



TEMENOS™

TAFJ-Eclipse

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Amendment History:

| Revision | Date Amended | Name | Description |
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| 2 | 7 th February 2012 | H. Aubert | R12GA review |
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| 4 | 15 January 2013 | JN Charpin | R13 review |
| 5 | 14 February 2014 | JN Charpin | R14GA review |
| 6 | 15th April 2014 | H. Aubert | R14GA review |
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Errata and Comments

If you have any comments regarding this manual or wish to report any errors in the documentation, please document them and send them to the address below:
Technology Department

Temenos Headquarters SA
2 Rue de l'Ecole-de-Chimie,
CH - 1205 Geneva,
Switzerland

Tel SB: +41 (0) 22 708 1150
Fax: +41 (0) 22 708 1160

Please include your name, company, address, and telephone and fax numbers, and email address if applicable. TAFJdev@temenos.com

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Mode

SUBROUTINE Hostname: localhost Port: 8080

Request

```
EXCHRATE<FM>10<IM>1<IM>CHF<IM>500<IM>GBP<IM><IM><IM><IM><IM><IM>
```

History

```
EXCHRATE<FM>10<IM>1<IM>CHF<IM>500<IM>GBP<IM><IM><IM><IM><IM><IM>
```

Result

| | |
|-------------|--|
| 1 | |
| CHF | |
| 500.00 | |
| GBP | |
| 336.35 | |
| GBP | |
| 1.486555946 | |
| 0.00 | |
| 565.43 | |
|Y | |

Dependency 79

| | |
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Setup

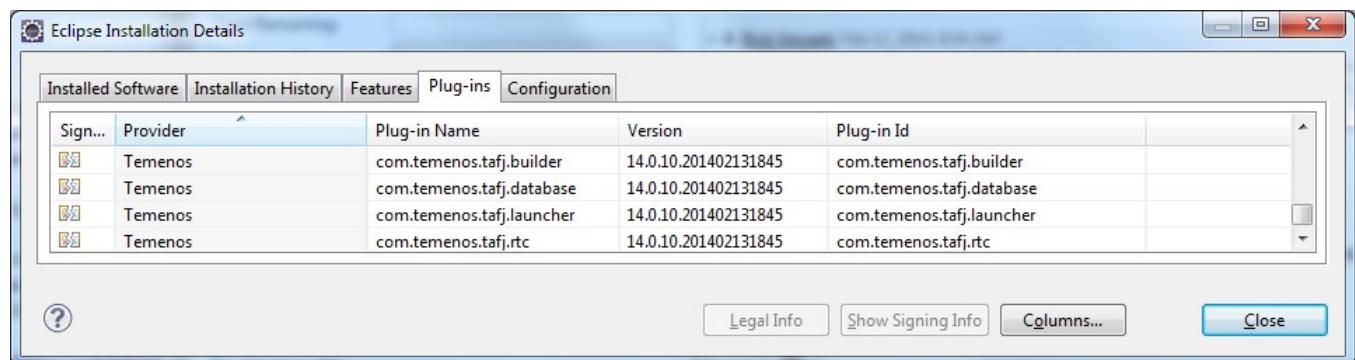
Pre requisites:

Before installing eclipse plugins your system must be configured with JDK1.6 or above.

To use the plug-in TAFJ builder, launcher and database in the Eclipse Environment, different deployment strategy could be used:

- We recommend using the **eclipse “link”** functionality. By adding a file **tafj.link** into **<ECLIPSE_HOME>/dropins/** directory you could link the content of **<TAFJ_HOME>/eclipse** to eclipse. This way when updating TAFJ, your eclipse configuration will be up to date.
 - i.e. with a relative path to your TAFJ_HOME : path=../../../../TAFJ
 - i.e. with the full path to your TAFJ_HOME : path=C:/product/TAFJ_Rxx
- You could as well copy directly the content of **<TAFJ_HOME>/eclipse** and past it inside the **<ECLIPSE_HOME>/dropins/** directory. This would be harder to maintain as you will have to update eclipse on each new TAFJ deployment.

To check if the TAFJ plugins are available in Eclipse click on the menu **HELP->About Eclipse Platform->Plug-in Details**.



You should see the 4 plug-ins for TAFJ: TAFJ Builder, TAFJ Database, TAFJ Launcher, and TAFJ RTC Tools.

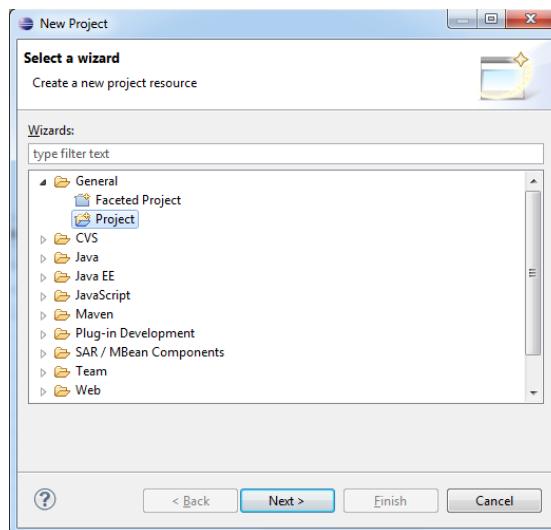


Create a TAFJ Project

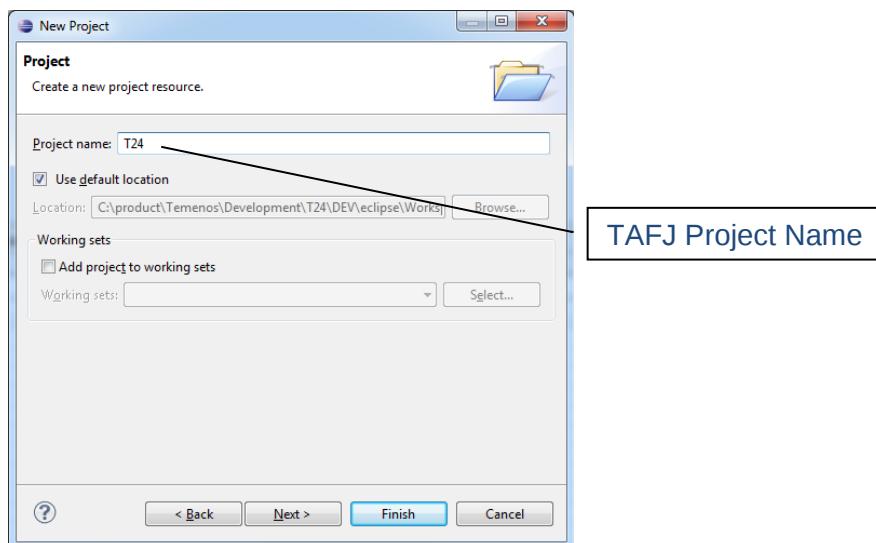
A TAFJ Project is based on an eclipse Project. To create a TAFJ Project, you need to create a General eclipse project and promote it to a TAFJ Project (which is a specialized Java project).

The steps below outline how to create a project using many of the default settings to make it easy to get started.

- From the main workbench window, click **File > New > Project**. The New Project wizard opens. Select **General > Project**.

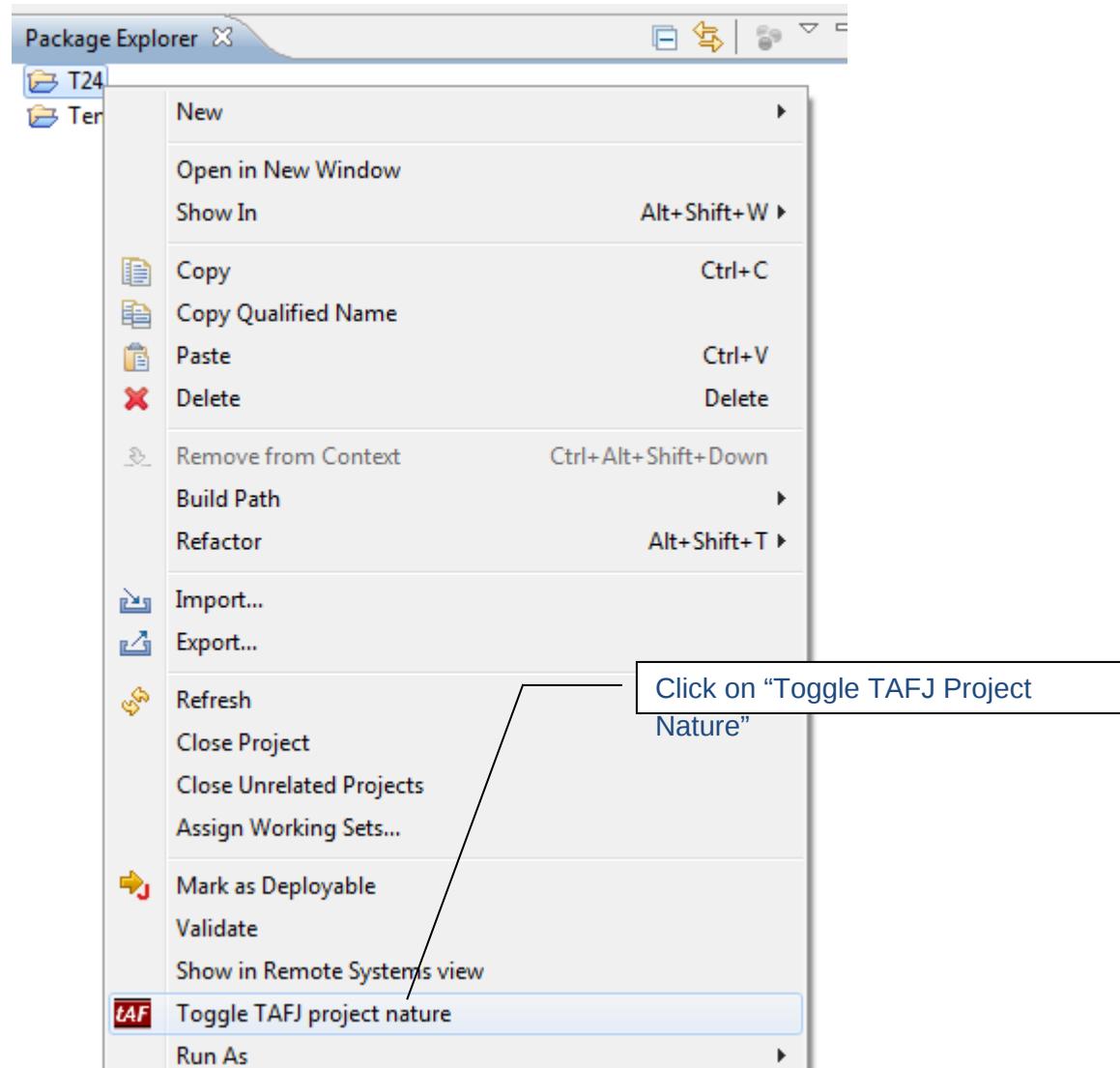


- In the Project name field, type a name for your new project, like T24.



- Click the Next button, then Finish.

Now you have a project in eclipse. To promote to a TAFJ Project, select your project and right click on it, and select “**Toggle TAFJ project Nature**”.





The TAFJ Project wizard opens.

The TAFJ Project will create or use an existing property file in your conf directory in the **<TAFJ_HOME>**.

The property file name created by the project is **<Project_Name>.properties**.

The Group “To do” give you the choice about the property file.

- Use existing properties**

A property file with the name of the project already exists. If you select this option the setting of the project will use the setting of the property file.

- New project TAFJ**

Even a file already exists or not you will create a new property file based on the file **.property** in the **<TAFJ_HOME>/conf**.

- Import from a TAFJ Property file**

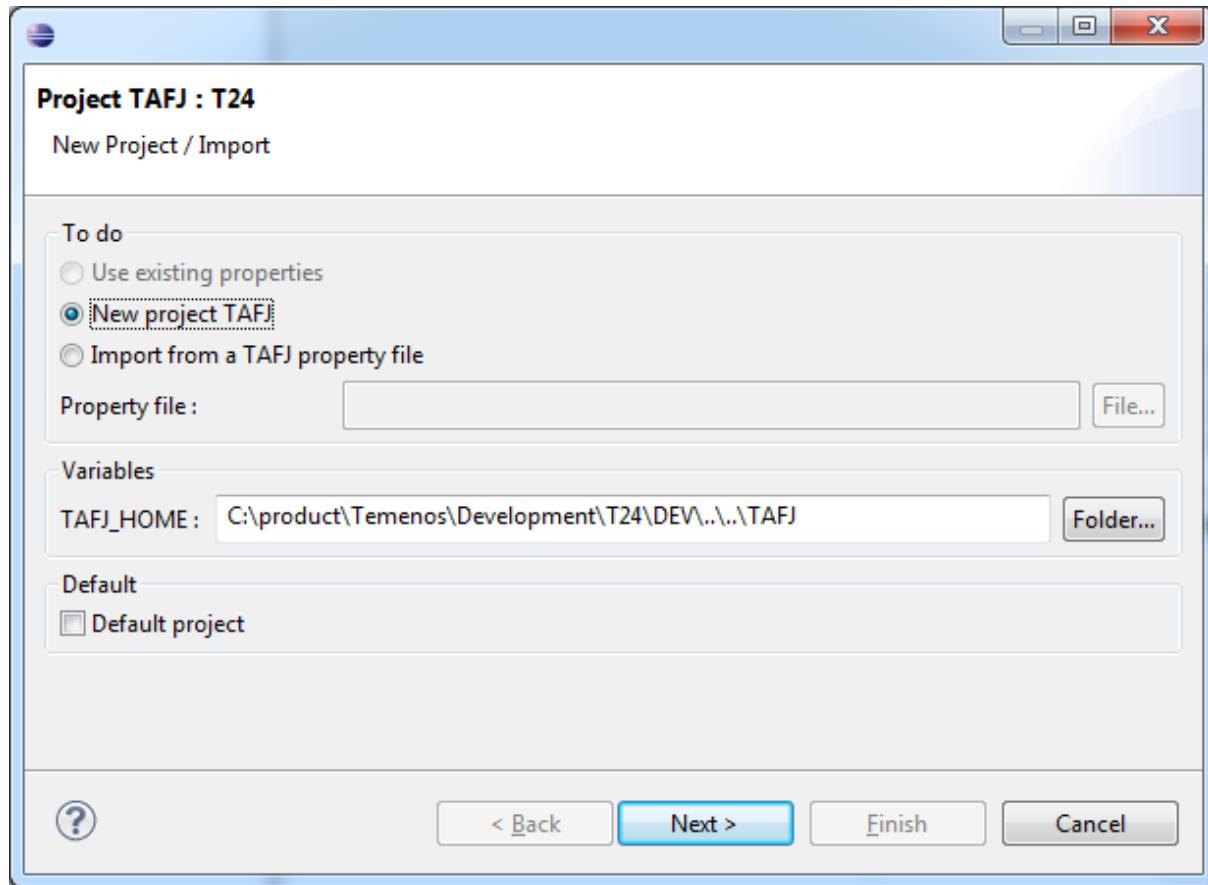
You can import settings from another property files. You have to specify the property file.

The Group “Variables”.

Before doing anything you have to set to the project the **<TAFJ_HOME>** variable. Each project can have a different **<TAFJ_HOME>**. All settings related to the project are set to **<TAFJ_HOME>**.

The group “Default”.

If you check the box “Default project”, the project will be the default one. The file **.default** will contain this project. Refer to tCompile documentation.



Click Next.

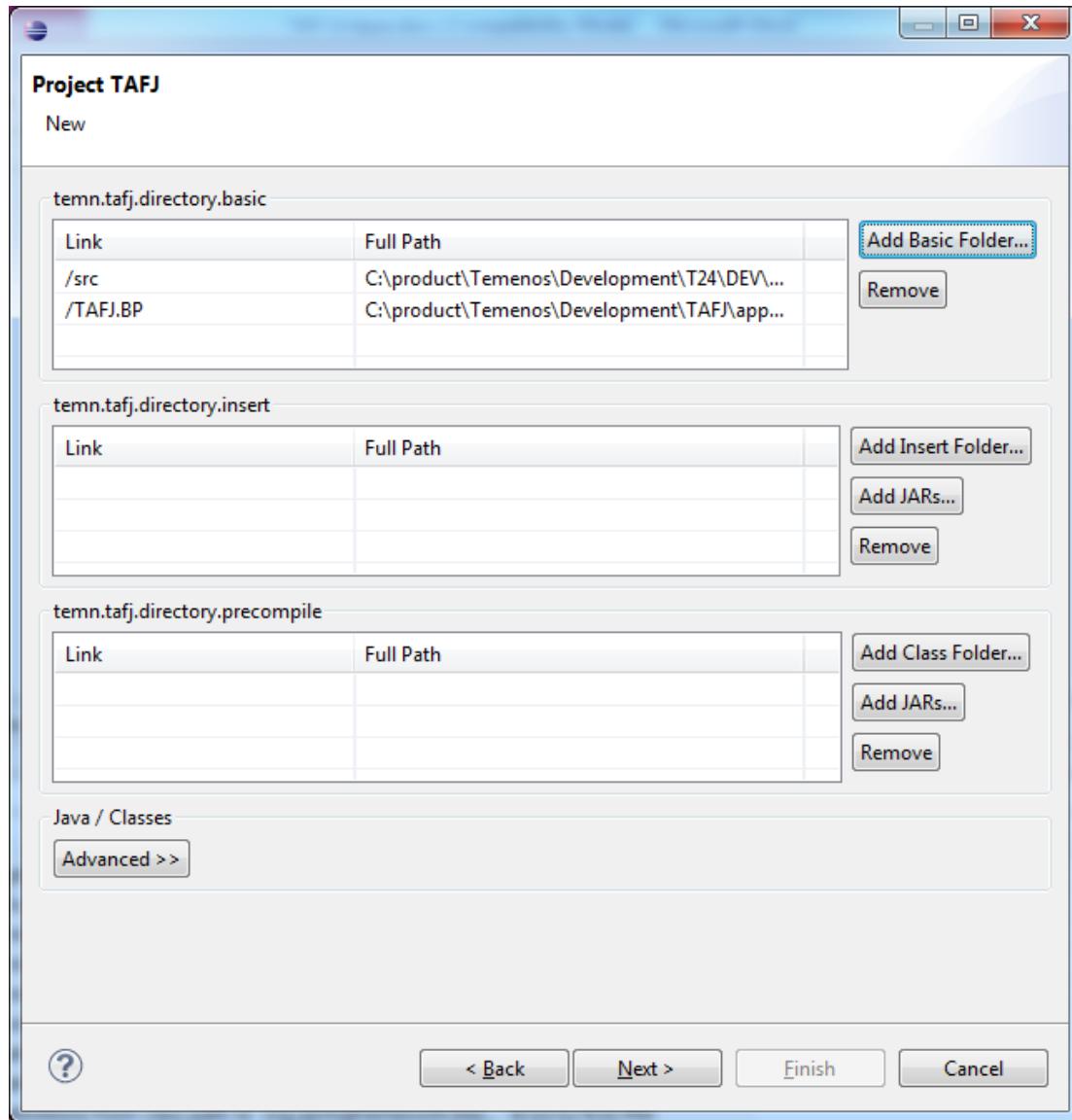
This window is about folders.

A path could be inside the project location or outside. If the path is inside a name link will automatically be added.

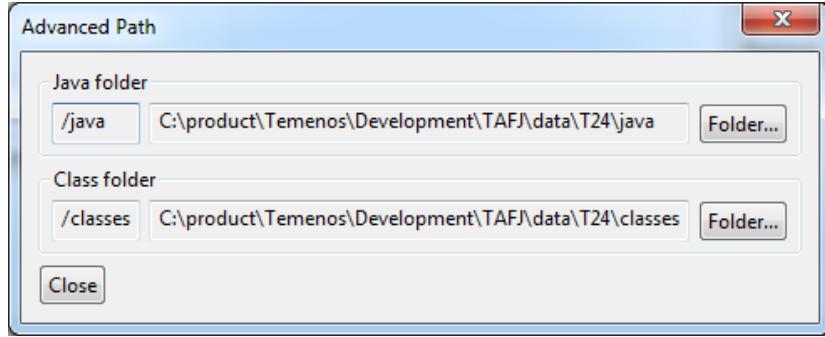
You cannot change the name of a link (refer to eclipse documentation about link resource).



Select the Add or Remove Folder to add the folder you want to use in the different section:



You can specify the java and the class directory with the button “Advanced”.



The java folder and class folder are automatically set and created inside the
<TAFJ_HOME>/data/<PROJECTNAME>/

Please note you shouldn't set the "classes" folder of the TAFJ project with the output folder of the java project. In that case the compilation process will not delete the generated java files and the compilation time will increase accordingly to the number of java files.

Click Next or Finish.

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This window is about database.

At the end fill this last form about database settings (refer to the database documentation).

Depending on your database provider you will have to fill up your database connection parameters.

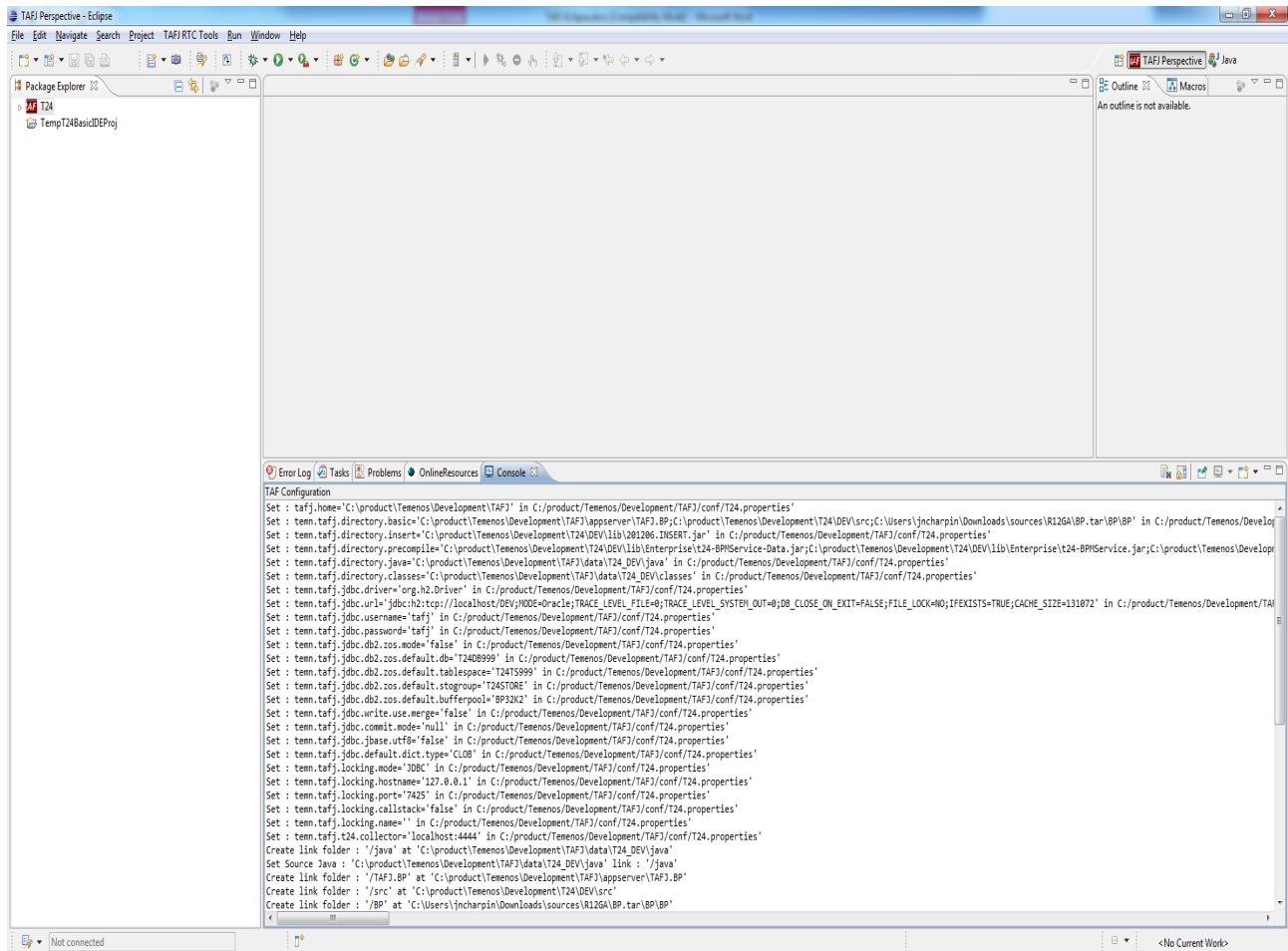
The screenshot shows the 'Properties for T24_DEV' dialog box in Eclipse. The left sidebar lists various project properties under categories like Resource Builders, Java Build Path, etc. The 'Database' tab is selected in the main panel. The configuration fields include:

- Database setup:**
 - temn.tafj.jdbc.driver: org.h2.Driver
 - temn.tafj.jdbc.url: IP: localhost Port: (empty)
 - temn.tafj.jdbc.db2.zos.mode
 - Use Integrated Security? (Only some dbs)
- Database instance:** DEV/MODE=Oracle;TRACE_LEVEL_FILE=0;TRACE_LEVEL_SYSTEM_OUT=0;DB_CLOSE_ON_EXIT=FALSE;FILE_LOCK=NO;IFEXISTS=TRUE;CACHE_SIZE=131072
- Current schema:** (empty)
- temn.tafj.jdbc.username:** tafj
- temn.tafj.jdbc.password:** ****
- DB2 zOS Options:**
 - temn.tafj.jdbc.db2.zos.default.db: T24DB999
 - temn.tafj.jdbc.db2.zos.default.tablespace: T24TS999
 - temn.tafj.jdbc.db2.zos.default.stogroup: T24STORE
 - temn.tafj.jdbc.db2.zos.default.bufferpool: BP32K2
- Options:**
 - temn.tafj.jdbc.write.use.merge
 - temn.tafj.jdbc.commit.mode: null
 - temn.tafj.jdbc.jbase.utf8
- Dict Table Types:** CLOB
- T24 Collector:** temn.tafj.t24.collector: localhost:4444
- Locking setup:**
 - temn.tafj.locking.mode: JDBC
 - temn.tafj.locking.callstack
 - temn.tafj.locking.name: (empty)
 - temn.tafj.locking.hostname: IP: 127.0.0.1 Port: 7425

Buttons at the bottom include OK, Cancel, Apply, and Restore Defaults.

