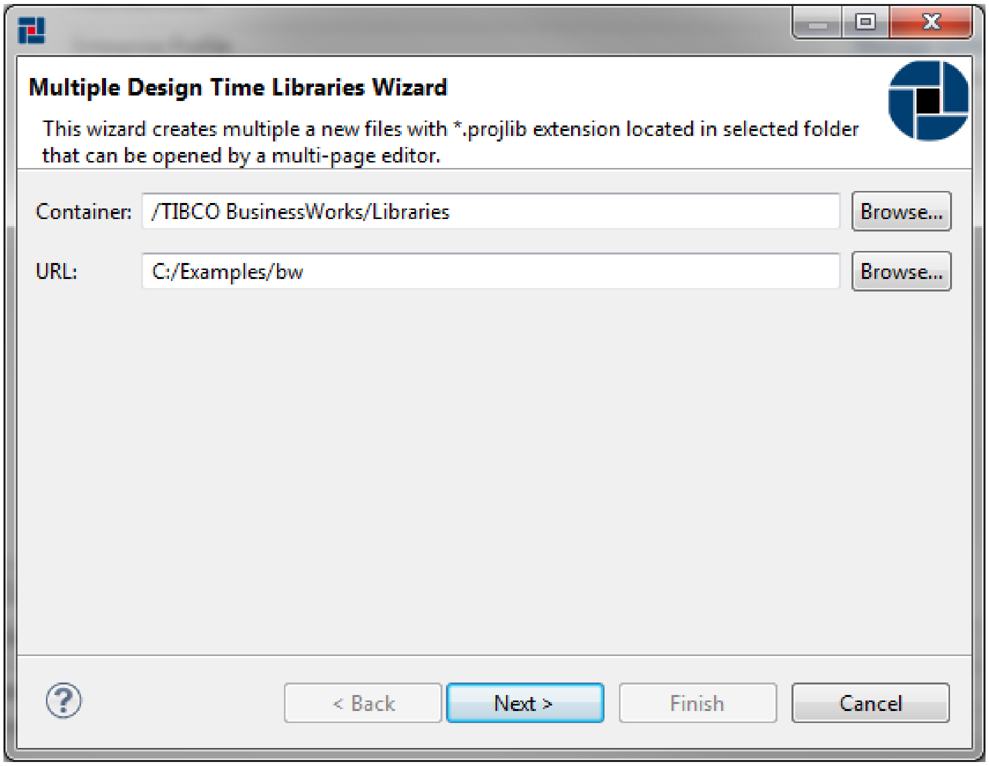
Project url: C:/Examples/bw/AccountState

Figure12. **Project editor**

### 2.2.2.2. Working with design time libraries and aliases

MakeDoc is able to document TIBCO BusinessWorks design time libraries. In this chapter we will go through DTL setup. As well as other resources DTL is represented by file. To document DTL we have to add DTL resource to our documentation project. Process of adding DTL is very similar to project creation. It holds wizard-editor fashion and offers batch DTLs files creation too.

To add DTLs files click right-click on Libraries folder in MakeDoc Explorer and run New->BusinessWorks Design Time Libraries. MakeDoc starts DTLs files creation wizard. Click Browse and navigate to the folder you would like to recursively search DTLs for. In this example it is C:/Examples/bw.



Multiple Design Time Libraries Wizard

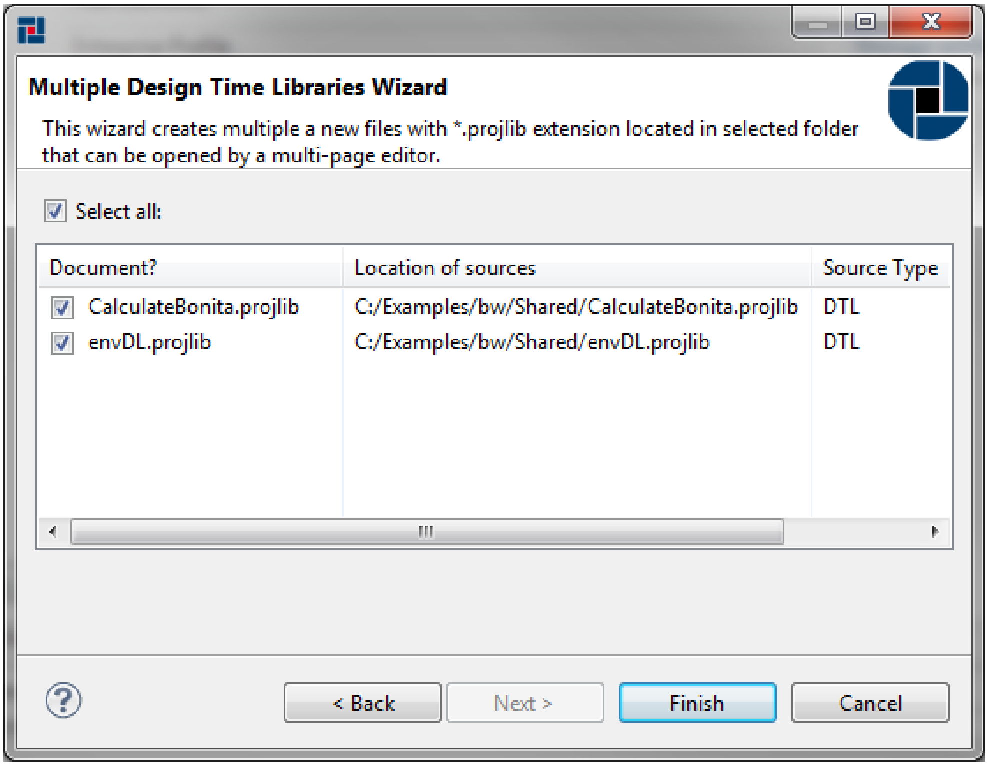
This wizard creates multiple a new files with *.projlib extension located in selected folder that can be opened by a multi-page editor.

Container: /TIBCO BusinessWorks/Libraries

URL: C:/Examples/bw

Figure13. **New multiple BusinessWorks Project Libraries Wizard**

MakeDoc will now search for DTLs in selected folder. By default all detected libraries are selected for addition.



Multiple Design Time Libraries Wizard

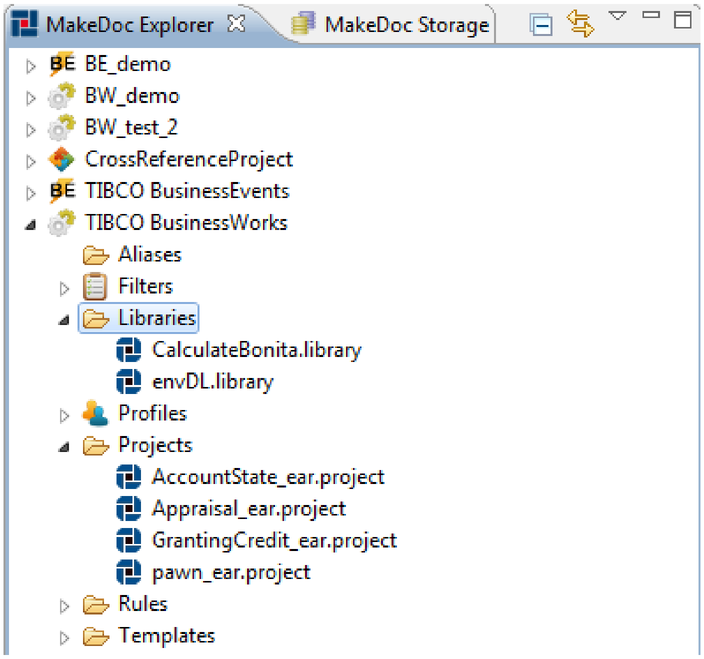
This wizard creates multiple a new files with *.projlib extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources | Source Type |
|---|---|---|
| ☑ CalculateBonita.projlib | C:/Examples/bw/Shared/CalculateBonita.projlib | DTL |
| ☑ envDL.projlib | C:/Examples/bw/Shared/envDL.projlib | DTL |

**Figure14. Add multiple BusinessWorks Project Libraries Wizard - result page**

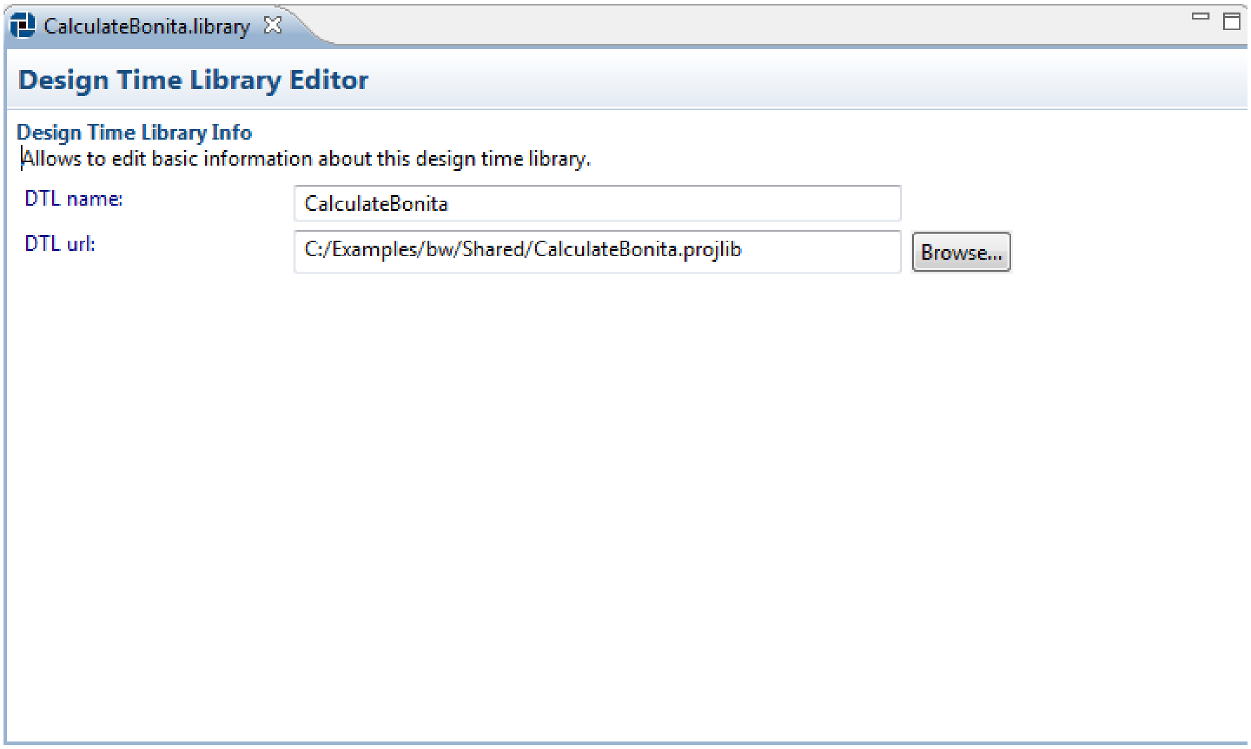
Click Finish to add DTLs to our project. MakeDoc Explorer now should look like this:



- BE_demo
- BW_demo
- BW_test_2
- CrossReferenceProject
- TIBCO BusinessEvents
- TIBCO BusinessWorks
  - Aliases
  - Filters
  - Libraries
    - CalculateBonita.library
    - envDL.library
  - Profiles
  - Projects
    - AccountState_ear.project
    - Appraisal_ear.project
    - GrantingCredit_ear.project
    - pawn_ear.project
  - Rules
  - Templates

**Figure15. MakeDoc Explorer - added libraries**

To edit DTL settings just click on corresponding file and DTL editor is opened immediately.



Design Time Library Editor

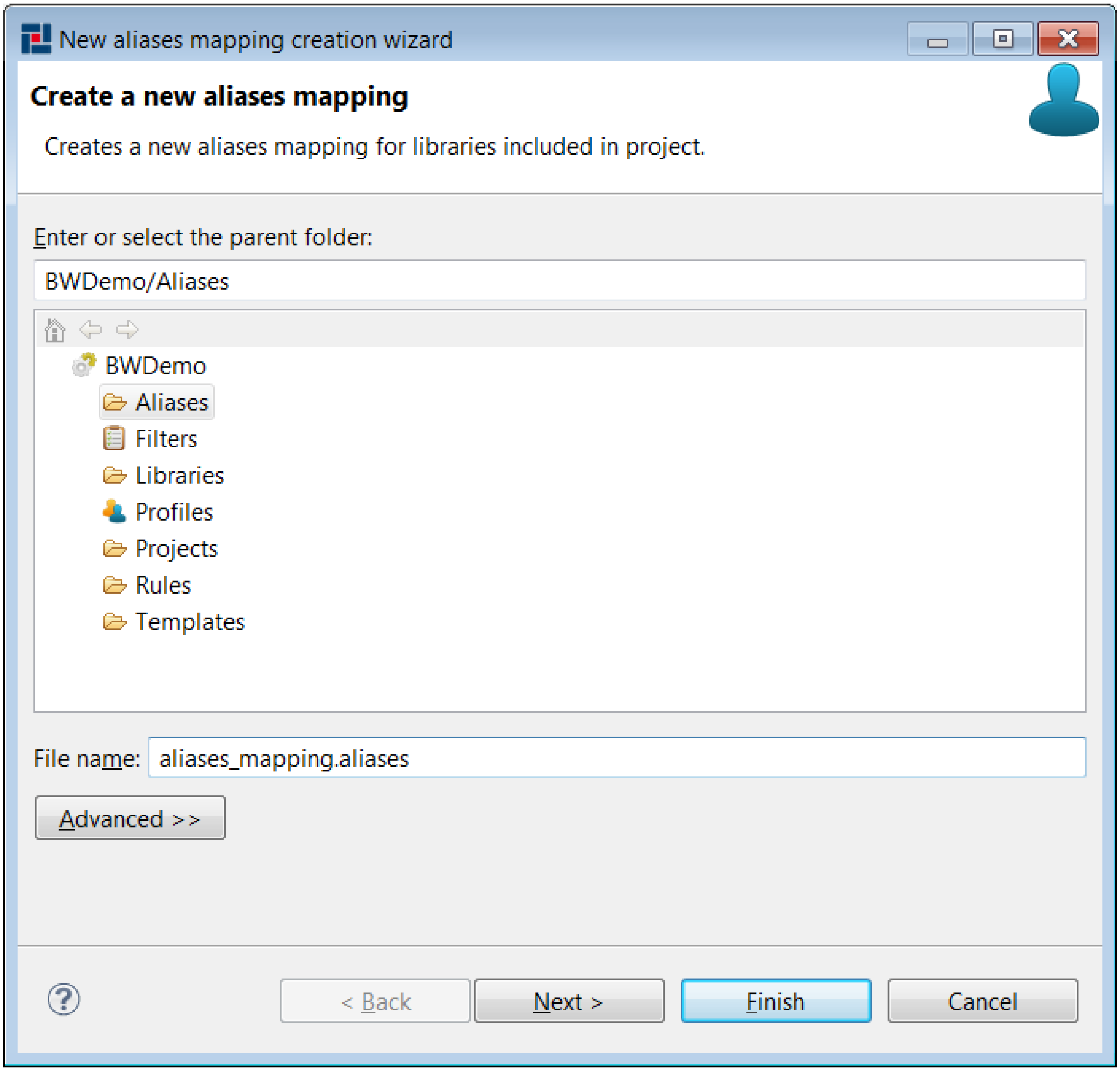
Design Time Library Info

Allows to edit basic information about this design time library.

DTL name: CalculateBonita

DTL url: C:/Examples/bw/Shared/CalculateBonita.projlib

Figure16. **DTL file editor**



New aliases mapping creation wizard

Create a new aliases mapping

Creates a new aliases mapping for libraries included in project.

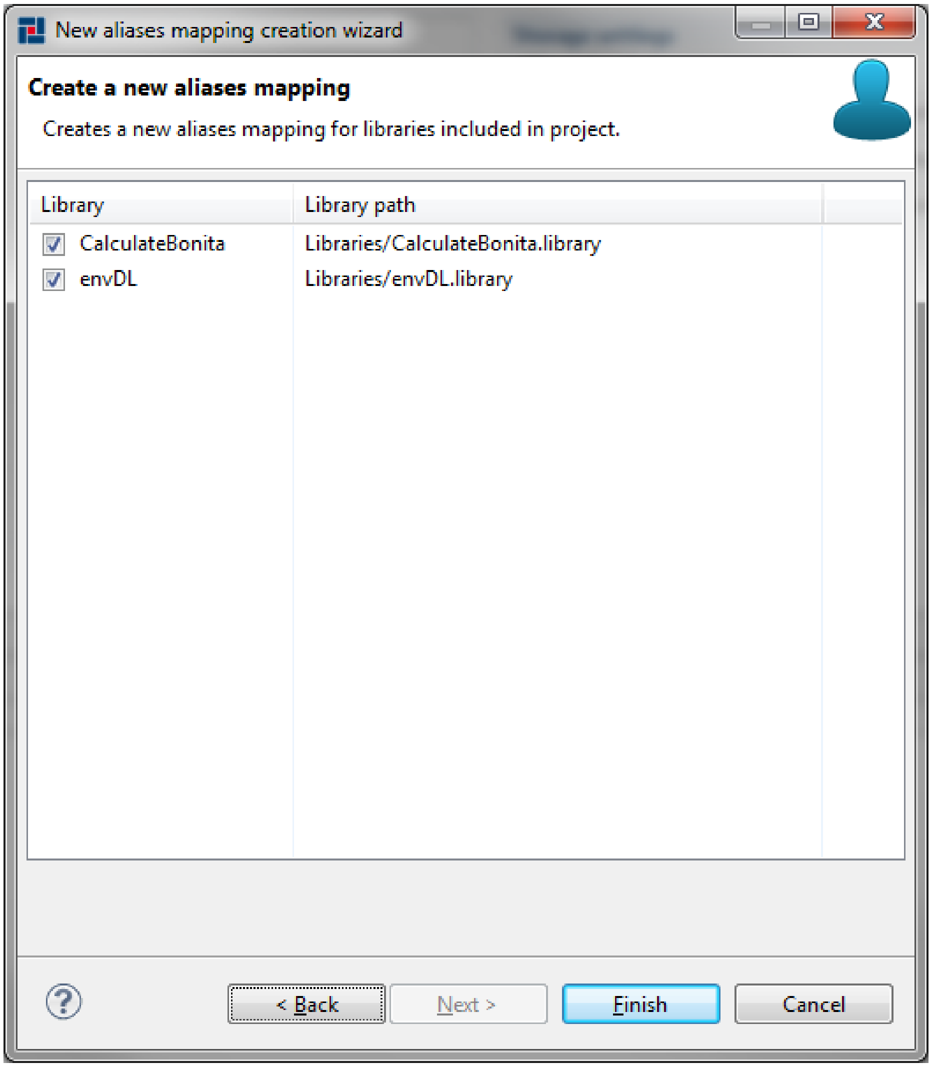
Enter or select the parent folder: BWDemo/Aliases

File name: aliases_mapping.aliases

Figure17. **Aliases mapping creation wizard**

To successfully document DTLs we need to do one more step - define alias-to-library mapping. It's the same as in previous parts, MakeDoc has pair wizard-editor for this task. Go to MakeDoc Explorer, open context menu for Aliases folder and run New->BusinessWorks Aliases Mapping. On the first page enter file name for newly created aliases mapping file. Aliases file has extension .aliases but there is no need to enter it, MakeDoc adds it for you automatically. Click Next.

Next page shows simple default mapping. By default alias has the same name as library file alias is mapped to.


New aliases mapping creation wizard

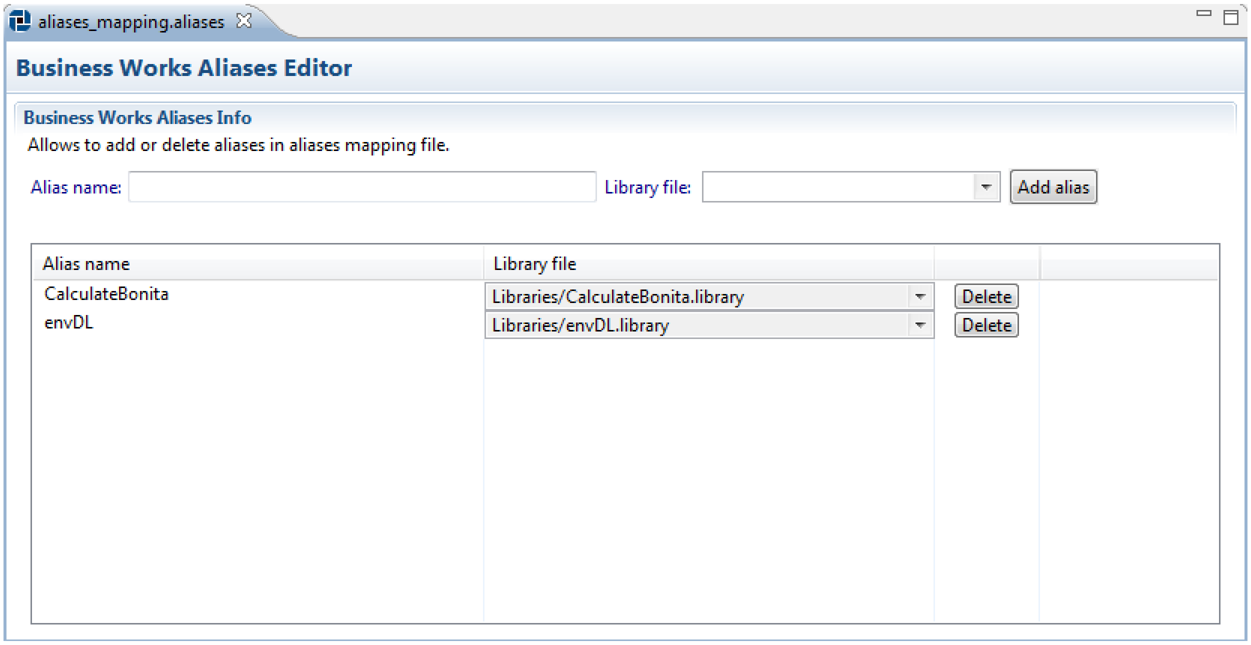
**Create a new aliases mapping**

Creates a new aliases mapping for libraries included in project.

| Library | Library path |
|---|---|
| ☑ CalculateBonita | Libraries/CalculateBonita.library |
| ☑ envDL | Libraries/envDL.library |

**Figure18. Default aliases mapping**

If this not meet user's requirements there is an editor provided. This editor is opened when user clicks on aliases mapping file. By the help of this editor it is possible to fine-tune aliases mapping. It is possible to add new alias, delete it, change name of alias or change library file it is mapped to. Dropdown-lists are pre-filled with all the DTLs our project consist of.



Allows to add or delete aliases in aliases mapping file.

| Alias name | Library file | |
|---|---|---|
| CalculateBonita | Libraries/CalculateBonita.library | Delete |
| envDL | Libraries/envDL.library | Delete |

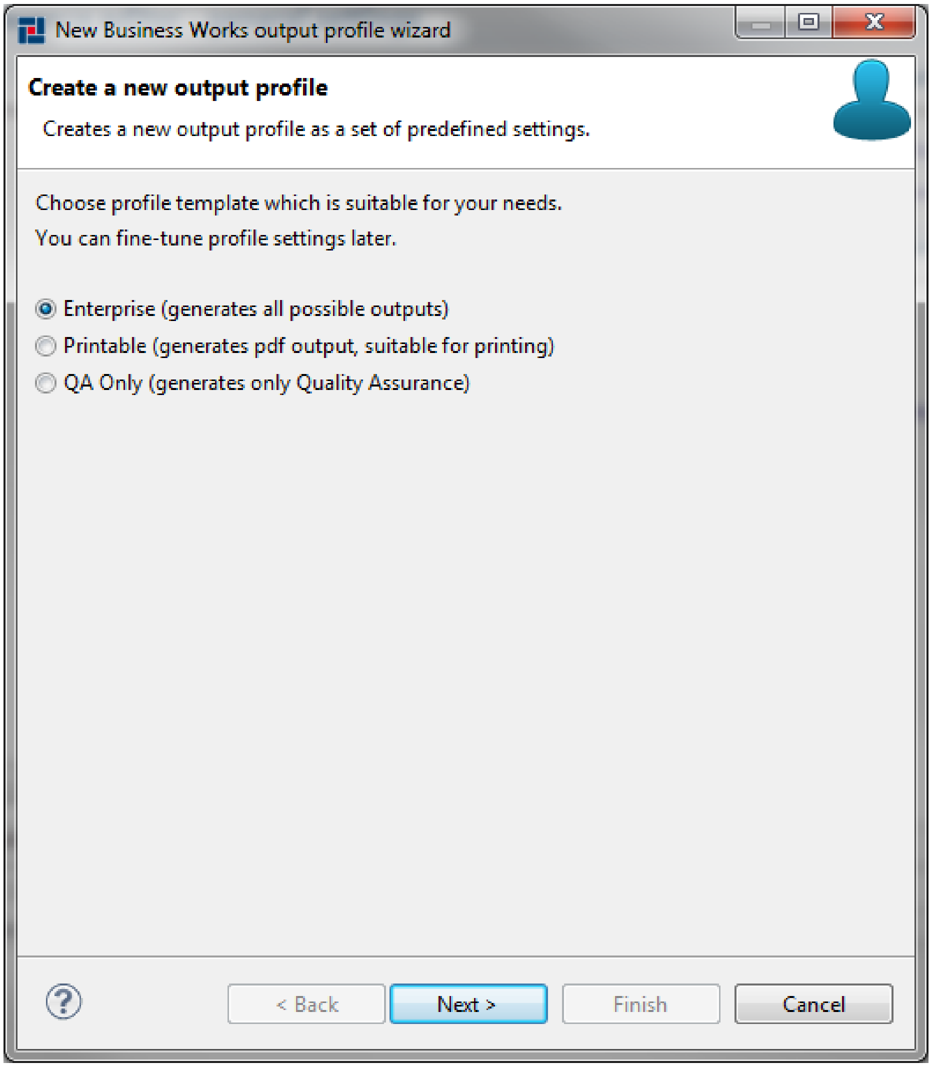
Figure19. **Aliases mapping editor**

### 2.2.2.3. Working with profiles

At this moment we are almost ready to generate documentation of TIBCO BusinessWorks middleware. We have defined all prerequisites. Last step remains. We need to create profile. Profile is MakeDoc artifact represented by file as well as other artifacts we know already. Profile aggregates all artifacts defined in previous steps. We can say that profile defines properties of one MakeDoc for TIBCO BusinessWorks generation run and allows us to start it.

Every MakeDoc for TIBCO BusinessWorks documentation project comes with three profiles (Enterprise.profile, Printable.profile, QAOnly.profile). If user needs explicitly create another one there is wizard-editor pair provided to achieve this.

Right-click on Profiles folder in MakeDoc Explorer and choose New->BusinessWorks Profile. First page let us decide which profile template use as default configuration of our new profile. There are three options. Enterprise profile is preconfigured to generate full documentation, Printable profile is suitable for printing, QAOnly generate only Quality Assurance Documentation.



**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Choose profile template which is suitable for your needs.

You can fine-tune profile settings later.

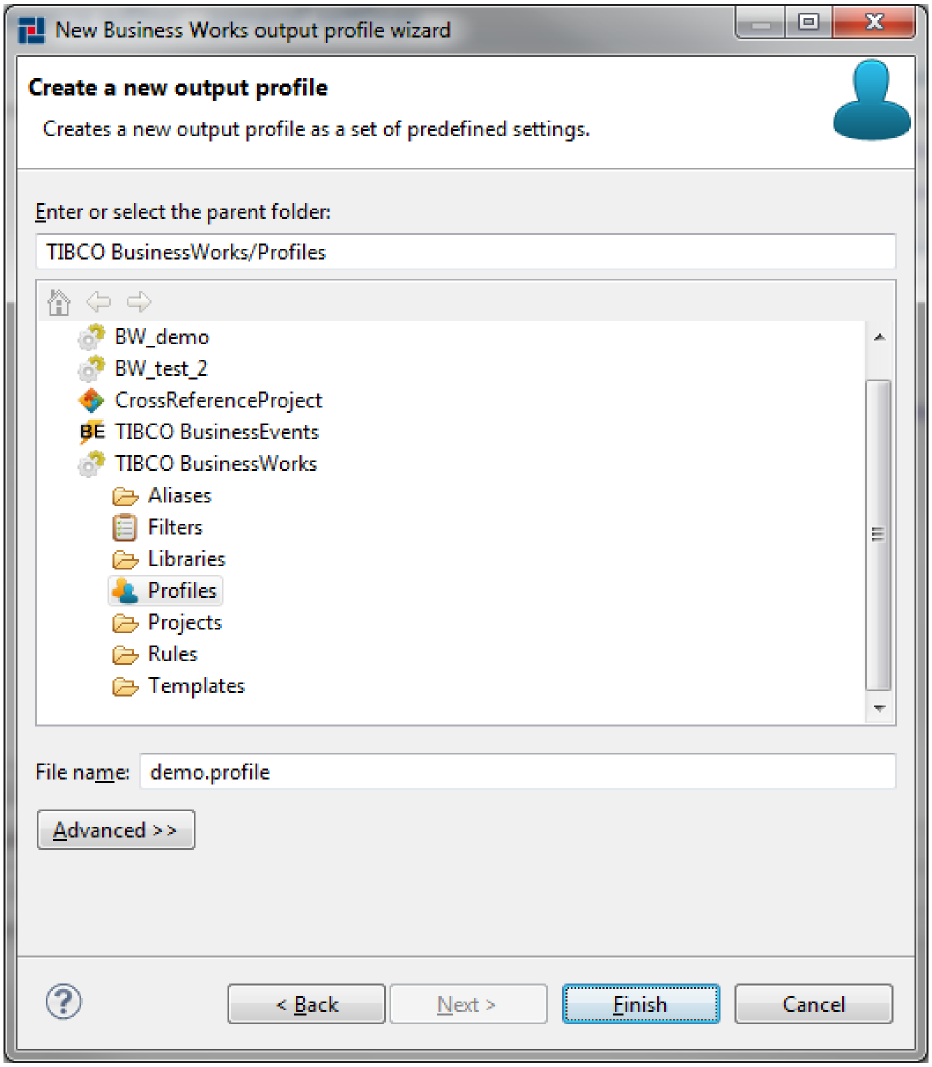
● Enterprise (generates all possible outputs)

○ Printable (generates pdf output, suitable for printing)

○ QA Only (generates only Quality Assurance)

Figure20. **Add BusinessWorks profile wizard**

Choose Enterprise profile and click Next.



**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Enter or select the parent folder: TIBCO BusinessWorks/Profiles

- BW_demo
- BW_test_2
- CrossReferenceProject
- TIBCO BusinessEvents
- TIBCO BusinessWorks
  - Aliases
  - Filters
  - Libraries
  - Profiles
  - Projects
  - Rules
  - Templates

File name: demo.profile

Figure21. **Add BusinessWorks profile wizard - destination page**

Now enter the filename for newly created profile. Profile file has extension .profile. Again no need to enter it, MakeDoc appends it automatically.

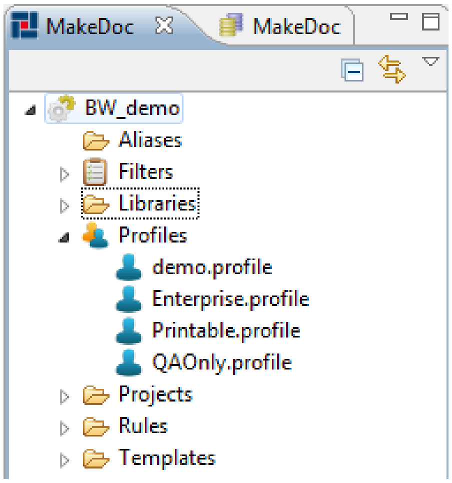
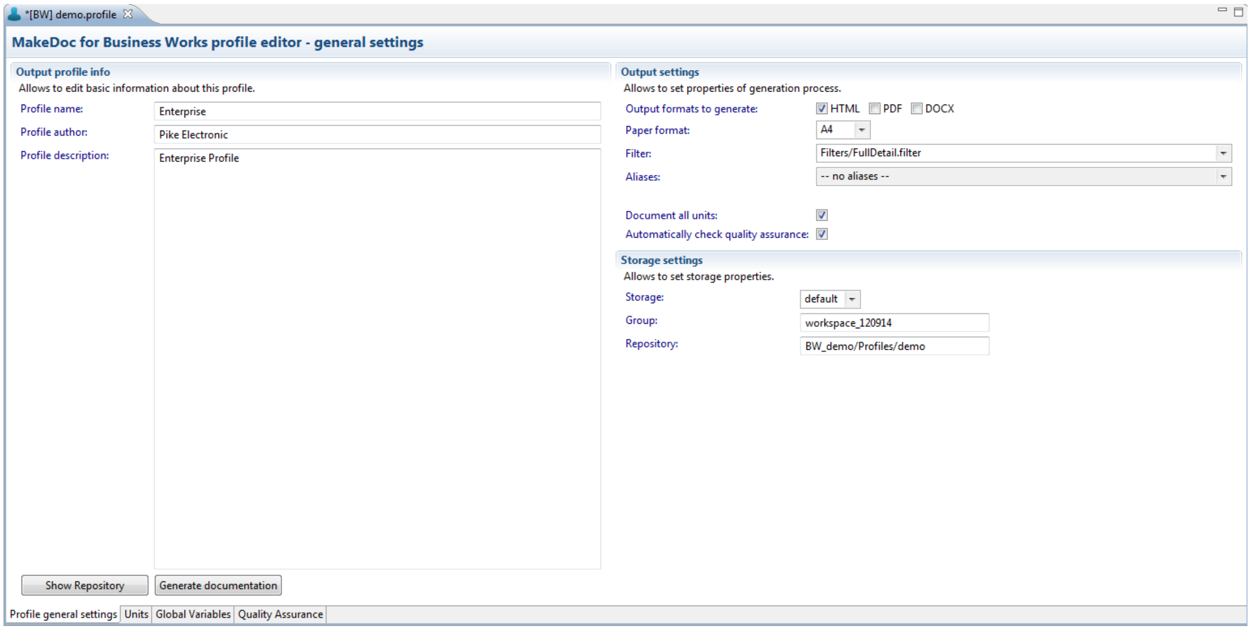


**Figure22. Newly added profile**

Look for this profile in project tree and open it. TIBCO BusinessWorks profile editor consists of four pages

- Profile general settings
- Units
- Global Variables
- Quality Assurance



*[BW] demo.profile

MakeDoc for Business Works profile editor - general settings

Output profile info

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author: Pike Electronic

Profile description: Enterprise Profile

Output settings

Allows to set properties of generation process.

Output formats to generate: ☑ HTML ☐ PDF ☐ DOCX

Paper format: A4

Filter: Filters/FullDetail.filter

Aliases: -- no aliases --

Document all units: ☑

Automatically check quality assurance: ☑

Storage settings

Allows to set storage properties.

Storage: default

Group: workspace_120914

Repository: BW_demo/Profiles/demo

**Figure23. Profile editor**

General settings page is divided into three sections:

- Profile info - holds basic identification information for this profile
  - Profile name
  - Author
  - Description
- Output settings - contains these settings:
  - Output formats generated for this profile (HTML, PDF and DOCX are supported)

  - Paper format (A4 or letter)
  - Filters - dropdown list for choosing filter settings (see Filters chapter)
  - Aliases - dropdown list for choosing aliases settings (see Libraries and aliases chapter)
  - Document all units - yes/no option, if checked, all units of project are automatically documented in this profile
  - Automatically check Quality Assurance - full QA check of units is performed in generation process
- Storage settings - allows us to choose storage used to save generated snapshots of documentation

As aliases select from combo Aliases/aliases_mapping.aliases. Check document all units and Automatically check Quality Assurance.

Units page determines subset of units of our documentation project. This subset is documented when user starts generation process for this profile. If Document all units option was selected in general settings, widgets on this page are disabled.

Global Variables page allows to enable or disable global variables substitution.

Quality Assurance page allows user to influence Quality Assurance check performed as a part of generation process in detail. For more informations see Quality Assurance chapter in this manual.

So BusinessWorks profile is central point of MakeDoc for TIBCO BusinessWorks project. It is possible to understand it as subset of units included in project together with other settings (such as output formats). These settings influences final content of documentation. Now save profile and hit 'Generate documentation' button to start generation process.

MakeDoc now goes through phases of generation process, generates:

- project documentation for each unit from profile
- BusinessWorks to BusinessWorks cross-reference documentation
- Quality Assurance documentation

Generation process successfully ends with 'BUILD SUCCESSFUL' message.

Click on MakeDoc storage view (left side of the main screen). Right click on generated snapshot and choose HTML. We are ready now to inspect generated output in next part of the text.

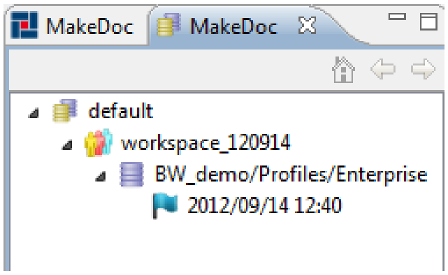


Figure24. **MakeDoc Storage - generated output**

### 2.2.3. Generated output

Documentation can be generated in HTML, PDF and DOCX format. If not reduced by filters, each HTML document contains a tree navigation divided into three main parts - Project documentation, Cross-reference documentation and Quality Assurance documentation. The Project documentation part contains list of projects and each project contains all its resources. Cross-reference documentation shows relationships between projects. Quality Assurance documentation contains list of violations detected in documented projects, QA Rules summary and list of the invalid QA Rules. Navigation items are links to HTML documents and the menu is updated according to actually displayed content. The PDF documentation has bookmarks which are similar in structure to the HTML navigation. The DOCX documentation is another printable file format, which is also easy to edit and format.

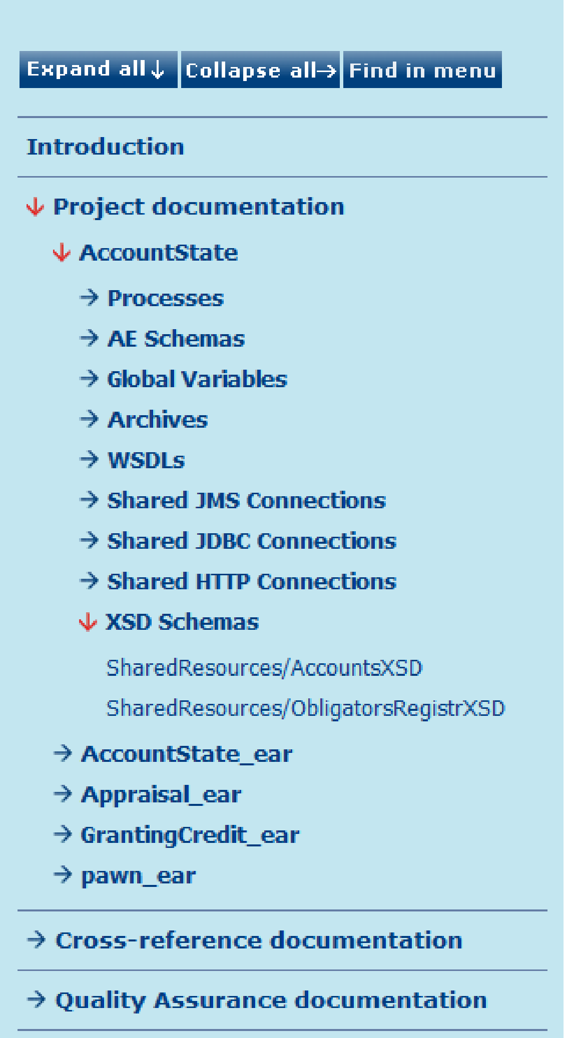
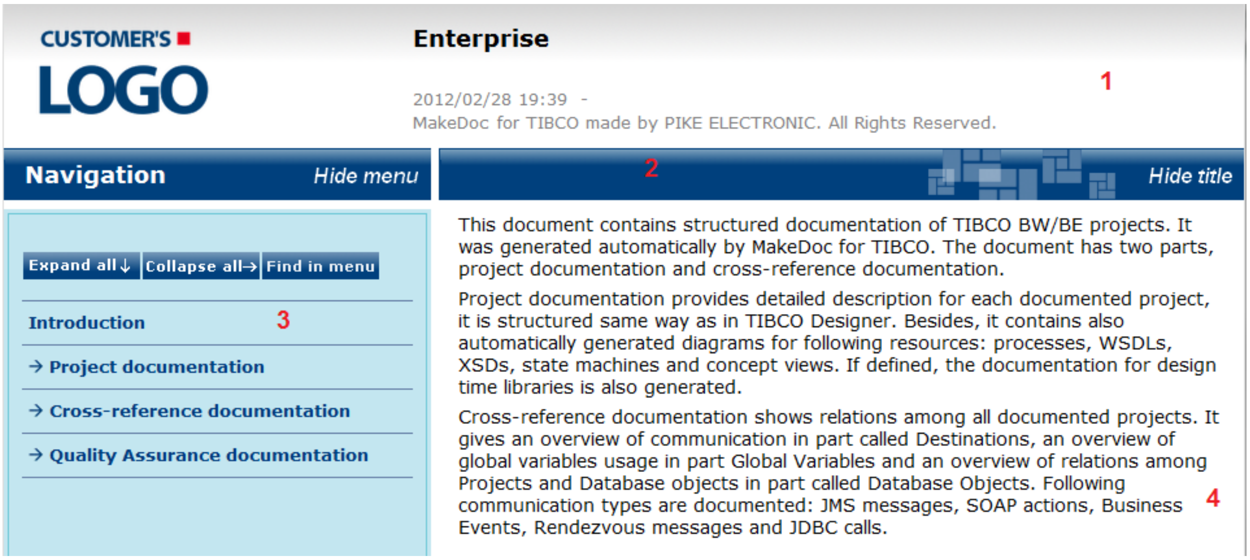


Figure25. **Example of HTML navigation**

### 2.2.3.1. How To Use HTML Documentation

The HTML documentation is saved in "HTML" subfolder of your generated folder. HTML page consists of 4 frames.



This document contains structured documentation of TIBCO BW/BE projects. It was generated automatically by MakeDoc for TIBCO. The document has two parts, project documentation and cross-reference documentation.

Project documentation provides detailed description for each documented project, it is structured same way as in TIBCO Designer. Besides, it contains also automatically generated diagrams for following resources: processes, WSDLs, XSDs, state machines and concept views. If defined, the documentation for design time libraries is also generated.

Cross-reference documentation shows relations among all documented projects. It gives an overview of communication in part called Destinations, an overview of global variables usage in part Global Variables and an overview of relations among Projects and Database objects in part called Database Objects. Following communication types are documented: JMS messages, SOAP actions, Business Events, Rendezvous messages and JDBC calls.

Figure26. **Header page of HTML**

**1. Header frame**

Header frame contains customer's logo, name of project, generated date and time.

**2. Title frame**

Title frame can be used for simple manipulation with page. One can hide Navigation frame by clicking "Hide menu" or hide Title frame by clicking "Hide title".

**3. Navigation frame**

Navigation frame contains whole menu tree. For easier navigation one can use buttons "Expand all", "Collapse all" and "Find in menu" on the top of frame.

- Expand all - open all items in menu.
- Collapse all - close all items in menu.
- Find in menu - find page displayed in Main frame in menu.

**4. Main frame**

The main frame displays generated documentation.

### 2.2.3.2. Search functionality

It is possible to use search functionality in generated HTML document. It can be done through typing search expression into input box and pressing search button. Also advanced searching expressions can be used for this purpose including boolean expressions (if more words are typed, OR relation is used by default between them).

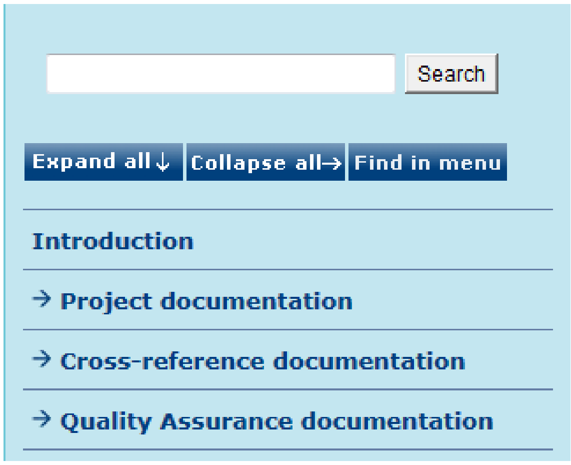


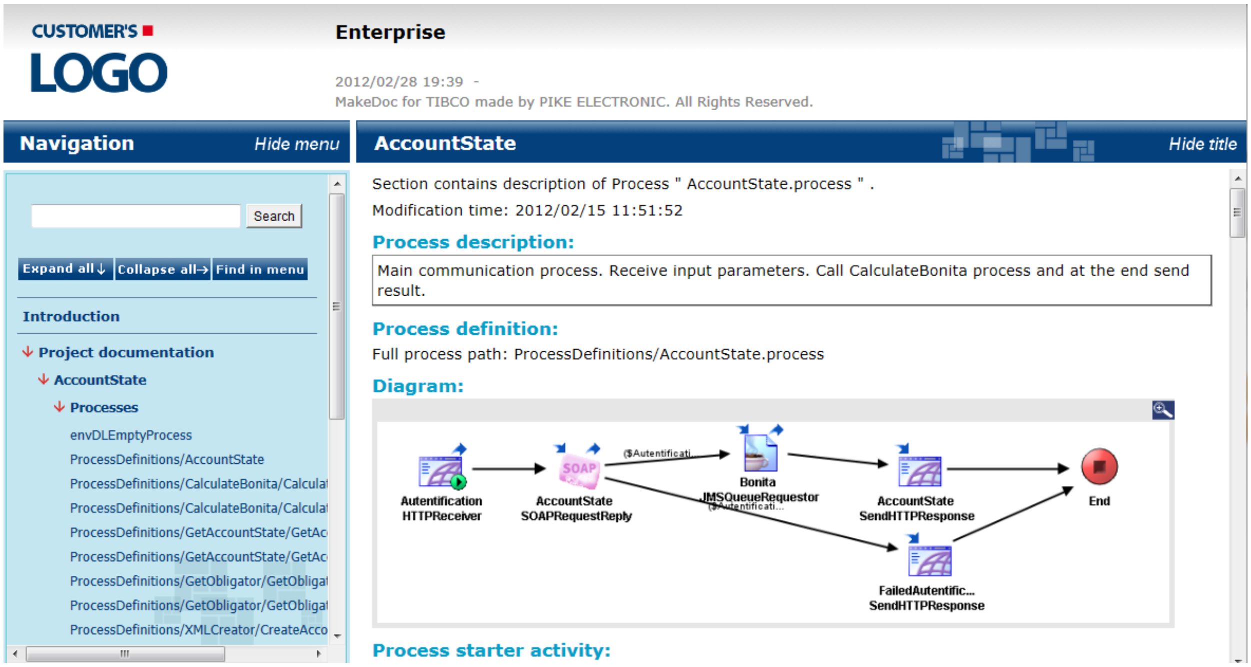
Figure27. HTML search

Basically the functionality is done by using **Java applet** in documentation to search in document placed in **local folders** or in the **intranet**.

It is also possible to utilize searching on **web server** - for this purpose **jsp pages** are used. There's need to download and install Apache Tomcat from http://tomcat.apache.org . Then exact path to generated documentation can be set as root webapps directory - file conf/server.xml, element Host, attribute appbase. This can be very useful to set in generation script to change this directory to lastly generated HTML snapshot.

Note: If Mozilla Firefox is used for local browsing, there's need to use JRE of version 1.6.0_10 or newer for applet functionality.

### 2.2.3.3. ESB documentation


CUSTOMER'S LOGO
Navigation
Hide menu
AccountState
Hide title
Search
Expand all↓
Collapse all→
Find in menu
Introduction
↓ Project documentation
↓ AccountState
↓ Processes
envDLEmptyProcess
ProcessDefinitions/AccountState
ProcessDefinitions/CalculateBonita/Calculat
ProcessDefinitions/CalculateBonita/Calculat
ProcessDefinitions/GetAccountState/GetAc
ProcessDefinitions/GetAccountState/GetAc
ProcessDefinitions/GetObligator/GetObligat
ProcessDefinitions/GetObligator/GetObligat
ProcessDefinitions/XMLCreator/CreateAcco
Autentification HTTPReceiver
SOAP
AccountState SOAPRequestReply
($Autentificati...
Bonita JMSQueueRequestor
($Autentificati...
AccountState SendHTTPResponse
End
FailedAutentific... SendHTTPResponse

Enterprise

2012/02/28 19:39 -
MakeDoc for TIBCO made by PIKE ELECTRONIC. All Rights Reserved.

Section contains description of Process " AccountState.process " .

Modification time: 2012/02/15 11:51:52

Process description:

Main communication process. Receive input parameters. Call CalculateBonita process and at the end send result.

Process definition:

Full process path: ProcessDefinitions/AccountState.process

Diagram:

Process starter activity:

Figure28. Example of HTML ESB project documentation

### 2.2.3.3.1. Project Documentation

The Project documentation section contains one chapter for each project in the solution. The focus of this chapter is on the message and data processing performed by the process. The chapter layout is similar to the layout of the TIBCO Designer. A project documentation may contain some or all of sections depending on filter settings.

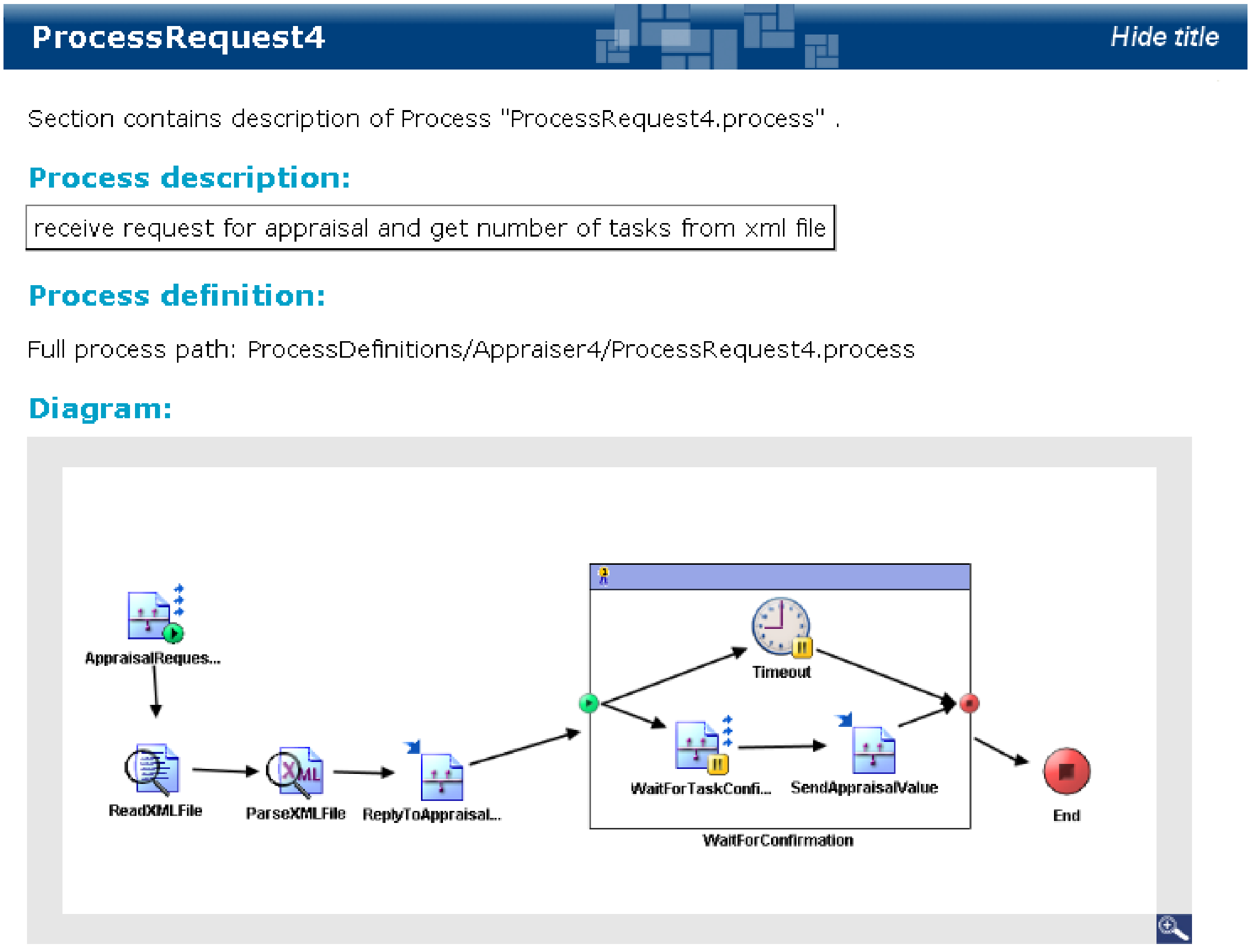
#### *2.2.3.3.1.1. Supported Resources*

MakeDoc for TIBCO supports these resources:

- Archives
- Adapters
- AE Schemas
- BE Concepts and Concept views
- BE Channels
- BE Events and Time events
- BE Rule sets and functions
- BE Scorecards
- BusinessConnects
- Global Variables
- HTTP Proxies
- JMS connections
- JNDI configurations
- Job Shared Variables
- Processes
- RV Transports
- Services
- Shared FTP
- Shared HTTP
- Shared iProcess Connections
- Shared JDBC
- Shared JMS connections
- Shared Parse Data
- Shared Variables
- WSDLs
- XSD Schemas

#### *2.2.3.3.1.2. Processes*

Process documentation consists of description, diagram and configuration.



ProcessRequest4

Hide title

Section contains description of Process "ProcessRequest4.process" .

Process description:

receive request for appraisal and get number of tasks from xml file

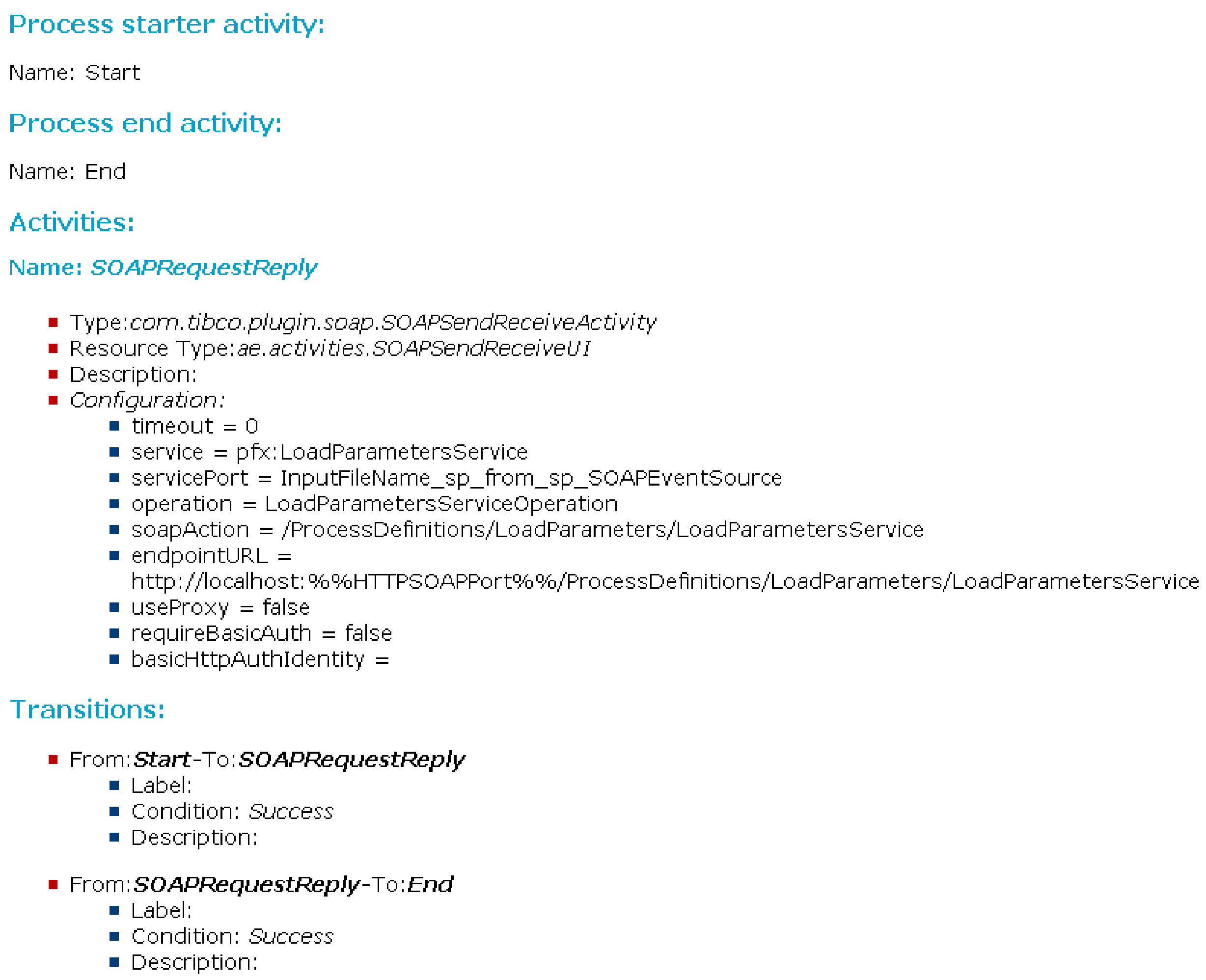
Process definition:

Full process path: ProcessDefinitions/Appraiser4/ProcessRequest4.process

Diagram:

**<span>Figure29.</span> Process description and process graph**

The process graph and description are taken directly from the TIBCO project.



### Process starter activity:

Name: Start

### Process end activity:

Name: End

### Activities:

#### Name: *SOAPRequestReply*

- Type:*com.tibco.plugin.soap.SOAPSendReceiveActivity*
- Resource Type:*ae.activities.SOAPSendReceiveUI*
- Description:
- *Configuration:*
  - timeout = 0
  - service = pfx:LoadParametersService
  - servicePort = InputFileName_sp_from_sp_SOAPEventSource
  - operation = LoadParametersServiceOperation
  - soapAction = /ProcessDefinitions/LoadParameters/LoadParametersService
  - endpointURL = http://localhost:%%HTTPSOAPPort%%/ProcessDefinitions/LoadParameters/LoadParametersService
  - useProxy = false
  - requireBasicAuth = false
  - basicHttpAuthIdentity =

### Transitions:

- From:***Start***-To:***SOAPRequestReply***
  - Label:
  - Condition: *Success*
  - Description:

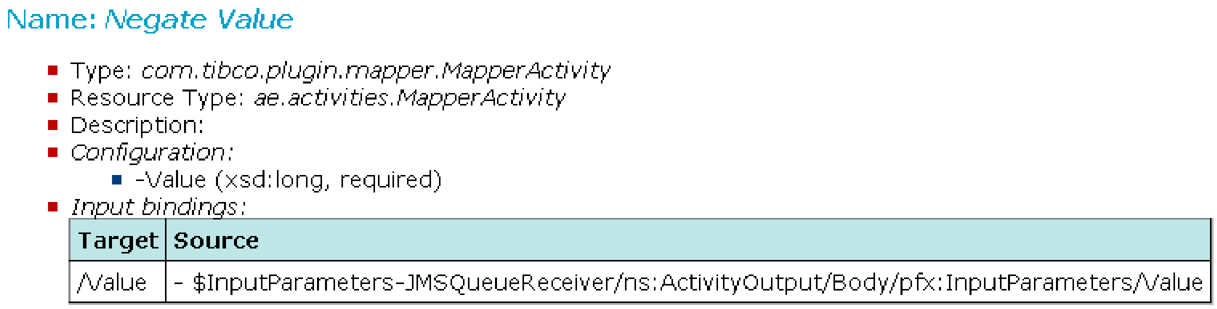
- From:***SOAPRequestReply***-To:***End***
  - Label:
  - Condition: *Success*
  - Description:

Figure30. **Process configuration**

The process configuration contains the details of all activities, transitions and groups in the process.

*Mapper Activity*

For the mapper activity there is documentation of input bindings presented in a simple table.



#### Name: *Negate Value*

- Type: *com.tibco.plugin.mapper.MapperActivity*
- Resource Type: *ae.activities.MapperActivity*
- Description:
- *Configuration:*
  - -Value (xsd:long, required)
- *Input bindings:*

| Target | Source |
|---|---|
| /Value | - $InputParameters-JMSQueueReceiver/ns:ActivityOutput/Body/pfx:InputParameters/Value |

Figure31. **Input bindings are documented for Mapper activity**

### *2.2.3.3.1.3. Adapters*

Adapter documentation is generated for TIBCO Adapters:

- Generic adapter
- TIBCO Adapter for ActiveDatabase
- TIBCO Adapter for CICS
- TIBCO Adapter for ClarifyCRM
- TIBCO Adapter for COM
- TIBCO Adapter for Corba
- TIBCO Adapter for EJB
- TIBCO Adapter for Files
- TIBCO Adapter for IBM AS/400
- TIBCO Adapter for Infranet
- TIBCO Adapter for JDE OneWorld Xe
- TIBCO Adapter for Kenan BP
- TIBCO Adapter for LDAP
- TIBCO Adapter for Lotus Notes
- TIBCO Adapter for MQSeries
- TIBCO Adapter for Oracle Applications
- TIBCO Adapter for PeopleSoft
- TIBCO Adapter for Remedy
- TIBCO Adapter for SAP
- TIBCO Adapter for Siebel
- TIBCO Adapter for SWIFT
- TIBCO Adapter for Teradata
- TIBCO Adapter for Tuxedo
- TIBCO Adapter SDK

Documentation of adapters contains all adapter's configuration and settings divided into following parts:

- Description
- Startup
- Deployment - contains list of advisories, sessions, producers, consumers, servers and clients
- Timers
- Log sinks
- Metadata
- Adapter services
- Adapter configuration
- Hawk microagents
- Other objects

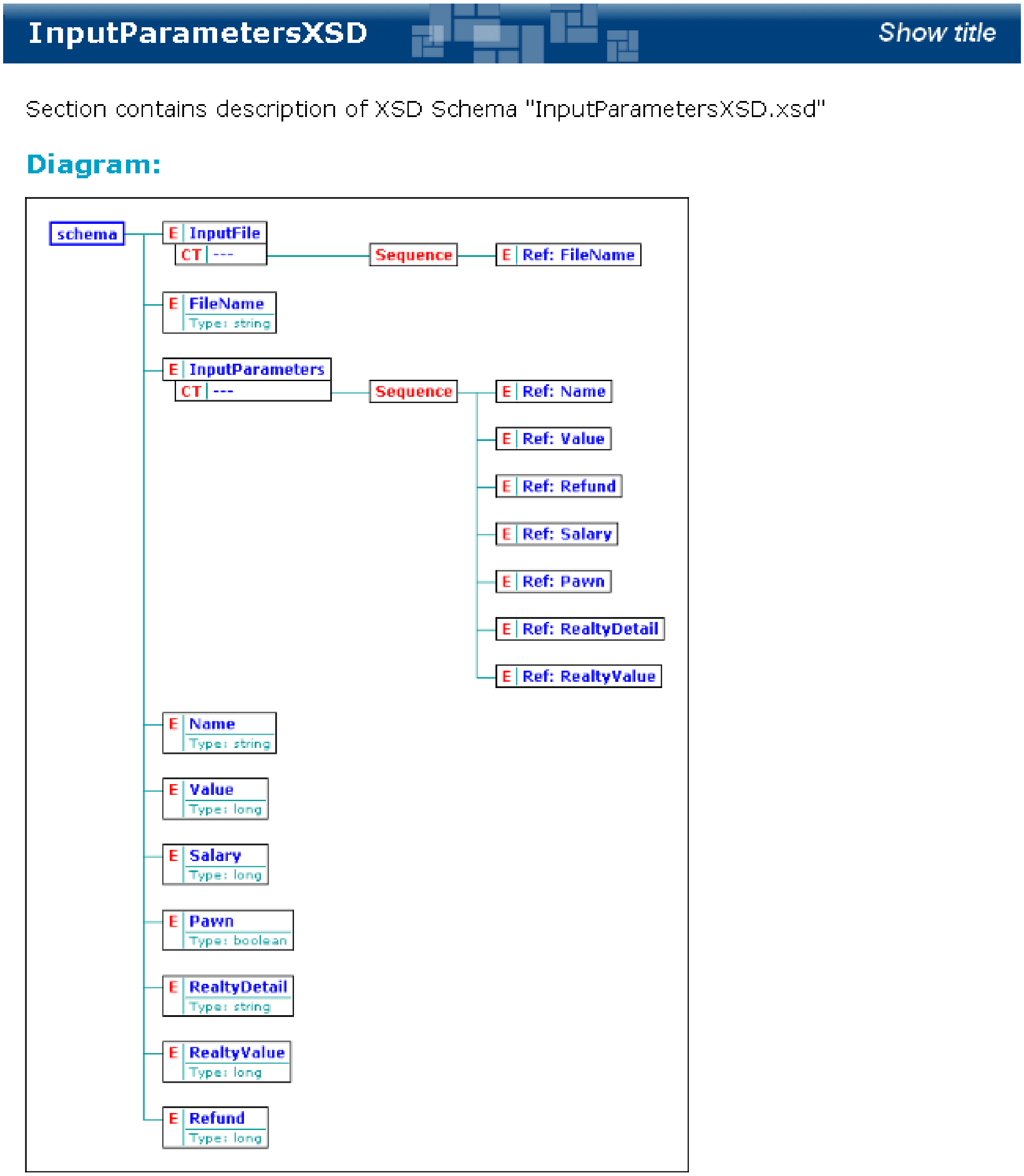
There are extra parts of documentation for some of adapter types.

### *2.2.3.3.1.4. AE Schemas*

AE schema documentation consists of classes, sequences, scalar types, unions and associations.

### *2.2.3.3.1.5. XSD Schemas*

XSD schema documentation consists of diagram, attributes and overview (elements, complex types, simple types, attributes, groups, attribute groups, redefines, notations, detail).



InputParametersXSD

Show title

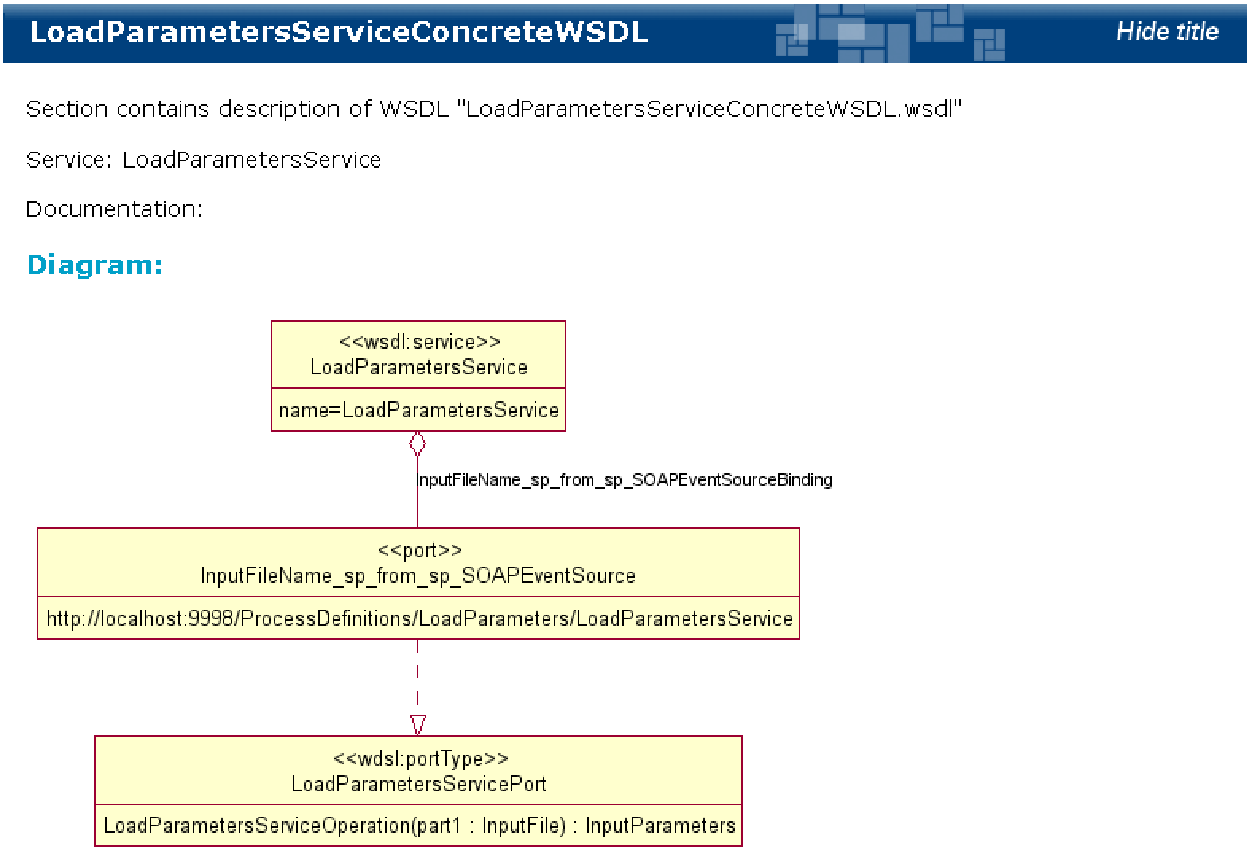
Section contains description of XSD Schema "InputParametersXSD.xsd"

Diagram:

Figure32. **Example of XSD Schema documentation**

*2.2.3.3.1.6. WSDLs*

WSDL documentation consists of diagram, namespaces, types, port configuration, operations and messages. The diagram is generated for the concrete WSDLs only.



