

Tuning the File Management System (FMS)

Briefly: This guide explains the steps you need to follow on macOS (arm64) to deploy Teamcenter Business Modeler.

Contents

Introduction.....	2
Prerequisites.....	3
Install Eclipse RCP	4
Post-installation Eclipse configuration	5
Installing the BMIDE plugins.....	6
Testing the configured BMIDE	7

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

Introduction

BMIDE is the tool for describing Teamcenter's data model. About 80 % of it is a set of plugins for Eclipse RCP Edition, and about 20 % are extra utilities and scripts.

In this guide we look at a case where a business analyst wants to use a Mac to set up the Teamcenter data model. Because Siemens Digital Industries Software does not support macOS, we will set up only the parts that belong to the Eclipse IDE and the BMIDE plugins. At the very least you will be able to define the data model and get it ready to send to the Teamcenter server. I have not covered full code-level configuration and similar tasks.

There are no guarantees that it will work correctly, and I offer no support or commitments. You do everything at your own risk.

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

Prerequisites

1. macOS version: 15.5
2. Installed Homebrew: `/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`
3. OpenJDK (Zulu) 21 LTS: `brew install --cask zulu@21`
4. Teamcenter Installation Kit: 13.x (Linux or Windows editions)
5. An installed BMIDE (same Teamcenter version 13.x) that will act as a component donor.
6. Eclipse RCP for arm64 platform: 2022-06

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

Install Eclipse RCP

1. Download **eclipse-rcp-2022-06-R-macosx-cocoa-aarch64.dmg** from
<https://www.eclipse.org/downloads/packages/release/2022-06/r>

<https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/2022-06/R/eclipse-rcp-2022-06-R-macosx-cocoa-aarch64.dmg>
2. **Mount** downloaded DMG and drag Eclipse.app to **/Applications**

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

Post-installation Eclipse configuration

1. Specifying the JDK to use:

Open `/Applications/Eclipse.app/Contents/Eclipse/eclipse.ini` and set the VM:

```
-vm
/Library/Java/JavaVirtualMachines/zulu-21.jdk/Contents/Home/bin/java
```

```
13 | --launcher.appendVmargs
14 | -vm
15 | /Library/Java/JavaVirtualMachines/zulu-21.jdk/Contents/Home/bin/java
16 | -vmargs
17 | -Dorg.eclipse.swt.internal.carbon.smallFonts
```

2. We'll trick the BMIDE plugins into thinking the OS is Linux, add this line at the very end:

```
-Dos.name=Linux
```

```
31 | -Xdock:icon=../Resources/Eclipse.icns
32 | -XstartOnFirstThread
33 | -Dorg.eclipse.swt.internal.carbon.smallFonts
34 | -Dos.name=Linux
```

3. Creating a script to start Eclipse correctly:

```
sudo tee /Applications/Eclipse.app/Contents/MacOS/launcher >/dev/null
<<'EOF'
#!/bin/zsh
export TC_ROOT="/Applications/Eclipse.app/Contents/Eclipse"
export TC_MSG_ROOT="$TC_ROOT/lang/textserver"
exec "$(dirname "$0")/eclipse" "$@"
EOF
```

4. Making the script executable:

```
chmod +x /Applications/Eclipse.app/Contents/MacOS/launcher
```

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

Installing the BMIDE plugins

Let's turn our Eclipse into BMIDE.

1. From the Teamcenter installation kit **copy** every **media_*.xml** file (for example **media_teamcenter_foundation.xml**, **media_teamcenter_activeworkspace.xml**) to:

/Applications/Eclipse.app/Contents/Eclipse

2. From your stand-alone BMIDE install **copy** these folders:

lang → **/Applications/Eclipse.app/Contents/Eclipse**

templates → **/Applications/Eclipse.app/Contents/Eclipse**

3. Create plug-in drop-in folders:

mkdir -p

/Applications/Eclipse.app/Contents/Eclipse/dropins/bmide/plugins

Copy all files from (BMIDE as a component donor) **.../bmide/client/plugins/** to that new plugins folder: **/Applications/Eclipse.app/Contents/Eclipse/dropins/bmide/plugins**

4. **Unzip** "Teamcenter Installation Kit"/additional_applications/bmide_plugins/bmide_plugins.zip, then **copy** everything from its **eclipse/plugins** directory over the same plugins folder:

/Applications/Eclipse.app/Contents/Eclipse/dropins/bmide/plugins
(overwrite all).