Click "finish"

Automatically you will work in a TAFJ Perspective.

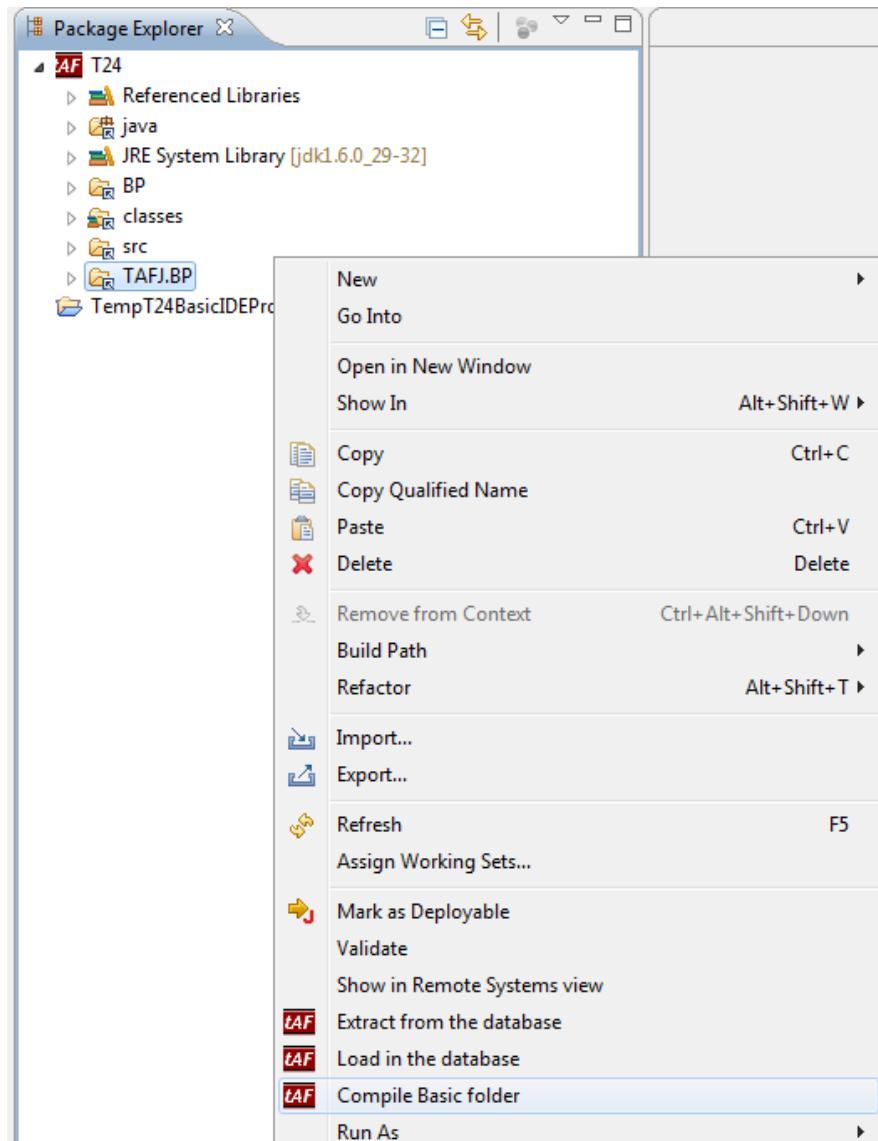


How the plug-in Works

Even if you are in mode Automatic Build, The plug-in TAFJ Builder will never automatically make a full build. The only way to make a full build (compiling all Basic Files in your directories) is to click on “Build TAFJ Basic Project”.

| |
|---|
|  Dependency View |
|  JQL - SQL - OFS |
|  Lock Management View |
|  Jed Wizard |
|  Create Jar Descriptor |
|  Build TAFJ Basic project |
|  Toggle TAFJ project nature |

To build a Basic Folder, expand your project, right click on it and select “**Compile Basic Folder**”

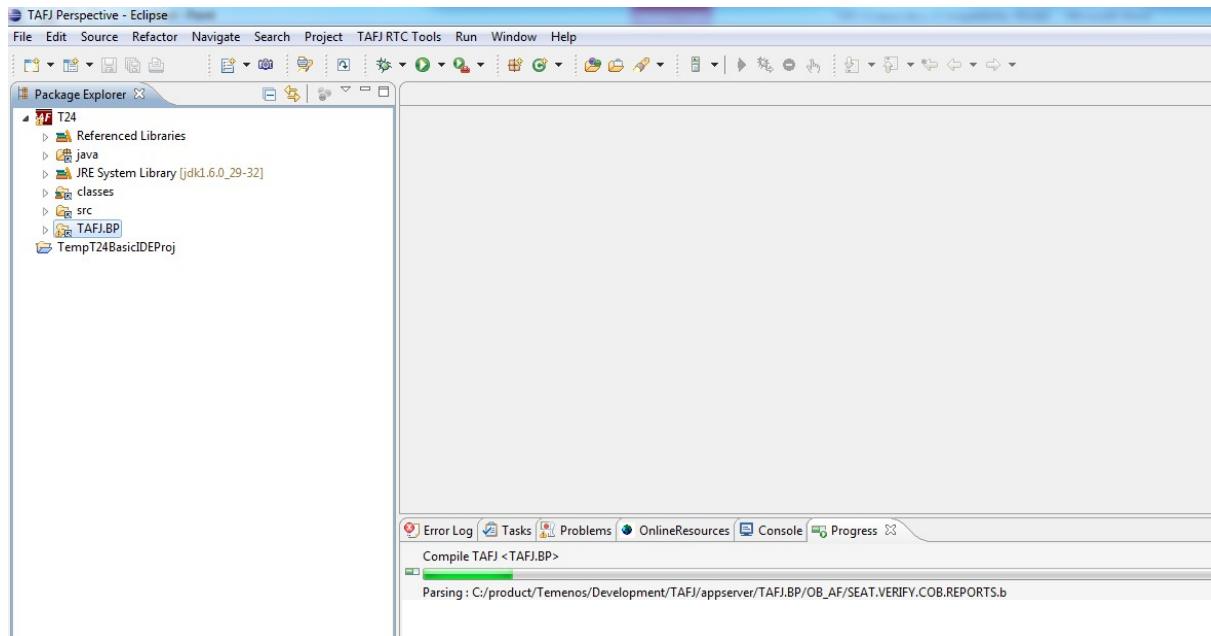


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The process will start....



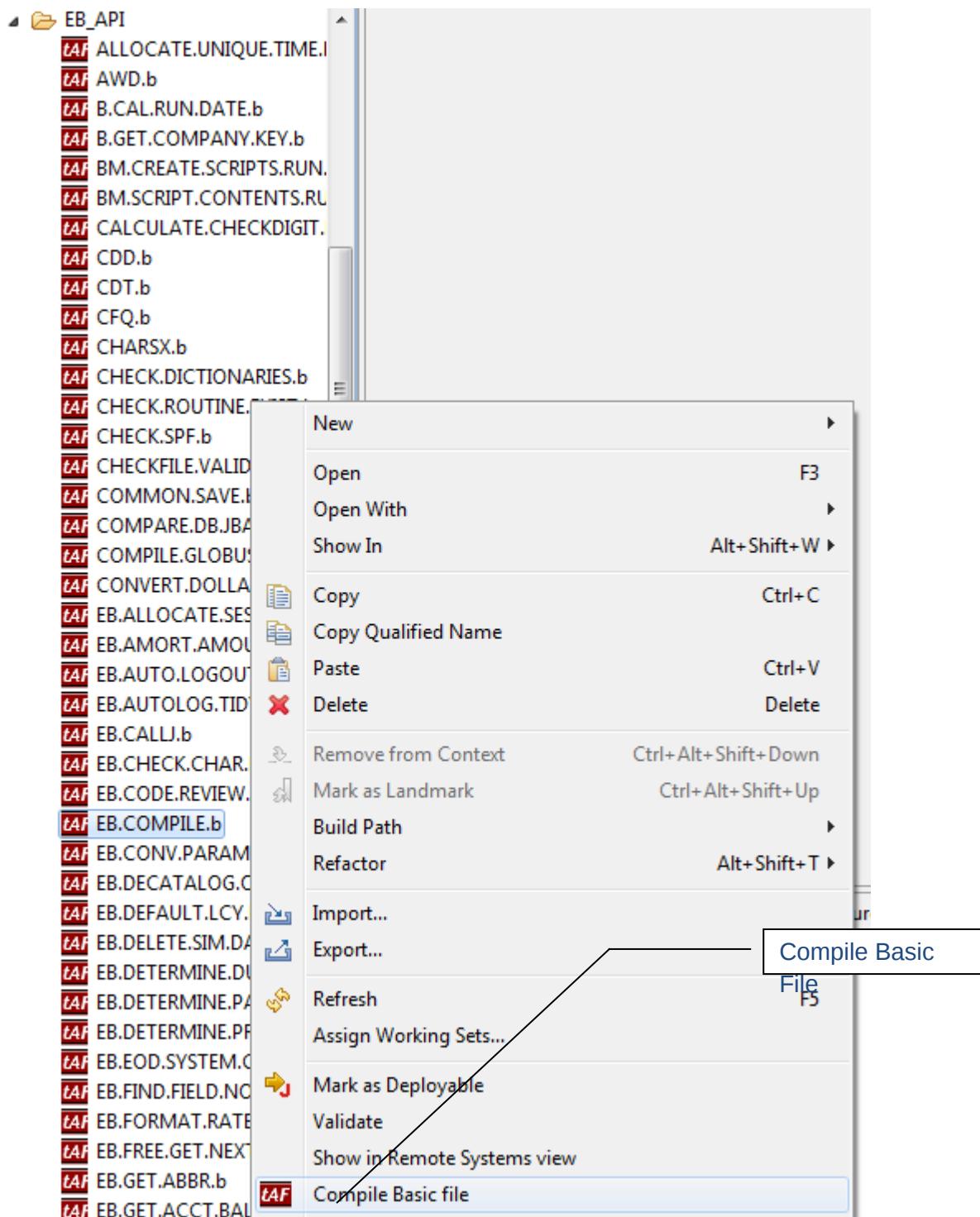
Your entire basic folder will be built. It could take more than one hour for whole T24 (20'000 files).

At the End of the process a small report in the console will be print. All details about the compilation are in the tab "problem"

```
[04:49:15 22 AUG 2012] Files requested      : 22
[04:49:15 22 AUG 2012] Files canceled        : 1
[04:49:15 22 AUG 2012] Files BASIC           : 21
[04:49:15 22 AUG 2012] Files compiled         : 0
[04:49:15 22 AUG 2012] Files with error       : 0
-----
[04:49:15 22 AUG 2012] BASIC Called Files missing : 0
[04:49:15 22 AUG 2012] INSERT Files missing     : 0
-----
[04:49:15 22 AUG 2012] Resume Compilation ... [ OK ]
-----
[04:49:15 22 AUG 2012] Builder Time      : 0 [h] 0 [min] 1 [sec] 201 [ms]
[04:49:15 22 AUG 2012] Compiler Time     : 0 [h] 0 [min] 0 [sec] 374 [ms]
[04:49:15 22 AUG 2012] Mover Time        : 0 [h] 0 [min] 0 [sec] 125 [ms]
[04:49:15 22 AUG 2012] Total Time        : 0 [h] 0 [min] 1 [sec] 700 [ms]
```

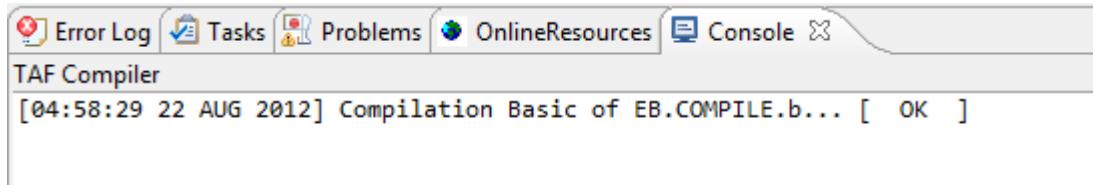


To build a Basic File, expand your project, right click on it and select “**Compile Basic File**”

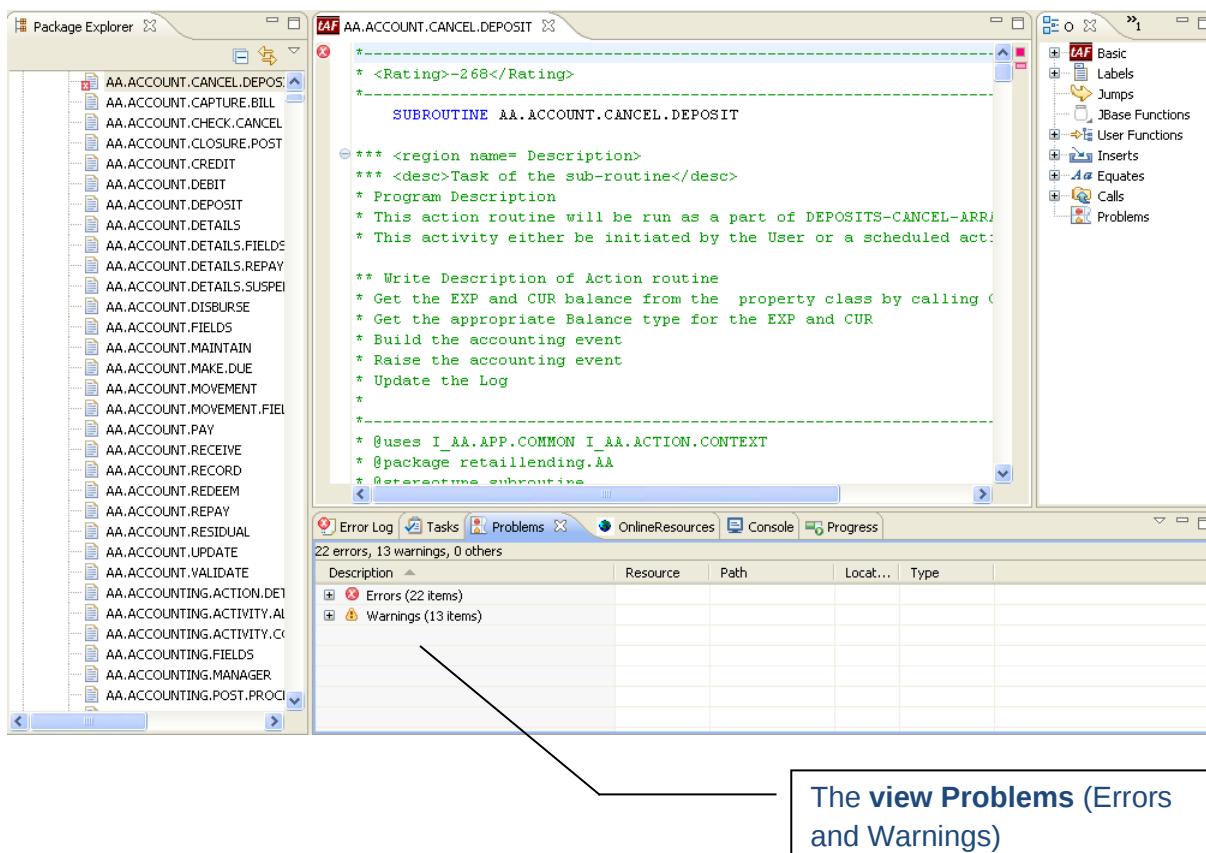




At the End of the process a small report in the console will be print.



If an Error appends, in the view Problems, all errors will be reported. Double click on one, Eclipse will automatically show in the editor the Basic File with the error.

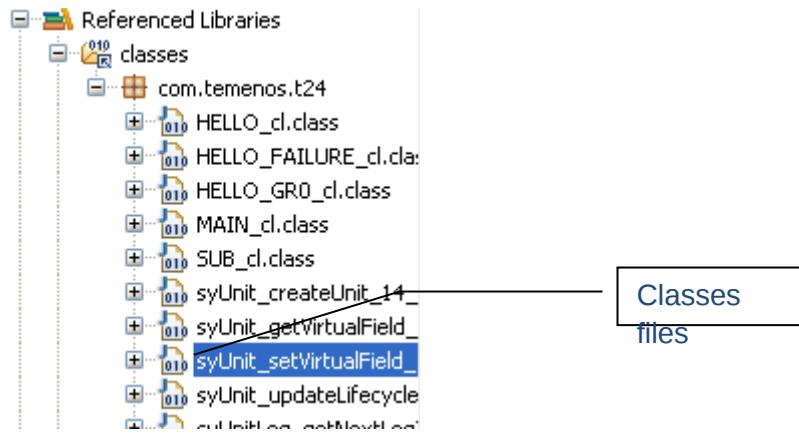


The view Problems (Errors and Warnings)



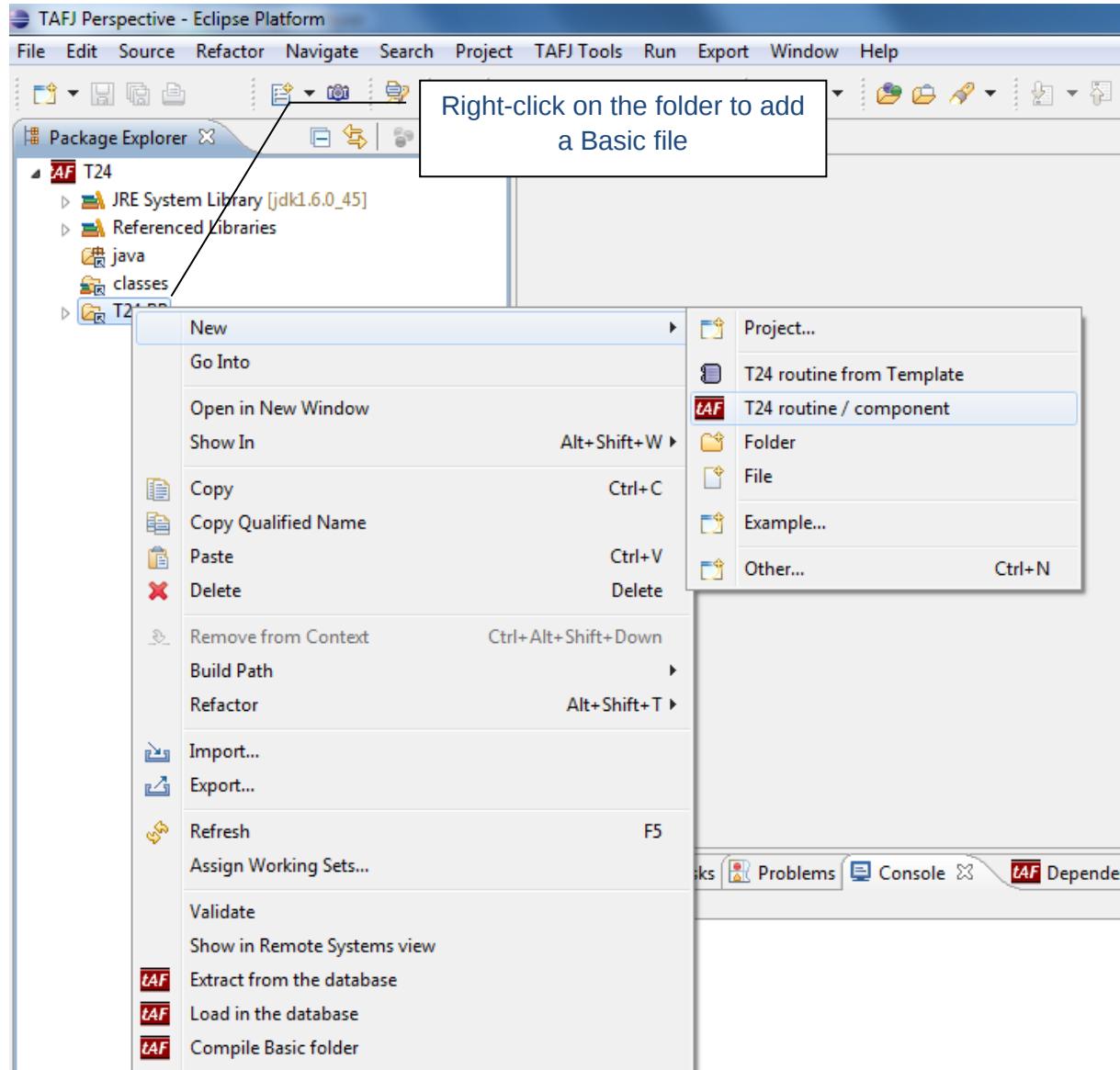
After a compilation, the java files are automatically deleted and the class files are in the "classes " directory.

In eclipse you can see all classes under Referenced Libraries.



Add a Basic File to the project

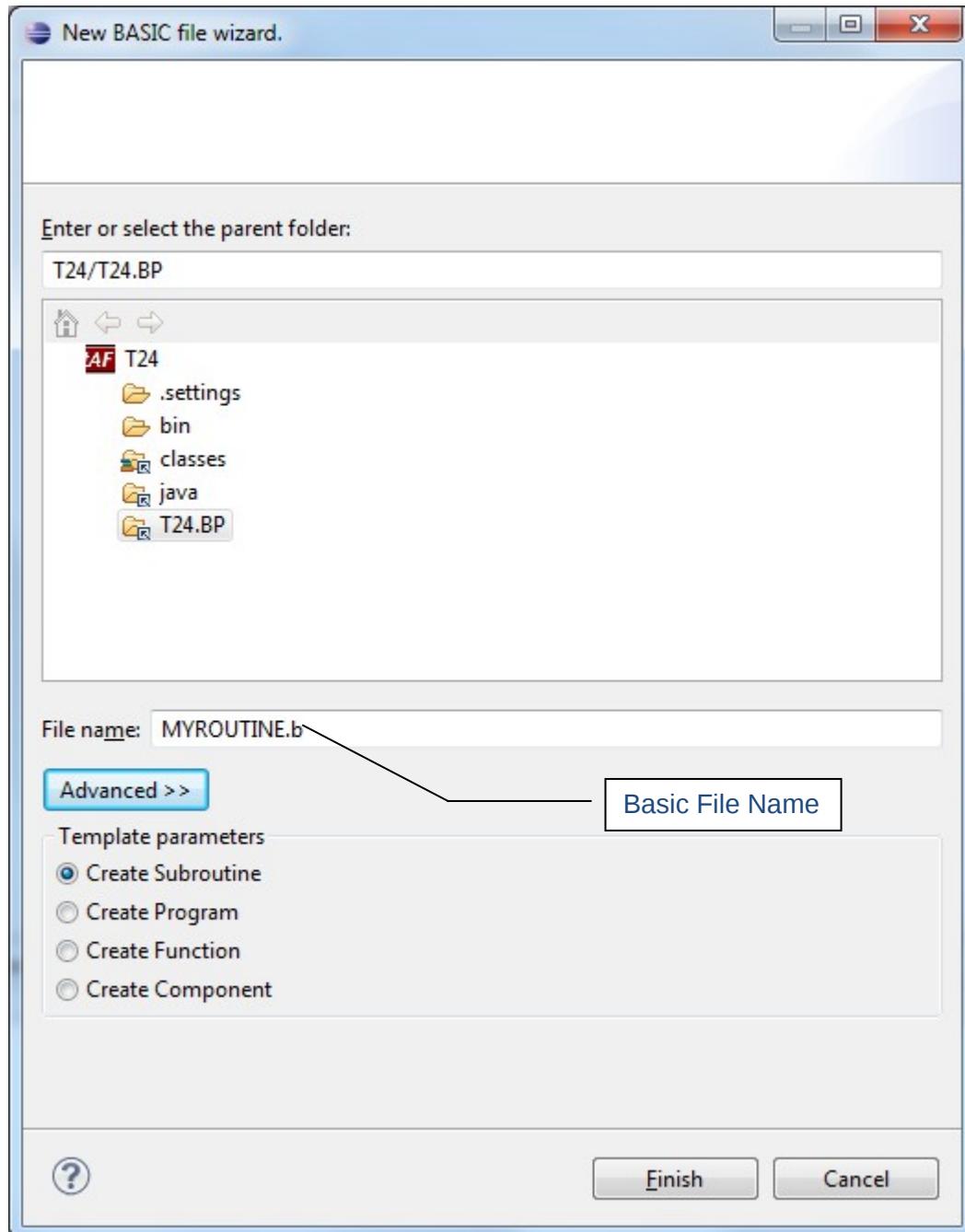
To add a Basic file to the project you have to right-click on the folder where you want to add the file and choose New -> T24 routine /component



By default it will create a Subroutine but you could select another kind of template by selecting another template option.