LoadParametersServiceConcreteWSDL

Hide title

Section contains description of WSDL "LoadParametersServiceConcreteWSDL.wsdl"

Service: LoadParametersService

Documentation:

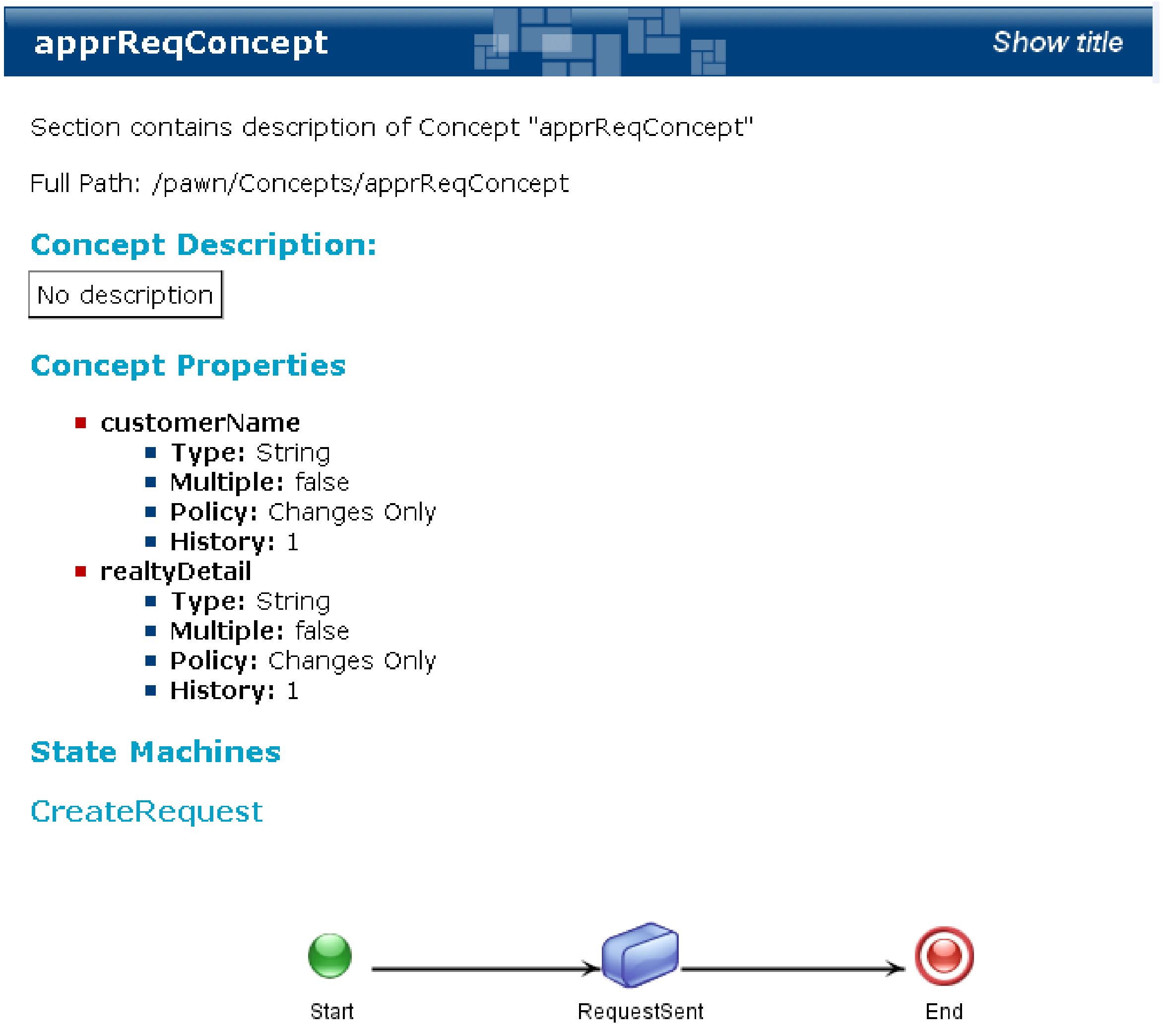
Diagram:

<<wsdl:service>>
LoadParametersService
name=LoadParametersService
nputFileName_sp_from_sp_SOAPEventSourceBinding
<<port>>
InputFileName_sp_from_sp_SOAPEventSource
http://localhost:9998/ProcessDefinitions/LoadParameters/LoadParametersService
<<wdsl:portType>>
LoadParametersServicePort
LoadParametersServiceOperation(part1 : InputFile) : InputParameters

Figure33. **Example of WSDL documentation**

### *2.2.3.3.1.7. BE Concepts*

BE concepts documentation consists of description, parent concept, concept properties and state machines. For each state machine there is its diagram.



apprReqConcept

Show title

Section contains description of Concept "apprReqConcept"

Full Path: /pawn/Concepts/apprReqConcept

**Concept Description:**

No description

**Concept Properties**

- customerName
  - **Type:** String
  - **Multiple:** false
  - **Policy:** Changes Only
  - **History:** 1
- realtyDetail
  - **Type:** String
  - **Multiple:** false
  - **Policy:** Changes Only
  - **History:** 1

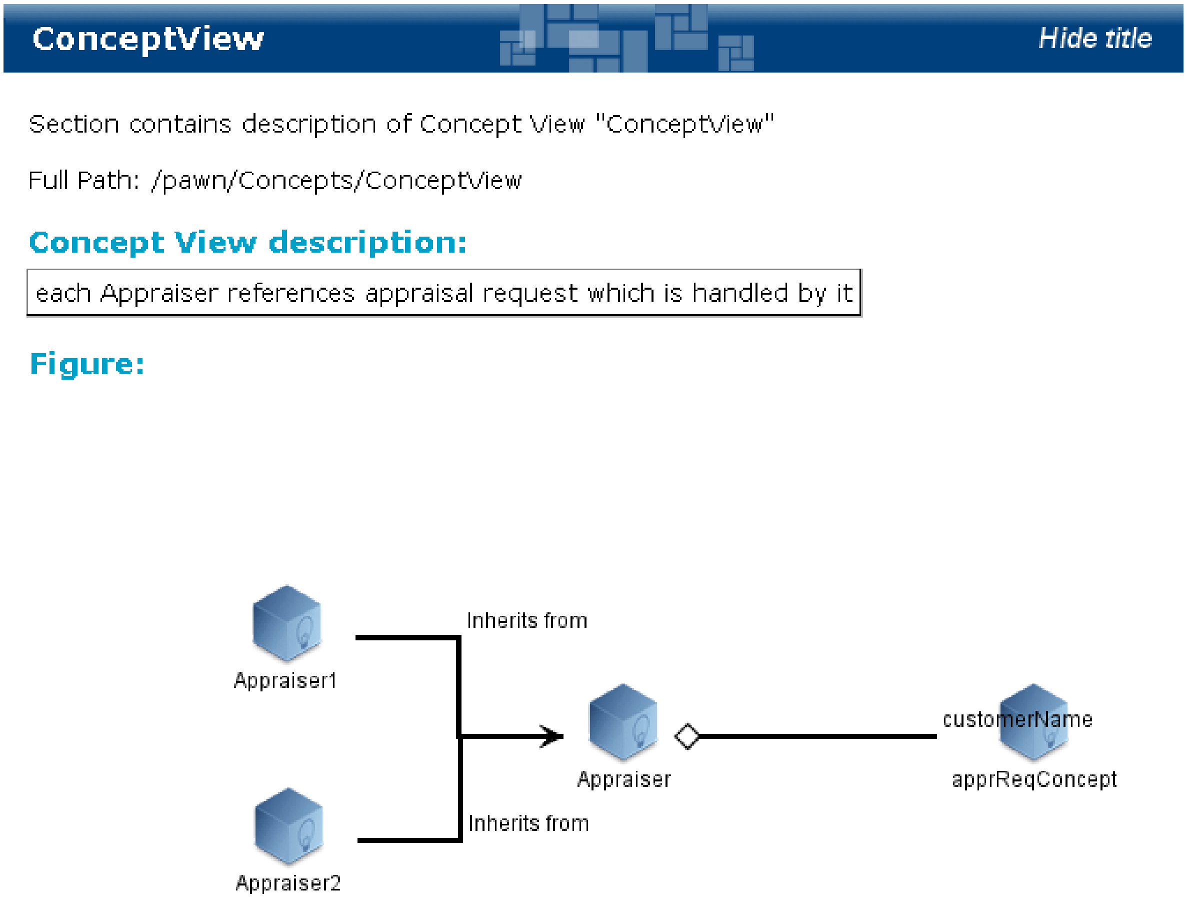
**State Machines**

CreateRequest

**Figure34. Example of BE Concept documentation**

### *2.2.3.3.1.8. BE Concept Views*

BE concept views documentation consists of description, figure and concepts.



ConceptView

Hide title

Section contains description of Concept View "ConceptView"

Full Path: /pawn/Concepts/ConceptView

Concept View description:

each Appraiser references appraisal request which is handled by it

Figure:

Figure35. **Example of BE Concept view documentation**

### 2.2.3.4. Cross-Reference Documentation

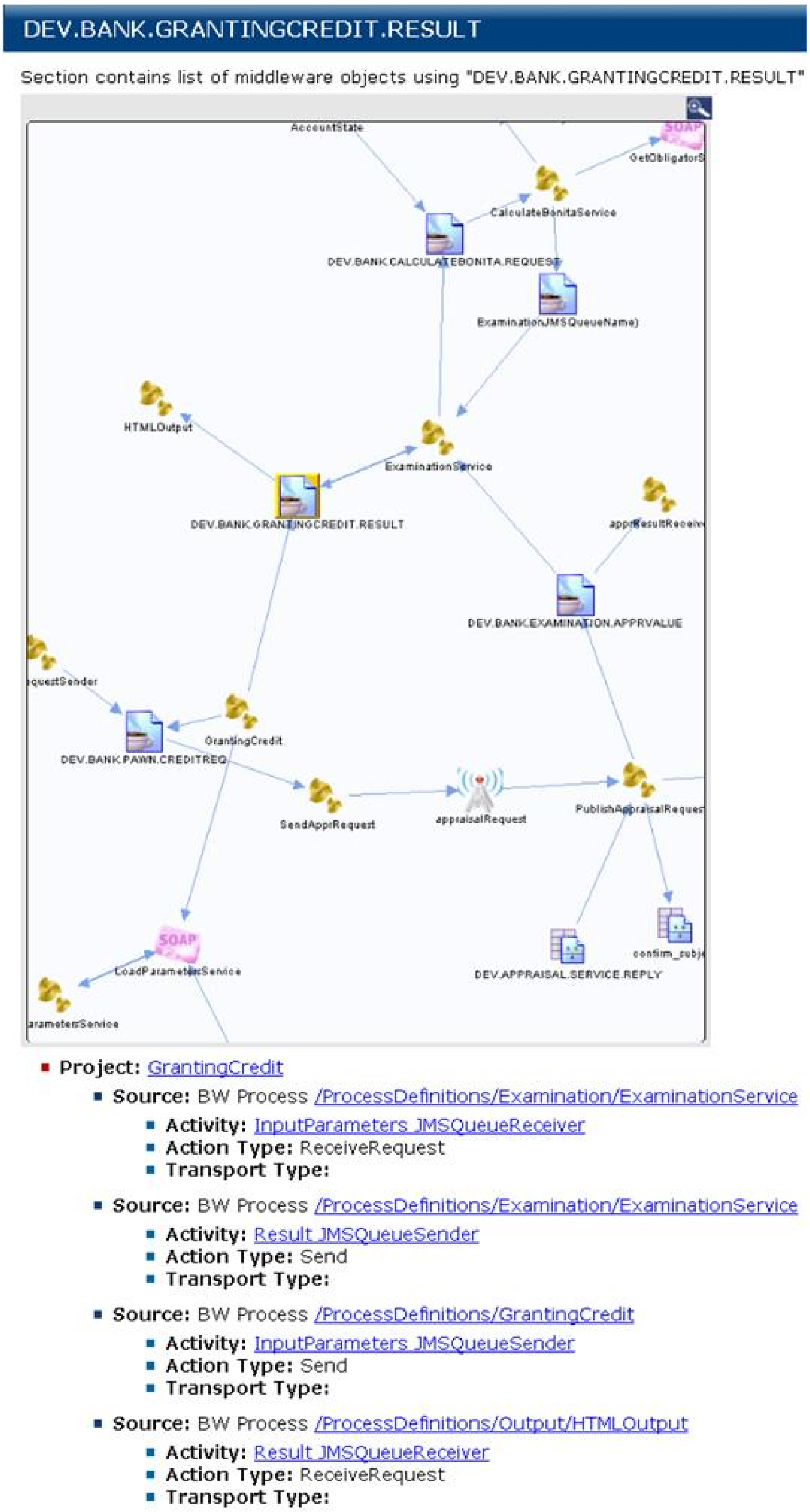
This section contains three main subsections. **Global Variables**, **Destinations** and **Database Objects**.

#### 2.2.3.4.1. Destinations

The Destinations section of the document references information of all projects in the MakeDoc for TIBCO solution. It contains two sub sections.

The first section is a list of all the process destinations. This is a list of all process inputs and outputs from or to a unique JMS queue, SOAP, Business event or Rendezvous message and JDBC Connections. The project, process and activity using the message are hyper-linked.

Destination documentation contains the visual cross-reference where the user can see near destination neighborhood. Actually opened destination has yellow border for simpler orientation in the diagram. Every diagram element is hyper-linked to its documentation page.



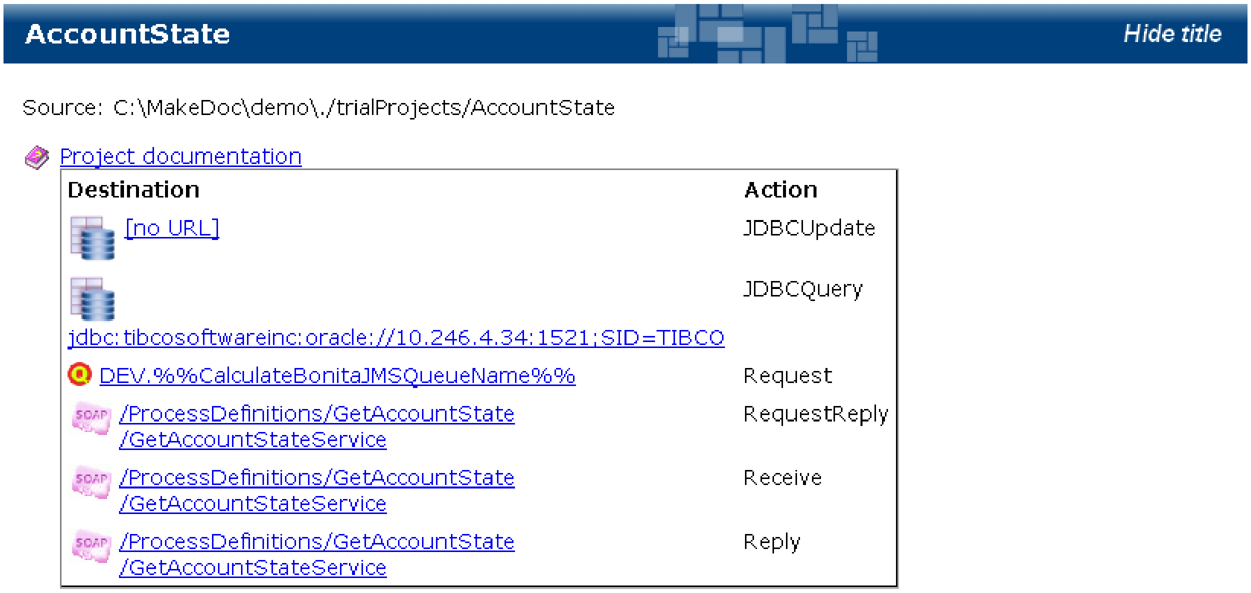
DEV.BANK.GRANTINGCREDIT.RESULT

Section contains list of middleware objects using "DEV.BANK.GRANTINGCREDIT.RESULT"

- **Project:** GrantingCredit
  - **Source:** BW Process /ProcessDefinitions/Examination/ExaminationService
    - **Activity:** InputParameters JMSQueueReceiver
    - **Action Type:** ReceiveRequest
    - **Transport Type:**
  - **Source:** BW Process /ProcessDefinitions/Examination/ExaminationService
    - **Activity:** Result JMSQueueSender
    - **Action Type:** Send
    - **Transport Type:**
  - **Source:** BW Process /ProcessDefinitions/GrantingCredit
    - **Activity:** InputParameters JMSQueueSender
    - **Action Type:** Send
    - **Transport Type:**
  - **Source:** BW Process /ProcessDefinitions/Output/HTMLOutput
    - **Activity:** Result JMSQueueReceiver
    - **Action Type:** ReceiveRequest
    - **Transport Type:**

Figure36. **Example of destination detail**

The second section is a list of projects and the destinations accessed by the project. A summary list of the messages used by the process is presented. Then for each item in this list a detail description of the message is presented.



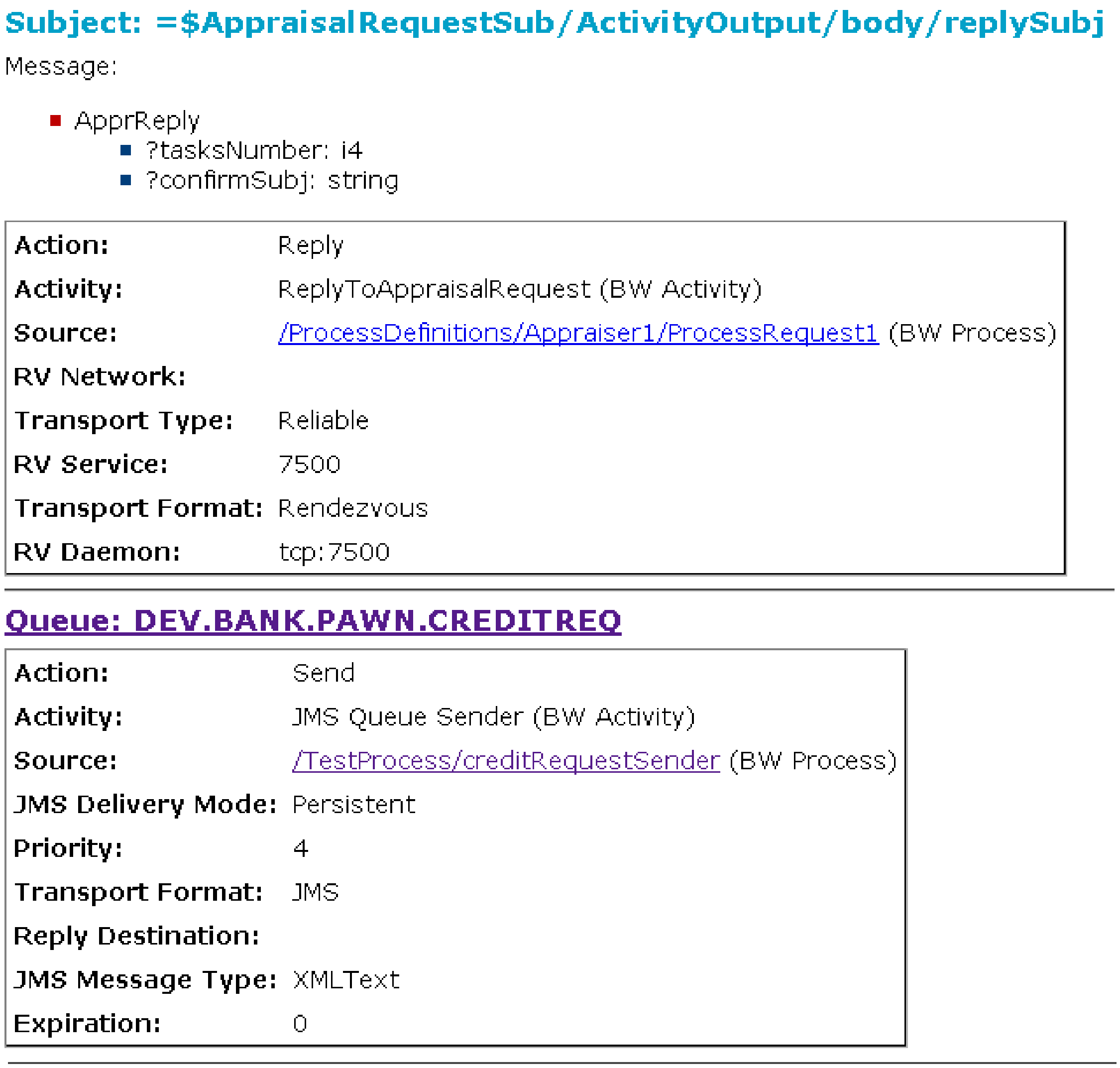
AccountState

Source: C:\MakeDoc\demo\./trialProjects/AccountState

Project documentation

| Destination | Action |
|---|---|
| [no URL] | JDBCUpdate |
| jdbc:tibcosoftwareinc:oracle://10.246.4.34:1521;SID=TIBCO | JDBCQuery |
| DEV.%%CalculateBonitaJMSQueueName%% | Request |
| /ProcessDefinitions/GetAccountState /GetAccountStateService | RequestReply |
| /ProcessDefinitions/GetAccountState /GetAccountStateService | Receive |
| /ProcessDefinitions/GetAccountState /GetAccountStateService | Reply |

**Figure37. Example of project reference**



**Subject: =$AppraisalRequestSub/ActivityOutput/body/replySubj**

Message:

- ApprReply
  - ?tasksNumber: i4
  - ?confirmSubj: string

| | |
|---|---|
| **Action:** | Reply |
| **Activity:** | ReplyToAppraisalRequest (BW Activity) |
| **Source:** | /ProcessDefinitions/Appraiser1/ProcessRequest1 (BW Process) |
| **RV Network:** | |
| **Transport Type:** | Reliable |
| **RV Service:** | 7500 |
| **Transport Format:** | Rendezvous |
| **RV Daemon:** | tcp:7500 |

**Queue: DEV.BANK.PAWN.CREDITREQ**

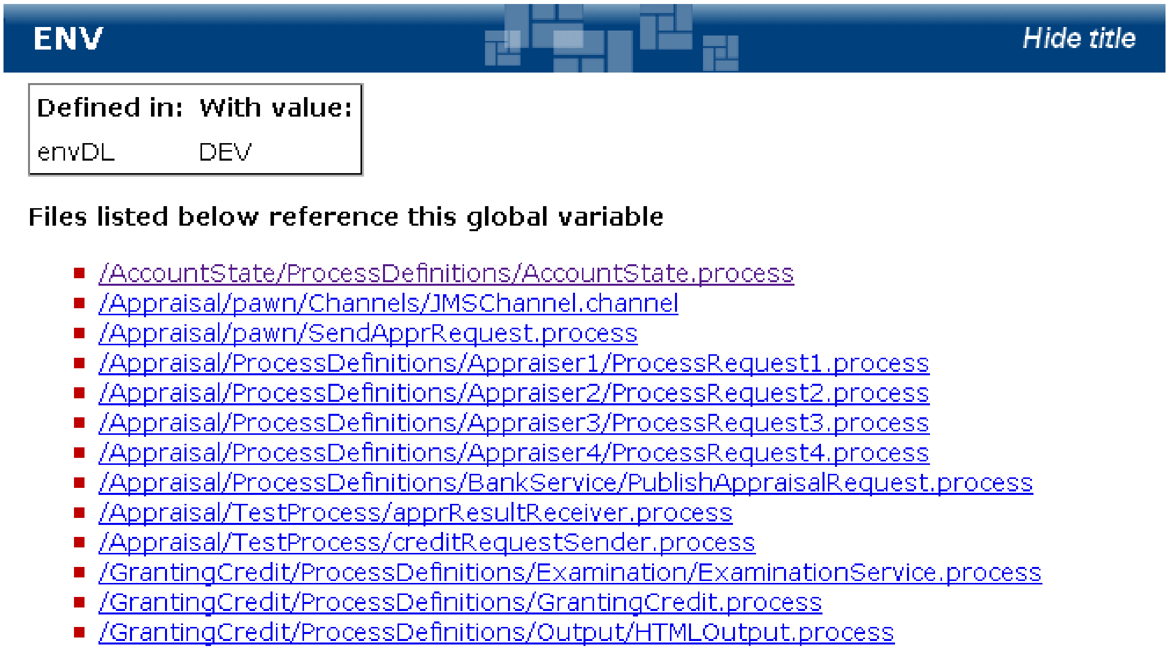
| | |
|---|---|
| **Action:** | Send |
| **Activity:** | JMS Queue Sender (BW Activity) |
| **Source:** | /TestProcess/creditRequestSender (BW Process) |
| **JMS Delivery Mode:** | Persistent |
| **Priority:** | 4 |
| **Transport Format:** | JMS |
| **Reply Destination:** | |
| **JMS Message Type:** | XMLText |
| **Expiration:** | 0 |

Figure38. **Example of message detail**

### 2.2.3.4.2. Global Variables

The Global Variables section of the document references information of all projects in the MakeDoc for TIBCO solution. It contains two subsections.

The first section **Global Variables Reference** is a list of all global variables. Global variables are structured similar to TIBCO Designer, but this structure is built among all project in the MakeDoc for TIBCO solution. Each global variable documentation contains table of its values, because global variable can be defined in more than one project. Hyper-links to referencing resources (e.g. processes, connections) are also included.



ENV

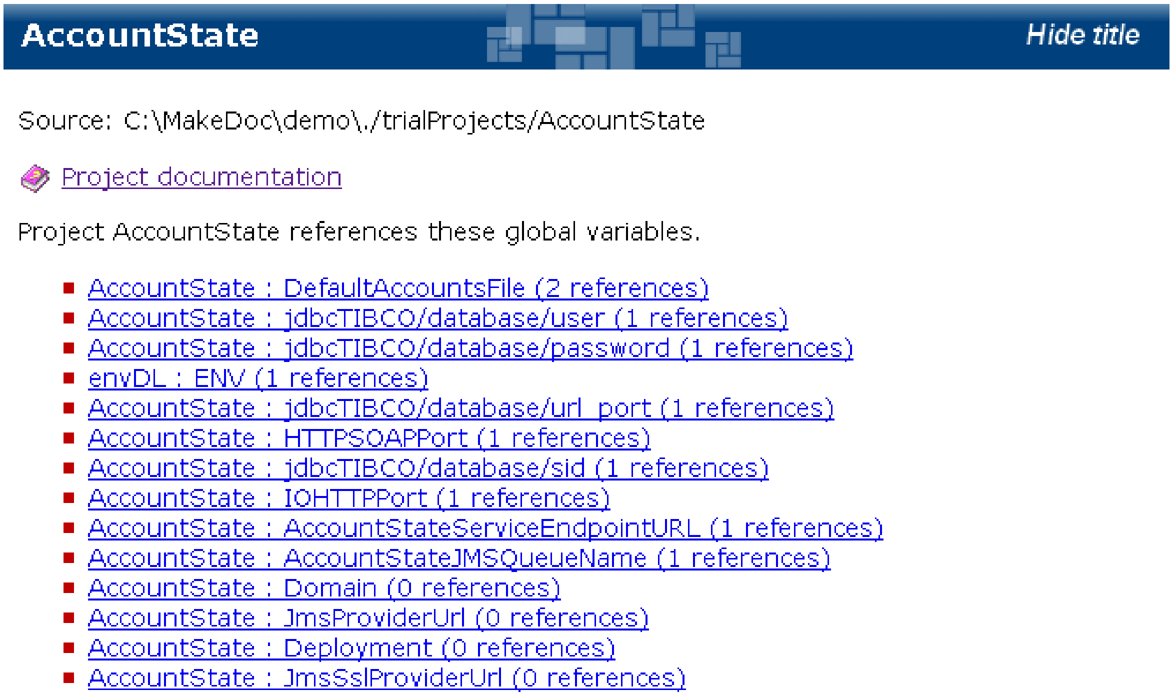
| Defined in: | With value: |
|---|---|
| envDL | DEV |

Files listed below reference this global variable

- /AccountState/ProcessDefinitions/AccountState.process
- /Appraisal/pawn/Channels/JMSChannel.channel
- /Appraisal/pawn/SendApprRequest.process
- /Appraisal/ProcessDefinitions/Appraiser1/ProcessRequest1.process
- /Appraisal/ProcessDefinitions/Appraiser2/ProcessRequest2.process
- /Appraisal/ProcessDefinitions/Appraiser3/ProcessRequest3.process
- /Appraisal/ProcessDefinitions/Appraiser4/ProcessRequest4.process
- /Appraisal/ProcessDefinitions/BankService/PublishAppraisalRequest.process
- /Appraisal/TestProcess/apprResultReceiver.process
- /Appraisal/TestProcess/creditRequestSender.process
- /GrantingCredit/ProcessDefinitions/Examination/ExaminationService.process
- /GrantingCredit/ProcessDefinitions/GrantingCredit.process
- /GrantingCredit/ProcessDefinitions/Output/HTMLOutput.process

Figure39. **Example of global variable reference**

The second section **Projects Reference** is a list of projects. For each project a summary list of the referenced global variables is presented.



AccountState

Source: C:\MakeDoc\demo\./trialProjects/AccountState

Project documentation

Project AccountState references these global variables.

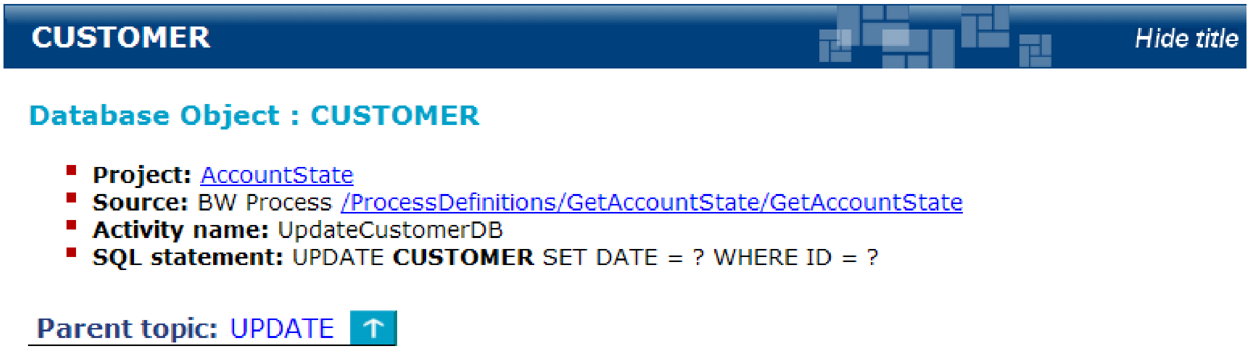
- AccountState : DefaultAccountsFile (2 references)
- AccountState : jdbcTIBCO/database/user (1 references)
- AccountState : jdbcTIBCO/database/password (1 references)
- envDL : ENV (1 references)
- AccountState : jdbcTIBCO/database/url_port (1 references)
- AccountState : HTTPSOAPPort (1 references)
- AccountState : jdbcTIBCO/database/sid (1 references)
- AccountState : IOHTTPPort (1 references)
- AccountState : AccountStateServiceEndpointURL (1 references)
- AccountState : AccountStateJMSQueueName (1 references)
- AccountState : Domain (0 references)
- AccountState : JmsProviderUrl (0 references)
- AccountState : Deployment (0 references)
- AccountState : JmsSslProviderUrl (0 references)

Figure40. **Example of project reference**

### 2.2.3.4.3. Database Objects

The Database Objects section of the document gives overview of relations among Projects and Database objects. It identifies which database object (table, view, stored procedure) is used by specific Project (and process) and vice versa. It contains two subsections.

**Database Object Reference** contains all database objects, that are somehow used by documented TIBCO projects, grouped by connection string and SQL action which is performed on such object (SELECT, UPDATE, INSERT, DELETE, CALL).



CUSTOMER

Hide title

Database Object : CUSTOMER

- **Project:** AccountState
- **Source:** BW Process /ProcessDefinitions/GetAccountState/GetAccountState
- **Activity name:** UpdateCustomerDB
- **SQL statement:** UPDATE **CUSTOMER** SET DATE = ? WHERE ID = ?

**Parent topic:** UPDATE ↑

Figure41. **Example of database table : Customer**

**Project Reference** is a list of projects. For each project a list of referenced database objects is presented.

## 2.3. TIBCO BusinessEvents Module

TIBCO BusinessEvents Module allows to generate documentation from selected TIBCO BusinessEvents sources, such as directories with sources or EARs. TIBCO BusinessEvents Module can work with BusinessEvents project created under TIBCO BusinessEvents 4.0.x or TIBCO BusinessEvents 5.x.

All processes described in this chapter can be used in TIBCO BusinessEvents Module.

### 2.3.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

### 2.3.1.1. Configuration

Configuration of TIBCO BusinessEvents Modules is stored in ~/MakeDocConfig/bebe.properties for TIBCO BusinessEvents Module.

Property files contains:

```
settings.module=BEBEsettings.type=SNAPSHOTtibco.be_home=C:/tibco/be/4.0tibco.home_pat
h=C:/tibco

settings.module=BEBEsettings.type=SNAPSHOTtibco.be_home=C:/tibco/be/4.0
tibco.home
```

```
settings.module=BEBEsettings.type=SNAPSHOTtibco.be
_home=C:/

settings.module=BEBEsetting
s.type=S
u
```

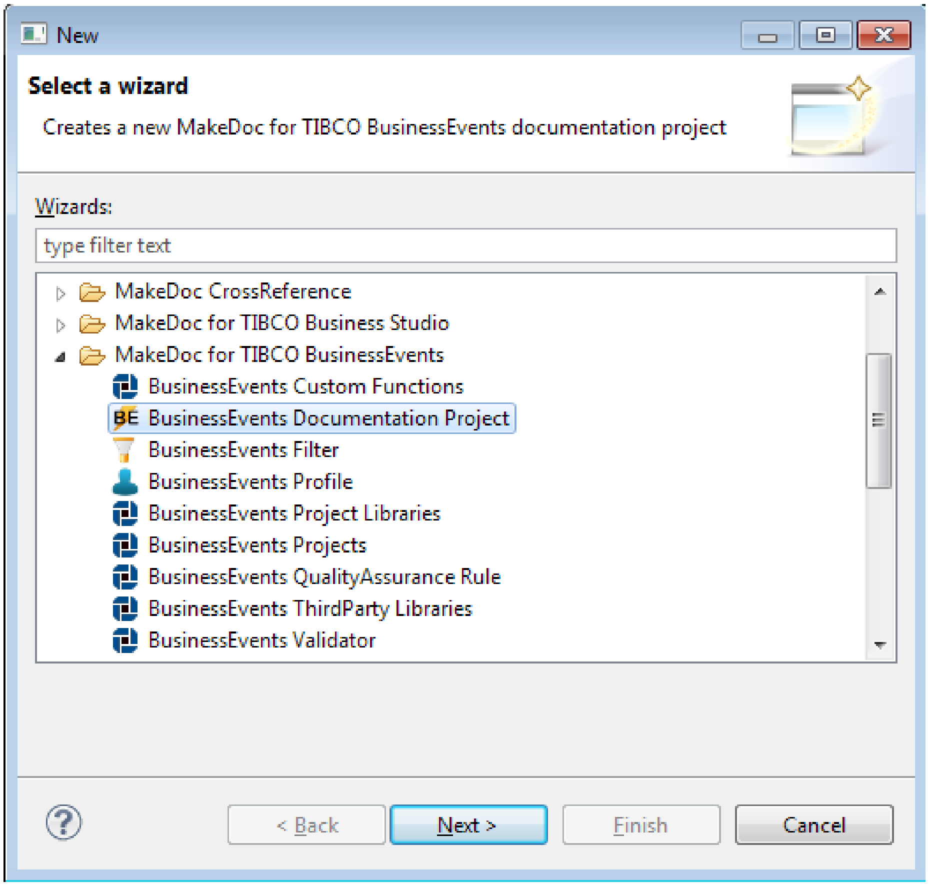
File bebe.properties contains paths to TIBCO BusinessEvents 4.0 or paths to TIBCO BusinessEvents 5.-0.

### 2.3.1.2. Dialogs

Chapter describes dialogs in module for TIBCO BusinessEvents.

### 2.3.1.2.1. Creating TIBCO BusinessEvents Module Project

Chapter describes creation of TIBCO BusinessEvents Module project.



New

Select a wizard

Creates a new MakeDoc for TIBCO BusinessEvents documentation project

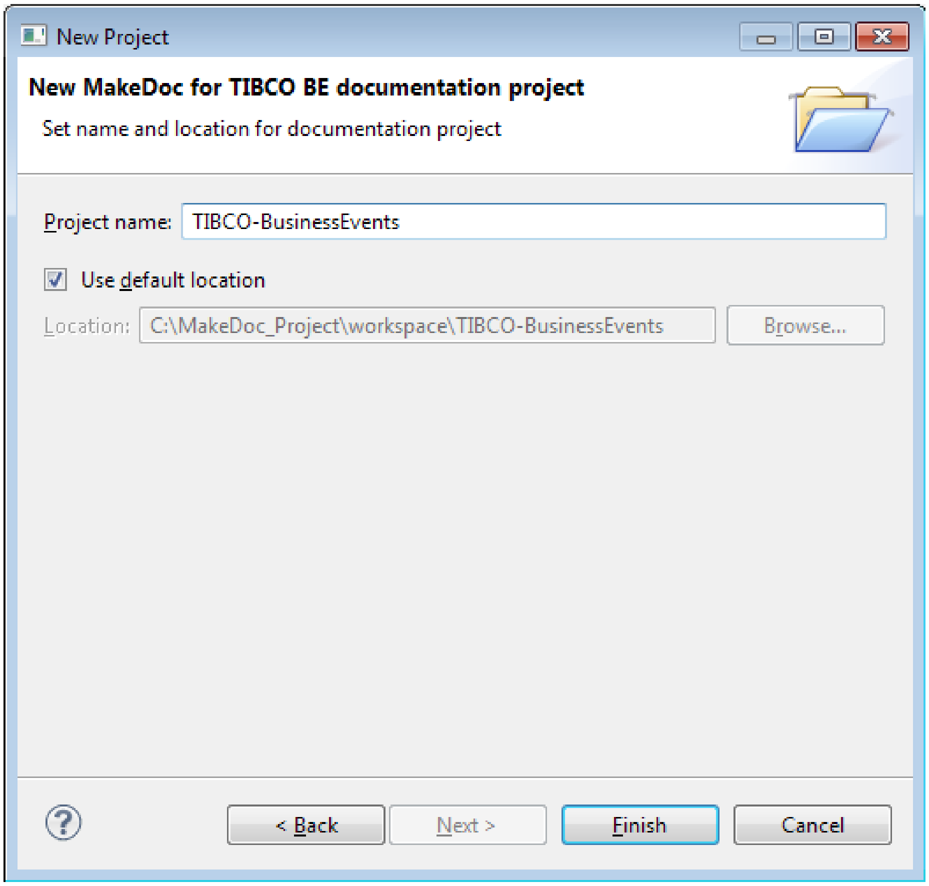
Wizards:

type filter text

- MakeDoc CrossReference
- MakeDoc for TIBCO Business Studio
- MakeDoc for TIBCO BusinessEvents
  - BusinessEvents Custom Functions
  - BusinessEvents Documentation Project
  - BusinessEvents Filter
  - BusinessEvents Profile
  - BusinessEvents Project Libraries
  - BusinessEvents Projects
  - BusinessEvents QualityAssurance Rule
  - BusinessEvents ThirdParty Libraries
  - BusinessEvents Validator

Figure42. New TIBCO BusinessEvents Module Project wizard

Name of project can be set in next wizard page.



New Project
New MakeDoc for TIBCO BE documentation project
Set name and location for documentation project

Project name: TIBCO-BusinessEvents

☑ Use default location

Location: C:\MakeDoc_Project\workspace\TIBCO-BusinessEvents

Browse...
< Back
Next >
Finish
Cancel

Figure43. **New TIBCO BusinessEvents Module Project wizard - Project Name**

MakeDoc creates main project structure after pressing Finish.

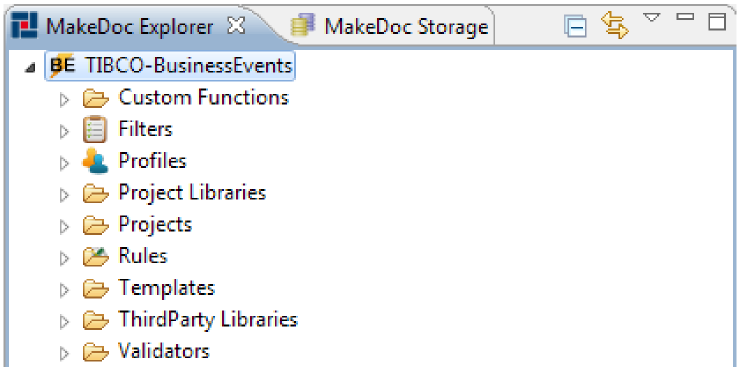


Figure44. **Created project structure**

Project contains nine folders:

- Custom Functions - contains added functions used by TIBCO projects.
- Filters - contains filters for reducing generated documentation
- Profiles - contains profiles for selecting TIBCO BusinessEvents project to document, output format of documentation and selecting of applied QualityAssurance rules
- Project Libraries - contains project libraries used by TIBCO projects.
- Projects - contains all TIBCO BusinessEvents projects to document

- Rules - contains QualityAssurance rules
- Templates - contains FreeMarker templates
- ThirdParty Libraries - contains libraries of the third party used by TIBCO projects.
- Validators - contains Validators for TIBCO BE projects.

### 2.3.1.2.2. Working with TIBCO BusinessEvents projects

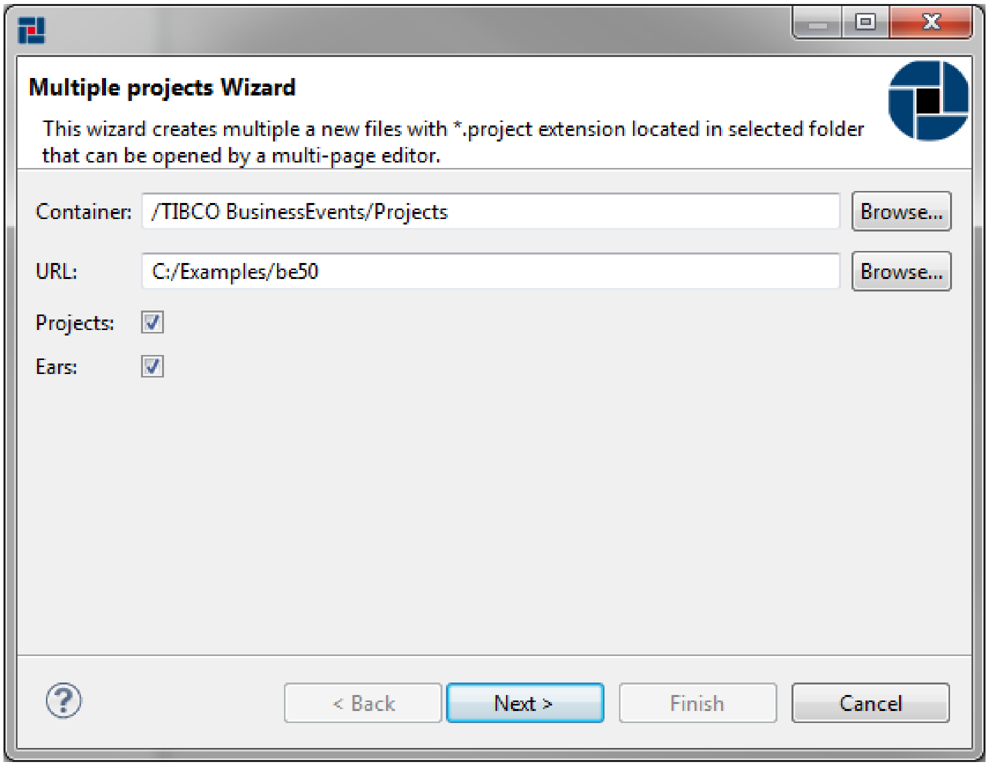
Chapter describes creating and editing TIBCO BusinessEvents projects. TIBCO BusinessEvents project can link to directory with TIBCO BusinessEvents project sources or EAR file with configuration file.

### *2.3.1.2.2.1. Creating TIBCO BusinessEvents project*

TIBCO BusinessEvents project can be created by New Multiple BusinessEvents Projects wizard. New Multiple BusinessEvents Projects wizard allows create more TIBCO BusinessEvents projects by one step.

**Creating multiple BusinessEvents projects**

Right click on Project folder in TIBCO BusinessEvents Module project and select New > BusinessEvents Project


**Multiple projects Wizard**

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

Container: /TIBCO BusinessEvents/Projects

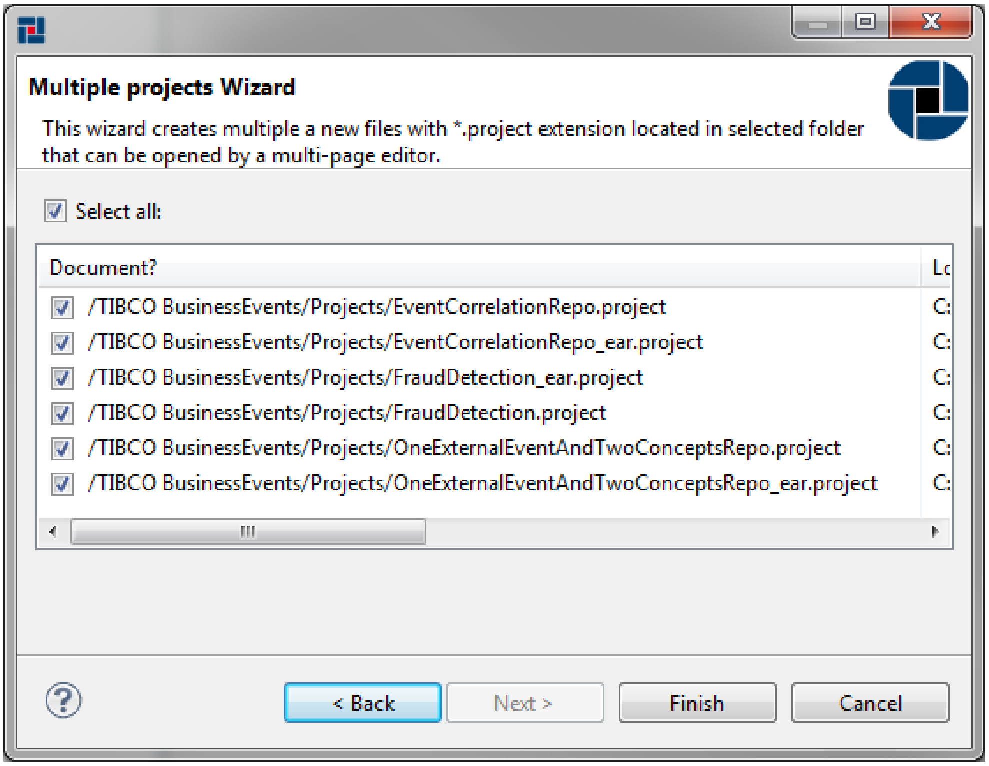
URL: C:/Examples/be50

Projects: ☑

Ears: ☑

**Figure45. Multiple BusinessEvents Projects**

New Multiple BusinessEvents Projects wizard allows selection of desired type of source - Folders and EARs. After setting URL to directory, wizard tries to find all sources in selected folder recursively and shows all found TIBCO BusinessEvents Projects for selecting or deselecting found projects.



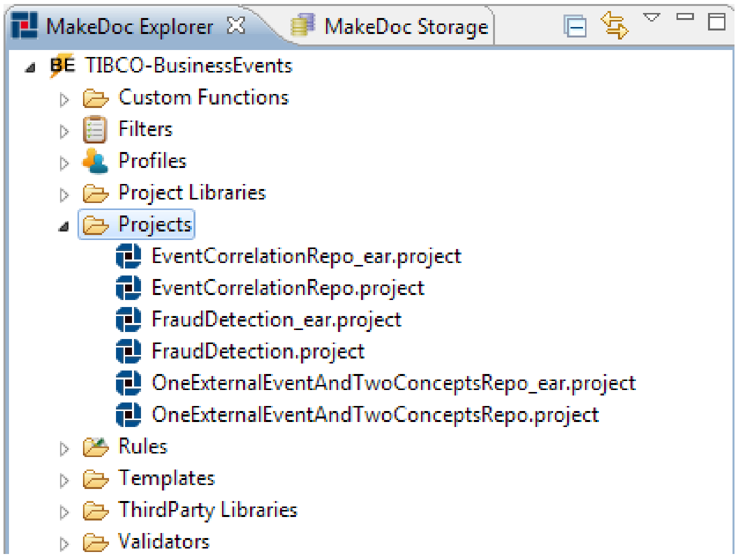
Multiple projects Wizard

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Lc |
|---|---|
| ☑ /TIBCO BusinessEvents/Projects/EventCorrelationRepo.project | C: |
| ☑ /TIBCO BusinessEvents/Projects/EventCorrelationRepo_ear.project | C: |
| ☑ /TIBCO BusinessEvents/Projects/FraudDetection_ear.project | C: |
| ☑ /TIBCO BusinessEvents/Projects/FraudDetection.project | C: |
| ☑ /TIBCO BusinessEvents/Projects/OneExternalEventAndTwoConceptsRepo.project | C: |
| ☑ /TIBCO BusinessEvents/Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C: |

Figure46. Found BusinessEvents projects

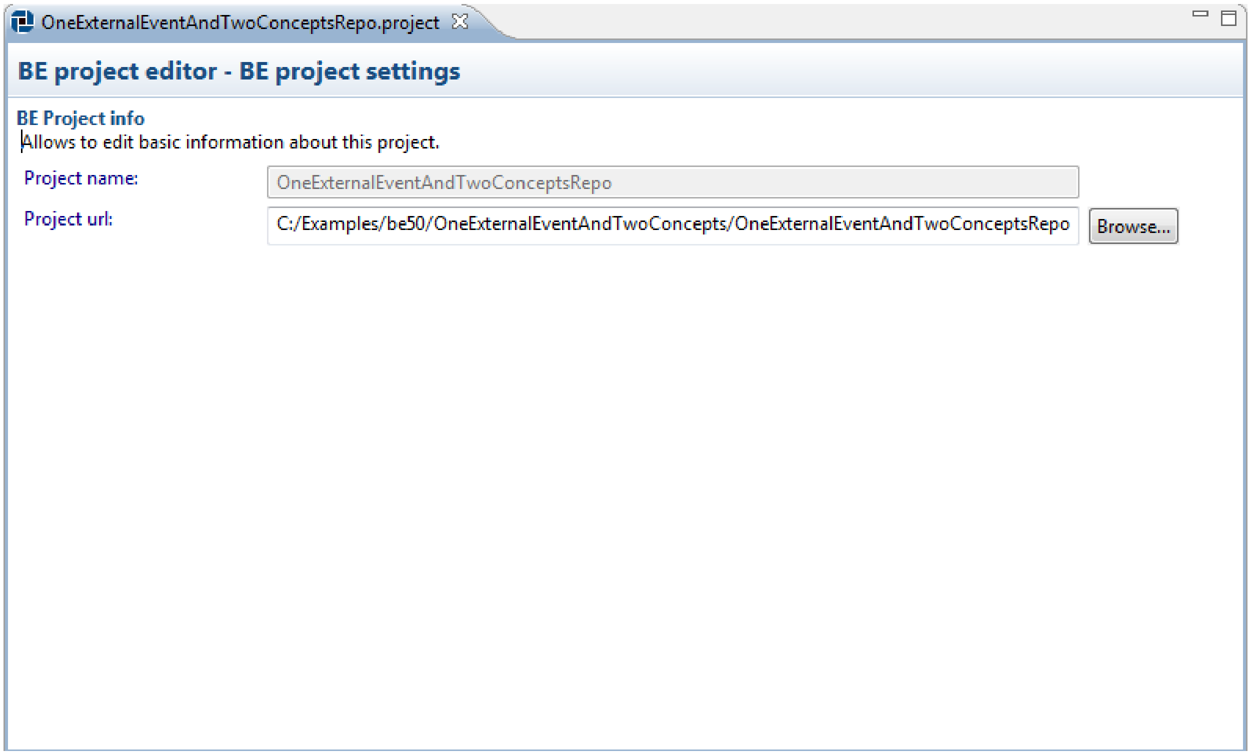


MakeDoc Explorer
MakeDoc Storage
TIBCO-BusinessEvents
Custom Functions
Filters
Profiles
Project Libraries
Projects
EventCorrelationRepo_ear.project
EventCorrelationRepo.project
FraudDetection_ear.project
FraudDetection.project
OneExternalEventAndTwoConceptsRepo_ear.project
OneExternalEventAndTwoConceptsRepo.project
Rules
Templates
ThirdParty Libraries
Validators

Figure47. Created projects by Multiple BusinessEvents Projects

### *2.3.1.2.2.2. Editing BusinessEvents project*

Existing BusinessEvents projects can be modified by BusinessEvents Project Editor. Editor allows change path to TIBCO BusinessEvents source directory or EAR and EAR configuration file.



BE project editor - BE project settings

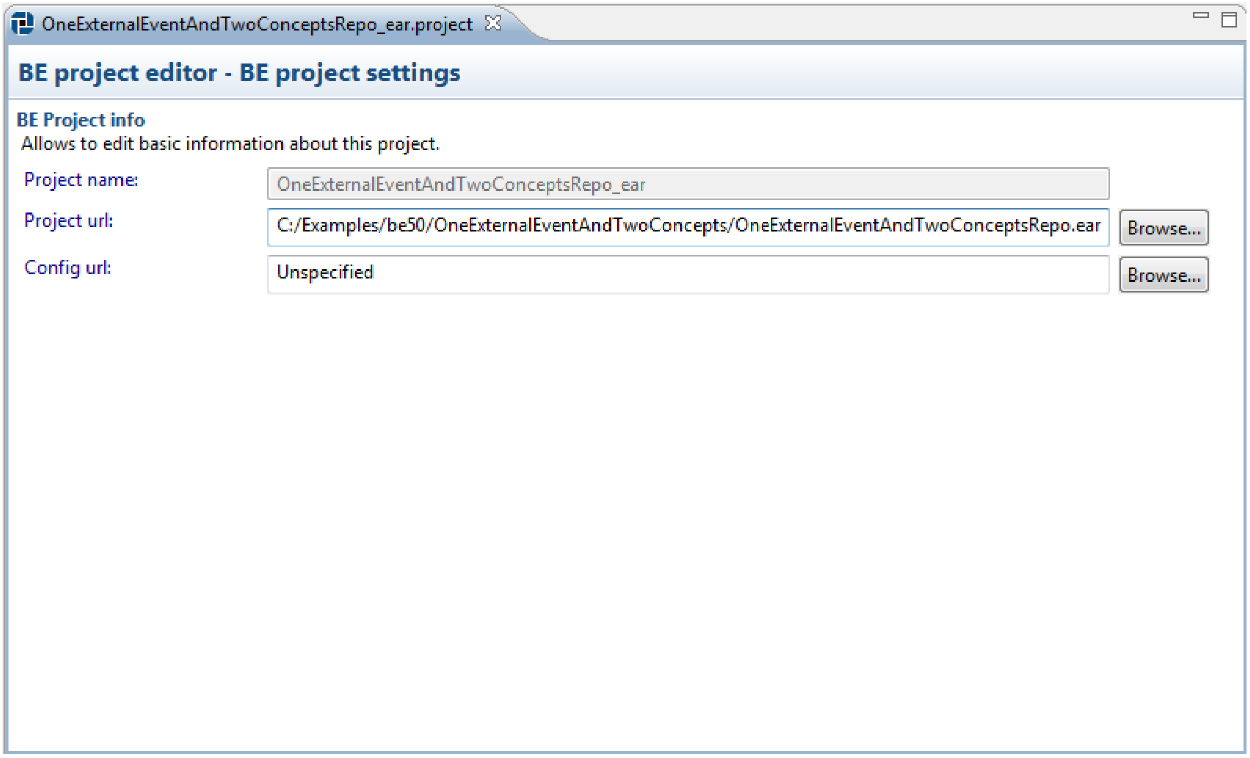
BE Project info

Allows to edit basic information about this project.

Project name: OneExternalEventAndTwoConceptsRepo

Project url: C:/Examples/be50/OneExternalEventAndTwoConcepts/OneExternalEventAndTwoConceptsRepo

Figure48. BusinessEvents Project Editor with directory source



BE project editor - BE project settings

BE Project info

Allows to edit basic information about this project.

Project name: OneExternalEventAndTwoConceptsRepo_ear

Project url: C:/Examples/be50/OneExternalEventAndTwoConcepts/OneExternalEventAndTwoConceptsRepo.ear

Config url: Unspecified

Figure49. BusinessEvents Project Editor with EAR source

### 2.3.1.2.3. Working with Profiles

Chapter describes working with Profiles. Three Profiles are created automatically. Profiles allow:

- start documentation process
- set output format - HTML, PDF, DOCX
- set paper format
- set filter
- set Storage setting - Storage, Repository location
- set subset of units to be documented in this profile when 'Document all units' option is not used
- set Quality Assurance rules
- set Project Libraries
- set Custom Functions
- set Validators

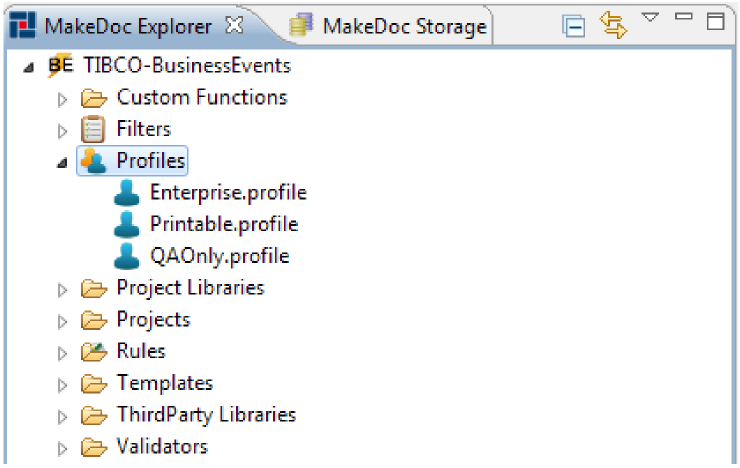
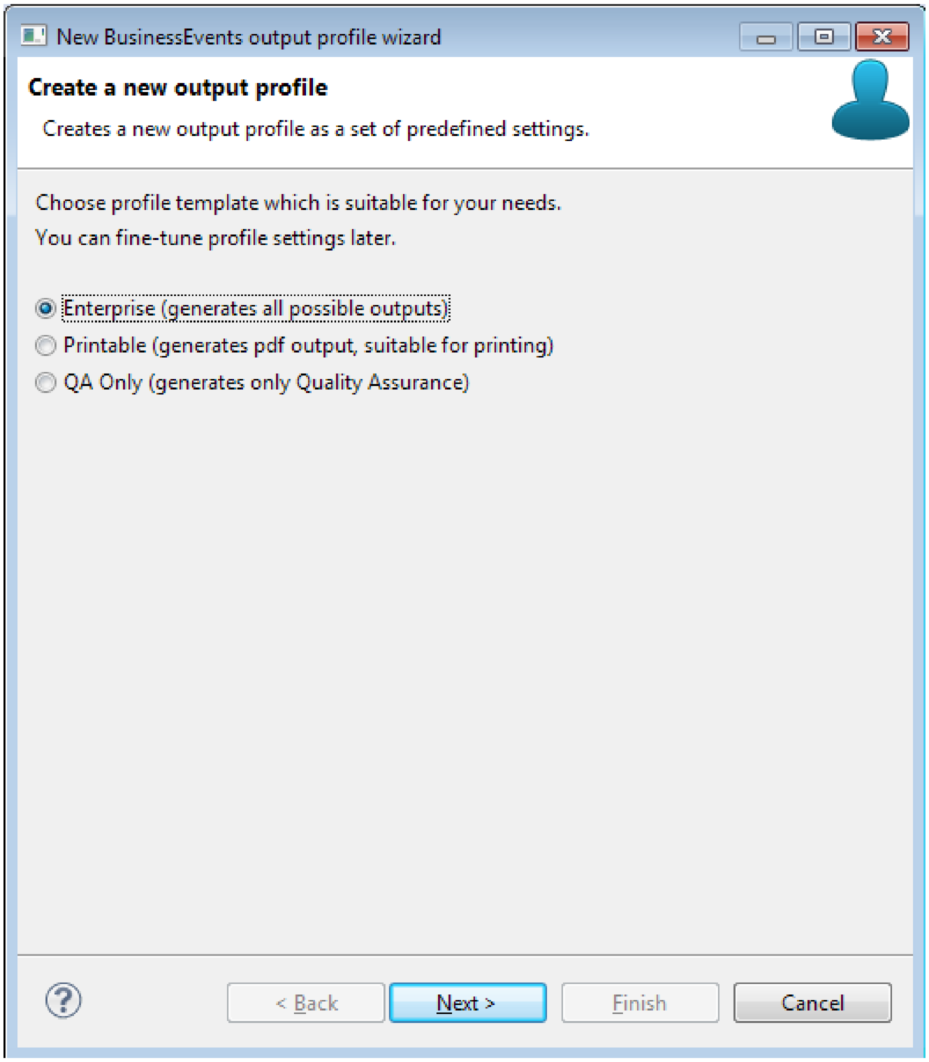


**Figure50. Default Profiles in project**

#### *2.3.1.2.3.1. Creating BusinessEvents Profiles*

BusinessEvents Profiles can be created by BusinessEvents Profile wizard. To open BusinessEvents Profile wizard right-click on folder Profiles and select New > BusinessEvents Profile.



New BusinessEvents output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Choose profile template which is suitable for your needs.

You can fine-tune profile settings later.

● Enterprise (generates all possible outputs)

○ Printable (generates pdf output, suitable for printing)

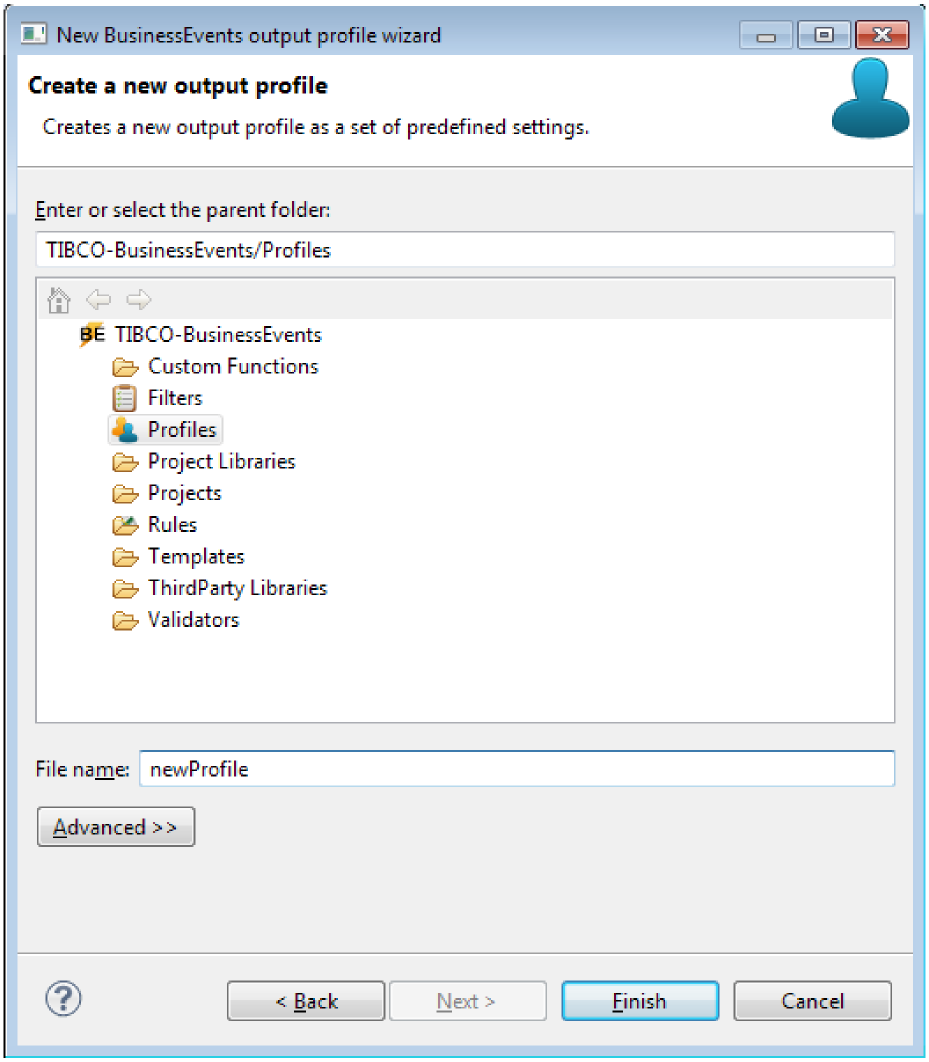
○ QA Only (generates only Quality Assurance)

Figure51. **BusinessEvents Profile wizard**

First page allow select predefined type of Profile:

- Enterprise - in default generates all outputs
- Printable - in default generates only PDF output
- QA Only - in default generates only QA output

On next page is possible select destination folder of created Profile and set name of new Profile.



New BusinessEvents output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Enter or select the parent folder: TIBCO-BusinessEvents/Profiles

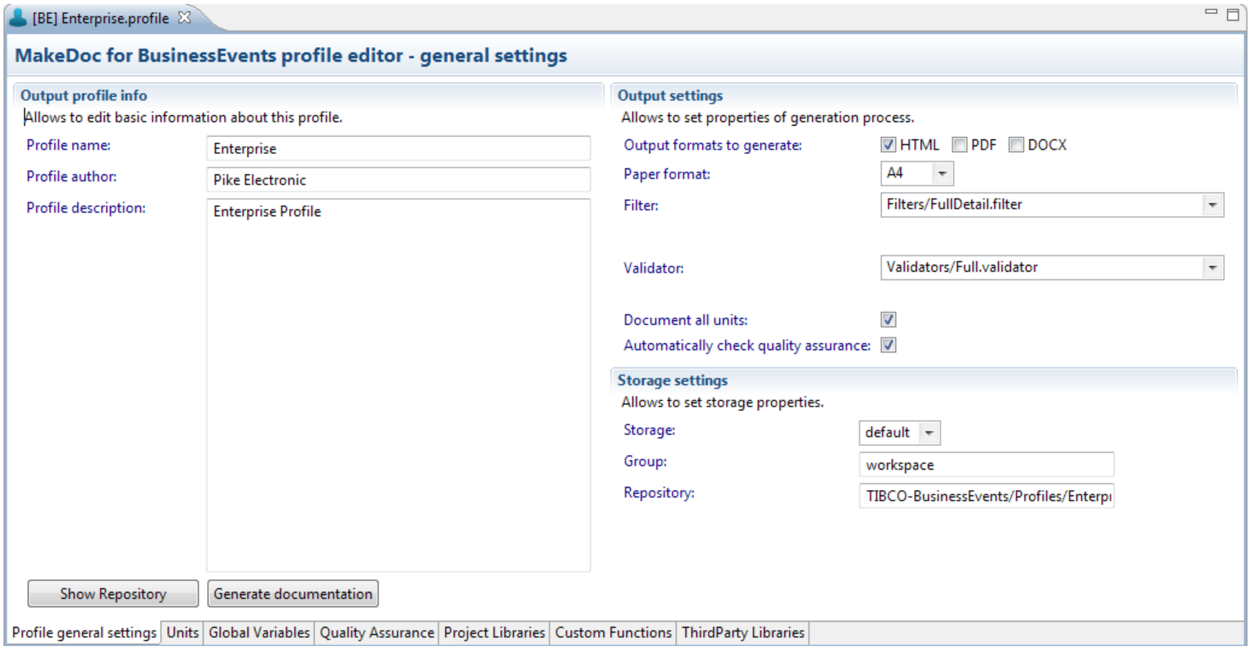
File name: newProfile

Figure52. **BusinessEvents Profile wizard - destination folder and Profile name**

Wizard creates new Profile in selected folder after pressing Finish button.

### *2.3.1.2.3.2. Editing BusinessEvents Profiles*

Existing BusinessEvents Profiles can be modified by BusinessEvents Profile Editor. Double click on BusinessEvents Profile opens BusinessEvents Profile Editor.



MakeDoc for BusinessEvents profile editor - general settings

Output profile info

Allows to edit basic information about this profile.

| | |
|---|---|
| Profile name: | Enterprise |
| Profile author: | Pike Electronic |
| Profile description: | Enterprise Profile |

Output settings

Allows to set properties of generation process.

| | |
|---|---|
| Output formats to generate: | ☑ HTML ☐ PDF ☐ DOCX |
| Paper format: | A4 |
| Filter: | Filters/FullDetail.filter |
| Validator: | Validators/Full.validator |
| Document all units: | ☑ |
| Automatically check quality assurance: | ☑ |

Storage settings

Allows to set storage properties.

| | |
|---|---|
| Storage: | default |
| Group: | workspace |
| Repository: | TIBCO-BusinessEvents/Profiles/Enterpı |

**Figure53. BusinessEvents Profile Editor**

BusinessEvents Profile Editor contains seven bookmarks.