5. "A fucking important step (thanks to Alexander Nikitin for pointing out this detail)."

Delete every file or folder that starts with **org.eclipse*** in the plugins folder.

cd /Applications/Eclipse.app/Contents/Eclipse/dropins/bmide/plugins
rm -rf org.eclipse*

For reference, use the file **macOs_EclipseBMIDE_DropinsContent.txt**

Authorship: <https://www.linkedin.com/in/sedoykin>

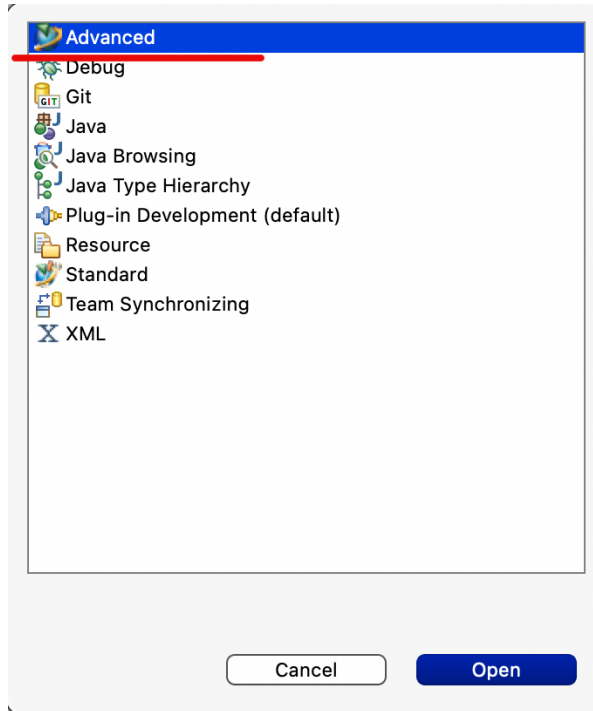
Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

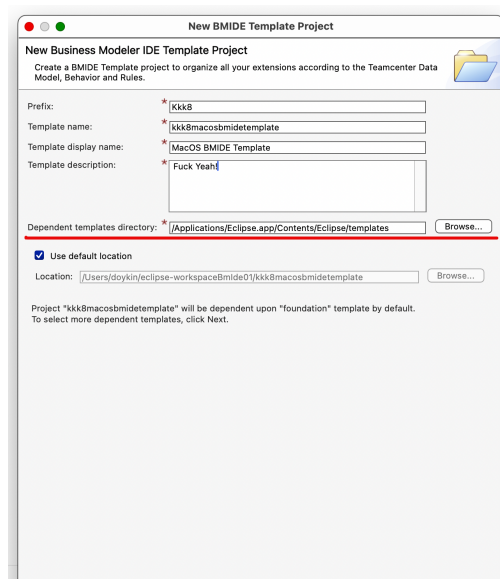
Testing the configured BMIDE

Let's create a simple data-model project and get it ready to install on the Teamcenter server.