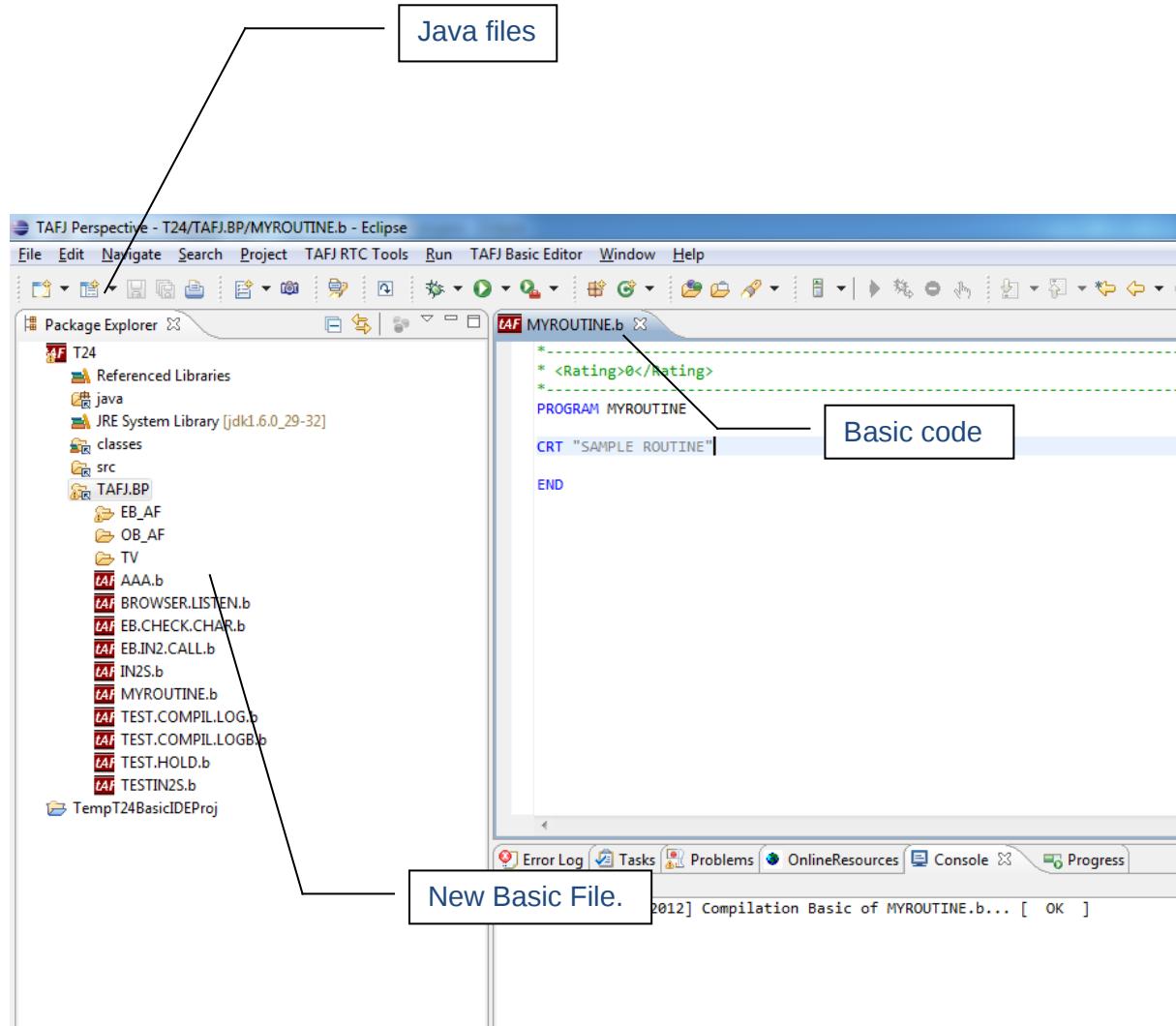
Name the new Basic File and click finish.





Editing a program

In your new MYROUTINE.b file write a basic code and save it. (Ctrl-S)



Automatically the compiler will compile it. You cannot see in the java folder the java files of the new basic.

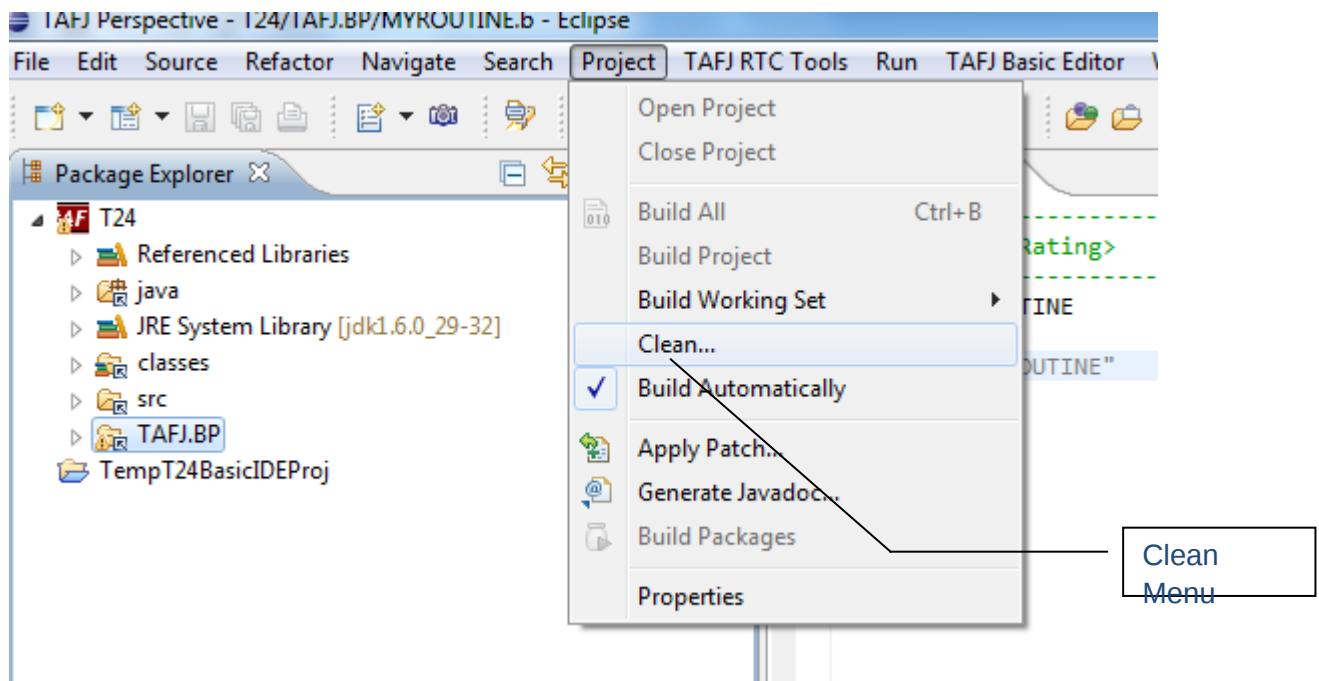


Clean projects

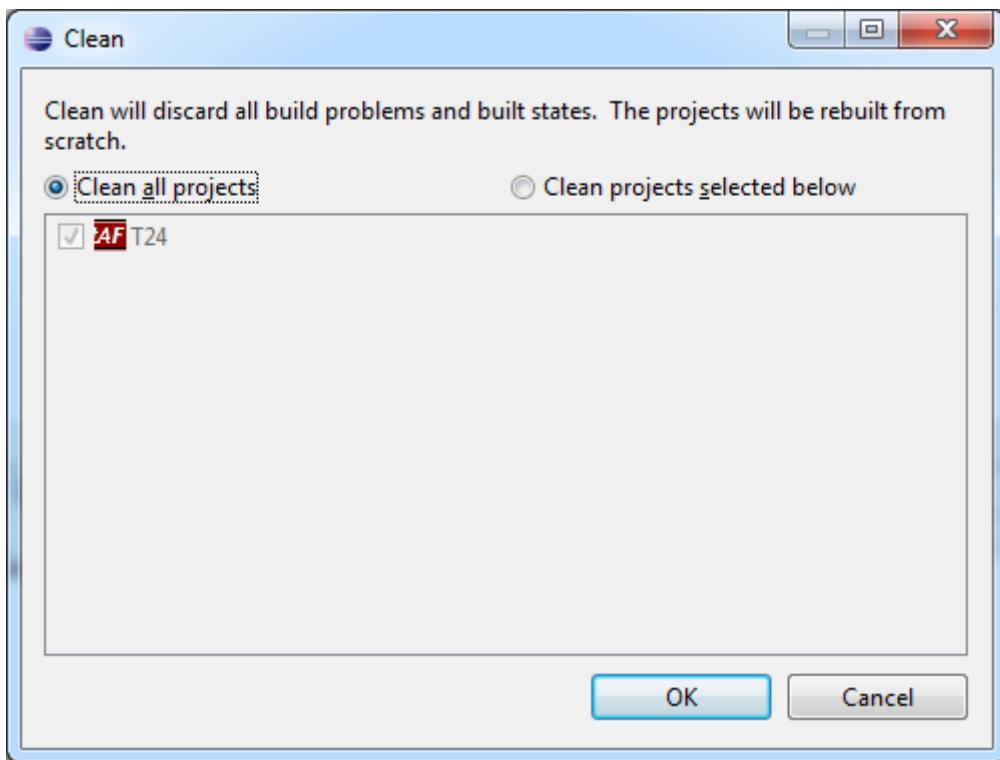
Clean a project, will:

- 1) Delete all java files
- 2) Ask if you want to delete all classes files

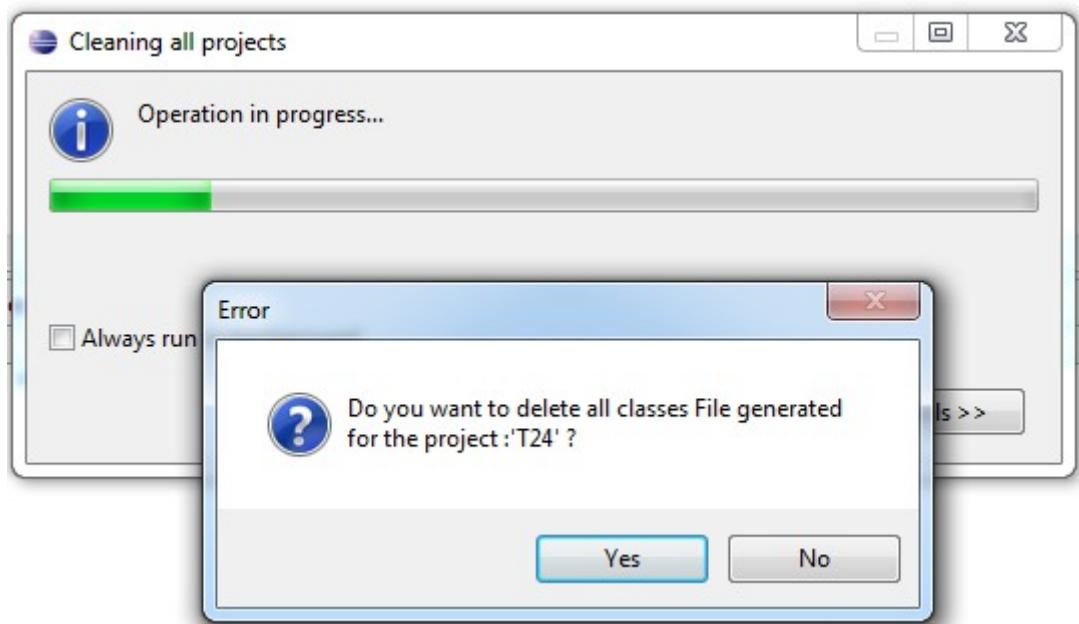
To Clean all project or one specific project, from the main workbench window, click Project > Clean



Choose if you want to clean all project or select the project(s) you want to clean.



Choose if you want to delete classes

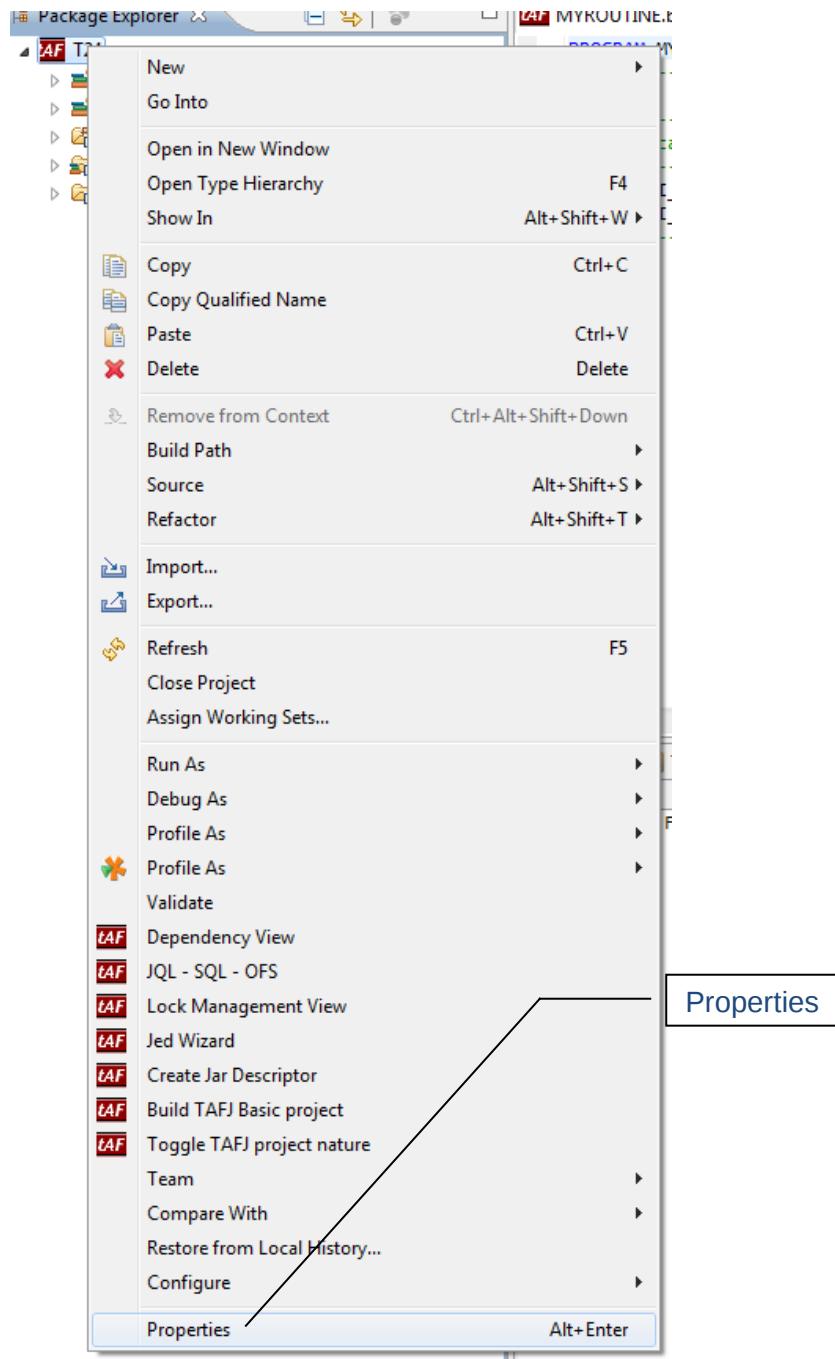




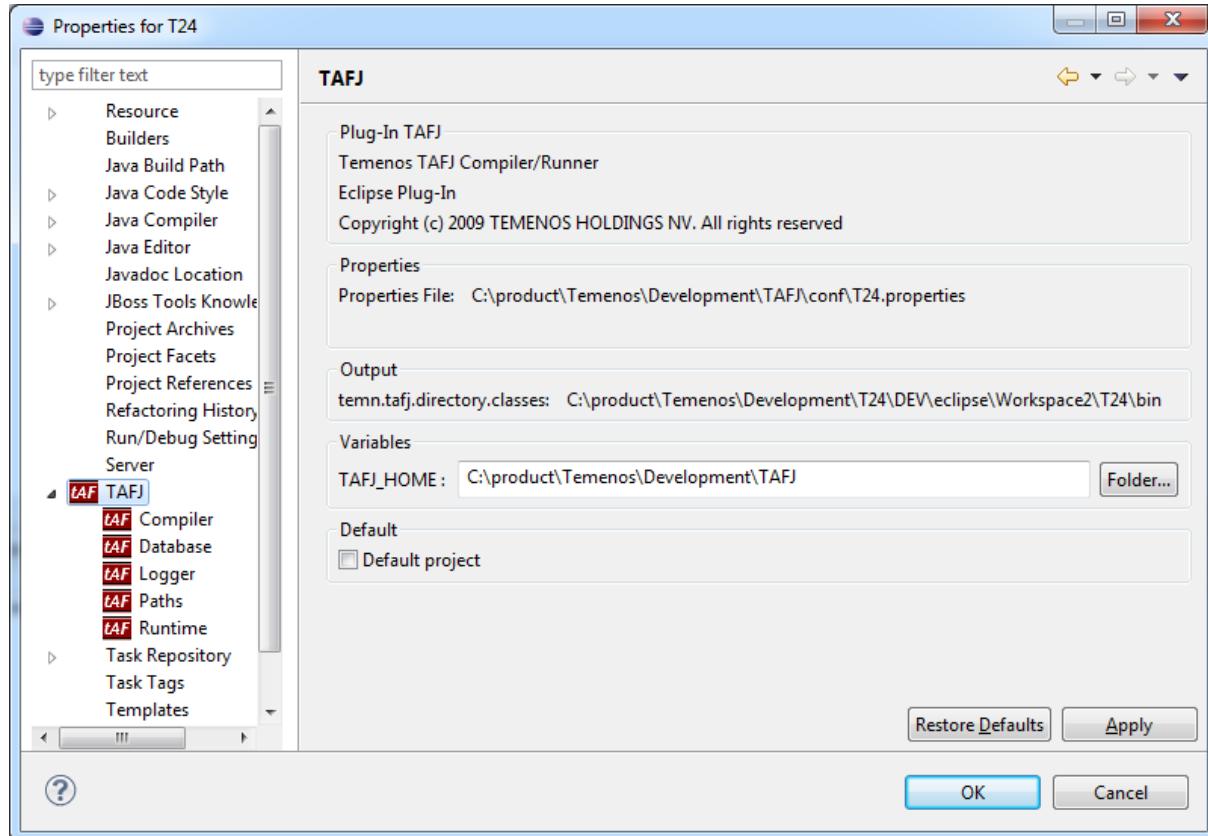
Project properties

At any time you can check and change the properties of a Basic TAFJ Project.

Right-click on the project -> Properties.



In Tree click on the type "TAFJ".



In the main Section TAFJ you can change the TAFJ_HOME and toggle the default project.

Changing the TAFJ_HOME requires a new Full Compilation.

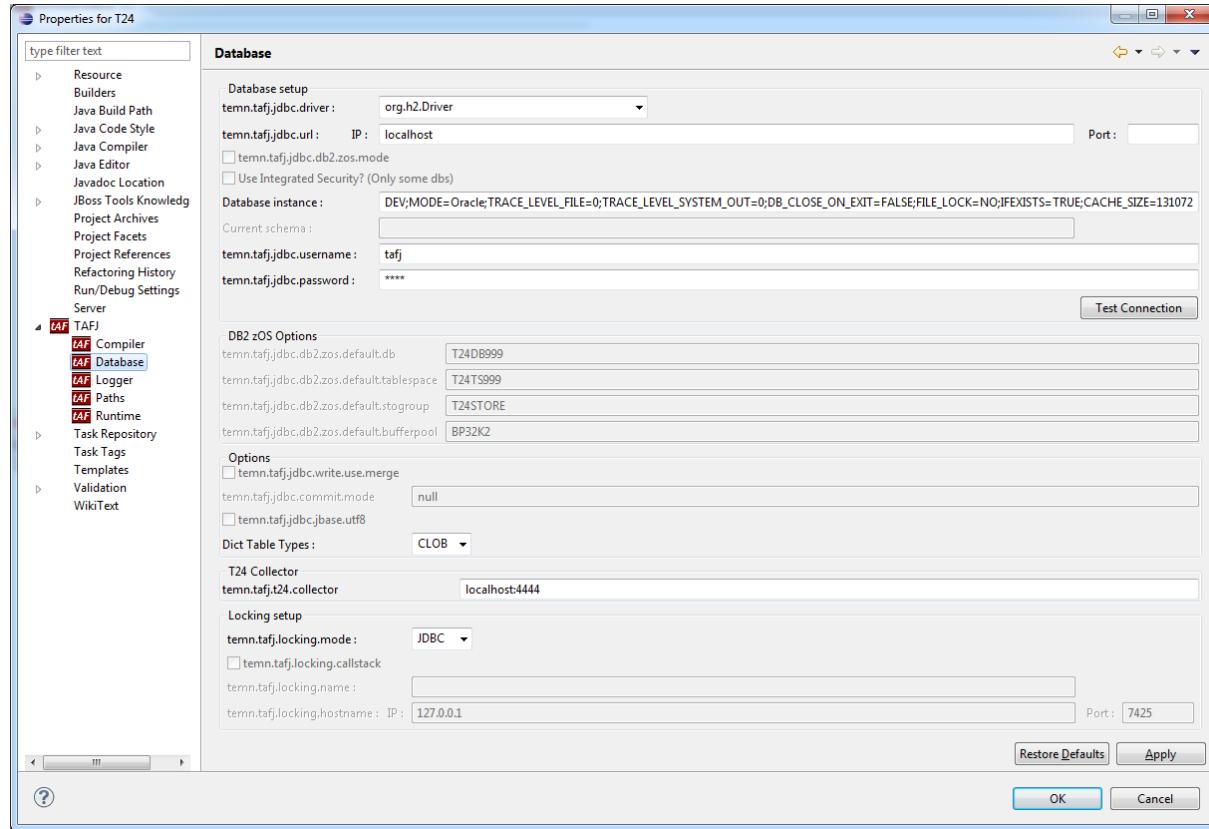
The windows show useful information. The properties file used by the current project, and the classes directory.