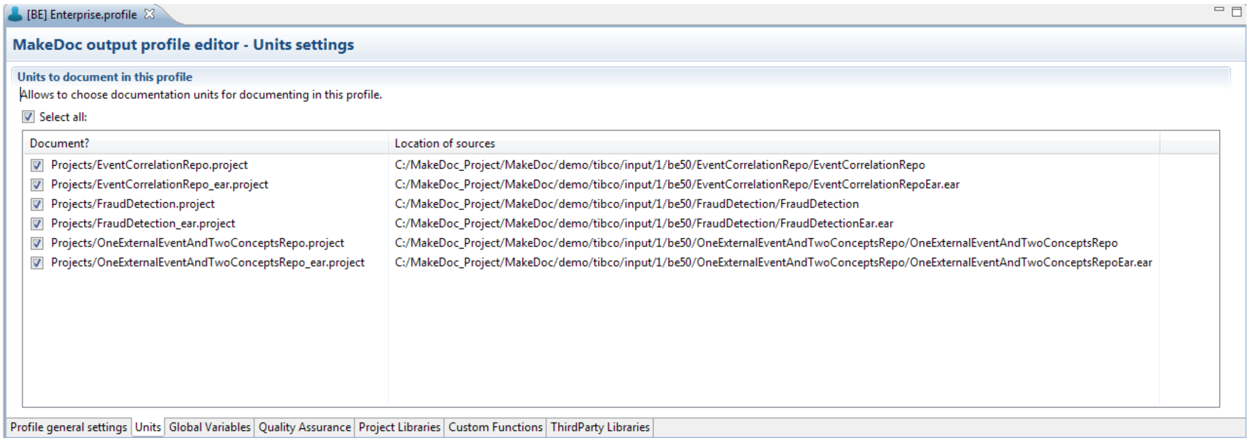
First bookmark Profile general settings allows set Profile name, which is showed in generated documentation name. Profile author says who creates Profile. Project description contains short information about Profile.

Output settings allow to set properties of generation process such as output formats to generate, paper format, filter and two checkboxes for fast selecting all Units and Quality Assurance Rules to document.

Last Storage settings allow to set storage properties as Storage and Repository location.

Button Generate documentation starts documentation process.

Button Show Repository select las generated snapshot of this profile in MakeDocStorage.



MakeDoc output profile editor - Units settings

Units to document in this profile

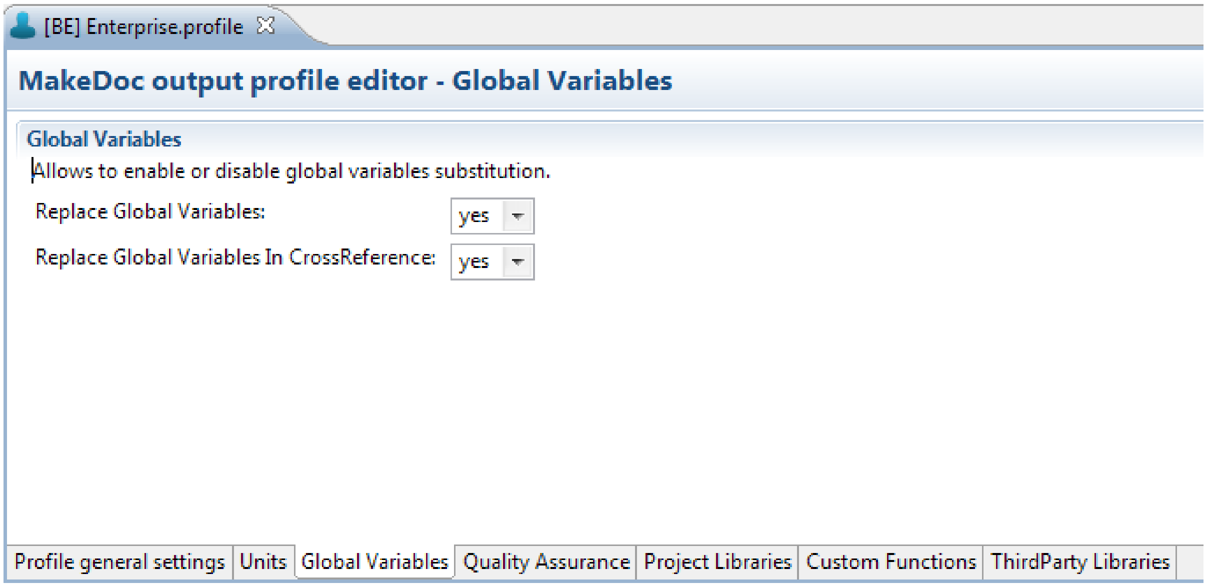
Allows to choose documentation units for documenting in this profile.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/EventCorrelationRepo/EventCorrelationRepo |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/EventCorrelationRepo/EventCorrelationRepoEar.ear |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/FraudDetection/FraudDetection |
| ☑ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/FraudDetection/FraudDetectionEar.ear |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/OneExternalEventAndTwoConceptsRepo/OneExternalEventAndTwoConceptsRepo |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/OneExternalEventAndTwoConceptsRepo/OneExternalEventAndTwoConceptsRepoEar.ear |

**Figure54. BusinessEvents Profile Editor - Units**

BusinessEvents Profile has selected all Units to document in default. Unit means BusinessEvents Project. Second bookmark Units provides selection of Units to document and shows all Units which are stored in Profile's BusinessEvents Module project. All Units can be selected automatically by checkbox Select all.



[BE] Enterprise.profile

MakeDoc output profile editor - Global Variables

Global Variables

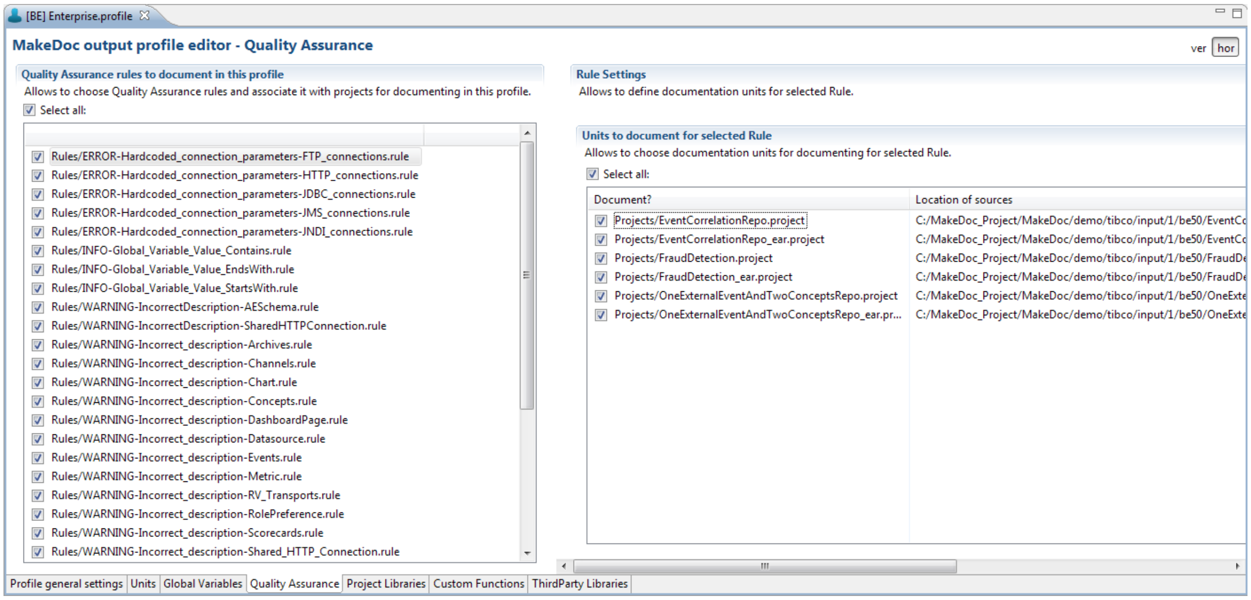
Allows to enable or disable global variables substitution.

Replace Global Variables: yes

Replace Global Variables In CrossReference: yes

Figure55. **BusinessEvents Profile Editor - Global Variables**

Global Variables are variables used in BE project. It means you can change variable on one place. Thanks to this are changes distribuated to all places where Global Variables are used. In this bookmark you can select if you allow to enable or disable Global Variables substitution.(Project, Crossreference)



[BE] Enterprise.profile

MakeDoc output profile editor - Quality Assurance

Quality Assurance rules to document in this profile

Allows to choose Quality Assurance rules and associate it with projects for documenting in this profile.

☑ Select all:

☑ Rules/ERROR-Hardcoded_connection_parameters-FTP_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-HTTP_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JDBC_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JMS_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JNDI_connections.rule
☑ Rules/INFO-Global_Variable_Value_Contains.rule
☑ Rules/INFO-Global_Variable_Value_EndsWith.rule
☑ Rules/INFO-Global_Variable_Value_StartsWith.rule
☑ Rules/WARNING-IncorrectDescription-AESchema.rule
☑ Rules/WARNING-IncorrectDescription-SharedHTTPConnection.rule
☑ Rules/WARNING-Incorrect_description-Archives.rule
☑ Rules/WARNING-Incorrect_description-Channels.rule
☑ Rules/WARNING-Incorrect_description-Chart.rule
☑ Rules/WARNING-Incorrect_description-Concepts.rule
☑ Rules/WARNING-Incorrect_description-DashboardPage.rule
☑ Rules/WARNING-Incorrect_description-Datasource.rule
☑ Rules/WARNING-Incorrect_description-Events.rule
☑ Rules/WARNING-Incorrect_description-Metric.rule
☑ Rules/WARNING-Incorrect_description-RV_Transports.rule
☑ Rules/WARNING-Incorrect_description-RolePreference.rule
☑ Rules/WARNING-Incorrect_description-Scorecards.rule
☑ Rules/WARNING-Incorrect_description-Shared_HTTP_Connection.rule

Rule Settings

Allows to define documentation units for selected Rule.

Units to document for selected Rule

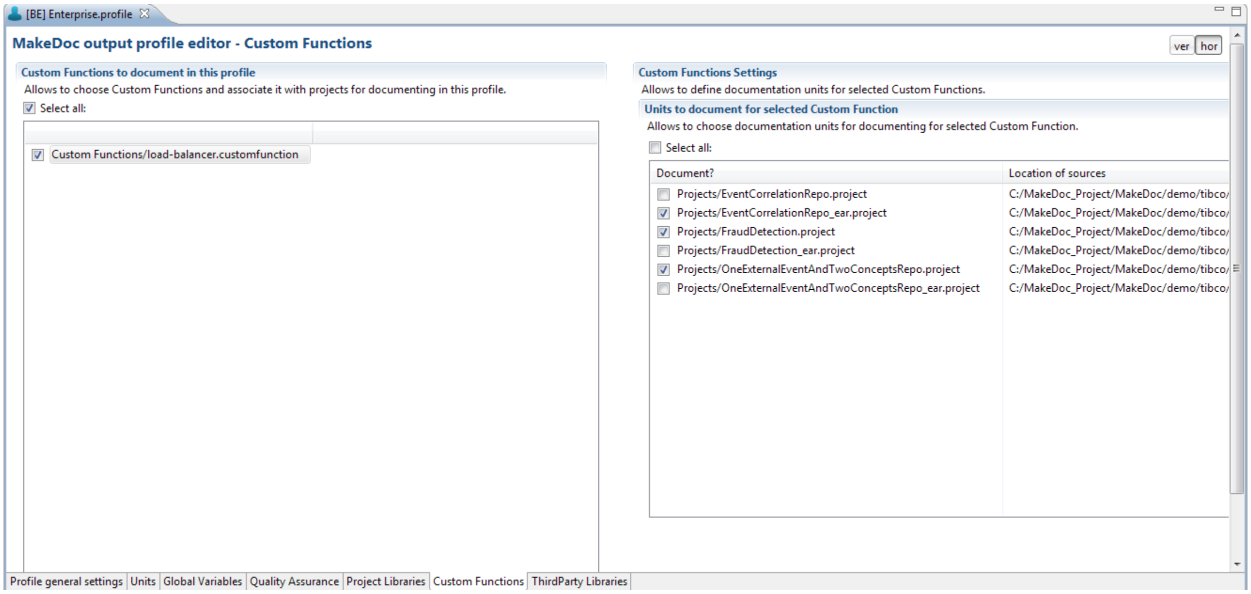
Allows to choose documentation units for documenting for selected Rule.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/EventCo |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/EventCo |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/FraudDe |
| ☑ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/FraudDe |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/OneExte |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo_ear.pr... | C:/MakeDoc_Project/MakeDoc/demo/tibco/input/1/be50/OneExte |

Figure56. **BusinessEvents Profile Editor - Quality Assurance**

BusinessEvents Profile has not selected Quality Assurance Rules to document in default. Last bookmark Quality Assurance provides selection of Rules to apply on sources and shows all Rules which are stored in Profile's BusinessEvents Module project. All Rules can be selected automatically by checkbox Select all.



MakeDoc output profile editor - Custom Functions

Custom Functions to document in this profile

Allows to choose Custom Functions and associate it with projects for documenting in this profile.

☑ Select all:

☑ Custom Functions/load-balancer.customfunction

Custom Functions Settings

Allows to define documentation units for selected Custom Functions.

Units to document for selected Custom Function

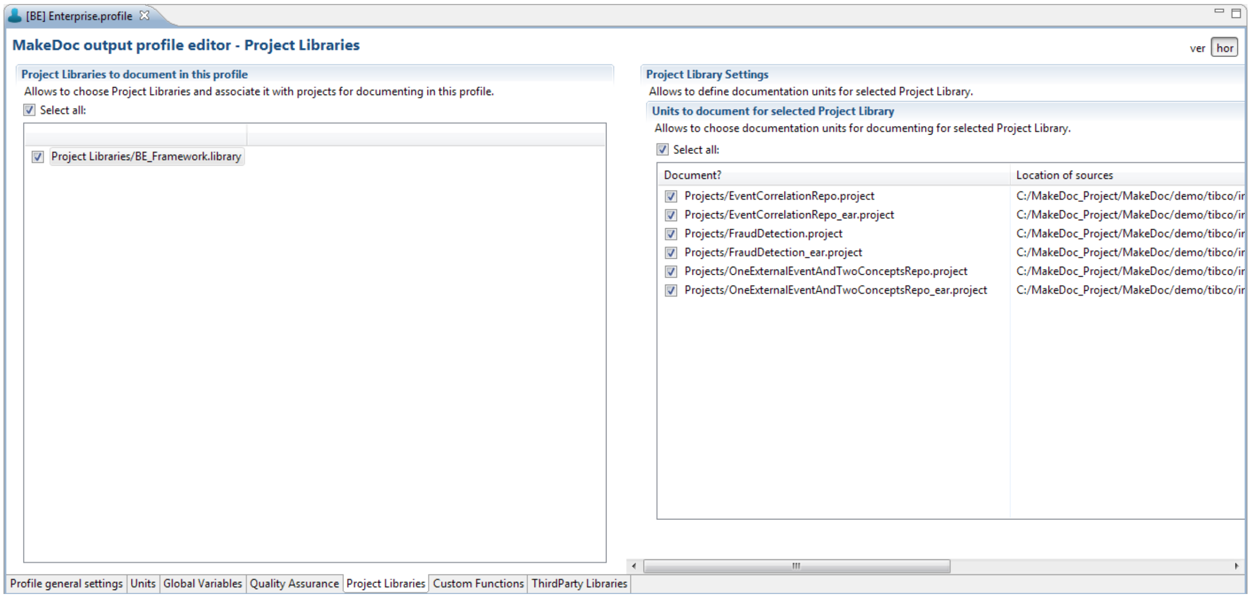
Allows to choose documentation units for documenting for selected Custom Function.

☐ Select all:

| Document? | Location of sources |
|---|---|
| ☐ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☐ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☐ Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |

**<span>Figure57.</span> BusinessEvents Profile Editor - Custom Functions**

Next bookmark Custom Functions provides selection of Custom Functions (*.jars) to allow to choose Custom Function and associate it with projects for documenting in this profile. All Custom Functions can be selected automatically by checkbox Select all.



MakeDoc output profile editor - Project Libraries

Project Libraries to document in this profile

Allows to choose Project Libraries and associate it with projects for documenting in this profile.

☑ Select all:

☑ Project Libraries/BE_Framework.library

Project Library Settings

Allows to define documentation units for selected Project Library.

Units to document for selected Project Library

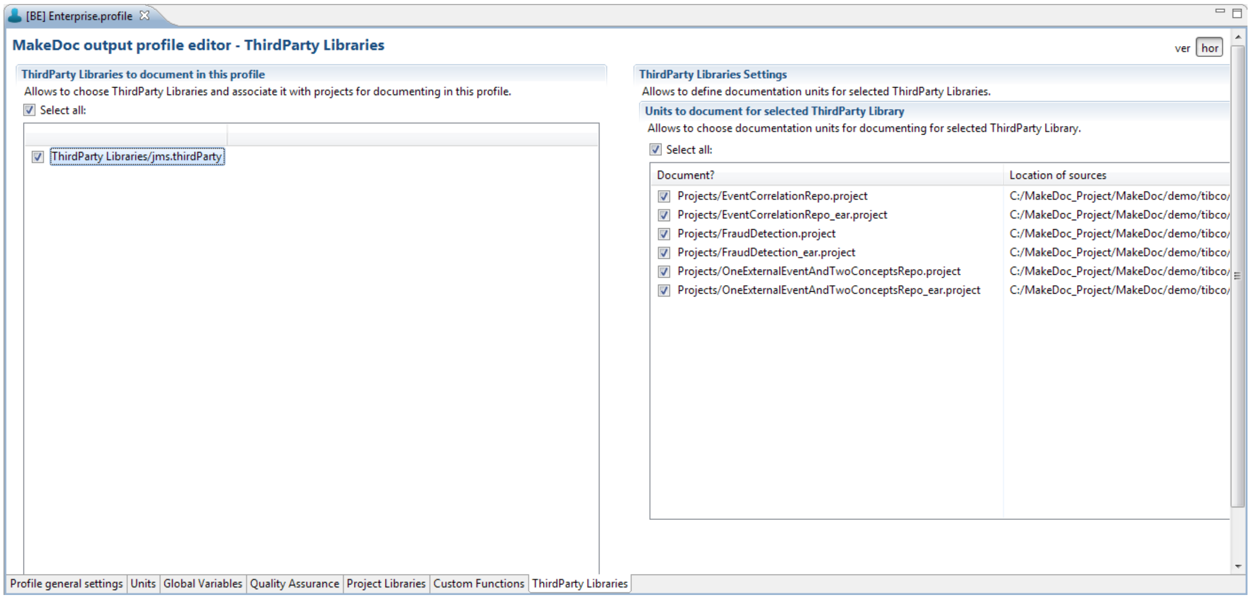
Allows to choose documentation units for documenting for selected Project Library.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |
| ☑ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ir |

**Figure58. BusinessEvents Profile Editor - Project Libraries**

Project Libraries bookmark provides selection of Project Libraries (*.projlib) to allow to choose Project Libraries and associate it with projects for documenting in this profile. All Project Libraries can be selected automatically by checkbox Select all.



[BE] Enterprise.profile

MakeDoc output profile editor - ThirdParty Libraries

ThirdParty Libraries to document in this profile

Allows to choose ThirdParty Libraries and associate it with projects for documenting in this profile.

☑ Select all:

☑ ThirdParty Libraries/jms.thirdParty

ThirdParty Libraries Settings

Allows to define documentation units for selected ThirdParty Libraries.

Units to document for selected ThirdParty Library

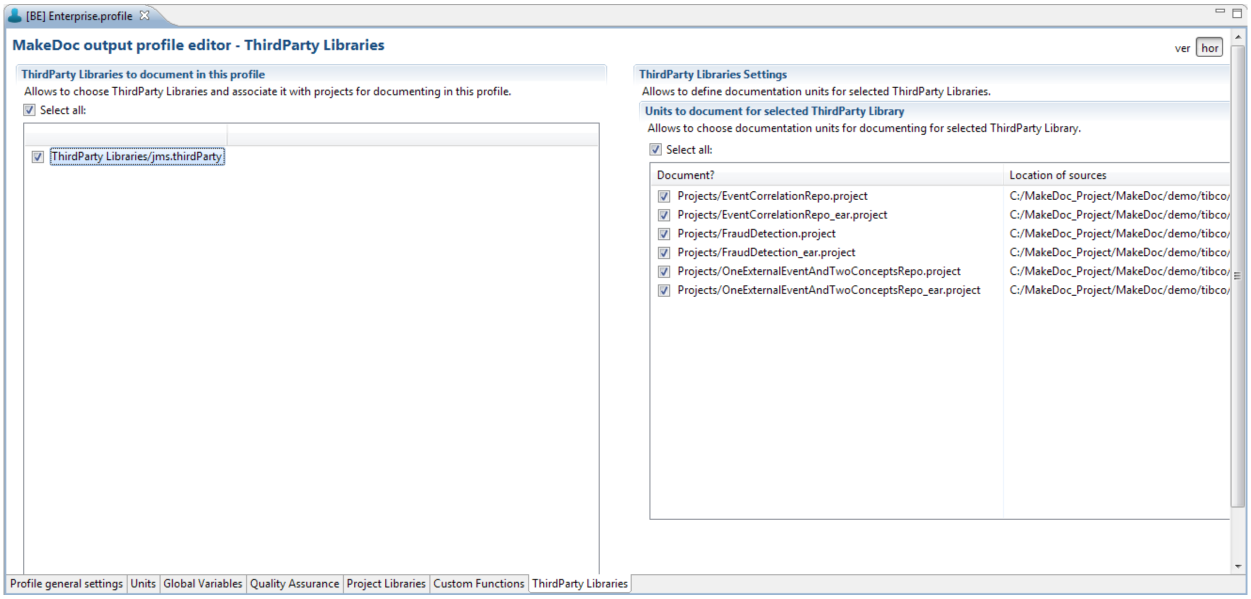
Allows to choose documentation units for documenting for selected ThirdParty Library.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |

Figure59. BusinessEvents Profile Editor - Third Party Libraries

Last bookmark Third Party Libraries provides selection of Third Party Libraries (*.jar) to allow to choose Third Party Libraries and associate it with projects for documenting in this profile. All Third Party Libraries can be selected automatically by checkbox Select all.



[BE] Enterprise.profile

MakeDoc output profile editor - ThirdParty Libraries

ThirdParty Libraries to document in this profile

Allows to choose ThirdParty Libraries and associate it with projects for documenting in this profile.

☑ Select all:

☑ ThirdParty Libraries/jms.thirdParty

ThirdParty Libraries Settings

Allows to define documentation units for selected ThirdParty Libraries.

Units to document for selected ThirdParty Library

Allows to choose documentation units for documenting for selected ThirdParty Library.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/EventCorrelationRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/EventCorrelationRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/FraudDetection.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/FraudDetection_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo_ear.project | C:/MakeDoc_Project/MakeDoc/demo/tibco/ |

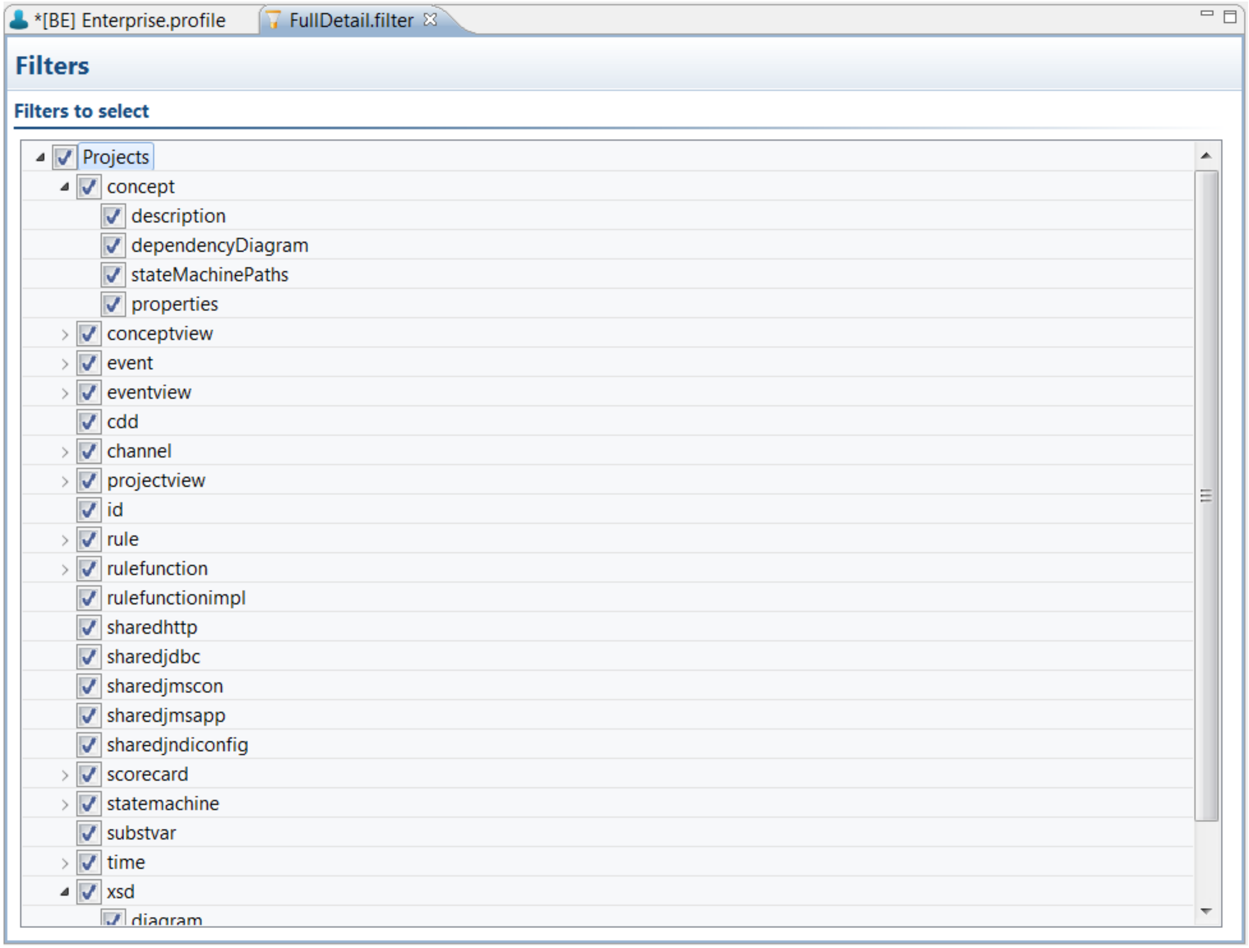
Figure60. BusinessEvents Profile Editor - ThirdParty Libraries

### 2.3.1.2.4. Working with Filters

Chapter describes editing Filters which exists.

### *2.3.1.2.4.1. Editing filters*

Existing filters can be modified by BusinessEvents Filter Editor. Filter allows reduce generated documentation by selecting parts showed in BusinessEvents Filter Editor.



**Filters**

**Filters to select**

- ☑ Projects
  - ☑ concept
    - ☑ description
    - ☑ dependencyDiagram
    - ☑ stateMachinePaths
    - ☑ properties
  - ☑ conceptview
  - ☑ event
  - ☑ eventview
  - ☑ cdd
  - ☑ channel
  - ☑ projectview
  - ☑ id
  - ☑ rule
  - ☑ rulefunction
  - ☑ rulefunctionimpl
  - ☑ sharedhttp
  - ☑ sharedjdbc
  - ☑ sharedjmscon
  - ☑ sharedjmsapp
  - ☑ sharedjndiconfig
  - ☑ scorecard
  - ☑ statemachine
  - ☑ substvar
  - ☑ time
  - ☑ xsd
    - ☑ diagram

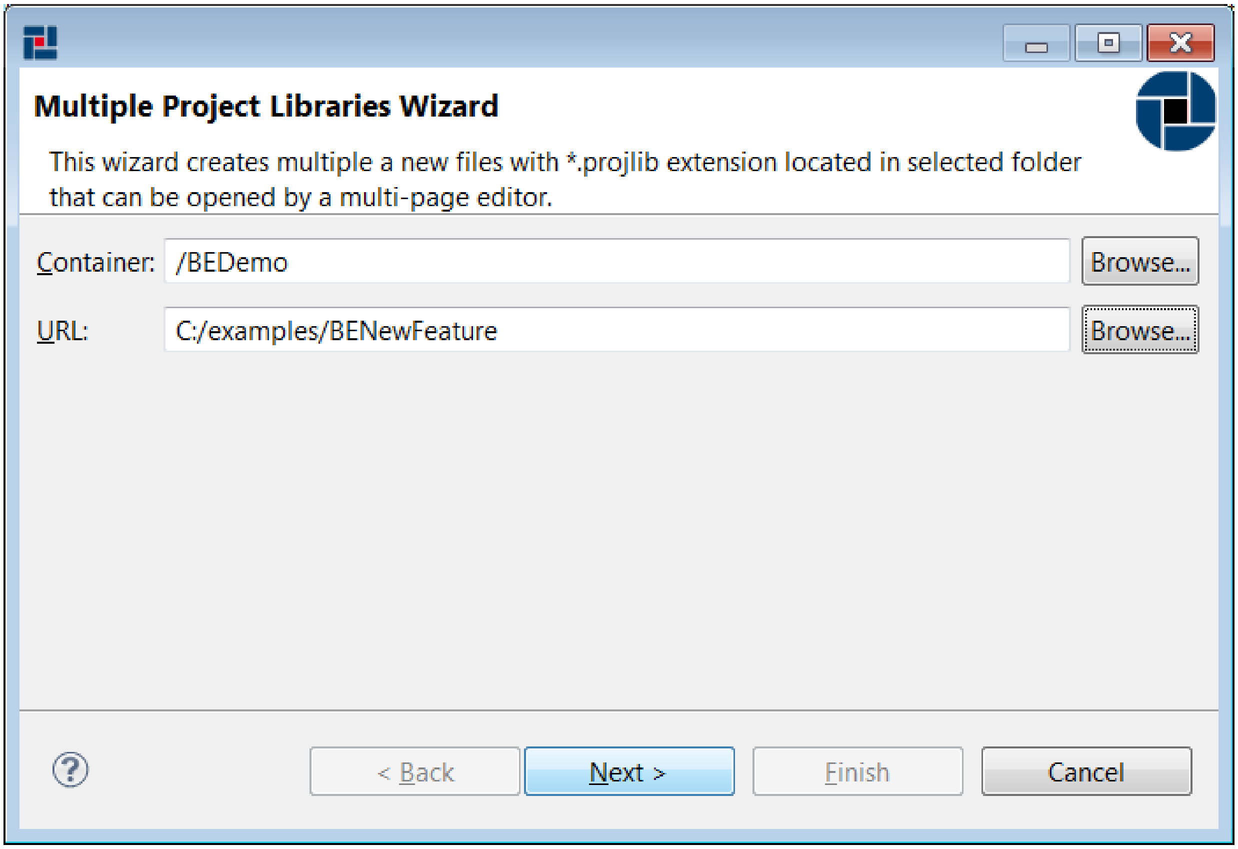
**Figure61. BusinessEvents Filter Editor**

Filter contains three parts. Projects, CrossReference and QualityAssurance. By deselecting parts is possible reduce generated documentation.

### 2.3.1.2.5. Working with Project Libraries

MakeDoc is able to document TIBCO BusinessEvents Project Libraries. In this chapter we will go through project library setup. As well as other resources project library is represented by file. To document project library we have to add project library resource to our documentation project. Process of adding project library is very similar to project creation. It holds wizard-editor fashion and offers batch project library files creation too.

To add Project Libraries files click right-click on Project Libraries folder in MakeDoc Explorer and run New->BusinessEvents Project Libraries. MakeDoc starts Project Libraries files creation wizard. Click Browse and navigate to the folder you would like to recursively search Project Libraries for. In this example it is C:/example/BENewFeature.



Multiple Project Libraries Wizard

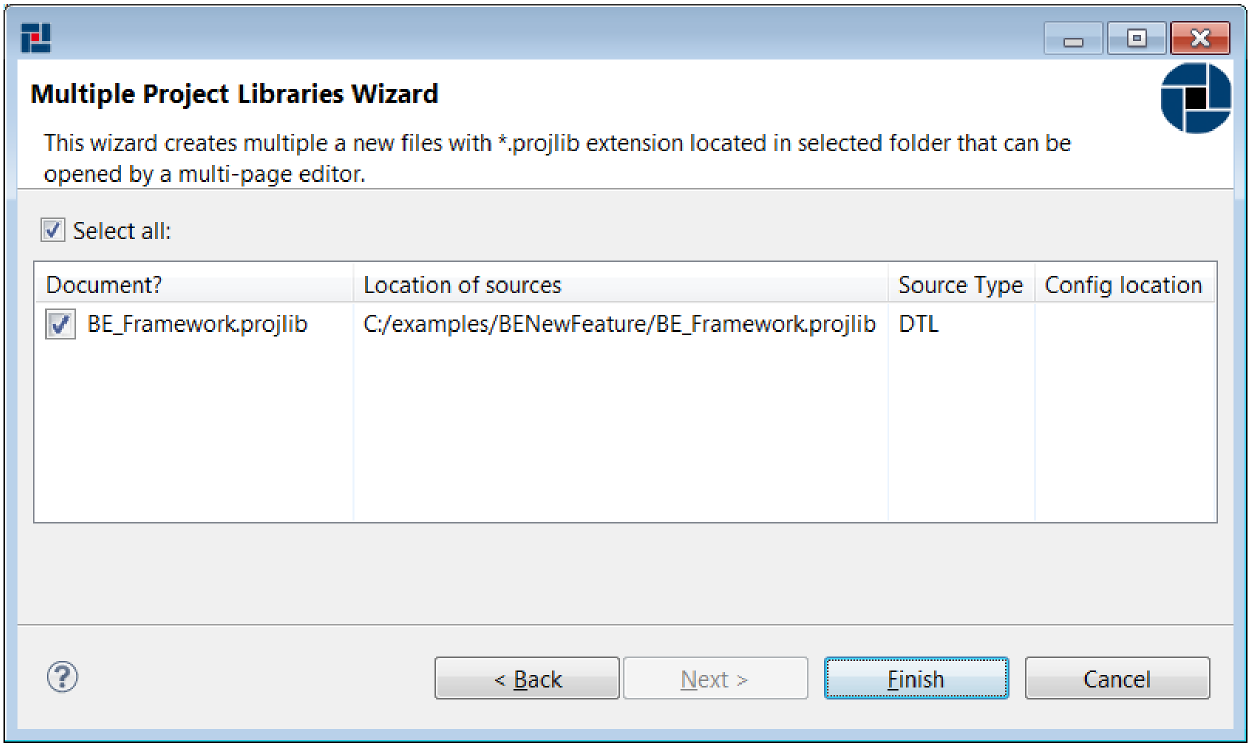
This wizard creates multiple a new files with *.projlib extension located in selected folder that can be opened by a multi-page editor.

Container: /BEDemo

URL: C:/examples/BENewFeature

Figure62. **New multiple Business Events Project Libraries Wizard**

MakeDoc will now search for Project Libraries in selected folder. By default all detected libraries are selected for addition.



Multiple Project Libraries Wizard

This wizard creates multiple a new files with *.projlib extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources | Source Type | Config location |
|---|---|---|---|
| ☑ BE_Framework.projlib | C:/examples/BENewFeature/BE_Framework.projlib | DTL | |

**Figure63. Add multiple Business Events Project Libraries Wizard - result page**

Click Finish to add Project Libraries to our project. MakeDoc Explorer now should look like this:

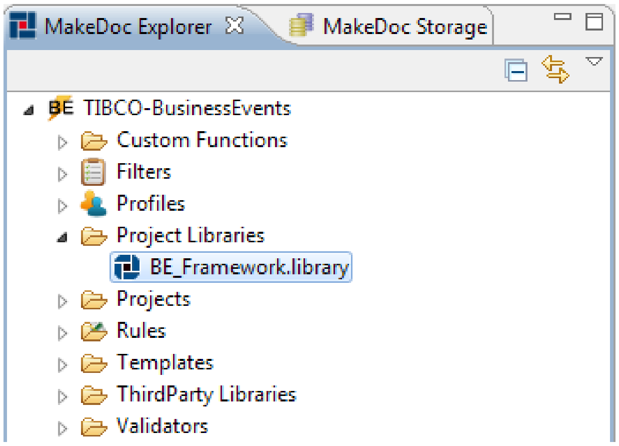
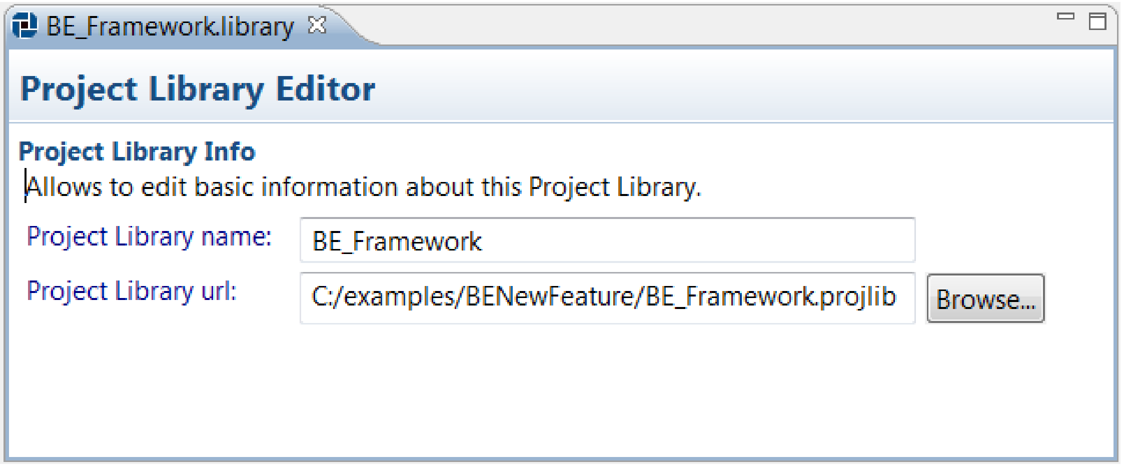


**Figure64. MakeDoc Explorer - added libraries**

To edit Project Library settings just click on corresponding file and Project Library Editor is opened immediately.



Project Library Editor

Project Library Info

Allows to edit basic information about this Project Library.

Project Library name: BE_Framework

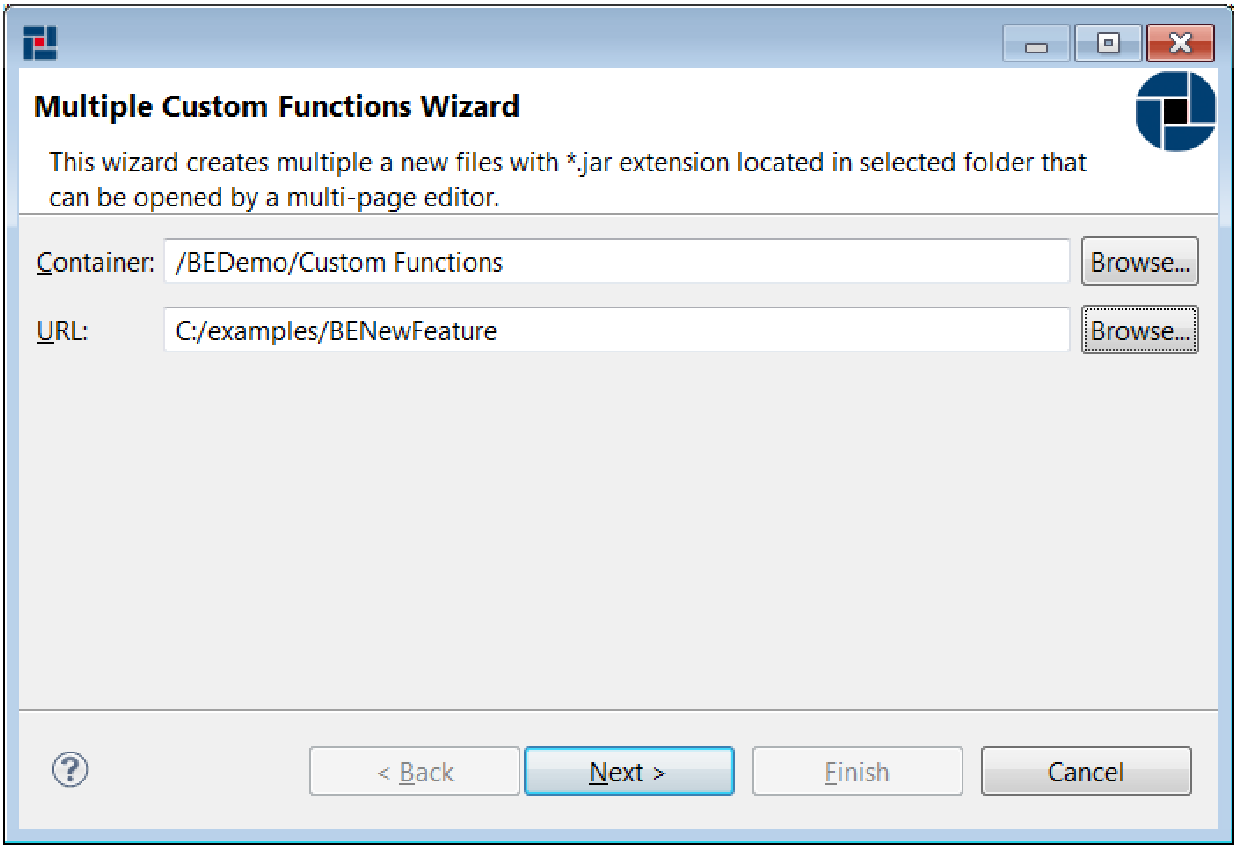
Project Library url: C:/examples/BENewFeature/BE_Framework.projlib

Figure65. **Project Libraries file editor**

### 2.3.1.2.6. Working with Custom Functions

MakeDoc is able to document TIBCO BusinessEvents Custom Functions. Custom Functions are *.jar files, that contains customer functions which are used in BE project. In this chapter we will go through Custom Function setup. As well as other resources custom function is represented by file. To document custom function we have to add custom function resource to our documentation project. Process of adding custom function is very similar to project creation. It holds wizard-editor fashion and offers batch custom function files creation too.

To add Custom Functions files click right-click on Custom Functions folder in MakeDoc Explorer and run New->BusinessEvents Custom Functions. MakeDoc starts Custom Functions files creation wizard. Click Browse and navigate to the folder you would like to recursively search Custom Functions for. In this example it is C:/example/BENewFeature.



**Multiple Custom Functions Wizard**

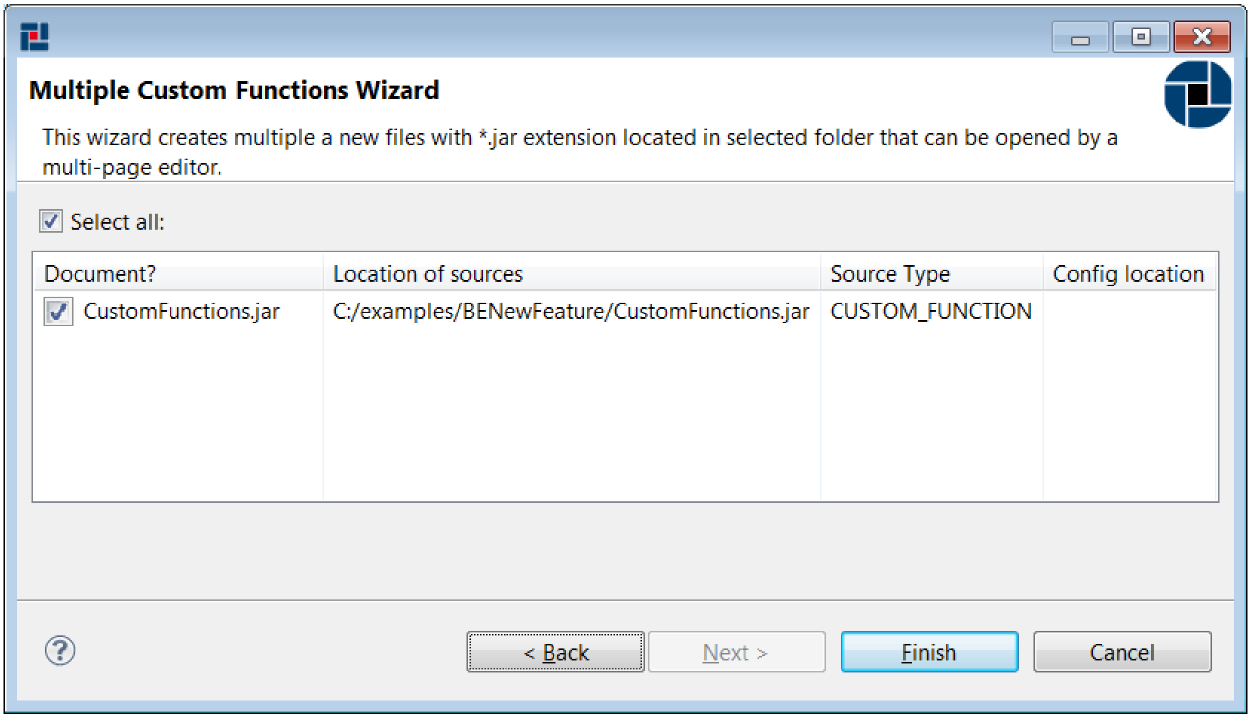
This wizard creates multiple a new files with *.jar extension located in selected folder that can be opened by a multi-page editor.

Container: /BEDemo/Custom Functions

URL: C:/examples/BENewFeature

Figure66. **New multiple Business Events Custom Functions Wizard**

First page allow set location of Custom Functions (*.jar): On the next page is possible select Custom Functions from folder selected in URL.



Multiple Custom Functions Wizard

This wizard creates multiple a new files with *.jar extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources | Source Type | Config location |
|---|---|---|---|
| ☑ CustomFunctions.jar | C:/examples/BENewFeature/CustomFunctions.jar | CUSTOM_FUNCTION | |

Figure67. New multiple Business Events Custom Functions Wizard - result page

Click Finish to add Custom Functions to our project. MakeDoc Explorer now should look like this:

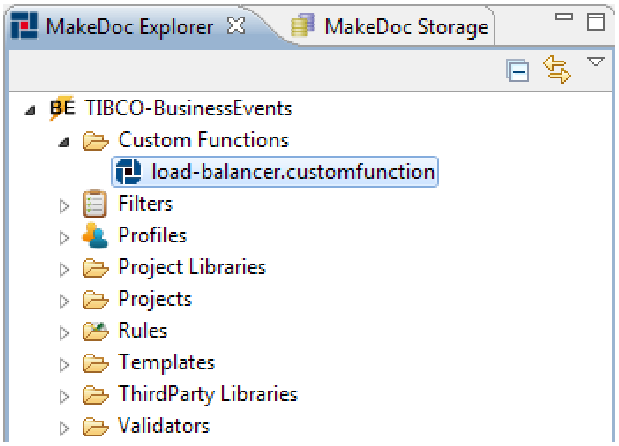
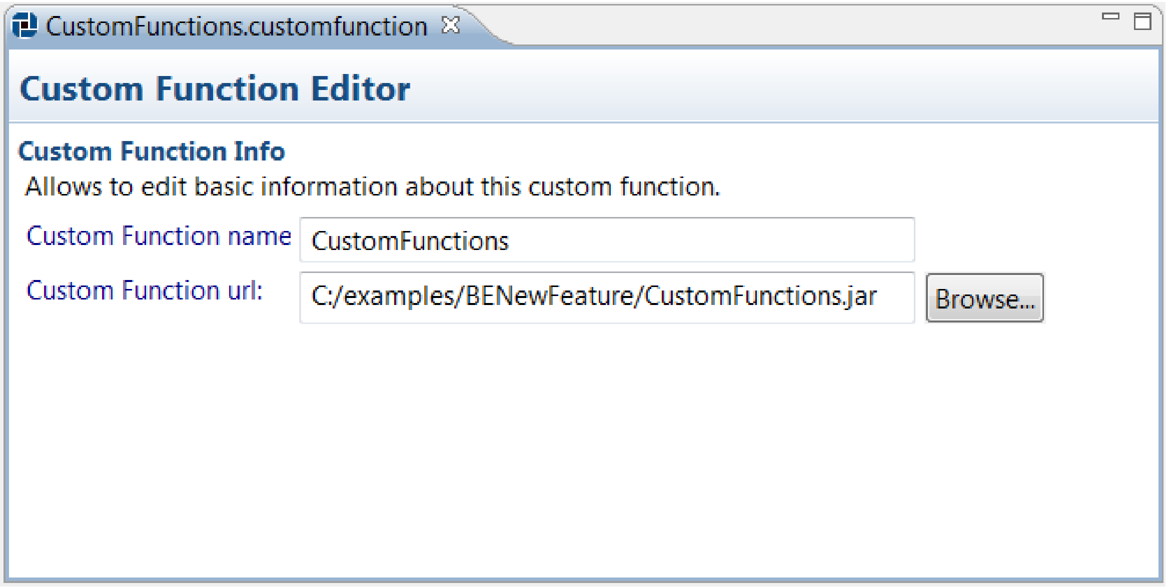


Figure68. MakeDoc Explorer - added libraries

To edit Custom Functions settings just click on corresponding file and Custom Functions Editor is opened immediately.



Custom Function Editor

Custom Function Info

Allows to edit basic information about this custom function.

Custom Function name: CustomFunctions

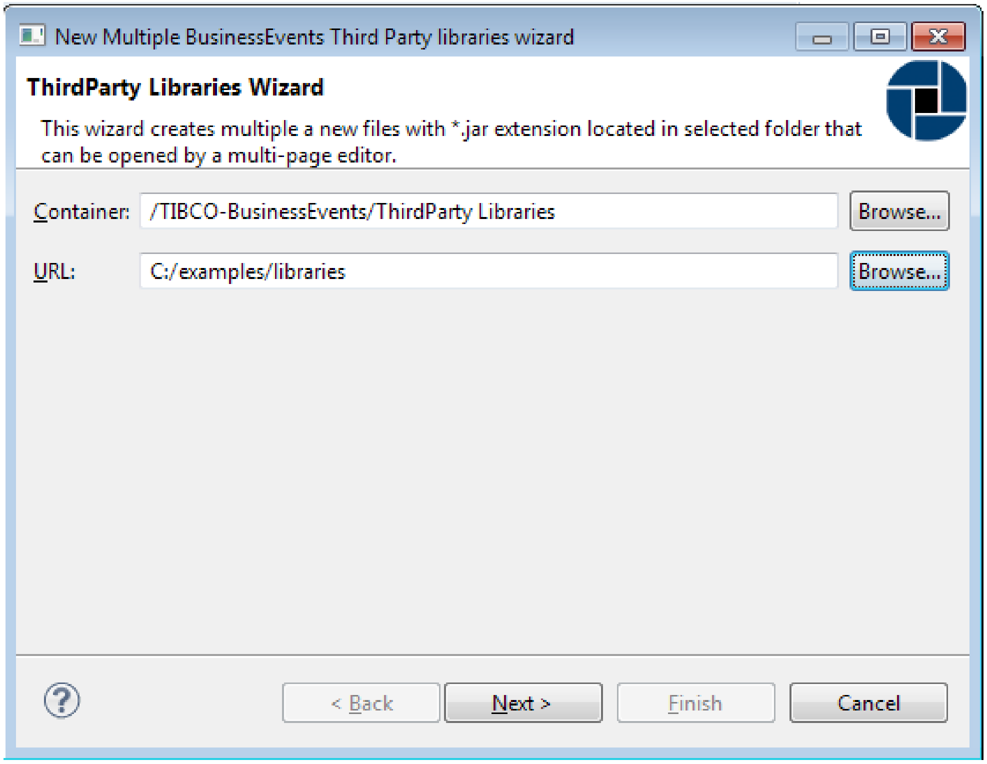
Custom Function url: C:/examples/BENewFeature/CustomFunctions.jar

Figure69. Custom Functions file editor

### 2.3.1.2.7. Working with ThirdParty Libraries

MakeDoc is able to document TIBCO BusinessEvents ThirdParty Libraries. ThirdParty Libraries are *.jar files, that contains third-party libraries which are used in BE project. In this chapter we will go through Thi-rdParty Libraries setup. As well as other resources thirdParty library is represented by file. To docume-nt thirdParty library we have to add thirdParty library resource to our documentation project. Process of adding thirdParty library is very similar to project creation. It holds wizard-editor fashion and offers batch thirdParty library files creation too.

To add ThirdParty Libraries files click right-click on ThirdParty Libraries folder in MakeDoc Explorer and run New->BusinessEvents ThirdParty Libraries. MakeDoc starts ThirdParty Libraries files creation wizard. Click Browse and navigate to the folder you would like to recursively search ThirdParty Libraries for. In this example it is C:/examples/libraries.



**ThirdParty Libraries Wizard**

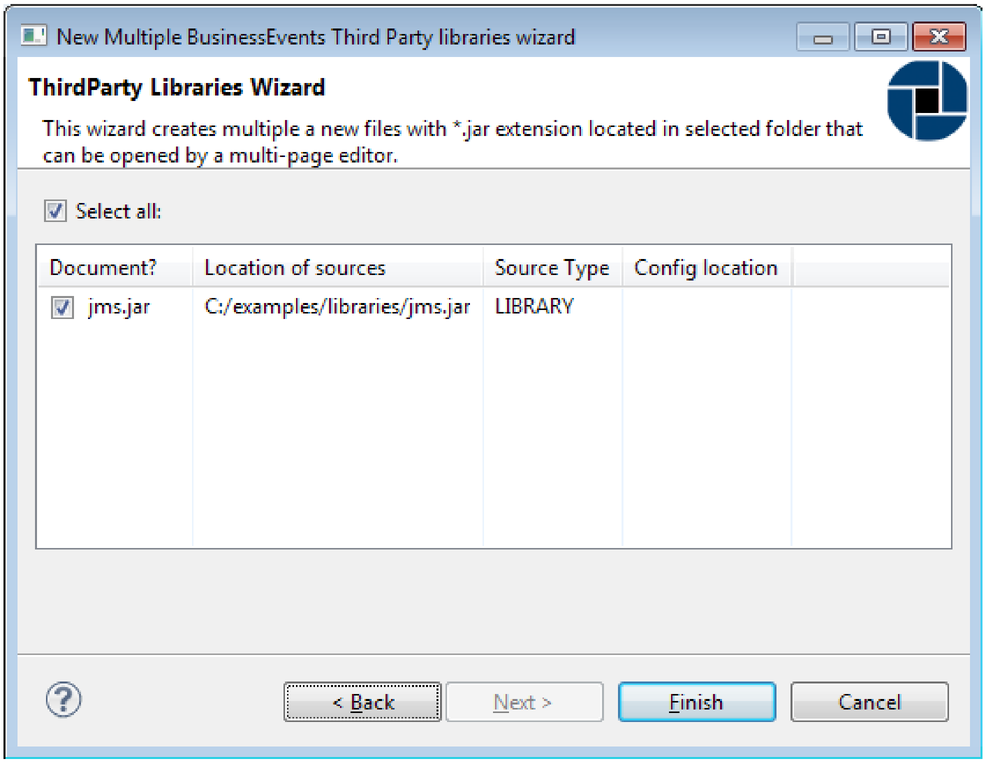
This wizard creates multiple a new files with *.jar extension located in selected folder that can be opened by a multi-page editor.

Container: /TIBCO-BusinessEvents/ThirdParty Libraries

URL: C:/examples/libraries

Figure70. **New multiple Business Events ThirdParty Libraries Wizard**

First page allow set location of ThirdParty Libraries (*.jar): On the next page is possible select ThirdParty Libraries from folder selected in URL.



New Multiple BusinessEvents Third Party libraries wizard

**ThirdParty Libraries Wizard**

This wizard creates multiple a new files with *.jar extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources | Source Type | Config location |
|---|---|---|---|
| ☑ jms.jar | C:/examples/libraries/jms.jar | LIBRARY | |

Figure71. **New multiple Business Events ThirdParty Libraries Wizard - result page**

Click Finish to add ThirdParty Libraries to our project. MakeDoc Explorer now should look like this:

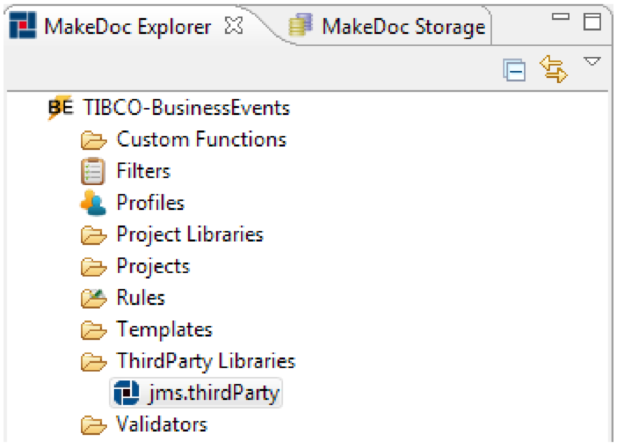
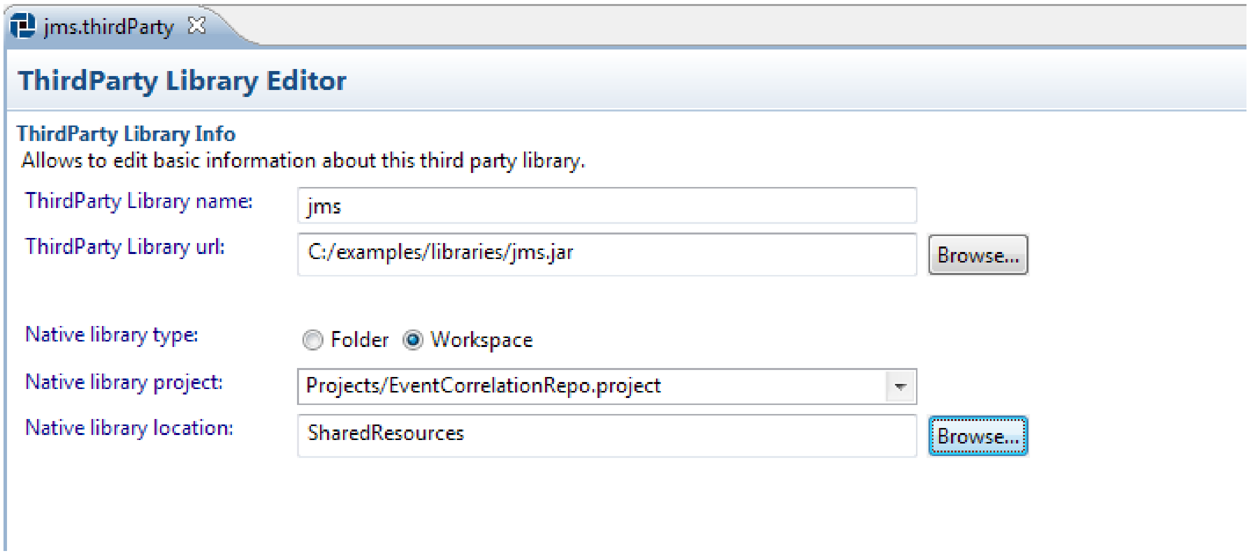


Figure72. **MakeDoc Explorer - added libraries**

To edit ThirdParty Libraries settings just click on corresponding file and ThirdParty Libraries Editor is opened immediately.



ThirdParty Library Editor

ThirdParty Library Info

Allows to edit basic information about this third party library.

ThirdParty Library name: jms

ThirdParty Library url: C:/examples/libraries/jms.jar

Native library type: ○ Folder ● Workspace

Native library project: Projects/EventCorrelationRepo.project

Native library location: SharedResources

Figure73. ThirdParty Libraries file editor

#### 2.3.1.2.8. Working with Rules

For working with Rules is used MakeDoc Quality Assurance editor described in Quality Assurance chapter.

### 2.3.2. Generated Output

Documentation can be generated in HTML, PDF and DOCX format (depends on licensed products). Each HTML document contains a tree navigation divided into three main parts - Project Documentation, Cross-reference Documentation and Quality Assurance Documentation. HTML contains Quality Assurance Documentation only if Quality Assurance Module is licensed. The Project Documentation part contains list of projects and each project contains all its resources. Navigation items are links to HTML documents and the menu is updated according to actually displayed content. The PDF format of documentation has bookmarks which are similar in structure to the HTML navigation. The DOCX documentation is another printable file format, which is also easy to edit and format.

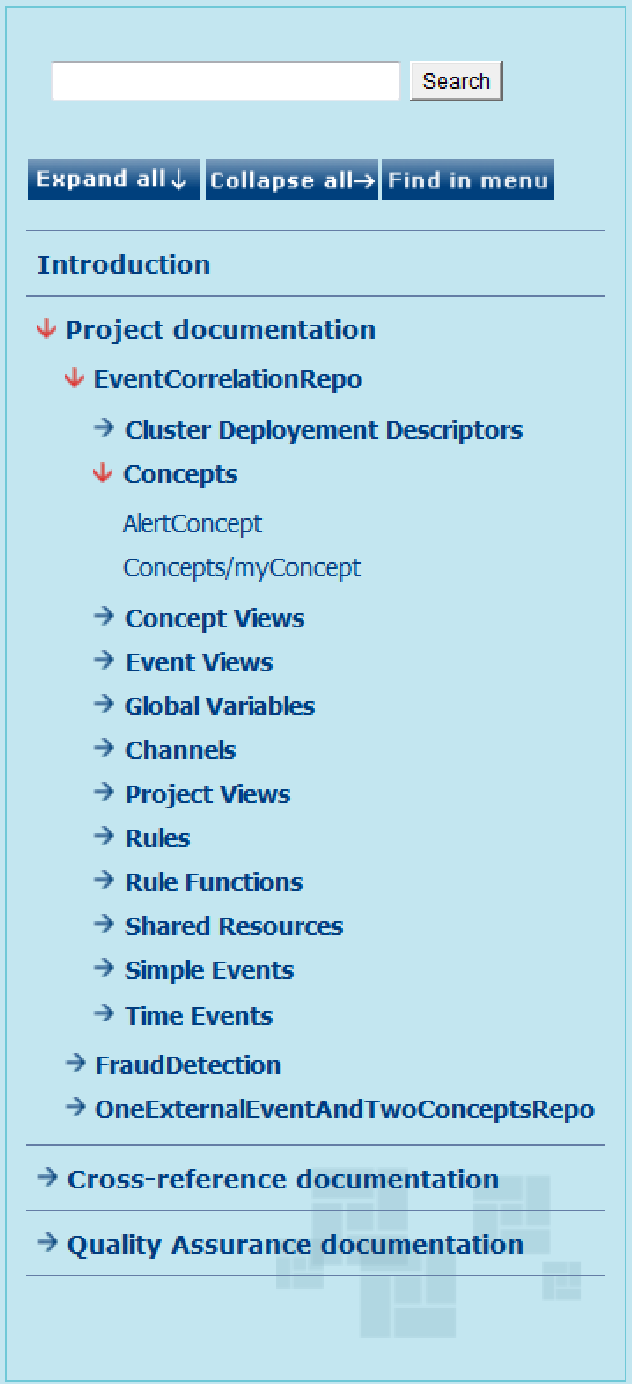
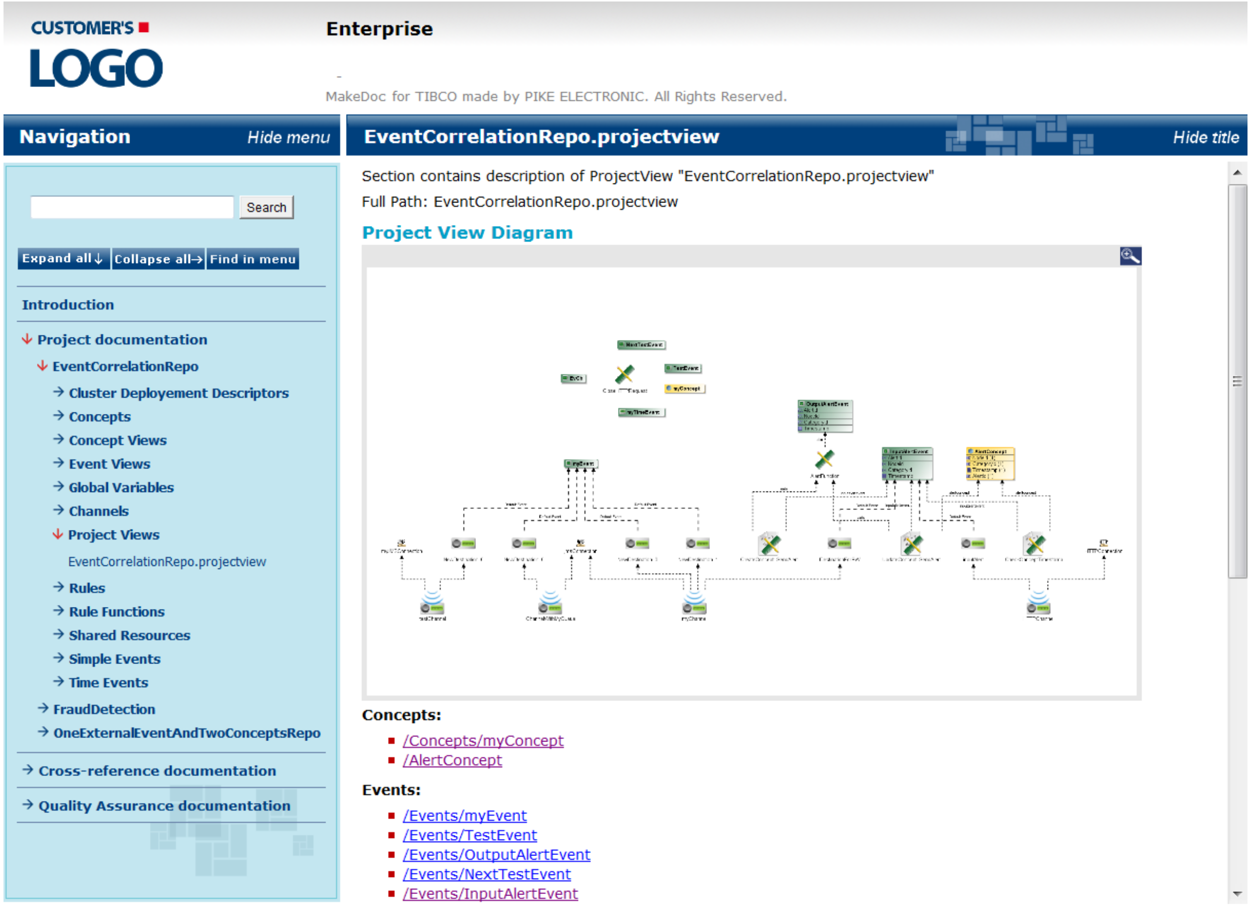


Figure74. **Example of HTML navigation**

### 2.3.2.1. Project Documentation

The Project documentation contains chapter for each documented project. The focus of this chapter is on message and data processing. A project documentation may contains some or all of sections depending on BusinessEvents Profile settings.



Enterprise

-

MakeDoc for TIBCO made by PIKE ELECTRONIC. All Rights Reserved.