1. Open the Advanced perspective – that is BMIDE:



2. When you create a new project, you must point to the folder that holds the basic data-model templates for the different Teamcenter modules:



Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

3. Ignore any initial error markers – they disappear once the template loads:

Errors (16 items)		
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/foundation_template.xml Line:169308 Column:12 The text "Fnd0AsmIndicatorConfigAndFixedAsm" cannot exceed "32" characters. (Template Name : "foundation")	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/foundation_template.xml Line:169315 Column:12 The text "Fnd0AsmIndicatorConfigAndGenericPart" cannot exceed "32" characters. (Template Name : "foundation")	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/foundation_template.xml Line:169322 Column:12 The text "Fnd0AsmIndicatorFixedAsmAndCmpPart" cannot exceed "32" characters. (Template Name : "foundation")	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/foundation_template.xml Line:27042 Column:12 The text "Fnd0CompleteReworkRevDecisionSetLOV" cannot exceed "32" characters. (Template Name : "foundation")	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14781 Column:200 Undefined LOV "Fnd0AsmIndicatorConfigAndFixedAsm" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorConfigAndFixedAsm	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14782 Column:246 Undefined LOV "Fnd0AsmIndicatorConfigAndFixedAsm" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorConfigAndFixedAsm	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14783 Column:206 Undefined LOV "Fnd0AsmIndicatorConfigAndGenericPart" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorConfigAndGenericPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14784 Column:353 Undefined LOV "Fnd0AsmIndicatorConfigAndGenericPart" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorConfigAndGenericPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14786 Column:224 Undefined LOV "Fnd0AsmIndicatorFixedAsmAndCmpPart" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorFixedAsmAndCmpPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14787 Column:247 Undefined LOV "Fnd0AsmIndicatorFixedAsmAndCmpPart" ("ListOfValues") in LOVValueDescription(:)Fnd0AsmIndicatorFixedAsmAndCmpPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14790 Column:145 Undefined LOV "Fnd0AsmIndicatorConfigAndFixedAsm" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorConfigAndFixedAsm	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14791 Column:131 Undefined LOV "Fnd0AsmIndicatorConfigAndFixedAsm" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorConfigAndFixedAsm	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14792 Column:151 Undefined LOV "Fnd0AsmIndicatorConfigAndGenericPart" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorConfigAndGenericPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14793 Column:133 Undefined LOV "Fnd0AsmIndicatorConfigAndGenericPart" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorConfigAndGenericPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14795 Column:122 Undefined LOV "Fnd0AsmIndicatorFixedAsmAndCmpPart" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorFixedAsmAndCmpPart	kkk8macosbmid	
Model Error: /Applications/Eclipse.app/Contents/Eclipse/templates/lang/foundation_template_en_US.xml Line:14796 Column:132 Undefined LOV "Fnd0AsmIndicatorFixedAsmAndCmpPart" ("ListOfValues") in LOVValue(:)Fnd0AsmIndicatorFixedAsmAndCmpPart	kkk8macosbmid	

4. Create a new Item type:

New Business Object

Business Object

Create a new Business Object

Project:

kkk8macosbmidtemplate

Name:

* Kkk8ProxyPart

Display Name:

* Proxy Part

Parent:

* Itm A PY

Browse...

Teamcenter Component:

kkk8macosbmidtemplate

Browse...

Description:

☒ Create Primary Business Object

☒ Is Abstract?

☒ Allow creating instances of Secondary Business Objects

Properties:

Property Name	Storage Type	Reference Class
kkk8material	String[128]	
kkk8weight	Double	

Add...

Edit...

Remove...

?

< Back

Next >

Cancel

Finish







- GraphicOption
- ✓ Kkk8ProxyPart
- Kkk8Part
- > MEContext
- > MEOP

Authorship: <https://www.linkedin.com/in/sedoykin>

Disclaimer:

No guarantees or responsibilities are provided. You perform all actions at your own risk!

5. Compile your data model the same way you did on Windows or Linux:

	[..]			<DIR>	03/07/25 15:15:00
	client_kkk8macosbmidetemplate	prop..	196		03/07/25 15:15:00
	kkk8macosbmidetemplate_icons	zip	257		03/07/25 15:15:00
	kkk8macosbmidetemplate_install	zip	3.4 K		03/07/25 15:15:00
	kkk8macosbmidetemplate_project_tc13000.3.0	zip	12.6 K		03/07/25 15:15:00
	kkk8macosbmidetemplate_template	zip	3.1 K		03/07/25 15:15:00

Enjoy it.