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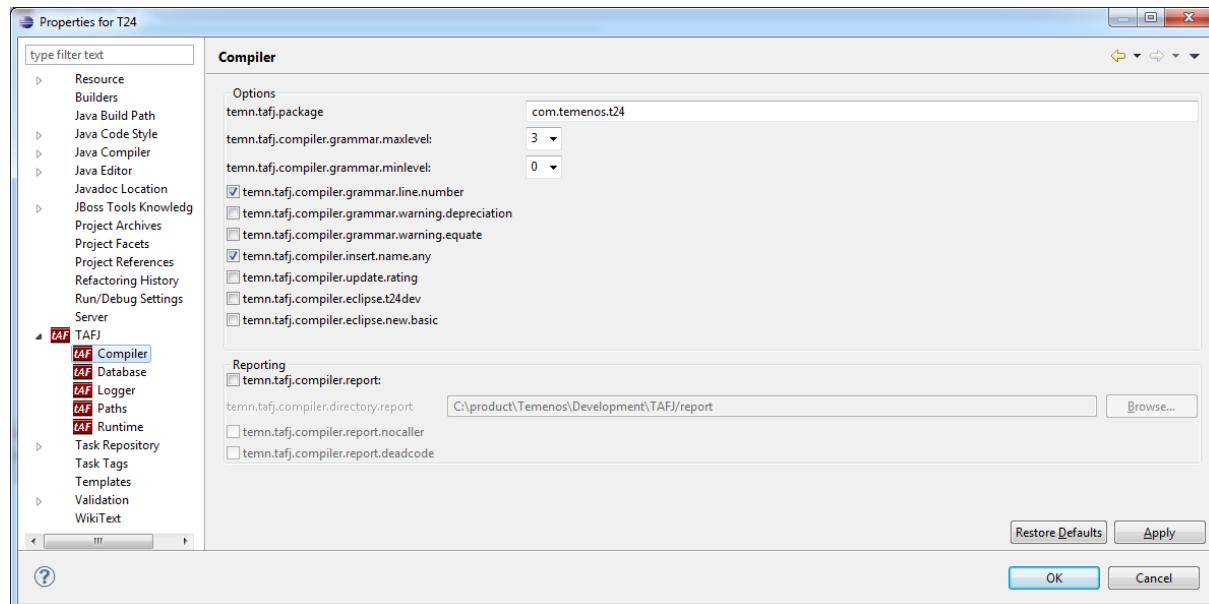


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In the main Section TAFJ Database, you can configure your database connection.



In the main Section TAFJ Compiler, you can configure some compiler options.



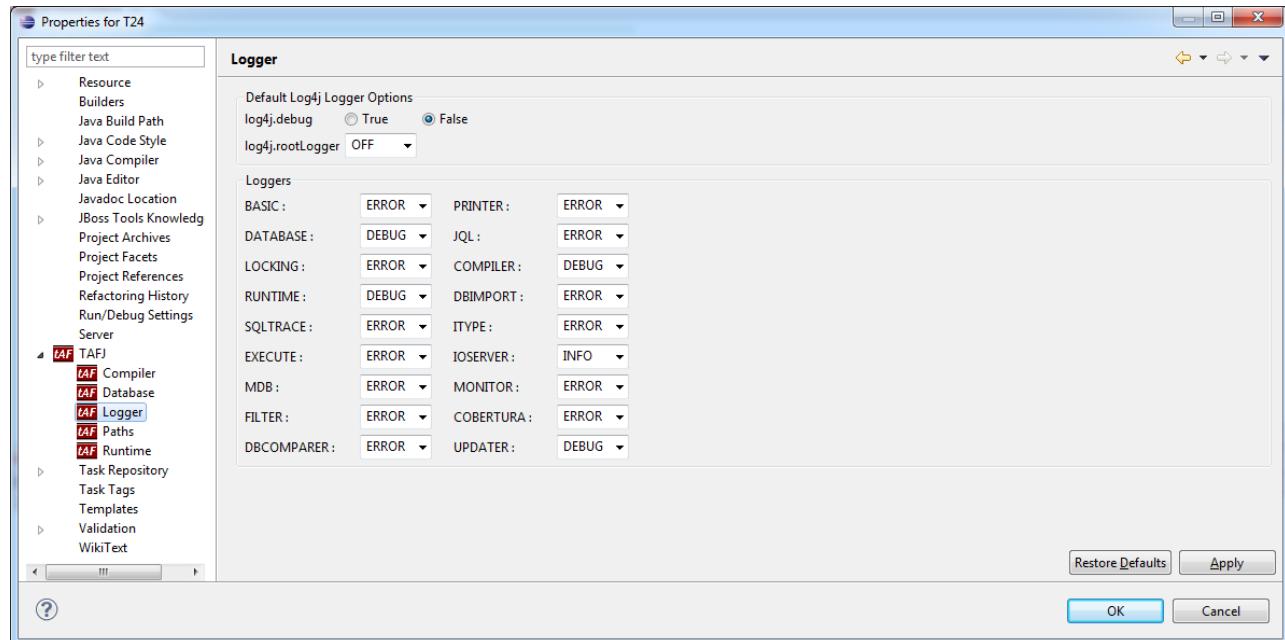
In the main Section TAFJ Logger, you can change the log level for some Loggers.

TAFJ-Eclipse

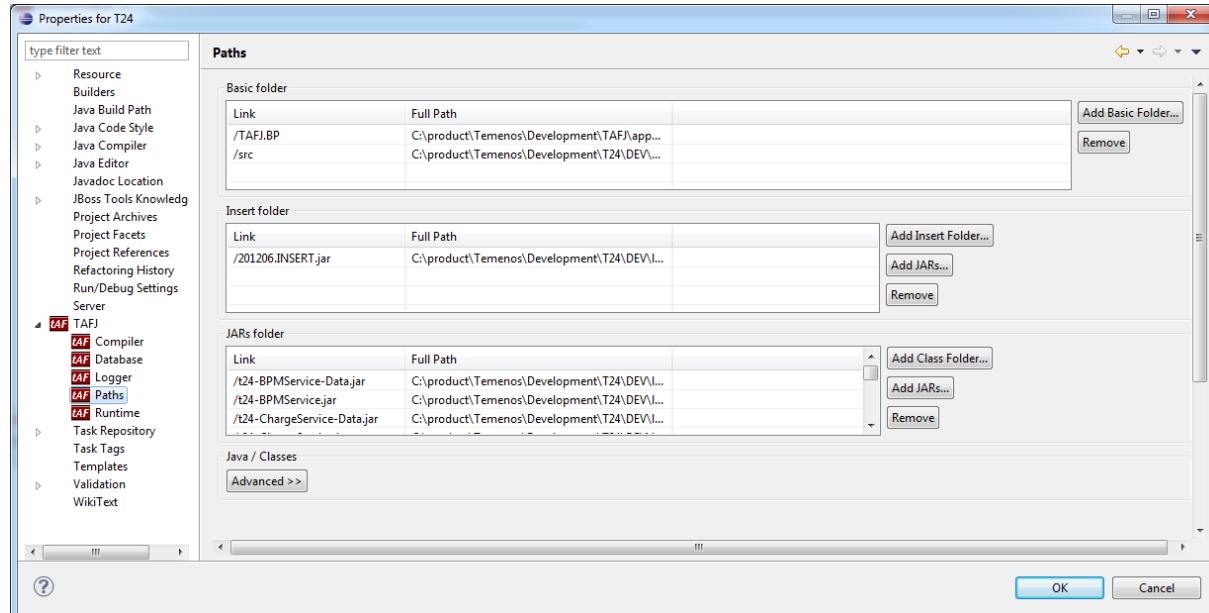


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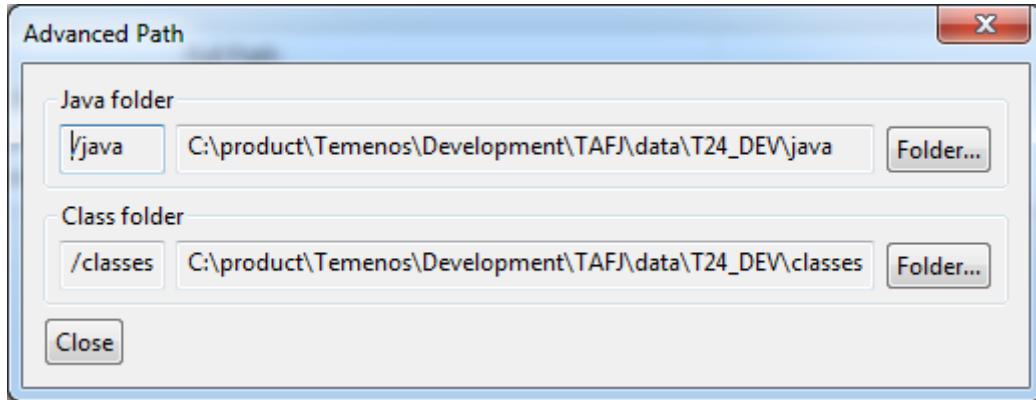
Log Levels -> DEBUG, INFO, ERROR, ALL, FATAL, WARN, OFF.



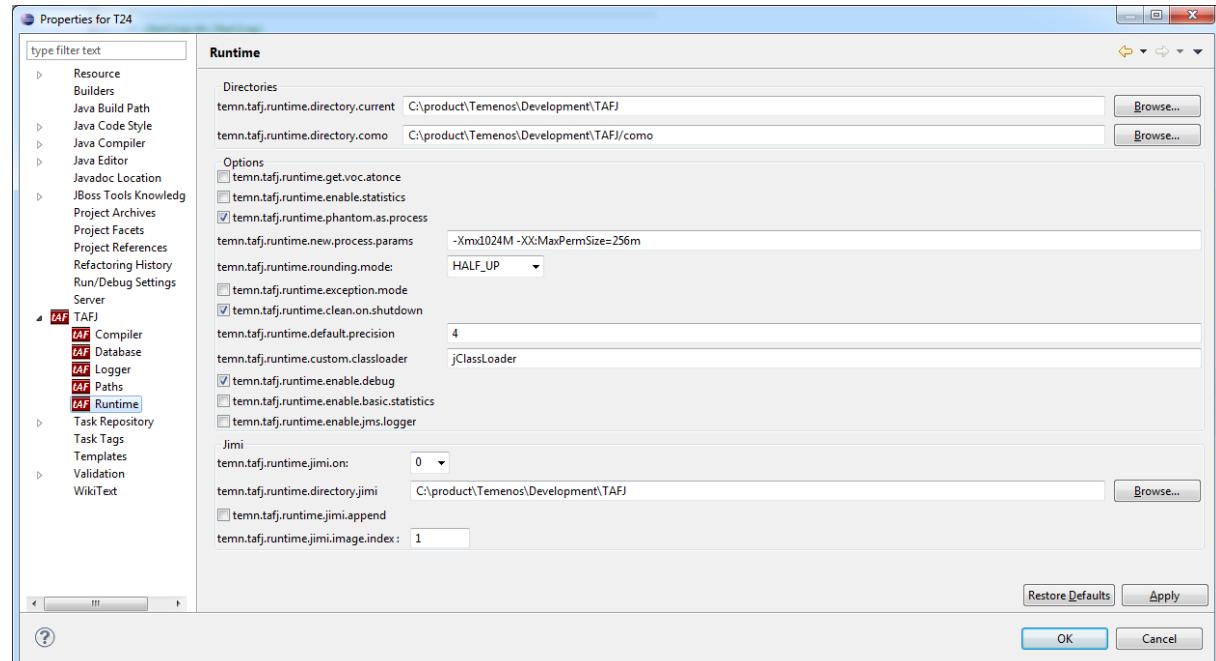
In the main Section TAFJ Paths, you can change the paths used by the compiler.



If you want to change "java" and "classes" paths, you have to click on the bottom "Advanced >>"

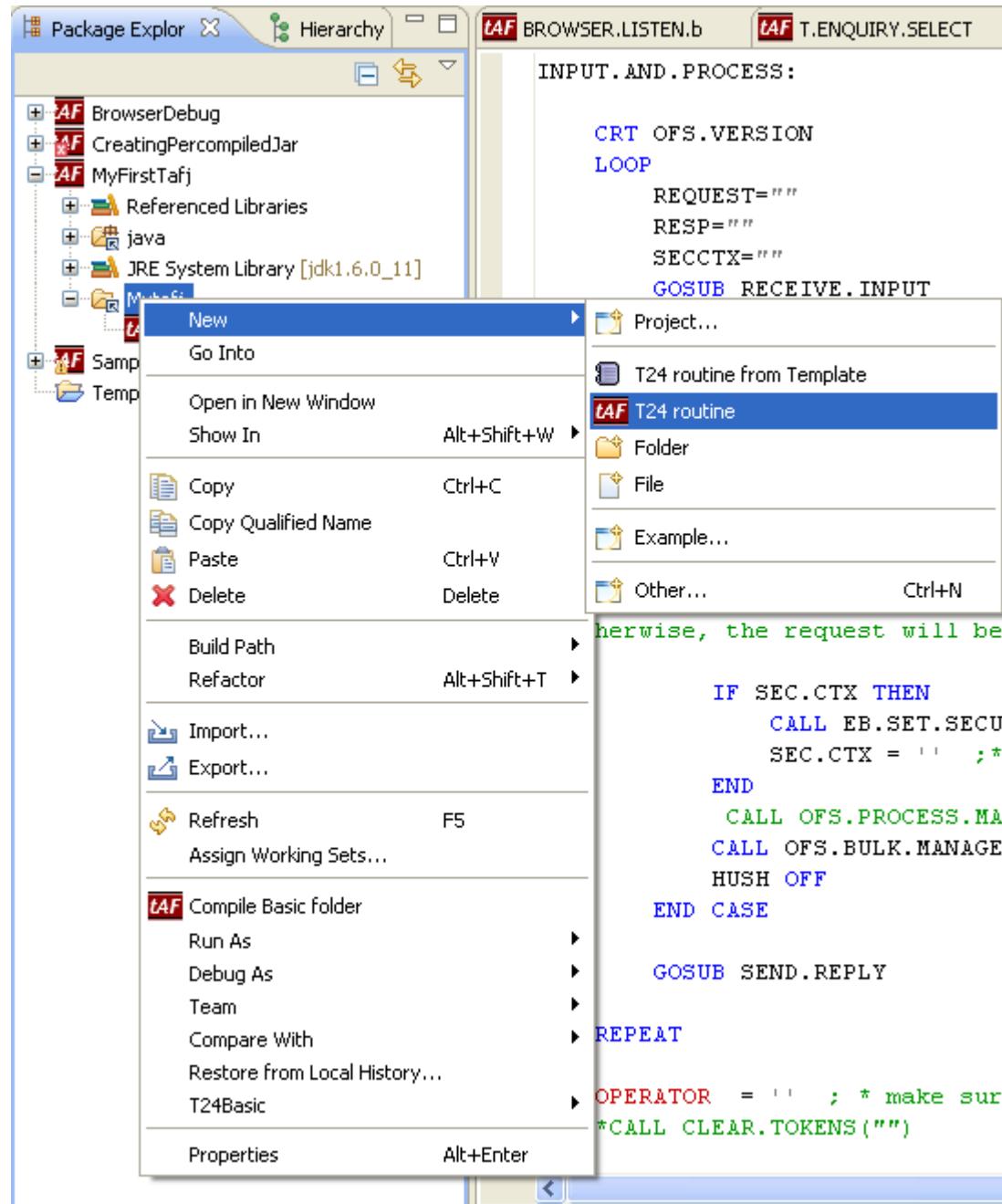


In the main Section TAFJ Runtime, you can configure various runtime parameters.



Writing your first BASIC program with eclipse

First, create a “file” by right-clicking in the directory representing your BASIC source.



As file name, give any valid BASIC file name, and give the extension ".b". (e.g., MY.FIRST.PROGRAM.b)



Note that this is not mandatory to give the '.b' extension, but if you don't, you will always have to specify with which editor you want to edit your file.



Press Finish, and you will see your file in the list of basic programs.

Repeat the operation for "MY.FIRST.SUBROUTINE.b"





Here are the sources of the 2 files for the presentation:

MY.FIRST.PROGRAM.b:

```
PROGRAM MY.FIRST.PROGRAM
  COM /MY.GRP/MY.COMMON
  A = 10
  B = "Hello"
  CRT "A = " : A
  CRT "B = " : B
  CALL MY.FIRST.SUBROUTINE(B)
  CRT MY.COMMON
```

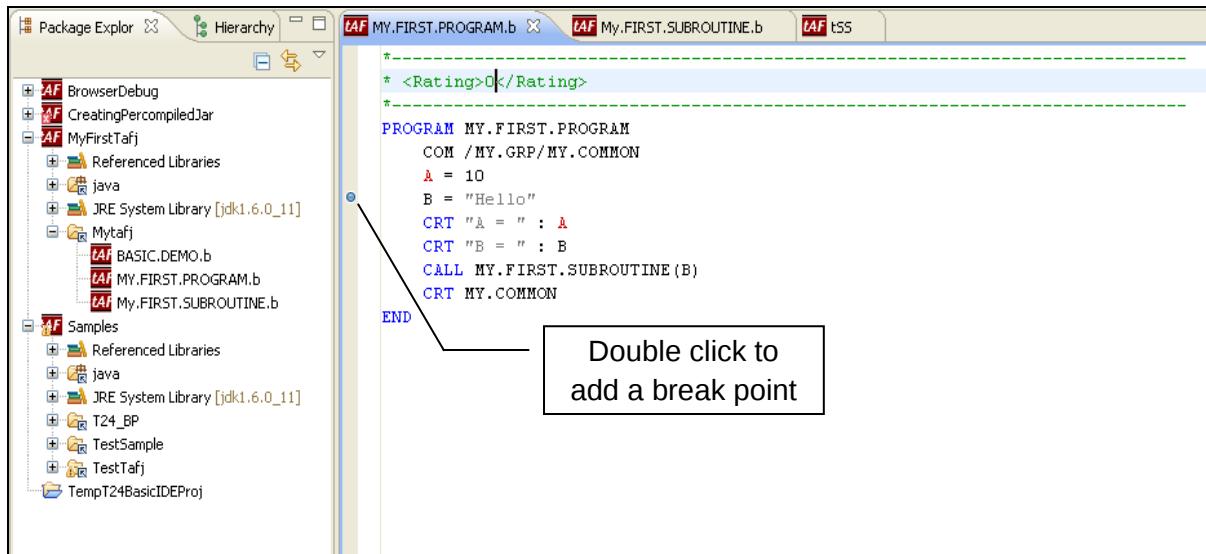
This Routine will print “A” and “B” value and it will call MY.FIRST.SUBROUTINE with argument “B”

MY.FIRST.SUBROUTINE.b:

```
SUBROUTINE MY.FIRST.SUBROUTINE(PARAM)
  COM /MY.GRP/MY.COMMON
  CRT "PARAM = " : PARAM
  MY.COMMON = "A NEW VALUE"
  CRT MY.COMMON
  RETURN
```

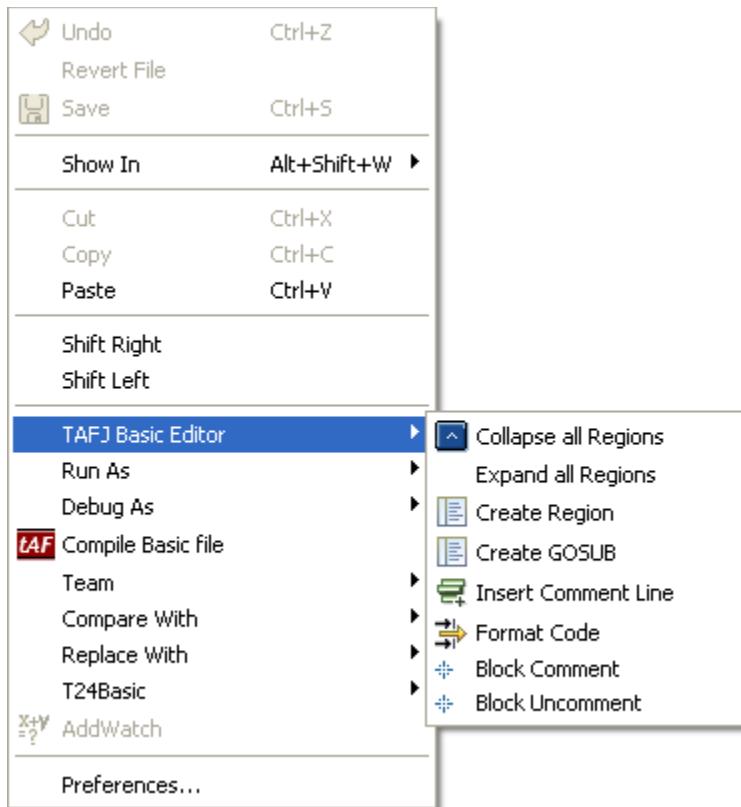
This Subroutine will display “PARAM” and “MY.COMMON” Variable

Then, add a Breakpoint on the line 4 of my first program. To do this, just double click in the vertical ruler bar on the left of the code. Note that by right-clicking on this bar, you will also have the option to show the line numbers.



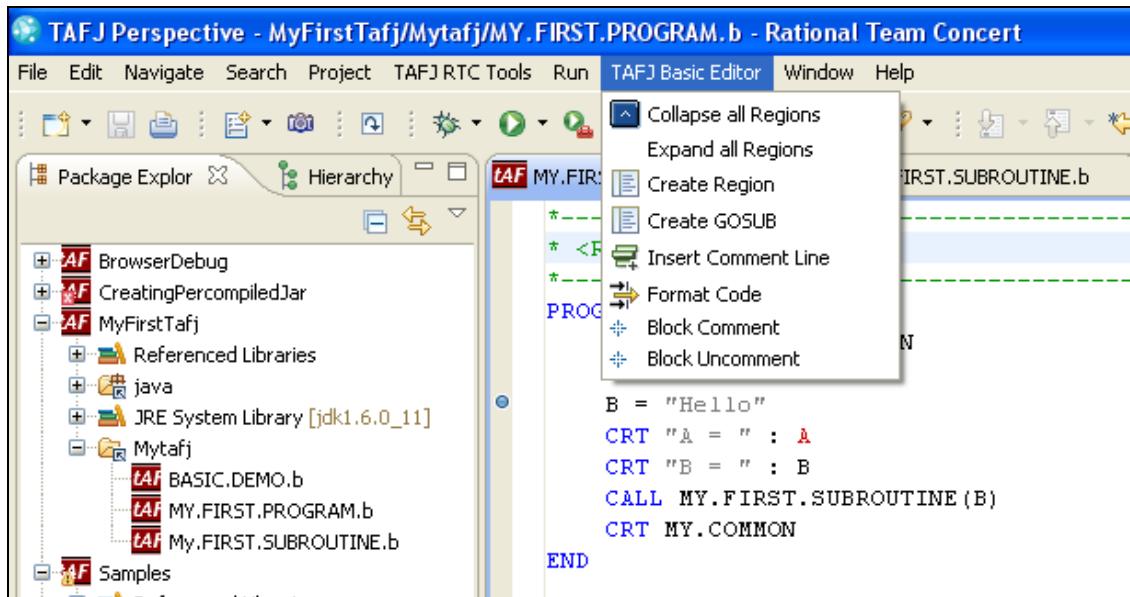
Double click to
add a break point or

When you right click on the editor or in the main menu, You have some editor functionalities:





Or



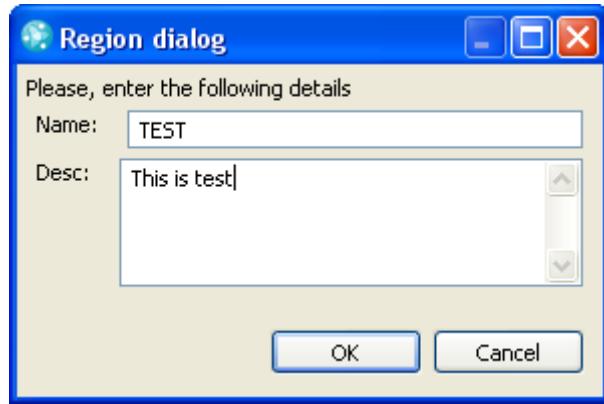
You have 8 editor functionalities.

- Collapse all Regions
- Expand all Regions
- Create Region
- Create GOSUB
- Insert Comment line
- Format Code
- Block Comment
- Block Uncomment

The Region :

The region is part of code decorated by some tags ignored by the compiler. You can collapse or extend the region to see it in the code.

Create a region:



In the editor:

The screenshot shows the Eclipse IDE editor with the following code:

```
PROGRAM TEST

*** <region name= TEST>
*** <desc>this is a test </desc>
CRT "Hello word"
*** </region>

END
```

A callout box points to the annotation bar at the top of the code editor, which contains the text: "Click to collapse or expand".

In the annotation bar you can collapse or expand it.



Comment code:

You can add a comment line in the code using “Insert comment Line”

The screenshot shows a code editor window with the following code:

```
CRT "Hello word"  
*** </region>  
  
*-  
  
END
```

A callout box labeled "A comment line" points to the asterisk (*) character preceding the dash (-) in the fourth line of code.