- Introduction
- Project documentation
  - EventCorrelationRepo
    - Cluster Deployement Descriptors
    - Concepts
    - Concept Views
    - Event Views
    - Global Variables
    - Channels
    - Project Views
      - EventCorrelationRepo.projectview
    - Rules
    - Rule Functions
    - Shared Resources
    - Simple Events
    - Time Events
  - FraudDetection
  - OneExternalEventAndTwoConceptsRepo
- Cross-reference documentation
- Quality Assurance documentation

EventCorrelationRepo.projectview

Section contains description of ProjectView "EventCorrelationRepo.projectview"

Full Path: EventCorrelationRepo.projectview

Project View Diagram

Concepts:

- /Concepts/myConcept
- /AlertConcept

Events:

- /Events/myEvent
- /Events/TestEvent
- /Events/OutputAlertEvent
- /Events/NextTestEvent
- /Events/InputAlertEvent

Figure75. Example of HTML Project Documentation

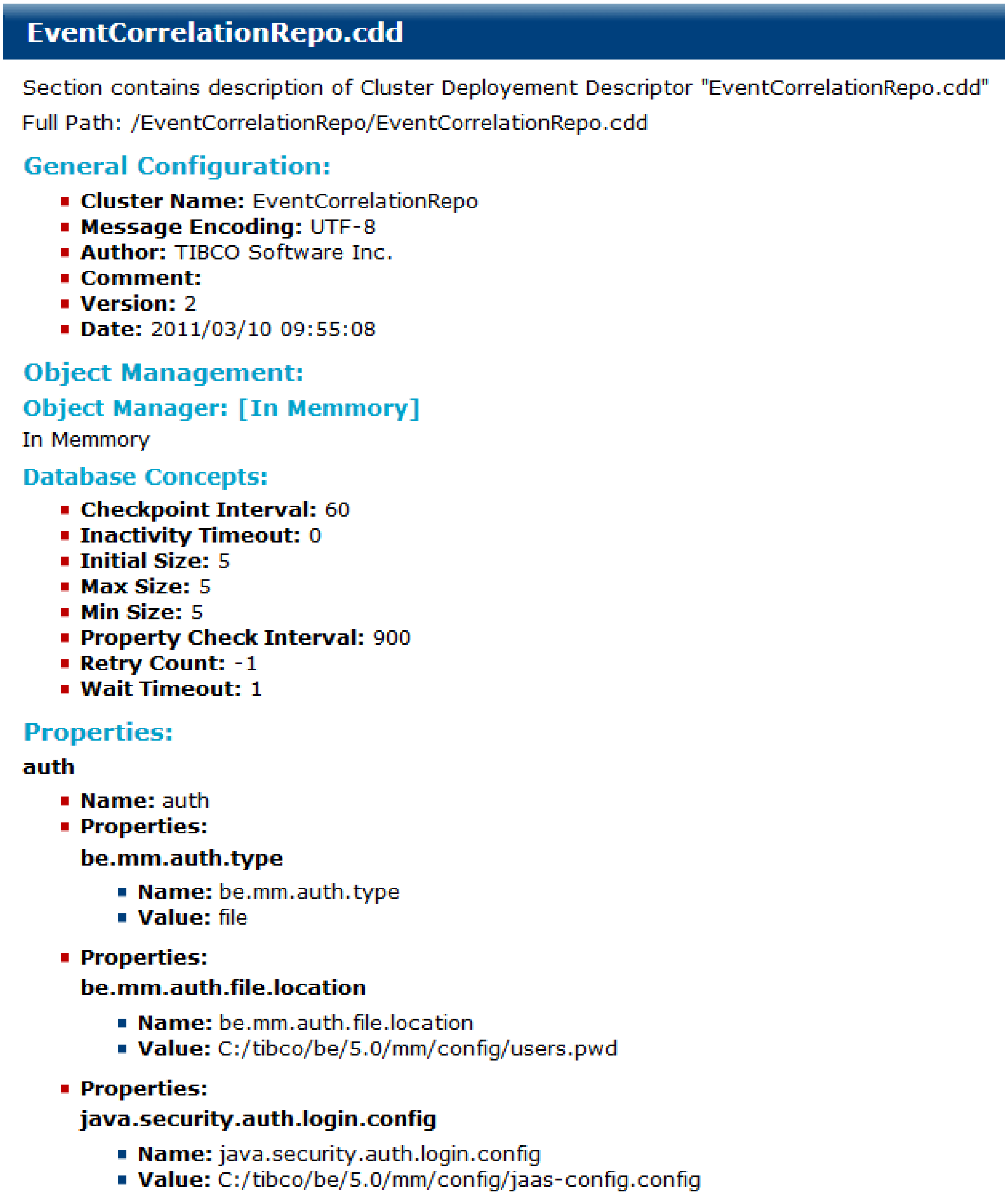
### 2.3.2.1.1. Supported Resources

TIBCO BusinessEvents Module supports these resources:

- Cluster Deployment Descriptors
- Concepts
- Concept Views
- Event Views
- Global Variables
- Channels
- Project Views
- Rules
- Rule Functions
- Scorecards
- Shared HTTP Connections
- Shared JMS Connections
- Shared JNDI Configuration
- Simple Events
- Time Events

### 2.3.2.1.2. Cluster Deployment Descriptors

Cluster Deployment Descriptor documentation consists of General Configuration, Object Management, Database Concepts, Properties, Rule Sets, Function Groups, Destination Groups, Log Configuration, Agent Classes and Processing Units.



EventCorrelationRepo.cdd

Section contains description of Cluster Deployement Descriptor "EventCorrelationRepo.cdd"

Full Path: /EventCorrelationRepo/EventCorrelationRepo.cdd

General Configuration:

- **Cluster Name:** EventCorrelationRepo
- **Message Encoding:** UTF-8
- **Author:** TIBCO Software Inc.
- **Comment:**
- **Version:** 2
- **Date:** 2011/03/10 09:55:08

Object Management:

Object Manager: [In Memmory]

In Memmory

Database Concepts:

- **Checkpoint Interval:** 60
- **Inactivity Timeout:** 0
- **Initial Size:** 5
- **Max Size:** 5
- **Min Size:** 5
- **Property Check Interval:** 900
- **Retry Count:** -1
- **Wait Timeout:** 1

Properties:

**auth**

- **Name:** auth
- **Properties:**

  **be.mm.auth.type**

  - **Name:** be.mm.auth.type
  - **Value:** file
- **Properties:**

  **be.mm.auth.file.location**

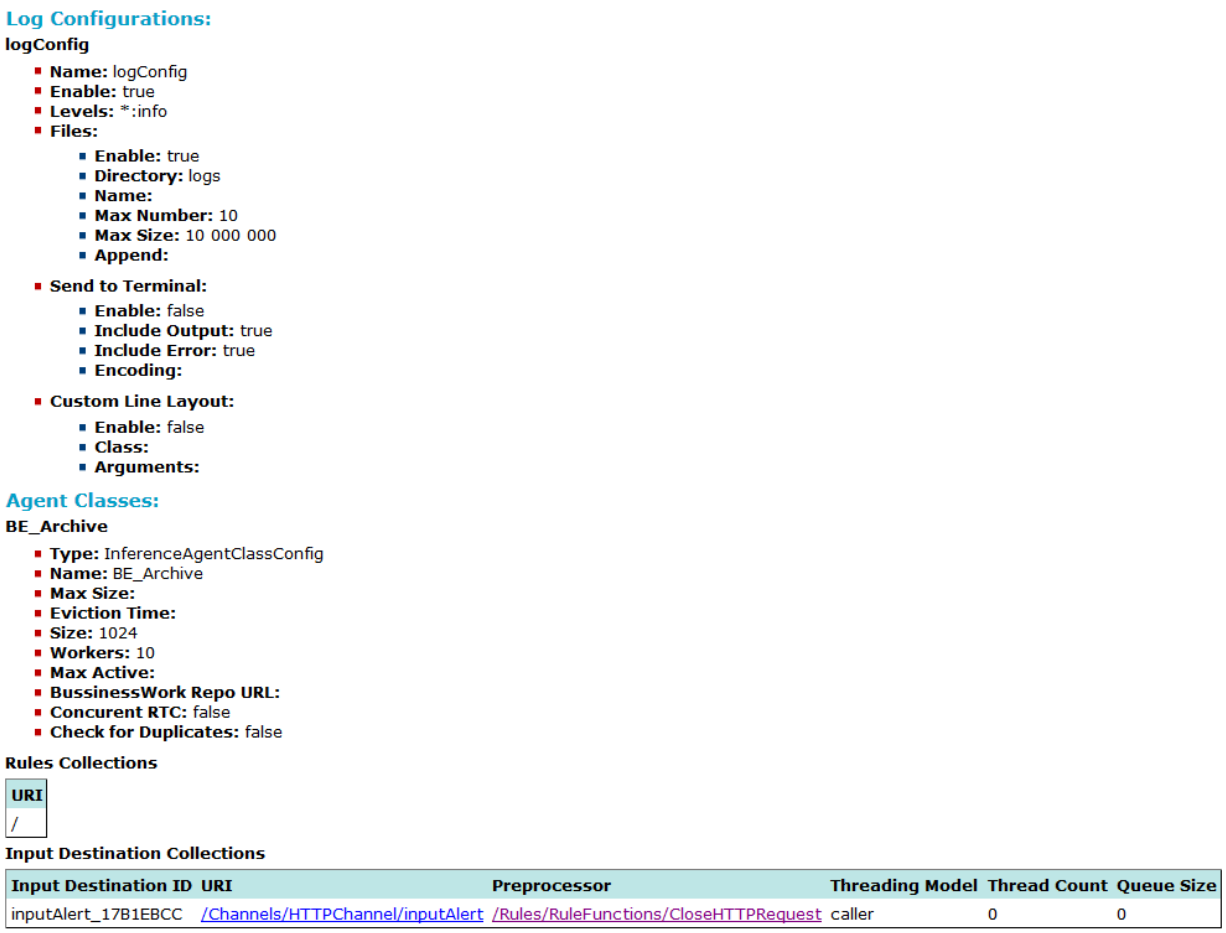
  - **Name:** be.mm.auth.file.location
  - **Value:** C:/tibco/be/5.0/mm/config/users.pwd
- **Properties:**

  **java.security.auth.login.config**

  - **Name:** java.security.auth.login.config
  - **Value:** C:/tibco/be/5.0/mm/config/jaas-config.config

Figure76. **Cluster Deployment Descriptor General Configuration and Object Management**

General Configuration and Object Management contains the details of Cluster Name, Version, Database Concepts and Properties.



## Log Configurations:

**logConfig**

- **Name:** logConfig
- **Enable:** true
- **Levels:** *:info
- **Files:**
  - **Enable:** true
  - **Directory:** logs
  - **Name:**
  - **Max Number:** 10
  - **Max Size:** 10 000 000
  - **Append:**
- **Send to Terminal:**
  - **Enable:** false
  - **Include Output:** true
  - **Include Error:** true
  - **Encoding:**
- **Custom Line Layout:**
  - **Enable:** false
  - **Class:**
  - **Arguments:**

## Agent Classes:

**BE_Archive**

- **Type:** InferenceAgentClassConfig
- **Name:** BE_Archive
- **Max Size:**
- **Eviction Time:**
- **Size:** 1024
- **Workers:** 10
- **Max Active:**
- **BussinessWork Repo URL:**
- **Concurent RTC:** false
- **Check for Duplicates:** false

**Rules Collections**

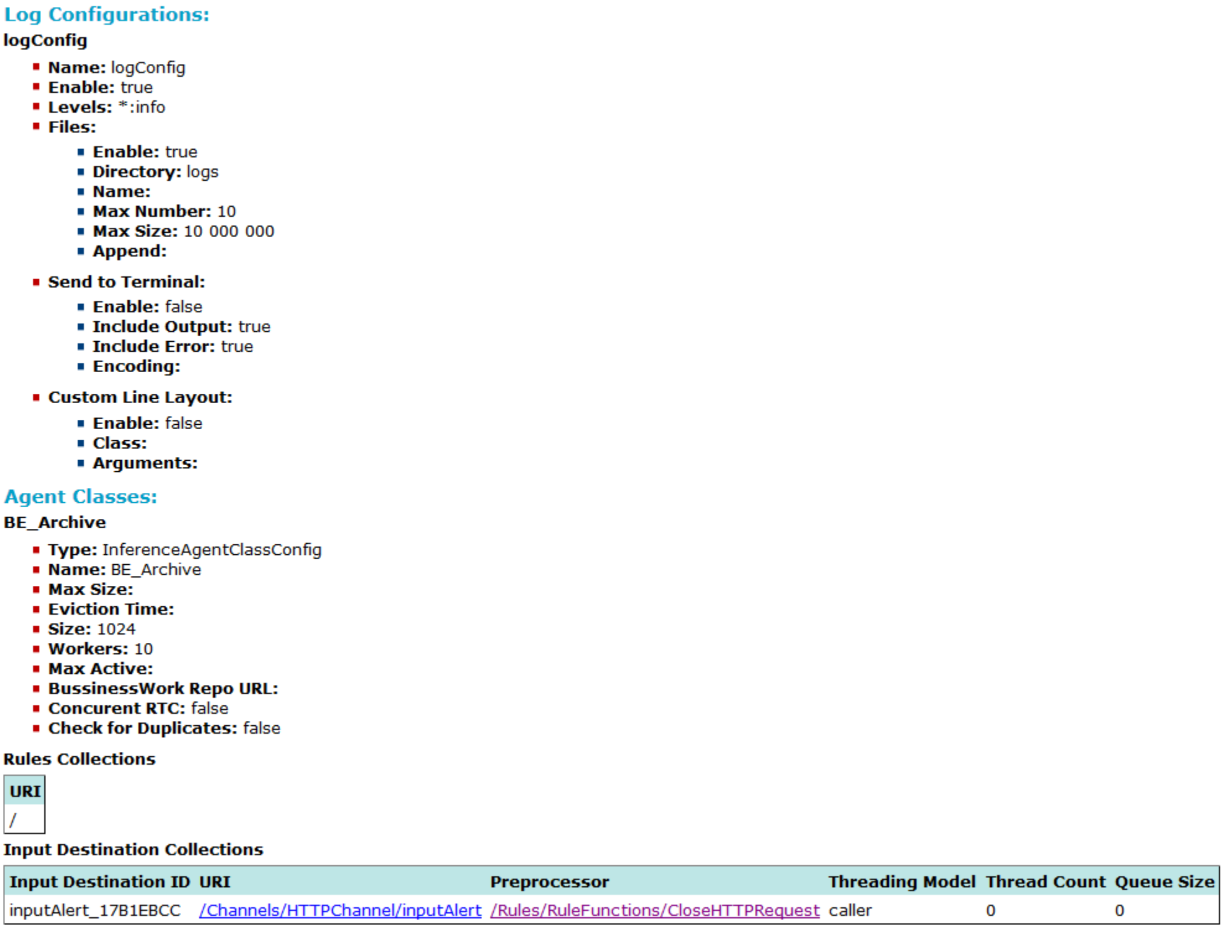
| URI |
|---|
| / |

**Input Destination Collections**

| Input Destination ID | URI | Preprocessor | Threading Model | Thread Count | Queue Size |
|---|---|---|---|---|---|
| inputAlert_17B1EBCC | /Channels/HTTPChannel/inputAlert | /Rules/RuleFunctions/CloseHTTPRequest | caller | 0 | 0 |

Figure77. **Cluster Deployment Descriptor Log Configuration and Agent Classes**

Log Configuration and Agent Classes contains the details of logging and Agent Classes.



**Log Configurations:**

**logConfig**

- **Name:** logConfig
- **Enable:** true
- **Levels:** *:info
- **Files:**
  - **Enable:** true
  - **Directory:** logs
  - **Name:**
  - **Max Number:** 10
  - **Max Size:** 10 000 000
  - **Append:**
- **Send to Terminal:**
  - **Enable:** false
  - **Include Output:** true
  - **Include Error:** true
  - **Encoding:**
- **Custom Line Layout:**
  - **Enable:** false
  - **Class:**
  - **Arguments:**

**Agent Classes:**

**BE_Archive**

- **Type:** InferenceAgentClassConfig
- **Name:** BE_Archive
- **Max Size:**
- **Eviction Time:**
- **Size:** 1024
- **Workers:** 10
- **Max Active:**
- **BussinessWork Repo URL:**
- **Concurent RTC:** false
- **Check for Duplicates:** false

**Rules Collections**

| URI |
|---|
| / |

**Input Destination Collections**

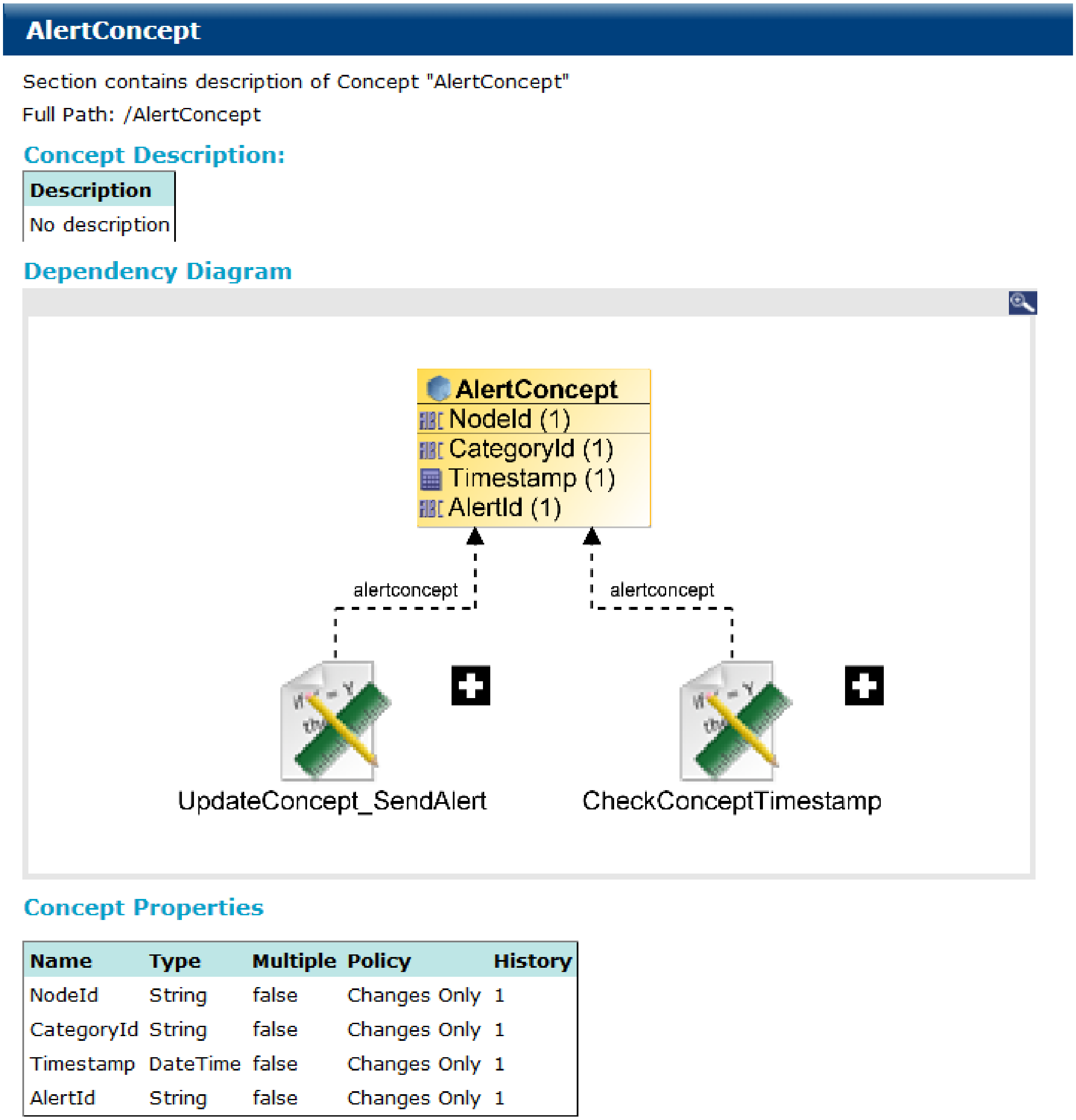
| Input Destination ID | URI | Preprocessor | Threading Model | Thread Count | Queue Size |
|---|---|---|---|---|---|
| inputAlert_17B1EBCC | /Channels/HTTPChannel/inputAlert | /Rules/RuleFunctions/CloseHTTPRequest | caller | 0 | 0 |

**Figure78. Cluster Deployment Descriptor Processing Units**

Processing Units contains the details of all Processing Units, Agents and Properties.

### 2.3.2.1.3. Concepts

Concept documentation consists of Concept Description, Dependency Diagram and Concept Properties. Dependency Diagram looks like diagram in BusinessEvents Studio.



## AlertConcept

Section contains description of Concept "AlertConcept"

Full Path: /AlertConcept

### Concept Description:

| Description |
|---|
| No description |

### Dependency Diagram

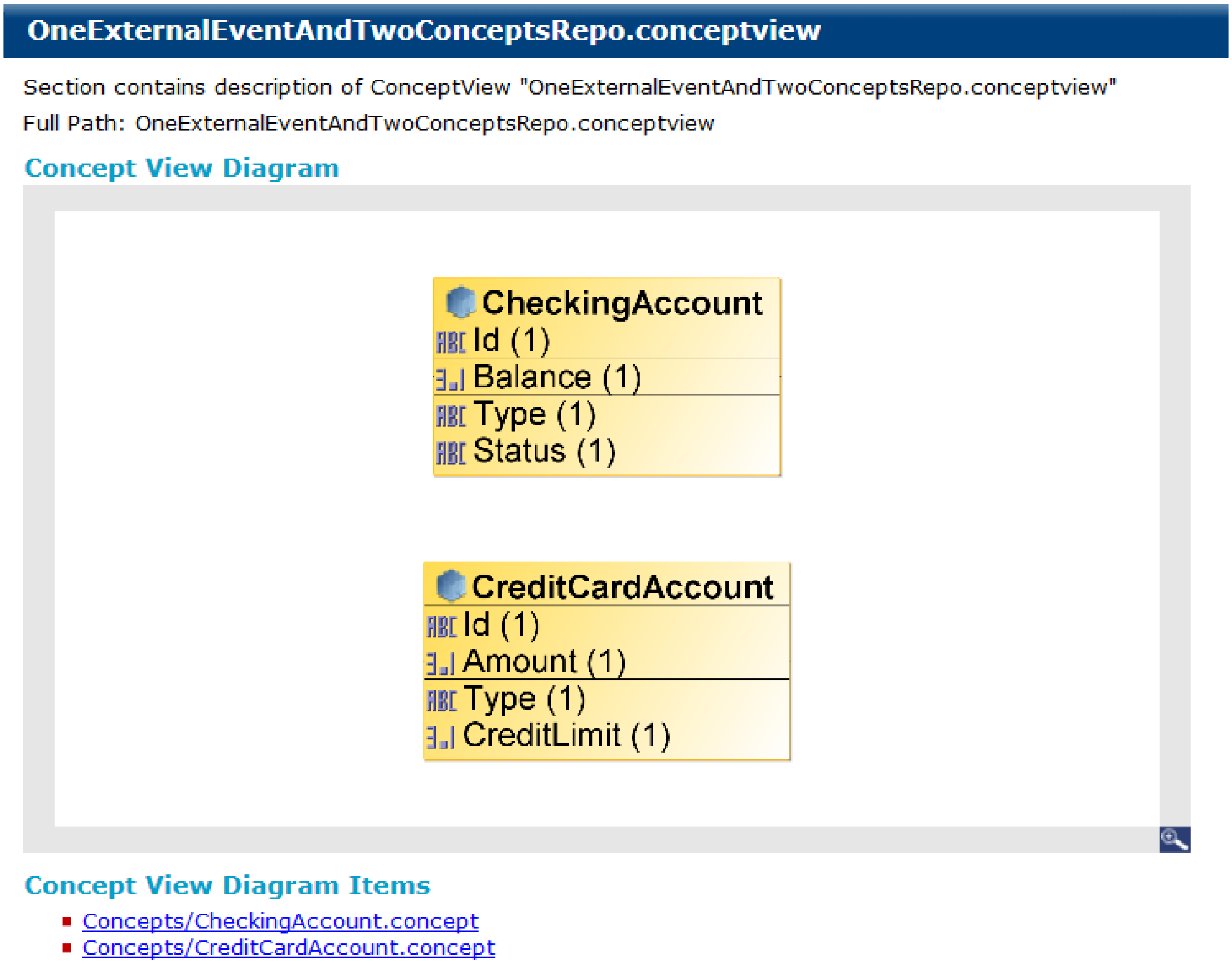
### Concept Properties

| Name | Type | Multiple | Policy | History |
|---|---|---|---|---|
| NodeId | String | false | Changes Only | 1 |
| CategoryId | String | false | Changes Only | 1 |
| Timestamp | DateTime | false | Changes Only | 1 |
| AlertId | String | false | Changes Only | 1 |

Figure79. **Concept documentation**

### 2.3.2.1.4. Concept Views

Concept View documentation consists of Concept View Diagram and list of Items showed on View Diagram with link to documentation item.



OneExternalEventAndTwoConceptsRepo.conceptview

Section contains description of ConceptView "OneExternalEventAndTwoConceptsRepo.conceptview"

Full Path: OneExternalEventAndTwoConceptsRepo.conceptview

Concept View Diagram

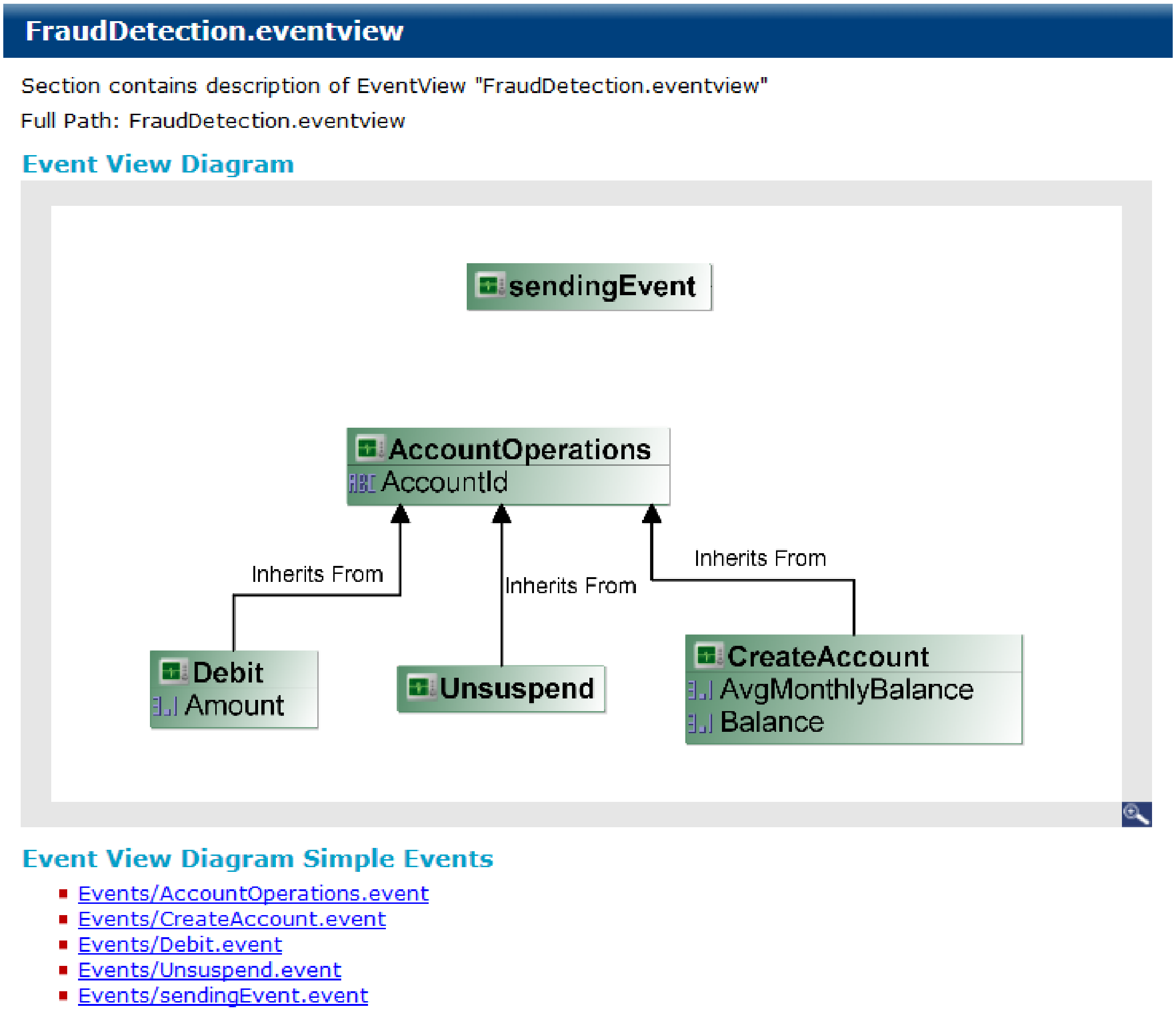
Concept View Diagram Items

- Concepts/CheckingAccount.concept
- Concepts/CreditCardAccount.concept

Figure80. **Concept View documentation**

### 2.3.2.1.5. Event Views

Event View documentation consists of Event View Diagram and list of Items showed on Event View Diagram with link to documentation item.



## FraudDetection.eventview

Section contains description of EventView "FraudDetection.eventview"

Full Path: FraudDetection.eventview

### Event View Diagram

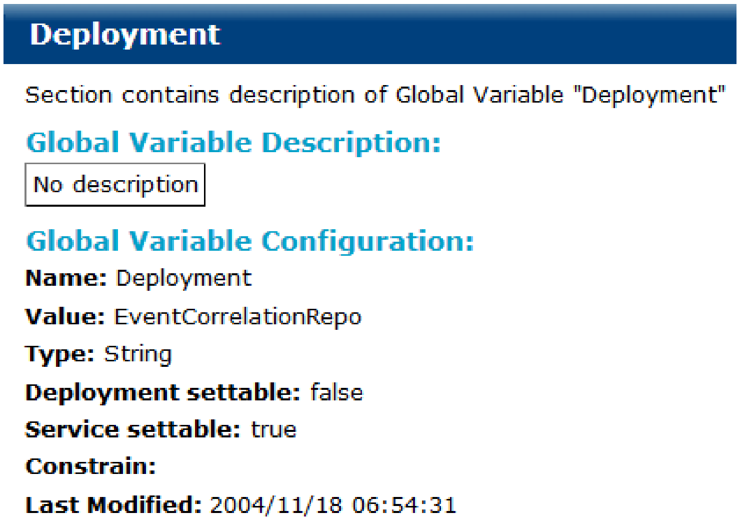
### Event View Diagram Simple Events

- Events/AccountOperations.event
- Events/CreateAccount.event
- Events/Debit.event
- Events/Unsuspend.event
- Events/sendingEvent.event

**Figure81. Event View documentation**

### 2.3.2.1.6. Global Variables

Global Variable documentation consists Global Variable Description and Global Variable Configuration.



Deployment

Section contains description of Global Variable "Deployment"

Global Variable Description:

No description

Global Variable Configuration:

**Name:** Deployment

**Value:** EventCorrelationRepo

**Type:** String

**Deployment settable:** false

**Service settable:** true

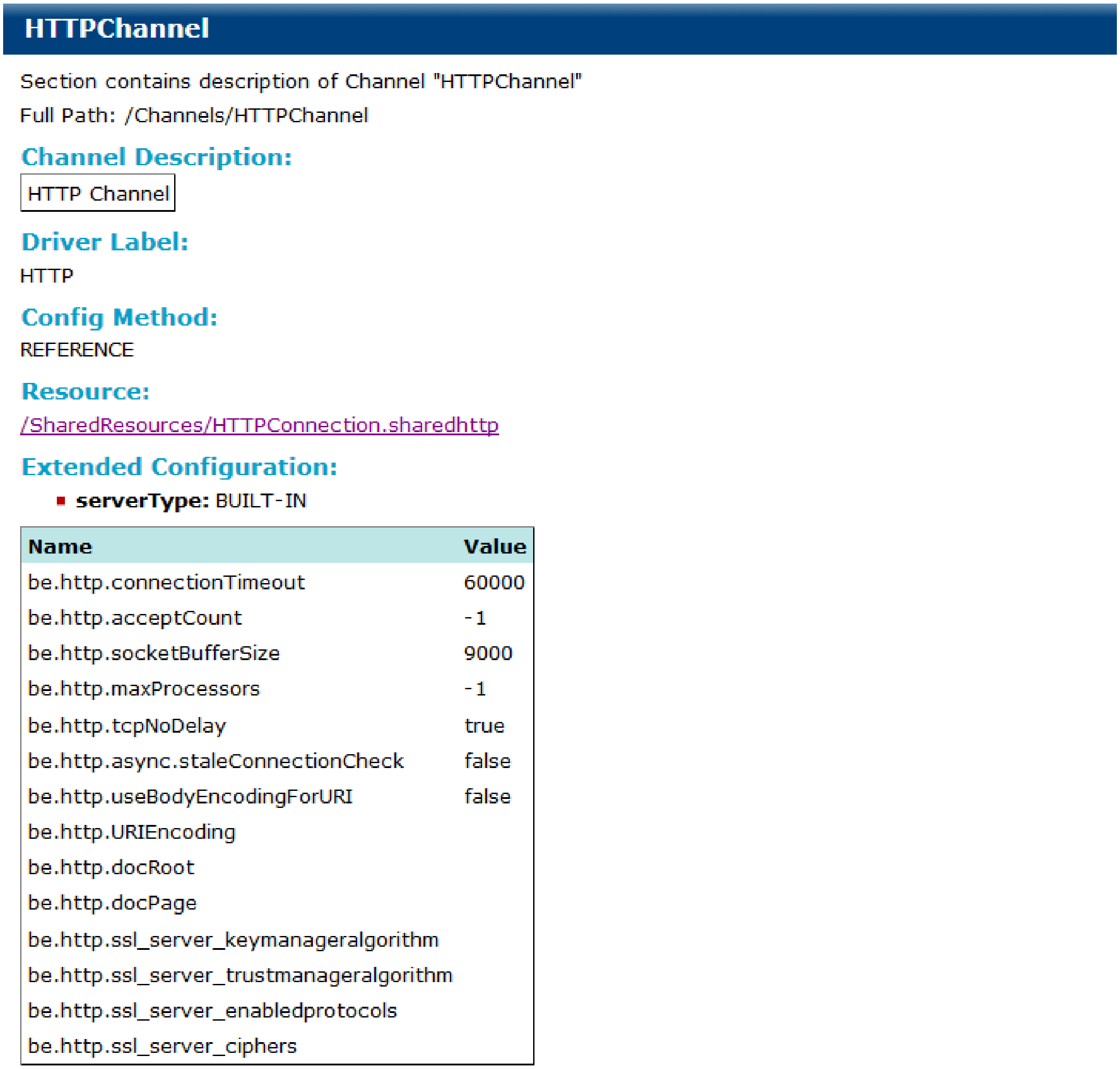
**Constrain:**

**Last Modified:** 2004/11/18 06:54:31

**Figure82. Global Variable documentation**

### 2.3.2.1.7. Channels

Channel documentation consists of Channel Description, Driver Label, Config Method, Resource, Exte-nded Configuration, Dependency Diagram and Destinations.



## HTTPChannel

Section contains description of Channel "HTTPChannel"

Full Path: /Channels/HTTPChannel

### Channel Description:

HTTP Channel

### Driver Label:

HTTP

### Config Method:

REFERENCE

### Resource:

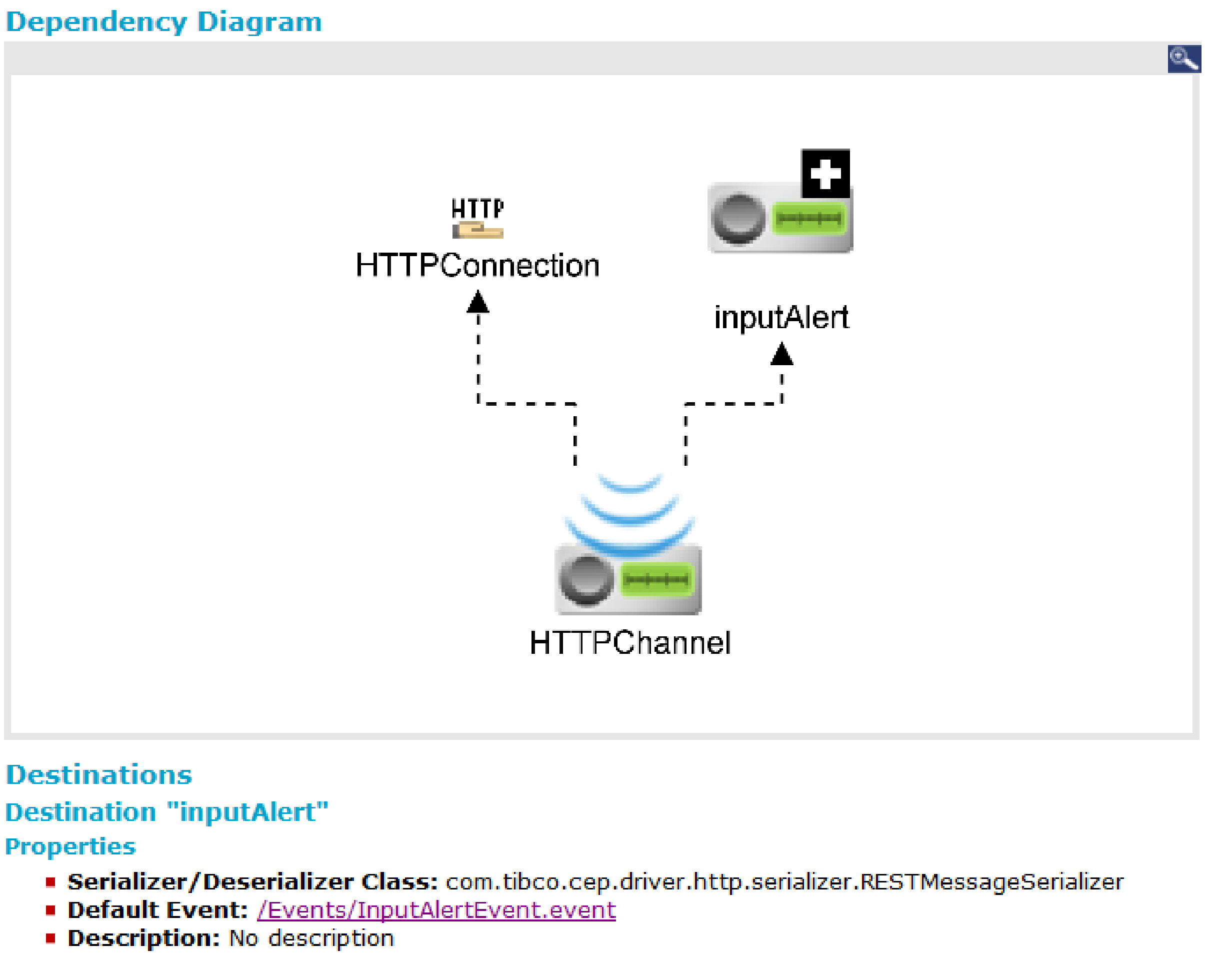
/SharedResources/HTTPConnection.sharedhttp

### Extended Configuration:

- **serverType:** BUILT-IN

| Name | Value |
|---|---|
| be.http.connectionTimeout | 60000 |
| be.http.acceptCount | -1 |
| be.http.socketBufferSize | 9000 |
| be.http.maxProcessors | -1 |
| be.http.tcpNoDelay | true |
| be.http.async.staleConnectionCheck | false |
| be.http.useBodyEncodingForURI | false |
| be.http.URIEncoding | |
| be.http.docRoot | |
| be.http.docPage | |
| be.http.ssl_server_keymanageralgorithm | |
| be.http.ssl_server_trustmanageralgorithm | |
| be.http.ssl_server_enabledprotocols | |
| be.http.ssl_server_ciphers | |

Figure83. **Channel documentation**



### Dependency Diagram

### Destinations

### Destination "inputAlert"

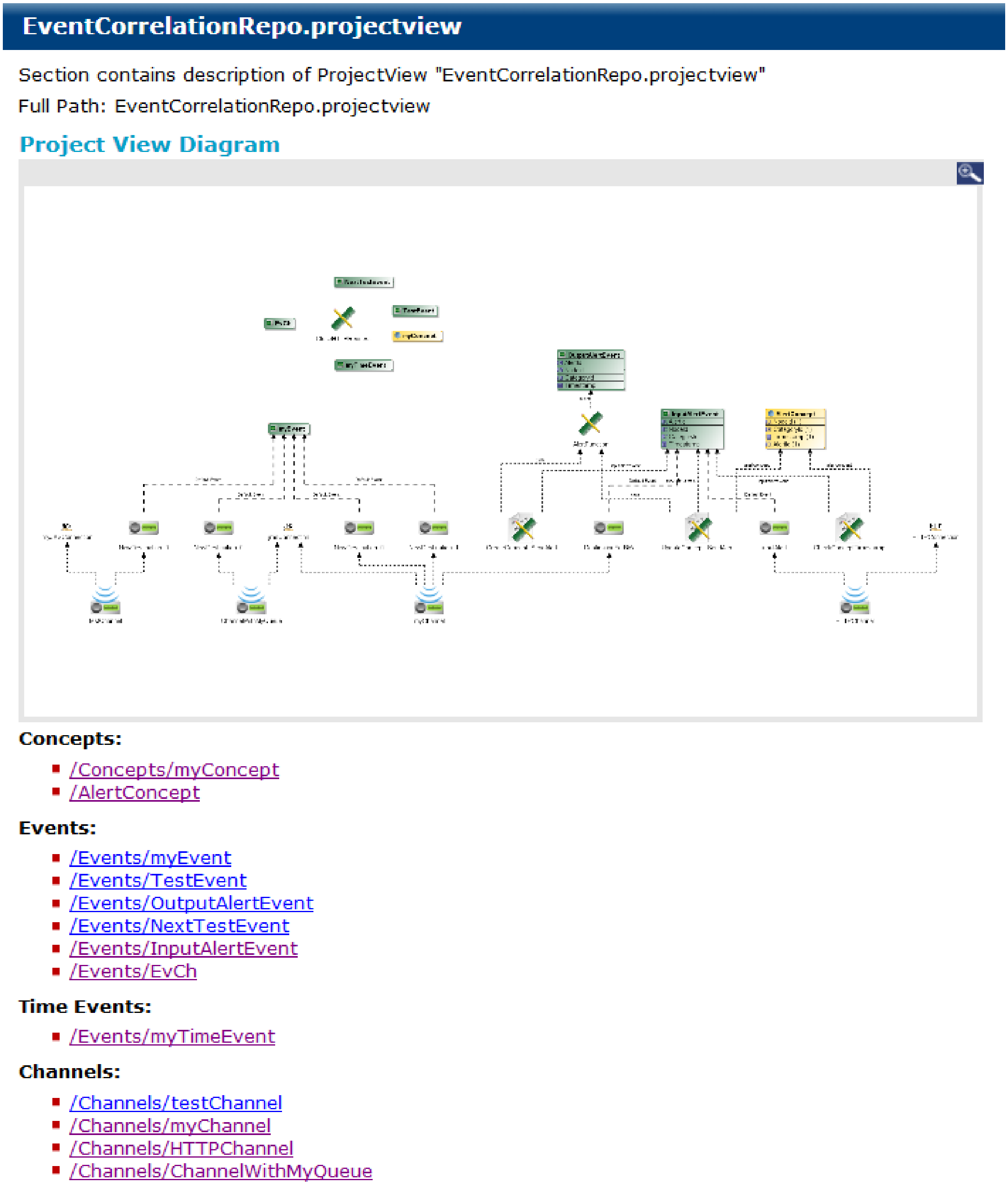
#### Properties

- **Serializer/Deserializer Class:** com.tibco.cep.driver.http.serializer.RESTMessageSerializer
- **Default Event:** /Events/InputAlertEvent.event
- **Description:** No description

**Figure84. Channel documentation - Dependency Diagram and Channel Destinations**

### 2.3.2.1.8. Project Views

Project View documentation consists of Project View Diagram and list of Items showed on Project View Diagram with link to documentation item.



## EventCorrelationRepo.projectview

Section contains description of ProjectView "EventCorrelationRepo.projectview"

Full Path: EventCorrelationRepo.projectview

### Project View Diagram

**Concepts:**

- /Concepts/myConcept
- /AlertConcept

**Events:**

- /Events/myEvent
- /Events/TestEvent
- /Events/OutputAlertEvent
- /Events/NextTestEvent
- /Events/InputAlertEvent
- /Events/EvCh

**Time Events:**

- /Events/myTimeEvent

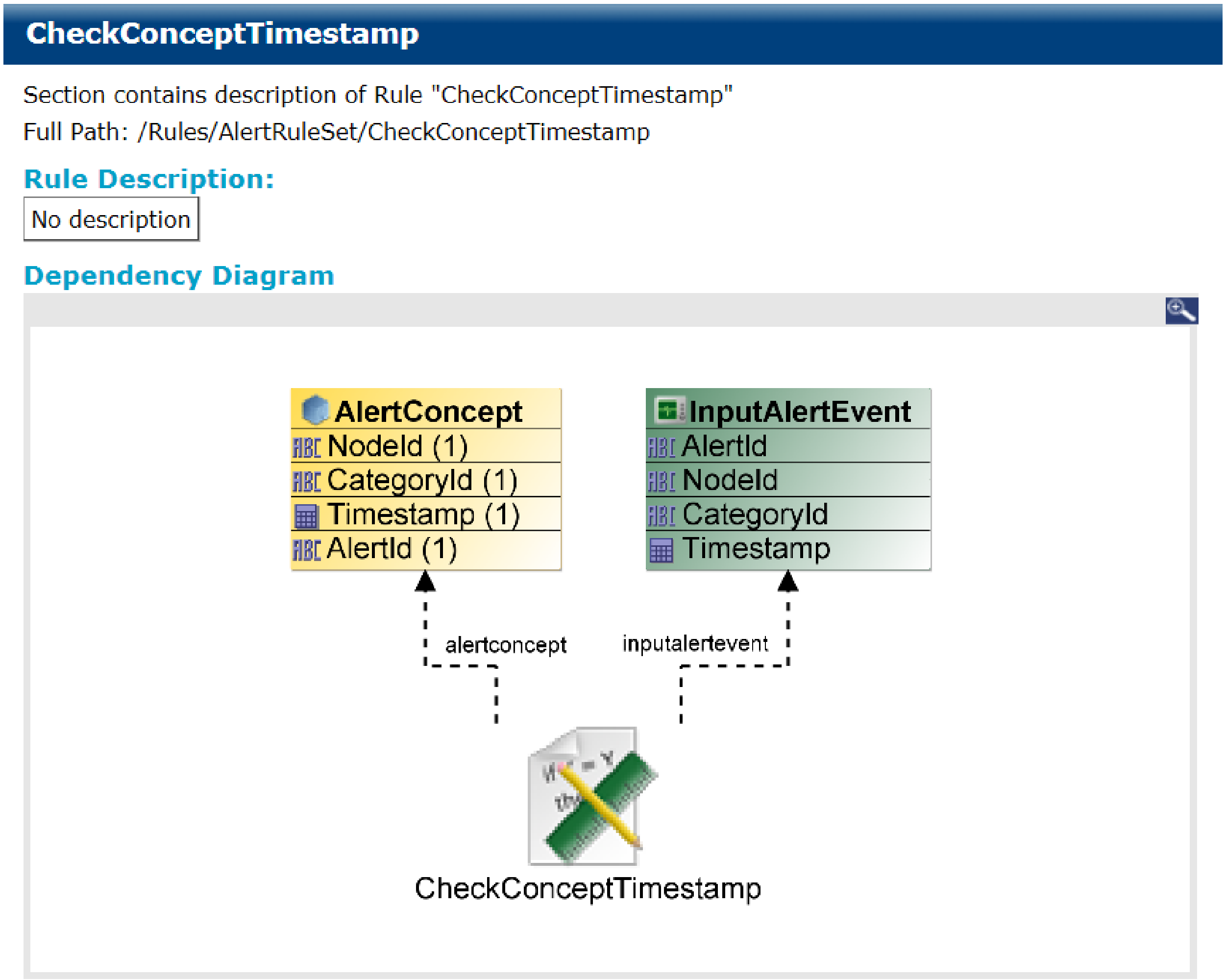
**Channels:**

- /Channels/testChannel
- /Channels/myChannel
- /Channels/HTTPChannel
- /Channels/ChannelWithMyQueue

Figure85. **Project View documentation**

#### 2.3.2.1.9. Rules

Rule documentation consists of Rule Description, Dependency Diagram, Sequence Diagram, Priority, Chain, Declaration, Condition Text, Action Text.



**CheckConceptTimestamp**

Section contains description of Rule "CheckConceptTimestamp"

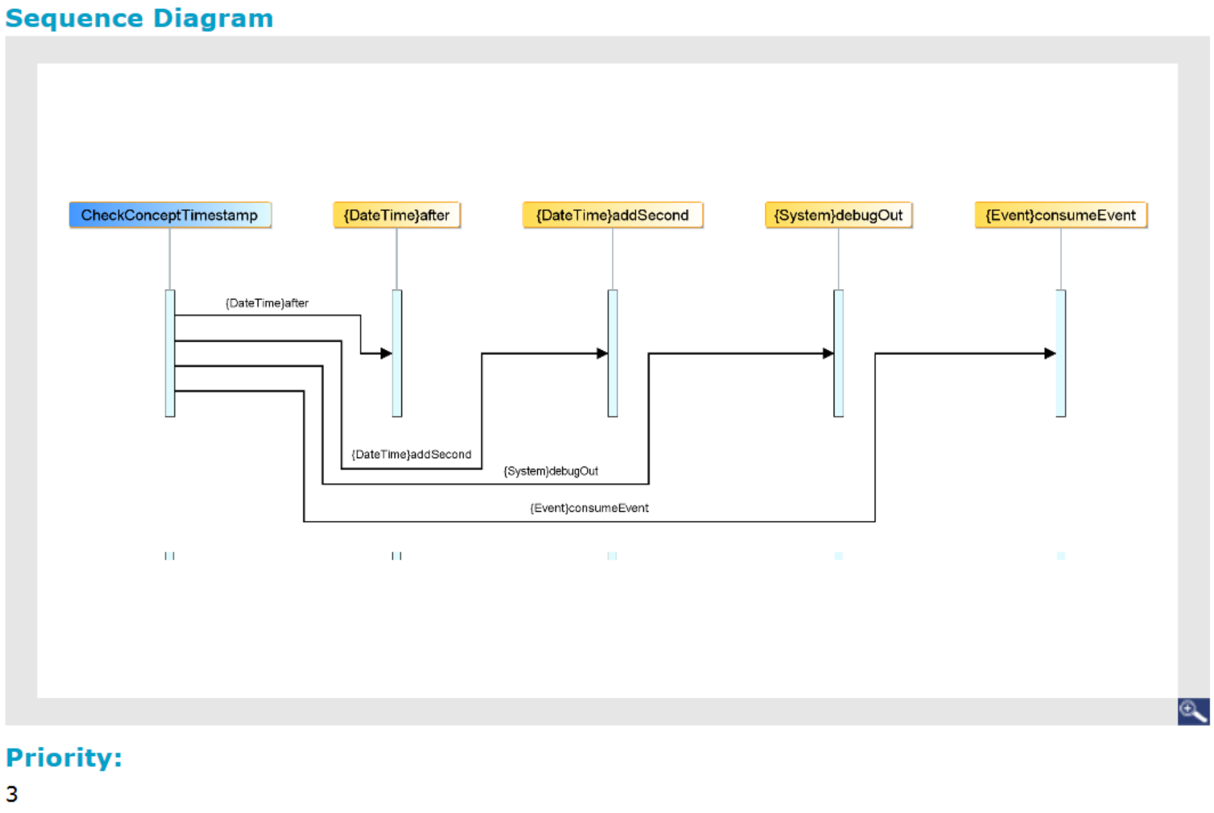
Full Path: /Rules/AlertRuleSet/CheckConceptTimestamp

**Rule Description:**

No description

**Dependency Diagram**

**Figure86.** Rule documentation - Description and Dependency Diagram

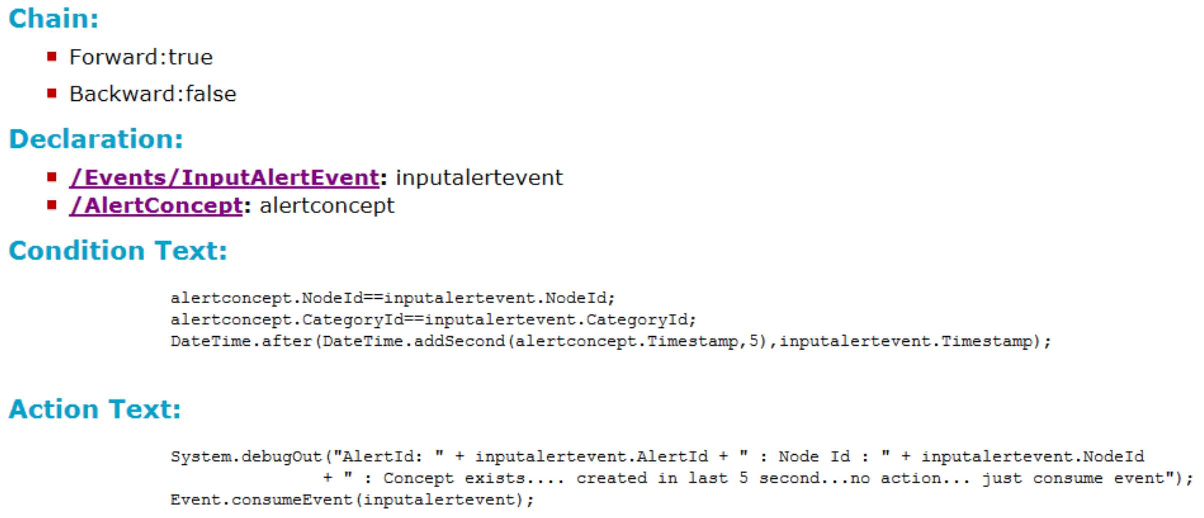


Sequence Diagram

Priority:

3

Figure87. Rule documentation - Sequence Diagram and Priority



Chain:

- Forward:true
- Backward:false

Declaration:

- /Events/InputAlertEvent: inputalertevent
- /AlertConcept: alertconcept

Condition Text:

```
alertconcept.NodeId==inputalertevent.NodeId;
alertconcept.CategoryId==inputalertevent.CategoryId;
DateTime.after(DateTime.addSecond(alertconcept.Timestamp,5),inputalertevent.Timestamp);
```

Action Text:

```
System.debugOut("AlertId: " + inputalertevent.AlertId + " : Node Id : " + inputalertevent.NodeId
                + " : Concept exists.... created in last 5 second...no action... just consume event");
Event.consumeEvent(inputalertevent);
```

Figure88. Rule documentation - Chain, Declaration, Condition and Action Text

### 2.3.2.1.10. Rule Functions

Rule Function documentation consists of Rule Description, Dependency Diagram, Sequence Diagram, Virtual, Validity, Return Type, Scope, Body.

## AlertFunction

Section contains description of RuleFunction "AlertFunction"

Full Path: /Rules/RuleFunctions/AlertFunction

### RuleFunction Description:

No description

### Dependency Diagram

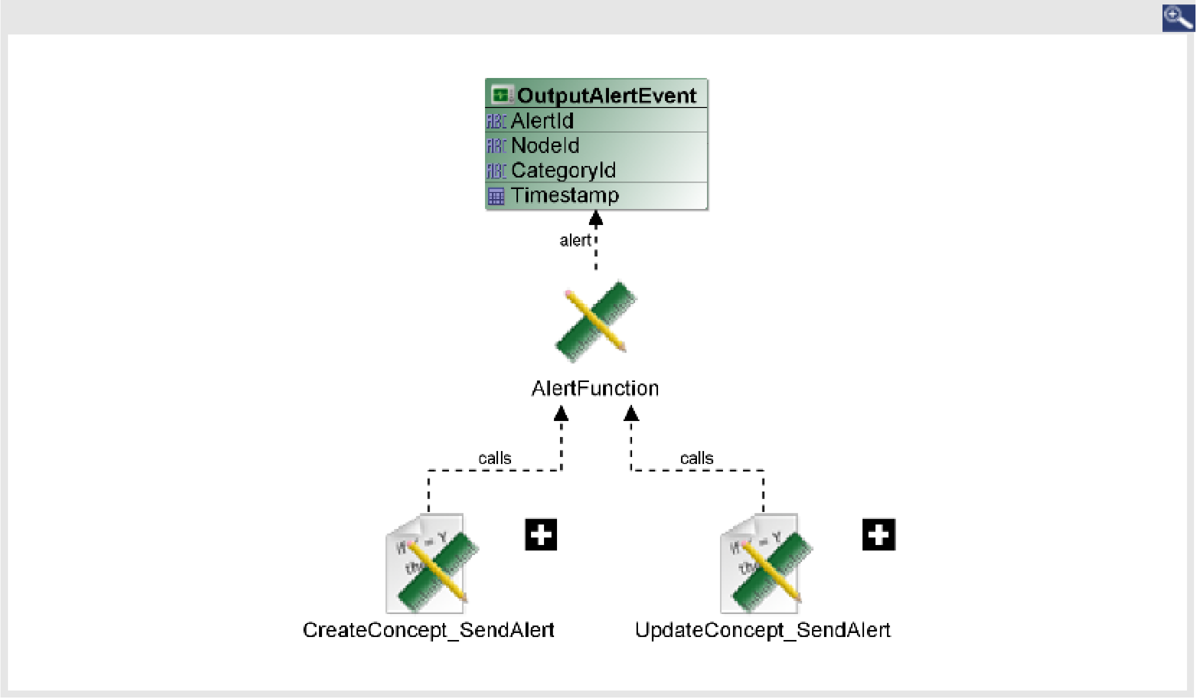
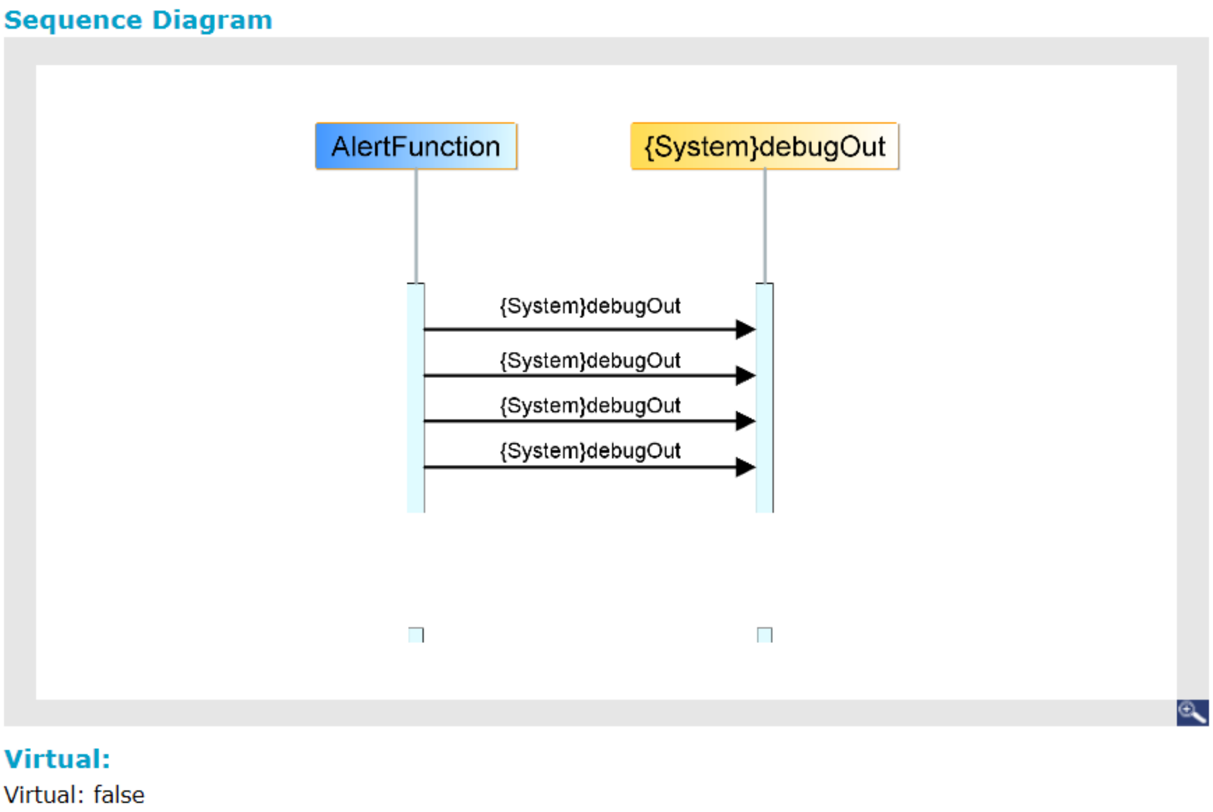


**Figure89. Rule Function documentation - Description and Dependency Diagram**

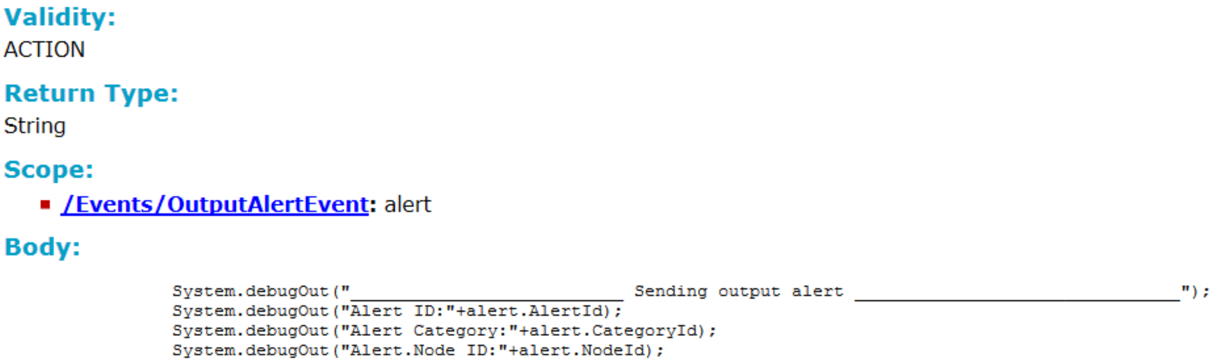


Sequence Diagram

Virtual:

Virtual: false

**Figure90.** **Rule Function documentation - Sequence Diagram and Virtual**



Validity:

ACTION

Return Type:

String

Scope:

- /Events/OutputAlertEvent: alert

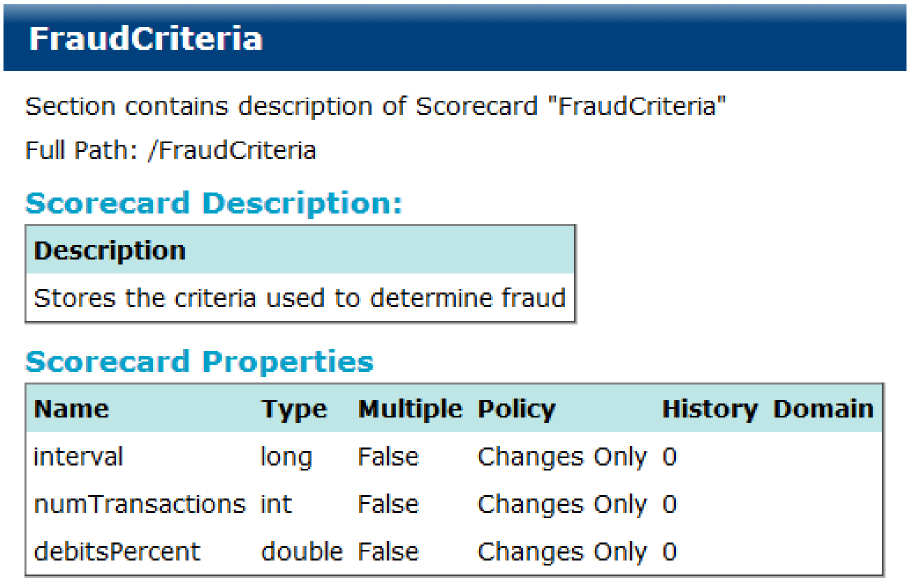
Body:

```
System.debugOut("__________________________ Sending output alert _______________________________");
System.debugOut("Alert ID:"+alert.AlertId);
System.debugOut("Alert Category:"+alert.CategoryId);
System.debugOut("Alert.Node ID:"+alert.NodeId);
```

**Figure91.** **Rule Function documentation - Validity, Return Type, Scope, Body**

### 2.3.2.1.11. Scorecards

Scorecard documentation consists of Scorecard Description and Properties.



**FraudCriteria**

Section contains description of Scorecard "FraudCriteria"

Full Path: /FraudCriteria

**Scorecard Description:**

| Description |
|---|
| Stores the criteria used to determine fraud |

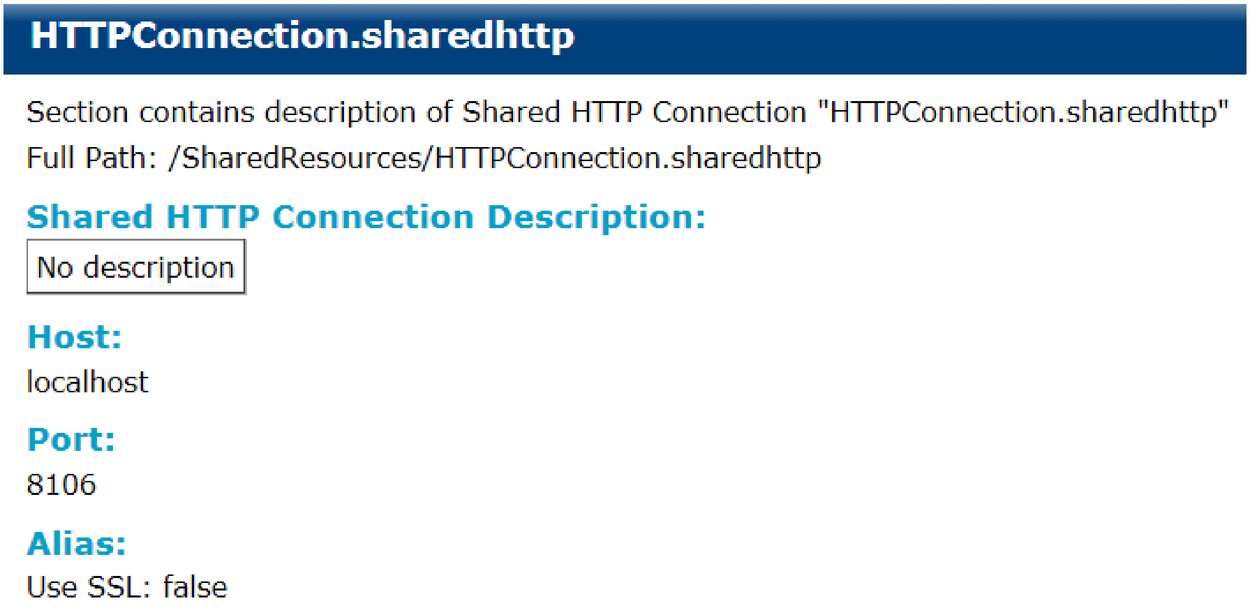
**Scorecard Properties**

| Name | Type | Multiple | Policy | History | Domain |
|---|---|---|---|---|---|
| interval | long | False | Changes Only | 0 | |
| numTransactions | int | False | Changes Only | 0 | |
| debitsPercent | double | False | Changes Only | 0 | |

Figure92. **Scorecard documentation**

### 2.3.2.1.12. Shared HTTP Connection

Shared HTTP Connection documentation consists of Shared HTTP Connection Description, Host, Port and Alias.



**HTTPConnection.sharedhttp**

Section contains description of Shared HTTP Connection "HTTPConnection.sharedhttp"

Full Path: /SharedResources/HTTPConnection.sharedhttp

**Shared HTTP Connection Description:**

No description

**Host:**

localhost

**Port:**

8106

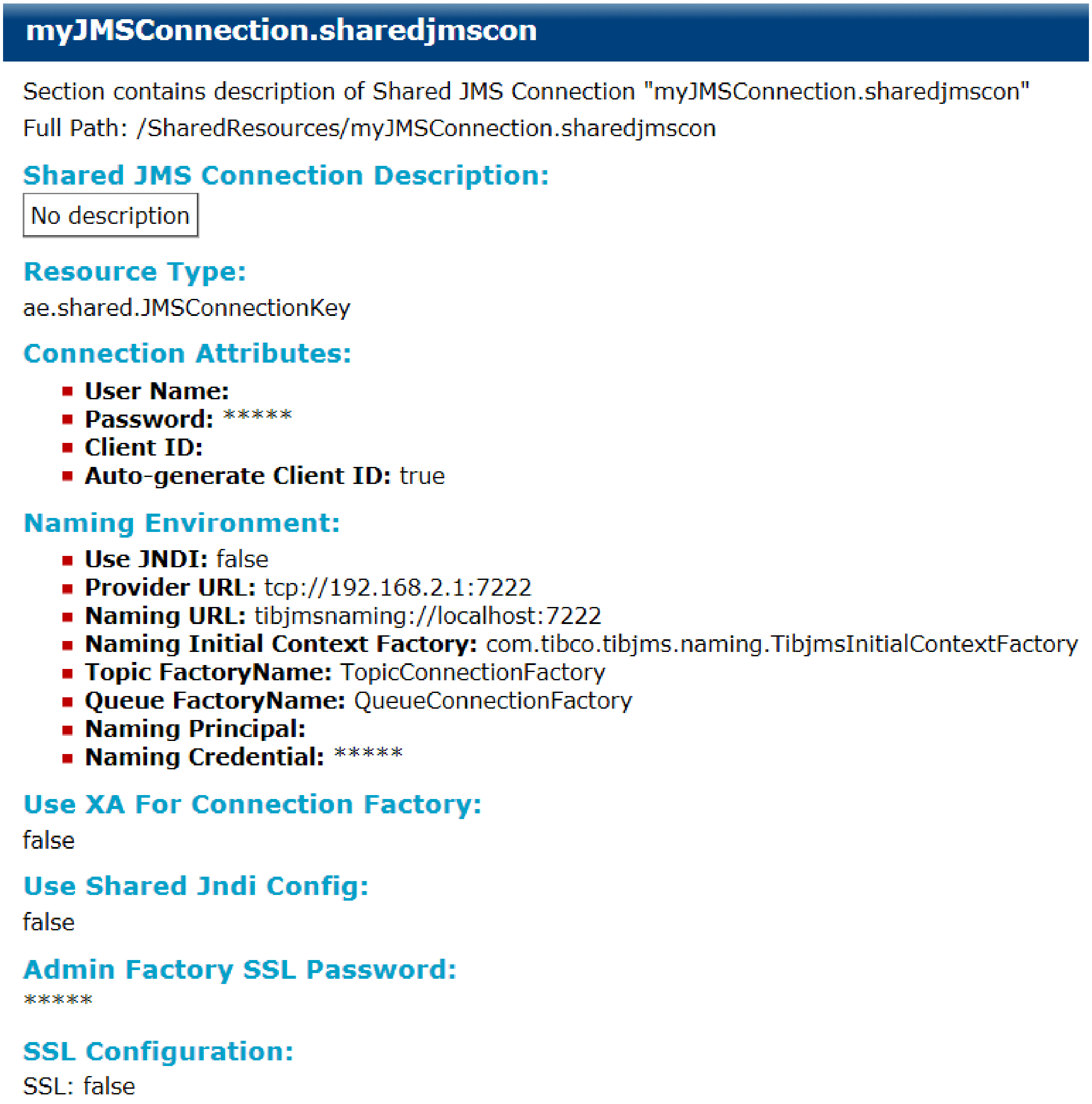
**Alias:**

Use SSL: false

Figure93. **Shared HTTP Connection documentation**

### 2.3.2.1.13. Shared JMS Connection

Shared JMS Connection documentation consists of Shared JMS Connection Description, Resource Type, Connection Attributes, Naming Environment, Connection factory, Shared JNDI Config, Admin Factory SSL Password and SSL Configuration.



**myJMSConnection.sharedjmscon**

Section contains description of Shared JMS Connection "myJMSConnection.sharedjmscon"
Full Path: /SharedResources/myJMSConnection.sharedjmscon

**Shared JMS Connection Description:**

No description

**Resource Type:**

ae.shared.JMSConnectionKey

**Connection Attributes:**

- **User Name:**
- **Password:** *****
- **Client ID:**
- **Auto-generate Client ID:** true

**Naming Environment:**

- **Use JNDI:** false
- **Provider URL:** tcp://192.168.2.1:7222
- **Naming URL:** tibjmsnaming://localhost:7222
- **Naming Initial Context Factory:** com.tibco.tibjms.naming.TibjmsInitialContextFactory
- **Topic FactoryName:** TopicConnectionFactory
- **Queue FactoryName:** QueueConnectionFactory
- **Naming Principal:**
- **Naming Credential:** *****

**Use XA For Connection Factory:**

false

**Use Shared Jndi Config:**

false

**Admin Factory SSL Password:**

*****

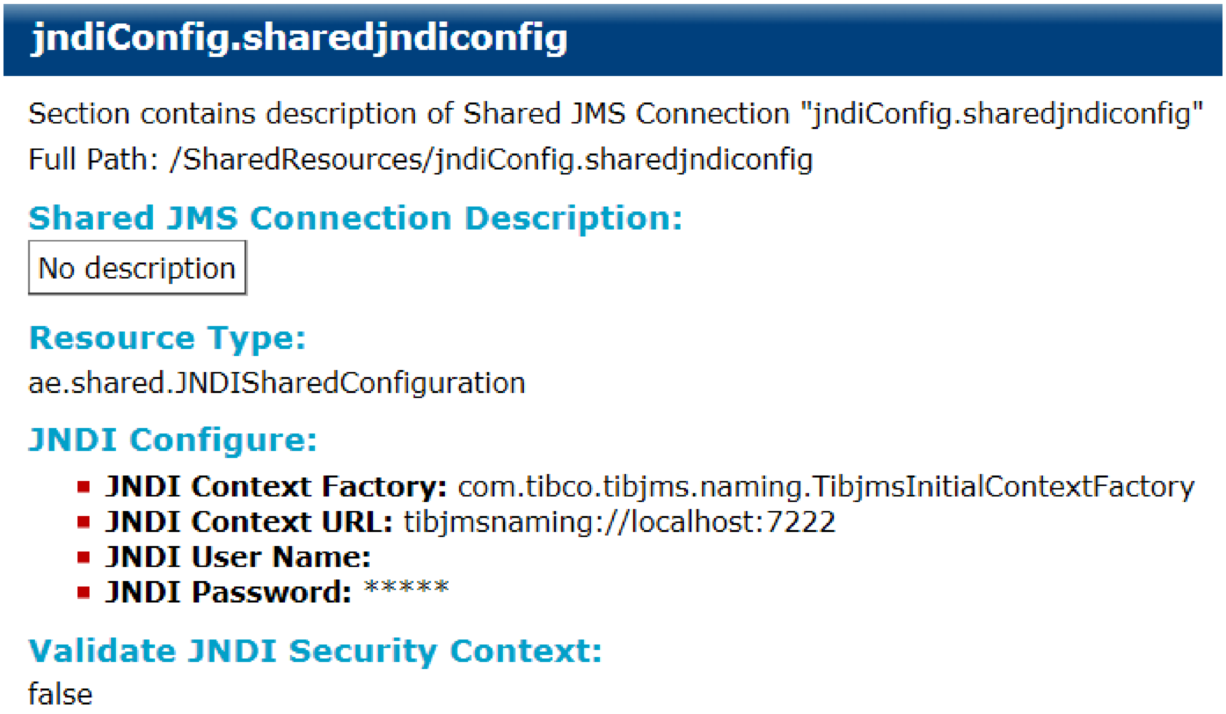
**SSL Configuration:**

SSL: false

Figure94. **Shared JMS Connection documentation**

### 2.3.2.1.14. Shared JNDI Configuration

Shared JNDI Configuration documentation consists of Shared JNDI Configuration Description, Resource Type, JNDI Configure and Validate JNDI Security Context.



jndiConfig.sharedjndiconfig

Section contains description of Shared JMS Connection "jndiConfig.sharedjndiconfig"
Full Path: /SharedResources/jndiConfig.sharedjndiconfig

Shared JMS Connection Description:

No description

Resource Type:

ae.shared.JNDISharedConfiguration

JNDI Configure:

- **JNDI Context Factory:** com.tibco.tibjms.naming.TibjmsInitialContextFactory
- **JNDI Context URL:** tibjmsnaming://localhost:7222
- **JNDI User Name:**
- **JNDI Password:** *****

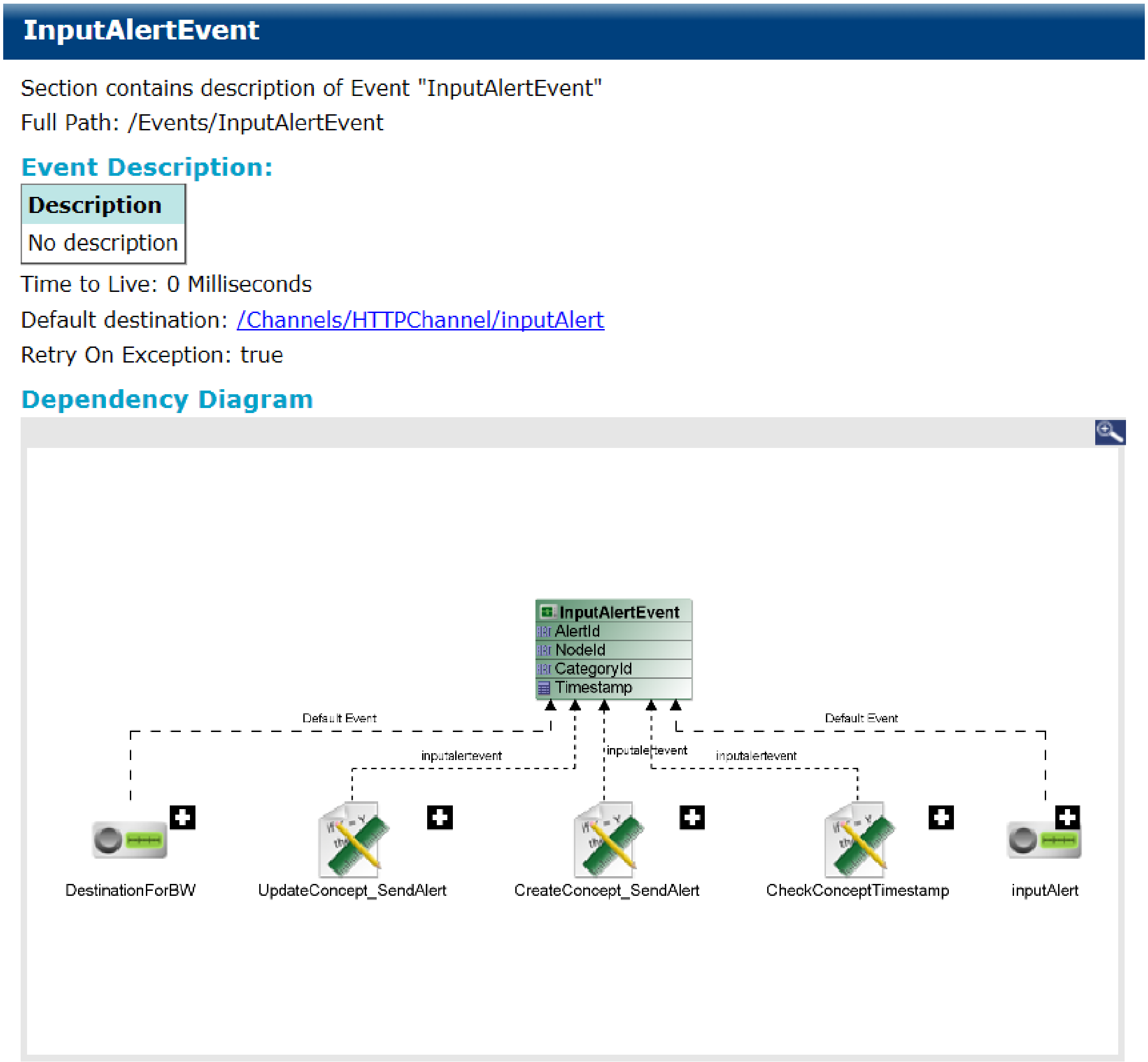
Validate JNDI Security Context:

false

Figure95. **Shared JNDI Configuration documentation**

### 2.3.2.1.15. Simple Events

Simple Event documentation consists of Event Description, Dependency Diagram, Event Properties, Sequence Diagram, Expiry Action, Payload String.



## InputAlertEvent

Section contains description of Event "InputAlertEvent"

Full Path: /Events/InputAlertEvent

### Event Description:

| Description |
|---|
| No description |

Time to Live: 0 Milliseconds

Default destination: /Channels/HTTPChannel/inputAlert

Retry On Exception: true

### Dependency Diagram

Figure96. Simple Event documentation - Description and Dependency Diagram

### Event Properties

| Name | Type | Domain |
|---|---|---|
| AlertId | String | |
| NodeId | String | |
| CategoryId | String | |
| Timestamp | DateTime | |

### Sequence Diagram

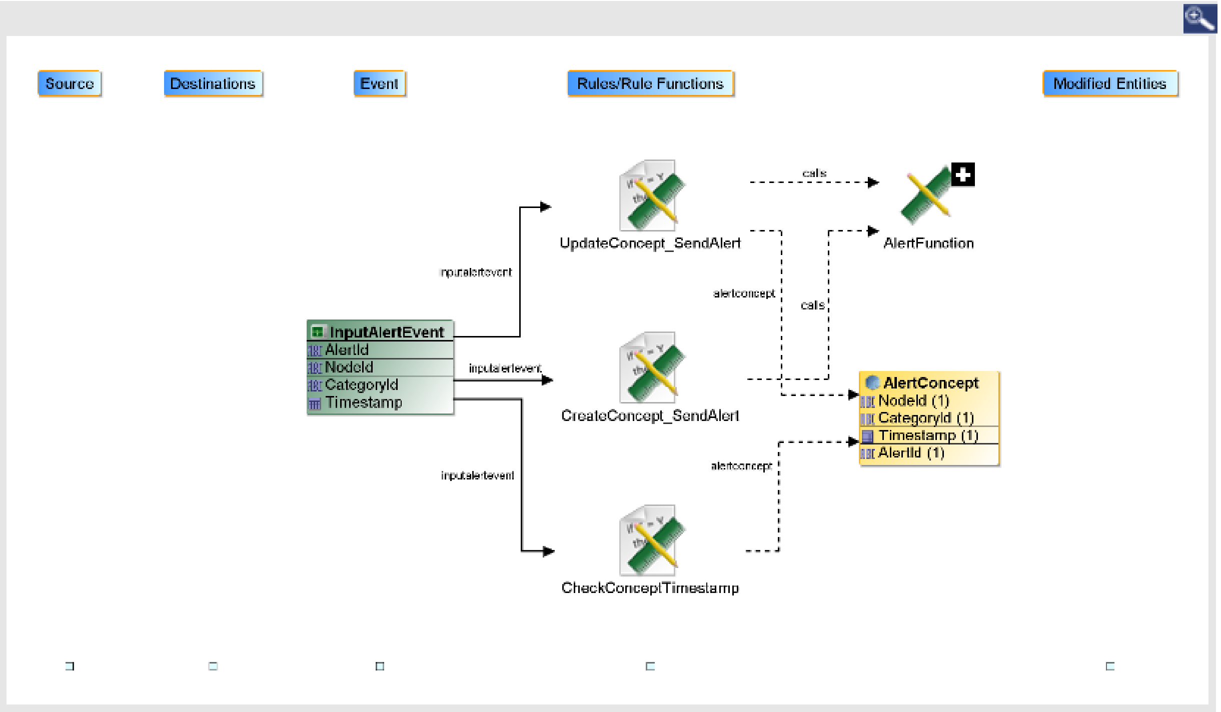
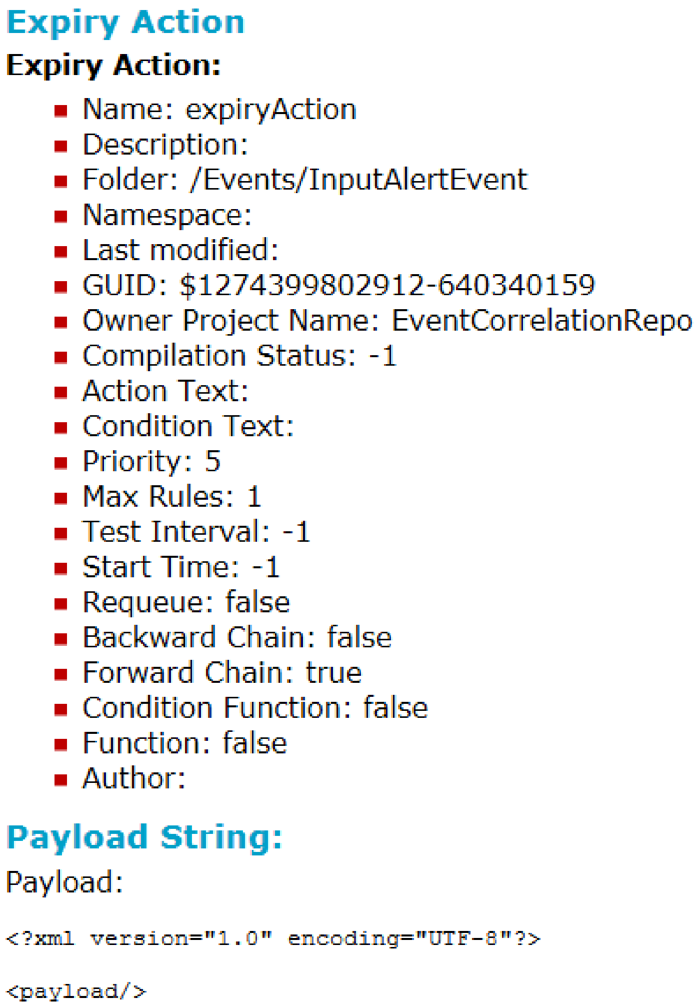


**Figure97. Simple Event documentation - Properties and Sequence Diagram**



Expiry Action

**Expiry Action:**

- Name: expiryAction
- Description:
- Folder: /Events/InputAlertEvent
- Namespace:
- Last modified:
- GUID: $1274399802912-640340159
- Owner Project Name: EventCorrelationRepo
- Compilation Status: -1
- Action Text:
- Condition Text:
- Priority: 5
- Max Rules: 1
- Test Interval: -1
- Start Time: -1
- Requeue: false
- Backward Chain: false
- Forward Chain: true
- Condition Function: false
- Function: false
- Author:

Payload String:

Payload:

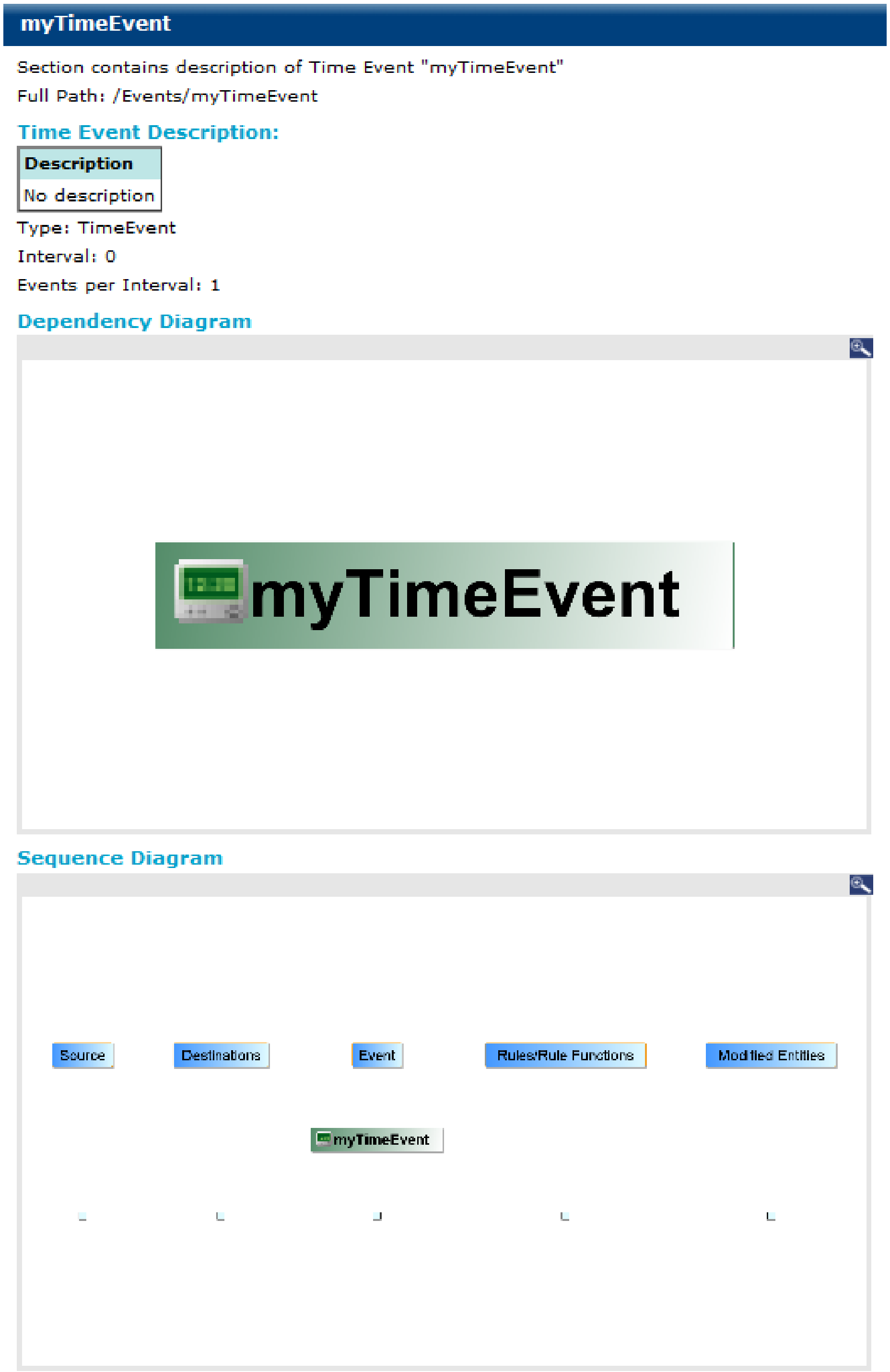
```
<?xml version="1.0" encoding="UTF-8"?>

<payload/>
```

Figure98. **Simple Event documentation - Expiry Action and Payload String**

### 2.3.2.1.16. Time Events

Time Event documentation consists of Time Event Description, Dependency Diagram, Sequence Diagram.



## myTimeEvent

Section contains description of Time Event "myTimeEvent"
Full Path: /Events/myTimeEvent

### Time Event Description:

| Description |
|---|
| No description |

Type: TimeEvent
Interval: 0
Events per Interval: 1

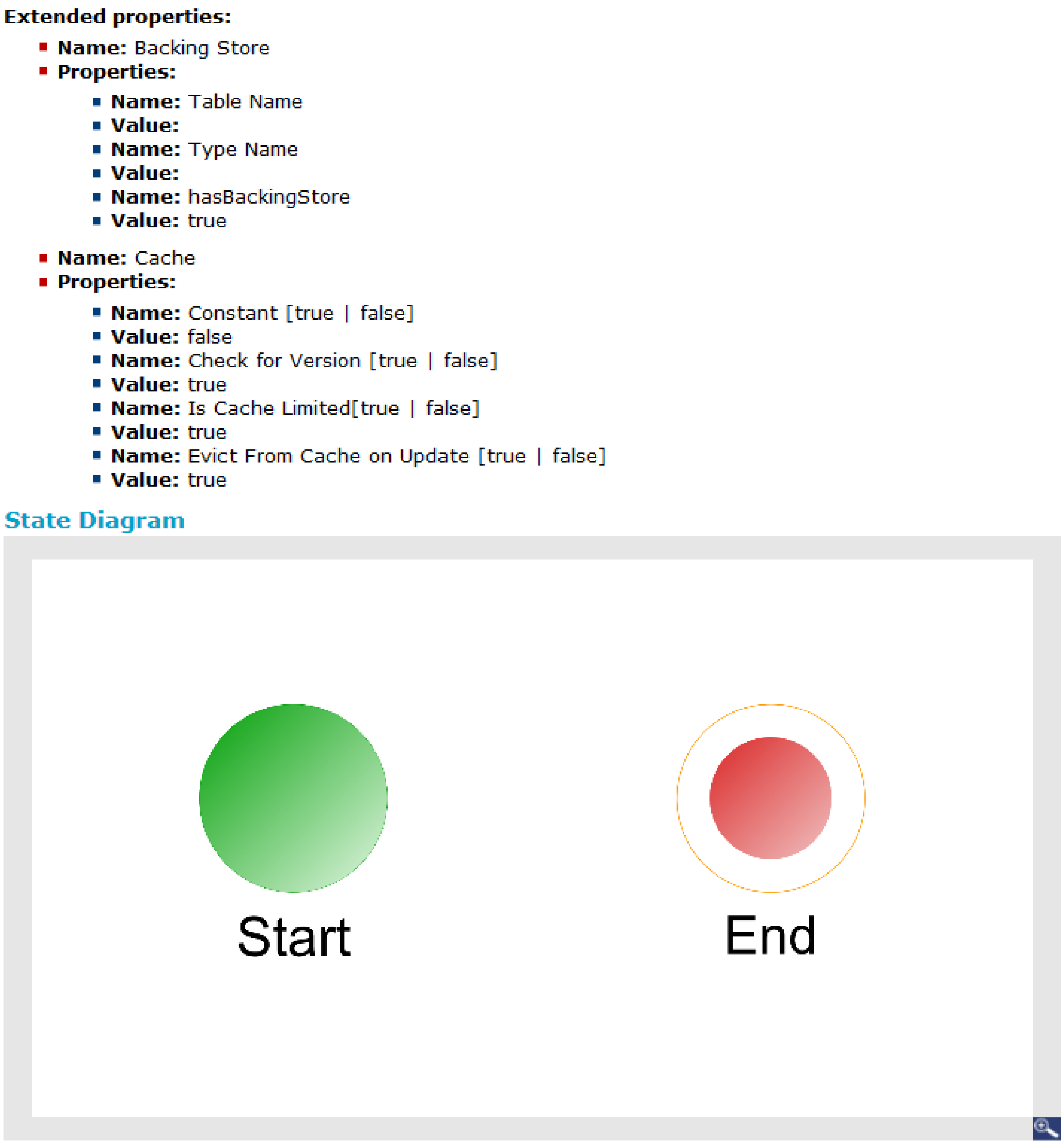
### Dependency Diagram

### Sequence Diagram

Figure99. Time Event documentation

### 2.3.2.1.17. State Machines

State Machine documentation consists of Extended Properties, State Diagram and details of all Actions, Expression, State Entities and Transitions.



**Extended properties:**

- **Name:** Backing Store
- **Properties:**
  - **Name:** Table Name
  - **Value:**
  - **Name:** Type Name
  - **Value:**
  - **Name:** hasBackingStore
  - **Value:** true
- **Name:** Cache
- **Properties:**
  - **Name:** Constant [true | false]
  - **Value:** false
  - **Name:** Check for Version [true | false]
  - **Value:** true
  - **Name:** Is Cache Limited[true | false]
  - **Value:** true
  - **Name:** Evict From Cache on Update [true | false]
  - **Value:** true

State Diagram

Figure100. **State Machine documentation**

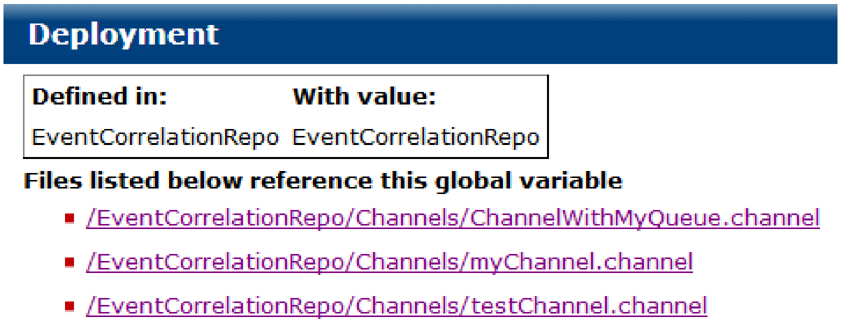
### 2.3.2.2. Cross-Reference Documentation

This section contains three main subsections. **Global Variables**, **Destinations** and **User Defined CrossReference**.

#### 2.3.2.2.1. Global Variables

The Global Variables section of the document references information of all projects in the MakeDoc for TIBCO solution. It contains two subsections.

The section **Global Variables Reference** is a list of all global variables. Global variables are structured similar to TIBCO BusinessEvents Studio, but this structure is built among all project in the TIBCO BusinessEvents Profile. Each global variable documentation contains table of its values, because global variable can be defined in more than one project. Hyper-links to referencing resources (e.g. Channels) are also included.



Deployment

| Defined in: | With value: |
|---|---|
| EventCorrelationRepo | EventCorrelationRepo |

**Files listed below reference this global variable**

- /EventCorrelationRepo/Channels/ChannelWithMyQueue.channel
- /EventCorrelationRepo/Channels/myChannel.channel
- /EventCorrelationRepo/Channels/testChannel.channel

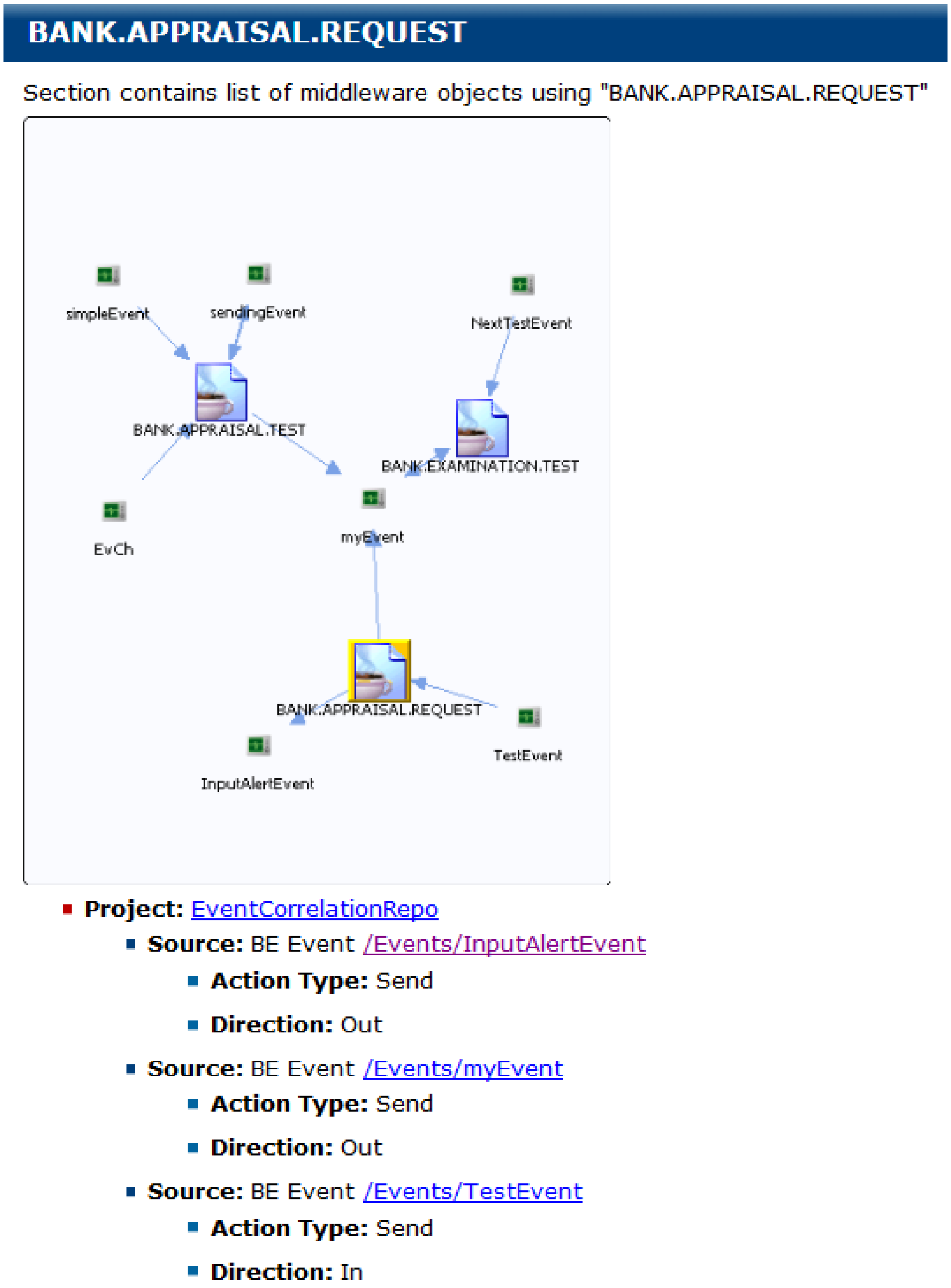
**Figure101. Example of Global Variable Reference documentation**

### 2.3.2.2.2. Destinations

The Destinations section of the document references information of all projects in the BusinessEvents Profile.

The section Destinations Reference is a list of all Queues grouped by JMS Connection in JMS Messages section. Every Queue contains graph with text part. Graph shows all Event which communicate with selected Queue and vice versa. Text part corresponds with the graph, but contains list of Events which only communicate with selected Queue.

Destination documentation contains the visual cross-reference where the user can see near destination neighborhood. Actually opened destination has yellow border for simpler orientation in the diagram. Every diagram element is hyper-linked to its documentation page.



**BANK.APPRAISAL.REQUEST**

Section contains list of middleware objects using "BANK.APPRAISAL.REQUEST"

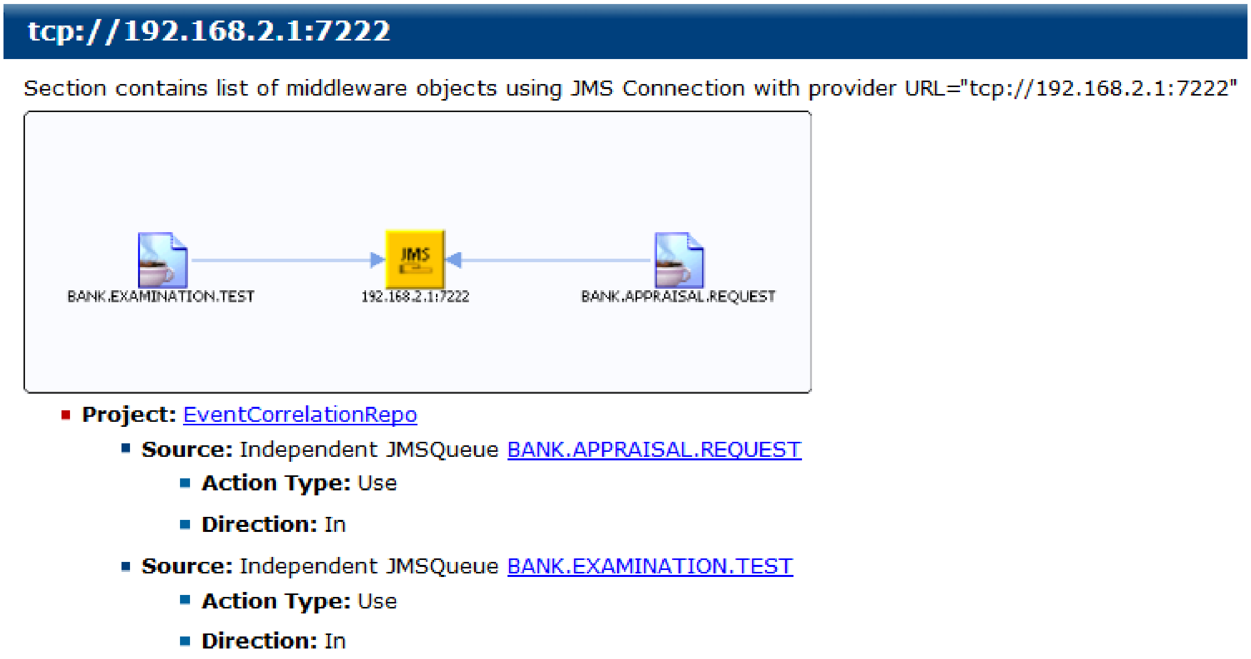
- **Project:** EventCorrelationRepo
  - **Source:** BE Event /Events/InputAlertEvent
    - **Action Type:** Send
    - **Direction:** Out
  - **Source:** BE Event /Events/myEvent
    - **Action Type:** Send
    - **Direction:** Out
  - **Source:** BE Event /Events/TestEvent
    - **Action Type:** Send
    - **Direction:** In

Figure102. **Example of Queue detail**

### 2.3.2.2.3. User Defined CrossReference

The section User Defined CrossReference is special part of generated documentation. This part contains documentation of JMS Connections and their usages by JMS Queue.

Content of User Defined CrossReference is driven by special files stored in BusinessEvents Module project in folder Templates/cross/def/*. By editing or adding new files can be automatically added new part of documentation. Adding and editing needs good knowledge of TIBCO BusinessEvents Module processing. **Editing and adding new files is NOT RECOMMENDED**. User Defined CrossReference is new model and it will be improved and accessible to users in future.



**tcp://192.168.2.1:7222**

Section contains list of middleware objects using JMS Connection with provider URL="tcp://192.168.2.1:7222"

- **Project:** EventCorrelationRepo
  - **Source:** Independent JMSQueue BANK.APPRAISAL.REQUEST
    - **Action Type:** Use
    - **Direction:** In
  - **Source:** Independent JMSQueue BANK.EXAMINATION.TEST
    - **Action Type:** Use
    - **Direction:** In

**Figure103. Example of JMS Connection in User Defined CrossReference**

### 2.3.2.3. Quality Assurance Documentation

Quality Assurance Documentation part is described in Quality Assurance Module chapter.

## 2.4. TIBCO iProcess Module

TIBCO iProcess Module allows to generate documentation from selected TIBCO iProcess sources, such as directories with sources. TIBCO iProcess Module can work with iProcess project created under TIBCO iProcess.

All processes described in this chapter can be used in TIBCO iProcess Module.

### 2.4.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

### 2.4.1.1. Configuration

Configuration of TIBCO iProcess Modules is stored in ~/MakeDocConfig/nighthawk.properties for TIBCO iProcess Module.

Property files contains:

```
settings.module=NGHTHAWKsettings.type=SNAPSHOT
settings.module=NGHTHA
n
```

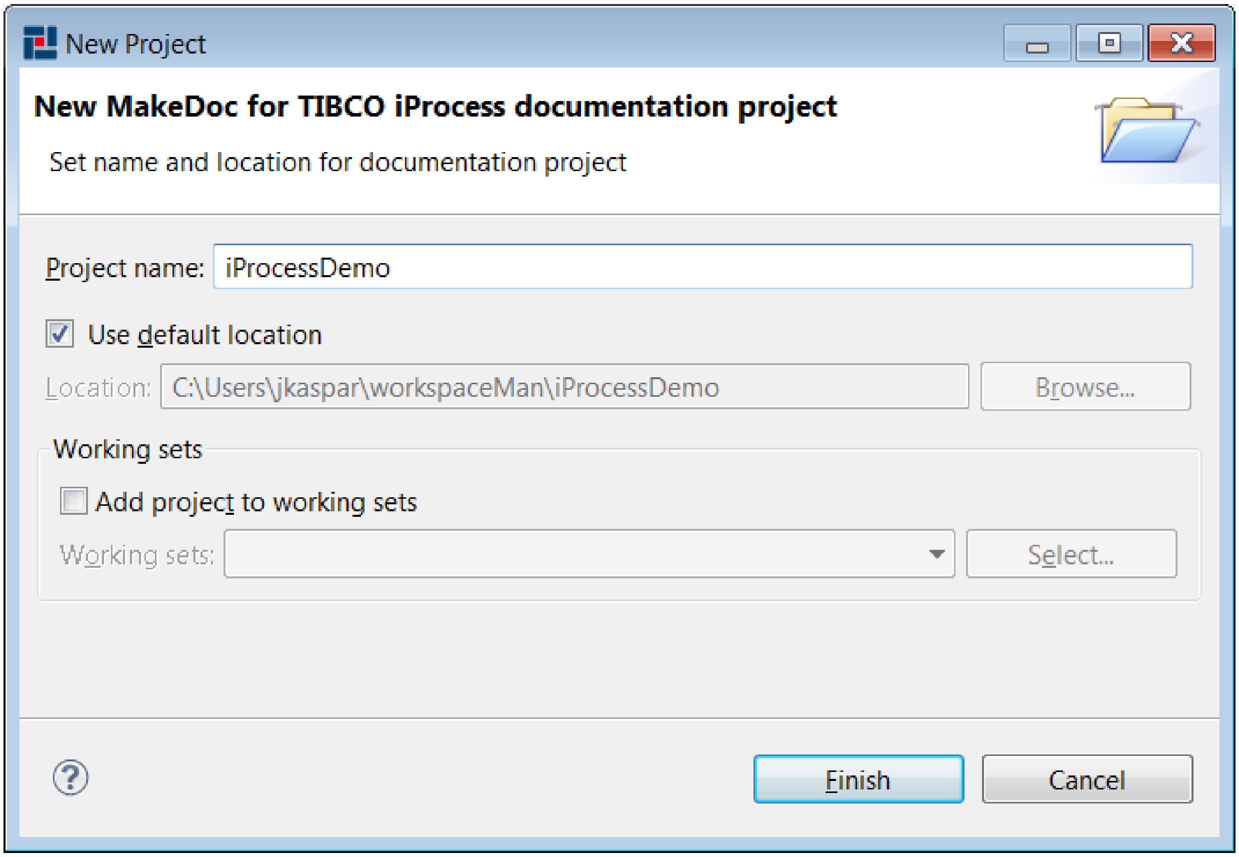
File nighthawk.properties contains paths to TIBCO iProcess.

### 2.4.1.2. Dialogs

Chapter describes dialogs in module for TIBCO iProcess.

### 2.4.1.2.1. Creating TIBCO iProcess Module Project

Chapter describes creation of TIBCO iProcess Module project.



New MakeDoc for TIBCO iProcess documentation project

Set name and location for documentation project

Project name: iProcessDemo

☑ Use default location

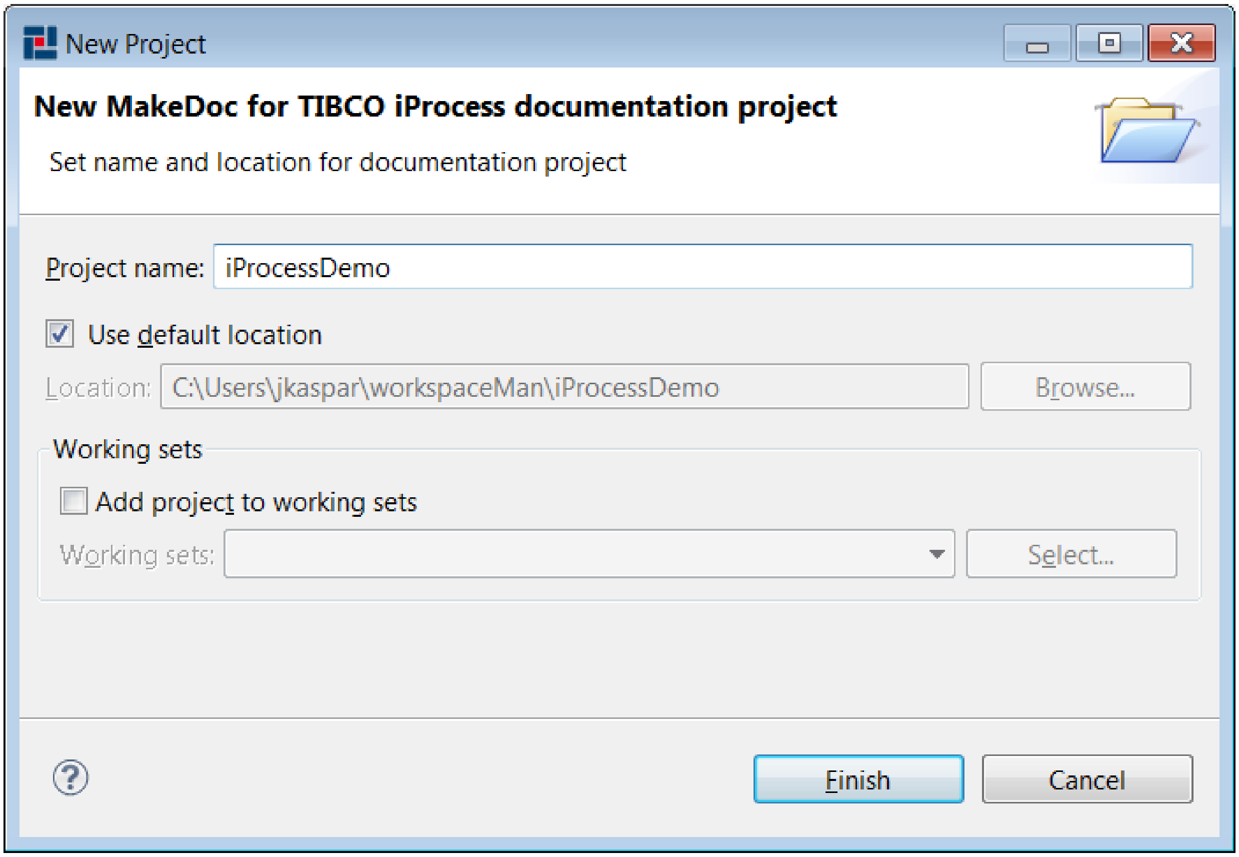
Location: C:\Users\jkaspar\workspaceMan\iProcessDemo

□ Add project to working sets

Working sets:

**Figure104. New TIBCO iProcess Module Project wizard**

Name of project can be set in next wizard page.



New Project

**New MakeDoc for TIBCO iProcess documentation project**

Set name and location for documentation project

Project name: iProcessDemo

☑ Use default location

Location: C:\Users\jkaspar\workspaceMan\iProcessDemo

Working sets

□ Add project to working sets

Working sets:

Figure105. **New TIBCO iProcess Module Project wizard - Project Name**

MakeDoc creates main project structure after pressing Finish.

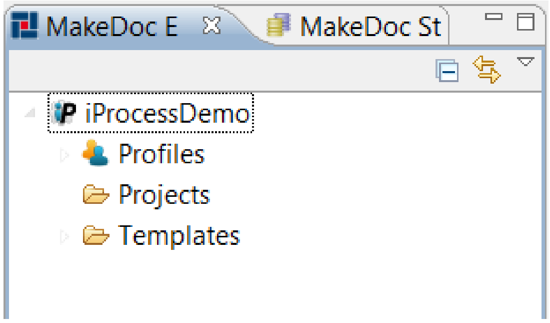


Figure106. **Created project structure**

Project contains three folders:

- Profiles - contains profiles for selecting TIBCO iProcess project to document, output format of documentation
- Projects - contains all TIBCO iProcess projects to document
- Templates - contains FreeMarker templates

### 2.4.1.2.2. Working with TIBCO iProcess projects

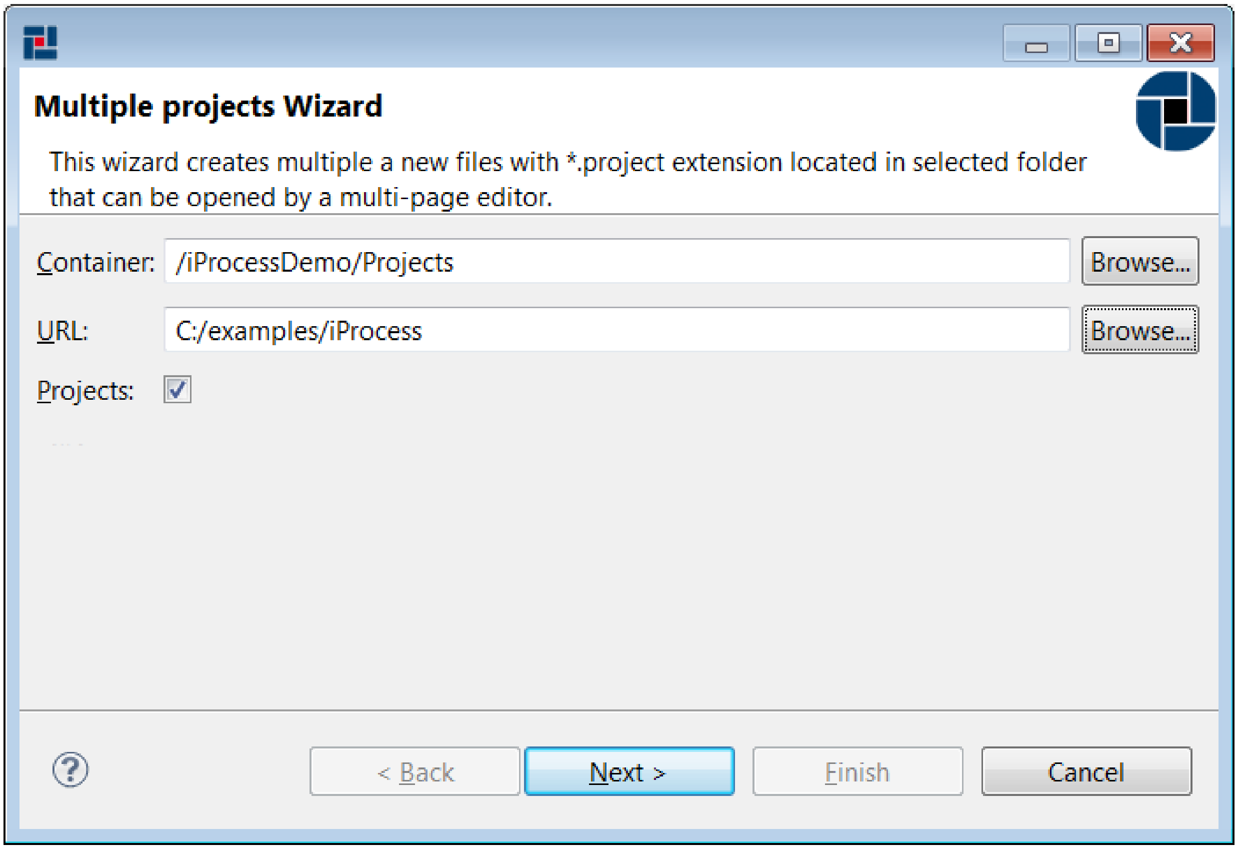
Chapter describes creating and editing TIBCO iProcess projects. TIBCO iProcess project can link to directory with TIBCO iProcess project sources.

### *2.4.1.2.2.1. Creating TIBCO iProcess project*

TIBCO iProcess project can be created by New Multiple iProcess Projects wizard. New Multiple iProcess wizard allows create more TIBCO iProcess projects by one step.

**Creating multiple iProcess projects**

Right click on Project folder in TIBCO iProcess Module project and select New > iProcess Projects



**Multiple projects Wizard**

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

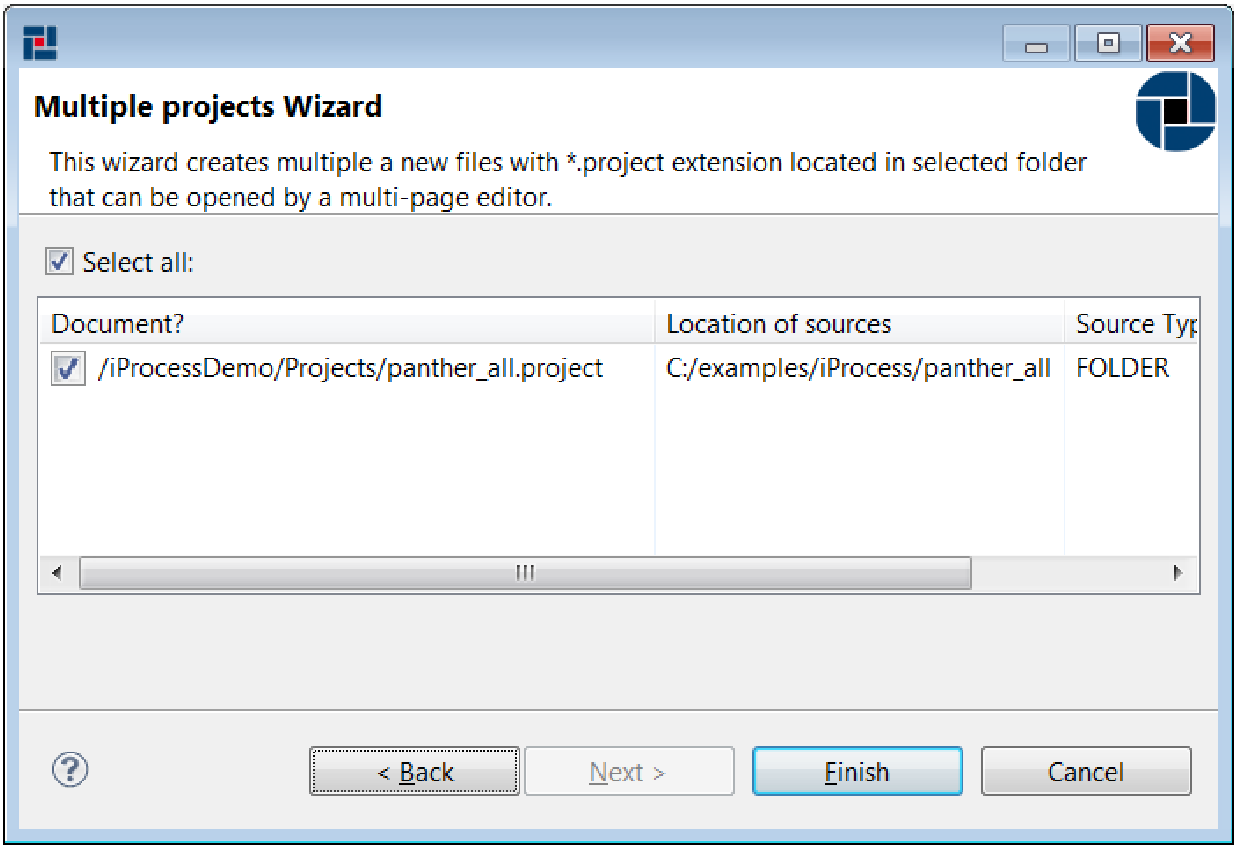
Container: /iProcessDemo/Projects

URL: C:/examples/iProcess

Projects: ☑

Figure107. **Multiple iProcess Projects**

New Multiple iProcess Projects wizard allows selection of desired type of source - Folders. After setting URL to directory, wizard tries to find all sources in selected folder recursively and shows all found TIBCO iProcess Projects for selecting or deselecting found projects.



Multiple projects Wizard

This wizard creates multiple a new files with *.project extension located in selected folder that can be opened by a multi-page editor.

☑ Select all:

| Document? | Location of sources | Source Typ |
|---|---|---|
| ☑ /iProcessDemo/Projects/panther_all.project | C:/examples/iProcess/panther_all | FOLDER |

Figure108. **Found iProcess projects**

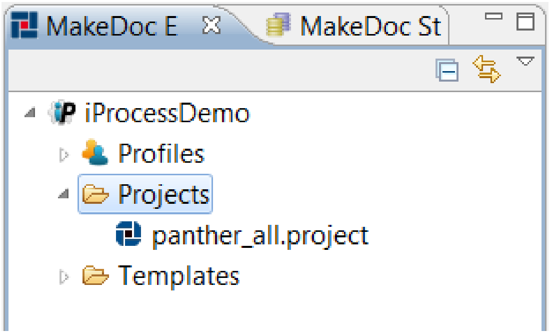
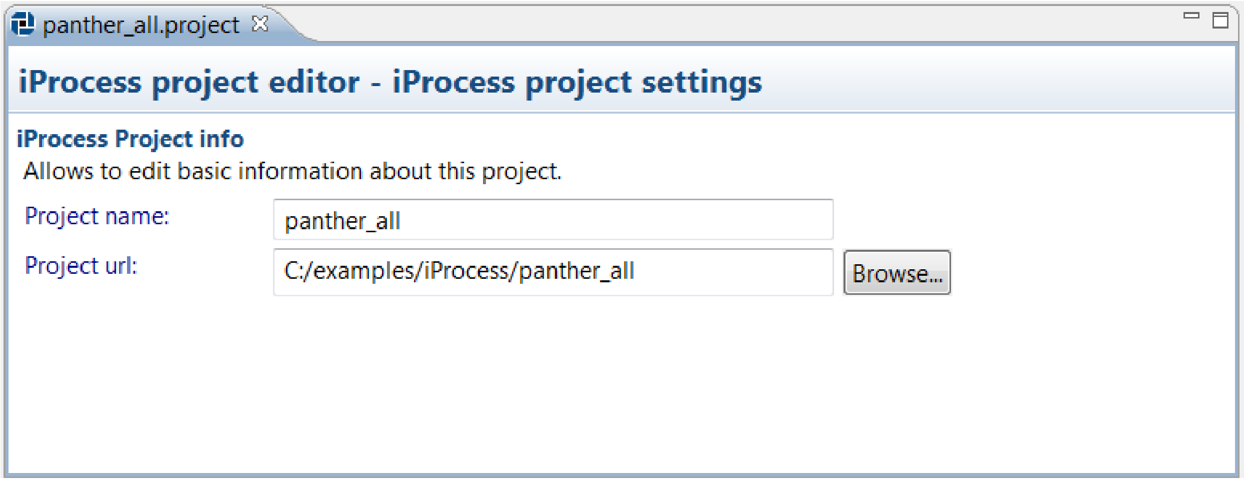


Figure109. **Created projects by Multiple iProcess Projects**

### *2.4.1.2.2.2. Editing iProcess project*

Existing iProcess projects can be modified by iProcess Project Editor. Editor allows change path to TIBCO iProcess source directory.



iProcess project editor - iProcess project settings

iProcess Project info

Allows to edit basic information about this project.

Project name: panther_all

Project url: C:/examples/iProcess/panther_all

Figure110. iProcess Project editor with directory source

### 2.4.1.2.3. Working with Profiles

This part describes how to work with iProcess profiles. Two profiles are created by default. Profiles in general allows user to:

- start documentation process
- set output format - HTML, PDF, DOCX
- set paper format
- set filter
- set Storage setting - Storage, Repository location
- set subset of Units to be documented in this profile when 'Document all units' option is not used.

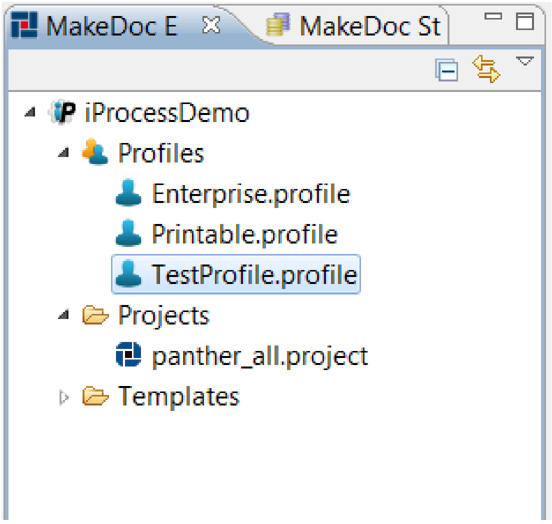
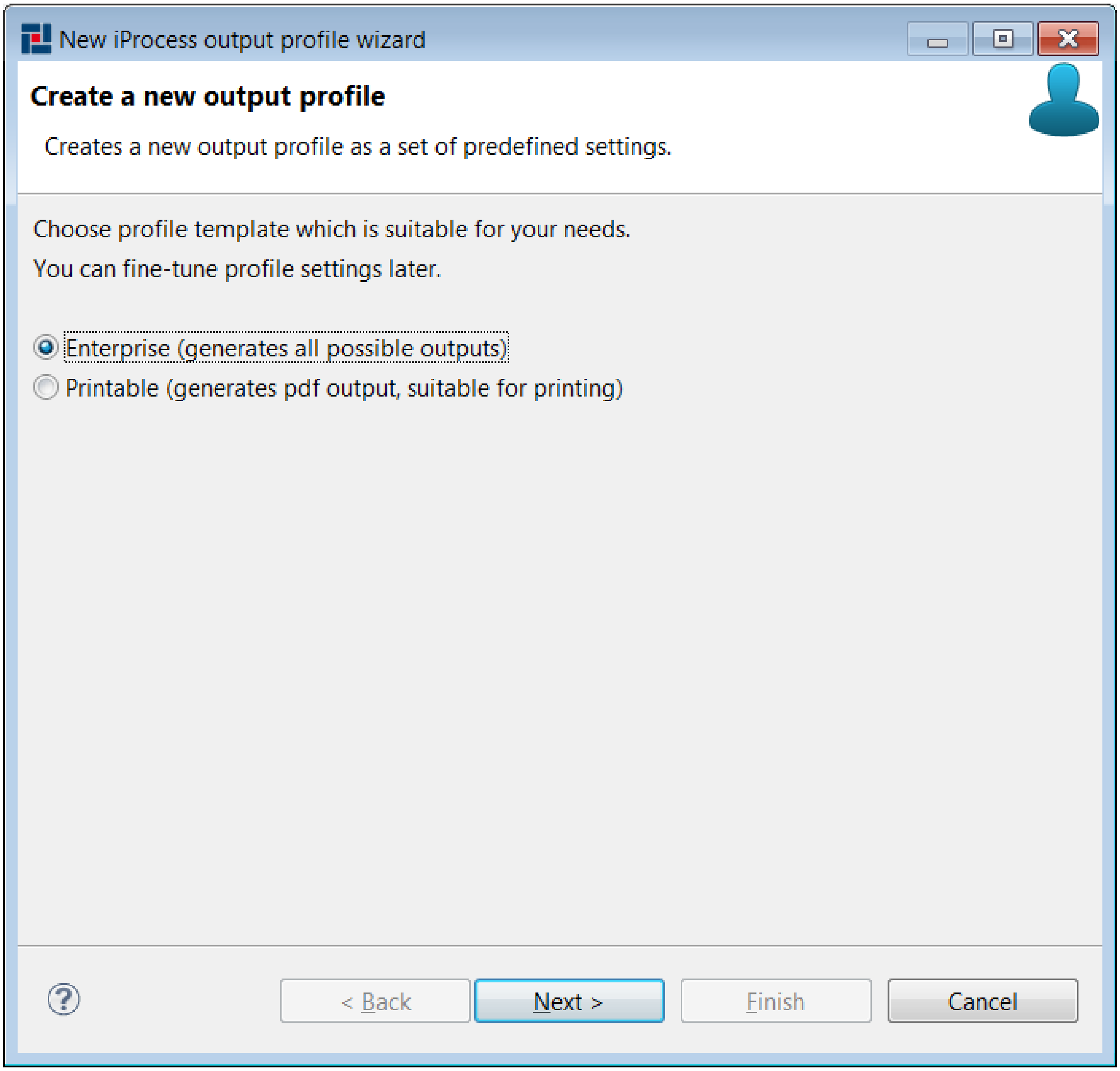


Figure111. Default Profiles in project

#### *2.4.1.2.3.1. Creating iProcess Profiles*

iProcess Profiles can be created by iProcess Profile wizard. To open iProcess Profile wizard right-click on folder Profiles and select New > iProcess Profile.



New iProcess output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Choose profile template which is suitable for your needs.

You can fine-tune profile settings later.

● Enterprise (generates all possible outputs)

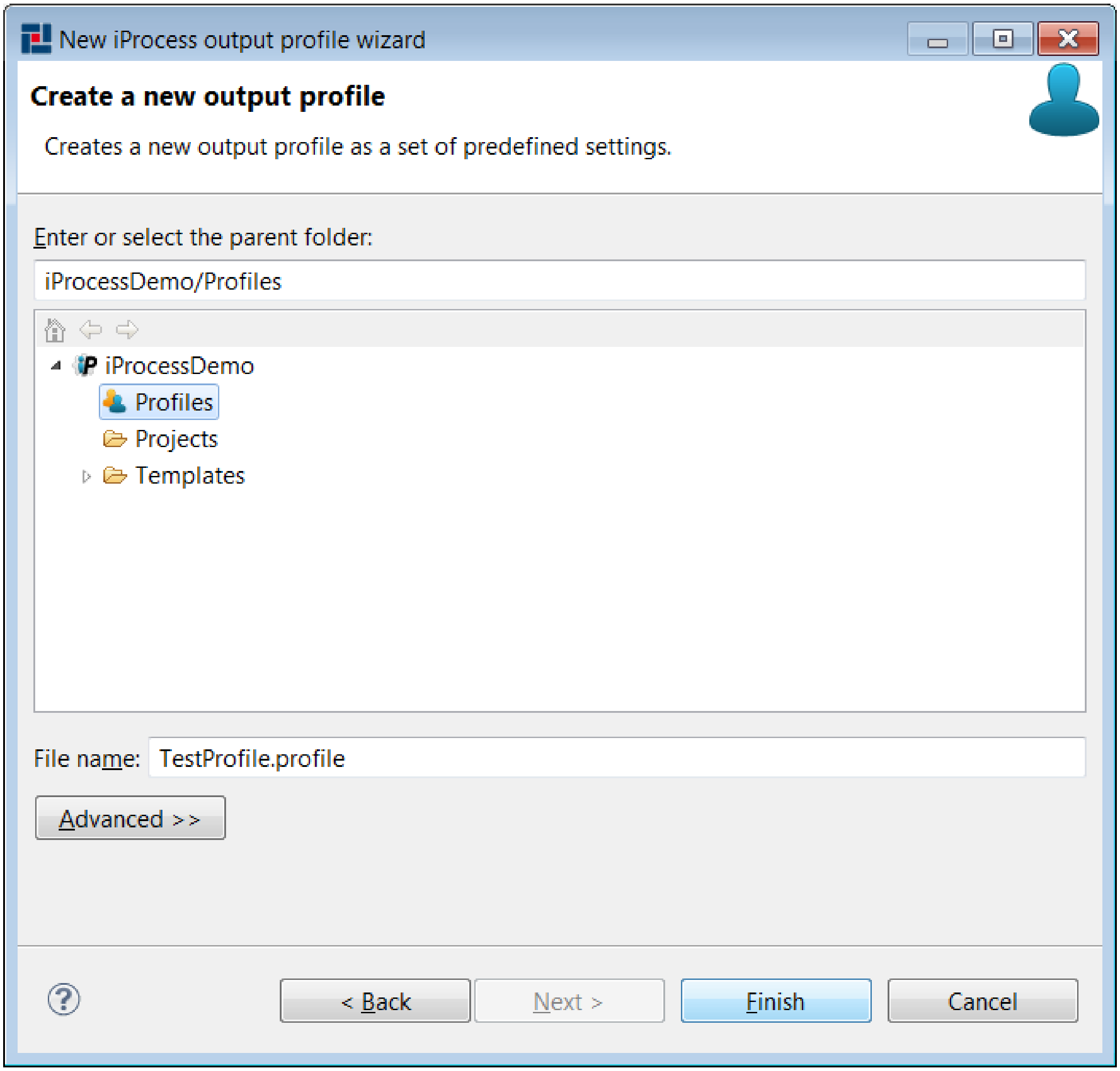
○ Printable (generates pdf output, suitable for printing)

**Figure112. iProcess Profile wizard**

First page allow select predefined type of Profile:

- Enterprise - in default generates all outputs
- Printable - in default generates only PDF output

On next page is possible select destination folder of created Profile and set name of new Profile.



New iProcess output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Enter or select the parent folder:

iProcessDemo/Profiles

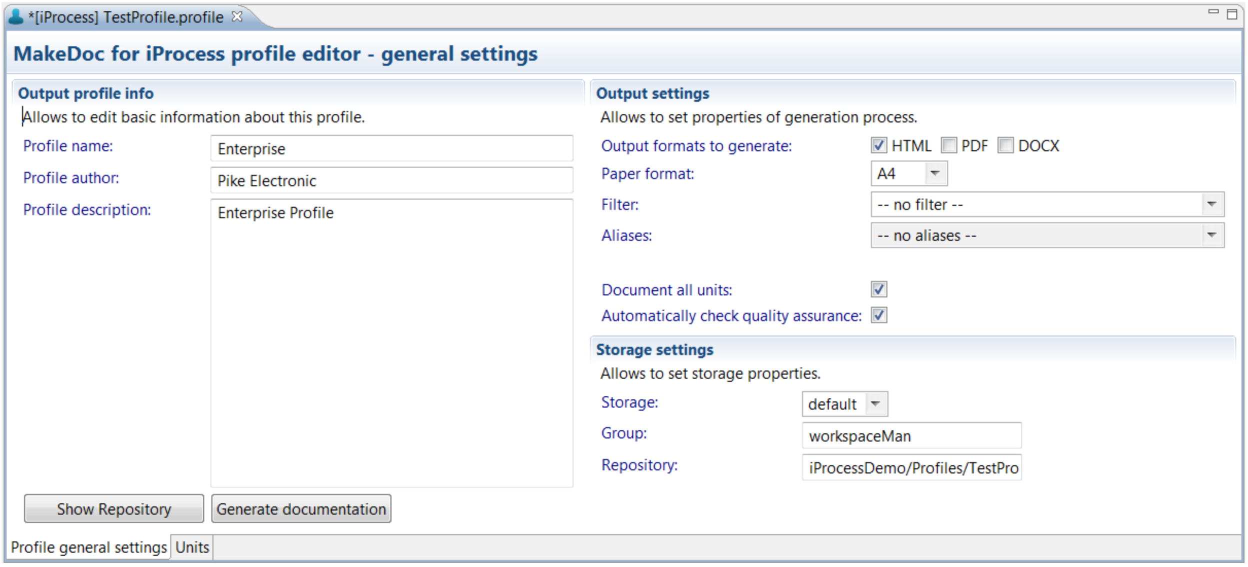
File name: TestProfile.profile

Figure113. **iProcess Profile wizard - destination folder and Profile name**

Wizard creates new Profile in selected folder after pressing Finish button.

### *2.4.1.2.3.2. Editing iProcess Profiles*

Existing iProcess Profiles can be modified by iProcess Profile Editor. Double click on iProcess Profile opens iProcess Profile Editor.



MakeDoc for iProcess profile editor - general settings

Output profile info

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author: Pike Electronic

Profile description: Enterprise Profile

Output settings

Allows to set properties of generation process.

Output formats to generate: ☑ HTML □ PDF □ DOCX

Paper format: A4

Filter: -- no filter --

Aliases: -- no aliases --

Document all units: ☑

Automatically check quality assurance: ☑

Storage settings

Allows to set storage properties.

Storage: default

Group: workspaceMan

Repository: iProcessDemo/Profiles/TestPro

Figure114. iProcess Profile Editor

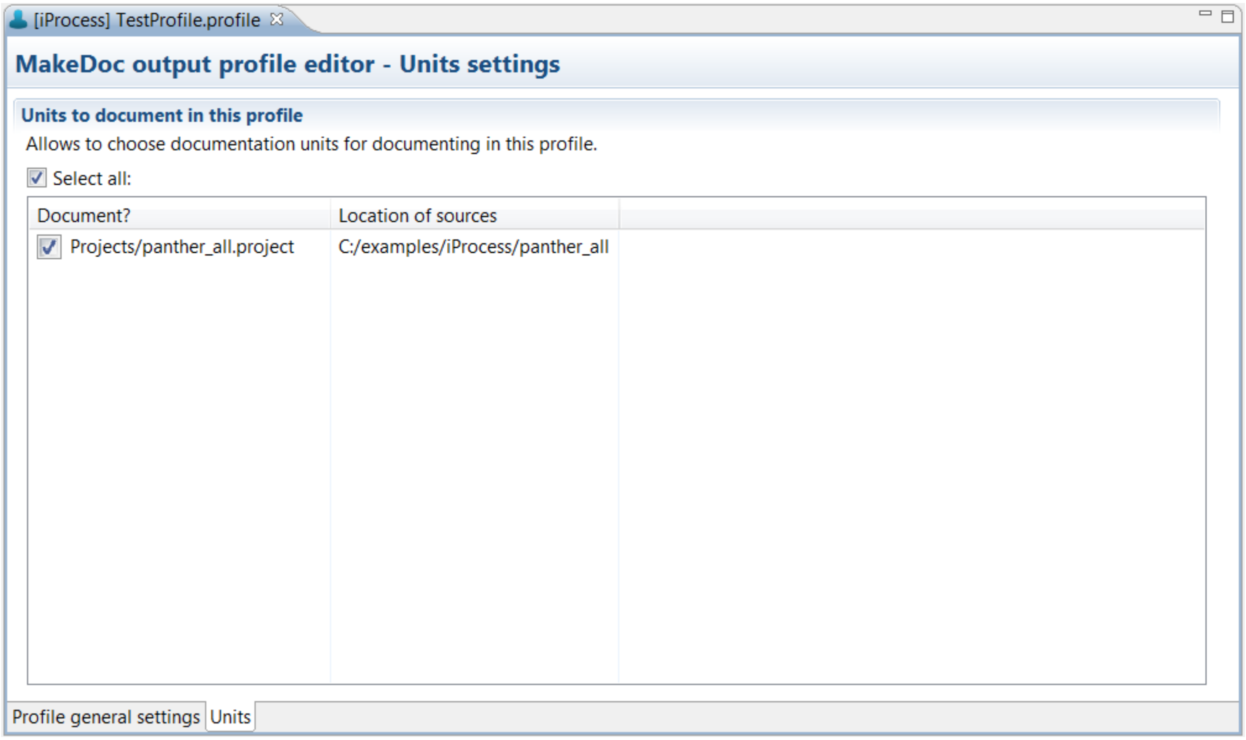
iProcess Profile Editor contains two bookmarks.