You can comment or uncomment a block of code using “Block comment” or “Block uncomment”

Before

The screenshot shows a code editor window with the following code:

```
FOR I = 1 TO 20  
CRT "I=";I  
NEXT I
```

After a block comment

The screenshot shows the same code editor window, but the code has been modified by a block comment:

```
*FOR I = 1 TO 20  
*CRT "I=";I  
*NEXT I
```



Format code:

With the format code the editor will add some spaces to indent the code

Before:

```
PROGRAM TEST
FOR I = 1 TO 20
CRT "I=":I
NEXT I
END
```

After a format code:

```
PROGRAM TEST

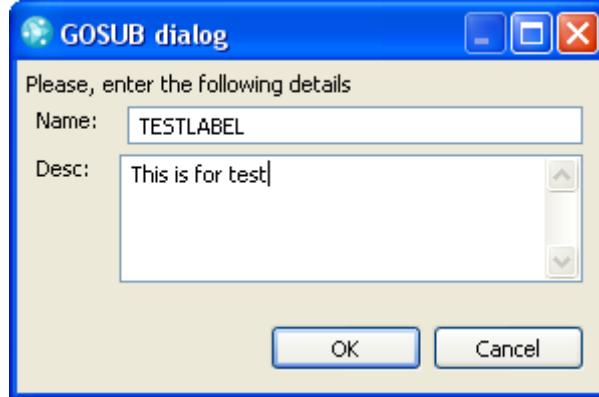
FOR I = 1 TO 20
    CRT "I=":I
NEXT I

END
```



Create Gosub:

When you create a gosub, you have to fill the dialog box with the name of the gosub.



In the code a GOSUB and a Region with the label will be created.

```
GOSUB TESTLABEL ; *This is for test
*-----
@*** <region name= TESTLABEL>
TESTLABEL:
*** <desc>This is for test </desc>

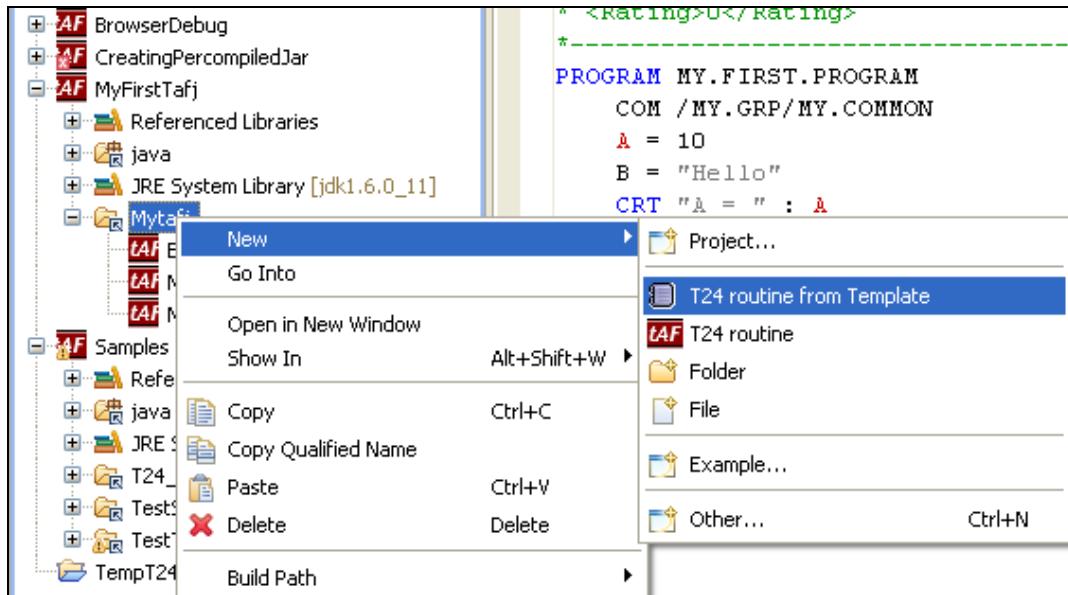
RETURN
*** </region>

END
```

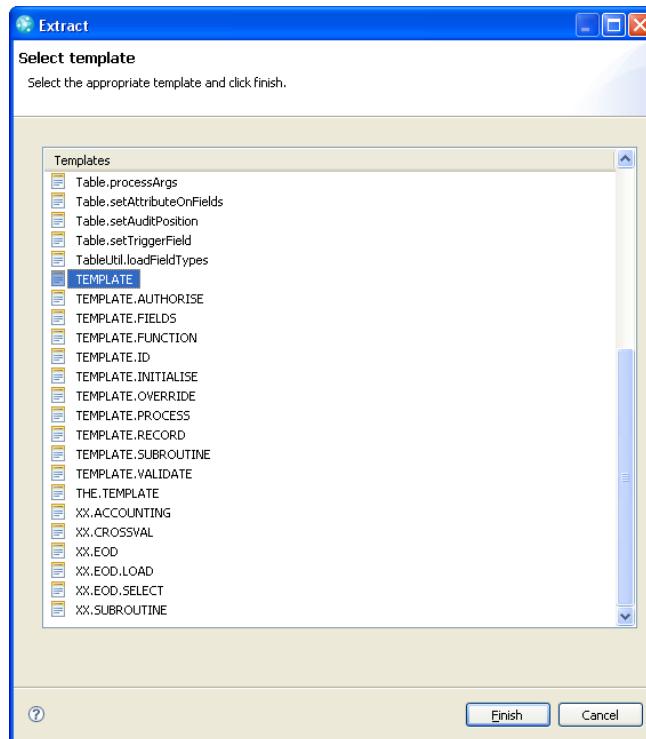
Template:

You can create a new Basic file from a template:

Right click on the folder you want to create a new Basic file and select New->"T24 routine from template".

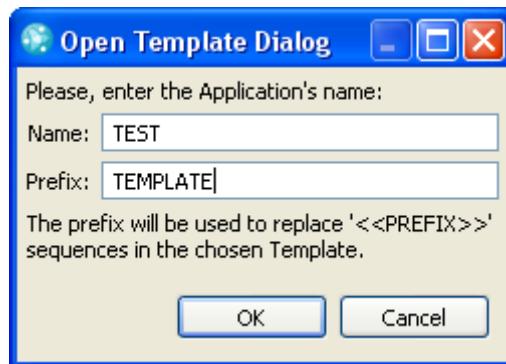


From the view template select the template you want to use and click finish.





Enter the name of your Basic file and the Prefix for the application.

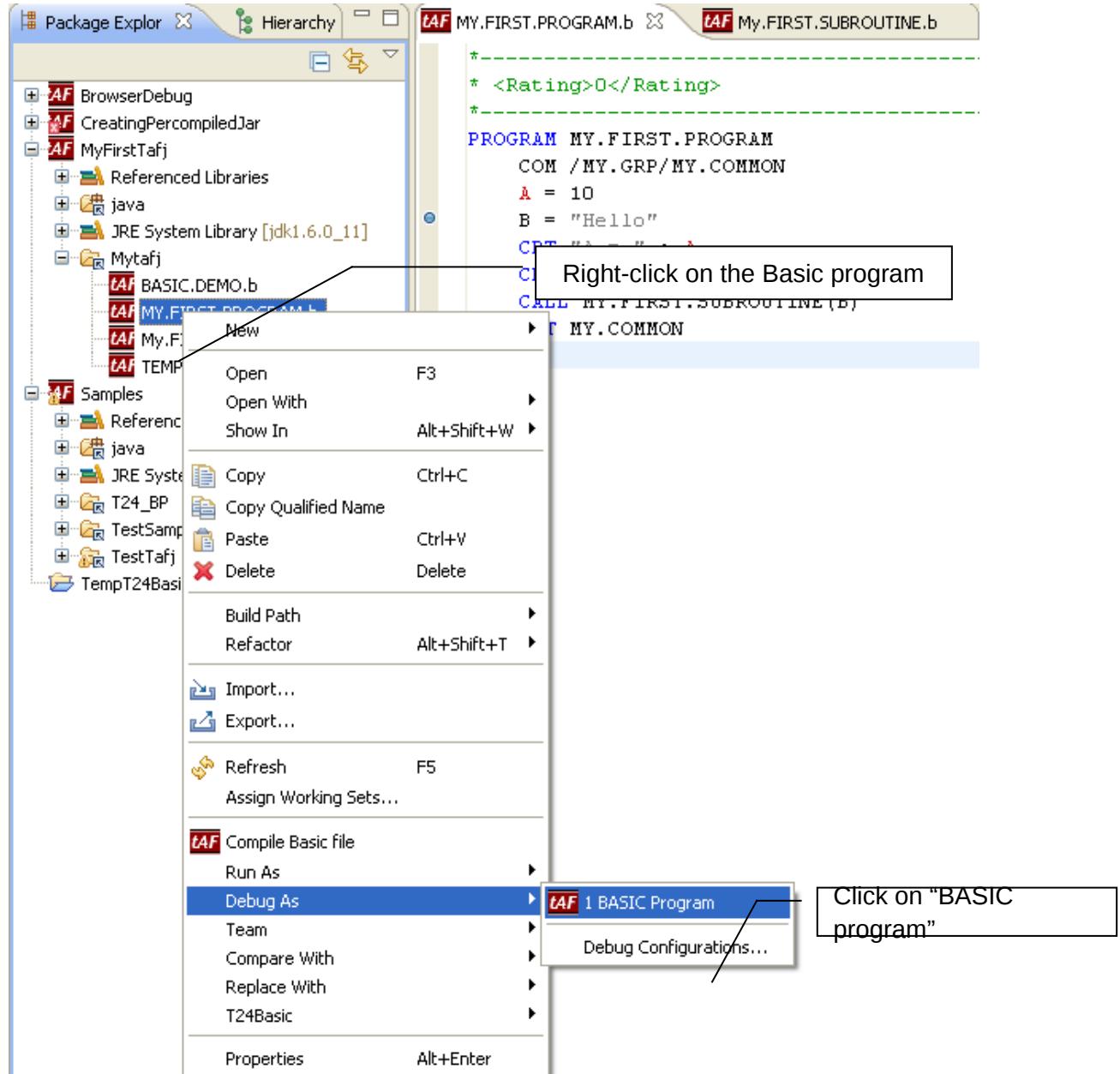


Automatically a new Basic file with an extension .b and the code of the template are created.

```
*--  
* <Rating>-13</Rating>  
*--  
SUBROUTINE TEMPLATE.TEST  
*--  
*<doc>  
* TODO add a description of the application here.  
* @author youremail@temenos.com  
* @stereotype Application  
* @package TODO define the product group and product, e.g. infra.eb  
* </doc>  
*--  
* TODO - You MUST write a .FIELDS routine for the field definitions  
*--  
* Modification History :  
*--  
* 19/10/07 - EN_10003543  
*           New Template changes  
*--  
* <region name= Inserts>  
$INSERT I_COMMON  
$INSERT I_EQUIATE  
$INSERT I_Table  
* </region>  
*--  
Table.name = 'TEMPLATE.TEST'          ;* Full application name including product prefix  
Table.title = 'TEMPLATE TEST'        ;* Screen title  
Table.stereotype = 'H'                 ;* H, U, L, W or T  
Table.product = 'TEMPLATE'          ;* Must be on EB.PRODUCT  
Table.subProduct = ''                ;* Must be on EB.SUB.PRODUCT  
Table.classification = 'INT'        ;* As per FILE.CONTROL  
Table.systemClearFile = 'Y'          ;* As per FILE.CONTROL  
Table.relatedFiles = ''              ;* As per FILE.CONTROL  
Table.isPostClosingFile = ''         ;* As per FILE.CONTROL  
Table.equatePrefix = 'XX.YY'         ;* Use to create I_F.EB.LOG.PARAMETER  
*--  
Table.idPrefix = ''                  ;* Used by EB FORMAT.ID if set  
Table.blockedFunctions = ''          ;* Space delimited list of blocked functions  
Table.trigger = ''                  ;* Trigger field used for OPERATION style fields  
*--  
RETURN  
END
```

Launching your program

The next step is to launch it. Right-click on the program in the Package Explorer and choose "Debug as ..." or "Run as" as shown:

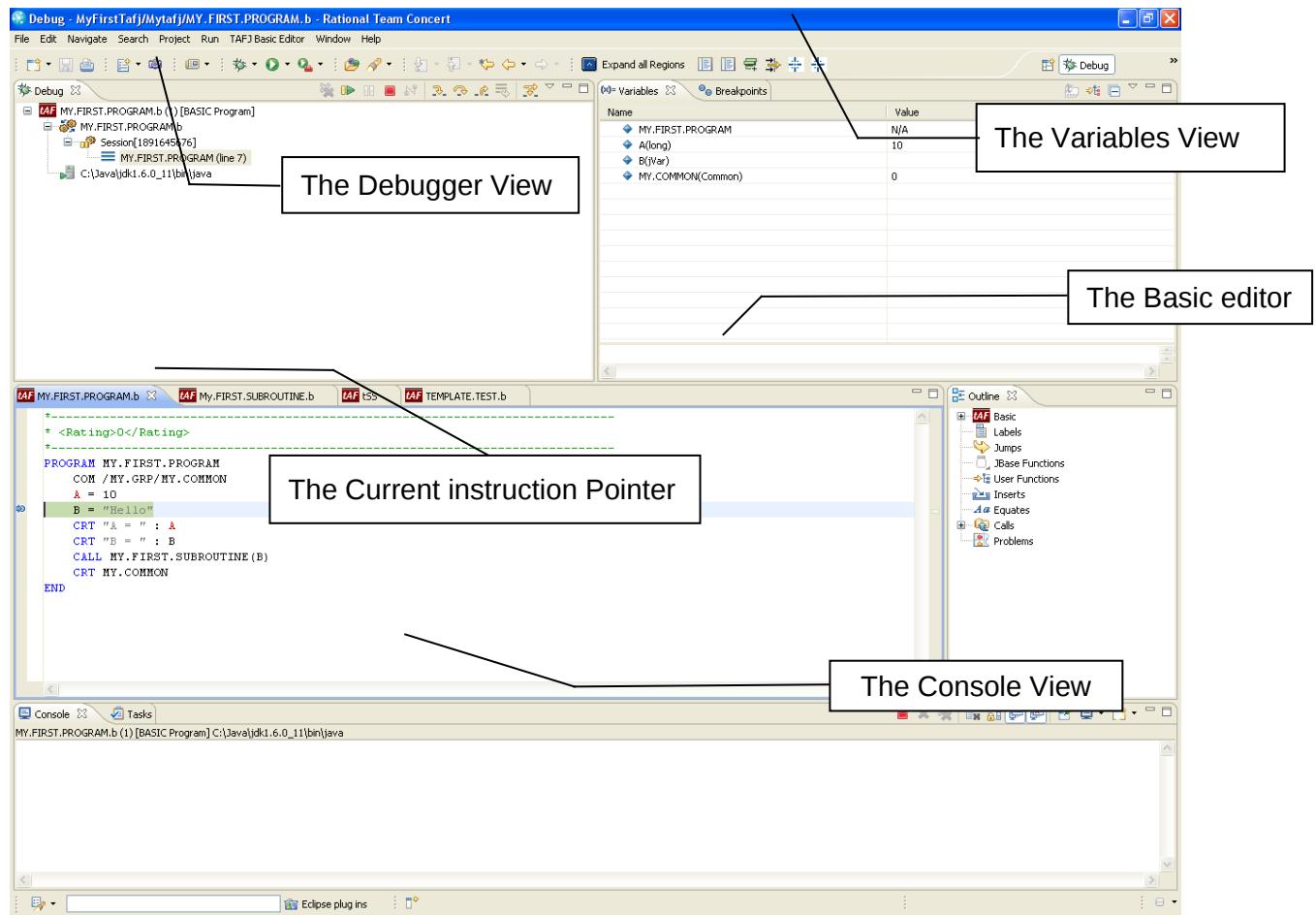


Note that if you do not have the Run / Debug as BASIC Program, this is certainly because you are pointing on a Subroutine instead of a "PROGRAM".



A global view of the environment

By doing so, Eclipse will automatically switch on the Debugger View. The program will be launched and it will break on the first breakpoint. Let's analyse the resulting situation:



The BASIC Launcher uses the Eclipse standard.

- Step Over : F6
- Step In : F5
- Step Out : F7



- Continue : F8

Note that if a COMMON variable is not used in the program, it will not be shown in the variable list. Also, if you have a variable defined as “Long”, you won't be able to manually assign a non-numeric value.

You can re-launch your program at any time by using the DEBUG / RUN Menu.

The Expression Watch point

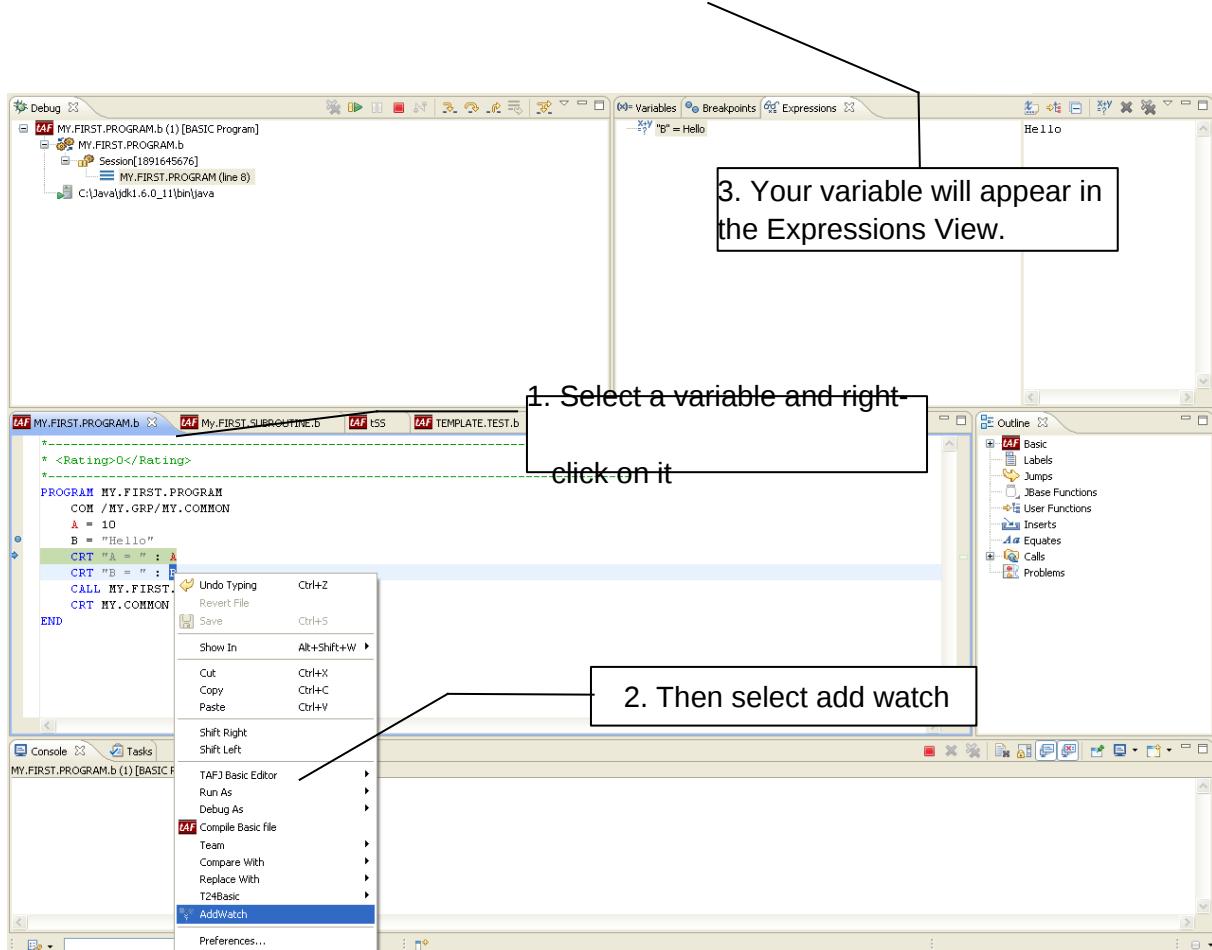
Sometimes, there are too many variables and this is tricky to find them.

You can, by right-clicking on the variable, choose the “Add Watch” option. Then your variable will be in the Expression view.

TAFJ-Eclipse



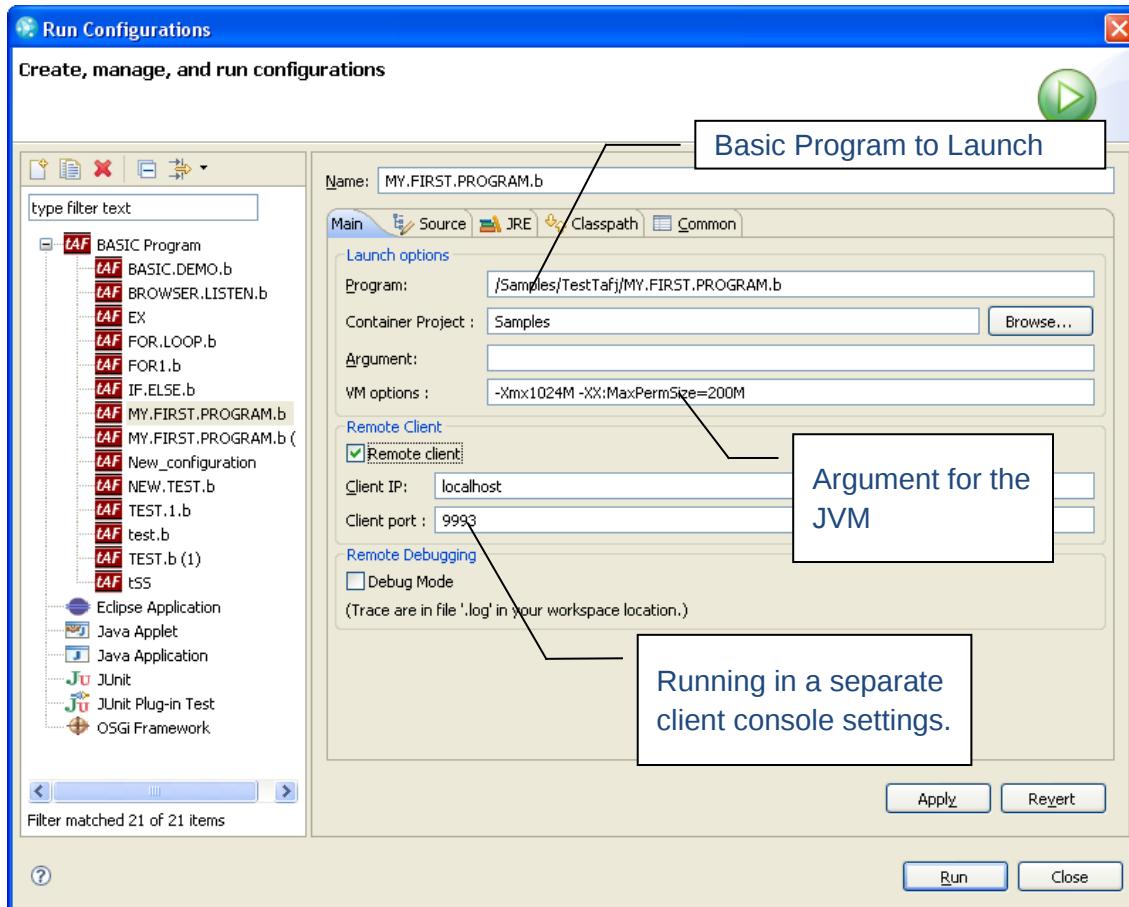
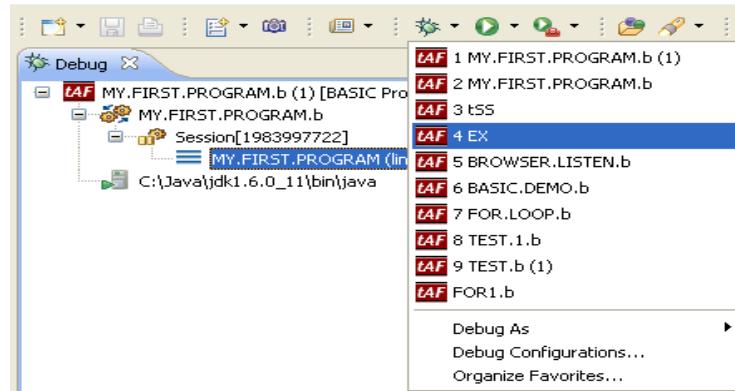
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The Debug Options

If you run the previous example, then you should be able to find the last launch in the DEBUG and the RUN menu. You can also configure the DEBUG / RUN Options by choosing the Open Debug Dialog as shown:



Remote Client

This is possible to use a remote Client which will act as the console running in Eclipse. This is especially useful if you want to run applications like EX which needs to run in a proper vt100 console.

tClientConsole

tClientConsole is part of the TAFJ tools. It will accept any basic program IO. For example, you could start a clientConsole on port 9993 (the default) and launch an application in Eclipse to redirect all IO in this console (see the Eclipse launcher chapter). This will allow you to debug T24 (from EX) in Eclipse. Another interesting feature of the clientConsole is the ability to debug tSS in Eclipse.