First bookmark Profile general settings allows to set Profile name, which is showed in generated documentation name. Profile author says who creates Profile. Project description contains short information about Profile.

Output settings allows to set properties of generation process such as output formats to generate, paper format, filter and two checkboxes for fast selecting all Units and Quality Assurance Rules to document.

Last Storage settings allow to set storage properties as Storage and Repository location.

Button Generate documentation starts documentation process.



[iProcess] TestProfile.profile

MakeDoc output profile editor - Units settings

Units to document in this profile

Allows to choose documentation units for documenting in this profile.

☑ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/panther_all.project | C:/examples/iProcess/panther_all |

Figure115. iProcess Profile Editor - Units

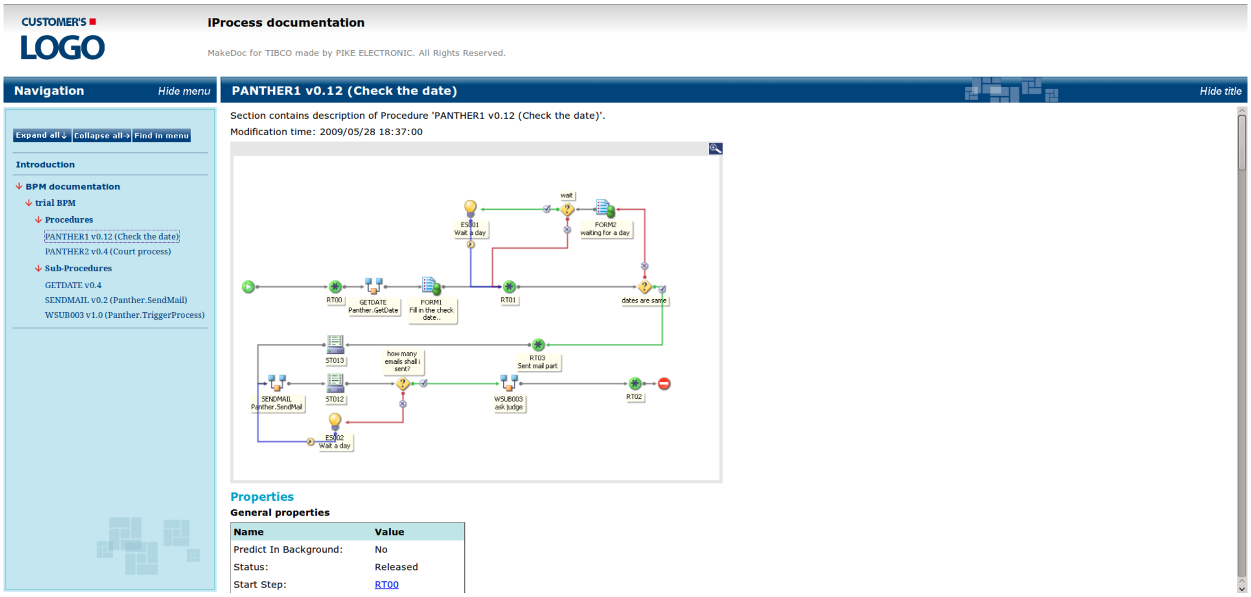
iProcess Profile has selected All Units to document by default. Unit means iProcess Project. Second bookmark Units provides selection of Units to document and shows all Units which are stored in Profile's iProcess Module project. All Units can be selected automatically by checkbox Select all.

## 2.4.2. Generated Output

Documentation can be generated in HTML, PDF and DOCX format. The Project documentation part contains list of projects and each project contains all its resources. Navigation items are links to HTML documents and the menu is updated according to actually displayed content. The PDF documentation has bookmarks which are similar in structure to the HTML navigation. The DOCX documentation is another printable file format, which is also easy to edit and format.

### 2.4.2.1. Project Documentation

The Project documentation contains chapter for each documented project. The focus of this chapter is on procedures and subprocedures. A project documentation may contains some or all of sections depending on iProcess Profile settings.



iProcess documentation

MakeDoc for TIBCO made by PIKE ELECTRONIC. All Rights Reserved.

Navigation Hide menu

Expand all↓ Collapse all→ Find in menu

Introduction

- BPM documentation
  - trial BPM
    - Procedures
      - PANTHER1 v0.12 (Check the date)
      - PANTHER2 v0.4 (Court process)
    - Sub-Procedures
      - GETDATE v0.4
      - SENDMAIL v0.2 (Panther.SendMail)
      - WSUB003 v1.0 (Panther.TriggerProcess)

PANTHER1 v0.12 (Check the date) Hide title

Section contains description of Procedure 'PANTHER1 v0.12 (Check the date)'.

Modification time: 2009/05/28 18:37:00

Properties

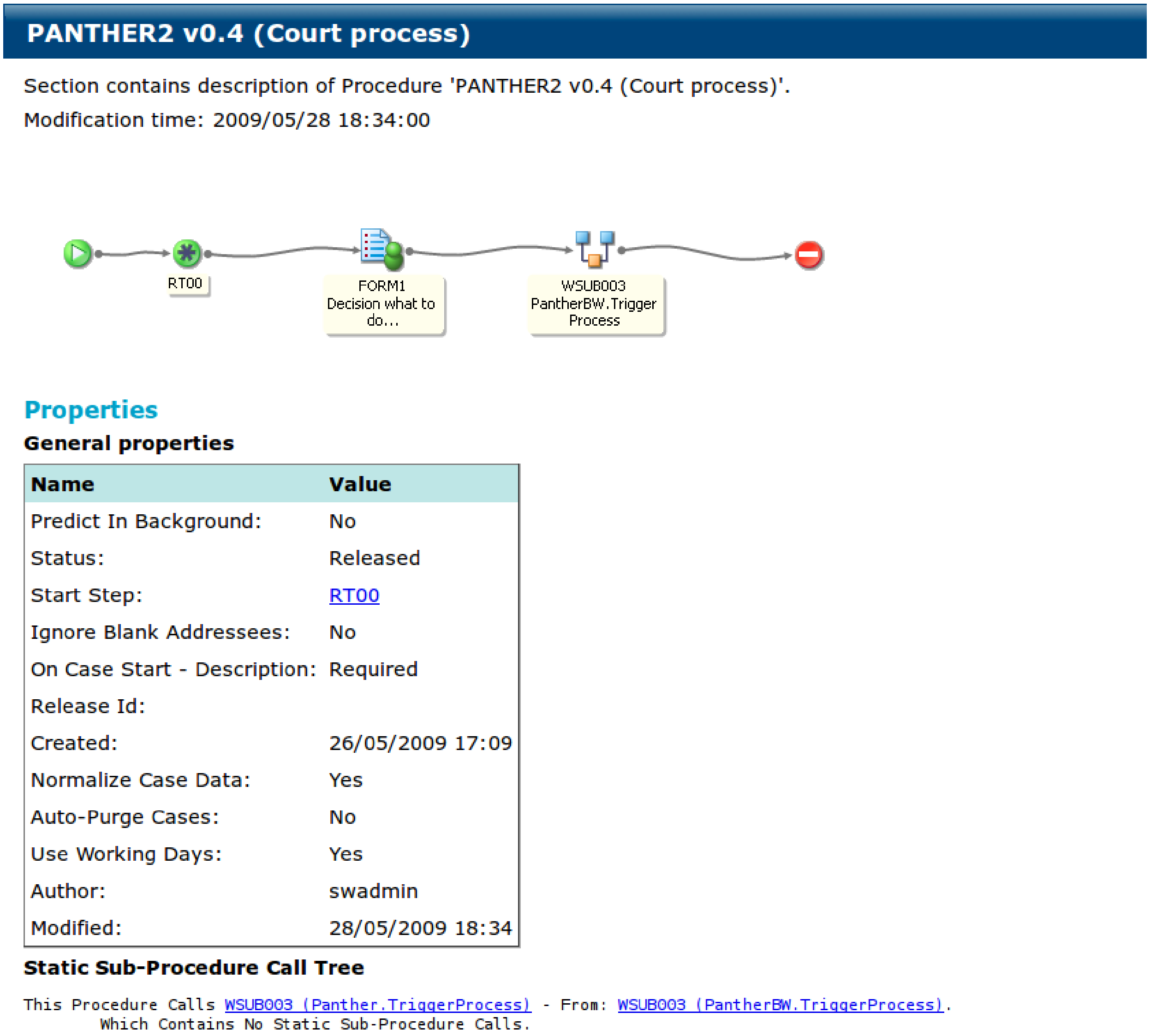
General properties

| Name | Value |
|---|---|
| Predict In Background: | No |
| Status: | Released |
| Start Step: | RT00 |

**Figure116. Example of HTML Project Documentation**

### 2.4.2.1.1. Procedure

Procedures documentation consists of Sub-Procedures call, Parameters, Properties, Steps, Actions.



## PANTHER2 v0.4 (Court process)

Section contains description of Procedure 'PANTHER2 v0.4 (Court process)'.

Modification time: 2009/05/28 18:34:00

### Properties

**General properties**

| Name | Value |
|---|---|
| Predict In Background: | No |
| Status: | Released |
| Start Step: | RT00 |
| Ignore Blank Addressees: | No |
| On Case Start - Description: | Required |
| Release Id: | |
| Created: | 26/05/2009 17:09 |
| Normalize Case Data: | Yes |
| Auto-Purge Cases: | No |
| Use Working Days: | Yes |
| Author: | swadmin |
| Modified: | 28/05/2009 18:34 |

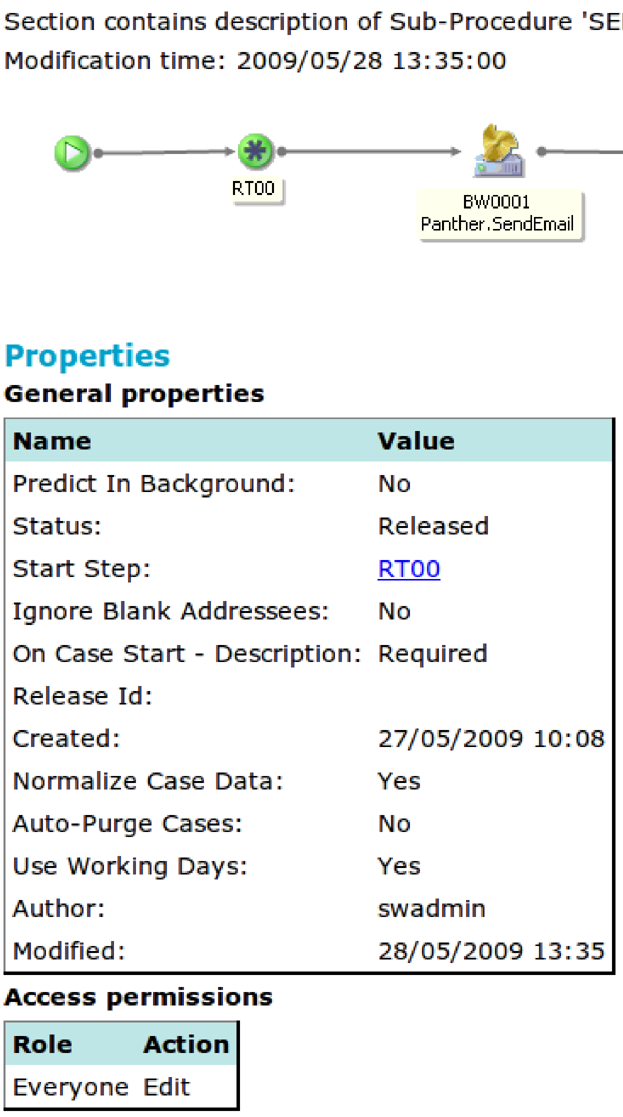
**Static Sub-Procedure Call Tree**

```
This Procedure Calls WSUB003 (Panther.TriggerProcess) - From: WSUB003 (PantherBW.TriggerProcess).
        Which Contains No Static Sub-Procedure Calls.
```

Figure117. Procedures

### 2.4.2.1.2. Sub-Procedure

Sub-Procedures documentation consists of Parameters, Properties, Steps, Fields.



Section contains description of Sub-Procedure 'SENDMAIL v0.2 (Panther.SendMail)'.
Modification time: 2009/05/28 13:35:00

Properties

**General properties**

| Name | Value |
|---|---|
| Predict In Background: | No |
| Status: | Released |
| Start Step: | RT00 |
| Ignore Blank Addressees: | No |
| On Case Start - Description: | Required |
| Release Id: | |
| Created: | 27/05/2009 10:08 |
| Normalize Case Data: | Yes |
| Auto-Purge Cases: | No |
| Use Working Days: | Yes |
| Author: | swadmin |
| Modified: | 28/05/2009 13:35 |

**Access permissions**

| Role | Action |
|---|---|
| Everyone | Edit |

Figure118. **Sub-Procedures**

### 2.4.2.2. Cross-Reference Documentation

Cross-Reference documentation is described in other part of this manual.

## 2.5. TIBCO EMS Module

TIBCO EMS Module allows to generate documentation from selected TIBCO EMS servers. TIBCO EMS Module can work with EMS servers.

All processes described in this chapter can be used in TIBCO EMS Module.

### 2.5.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

### 2.5.1.1. Configuration

Configuration of TIBCO EMS Modules is stored in ~/MakeDocConfig/pigeon.properties for TIBCO EMS Module.

Property files contains:

```
settings.module=PIGEONsettings.type=SNAPSHOTtibco.home_path=C:/tibcotibco.ems.home=C
:/tibco/ems/6.0

settings.module=PIGEONsettings.type=SNAPSHOTtibco.home_path=C:/
tibcotibco.ems.

settings.module=PIGEONsettings.type=SNAPSHOTtib
co.home_pa

settings.module=PIGEONset
tings.type
u
```

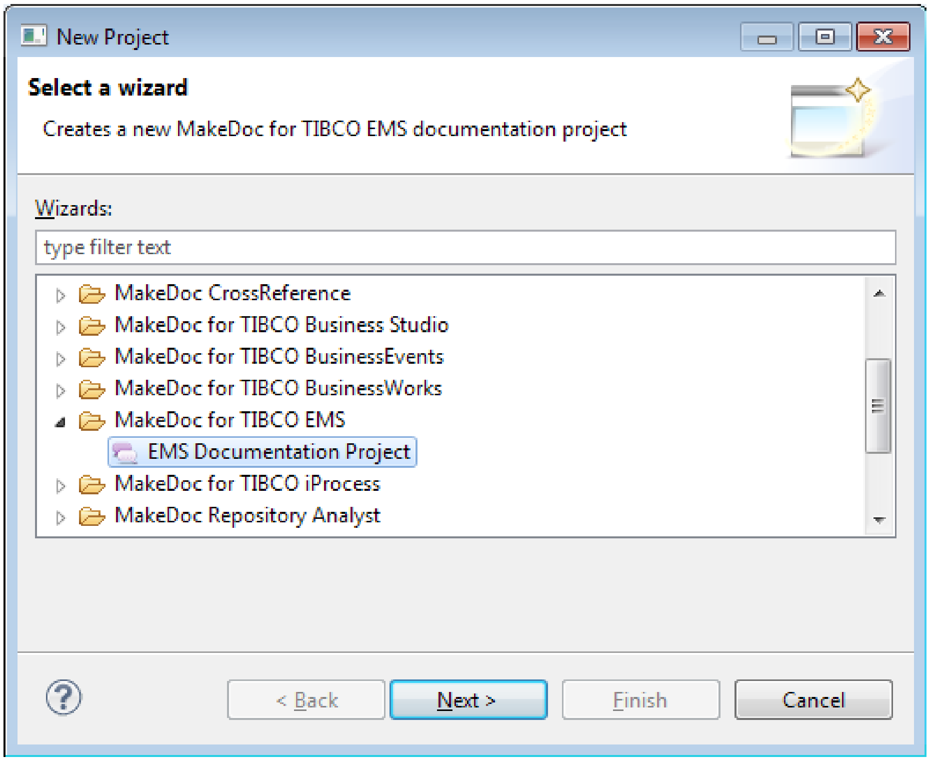
File pigeon.properties contains paths to TIBCO EMS.

### 2.5.1.2. Dialogs

Chapter describes dialogs in module for TIBCO EMS.

### 2.5.1.2.1. Creating TIBCO EMS Module Project

Chapter describes creation of TIBCO EMS Module project.



New Project

**Select a wizard**

Creates a new MakeDoc for TIBCO EMS documentation project

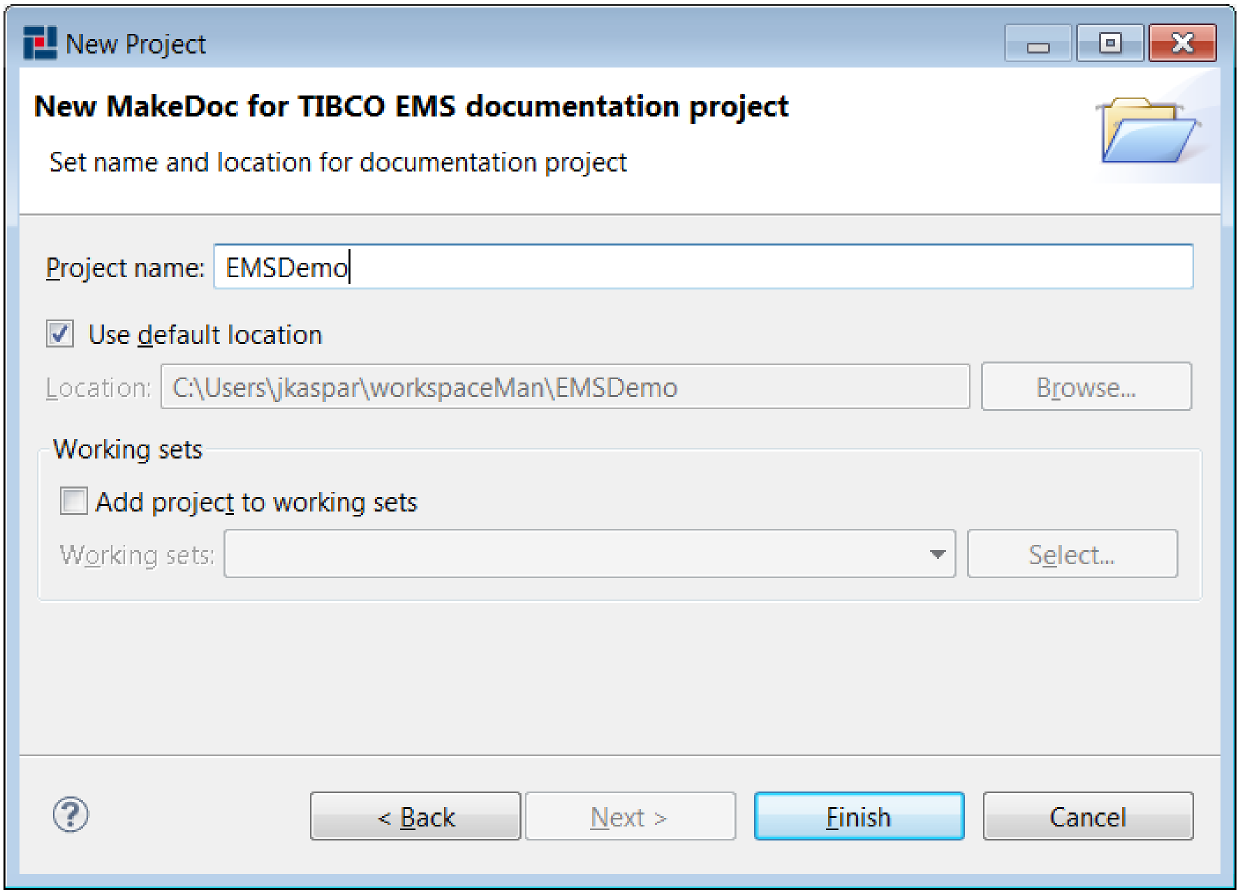
Wizards:

type filter text

- MakeDoc CrossReference
- MakeDoc for TIBCO Business Studio
- MakeDoc for TIBCO BusinessEvents
- MakeDoc for TIBCO BusinessWorks
- MakeDoc for TIBCO EMS
  - EMS Documentation Project
- MakeDoc for TIBCO iProcess
- MakeDoc Repository Analyst

**Figure119. New TIBCO EMS Module Project wizard**

Name of project can be set in next wizard page.



New Project

**New MakeDoc for TIBCO EMS documentation project**

Set name and location for documentation project

Project name: EMSDemo

☑ Use default location

Location: C:\Users\jkaspar\workspaceMan\EMSDemo

Working sets

□ Add project to working sets

Working sets:

Figure120. **New TIBCO EMS Module Project wizard - Project Name**

MakeDoc creates main project structure after pressing Finish.

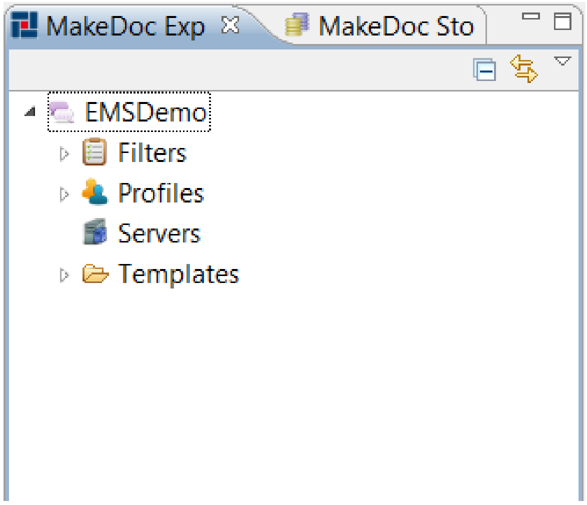


Figure121. **Created project structure**

Project contains four folders:

- Filters - contains filters for reducing generated documentation

- Profiles - contains profiles for selecting TIBCO EMS servers to document, output format of documentation
- Servers - contains all TIBCO EMS servers to document
- Templates - contains FreeMarker templates

### 2.5.1.2.2. Working with TIBCO EMS servers

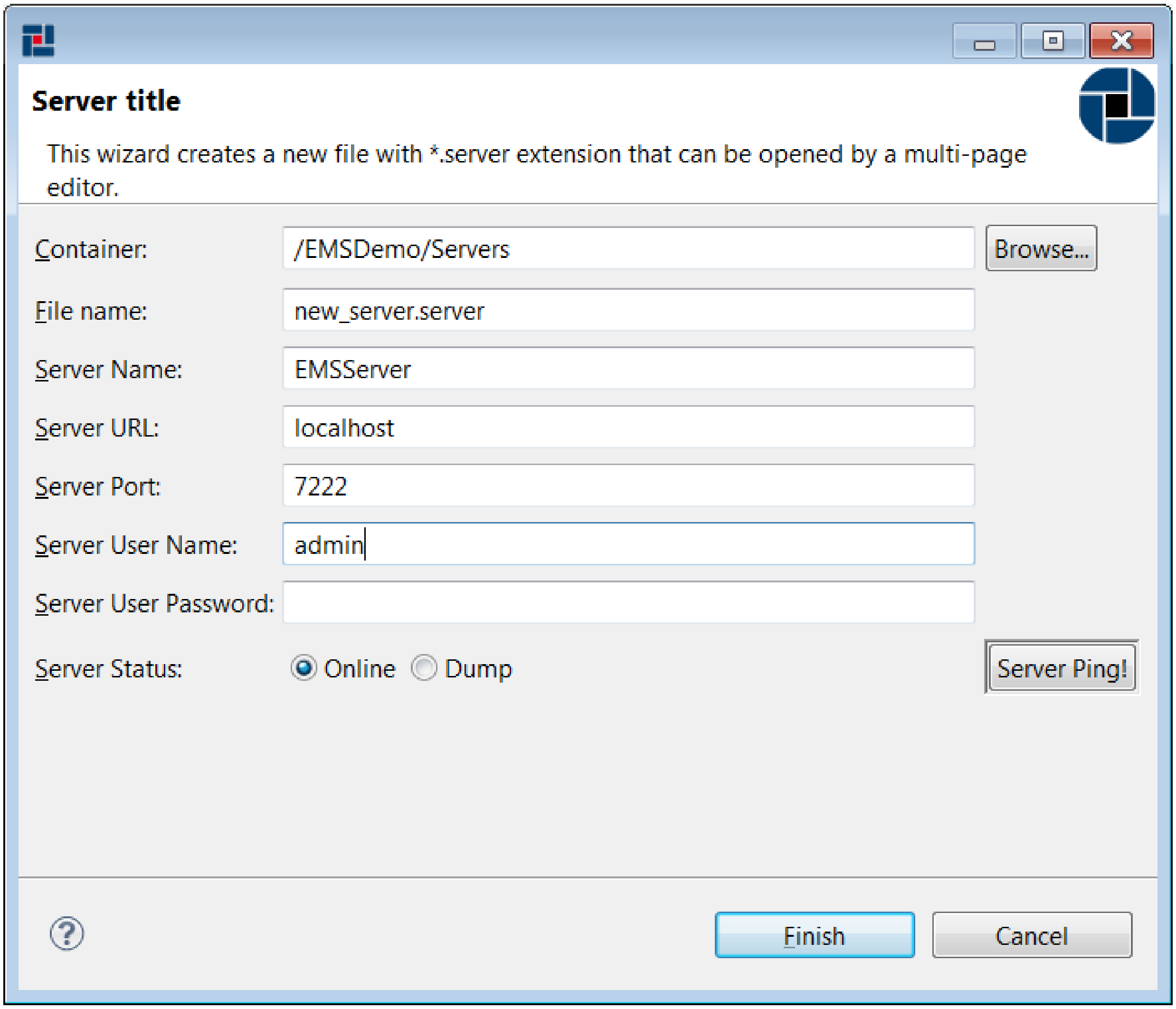
Chapter describes creating and editing TIBCO EMS servers.

#### *2.5.1.2.2.1. Creating TIBCO EMS Servers*

EMS Servers can be created by EMS Servers wizard.

**Creating EMS Server**

Right click on Servers folder in TIBCO EMS Module project and select New > EMS Server



**Server title**

This wizard creates a new file with *.server extension that can be opened by a multi-page editor.

Container: /EMSDemo/Servers

File name: new_server.server

Server Name: EMSServer

Server URL: localhost

Server Port: 7222

Server User Name: admin

Server User Password:

Server Status: ● Online ○ Dump

Figure122. **Multiple iProcess Projects**

This wizard allows you to create EMS Server object for documenting EMS Server. Server's Name, URL, Port, User and Password are required. It is necessary to fill this information correctly.

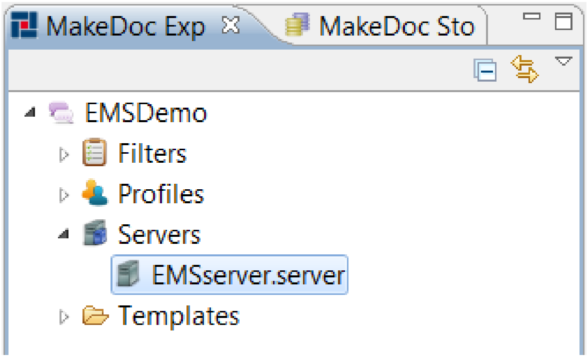
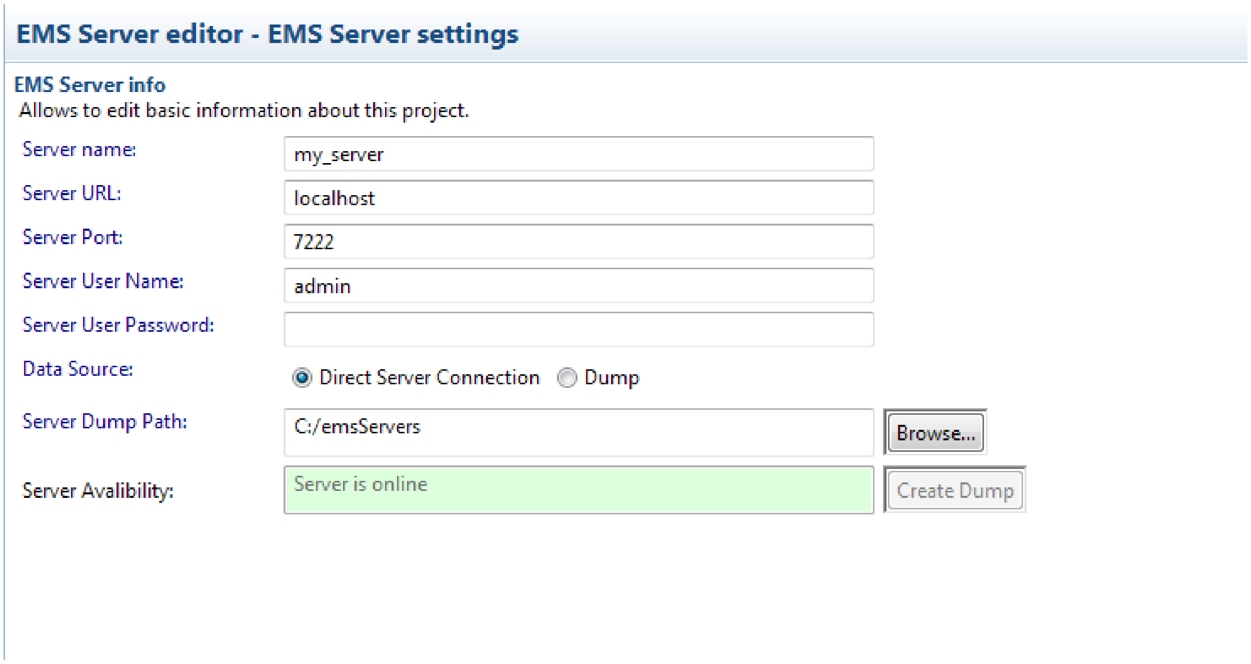


Figure123. **Created EMS server**

### *2.5.1.2.2.2. Editing EMS server*

Existing EMS Servers can be modified by EMS Server Editor. Editor allows change connection info items of EMS Server.



EMS Server editor - EMS Server settings

EMS Server info

Allows to edit basic information about this project.

| | |
|---|---|
| Server name: | my_server |
| Server URL: | localhost |
| Server Port: | 7222 |
| Server User Name: | admin |
| Server User Password: | |
| Data Source: | ● Direct Server Connection ○ Dump |
| Server Dump Path: | C:/emsServers |
| Server Avalibility: | Server is online |

Figure124. **EMS Server editor**

### 2.5.1.2.3. Working with Profiles

Chapter describes working with Profiles. Two Profiles are created automatically. Profiles allow:

- start documentation process
- set output format - HTML, PDF, DOCX
- set paper format
- set filter
- set Storage setting - Storage, Repository location
- Servers to document

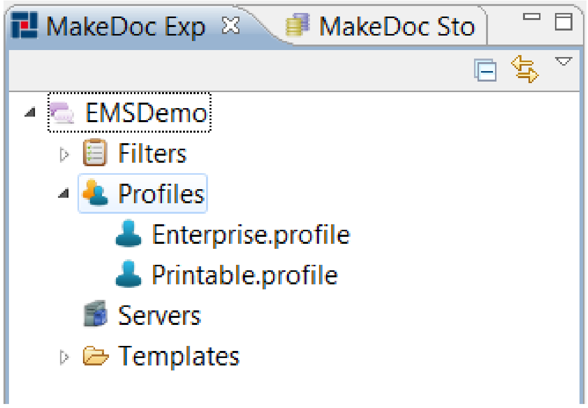
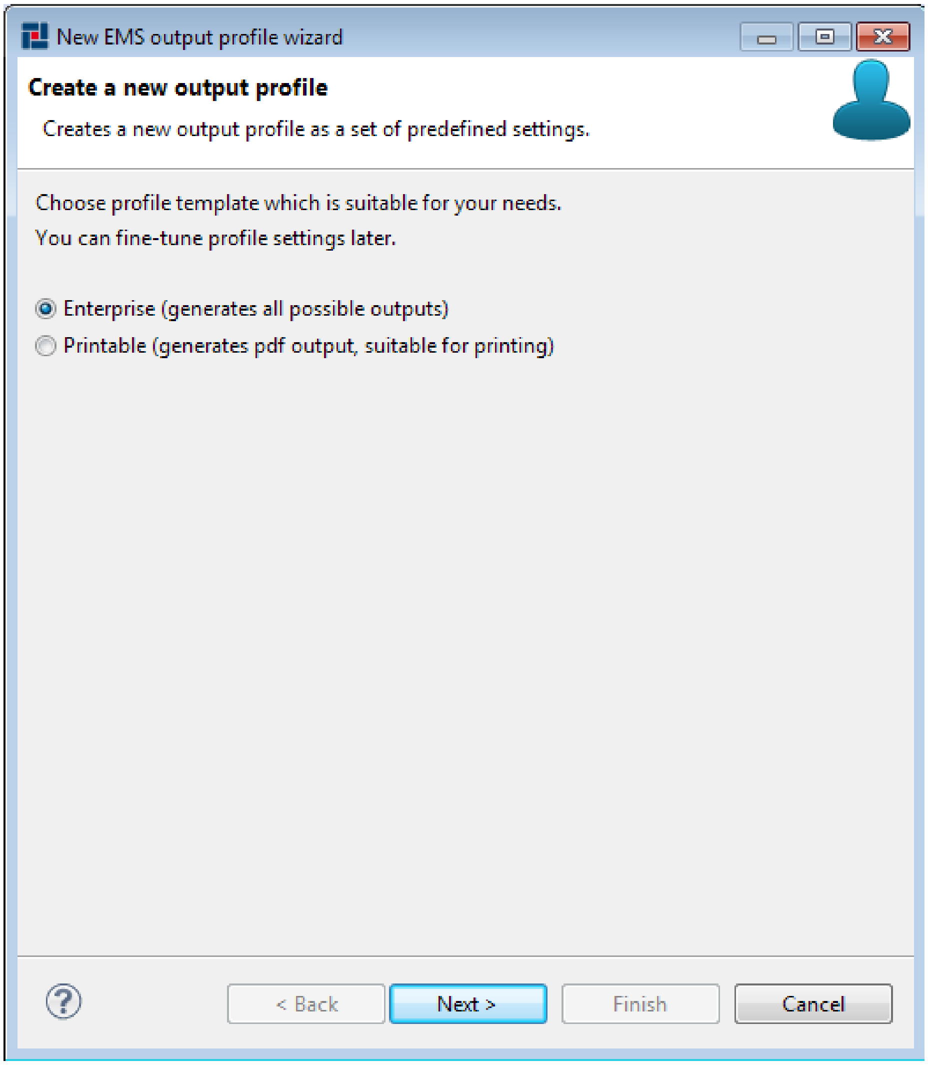


Figure125. **Default Profiles in project**

### *2.5.1.2.3.1. Creating EMS Profiles*

EMS Profiles can be created by EMS Profile wizard. To open New EMS Profile wizard right-click on folder Profiles and select New > EMS Profile.



New EMS output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Choose profile template which is suitable for your needs.

You can fine-tune profile settings later.

● Enterprise (generates all possible outputs)

○ Printable (generates pdf output, suitable for printing)

Figure126. **EMS Profile wizard**

First page allows to select one of the predefined Profile types:

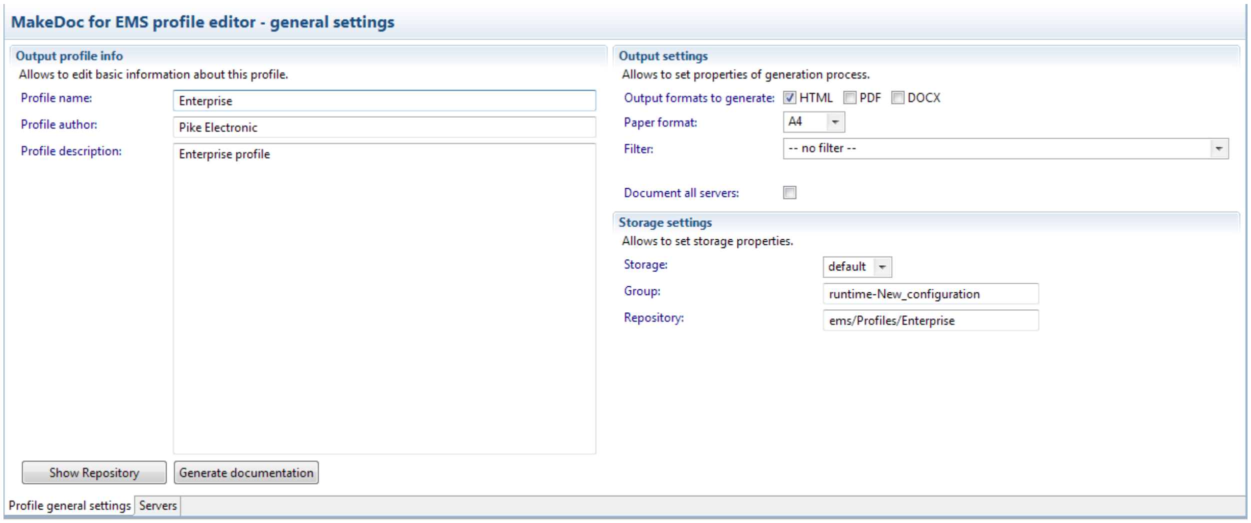
- Enterprise - in default generates all outputs
- Printable - in default generates only PDF output

On the next page is possible select destination folder of created Profile and set name of new Profile.

Wizard creates new Profile in selected folder after pressing Finish button.

### *2.5.1.2.3.2. Editing EMS Profiles*

Existing EMS Profiles can be modified by EMS Profile Editor. Double click on EMS Profile opens EMS Profile Editor.



MakeDoc for EMS profile editor - general settings

Output profile info

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author: Pike Electronic

Profile description: Enterprise profile

Output settings

Allows to set properties of generation process.

Output formats to generate: ☑ HTML ☐ PDF ☐ DOCX

Paper format: A4

Filter: -- no filter --

Document all servers: ☐

Storage settings

Allows to set storage properties.

Storage: default

Group: runtime-New_configuration

Repository: ems/Profiles/Enterprise

Figure127. **EMS Profile Editor**

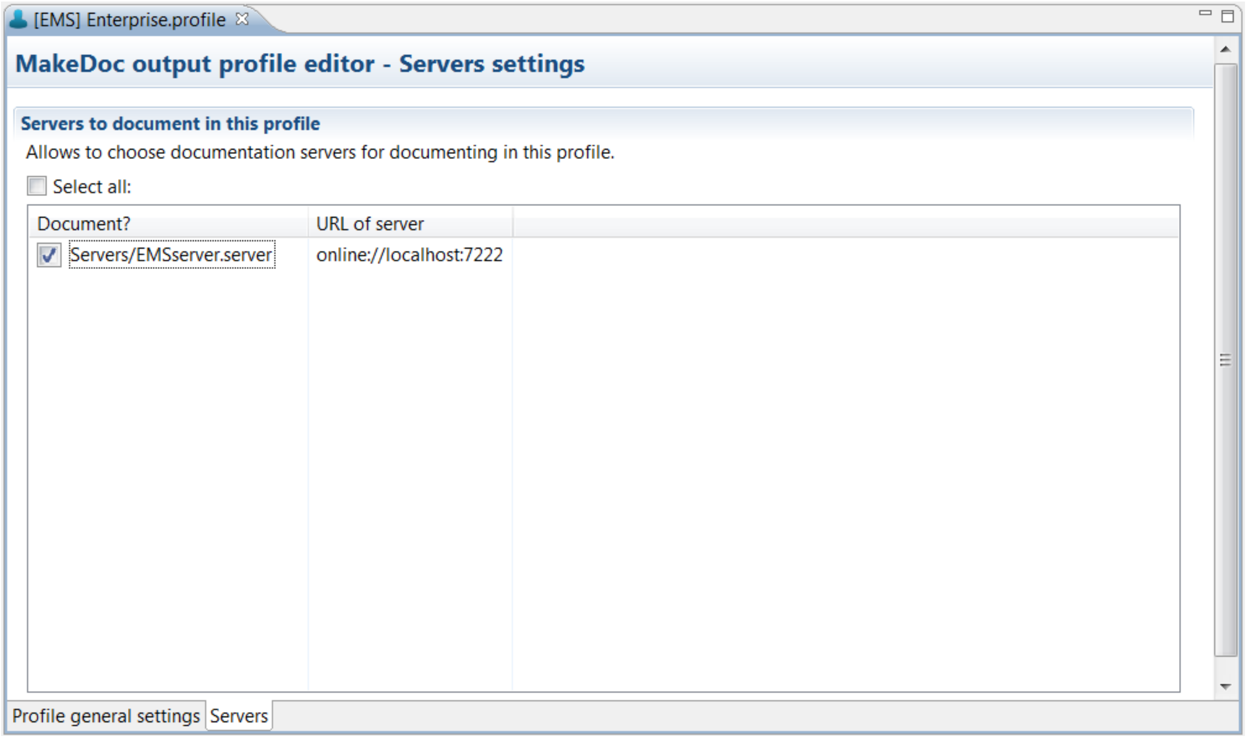
EMS Profile Editor contains two bookmarks.

First bookmark Profile general settings allows set Profile name, which is showed in generated documentation name. Profile author says who creates Profile. Project description contains short information about Profile.

Output settings allow to set properties of generation process such as output formats to generate, paper format, filter and checkbox for fast selecting all Servers to document.

Last Storage settings allow to set storage properties as Storage and Repository location.

Button Generate documentation starts documentation process.



MakeDoc output profile editor - Servers settings

Servers to document in this profile

Allows to choose documentation servers for documenting in this profile.

□ Select all:

| Document? | URL of server |
|---|---|
| ☑ Servers/EMSserver.server | online://localhost:7222 |

**Figure128.** **EMS Profile Editor - Servers**

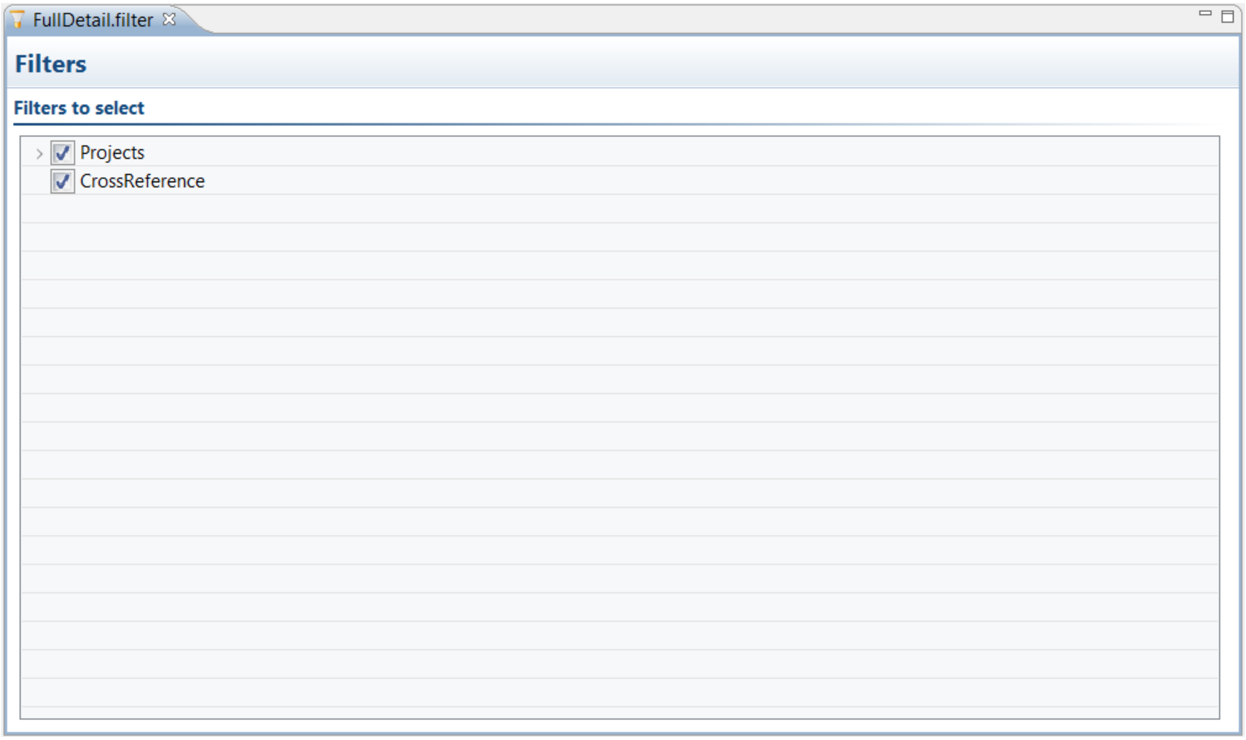
EMS Profile has not selected Server to document in default. Second bookmark Servers provides selection of Servers to document and shows all Servers which are stored in Profile's EMS Module project. All Servers can be selected automatically by checkbox Select all.

### 2.5.1.2.4. Working with Filters

Chapter describes editing Filters which exists.

#### *2.5.1.2.4.1. Editing filters*

Existing filters can be modified by EMS Filter Editor. Filter allows reduce generated documentation by selecting parts showed in EMS Filter Editor.



☑ Projects
☑ CrossReference

Figure129. EMS Filter Editor

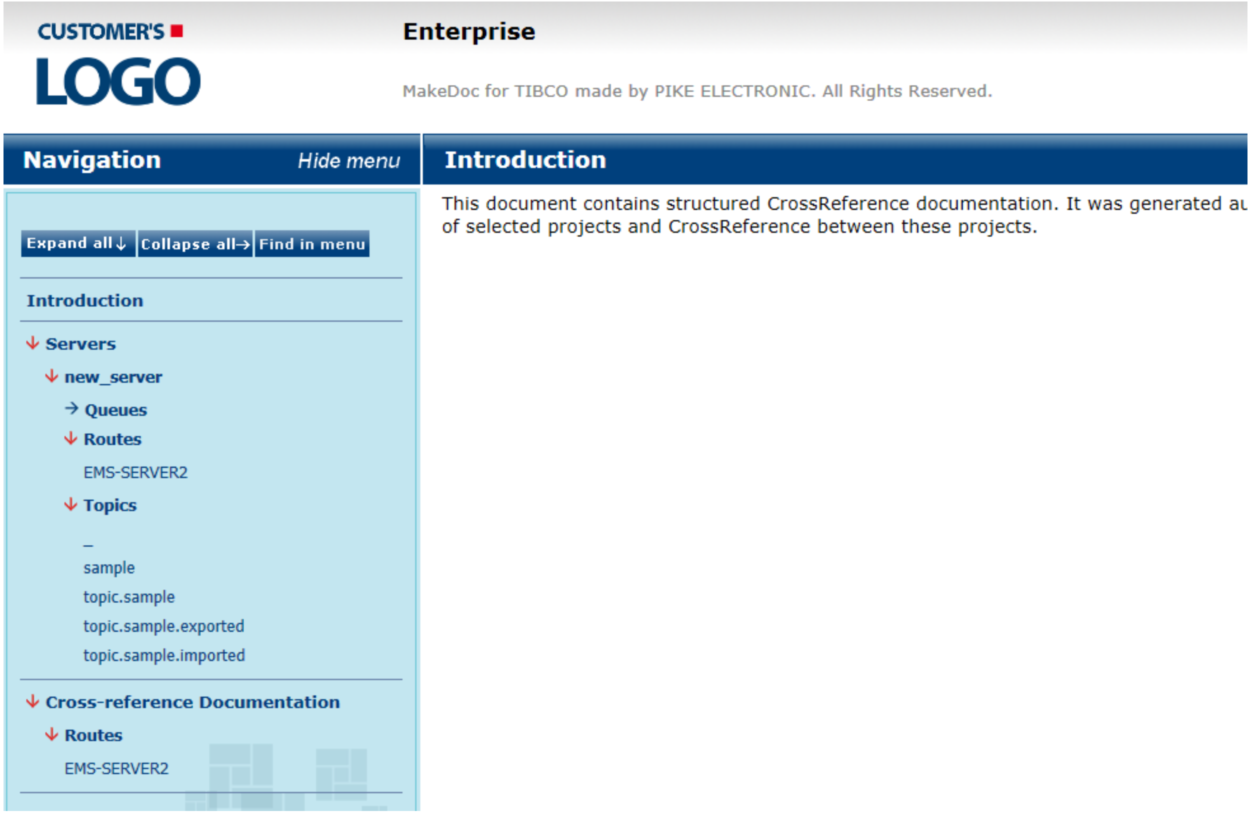
Filter contains two parts. Projects and CrossReference. By deselecting parts is possible reduce generated documentation.

### 2.5.2. Generated Output

Documentation can be generated in HTML, PDF and DOCX format (depends on licensed products). The Project documentation part contains list of servers and each server contains all its resources. Navigation items are links to HTML documents and the menu is updated according to actually displayed content. The PDF documentation has bookmarks which are similar in structure to the HTML navigation. The DOCX documentation is another printable file format, which is also easy to edit and format.

#### 2.5.2.1. Servers Documentation

The Servers section contains one chapter for each server in the solution.



**Enterprise**

MakeDoc for TIBCO made by PIKE ELECTRONIC. All Rights Reserved.

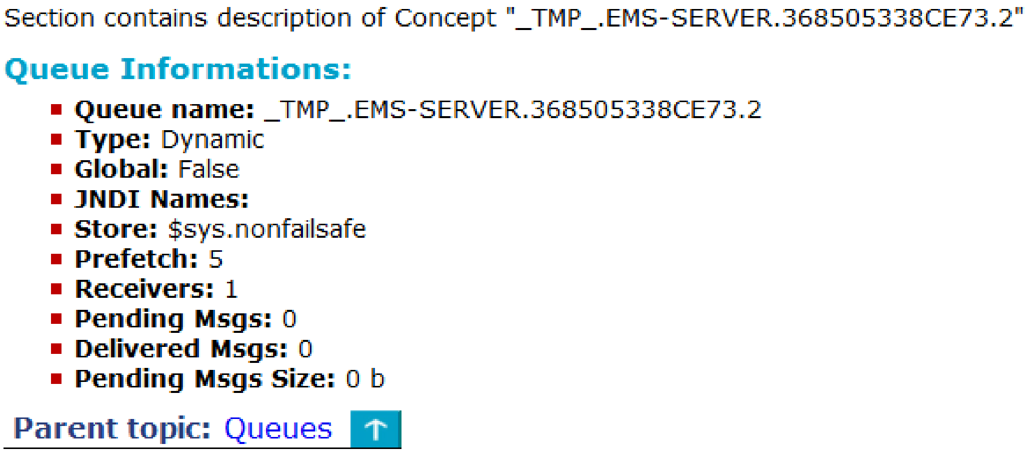
**Introduction**

This document contains structured CrossReference documentation. It was generated au
of selected projects and CrossReference between these projects.

Figure130. **Example of HTML Servers Documentation**

### 2.5.2.1.1. Queues

Queues documentation consists of detail informations about each queue.



Section contains description of Concept "_TMP_.EMS-SERVER.368505338CE73.2"

**Queue Informations:**

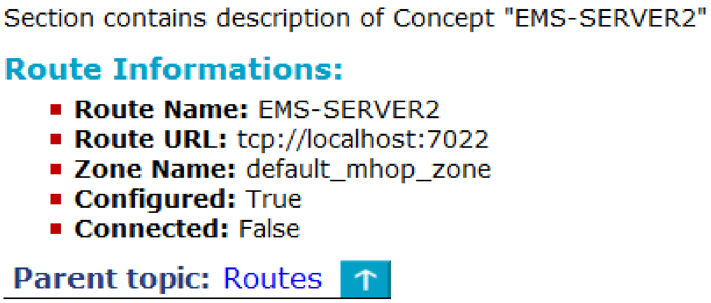
- **Queue name:** _TMP_.EMS-SERVER.368505338CE73.2
- **Type:** Dynamic
- **Global:** False
- **JNDI Names:**
- **Store:** $sys.nonfailsafe
- **Prefetch:** 5
- **Receivers:** 1
- **Pending Msgs:** 0
- **Delivered Msgs:** 0
- **Pending Msgs Size:** 0 b

**Parent topic:** Queues ↑

Figure131. **Queue**

### 2.5.2.1.2. Routes

Routes documentation consists of detail informations about each route.



Section contains description of Concept "EMS-SERVER2"

**Route Informations:**

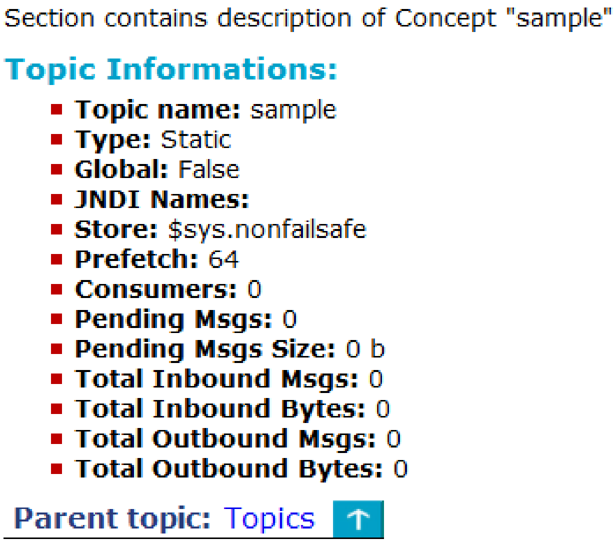
- **Route Name:** EMS-SERVER2
- **Route URL:** tcp://localhost:7022
- **Zone Name:** default_mhop_zone
- **Configured:** True
- **Connected:** False

**Parent topic:** Routes

Figure132. **Route**

### 2.5.2.1.3. Topics

Topics documentation consists of detail informations about each topic.



Section contains description of Concept "sample"

**Topic Informations:**

- **Topic name:** sample
- **Type:** Static
- **Global:** False
- **JNDI Names:**
- **Store:** $sys.nonfailsafe
- **Prefetch:** 64
- **Consumers:** 0
- **Pending Msgs:** 0
- **Pending Msgs Size:** 0 b
- **Total Inbound Msgs:** 0
- **Total Inbound Bytes:** 0
- **Total Outbound Msgs:** 0
- **Total Outbound Bytes:** 0

**Parent topic:** Topics

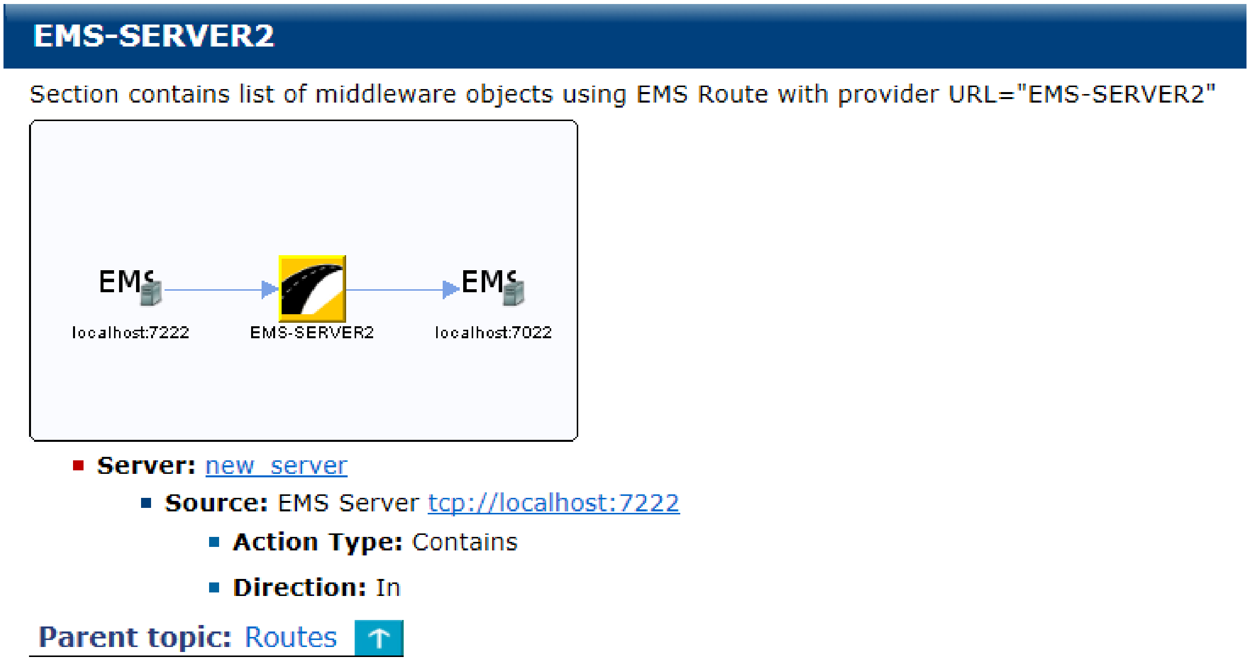
Figure133. **Topic**

## 2.5.2.2. Cross-Reference Documentation

Cross-Reference documentation contains Routes between servers.

### 2.5.2.2.1. Routes

The Routes section contains EMS Servers and routes between them. Hyper-links to referencing servers are included.



EMS-SERVER2

Section contains list of middleware objects using EMS Route with provider URL="EMS-SERVER2"

- **Server:** new_server
  - **Source:** EMS Server tcp://localhost:7222
    - **Action Type:** Contains
    - **Direction:** In

**Parent topic:** Routes ↑

Figure134. **Example of Routes documentation**

## 2.6. CrossReference Module

**Note:** This feature is available only if you have purchased product CrossReference.

This module needs other modules (TIBCO BusinessWorks and TIBCO BusinessEvents and TIBCO iProcess and TIBCO EMS module) to be installed.

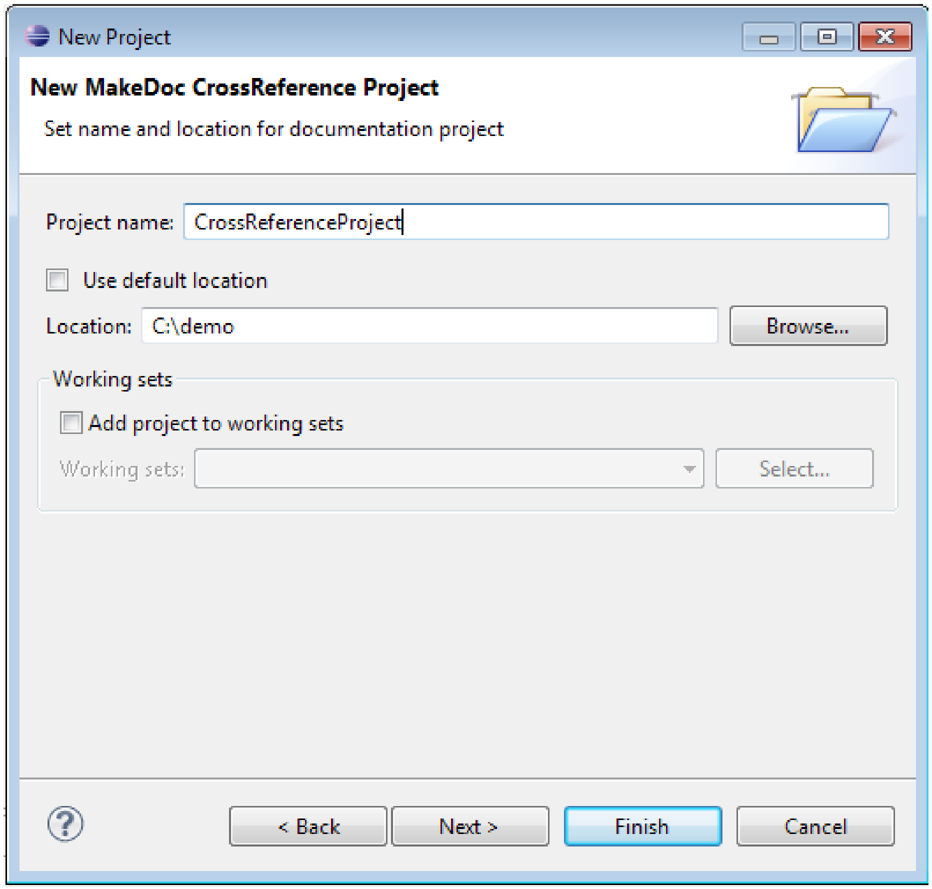
CrossReference module connects a destinations common for TIBCO BusinessWorks, BusinessEvents, iProcess and EMS modules and brings a documentation with hyperlinked resources.

### 2.6.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

#### 2.6.1.1. Create a new CrossReference project

- In menu select File -> New -> **CrossReference Documentation Project**.
- Type name of CrossReference Documentation Project
- Click **Finish**



New Project

**New MakeDoc CrossReference Project**

Set name and location for documentation project

Project name: CrossReferenceProject

□ Use default location

Location: C:\demo

Working sets

□ Add project to working sets

Working sets:

Figure135. CrossReference Documentation Project wizard

A new CrossReference Documentation project will be created and displayed in MakeDoc Explorer.

A CrossReference Documentation project contains two folders:

- *Profiles* - Here are stored defined profiles of CrossReference Documentation. There are 2 default Profiles - Enterprise and Printable. Each profile has predefined settings for formatting output documentation.
- *Templates* - Here are templates for formatting the output of CrossReference Documentation.

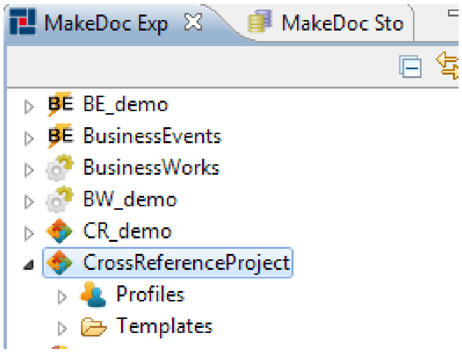


Figure136. CrossReference Documentation Project in MakeDoc Explorer

#### 2.6.1.1.1. Create a new CrossReference profile

- Right-click on *Profiles* folder in concrete CrossReference project. Select New -> **CrossReference Profile**.
- Select a predefined profile template, click Next
  - Enterprise - in default generates all outputs
  - Printable - in default generate only PDF output
- Type name of CrossReference Profile
- Click **Finish**

A new CrossReference Profile will be created and displayed in MakeDoc Explorer.

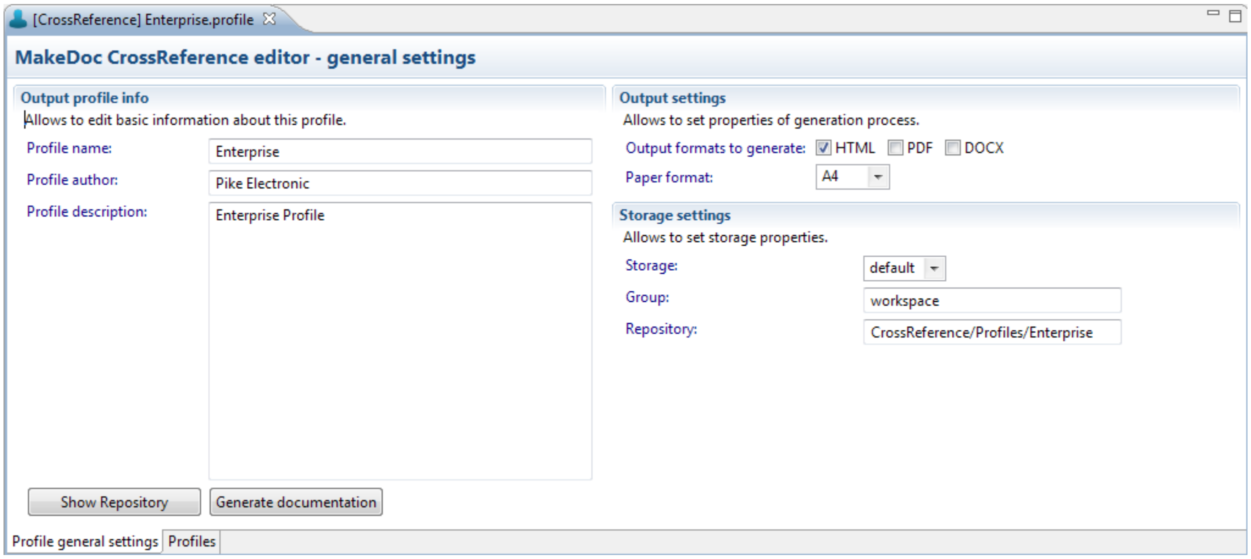
### 2.6.1.2. Setup CrossReference Profile

Profile Editor has 2 pages:

- *Profile general settings* - general settings
- *Profiles* - select profiles to document

General settings page allows:

- start documentation process
- set output format - HTML, PDF, DOCX
- set paper format
- set Storage setting - Storage, Repository location



[CrossReference] Enterprise.profile

MakeDoc CrossReference editor - general settings

Output profile info

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author: Pike Electronic

Profile description: Enterprise Profile

Output settings

Allows to set properties of generation process.

Output formats to generate: ☑ HTML □ PDF □ DOCX

Paper format: A4

Storage settings

Allows to set storage properties.

Storage: default

Group: workspace

Repository: CrossReference/Profiles/Enterprise

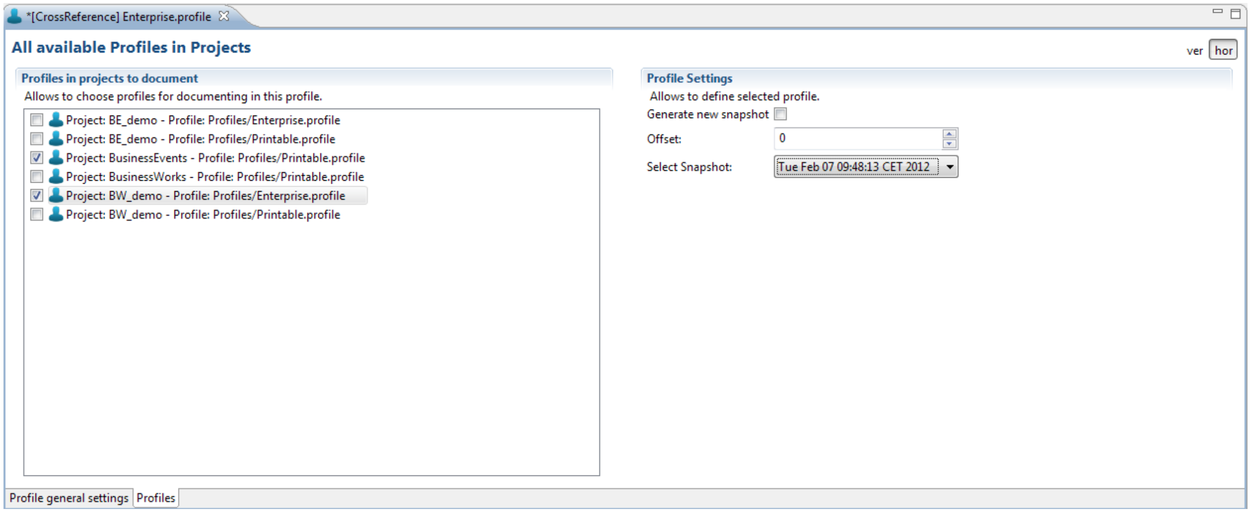
Figure137. **Profile general settings**

### 2.6.1.2.1. Select Profiles

On the left side of editor is the list of all possible profiles in projects in MakeDoc's workspace. You can check which profiles you want to document in CrossReference.

After click on some of profiles, on the right side are displayed settings of the concrete profile. Settings of profile contains:

- *Generate New Snapshot* checkbox. If checked, a new snapshot of this profile is documented.
- *Offset* - type number of offset to select existing snapshot. 0 is the last generated snapshot, -1, -2, ... are older snapshots.
- *Select Snapshot* - allows to select concrete snapshot.



All available Profiles in Projects

Profiles in projects to document

Allows to choose profiles for documenting in this profile.

- ☐ Project: BE_demo - Profile: Profiles/Enterprise.profile
- ☐ Project: BE_demo - Profile: Profiles/Printable.profile
- ☑ Project: BusinessEvents - Profile: Profiles/Printable.profile
- ☐ Project: BusinessWorks - Profile: Profiles/Printable.profile
- ☑ Project: BW_demo - Profile: Profiles/Enterprise.profile
- ☐ Project: BW_demo - Profile: Profiles/Printable.profile

Profile Settings

Allows to define selected profile.