Syntax

The clientConsole syntax is the following:

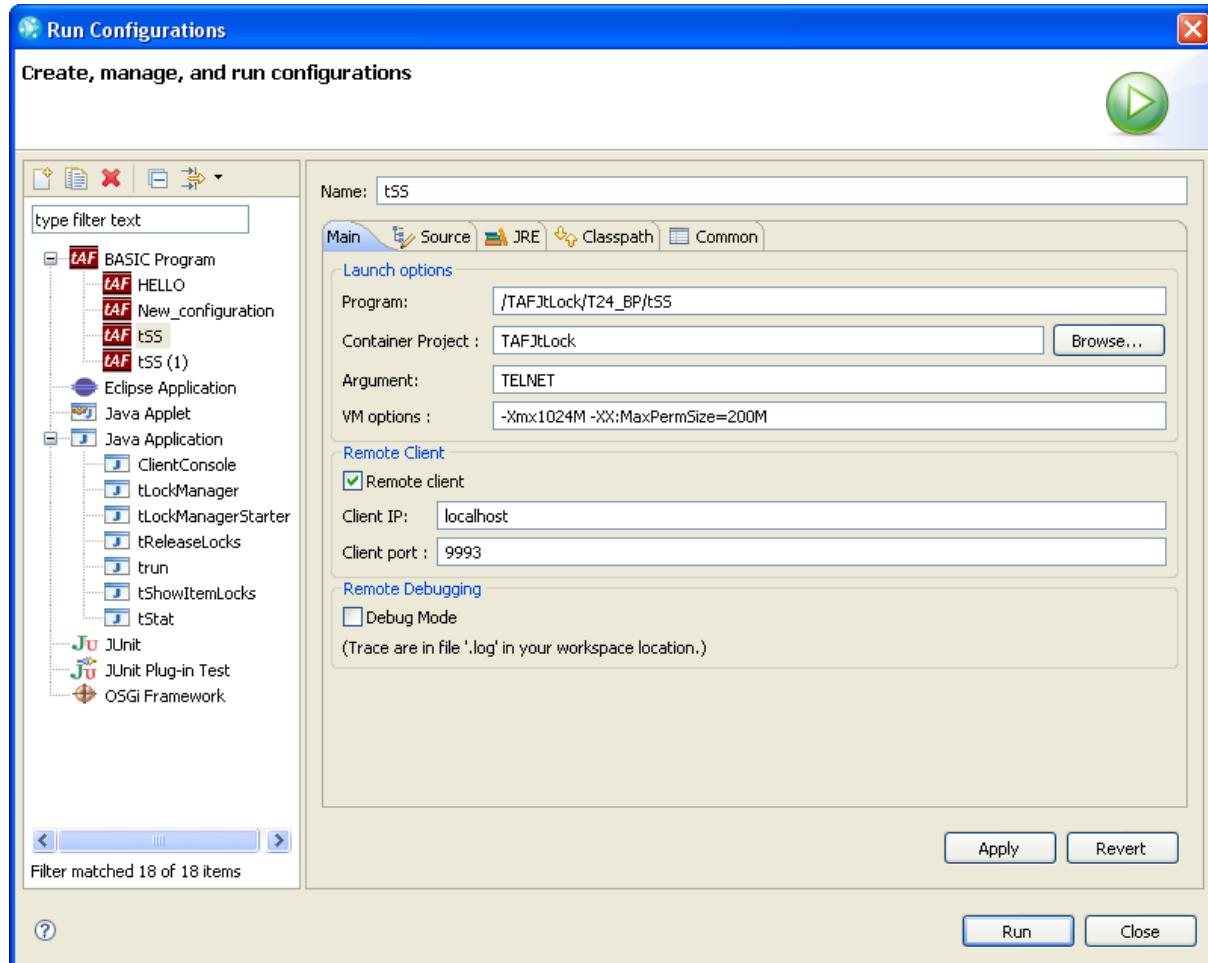
```
tClientConsole [port]
```

Example

Debugging tSS in Eclipse.

```
C:\WINDOWS\system32\cmd.exe - tClientConsole
Usage : clientConsole [<port>] [-L]
Default port 9993 used.
[10:38:55] : Client Console : listening on 9993
[10:38:55] : Press Ctrl-C to terminate.
```

You just have to launch tSS from eclipse as follow:



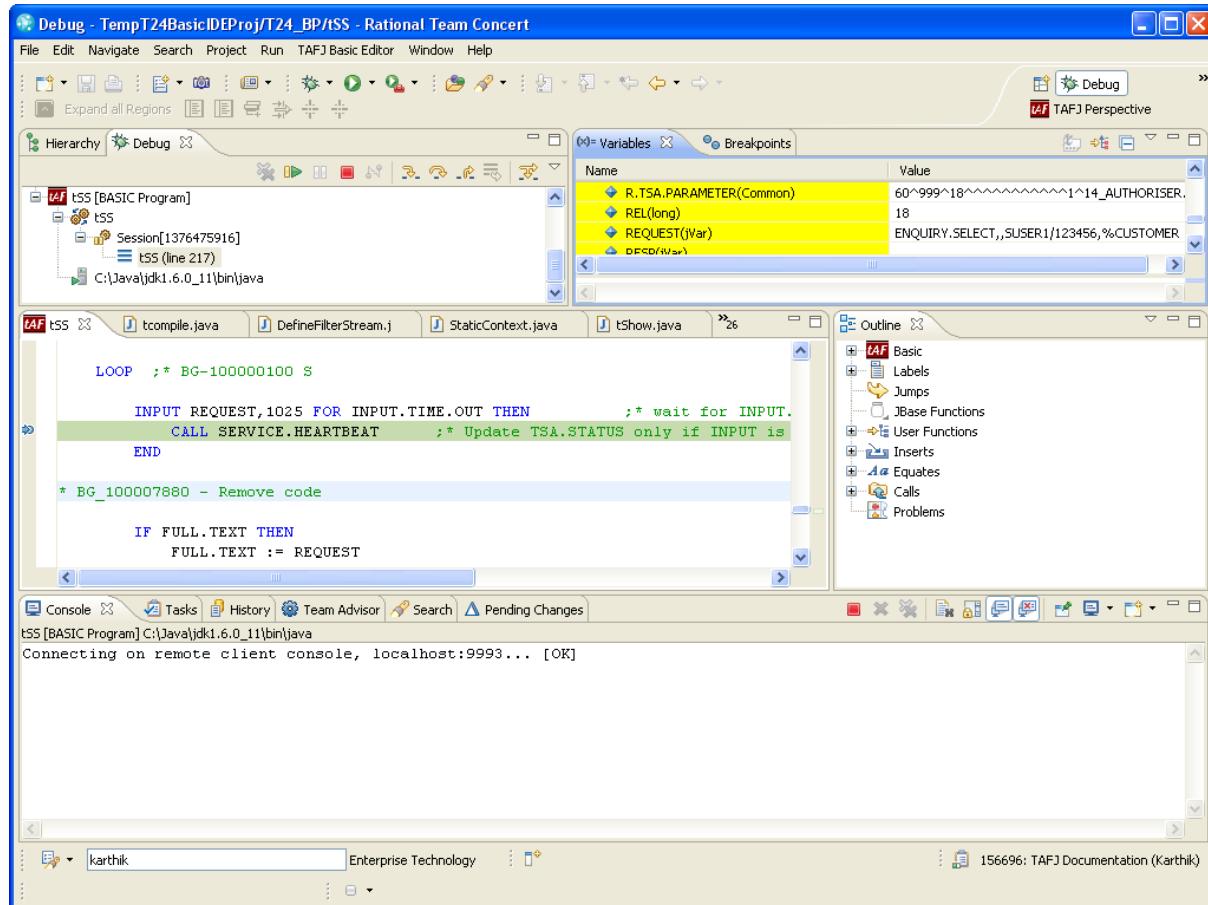
Note: In this you have to set “TELNET” as argument because it will handle the direct OFS request

The following screenshot shows the Eclipse environment debugging a request coming in tSS.

TAFJ-Eclipse



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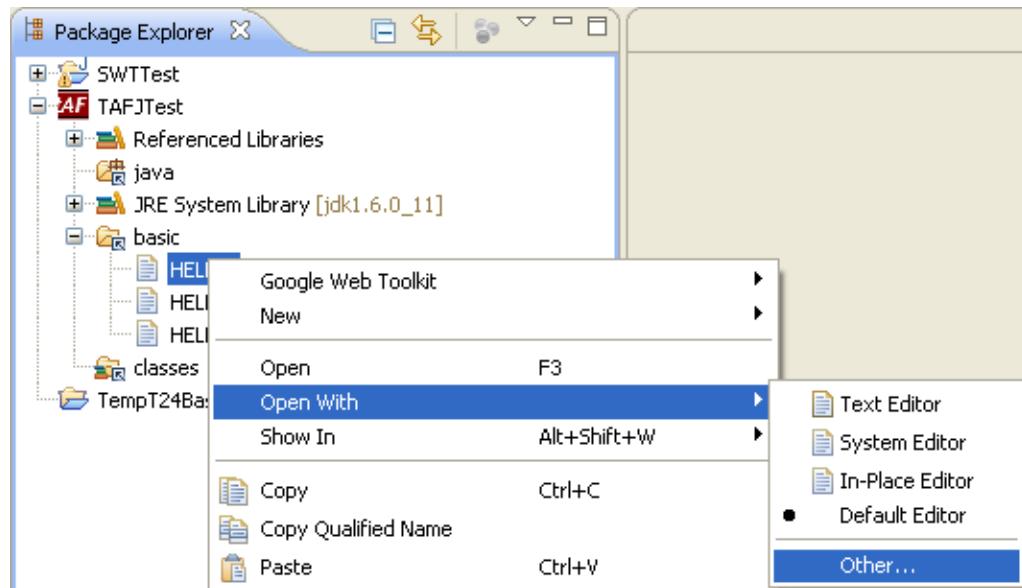




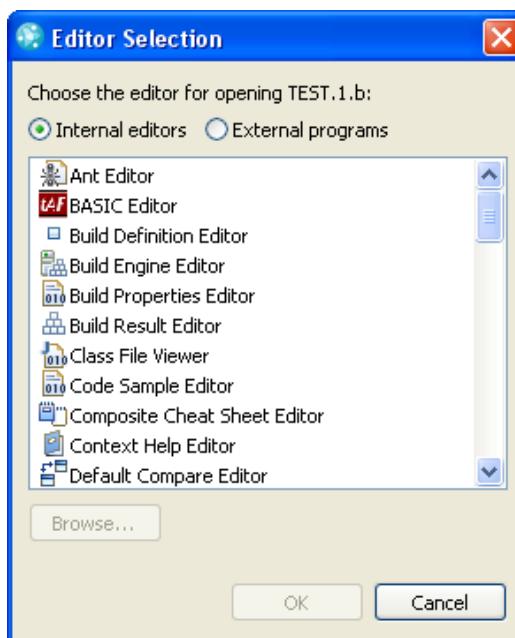
Outline view

When you edit a basic file with the basic editor, the outline view is automatically activated.

To open a basic file with the TAFJ Basic editor, right click on the file -> Open With -> "Other..."



Click on "Basic editor" and click "OK".

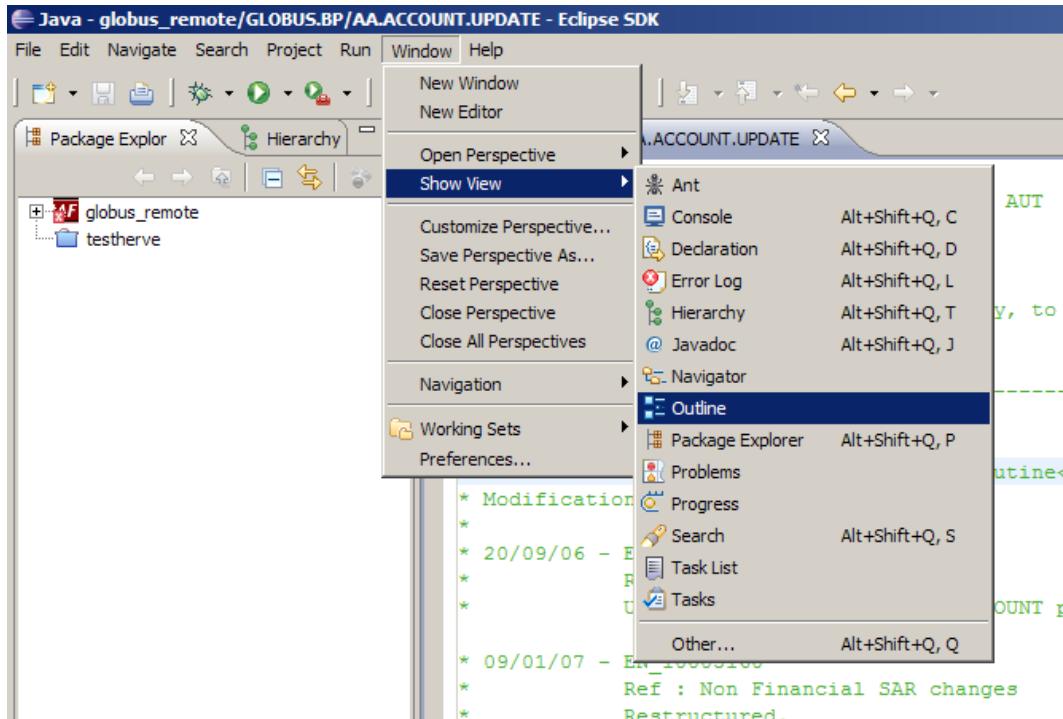




Your Basic file is edited in eclipse with the Basic editor.

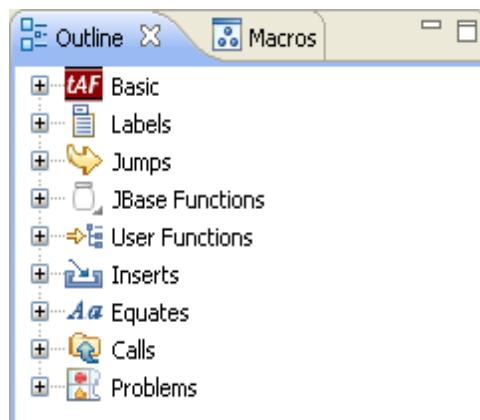
If the outline view is not in your workspace you have to activate it.

From the main workbench window, click “**Window**” menu > **Show view >Outline**.



The “Outline view” is a Tree. The tree has nine different branches.

- Basic
- Labels
- Jumps
- JBase Functions
- User Functions
- Inserts
- Equates
- Calls
- Problems

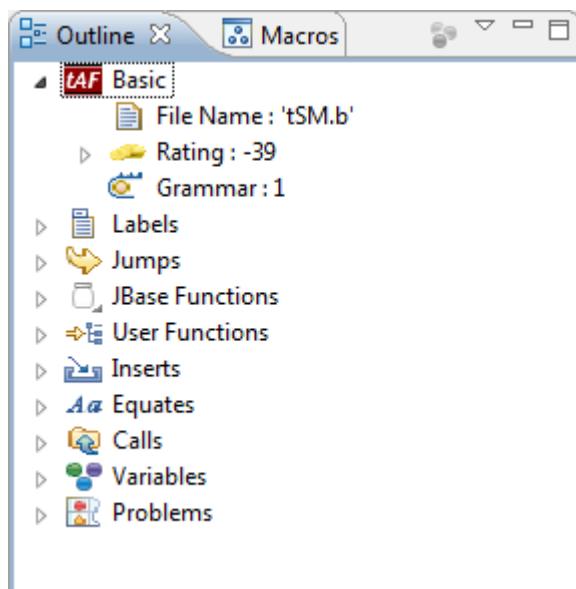




If a small symbol in front of a branch appears, that means you can expand it.

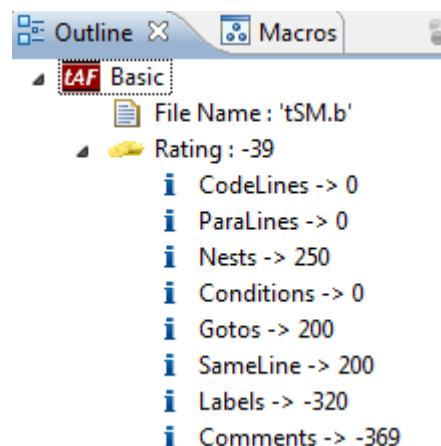
Basic Branch

It contains the information about Basic Routine like **Routine Name**, **Rating** and **Grammar level**



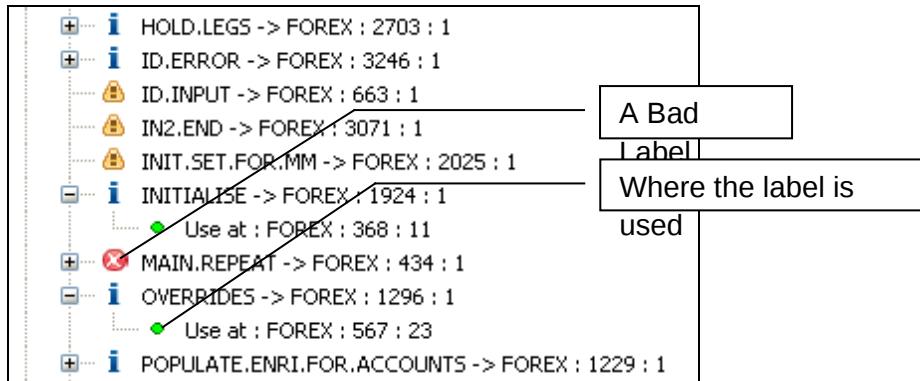
Rating Branch

It contains the information about the rating detail.



Labels Branch

All labels in the code are listed in the labels branch with information about where they are and where they are used.



An icon front of it is to indicate is status.

- Blue information : this is a good label
- Orange warning : this label is not use in the code the compile avoid it
- Red bad : This label is in a loop and make the compiler dropdown to level 0 (see the chapter Compiler)

If the labels are in current routine then, **click** on the name of the label and it will be selected in the editor.

If the Label is in other file then, you can **double click** on and the Basic file will be opened in the basic editor.



Jumps Branch

All Jumps (GOTO, ON...GOTO, RETURN TO) in the code are listed in the Jumps branch with their information. This information is important because, this branch statement will downgrade the compiler level to 1.

The screenshot shows the TAFJ-Eclipse IDE interface. On the left is the Basic editor window displaying assembly-like code. On the right is the Outline view showing the project structure. A callout box labeled "The jump GOTO" points to a node in the Outline view under the "Jumps" branch. Another callout box labeled "The jump GOTO in the Basic editor" points to the same code line in the Basic editor window.

The jump GOTO

The jump GOTO in the Basic editor

```
TSM.PORT = TSM.PORT<SERVER.POS>
END

IF CURRENT.TSM.SERVER AND (TSM.PORT NE @USERNO) THEN
    CRT 'tSM already running on Server ':CURRENT.TSM.SERVER
    GOTO PROGRAM.ABORT ;* Bomb out
END

IF NOT(MS.INSTALLED) THEN ;* CI_10046411 E
    IF TSM.SERVER AND TSM.SERVER NE SERVER.NAME THEN ;* Differ
        CRT 'Unable to start separate tSM on ':SERVER.NAME:' already
        GOTO PROGRAM.ABORT ;* Bomb out
    END
END ;* CI_10046411 S/E

RETURN
```

Outline X Macros

- File Name : 'tSM'
- Rating : -163
- Grammar : 1
- Labels
- Jumps
 - [GOTO]
 - Use at : tSM : 267 : 9
 - Use at : tSM : 273 : 13
 - [RETURN TO]
 - Use at : tSM : 934 : 5
- JBase Functions
- User Functions
- Inserts
- Equates
- Calls
- Problems

If you **click** on the jump (E.g., Use at: tSM: 273:13) the cursor will select the corresponding statement.



JBase Functions Branch

All hold JBase Functions in the routine are listed.

The screenshot shows the Eclipse IDE interface with several tabs at the top: TAF TEMPLATE.TEST.b, TAF AA.ACOUNT.UPDATE, TAF FOREX, and TAF tSM. The TAF tSM tab is active. In the center editor area, there is a block of TPL (Temenos Procedure Language) code. On the right side, the 'Outline' view is open, showing a tree structure of function definitions. Under the 'JBase Functions' node, there is a single entry: 'JBASEGetPidFromPort -> tSM : 611 : 25'. This entry has two green diamond icons next to it, indicating it is used at two different locations: tSM : 611 : 25 and tSM : 825 : 21.

```

IF (CURRENT.TIME - LAST.CONTACT) GT SERVICE.TIMEOUT THEN
    IF JOB.PROGRESS MATCHES '2':VM:'7' AND NOT(DEBUG.MODE) THEN
        Y.PID = R.TSA.STATUS <TS.TSS.PROCESS.ID> ;* Process
        Y.PORT = R.TSA.STATUS <TS.TSS.PORT.ID> ;* Port ID
        IF Y.PID EQ JBASEGetPidFromPort(Y.PORT) THEN ;* Get th
            RETURN ;* If the process id value is same ther
        END
        R.TSA.STATUS<TS.TSS.AGENT.STATUS> = 'DEAD' ;* Make i
        IF SERVICE.STOP.TIME AND SERVICE.PROFILE THEN ;* monitc
            GOSUB CHECK.STOPPAGE.TIME ;* Check the service stop ti
        END
    END
END

```

If you **click** on the jbase function, the corresponding statement will be selected in the editor.

Users Functions Branch

All DEFFUN Functions in the code are listed.

The screenshot shows the Eclipse IDE interface with several tabs at the top: TAF AA.ACOUNT.UPDATE, TAF FOREX, TAF tSM, and TAF I_COMMON. The TAF I_COMMON tab is active. In the center editor area, there is a block of TPL code. On the right side, the 'Outline' view is open, showing a tree structure of function definitions. Under the 'User Functions' node, there are four entries: 'CHARSX -> I_COMMON : 224 : 12', 'CHARX -> I_COMMON : 223 : 12', 'SEQSX -> I_COMMON : 225 : 12', and 'SEQX -> I_COMMON : 222 : 12'. Each of these entries has an orange warning icon (a small exclamation mark inside a triangle) in front of it, indicating they are not used.

```

PASSED.NO = '' ;* GB0001258
PASSED.CHAR = '' ;* GB0001258
DEFFUN SEQX(PASSED.CHAR) ;* GB0000709
DEFFUN CHARX(PASSED.NO) ;* GB0001078
DEFFUN CHARSX(PASSED.NO) ;* GB0001702
DEFFUN SEQSX(PASSED.CHAR) ;* GB0001702
*****
IF RUNNING.IN.JBASE THEN ;* GB0002667
    PRECISION 13 ;* GLOBUS_EN_10000172 S/E
END ELSE
    PRECISION 6
END
*****
```

An icon in front of it indicates its status.

- Blue information: this function is used.
- Orange warning: this function is not used.

If you **click** on the name then, the editor will be jump to it and select it.



Inserts Branch

All \$INSERT file in the code are listed.

```

$INSERT I_Samples/T24_BP/AA.ACOUNT.UPDATE
$INSERT I_F.TSA.WORKLOAD.PROFILE
$INSERT I_F.SPF
$INSERT I_F.COMPANY
$INSERT I_DAS.COMMON ;*EN_10003192 S
$INSERT I_DAS.TSA.SERVICE
$INSERT I_DAS.TSA.STATUS ;*EN_10003192 E
$INSERT I_BATCH.FILES

*
* Here we include the jbase system header.
* N.B. EB.COMPILE will not be able to find this file, but the jBASE
* compiler does - just ignore the warning from EB.COMPILE
*
$INSERT JBC.h
*

GOSUB INITIALISATION
GOSUB CHECK.MULTIPLE.SERVER.MODE ;* Check that MS is installed

LOOP UNTIL R.TSM.SERVICE<TS.TSM.SERVICE.CONTROL> = 'STOP' OR R.TS
    CALL TSA.INIT ;* Open files - read in param record etc
    GOSUB CHECK.TSA.SERVICE ;* Read in the TSM service it

```

Outline View:

- + IAF Basic
- + Labels
- + Jumps
- + JBase Functions
- + User Functions
- + Inserts
 - I BATCH.FILES -> tSM : 189 : 13
 - I COMMON -> tSM : 177 : 13
 - I DAS.COMMON -> tSM : 186 : 13
 - I DAS.TSA.SERVICE -> tSM : 187 : 13
 - I DAS.TSA.STATUS -> tSM : 188 : 13
 - I EQUIATE -> tSM : 178 : 13
 - I F.COMPANY -> tSM : 185 : 13
 - I F.SPF -> tSM : 184 : 13
 - I F.TSA.PARAMETER -> tSM : 182 : 13
 - I F.TSA.SERVICE -> tSM : 180 : 13
 - I F.TSA.STATUS -> tSM : 181 : 13
 - I TSA.WORKLOAD.PROFILE -> tSM : 183 : 13
 - I TSA.COMMON -> tSM : 179 : 13
 - JBC.h -> tSM : 195 : 13
 - jportB.h -> JBC.h : 306 : 17
- + Equates
- + Calls

If you **click** on the name, the cursor in the editor will jump to it and select it.

If you **double click** on the name the INSERT file will be open in the basic editor.



Equate Branch

All define EQUATE TO or LIT in the code are listed.

| Equation | Assembly Line | Status |
|----------------------------------|---------------|--------|
| C\$AGENT.TAG.C TO '</agent>' | 79 : 9 | Used |
| C\$AGENT.TAG TO <agent> | 78 : 9 | Used |
| C\$COMO.TAG.C TO '</como>' | 77 : 9 | Used |
| C\$COMO.TAG TO <como> | 76 : 9 | Used |
| C\$JOB.TAG.C TO '</job>' | 91 : 9 | Used |
| C\$JOB.TAG TO <job> | 90 : 9 | Used |
| C\$PORT.NO.TAG.C TO '</portno>' | 83 : 9 | Used |
| C\$PORT.NO.TAG TO <portno> | 82 : 9 | Used |
| C\$PROCESS.TAG.C TO '</process>' | 89 : 9 | Used |
| C\$PROCESS.TAG TO <process> | 88 : 9 | Used |

An icon front of it is to indicate is status.

- Blue information: this equate is used.
- Orange warning: this equate is not used.

If you **click** on the name then, the editor will be jump to it and select it.

Calls Branch

All define Call in the code are listed.

| Call | Assembly Line | Status |
|--------|---------------|--------|
| DAS | 291 : 10 | Used |
| HUSHIT | 364 : 10 | Used |

An icon front of it is to indicate is status.



- Blue information: this Subroutine exists.
- Orange warning: this equate does not exist.

If you **click** on “Use at...” the cursor in the editor will be jump to it and select it.

If you **double click** on the name of the call the Subroutine file will be open in the basic editor.

Variables Branch

All COMMONS variables and internal routine variables are listed.

Clicking on a variable will either open the corresponding I_COMMON file and display the variable if it is a common or if it is an internal variable you will be redirected where it is used.

```

TAF MYROUTINE.D TAF MODIFY.ACCT.ID TAF I_COMMON
SUBROUTINE MODIFY.ACCT.ID(ACCOUNT.SUFFIX,ACCOUNT.ID)
  * 07/07/2011 - ENHANCEMENT 211028 / Task 211051
  * High Volume Account Layout changes and Merge service
  *
  * 01/12/2011 - Defect 317659 / Task 317660
  * Update the time in minutes
  *
  * 12/12/2011 - Defect 325013 / Task 234948
  * Instead of creating trigger for each minute create it for the time interval specified in account parameter
  * and use it till the time interval Once the time interval is reached create another trigger id leaving the
  * previous to be merged
  *
  *$INSERT I_CVNO
  *$INSERT I_EQUATE
  *$INSERT I_BATCH.FILES
  *$INSERT I_ACCT.COMMON
  *$INSERT I_F.ACCT.PARAMETER
  IF ACCOUNT.ID THEN
    GOSUB CHECK.ACOUNT
  END ELSE
    GOSUB CREATE.SUFFIX ; *
  END

  RETURN
  *
  *-----*
  *CHECK.ACOUNT:
  *-----*
  BEGIN CASE
    CASE BATCH.INFO<3> EQ 'RE.STATIC.CHANGE' ;* For Both internal and customer accounts don't suffix
      RETURN
    CASE (NUM(ACCOUNT.ID) AND BATCH.INFO<3> EQ 'IC.COB') ;* If IC.COB is process Only For customer accounts suffis is to be added
      RETURN
    CASE 1 ;* For all other cases suffix is to be added
      *
  END CASE
  *
  *-----*
  *$INCLUDE jportB.h
  *
  *-----*
  GOSUB INITIALISATION
  GOSUB CHECK.MULTIPLE.SERVER.MODE ;* Check that MS is installed
  LOOP UNTIL R.TSM.SERVICE<TS.TSM.SERVICE.CONTROL> = 'STOP' OR R.TS

```

Problems Branch

All errors and warnings from a compilation are reported

```

TAF FOREX TAF tsm TAF I_COMMON TAF I_BATCH.FILES
  *
  * Here we include the jbase system header.
  * N.B. EB.COMPILE will not be able to find this file, but the jBASE
  * compiler does - just ignore the warning from EB.COMPILE
  *
  *$INSERT JBC.h
  *
  *-----*
  GOSUB INITIALISATION
  GOSUB CHECK.MULTIPLE.SERVER.MODE ;* Check that MS is installed
  LOOP UNTIL R.TSM.SERVICE<TS.TSM.SERVICE.CONTROL> = 'STOP' OR R.TS

```



An icon in front of it indicates its status.

- Blue information: Information about the compilation.
- Orange warning: A warning about the compilation.
- Red error: An error about the compilation.

If you **click** on the problem, the cursor in the editor will be jump to it and select it.

Outline View Refresh

When an open or a save action is triggered, the outline view is automatically being refreshed.



Optimization

This section present some properties you could use to refine your basic editor experience.

Disable refresh on CR

By default the Basic editor will parse the file being edited on each carriage return to have the editor colorizer displaying the code correctly.

This could be a time consuming task depending on your code and stream structure.

To speed up edition you could use the following property (setup this property on the properties file corresponding to your project) to disable this automatic refresh on CR.

Refresh will be performed on “Save” operation only.

```
// Eclipse - Disable file parsing when hitting CR in BasicEditor - speed
up edition but disable live colorizer. Colorizer will then be updated on
Save operation only.

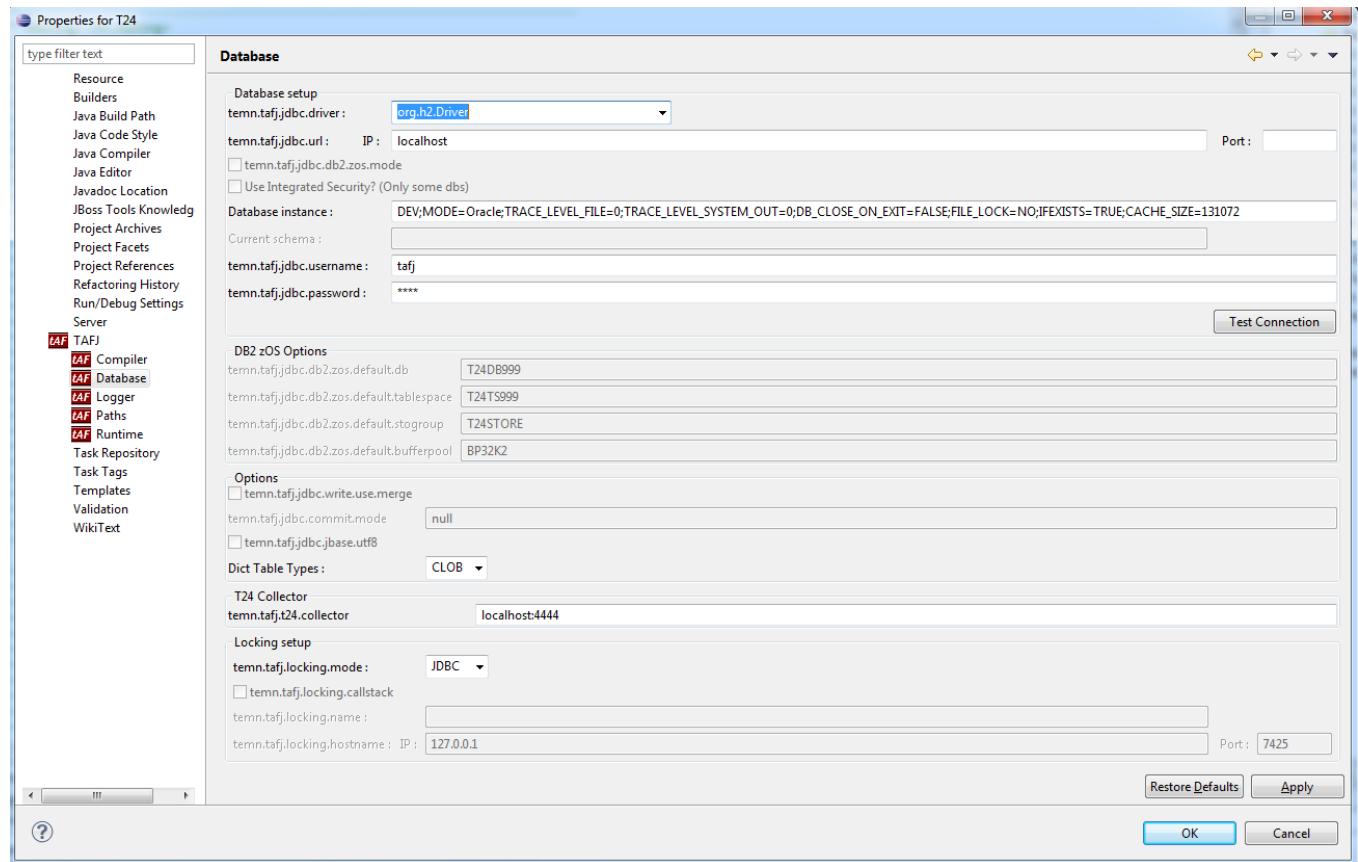
temn.tafj.compiler.disable.cr.refresh = true;
```



JED in Eclipse

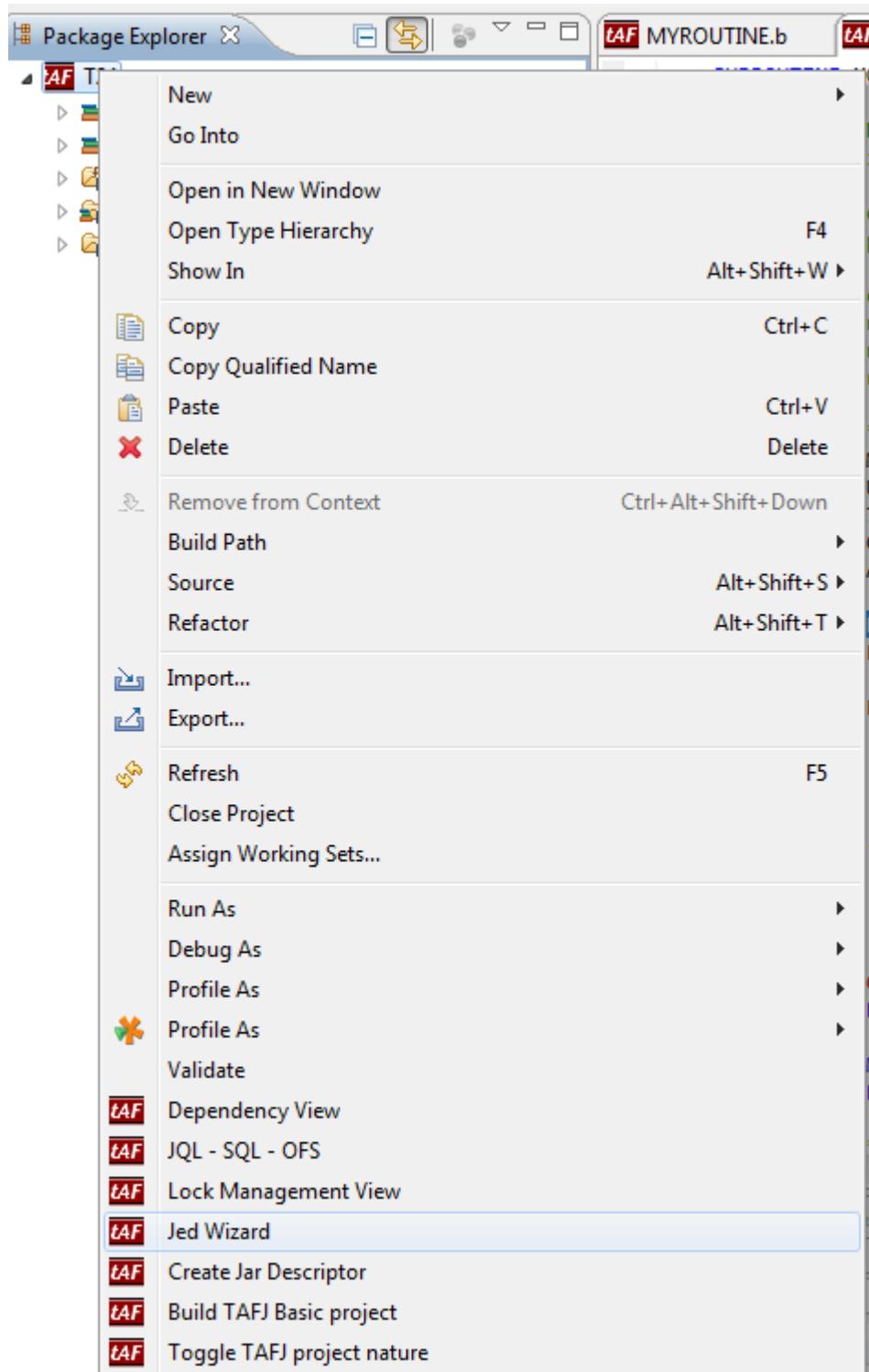
The Jed eclipse plugin is a Table Viewer of a record in the database.

Once you have a TAFJ Project enabled, you can use the Jed Plugin. Make sure your database settings are correct in the TAFJ Project.



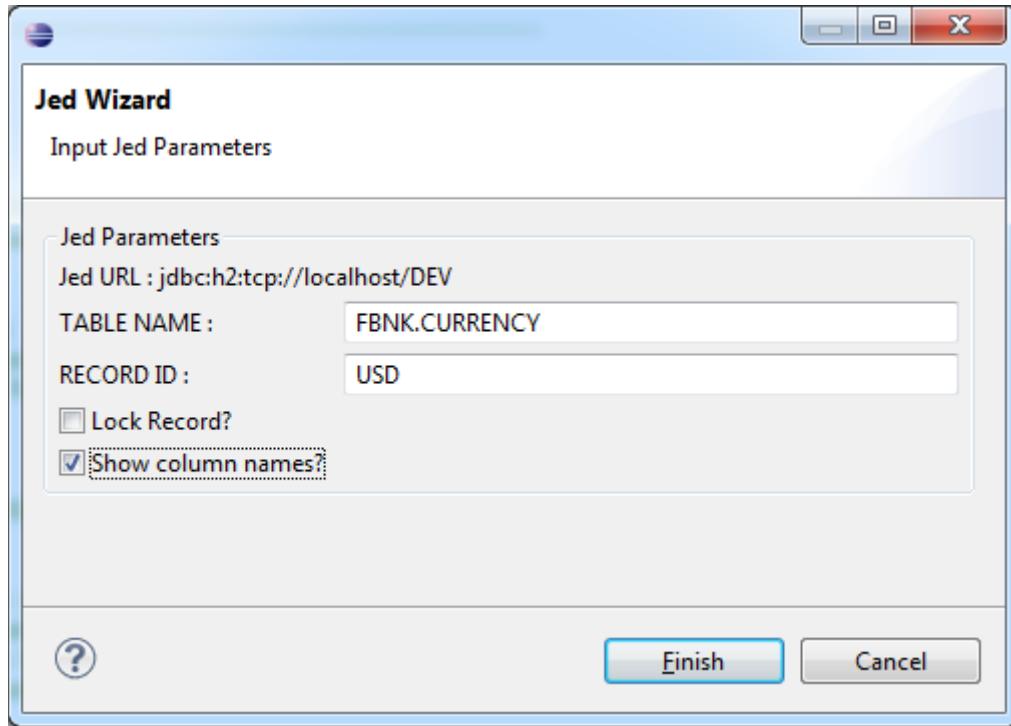
Invoking the Jed Wizard

Right click on your TAFJ Project and in the drop down menu, select "Invoke Jed Wizard"





Now you will see the screen below, enter a table name and record that you want to see (example, FBNK.CURRENCY and RecordId USD)



Click Finish.

It will open a JED Data editor for the requested record.

If you have ticked option “Show column names” they would be displayed whenever available in T24.



Editing a record

Once the editor is opened, it should look like below.

The screenshot shows the Eclipse IDE interface with the TAFJ Perspective selected. The left side features the Package Explorer view, which displays a project named 'T24' containing various Java source files and a JRE System Library. The right side shows a detailed record editor titled 'FBNK.CURRENCY - USD - UNLOCKED'. This editor lists fields with their keys and values, such as 'RANK' (key 1, value 0), 'NUMERIC.CCY.CODE' (key 2, value 260), and 'LL.CCY.NAME' (key 3, value 'US Dollar1'). The editor has a standard Windows-style window title bar and includes icons for saving, closing, and deleting records.

Double click within a cell to edit it.



Right click on a field to insert field, multi-values and / or to insert subvalues.

Right click on a field to delete it.

FBNK.CURRENCY - USD - UNLOCKED

| Key | Field Name | Record |
|-----|--------------------|------------|
| 1 | RANK | 0 |
| 2 | NUMERIC.CCY.CODE | 260 |
| 3 | .LL.CCY.NAME | US Dollar1 |
| 4 | NO.OF.DECIMALS | 2 |
| 5 | QUOTATION.CODE | |
| 6 | QUOTATION.PIPS | |
| 7 | DAYS.DELIVERY | 1 |
| 8 | DAYS.FORWARD | 0 |
| 9 | INTEREST.DAY.BASIS | B 366/360 |
| 10 | RATE ALLOWANCE | |

The contextual menu will change depending on the type of the field.

FBNK.CURRENCY - USD - UNLOCKED

| Key | Field Name | Record |
|------|--------------------|------------|
| 1 | RANK | 0 |
| 2 | NUMERIC.CCY.CODE | 260 |
| 3 | .LL.CCY.NAME | US Dollar1 |
| 4 | NO.OF.DECIMALS | 2 |
| 5 | QUOTATION.CODE | |
| 6 | QUOTATION.PIPS | |
| 7 | DAYS.DELIVERY | 1 |
| 8 | DAYS.FORWARD | 0 |
| 9 | INTEREST.DAY.BASIS | B 366/360 |
| 10 | RATE.ALLOWANCE | |
| 11 | FIXING.DATE | |
| 12.1 | <CURRENCY.MARKET | 1 |
| 12.2 | <CURRENCY.MARKET | 10 |
| 13.1 | -QUOTATION.SUSP | |
| 13.2 | -QUOTATION.SUSP | |
| 14.1 | -MID.REVAL.RATE | |
| 14.2 | -MID.REVAL.RATE | |



Two actions are available in the toolbar whatever the status of the record is:

- Synchronize the editor with the record in the database
- Delete the record (you will be prompt for confirmation, then upon confirmation this action is undoable).

Once the record has been modified all actions become available in the toolbar.

It's then possible to:

- Revert the modification
- Save the modification

| Key | Field Name | Record |
|-----|--------------------|----------------------------|
| 1 | RANK | 0 |
| 2 | NUMERIC.CCY.CODE | 260 |
| 3 | .LL.CCY.NAM | Synchronize record with DB |
| 4 | NO.OF.DECIMALS | |
| 5 | QUOTATION.CODE | |
| 6 | QUOTATION.PIPS | |
| 7 | DAY.S.D | |
| 8 | DAY.S.F | Save modification |
| 9 | INTEREST.DAY.BASIS | B 366/360 |
| 10 | PATENT ALLOWANCE | |
| 11 | | Revert modification |

Editing a data file

A .d file could be opened with the JED editor by double clicking on it. It could be edited the same way as mentioned previously.

The only difference is about the toolbar which has a different purpose.

It's possible to synchronize the file content with the database and to upload the file content into the database.



F.AA.PROPERTY.CLASS.ACTION - ACCOUNT-ADJUST.BILL

Upload data into the DB

| Key | Record |
|-----|--------------------------------|
| 1 | ADJUST.BILL ACTION FOR ACCOUNT |
| 2 | ADJUST.BILL ACTION |
| 3.1 | LENDING |
| 3.2 | DEPOSITS |
| 3.3 | SAVINGS |

Extract data from the DB

Extract and Load Data

By right clicking on a .d file it is possible to directly extract it or to load it into the database.

T24_DEV

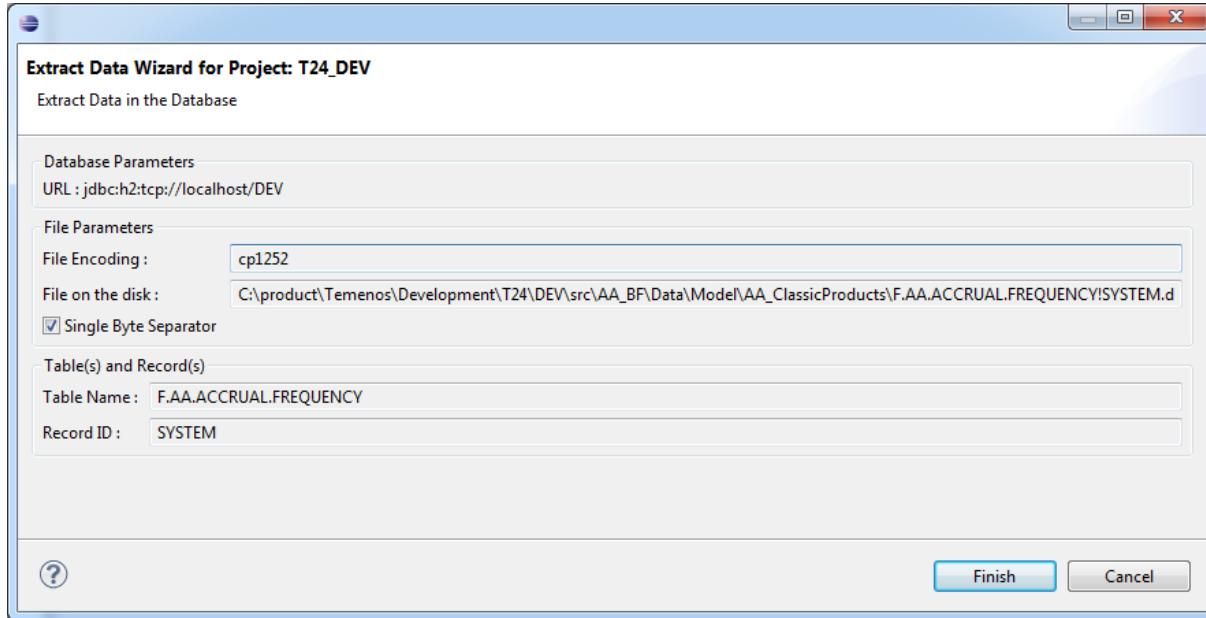
- ▶ Referenced Libraries
- ▶ java
- ▶ JRE System Library [jdk1.6.0_29-64]
- ▶ bp
- ▶ classes
- ▶ src
 - ▶ AA_BF
 - ▶ Data
 - ▶ Model
 - ▶ AA_ClassicProducts
 - ▶ Public
 - ▶ Source
 - ▶ AC_BF
 - ▶ AM
 - ▶ AR_BF
 - ▶ CO
 - ▶ EB_AF
 - ▶ EB_BF
 - ▶ EU
 - ▶ FA
 - ▶ FT_BF
 - ▶ FT_PAY
 - ▶ IA
 - ▶ IC
 - ▶ LI
 - ▶ MC_BF
 - ▶ OB_AF
 - ▶ OB_BF
 - ▶ PC
 - ▶ PV
 - ▶ PW
 - ▶ RE
 - ▶ SC_SEC
 - ▶ cc

- New F3
- Open Alt+Shift+W
- Open With
- Show In
- Copy Ctrl+C
- Copy Qualified Name Ctrl+V
- Paste Delete
- Remove from Context Ctrl+Alt+Shift+Down
- Mark as Landmark Ctrl+Alt+Shift+Up
- Build Path Alt+Shift+T
- Refactor
- Import...
- Export...
- Refresh F5
- Assign Working Sets...
- Mark as Deployable
- Validate
- Show in Remote Systems view
- Extract from the database
- Load in the database



Extract Data

When clicking “Extract from the database” the following wizard will be displayed.