Generate new snapshot ☐

Offset: 0

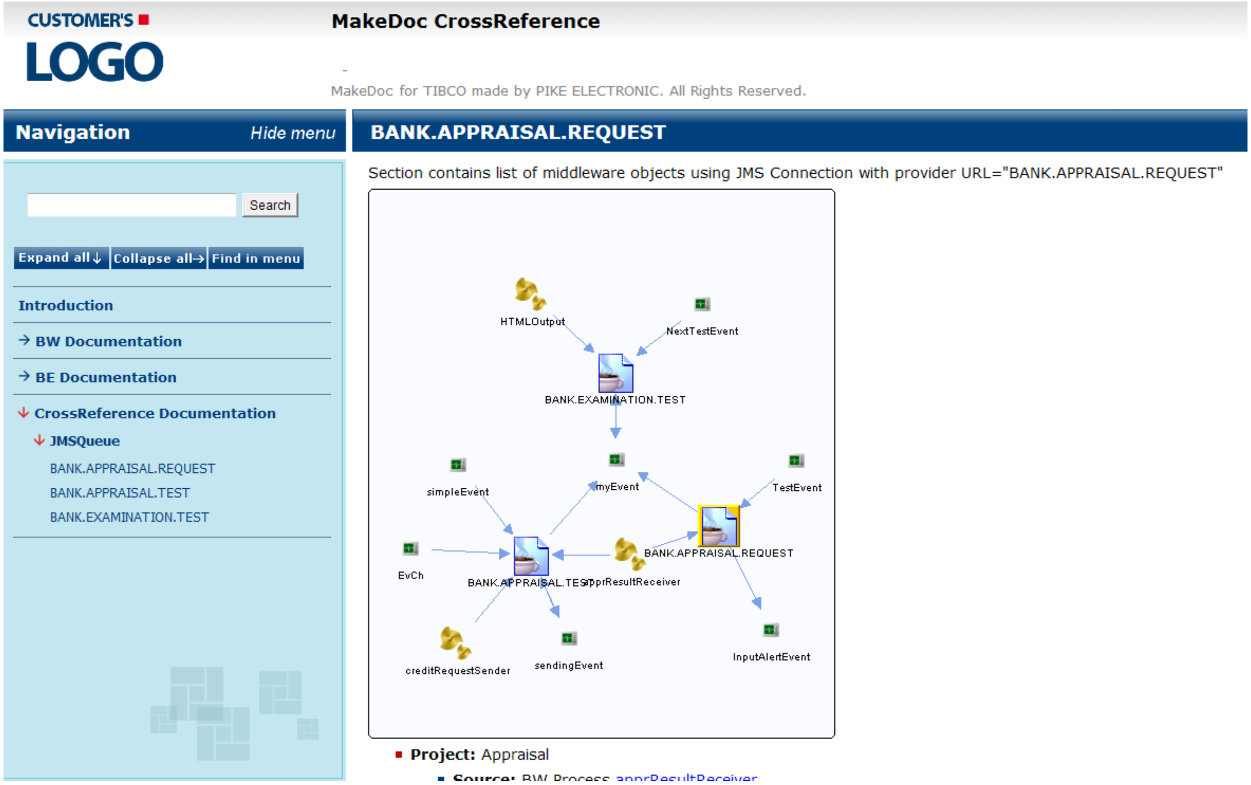
Select Snapshot: Tue Feb 07 09:48:13 CET 2012

Figure138. Profiles selection tab

## 2.6.2. Generated Output

Documentation can be generated in HTML, PDF and DOCX format. Each HTML document contains a tree navigation. Navigation items are links to HTML documents and the menu is updated according to actually displayed content. The PDF documentation has bookmarks which are similar in structure to the HTML navigation. The DOCX documentation is another printable file format, which is also easy to edit and format.

Output of CrossReference documentation contains several main subsections: documentations of projects selected in CrossReference **(it can be BW, BE, BPM or EMS Documentation)** and **CrossReference Documentation**.



CUSTOMER'S LOGO

MakeDoc CrossReference

MakeDoc for TIBCO made by PIKE ELECTRONIC. All Rights Reserved.

BANK.APPRAISAL.REQUEST

Section contains list of middleware objects using JMS Connection with provider URL="BANK.APPRAISAL.REQUEST"

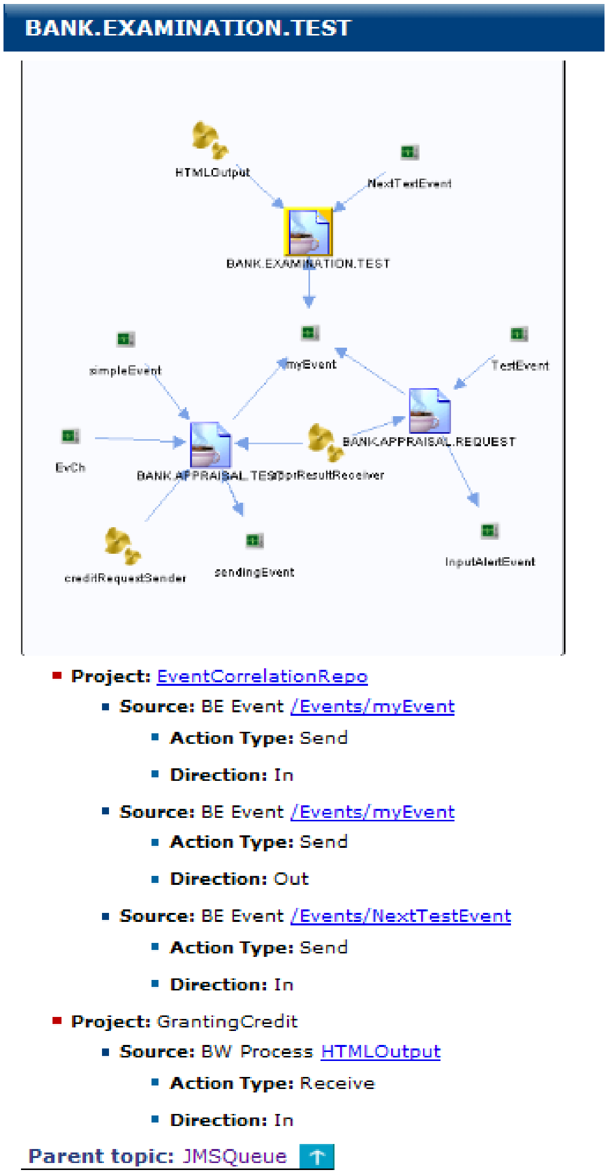
- **Project:** Appraisal
  - **Source:** BW Process apprResultReceiver

Figure139. CrossReference Output

### 2.6.2.1. CrossReference Documentation

CrossReference Documentation contains a list of objects, which are used in selected projects. It can be e.g. JMS Queues or Topics used in BW & BE & EMS projects, BW processes called by iProcess procedures etc.

A concrete object documentation contains the visual cross-reference where the user can see near destination neighborhood. Actually opened destination has yellow border for simpler orientation in the diagram. Every diagram element is hyper-linked to its documentation page.



BANK.EXAMINATION.TEST

- **Project:** EventCorrelationRepo
  - **Source:** BE Event /Events/myEvent
    - **Action Type:** Send
    - **Direction:** In
  - **Source:** BE Event /Events/myEvent
    - **Action Type:** Send
    - **Direction:** Out
  - **Source:** BE Event /Events/NextTestEvent
    - **Action Type:** Send
    - **Direction:** In
- **Project:** GrantingCredit
  - **Source:** BW Process HTMLOutput
    - **Action Type:** Receive
    - **Direction:** In

**Parent topic:** JMSQueue

Figure140. **Example of JMS Queue detail**

## 2.7. RepositoryAnalyst Module

Repository Analyst needs at least one Base Module to be able to generate delta.

### 2.7.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

#### 2.7.1.1. Configuration

Configuration of Repository Analyst Modules is out-of-box stored in ~/MakeDocConfig/rita.properties

Property files contains:

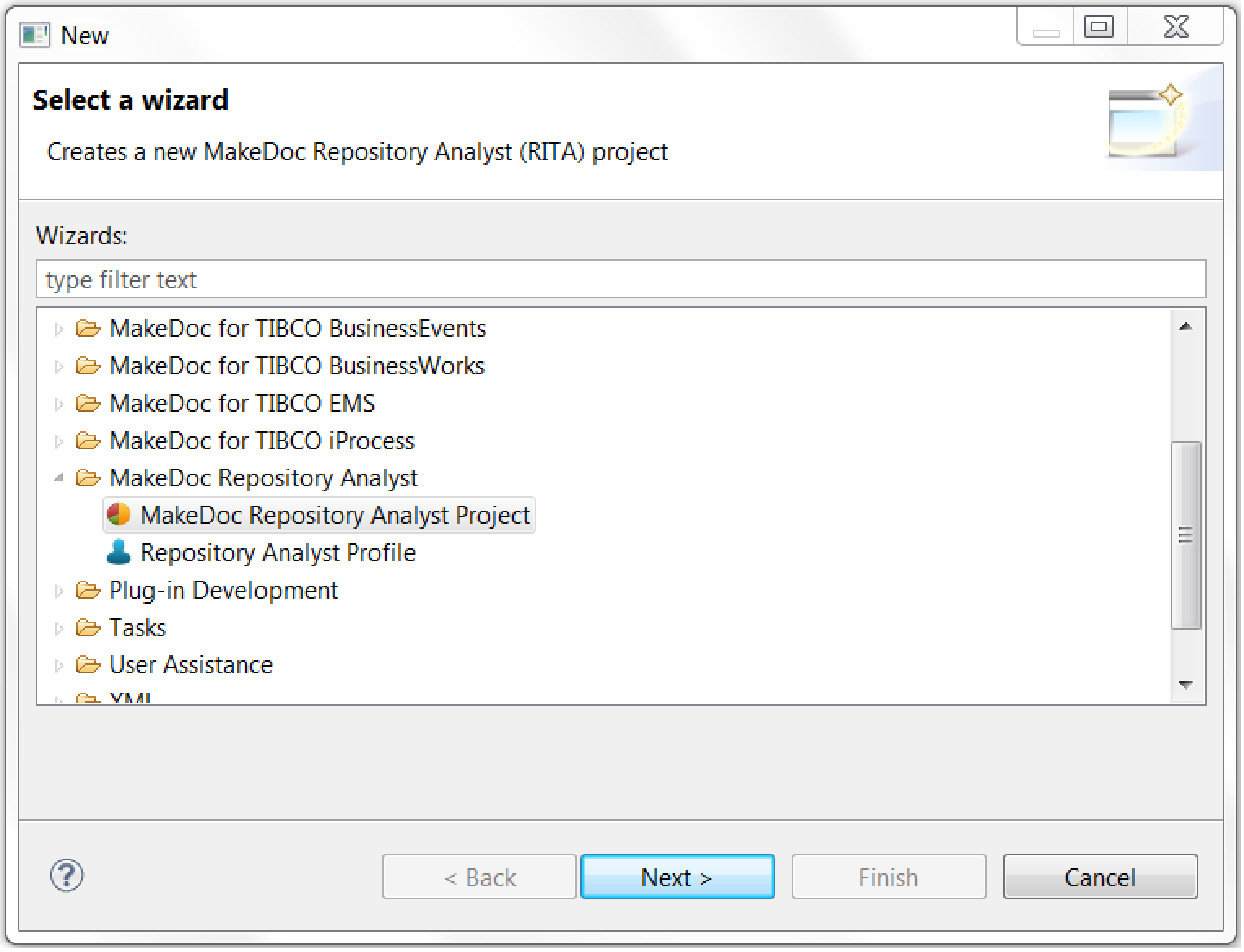
```
    settings.module=RITA    settings.type=ANALYSIS
    settings.module=RITA    settin
od
```

### 2.7.1.2. Dialogs

Chapter describes dialogs in module Repository Analyst.

### 2.7.1.2.1. Creating Repository Analyst Module Project

Chapter describes creation of Repository Analyst Module project.



**Select a wizard**

Creates a new MakeDoc Repository Analyst (RITA) project

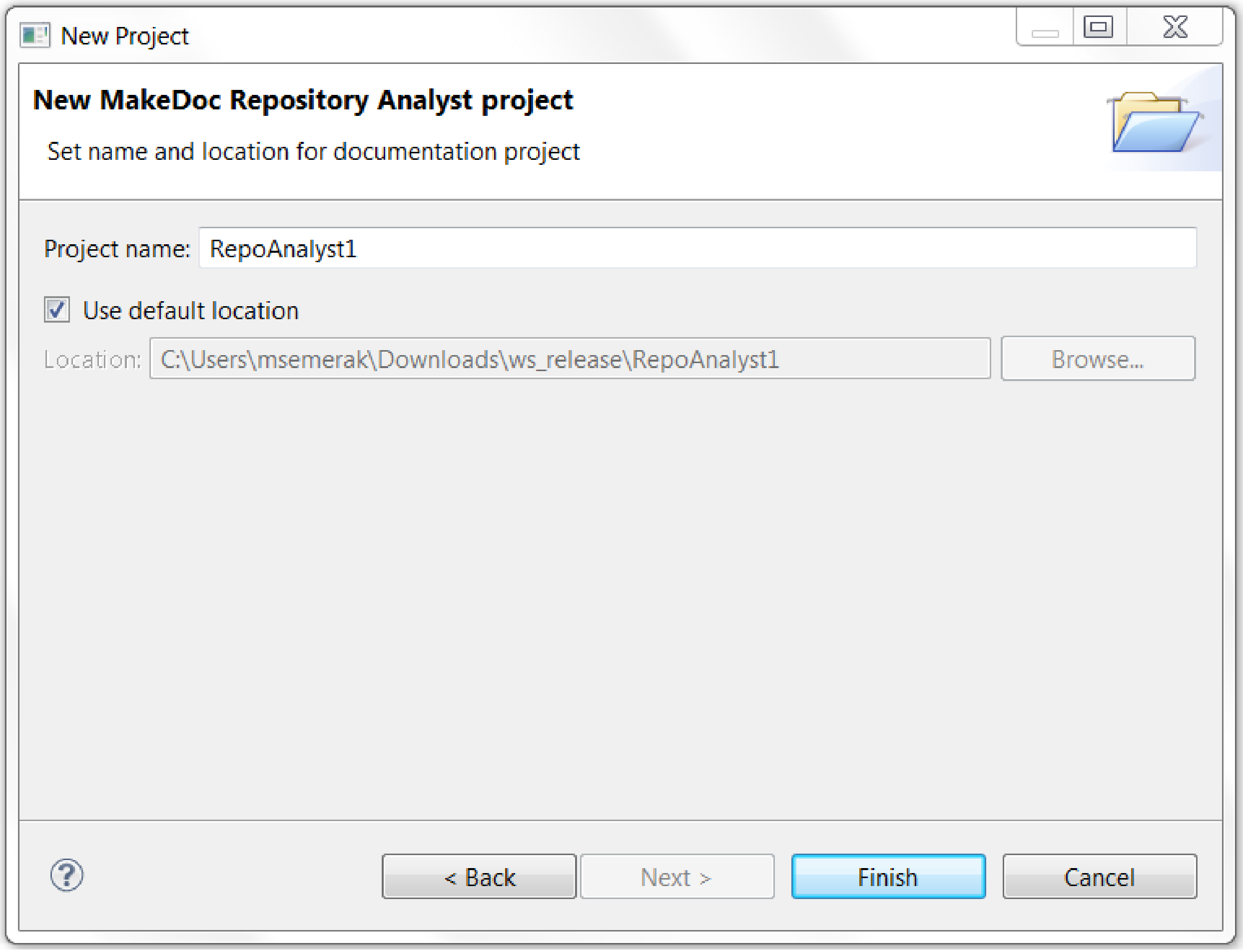
Wizards:

type filter text

New
MakeDoc for TIBCO BusinessEvents
MakeDoc for TIBCO BusinessWorks
MakeDoc for TIBCO EMS
MakeDoc for TIBCO iProcess
MakeDoc Repository Analyst
MakeDoc Repository Analyst Project
Repository Analyst Profile
Plug-in Development
Tasks
User Assistance
XML
< Back
Next >
Finish
Cancel

**Figure141. New Repository Analyst Module Project wizard**

Name of project can be set in next wizard page.



New Project

New MakeDoc Repository Analyst project

Set name and location for documentation project

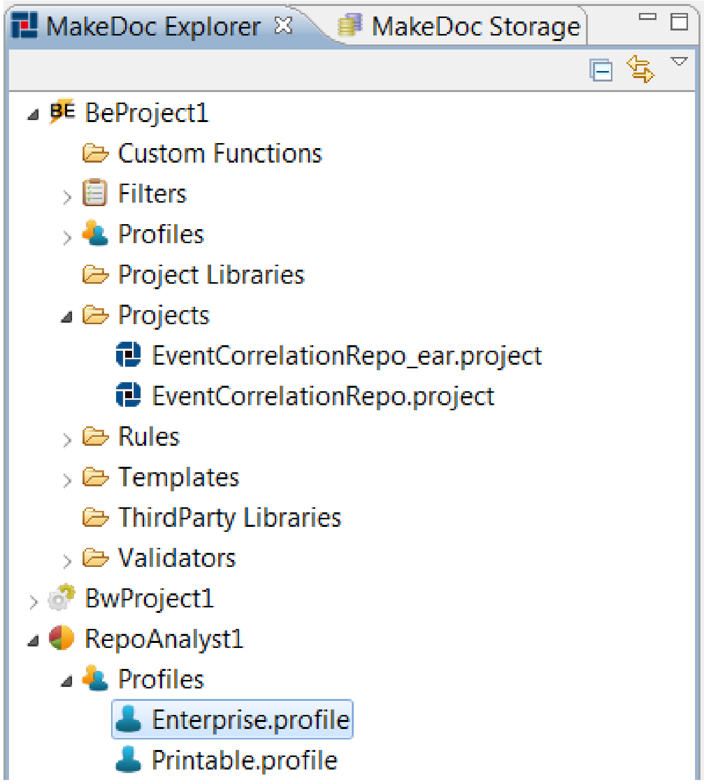
Project name: RepoAnalyst1

☑ Use default location

Location: C:\Users\msemerak\Downloads\ws_release\RepoAnalyst1

Figure142. **New Repository Analyst Module Project wizard - Project Name**

MakeDoc creates main project structure after pressing Finish.



- BeProject1
  - Custom Functions
  - Filters
  - Profiles
  - Project Libraries
  - Projects
    - EventCorrelationRepo_ear.project
    - EventCorrelationRepo.project
  - Rules
  - Templates
  - ThirdParty Libraries
  - Validators
- BwProject1
- RepoAnalyst1
  - Profiles
    - Enterprise.profile
    - Printable.profile

**Figure143. Created project structure**

Project contains one folder:

- Profiles - contains profiles for selecting Repository Analyst project to document, output format of documentation and selecting input data.

### 2.7.1.2.2. Working with Profiles

Chapter describes working with Profiles. Two Profiles is created automatically. Profiles allow:

- start documentation process
- set output format - HTML, PDF, DOCX
- set paper format
- set Storage setting - Storage, Repository location
- selects Snapshots to compare

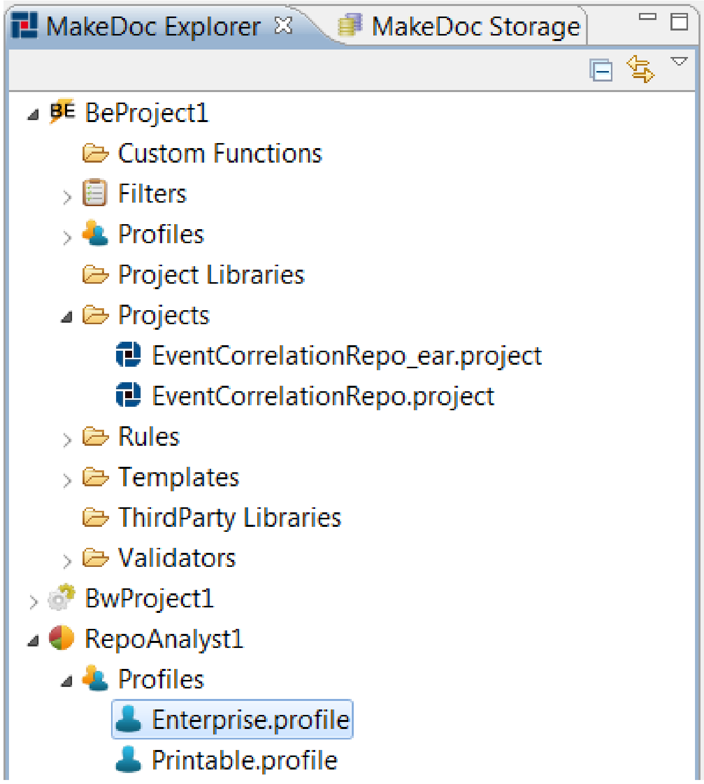
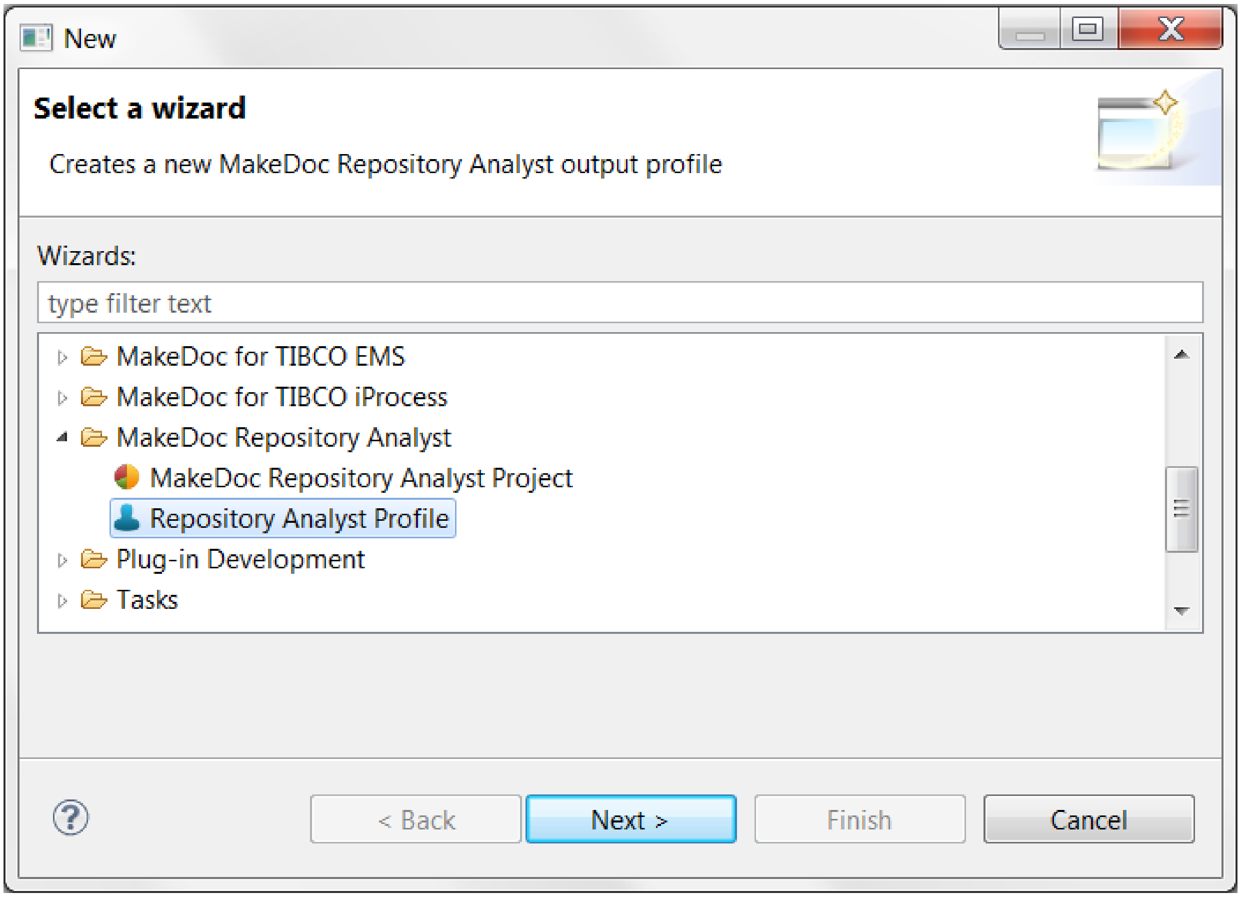


**Figure144. Default Profiles in project**

### *2.7.1.2.2.1. Creating Repository Analyst Profiles*

Repository Analyst Profiles can be created by Repository Analyst Profile wizard. To open Repository Analyst Profile wizard right-click on folder Profiles and select New > Repository Analyst Profile.



New

Select a wizard

Creates a new MakeDoc Repository Analyst output profile

Wizards:

type filter text

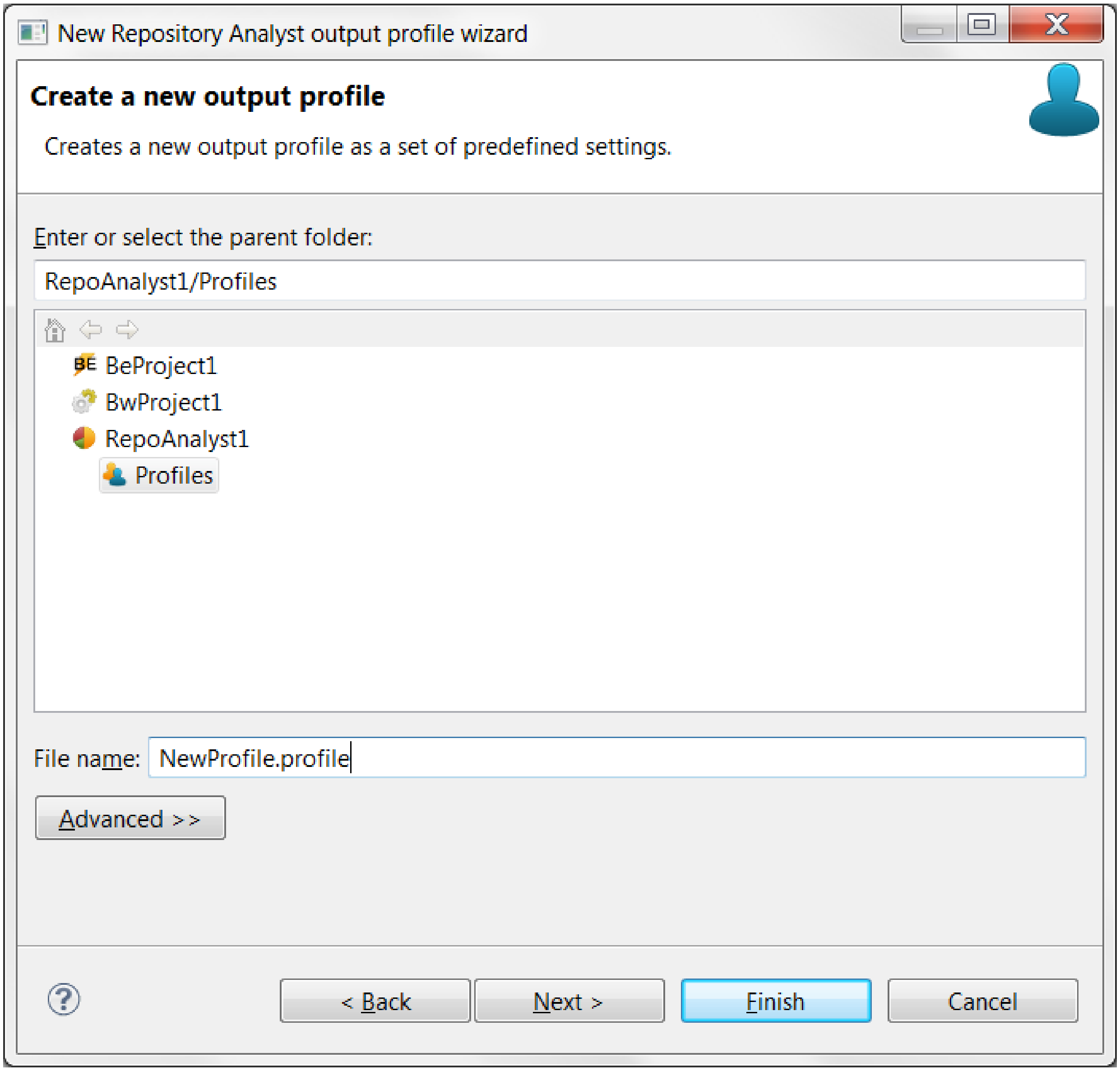
- MakeDoc for TIBCO EMS
- MakeDoc for TIBCO iProcess
- MakeDoc Repository Analyst
  - MakeDoc Repository Analyst Project
  - Repository Analyst Profile
- Plug-in Development
- Tasks

Figure145. **Repository Analyst Profile wizard location**

First page allow select predefined type of Profile:

- Enterprise - in default generates all outputs
- Printable - in default generate only PDF output

On next page is possible select destination folder of created Profile and set name of new Profile.



New Repository Analyst output profile wizard

**Create a new output profile**

Creates a new output profile as a set of predefined settings.

Enter or select the parent folder: RepoAnalyst1/Profiles

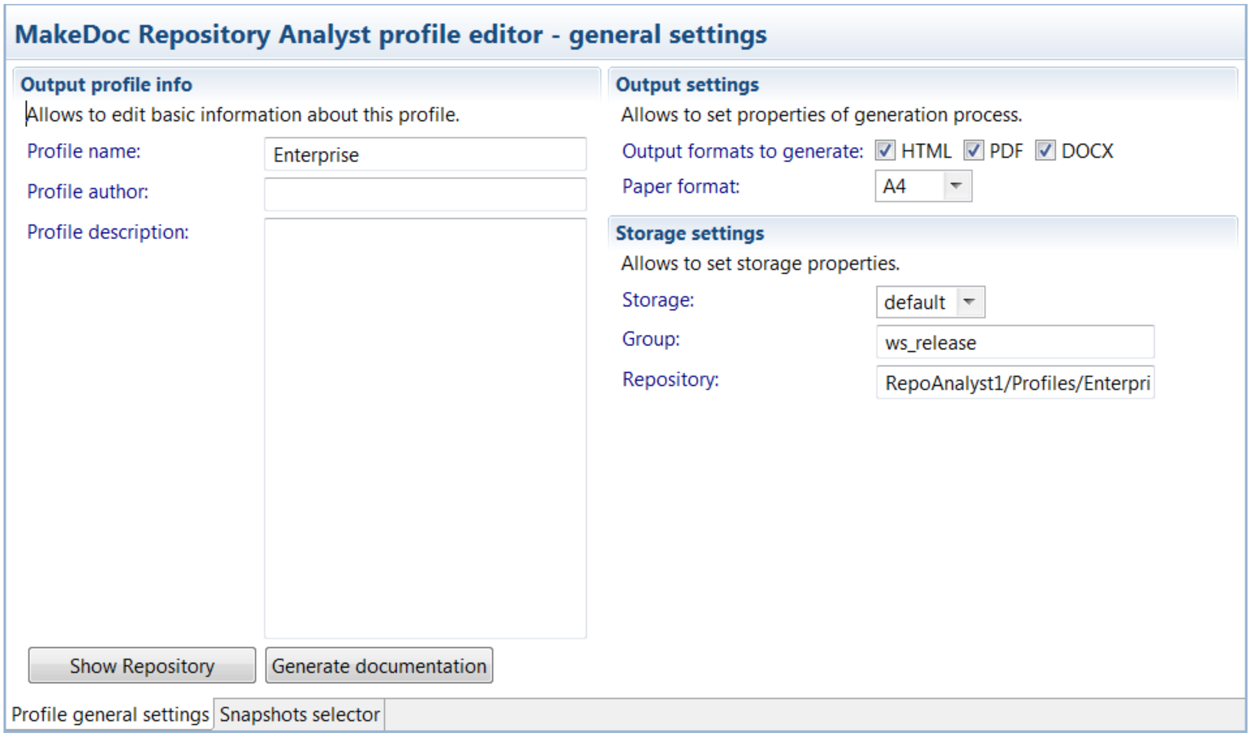
File name: NewProfile.profile

**Figure146. Repository Analyst Profile wizard - destination folder and Profile name**

Wizard creates new Profile in selected folder after pressing Finish button.

### *2.7.1.2.2.2. Editing Repository Analyst Profiles*

Existing Repository Analyst Profiles can be modified by Repository Analyst Profile Editor. Double click on Repository Analyst Profile opens Repository Analyst Profile Editor.



MakeDoc Repository Analyst profile editor - general settings

Output profile info

Allows to edit basic information about this profile.

Profile name: Enterprise

Profile author:

Profile description:

Output settings

Allows to set properties of generation process.

Output formats to generate: ☑ HTML ☑ PDF ☑ DOCX

Paper format: A4

Storage settings

Allows to set storage properties.

Storage: default

Group: ws_release

Repository: RepoAnalyst1/Profiles/Enterpri

Figure147. Repository Analyst Profile Editor

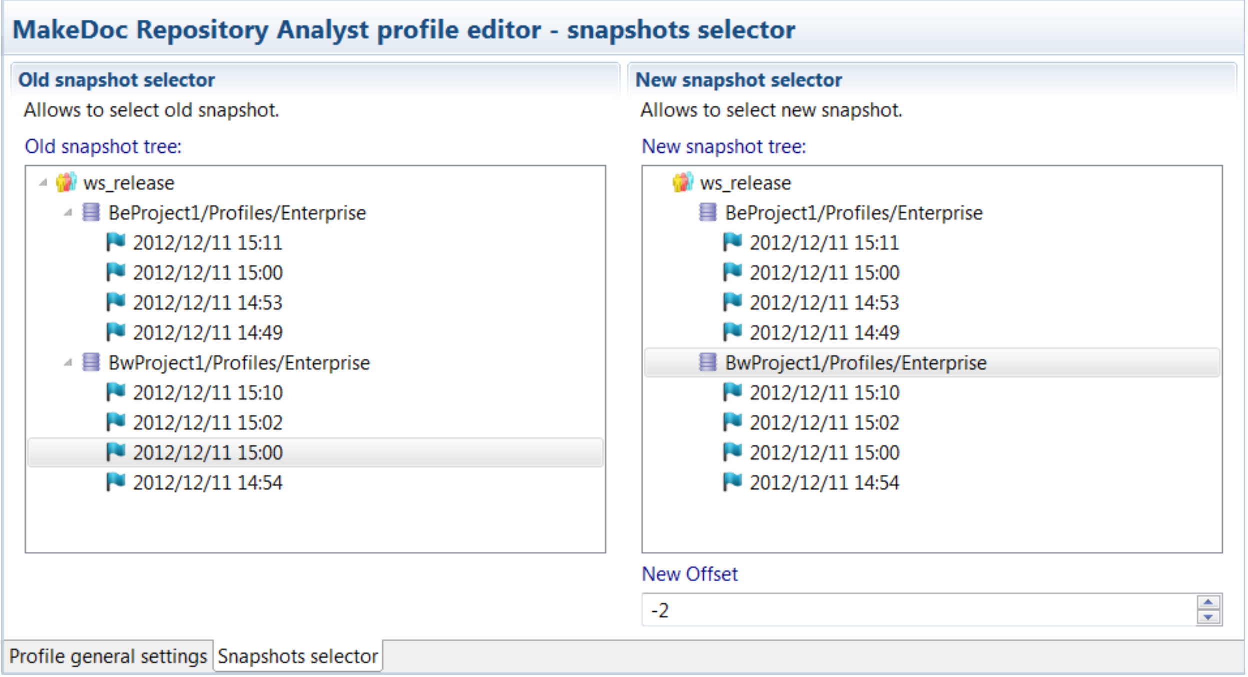
Repository Analyst Profile Editor contains two bookmarks.

First bookmark Profile general settings allows set Profile name, which is showed in generated documentation name. Profile author says who creates Profile. Project description contains short information about Profile.

Output settings allows to set properties of generation process such as output formats to generate and paper format.

Last Storage settings allow to set storage properties as Storage and Repository location.

Button Generate documentation starts documentation process.



MakeDoc Repository Analyst profile editor - snapshots selector

Old snapshot selector

Allows to select old snapshot.

Old snapshot tree:

- ws_release
  - BeProject1/Profiles/Enterprise
    - 2012/12/11 15:11
    - 2012/12/11 15:00
    - 2012/12/11 14:53
    - 2012/12/11 14:49
  - BwProject1/Profiles/Enterprise
    - 2012/12/11 15:10
    - 2012/12/11 15:02
    - 2012/12/11 15:00
    - 2012/12/11 14:54

New snapshot selector

Allows to select new snapshot.

New snapshot tree:

- ws_release
  - BeProject1/Profiles/Enterprise
    - 2012/12/11 15:11
    - 2012/12/11 15:00
    - 2012/12/11 14:53
    - 2012/12/11 14:49
  - BwProject1/Profiles/Enterprise
    - 2012/12/11 15:10
    - 2012/12/11 15:02
    - 2012/12/11 15:00
    - 2012/12/11 14:54

New Offset

-2

Figure148. Repository Analyst Profile Editor - Snapshot Selector

In second bookmark it's possible to select old and new Snapshots. These Snapshots are stored in Storage and this bookmark represents view into Repository. Selection of concrete Snapshot is possible in two ways. First way represents select of Repository and offset number specification. Offset is negative number which represents index in Repository, sorted from new Snapshot to older Snapshot. Zero number in offset means current Snapshot. Second way is to select concrete Snapshot in tree (offset is set automatically). In picture old Snapshot is selected by second way and new Snapshot by first one.

## 2.7.2. Generated Output

Chapter describes contents of generated output.

### 2.7.2.1. Repository Analyst

Repository analyst documentation can be generated in HTML and PDF format. Document is divided into three main parts - **Added** items, **Removed** items and **Changed** items. Everyone of these parts corresponds to adequate repository changes - added represents added files, removed deleted files from file system and changed represents files of same name whose structure was modified. Each section contains also summary of numbers of adequate file's change.

Inner tree structure of these three parts is similar to structure used in Project and Cross-reference documentation.

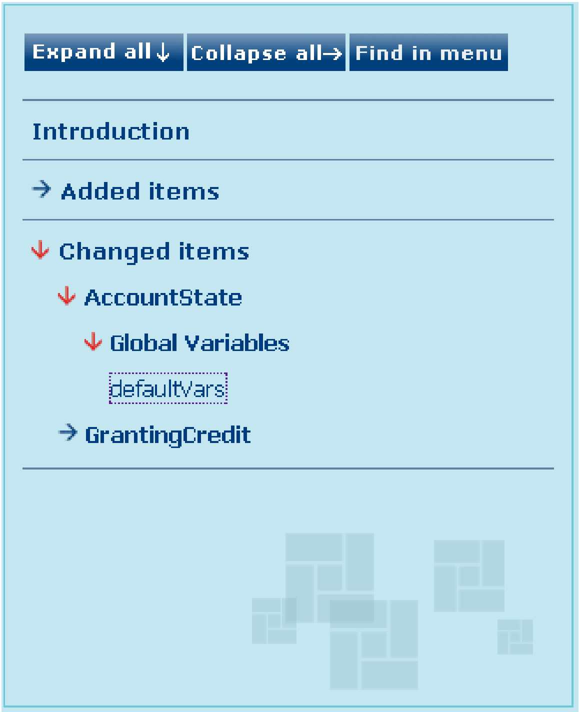
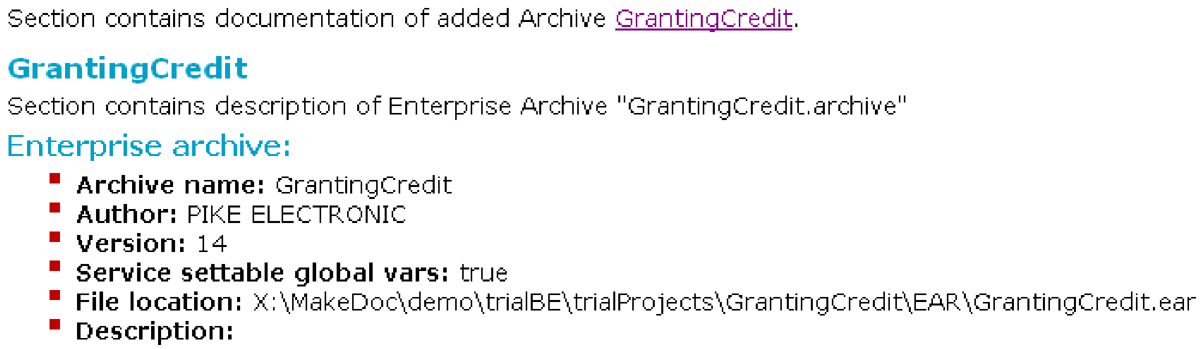


**Figure149. Example of HTML navigation**

Sections added items and removed items contain basic information of files added to new snapshot or deleted from old (base) snapshot. Below this basic information is displayed content of added or removed file.



Section contains documentation of added Archive GrantingCredit.

GrantingCredit

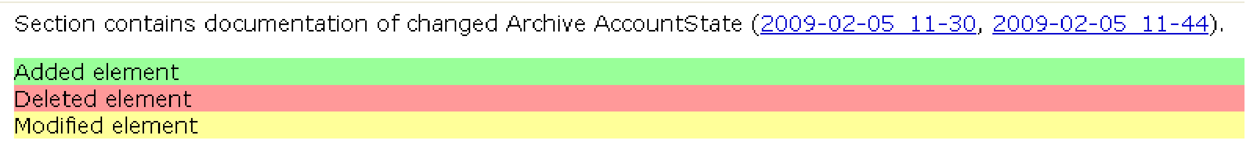
Section contains description of Enterprise Archive "GrantingCredit.archive"

Enterprise archive:

- **Archive name:** GrantingCredit
- **Author:** PIKE ELECTRONIC
- **Version:** 14
- **Service settable global vars:** true
- **File location:** X:\MakeDoc\demo\trialBE\trialProjects\GrantingCredit\EAR\GrantingCredit.ear
- **Description:**

**Figure150. Description of added item**

Section changed items contains basic information about compared files and also visualization of more detailed changes of file structure. These changes are distinguished by color in this part of document.

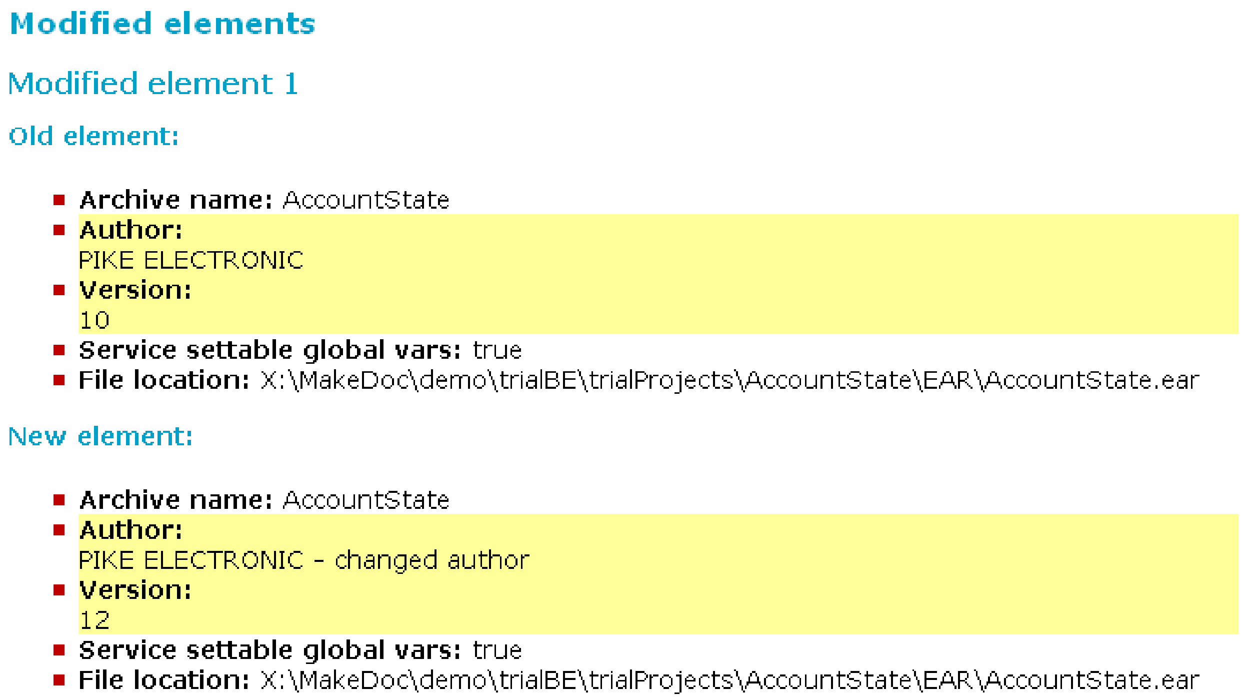


Section contains documentation of changed Archive AccountState (2009-02-05_11-30, 2009-02-05_11-44).

Added element
Deleted element
Modified element

**Figure151. Description of changed item**

Modified parts of elements are described by yellow color.



### Modified elements

Modified element 1

Old element:

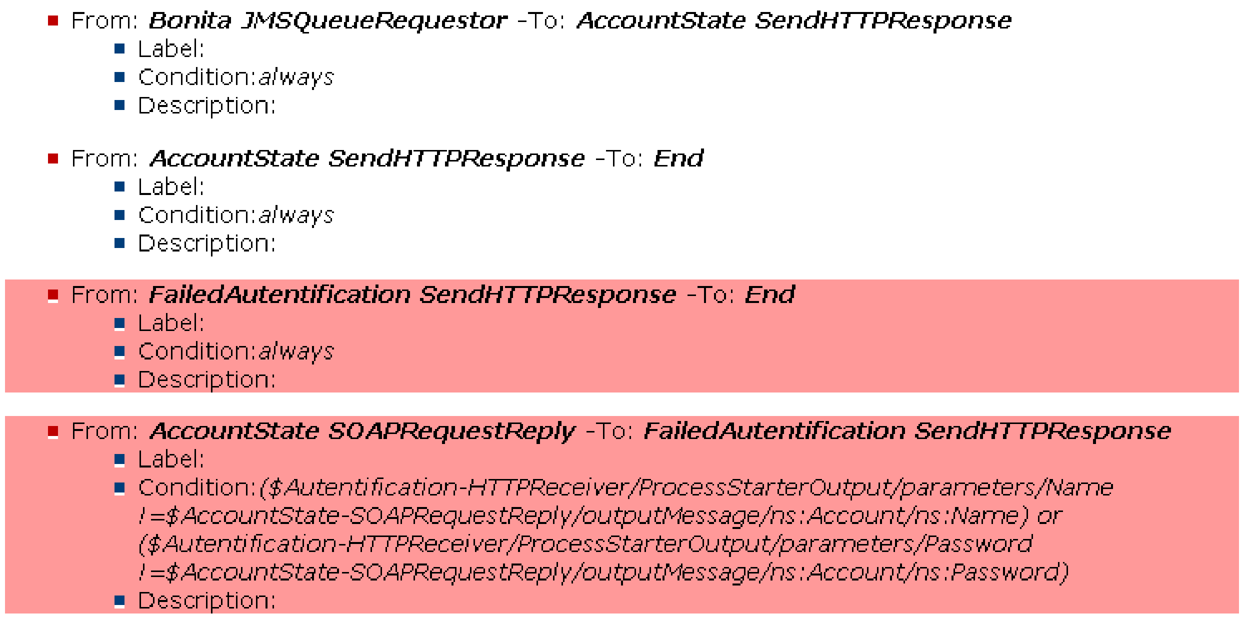
- **Archive name:** AccountState
- **Author:**
  PIKE ELECTRONIC
- **Version:**
  10
- **Service settable global vars:** true
- **File location:** X:\MakeDoc\demo\trialBE\trialProjects\AccountState\EAR\AccountState.ear

New element:

- **Archive name:** AccountState
- **Author:**
  PIKE ELECTRONIC - changed author
- **Version:**
  12
- **Service settable global vars:** true
- **File location:** X:\MakeDoc\demo\trialBE\trialProjects\AccountState\EAR\AccountState.ear

**Figure152. Visualization of modified parts of element**

Deleted elements from the structure are described by red color (added elements by green color).



- From: ***Bonita JMSQueueRequestor*** -To: ***AccountState SendHTTPResponse***
  - Label:
  - Condition:*always*
  - Description:
- From: ***AccountState SendHTTPResponse*** -To: ***End***
  - Label:
  - Condition:*always*
  - Description:
- From: ***FailedAutentification SendHTTPResponse*** -To: ***End***
  - Label:
  - Condition:*always*
  - Description:
- From: ***AccountState SOAPRequestReply*** -To: ***FailedAutentification SendHTTPResponse***
  - Label:
  - Condition:*($Autentification-HTTPReceiver/ProcessStarterOutput/parameters/Name !=$AccountState-SOAPRequestReply/outputMessage/ns:Account/ns:Name) or ($Autentification-HTTPReceiver/ProcessStarterOutput/parameters/Password !=$AccountState-SOAPRequestReply/outputMessage/ns:Account/ns:Password)*
  - Description:

**Figure153. Visualization of deleted parts of element**

## 2.8. Quality Assurance

**Note:** This feature is available only if you have purchased product Quality Assurance.

Quality Assurance checks whether defined rules were followed in chosen projects and shows all occurrences of violations of these rules. Its documentation can be generated together with project and cross-reference documentation, which brings advantage of hyperlinked resources, or separately as single document. Output itself is divided into three parts - rules, projects and QA statistics. Therefore it is possible to examine violations of rules which weren't followed from this two points of view. In QA statistics is possible find information about QA rules (list of invalid rules, count of fired rules, count of checked objects).

## 2.8.1. Setup

Chapter describes how to setup the module. It starts with dialogs and then it continues with configuration files.

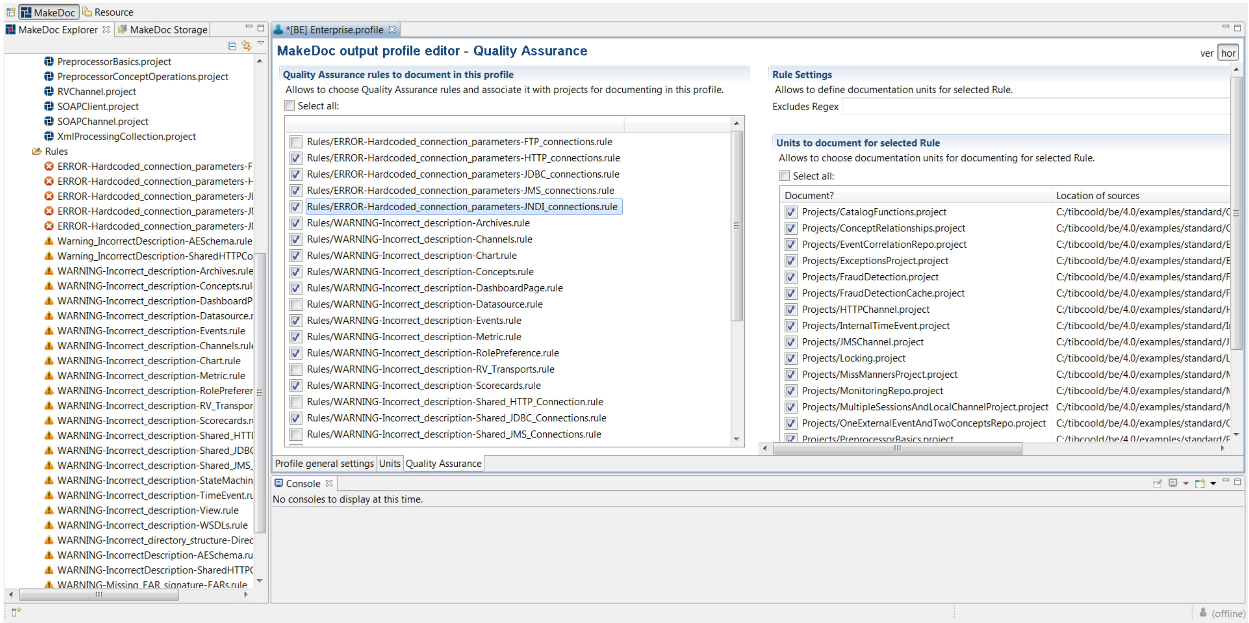
### 2.8.1.1. Working with Rules

#### 2.8.1.1.1. Quality Assurance Dialog

**Note:** This dialog is available only if you have purchased product Quality Assurance.

This dialog is used for settings of Quality Assurance module. It is possible to choose which rules will be used during Quality Assurance check. The rule is classified by its group, type and name (this combination has to be unique within solution). Chapter also reflects output chapter in documentation and rule's topic group.

It can be opened by clicking on Quality Assurance tab within the **Profile Editor**.



PreprocessorBasics.project
PreprocessorConceptOperations.project
RVChannel.project
SOAPClient.project
SOAPChannel.project
XmlProcessingCollection.project
Rules
ERROR-Hardcoded_connection_parameters-F
ERROR-Hardcoded_connection_parameters-H
ERROR-Hardcoded_connection_parameters-JI
ERROR-Hardcoded_connection_parameters-JI
ERROR-Hardcoded_connection_parameters-JI
Warning_IncorrectDescription-AESchema.rule
Warning_IncorrectDescription-SharedHTTPCo
WARNING-Incorrect_description-Archives.rule
WARNING-Incorrect_description-Concepts.rul
WARNING-Incorrect_description-DashboardP
WARNING-Incorrect_description-Datasource.r
WARNING-Incorrect_description-Events.rule
WARNING-Incorrect_description-Channels.rule
WARNING-Incorrect_description-Chart.rule
WARNING-Incorrect_description-Metric.rule
WARNING-Incorrect_description-RolePreferer
WARNING-Incorrect_description-RV_Transpor
WARNING-Incorrect_description-Scorecards.r
WARNING-Incorrect_description-Shared_HTTI
WARNING-Incorrect_description-Shared_JDBC
WARNING-Incorrect_description-Shared_JMS_
WARNING-Incorrect_description-StateMachin
WARNING-Incorrect_description-TimeEvent.ru
WARNING-Incorrect_description-View.rule
WARNING-Incorrect_description-WSDLs.rule
WARNING-Incorrect_directory_structure-Direc
WARNING-IncorrectDescription-AESchema.ru
WARNING-IncorrectDescription-SharedHTTPC
WARNING-Missing_EAR_signature-EARs.rule

MakeDoc output profile editor - Quality Assurance

Quality Assurance rules to document in this profile

Allows to choose Quality Assurance rules and associate it with projects for documenting in this profile.

□ Select all:

□ Rules/ERROR-Hardcoded_connection_parameters-FTP_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-HTTP_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JDBC_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JMS_connections.rule
☑ Rules/ERROR-Hardcoded_connection_parameters-JNDI_connections.rule
☑ Rules/WARNING-Incorrect_description-Archives.rule
☑ Rules/WARNING-Incorrect_description-Channels.rule
☑ Rules/WARNING-Incorrect_description-Chart.rule
☑ Rules/WARNING-Incorrect_description-Concepts.rule
☑ Rules/WARNING-Incorrect_description-DashboardPage.rule
□ Rules/WARNING-Incorrect_description-Datasource.rule
☑ Rules/WARNING-Incorrect_description-Events.rule
☑ Rules/WARNING-Incorrect_description-Metric.rule
☑ Rules/WARNING-Incorrect_description-RolePreference.rule
□ Rules/WARNING-Incorrect_description-RV_Transports.rule
☑ Rules/WARNING-Incorrect_description-Scorecards.rule
□ Rules/WARNING-Incorrect_description-Shared_HTTP_Connection.rule
☑ Rules/WARNING-Incorrect_description-Shared_JDBC_Connections.rule
□ Rules/WARNING-Incorrect_description-Shared_JMS_Connections.rule

Rule Settings

Allows to define documentation units for selected Rule.

Excludes Regex

Units to document for selected Rule

Allows to choose documentation units for documenting for selected Rule.

□ Select all:

| Document? | Location of sources |
|---|---|
| ☑ Projects/CatalogFunctions.project | C:/tibcoold/be/4.0/examples/standard/C |
| ☑ Projects/ConceptRelationships.project | C:/tibcoold/be/4.0/examples/standard/C |
| ☑ Projects/EventCorrelationRepo.project | C:/tibcoold/be/4.0/examples/standard/E |
| ☑ Projects/ExceptionsProject.project | C:/tibcoold/be/4.0/examples/standard/E |
| ☑ Projects/FraudDetection.project | C:/tibcoold/be/4.0/examples/standard/F |
| ☑ Projects/FraudDetectionCache.project | C:/tibcoold/be/4.0/examples/standard/F |
| ☑ Projects/HTTPChannel.project | C:/tibcoold/be/4.0/examples/standard/H |
| ☑ Projects/InternalTimeEvent.project | C:/tibcoold/be/4.0/examples/standard/I |
| ☑ Projects/JMSChannel.project | C:/tibcoold/be/4.0/examples/standard/J |
| ☑ Projects/Locking.project | C:/tibcoold/be/4.0/examples/standard/L |
| ☑ Projects/MissMannersProject.project | C:/tibcoold/be/4.0/examples/standard/M |
| ☑ Projects/MonitoringRepo.project | C:/tibcoold/be/4.0/examples/standard/M |
| ☑ Projects/MultipleSessionsAndLocalChannelProject.project | C:/tibcoold/be/4.0/examples/standard/M |
| ☑ Projects/OneExternalEventAndTwoConceptsRepo.project | C:/tibcoold/be/4.0/examples/standard/C |
| ☑ Projects/PreprocessorBasics.project | C:/tibcoold/be/4.0/examples/standard/P |

No consoles to display at this time.

Figure154. **Quality Assurance Page**

There are some options how to work with rules on this page - you can select project to check and assign concrete rules to selected project (to apply them to the project within a QA check).

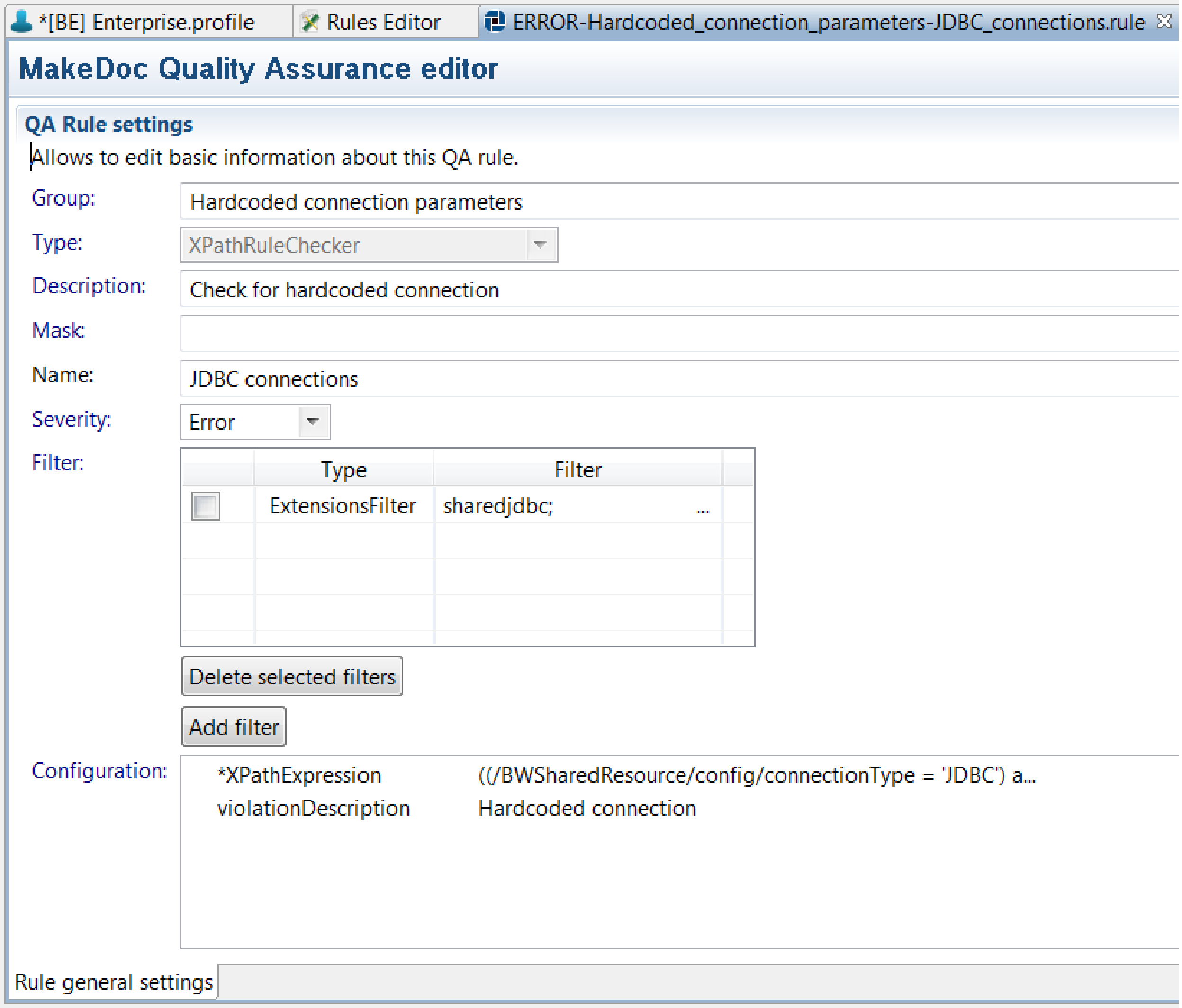
- 1. Enable Rule - check the checkbox belonging to a required rule (a row in the left "Quality Assurance rules to document in this profile" panel)
- 2. Assign project to a rule desired to check - select a rule in the left hand side panel and choose projects by using check boxes in the right hand side panel (Units to document for selected Rule)

### 2.8.1.1.2. Quality Assurance Rule Editor

**Note:** This dialog is available only if you have purchased product Quality Assurance.

This dialog is used for editing of Quality Assurance rules. It is possible to open MakeDoc's *.rule files in order to modifying them. The rule is classified by its group, type and name (this combination has to be unique within MakeDoc's project). Group also reflects output chapter in documentation and rule's topic group.

It can be opened by double-clicking on *.rule item from **MakeDoc Explorer** view.



MakeDoc Quality Assurance editor

QA Rule settings

Allows to edit basic information about this QA rule.

Group: Hardcoded connection parameters

Type: XPathRuleChecker

Description: Check for hardcoded connection

Mask:

Name: JDBC connections

Severity: Error

Filter:

| | Type | Filter |
|---|---|---|
| □ | ExtensionsFilter | sharedjdbc; ... |

Configuration:

```
*XPathExpression          ((/BWSharedResource/config/connectionType = 'JDBC') a...
violationDescription      Hardcoded connection
```

Figure155. QA Rule General Settings Page

There are several fields to modify within rule:

- **Group** - Specifies the group to which rule belongs - this division also determines how the output documentation will be structured.
- **Type** - It determines the rule within the group (chapter) - it usually specifies exact item, to which the rule refers.
- **Description** - Kind characteristics of rule - every rule in chapter should have the same description.

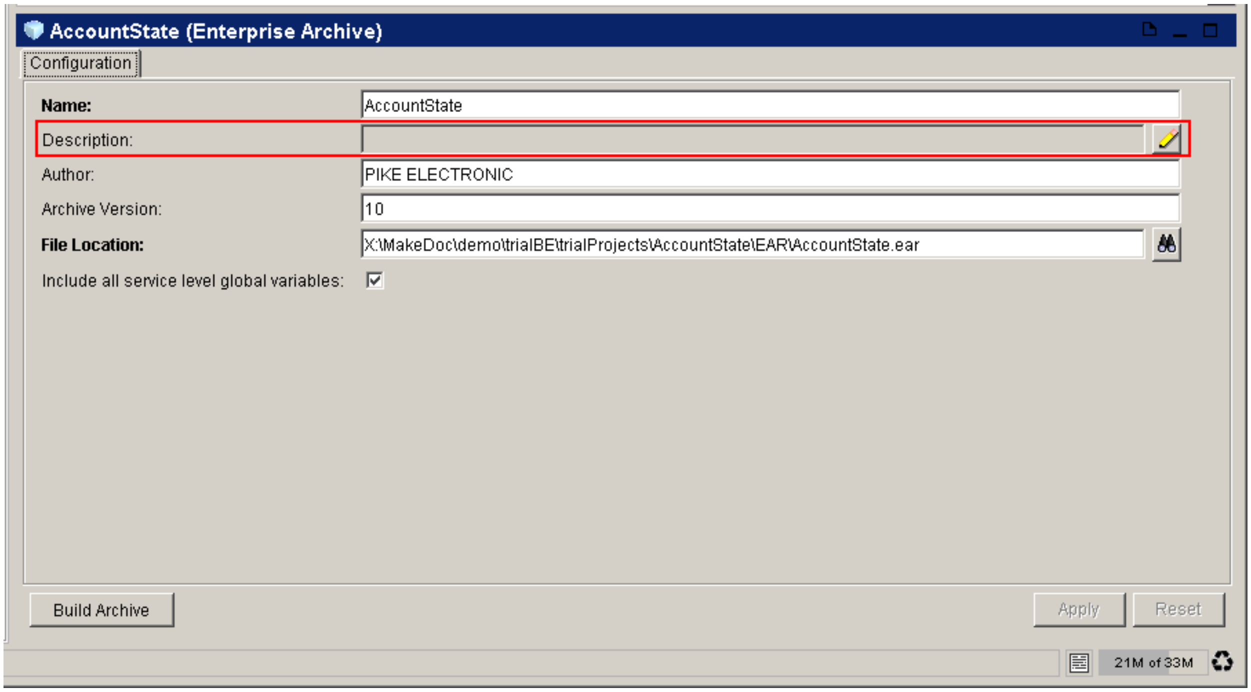
- **Mask** - Together with configuration items allows to add extra information for concrete rule violation to output document.
- **Name** - Name of the rule for better recognition and orientation.
- **Severity** - Severity of rule - rules are also sorted in output documentation by this item.
- **Filter** - File types to which the rule refers to can be chosen.
- **Configuration** - Detailed configuration of rule which depends on its type and implementation detail-s.

### 2.8.1.2. Rule types description

### 2.8.1.2.1. XPathRuleChecker

Groups of preconfigured XPathRuleChecker types of rules with instance distinction and violation description:

- **Incorrect description -** Item doesn't contain any description or description too short
  - Processes, AE Schemas, Archives, WSDLs, RV Transports, Shared JDBC Connections, HTTP Proxies, Shared HTTP Connections, Shared FTP Connections, Shared iProcess Connections, Shared Variables, Job Shared Variables, Service Agents, Concepts, Concept Views, Events, Channels, RuleSets, RuleFunctions, Scorecards, Shared JNDI Configs, Shared JMS Connections, BusinessConnect Connections
- **Presence of process label** - Process has label
  - Processes
- **Missing archive signature** - Enterprise archive has no signature
  - Archives
- **Missing EAR signature** - EAR file has no signature
  - EARs
- **Hardcoded connection parameters** - Hardcoded connection
  - JDBC connections
  - JMS connections
  - JNDI connections
  - HTTP connections
  - FTP connections
- **Missing XSD annotation** - Process doesn't contain any XSD annotation
  - XSDs
- **Missing response activity** - Process has starter activity, but has no adequate response activity
  - HTTP response activities
  - SOAP response activities



**Name:** AccountState

Description:

Author: PIKE ELECTRONIC

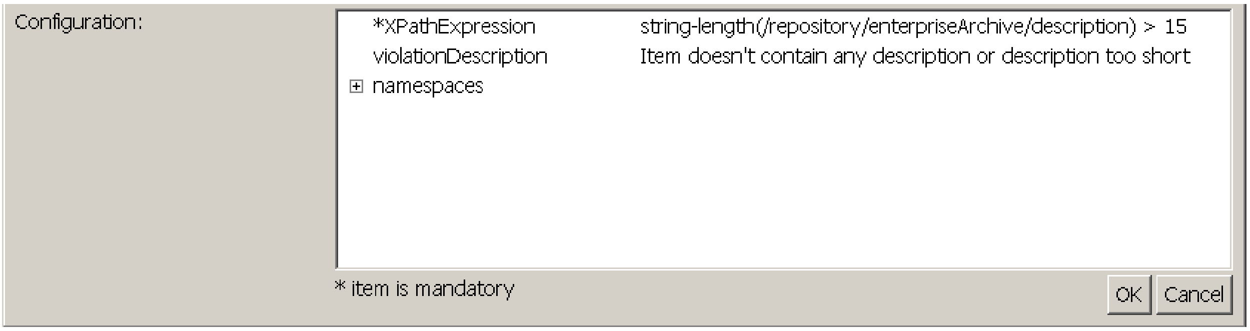
Archive Version: 10

**File Location:** X:\MakeDoc\demo\trialBE\trialProjects\AccountState\EAR\AccountState.ear

Include all service level global variables: ☑

Figure156. **XPathRuleChecker particular violation**

This type of rule allows to create XPath expression which is used to check TIBCO resources (xml files). Violation will be discovered if this expression is evaluated to false. Example in picture above shows description of archive which isn't filled in.



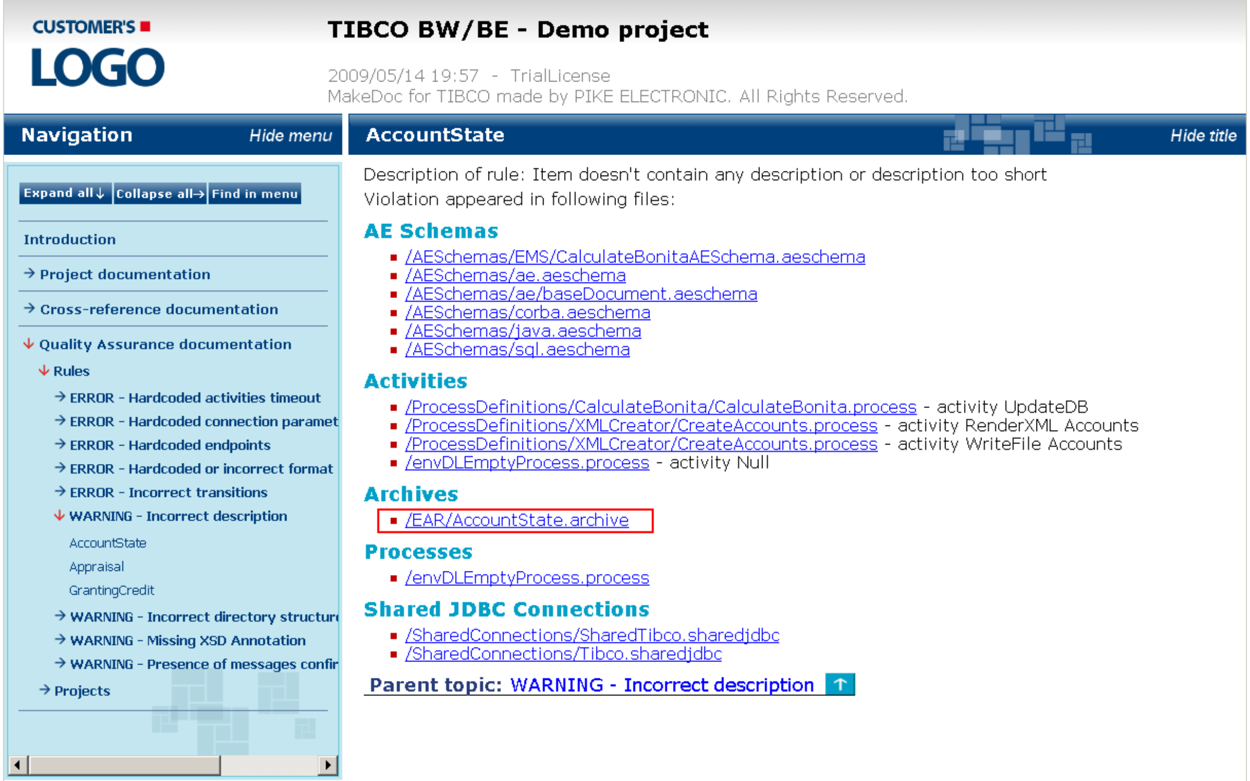
Configuration:

| | |
|---|---|
| *XPathExpression | string-length(/repository/enterpriseArchive/description) > 15 |
| violationDescription | Item doesn't contain any description or description too short |
| ⊞ namespaces | |

* item is mandatory

Figure157. **XPathRuleChecker configuration**

In configuration section of Rule Settings dialog on page is possible to set XPath expression, which will be evaluated and also description of this particular violation.



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**AccountState**

Description of rule: Item doesn't contain any description or description too short
Violation appeared in following files:

**AE Schemas**

- /AESchemas/EMS/CalculateBonitaAESchema.aeschema
- /AESchemas/ae.aeschema
- /AESchemas/ae/baseDocument.aeschema
- /AESchemas/corba.aeschema
- /AESchemas/java.aeschema
- /AESchemas/sql.aeschema

**Activities**

- /ProcessDefinitions/CalculateBonita/CalculateBonita.process - activity UpdateDB
- /ProcessDefinitions/XMLCreator/CreateAccounts.process - activity RenderXML Accounts
- /ProcessDefinitions/XMLCreator/CreateAccounts.process - activity WriteFile Accounts
- /envDLEmptyProcess.process - activity Null

**Archives**

- /EAR/AccountState.archive

**Processes**

- /envDLEmptyProcess.process

**Shared JDBC Connections**

- /SharedConnections/SharedTibco.sharedjdbc
- /SharedConnections/Tibco.sharedjdbc

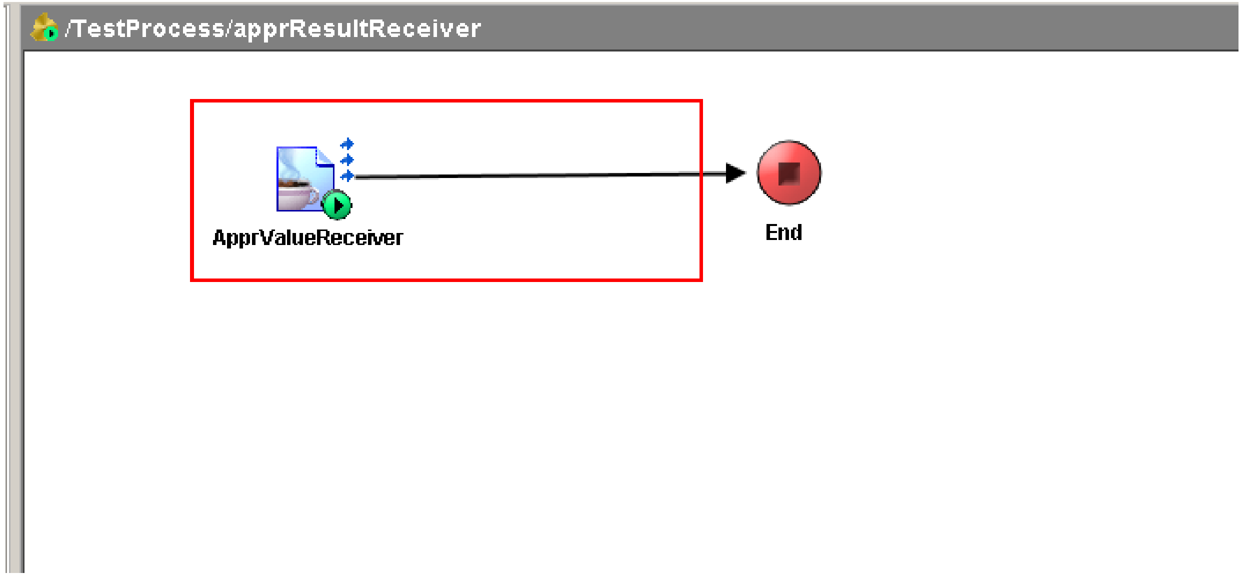
Parent topic: WARNING - Incorrect description ↑

Figure158. XPathRuleChecker particular violation documentation output

### 2.8.1.2.2. MessageConfirmationRuleChecker

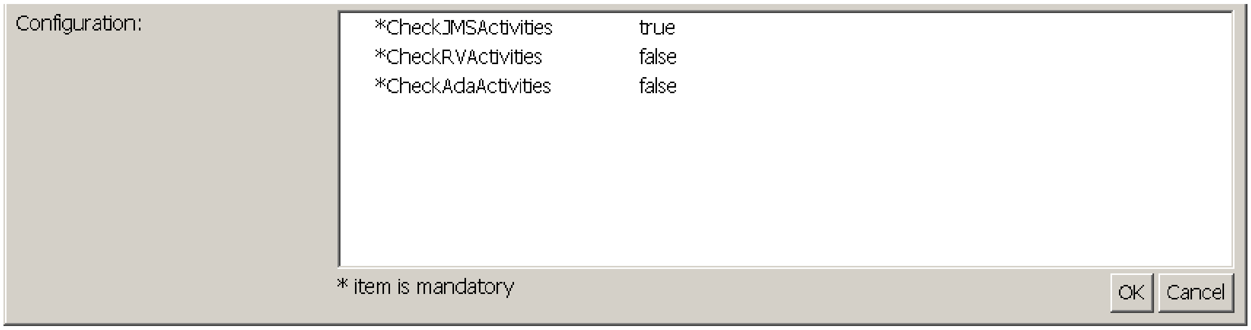
Groups of preconfigured MessageConfirmationRuleChecker types of rules with instance distinction and violation description:

- **Presence of messages confirmation activities** - Messages consumed by activities are not confirmed
  - JMS activities
  - RV activities
  - Adapter activities



**<span>Figure159.</span> MessageConfirmationRuleChecker particular violation**

This type of rule allows to check whether is present in process for activity appropriate confirmation activity (or activity has auto confirmation set). Example in picture above shows missing corresponding confirmation activity for JMS Queue Receiver. Violation will be discovered in this case.

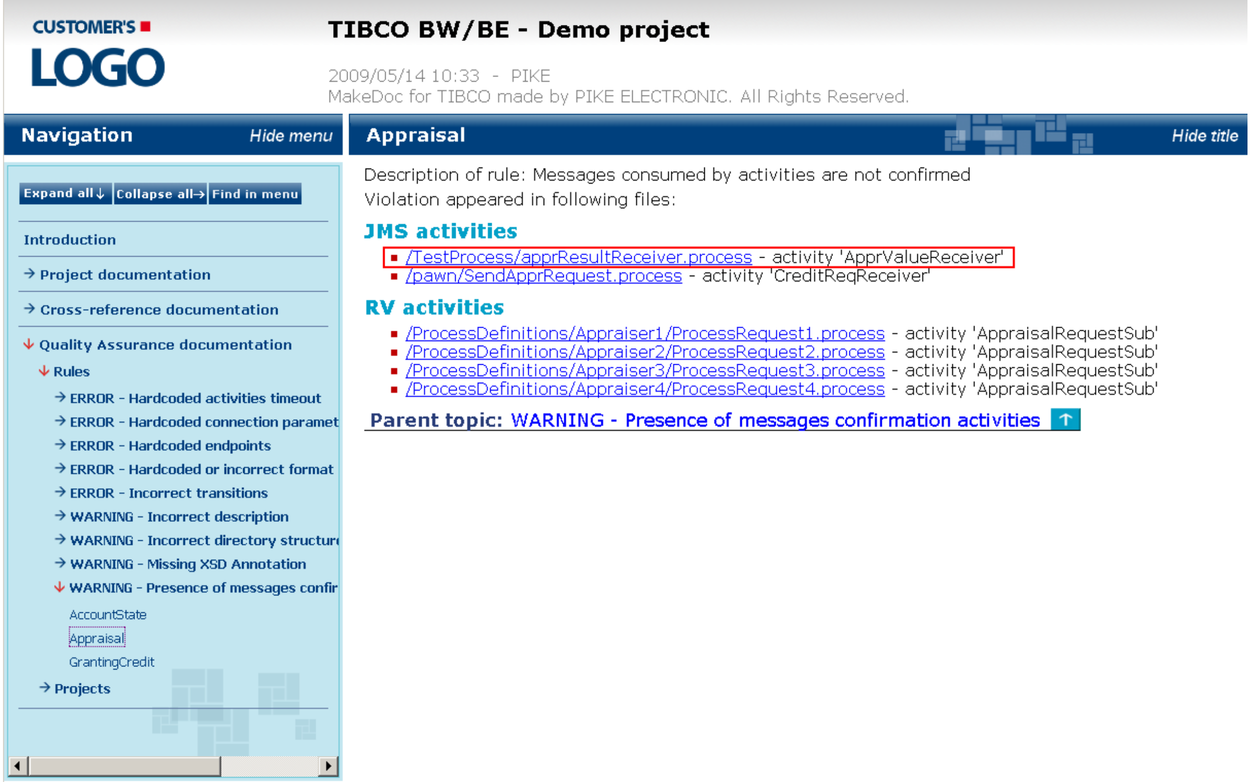

Configuration:

| | |
|---|---|
| *CheckJMSActivities | true |
| *CheckRVActivities | false |
| *CheckAdaActivities | false |

* item is mandatory

**Figure160. MessageConfirmationRuleChecker configuration**

In configuration section is possible to choose from three types of activities which will be checked - JMS, RV or Ada.



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Appraisal

Description of rule: Messages consumed by activities are not confirmed
Violation appeared in following files:

JMS activities

- /TestProcess/apprResultReceiver.process - activity 'ApprValueReceiver'
- /pawn/SendApprRequest.process - activity 'CreditReqReceiver'

RV activities

- /ProcessDefinitions/Appraiser1/ProcessRequest1.process - activity 'AppraisalRequestSub'
- /ProcessDefinitions/Appraiser2/ProcessRequest2.process - activity 'AppraisalRequestSub'
- /ProcessDefinitions/Appraiser3/ProcessRequest3.process - activity 'AppraisalRequestSub'
- /ProcessDefinitions/Appraiser4/ProcessRequest4.process - activity 'AppraisalRequestSub'

Parent topic: WARNING - Presence of messages confirmation activities

Figure161. MessageConfirmationRuleChecker particular violation documentation output

### 2.8.1.2.3. DirectoryStructureRuleChecker

Groups of preconfigured DirectoryStructureRuleChecker types of rules with instance distinction and violation description:

- **Incorrect directory structure -** Directory structure check failed
  - Directories

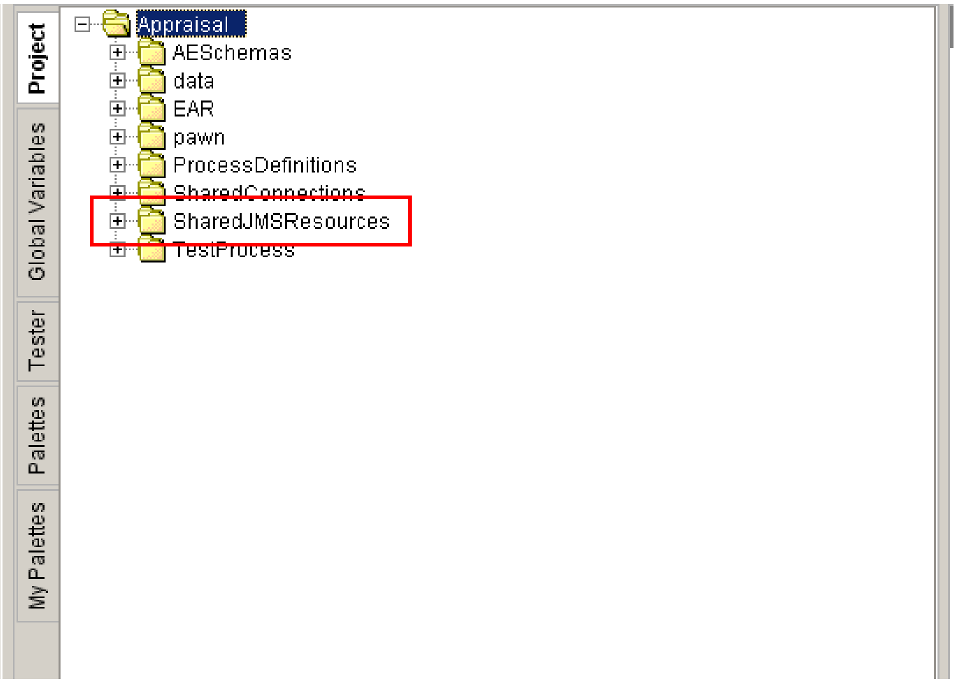
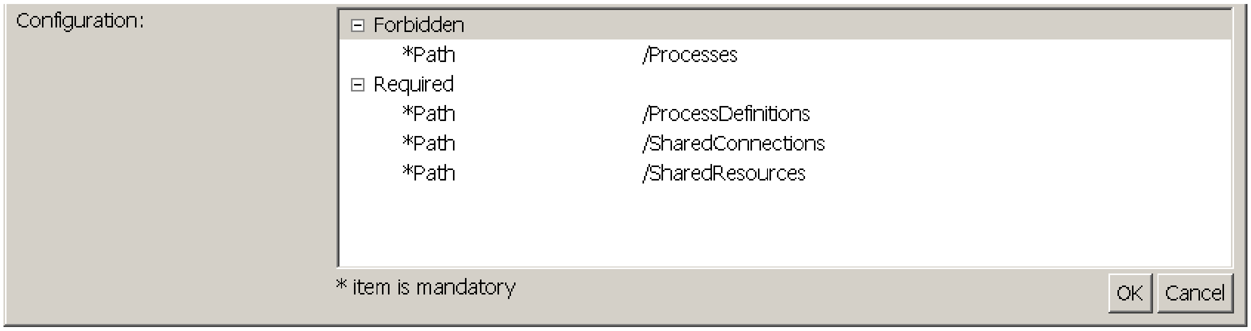


**Figure162.** **DirectoryStructureRuleChecker particular violation**

This type of rule allows to check whether the directory structure of project is followed as specified. Example in picture above shows missing SharedResources folder in project (SharedJMSResources folder is used instead).



⊟ Forbidden

| | |
|---|---|
| *Path | /Processes |

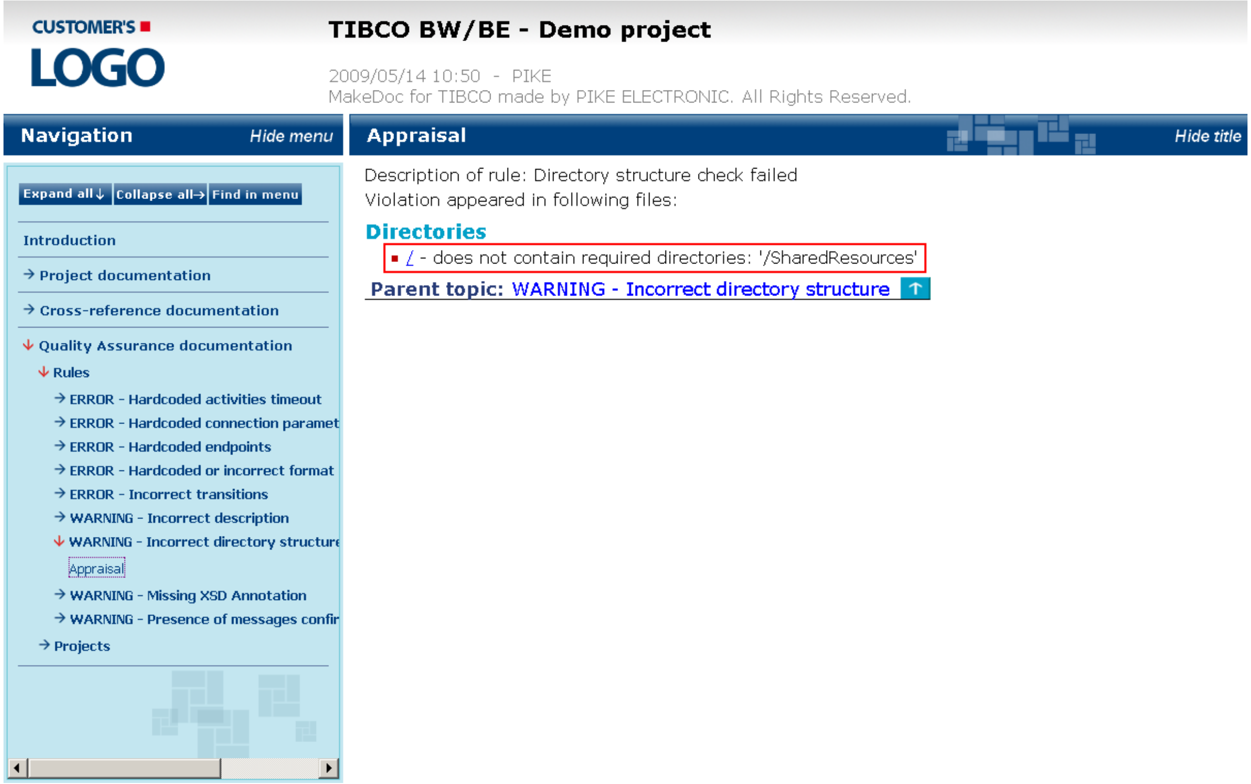
⊟ Required

| | |
|---|---|
| *Path | /ProcessDefinitions |
| *Path | /SharedConnections |
| *Path | /SharedResources |

* item is mandatory

**Figure163.** **DirectoryStructureRuleChecker configuration**

It is possible to define required and forbidden paths in configuration section.



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Description of rule: Directory structure check failed
Violation appeared in following files:

Directories

- / - does not contain required directories: '/SharedResources'

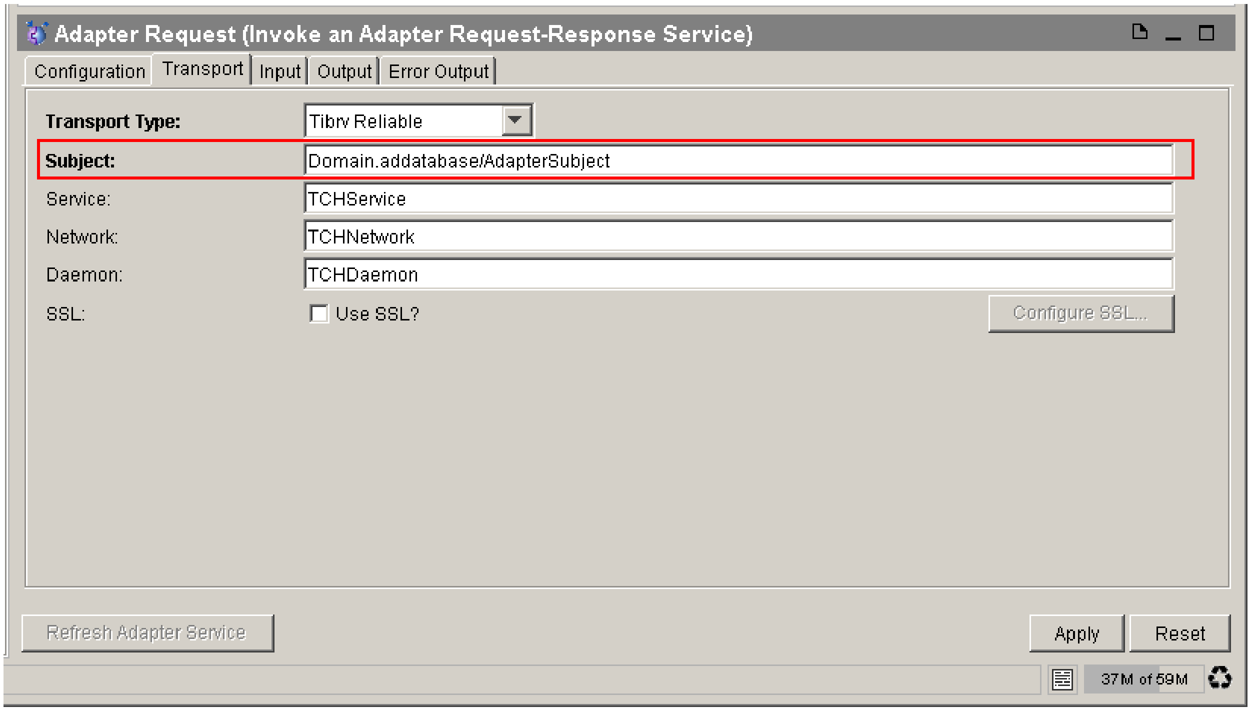
Parent topic: WARNING - Incorrect directory structure

Figure164. DirectoryStructureRuleChecker particular violation documentation output

### 2.8.1.2.4. DestinationFormatRuleChecker

Groups of preconfigured DestinationFormatRuleChecker types of rules with instance distinction and violation description:

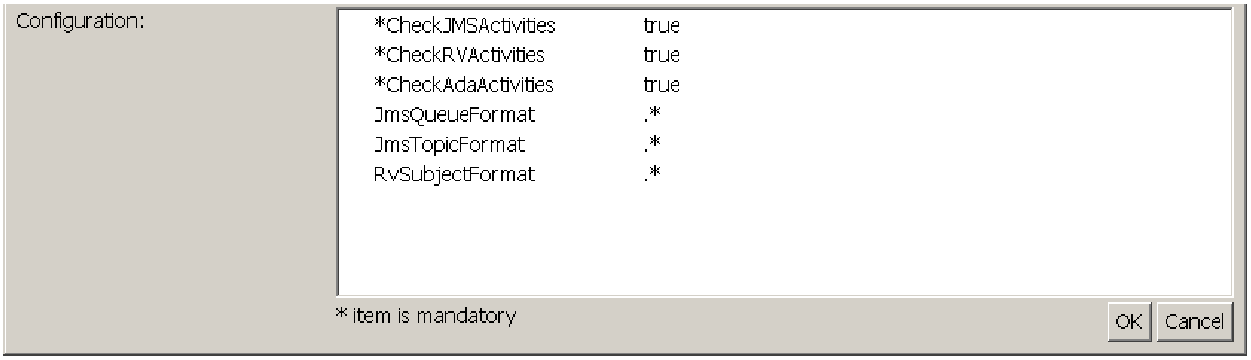
- **Hardcoded or incorrect format of destination name -** Destination names are hardcoded or do not fulfill given regular expressions
  - JMS destination activities
  - RV destination activities
  - Ada transport destination activities



Transport Type: Tibrv Reliable
Subject: Domain.addatabase/AdapterSubject
Service: TCHService
Network: TCHNetwork
Daemon: TCHDaemon
SSL: □ Use SSL?

Figure165. DestinationFormatRuleChecker particular violation

This type of rule allows to check whether destination names in activities are hardcoded (without using global variables) or if it's name suits specified regex expression. Example in picture above shows hardcoded name of subject in Invoke an Adapter Request-Response Service.



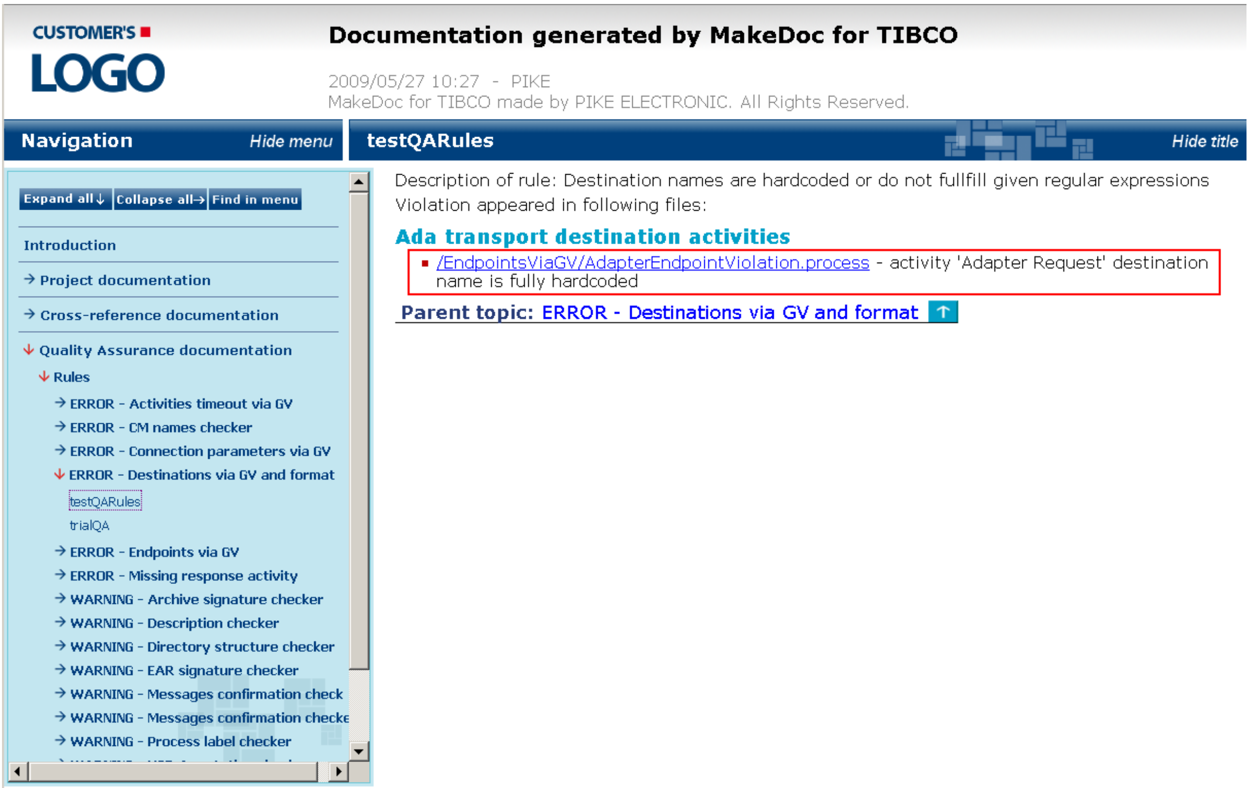
Configuration:

| | |
|---|---|
| *CheckJMSActivities | true |
| *CheckRVActivities | true |
| *CheckAdaActivities | true |
| JmsQueueFormat | .* |
| JmsTopicFormat | .* |
| RvSubjectFormat | .* |

* item is mandatory

Figure166. DestinationFormatRuleChecker configuration

In configuration section is possible to choose from three types of activities which will be checked - JMS, RV or Ada - and also specify regex expression for the format of name of these destinations.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→ WARNING - Messages confirmation checke
→ WARNING - Process label checker

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**testQARules**

Description of rule: Destination names are hardcoded or do not fullfill given regular expressions
Violation appeared in following files:

**Ada transport destination activities**

- /EndpointsViaGV/AdapterEndpointViolation.process - activity 'Adapter Request' destination name is fully hardcoded

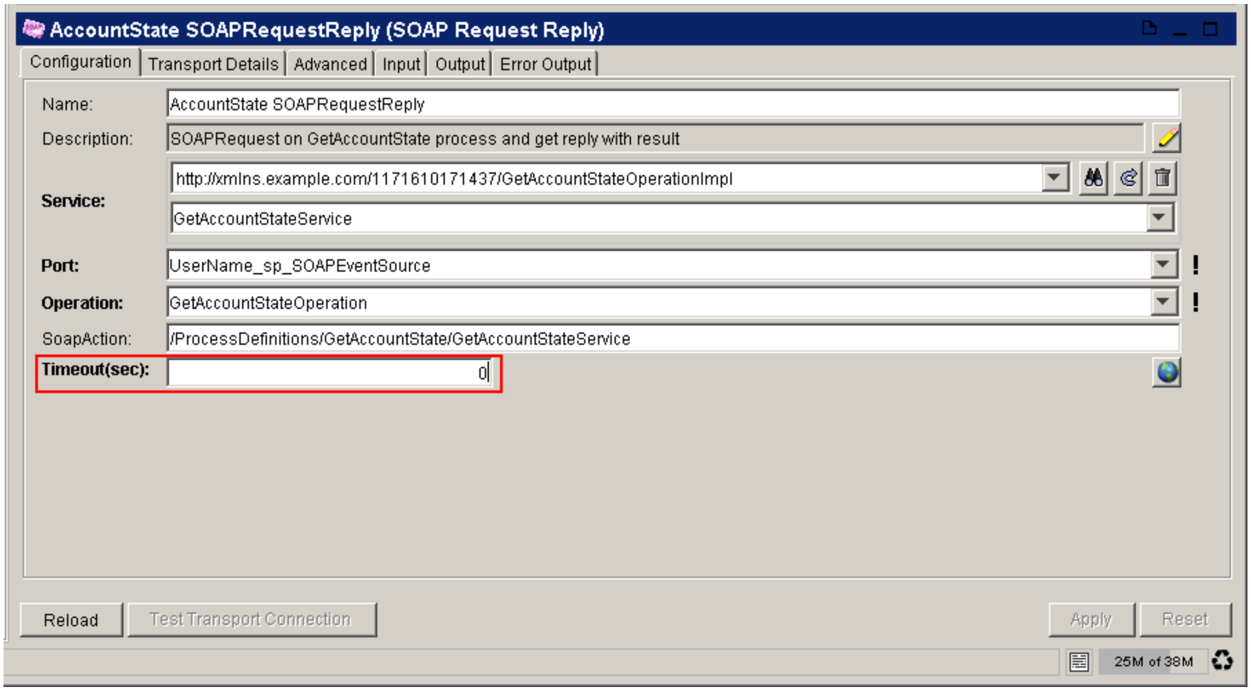
**Parent topic:** ERROR - Destinations via GV and format

Figure167. **DestinationFormatRuleChecker particular violation documentation output**

### 2.8.1.2.5. ContextXPathRuleChecker

Groups of preconfigured ContextXPathRuleChecker types of rules with instance distinction and violation description:

- **Incorrect description -** Item doesn't contain any description or description too short
  - Starter activity, activities
- **Hardcoded activities timeout -** Activity has hardcoded timeout property
  - JDBC activities
  - RequestReply activities
- **Hardcoded endpoints -** Activity has hardcoded endpoint URL
  - SOAP activities
  - HTTP SendRequest activities
- **Unused ADB Adapter -** Activity references ADB Adapter service
  - ADB activities



Name: AccountState SOAPRequestReply

Description: SOAPRequest on GetAccountState process and get reply with result

**Service:** http://xmlns.example.com/1171610171437/GetAccountStateOperationImpl
GetAccountStateService

**Port:** UserName_sp_SOAPEventSource

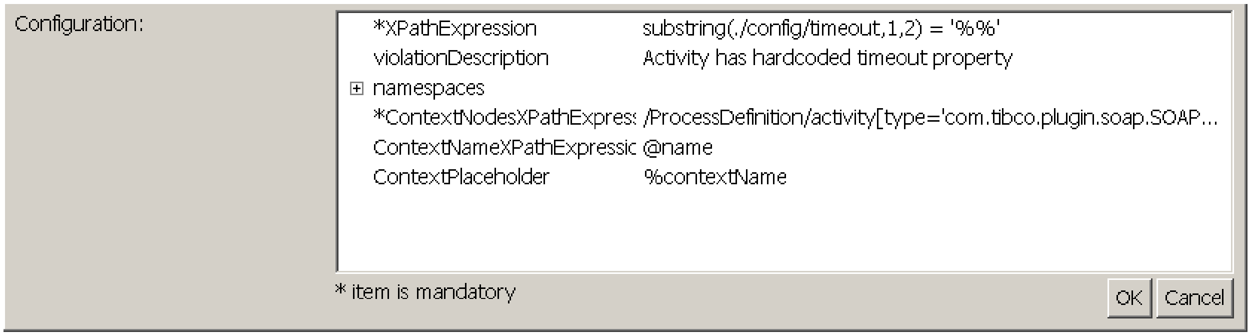
**Operation:** GetAccountStateOperation

SoapAction: /ProcessDefinitions/GetAccountState/GetAccountStateService

**Timeout(sec):** 0

**Figure168.** ContextXPathRuleChecker particular violation

This type of rule allows to create XPath expression which is used to check settings of items in one global context - for example settings of activities in process. Example in picture above shows hardcoded timeout property of SOAP Request Reply activity. Violation will be discovered if XPath expression is evaluated to false.



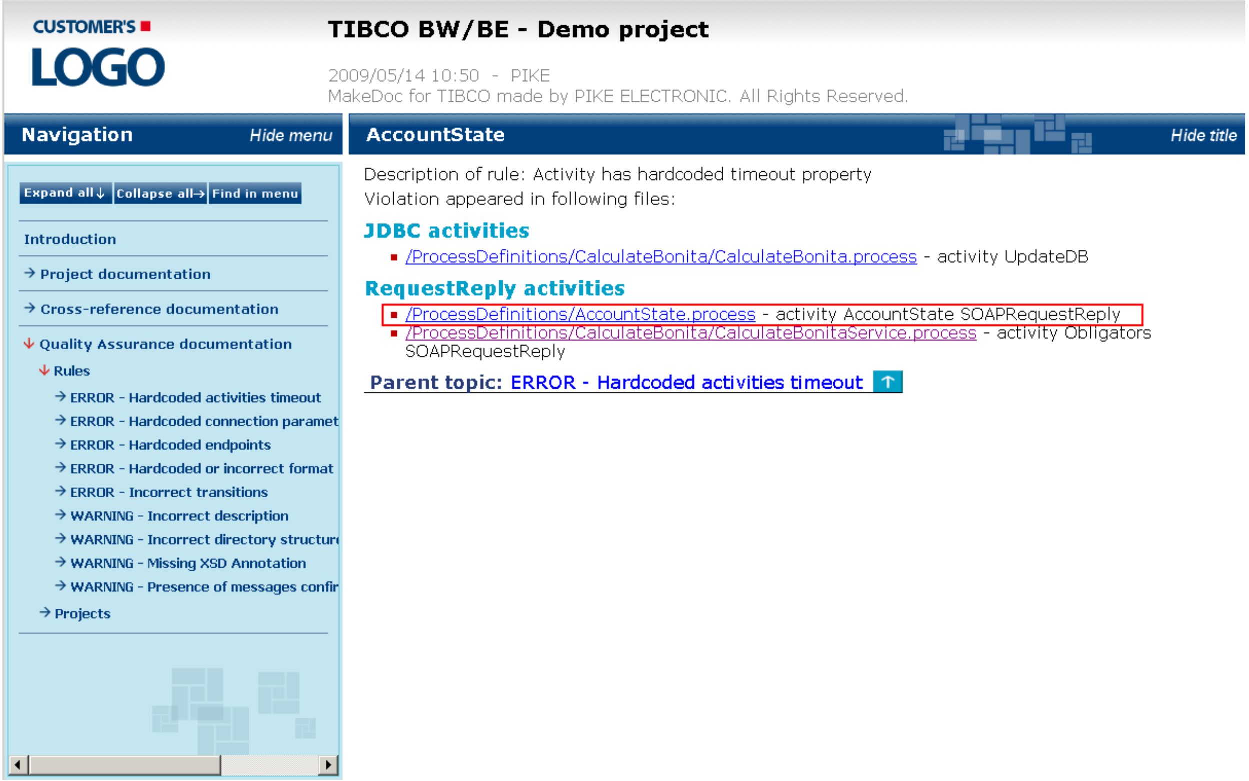
Configuration:

| | |
|---|---|
| *XPathExpression | substring(./config/timeout,1,2) = '%%' |
| violationDescription | Activity has hardcoded timeout property |
| ⊞ namespaces | |
| *ContextNodesXPathExpres: | /ProcessDefinition/activity[type='com.tibco.plugin.soap.SOAP... |
| ContextNameXPathExpressic | @name |
| ContextPlaceholder | %contextName |

* item is mandatory

**Figure169.** ContextXPathRuleChecker configuration

In configuration section concrete XPath expression used in context can be specified. There's also need to specify the context itself - it can be done by filling ContextNodeXPathExpression. For distinction of text output of discovered violation, there's also possible to set context placeholder, which can be used in Mask section of Rule Settings dialog, and it's value is specified by result of evaluation of ContextNameXPathExpression field of configuration section.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AccountState

Description of rule: Activity has hardcoded timeout property
Violation appeared in following files:

JDBC activities

- /ProcessDefinitions/CalculateBonita/CalculateBonita.process - activity UpdateDB

RequestReply activities

- /ProcessDefinitions/AccountState.process - activity AccountState SOAPRequestReply
- /ProcessDefinitions/CalculateBonita/CalculateBonitaService.process - activity Obligators SOAPRequestReply

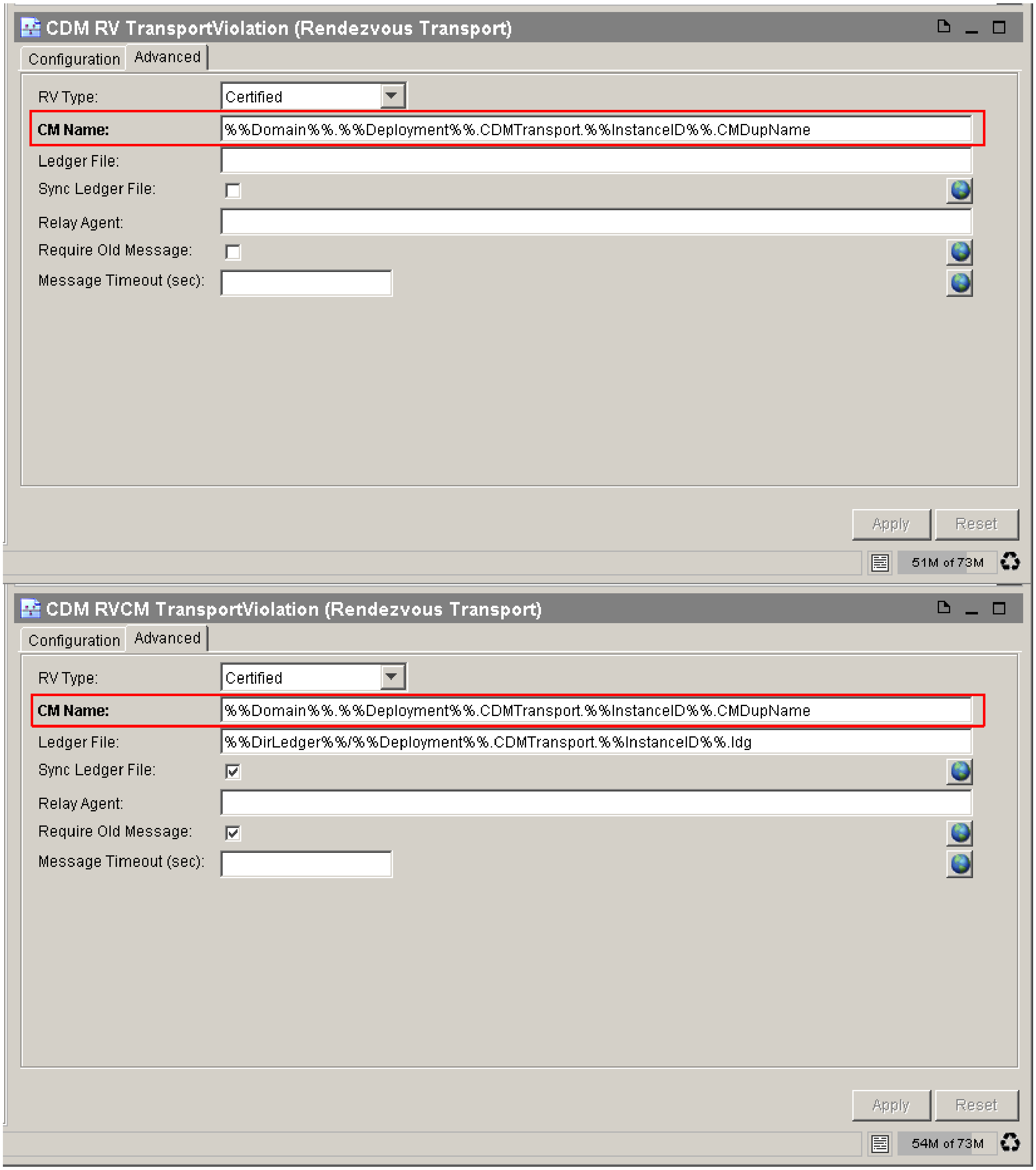
Parent topic: ERROR - Hardcoded activities timeout

Figure170. ContextXPathRuleChecker particular violation documentation output

### 2.8.1.2.6. CMNameConflictRuleChecker

Groups of preconfigured CMNameConflictRuleChecker types of rules with instance distinction and violation description:

- **Multiple CM names** - CM name conflicted
  - RV Transports



CDM RV TransportViolation (Rendezvous Transport)

RV Type: Certified

CM Name: %%Domain%%.%%Deployment%%.CDMTransport.%%InstanceID%%.CMDupName

Ledger File:

Sync Ledger File: □

Relay Agent:

Require Old Message: □

Message Timeout (sec):

CDM RVCM TransportViolation (Rendezvous Transport)

RV Type: Certified

CM Name: %%Domain%%.%%Deployment%%.CDMTransport.%%InstanceID%%.CMDupName

Ledger File: %%DirLedger%%/%%Deployment%%.CDMTransport.%%InstanceID%%.ldg

Sync Ledger File: ☑

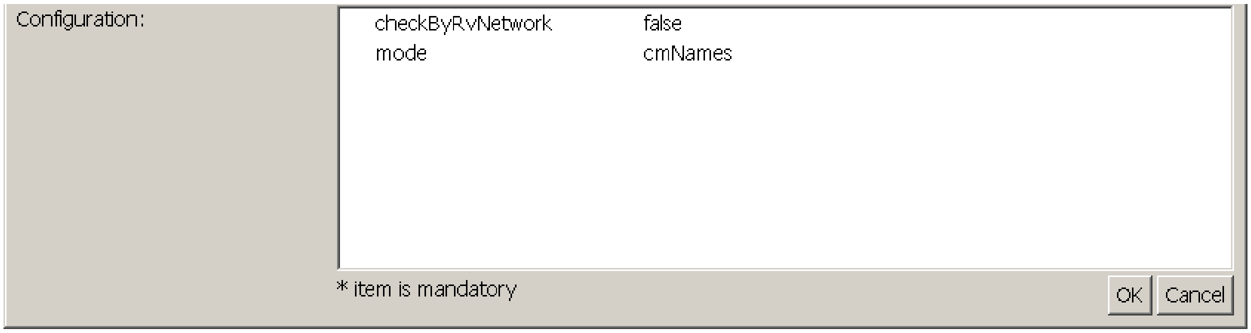
Relay Agent:

Require Old Message: ☑

Message Timeout (sec):

Figure171. **CMNameConflictRuleChecker particular violation**

This type of rule allows to check whether RV activities with same CM name exist in project. Example in picture above shows these two items with the same CM names filled in.



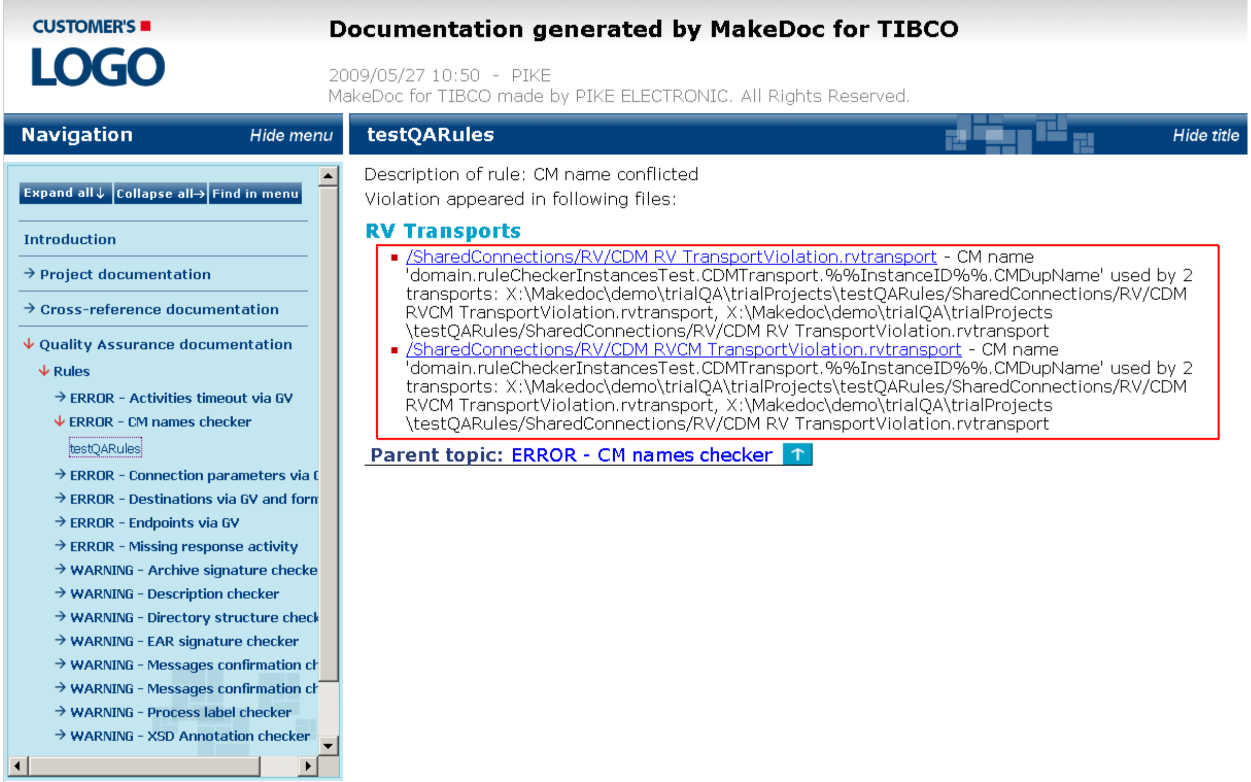
Configuration:

| | |
|---|---|
| checkByRvNetwork | false |
| mode | cmNames |

* item is mandatory

Figure172. **CMNameConflictRuleChecker configuration**

If checkByRvNetwork in Configuration section is set to true, conflicts are solved for each RV network separately, otherwise all transports are checked together and are considered to belong to the same network.



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testQARules

Description of rule: CM name conflicted
Violation appeared in following files:

RV Transports

- /SharedConnections/RV/CDM RV TransportViolation.rvtransport - CM name 'domain.ruleCheckerInstancesTest.CDMTransport.%%InstanceID%%.CMDupName' used by 2 transports: X:\Makedoc\demo\trialQA\trialProjects\testQARules/SharedConnections/RV/CDM RVCM TransportViolation.rvtransport, X:\Makedoc\demo\trialQA\trialProjects\testQARules/SharedConnections/RV/CDM RV TransportViolation.rvtransport
- /SharedConnections/RV/CDM RVCM TransportViolation.rvtransport - CM name 'domain.ruleCheckerInstancesTest.CDMTransport.%%InstanceID%%.CMDupName' used by 2 transports: X:\Makedoc\demo\trialQA\trialProjects\testQARules/SharedConnections/RV/CDM RVCM TransportViolation.rvtransport, X:\Makedoc\demo\trialQA\trialProjects\testQARules/SharedConnections/RV/CDM RV TransportViolation.rvtransport

Parent topic: ERROR - CM names checker ↑

Figure173. **CMNameConflictRuleChecker particular violation documentation output**

### 2.8.1.2.7. ActivityTransitionsRuleChecker

Groups of preconfigured ActivityTransitionsRuleChecker types of rules with instance distinction and violation description:

- **Incorrect transitions** - 'Otherwise' or 'Success' transition is not present
  - Activities

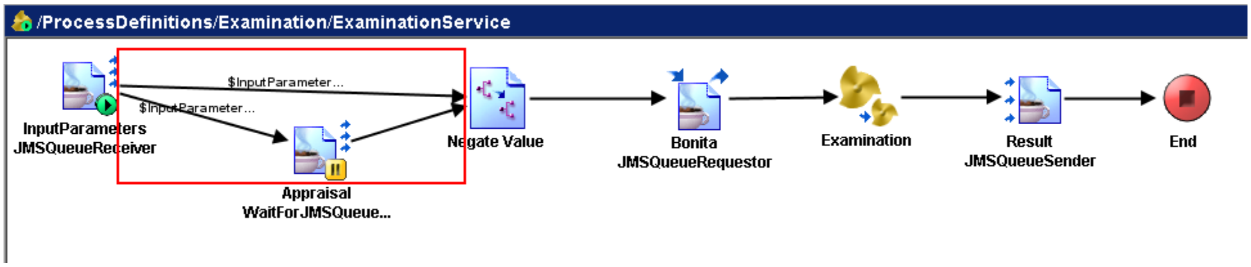
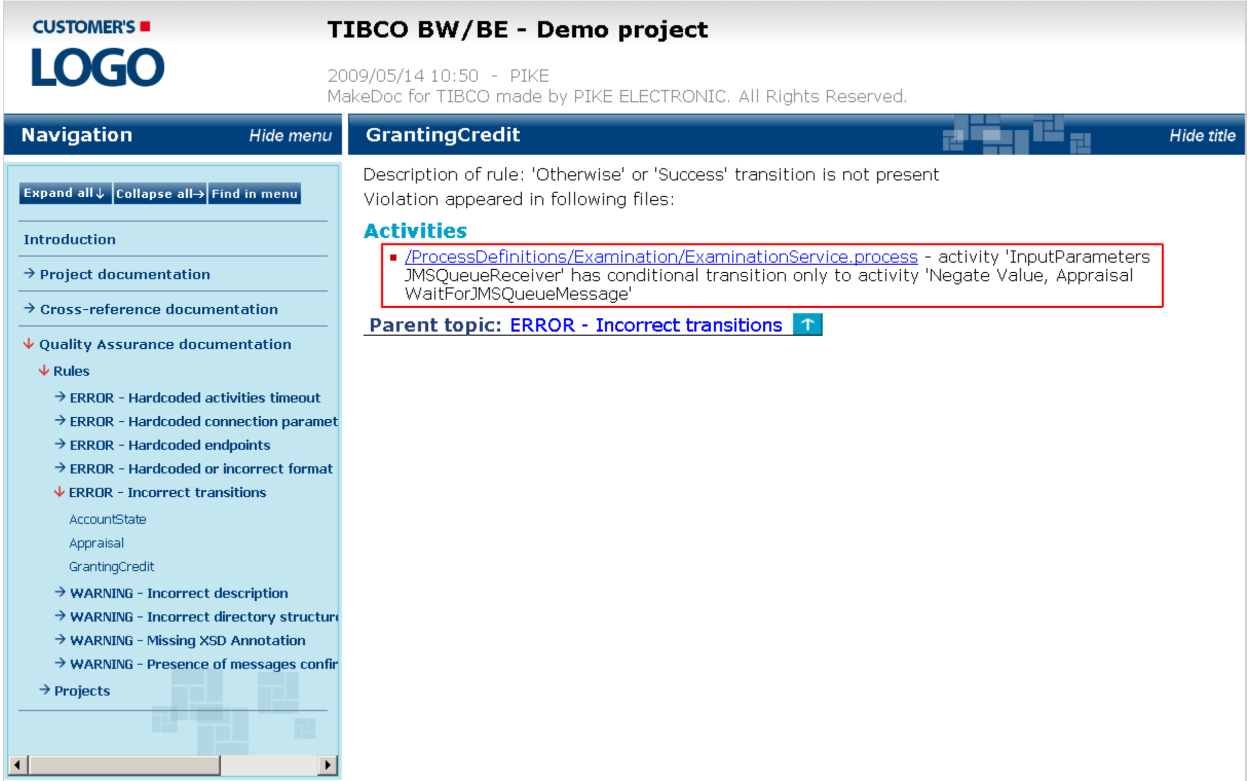


Figure174. **ActivityTransitionsRuleChecker particular violation**

This type of rule allows to check whether correct transitions are used from activity. This can be assured by presence of otherwise type of transition (when conditionals are present) or simple success transition. Example in picture above shows that only transitions with conditional expression leads from start activity, therefore the violation was discovered.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→ WARNING - Presence of messages confir
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Description of rule: 'Otherwise' or 'Success' transition is not present

Violation appeared in following files:

**Activities**

- /ProcessDefinitions/Examination/ExaminationService.process - activity 'InputParameters JMSQueueReceiver' has conditional transition only to activity 'Negate Value, Appraisal WaitForJMSQueueMessage'

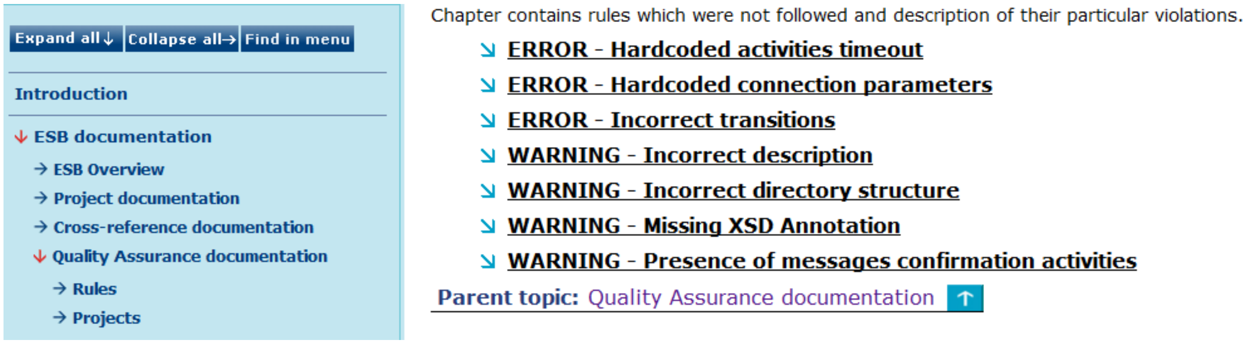
Parent topic: ERROR - Incorrect transitions

Figure175. **ActivityTransitionsRuleChecker particular violation documentation output**

## 2.8.2. Generated Output

Chapter describes contents of generated Quality Assurance analysis output. The Quality Assurance output is divided to three parts:

- List of violated rules
- List of projects violated at least one rule
- QA statistics



Chapter contains rules which were not followed and description of their particular violations.

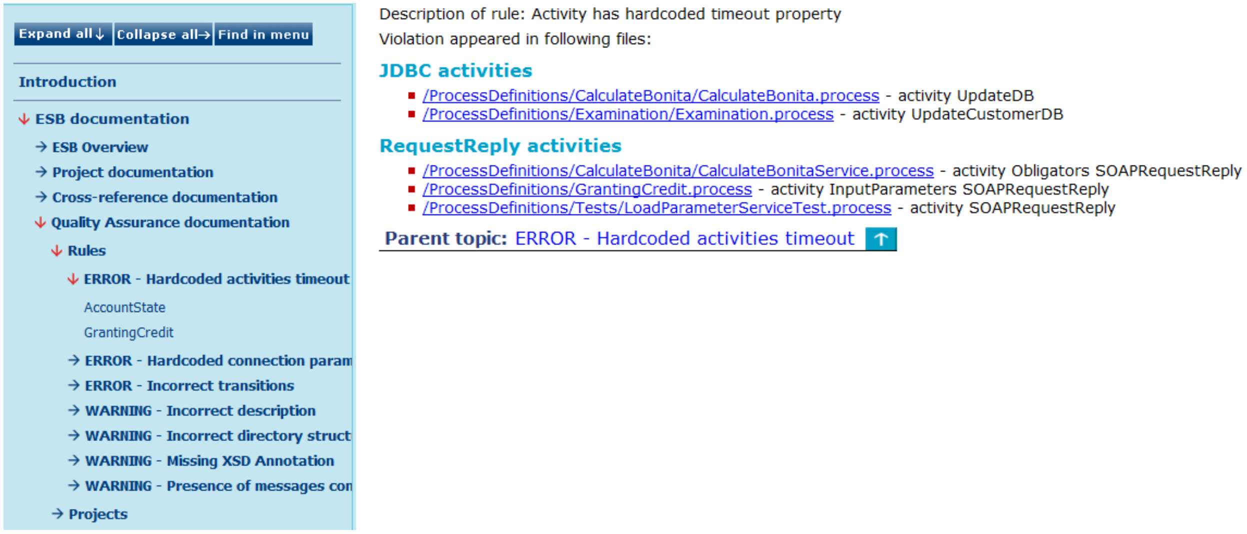
- ERROR - Hardcoded activities timeout
- ERROR - Hardcoded connection parameters
- ERROR - Incorrect transitions
- WARNING - Incorrect description
- WARNING - Incorrect directory structure
- WARNING - Missing XSD Annotation
- WARNING - Presence of messages confirmation activities

**Parent topic:** Quality Assurance documentation

Figure176. **Quality Assurance HTML output**

### 2.8.2.1. Quality Assurance over Rules

Chapter describes contents of generated output within the Quality Assurance module from the point of view of rules. This menu item provides you a view of violations over concrete rules sorted by its severity alphabetically. Once you expand a rule menu item the list of objects violated this concrete rule appears. The big advantage of this view is that you can click on the hyperlinked paths of objects (violators) and you are able to move to the violator very simple and very quickly.


Expand all↓
Collapse all→
Find in menu
Introduction
↓ ESB documentation
→ ESB Overview
→ Project documentation
→ Cross-reference documentation
↓ Quality Assurance documentation
↓ Rules
↓ ERROR - Hardcoded activities timeout
AccountState
GrantingCredit
→ ERROR - Hardcoded connection param
→ ERROR - Incorrect transitions
→ WARNING - Incorrect description
→ WARNING - Incorrect directory struct
→ WARNING - Missing XSD Annotation
→ WARNING - Presence of messages con
→ Projects

Description of rule: Activity has hardcoded timeout property

Violation appeared in following files:

**JDBC activities**

- /ProcessDefinitions/CalculateBonita/CalculateBonita.process - activity UpdateDB
- /ProcessDefinitions/Examination/Examination.process - activity UpdateCustomerDB

**RequestReply activities**

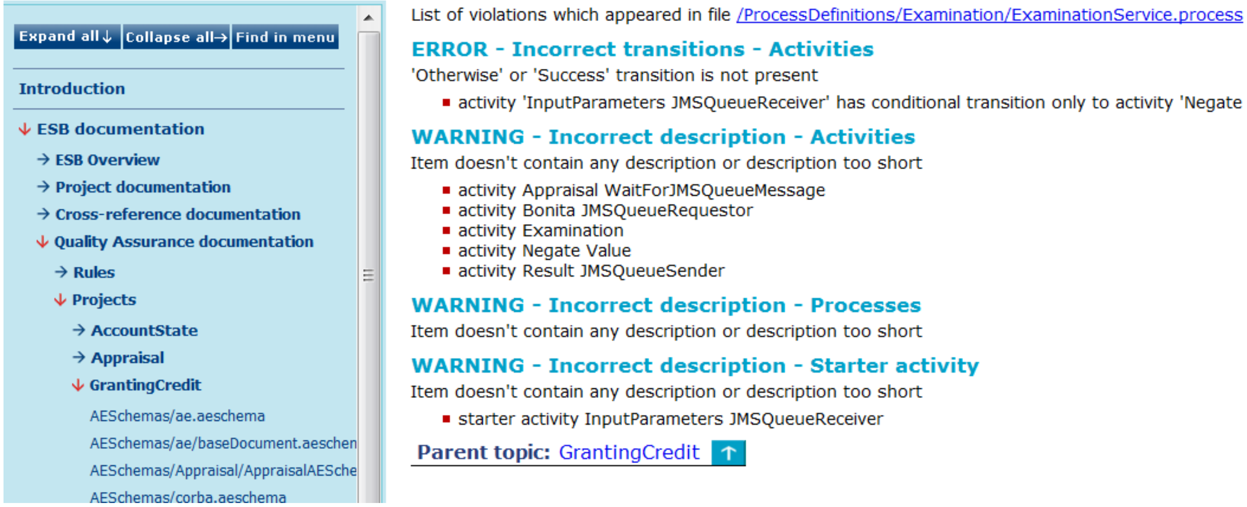
- /ProcessDefinitions/CalculateBonita/CalculateBonitaService.process - activity Obligators SOAPRequestReply
- /ProcessDefinitions/GrantingCredit.process - activity InputParameters SOAPRequestReply
- /ProcessDefinitions/Tests/LoadParameterServiceTest.process - activity SOAPRequestReply

**Parent topic:** ERROR - Hardcoded activities timeout

Figure177. **Quality Assurance over Rules**

### 2.8.2.2. Quality Assurance over Projects

Chapter describes contents of generated output within the Quality Assurance module from the point of view of projects. This menu item uncovers you a list of all projects where at least one rule was violated. Once you click on a concrete project's object displayed in this list you are able to see all rules violated on this item.



List of violations which appeared in file /ProcessDefinitions/Examination/ExaminationService.process

ERROR - Incorrect transitions - Activities

'Otherwise' or 'Success' transition is not present

- activity 'InputParameters JMSQueueReceiver' has conditional transition only to activity 'Negate

WARNING - Incorrect description - Activities

Item doesn't contain any description or description too short

- activity Appraisal WaitForJMSQueueMessage
- activity Bonita JMSQueueRequestor
- activity Examination
- activity Negate Value
- activity Result JMSQueueSender

WARNING - Incorrect description - Processes

Item doesn't contain any description or description too short

WARNING - Incorrect description - Starter activity

Item doesn't contain any description or description too short

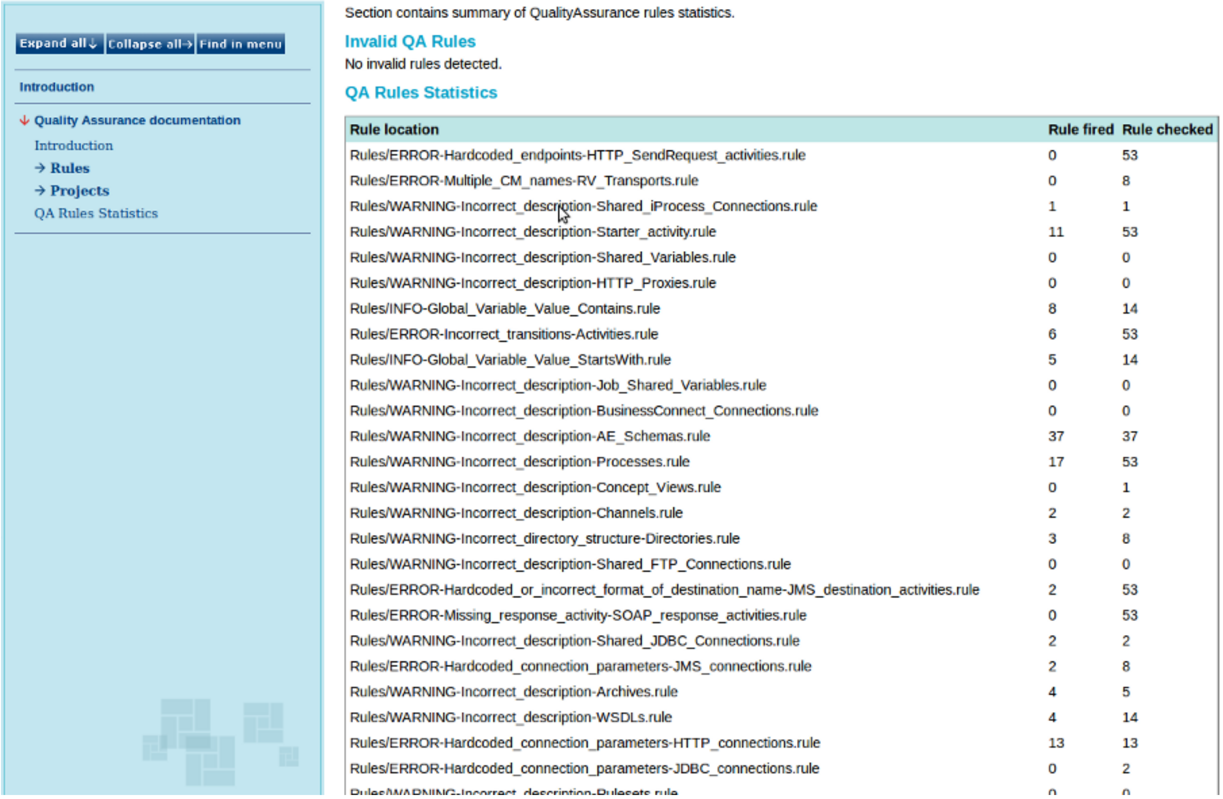
- starter activity InputParameters JMSQueueReceiver

Parent topic: GrantingCredit

Figure178. Quality Assurance over Projects

### 2.8.2.3. Quality Assurance Stattistics

Chapter describes contents of generated output within the Quality Assurance module from the point of view of rules. This menu item provides you a global summary of your QA Rules. How many times rule fired. How many objects was checked by rule. Also list of invalid QA rules.



Section contains summary of QualityAssurance rules statistics.

Invalid QA Rules

No invalid rules detected.

QA Rules Statistics

| Rule location | Rule fired | Rule checked |
|---|---|---|
| Rules/ERROR-Hardcoded_endpoints-HTTP_SendRequest_activities.rule | 0 | 53 |
| Rules/ERROR-Multiple_CM_names-RV_Transports.rule | 0 | 8 |
| Rules/WARNING-Incorrect_description-Shared_iProcess_Connections.rule | 1 | 1 |
| Rules/WARNING-Incorrect_description-Starter_activity.rule | 11 | 53 |
| Rules/WARNING-Incorrect_description-Shared_Variables.rule | 0 | 0 |
| Rules/WARNING-Incorrect_description-HTTP_Proxies.rule | 0 | 0 |
| Rules/INFO-Global_Variable_Value_Contains.rule | 8 | 14 |
| Rules/ERROR-Incorrect_transitions-Activities.rule | 6 | 53 |
| Rules/INFO-Global_Variable_Value_StartsWith.rule | 5 | 14 |
| Rules/WARNING-Incorrect_description-Job_Shared_Variables.rule | 0 | 0 |
| Rules/WARNING-Incorrect_description-BusinessConnect_Connections.rule | 0 | 0 |
| Rules/WARNING-Incorrect_description-AE_Schemas.rule | 37 | 37 |
| Rules/WARNING-Incorrect_description-Processes.rule | 17 | 53 |
| Rules/WARNING-Incorrect_description-Concept_Views.rule | 0 | 1 |
| Rules/WARNING-Incorrect_description-Channels.rule | 2 | 2 |
| Rules/WARNING-Incorrect_directory_structure-Directories.rule | 3 | 8 |
| Rules/WARNING-Incorrect_description-Shared_FTP_Connections.rule | 0 | 0 |
| Rules/ERROR-Hardcoded_or_incorrect_format_of_destination_name-JMS_destination_activities.rule | 2 | 53 |
| Rules/ERROR-Missing_response_activity-SOAP_response_activities.rule | 0 | 53 |
| Rules/WARNING-Incorrect_description-Shared_JDBC_Connections.rule | 2 | 2 |
| Rules/ERROR-Hardcoded_connection_parameters-JMS_connections.rule | 2 | 8 |
| Rules/WARNING-Incorrect_description-Archives.rule | 4 | 5 |
| Rules/WARNING-Incorrect_description-WSDLs.rule | 4 | 14 |
| Rules/ERROR-Hardcoded_connection_parameters-HTTP_connections.rule | 13 | 13 |
| Rules/ERROR-Hardcoded_connection_parameters-JDBC_connections.rule | 0 | 2 |
| Rules/WARNING-Incorrect_description-Rulesets.rule | 0 | 0 |

Figure179. Quality Assurance Stattistics

# 3. Troubleshooting

This chapter describes problems that might arise with MakeDoc release and it's solutions.

| Symptom | Solution |
|---|---|
| Generation process ends with an error *Too many open files* when generating under GNU/Linux. | There is limit under GNU/Linux systems for how many files can be opened by certain user simultaneously. It is set to 1024 by default. Increase this limit for user running MakeDoc to generate documentation successfully. This limit can be specified in /etc/security/limits.conf. Using * instead of username will affect all users on target machine. |
| Generation process ends with an error *java.lang.OutOfMemoryError: Java heap space* | Increase amount of memory available for MakeDoc by the help of *Window -> Preferences -> MakeDoc -> Base configuration* dialog. |