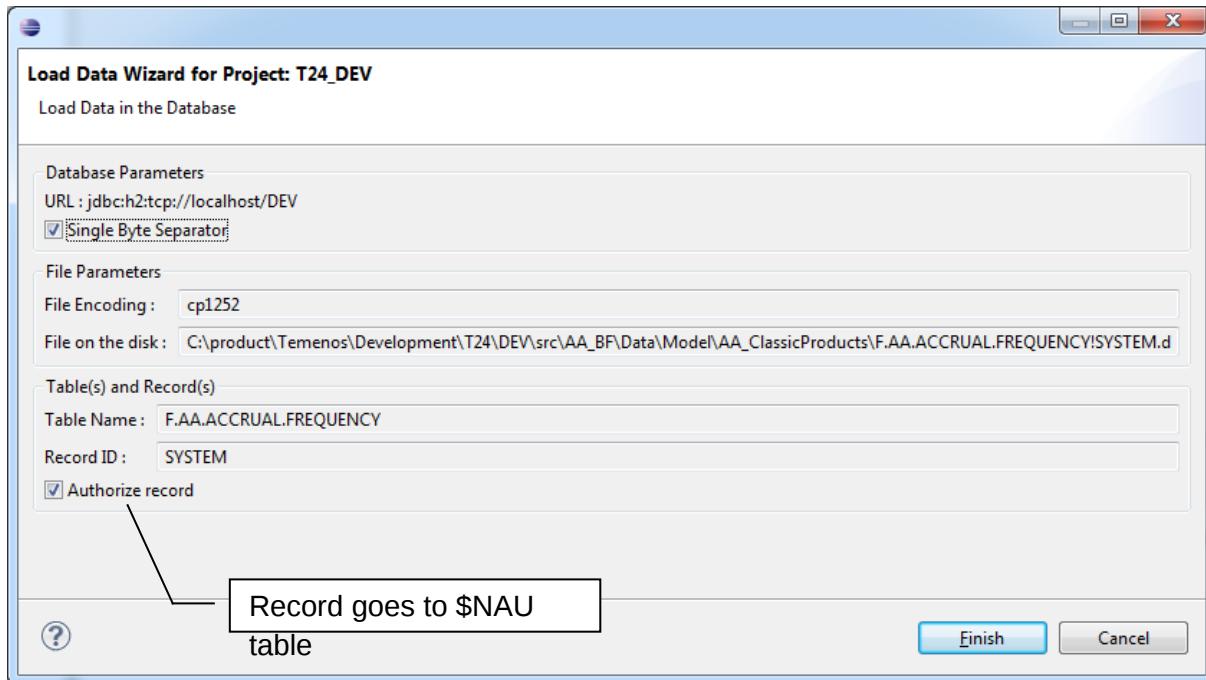
Click finish.

The following output is produced.

```
Error Log Tasks Problems OnlineResources Console
TAFJ Database
Default Encoding = Cp1252
Processing : SYSTEM->file : 'C:\product\Temenos\Development\T24\DEV\src\AA_BF\Data\Model\AA_ClassicProducts\F.AA.ACGRUAL.FREQUENCY!SYSTEM.d' created from the table : F.AA.ACGRUAL.FREQUENCY / Id
Nb Records : 1
Nb Errors : 0
Done in : 15 ms.
```

Load Data

When clicking “Load in the database” the following wizard will be displayed.

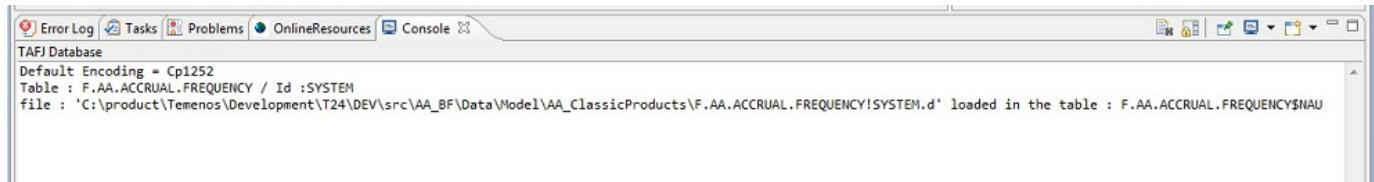


By default a record loaded in T24 requires a manual authorization, thus it will be uploaded in the corresponding \$NAU table.

If you don't wish to authorize the record manually you could uncheck the option "Authorize record" to upload the record directly to the live table.

Click finish.

The following output is produced.



```
Error Log Tasks Problems OnlineResources Console

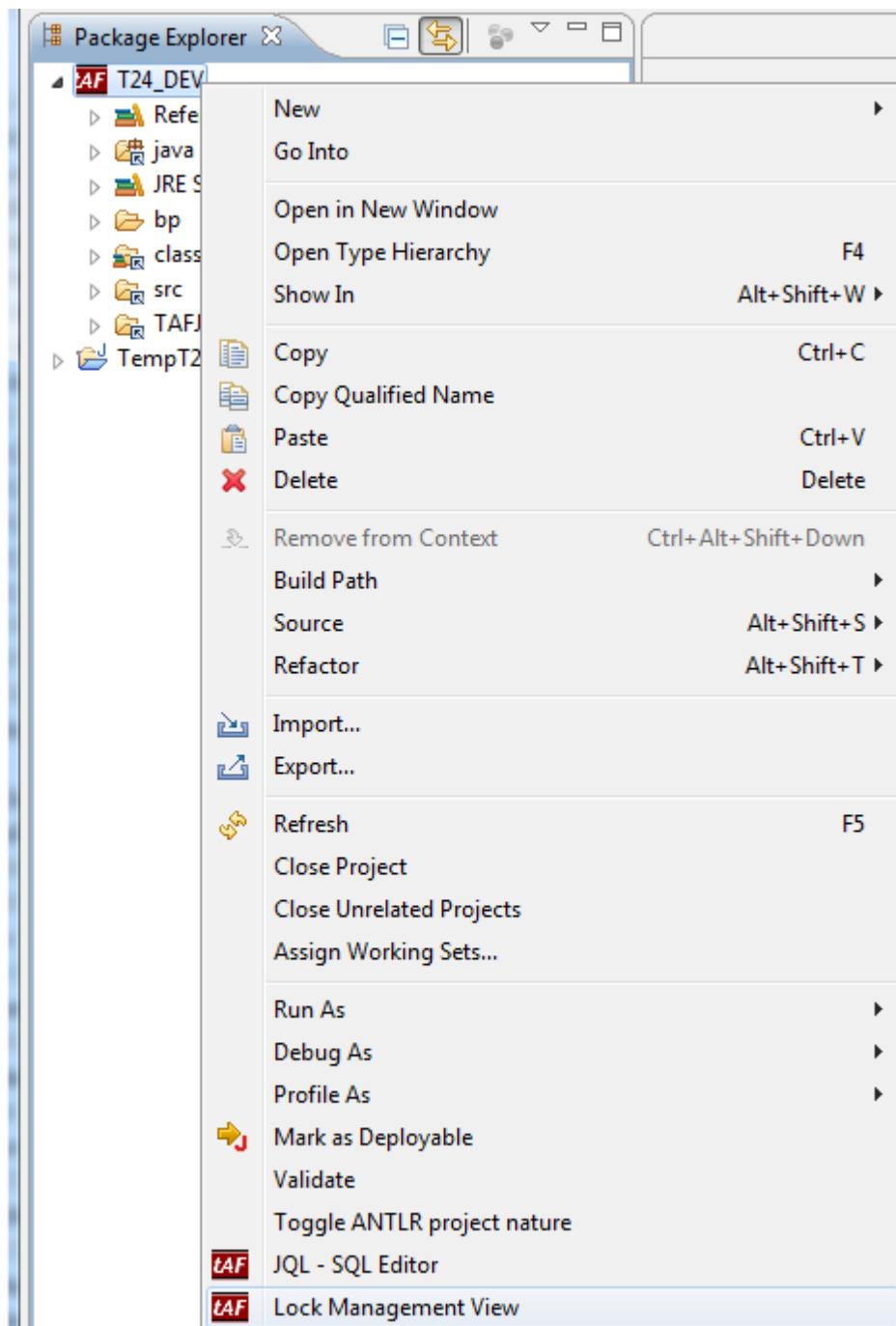
TAFJ Database
Default Encoding = Cp1252
Table : F.AA.ACGRUAL.FREQUENCY / Id :SYSTEM
file : 'C:\product\Temenos\Development\T24\DEV\src\AA_BF\Data\Model\AA_ClassicProducts\F.AA.ACGRUAL.FREQUENCY!SYSTEM.d' loaded in the table : F.AA.ACGRUAL.FREQUENCY$NAU
```

Lock Management View

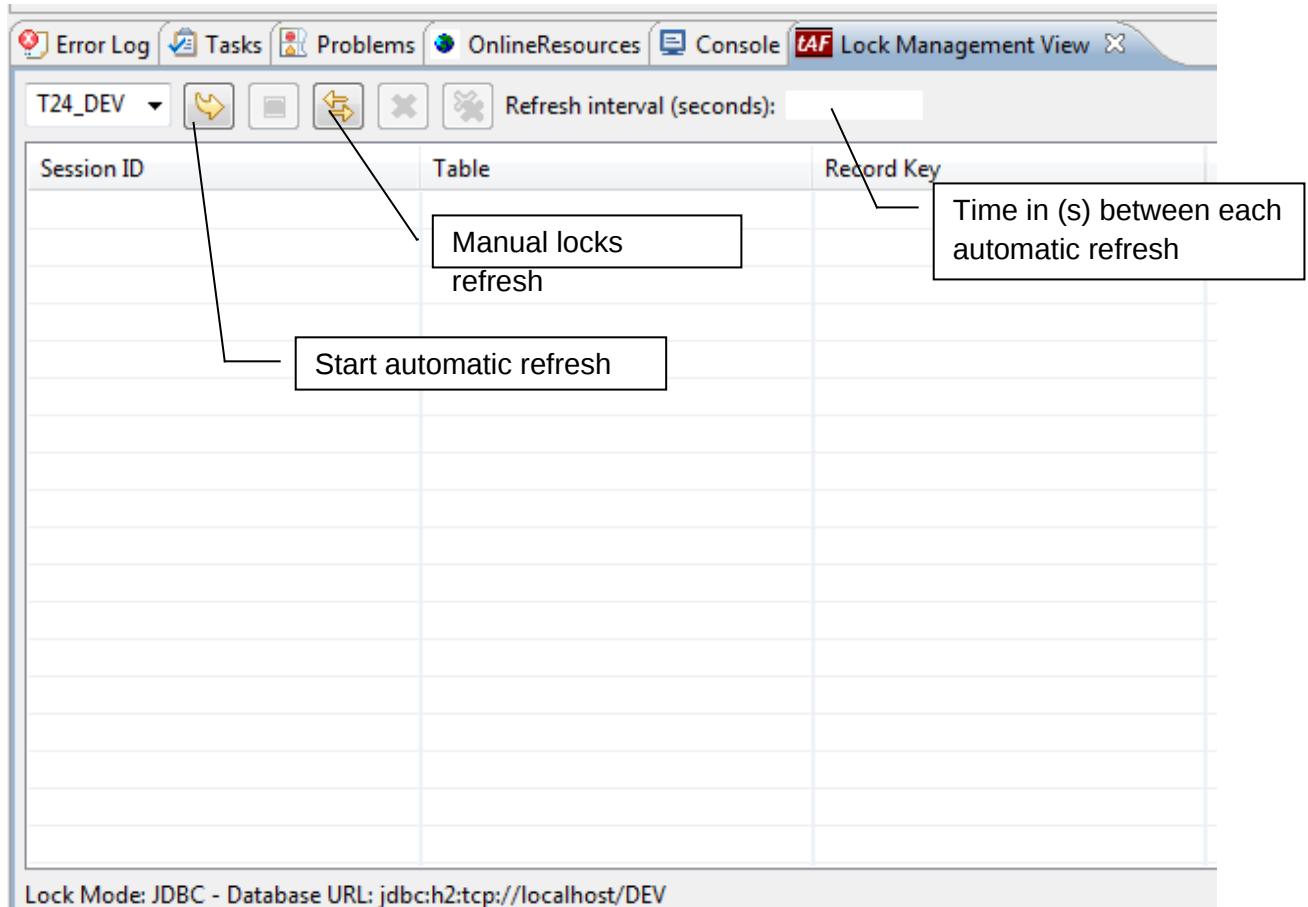
An eclipse view is available to manage the locks handled by the TAFJ lock manager whether one of the following locking mode is used:

- JDBC / ORCL (locks managed at database level)
- PROC (locks managed by an external process)

It's accessible through the contextual menu on the TAFJ project.



Then the following view must be opened.



You could use the view either by refreshing it periodically whenever needed or start an automatic refresh with a refresh interval in seconds that you have to specify.

Once the locks are displayed you're allowed to select the one that belongs to your eclipse environment and to release them if needed.

To release a lock, select it by clicking on it and use the "Release selected lock button". You could release all your locks at the same time by clicking "Release all locks".

You could also see locks that belong to other users, or hold by external eclipse process, these one are greyed and can't be released.

If you start the automatic refresh, you're able to stop it with the button enabled in the toolbar.

Cf. following screenshot.

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Stop automatic refresh

Refresh interval (seconds): 3

| Session ID | Table | Record Key |
|------------|---------------|------------|
| 1405107017 | FBNK_CURRENCY | GBP |
| 1391180720 | FBNK_CURRENCY | USD |

Lock Mode: JDBC - Database URL: jdbc:h2:tcp://localhost/DEV

Lock that could be released

Lock that can't be released

Selected Session: 1391180720 - Record locked: FBNK_CURRENCY - USD

Refresh interval (seconds): 3

| Session ID | Table | Record Key |
|------------|---------------|------------|
| 1405107017 | FBNK_CURRENCY | GBP |
| 1391180720 | FBNK_CURRENCY | USD |

Release selected lock

Selected Lock

Release all locks

Lock Mode: JDBC - Database URL: jdbc:h2:tcp://localhost/DEV

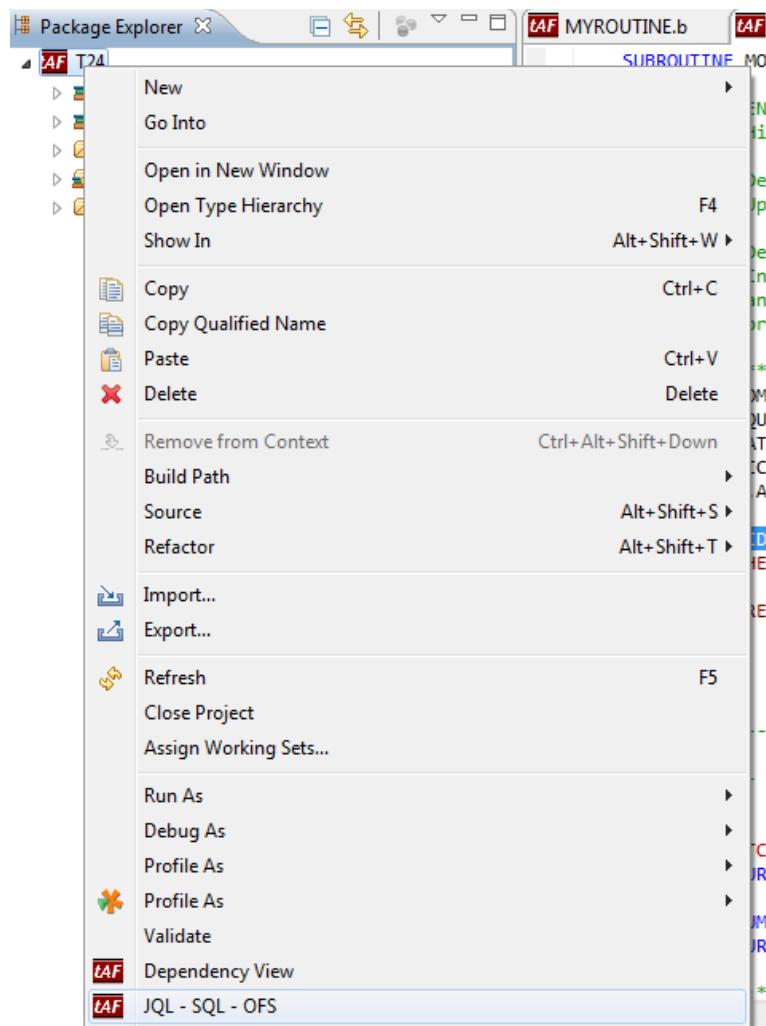


JQL – SQL - OFS Editor

An eclipse editor is available to support the following commands:

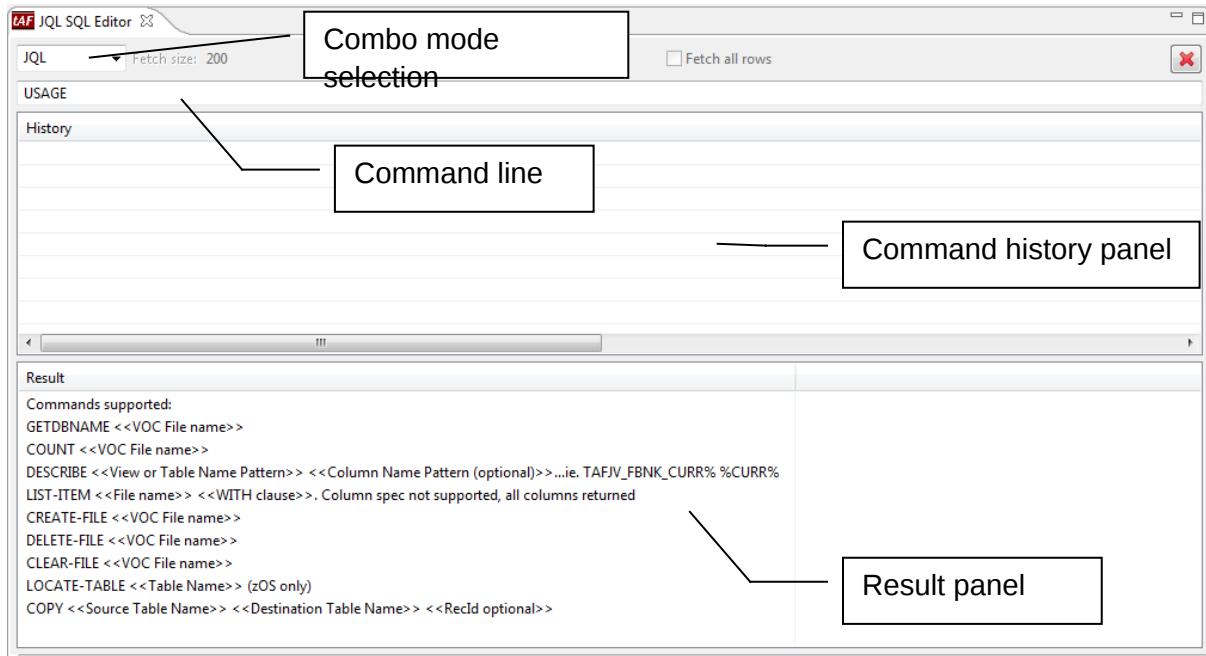
- JQL queries when connected to database
- SQL queries when connected to database
- OFS requests when connected to database and T24 part of the TAFJ project precompile path or since R15 accessing some application server deployment (could be remote or local)
- Since R15 Subroutine call (CALL-AT) on some application server deployment (could be remote or local)
- Translation from JQL to SQL queries

It's accessible through the contextual menu on the TAFJ project.





The following editor will be displayed:



The default mode is JQL and allows executing JQL statements on the database.

In JQL mode, in case of a SELECT, the first 200 rows of the result set are going to be fetched.

You could either change this default fetch size or check option “Fetch all rows” to have all rows being displayed.

The command USAGE is executed on first launch to display the supported JQL / SQL commands.

To change the current mode, select the appropriate one with the combo box on the top of the editor.

To execute a command type it on the command line then type “Enter”.



| RECID | STRRECORD |
|-------|---|
| CAD | .50 · CANADIAN DOLLAR · 2 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.08 · 1.03 · 0.0005 · 0.0005 · 1.0805 · 1.0305 · 1.0795 · 1.0295 · · · · · 147260.00 · 7. |
| GBP | 1 · 130 · POUND STERLINGS · 2 · 0 · 4 · 1 · 0 · E 366/365 · · 1 · 10 · · 1.85 · 1.9 · 0.0005 · 0.0005 · 1.8495 · 1.8995 · 1.8505 · 1.9005 · · · · · 77780.00 · 38 |
| SEK | .240 · Swedish Krone · 2 · · 1 · 0 · B 366/360 · · 1 · 10 · · 7.5 · 7 · 0.01 · 0.01 · 7.51 · 7.01 · 7.49 · 6.99 · · · · · 889670.00 · 441005.00 · · · · · |
| EUR | 5 · 100 · Euro · 2 · 0 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.25 · 1.3 · 0.05 · 0.05 · 1.2 · 1.25 · 1.3 · 1.35 · · · · · 45820.00 · 22623.00 · · · · · 1 |
| JPY | 4 · 180 · JAPANESE YEN · 0 · · 1 · 0 · B 366/360 · · 1 · 10 · · 116 · 106.5 · 0.5 · 5 · 116.5 · 111.5 · 115.5 · 101.5 · · · · · 5312150 · 2689300 · · · · · |
| AUD | .30 · AUSTRALIAN DOLLAR · 2 · 0 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 0.76 · 0.8 · 0.0005 · 0.0005 · .7595 · .7995 · .7605 · .8005 · · · · · 172250.00 · 8507 |
| SGD | .250 · SINGAPORE DOLLAR · 2 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.56 · 1.51 · 0.005 · 0.005 · 1.565 · 1.515 · 1.555 · 1.505 · · · · · 167310.00 · 82595.0 |
| INR | .310 · INDIAN RUPEE · 2 · · 2 · 2 · 0 · E 366/365 · · 1 · 10 · · 44.8 · 44.3 · 0.1 · 0.1 · 44.9 · 44.4 · 44.7 · 44.2 · · · · · 147260.00 · 73830.00 · · · · · |
| USD | 0 · 260 · US Dollar1 · 2 · · 1 · 0 · B 366/360 · · 1 · 10 · · · · · 1000000.00 · 1000000.00 · · · · · 1 · 1 · NO · US · · · · · |

Result is being displayed on the result panel.

It could be copied to the clipboard to be paste somewhere else.

To copy a result or part of it, just select the lines of your interest and right click on the result panel, a "Copy" option will appear.

| RECID | STRRECORD |
|-------|---|
| CAD | .50 · CANADIAN DOLLAR · 2 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.08 · 1.03 · 0.0005 · 0.0005 · 1.0805 · 1.0305 · 1.0795 · 1.0295 · · · · · 147260.00 · 7. |
| GBP | 1 · 130 · POUND STERLINGS · 2 · 0 · 4 · 1 · 0 · E 366/365 · · 1 · 10 · · 1.85 · 1.9 · 0.0005 · 0.0005 · 1.8495 · 1.8995 · 1.8505 · 1.9005 · · · · · 77780.00 · 38 |
| SEK | .240 · Swedish Krone · 2 · · 1 · 0 · B 366/360 · · 1 · 10 · · 7.5 · 7 · 0.01 · 0.01 · 7.51 · 7.01 · 7.49 · 6.99 · · · · · 889670.00 · 441005.00 · · · · · |
| EUR | 5 · 100 · Euro · 2 · 0 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.25 · 1.3 · 0.05 · 0.05 · 1.2 · 1.25 · 1.3 · 1.35 · · · · · 45820.00 · 22623.00 · · · · · 1 |
| JPY | 4 · 180 · JAPANESE YEN · 0 · · 1 · 0 · B 366/360 · · 1 · 10 · · 116 · 106.5 · 0.5 · 5 · 116.5 · 111.5 · 115.5 · 101.5 · · · · · 5312150 · 2689300 · · · · · |
| AUD | .30 · AUSTRALIAN DOLLAR · 2 · 0 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 0.76 · 0.8 · 0.0005 · 0.0005 · .7595 · .7995 · .7605 · .8005 · · · · · 172250.00 · 8507 |
| SGD | .250 · SINGAPORE DOLLAR · 2 · 4 · 1 · 0 · B 366/360 · · 1 · 10 · · 1.56 · 1.51 · 0.005 · 0.005 · 1.565 · 1.515 · 1.555 · 1.505 · · · · · 167310.00 · 82595.0 |
| INR | .310 · INDIAN RUPEE · 2 · · 2 · 2 · 0 · E 366/365 · · 1 · 10 · · 44.8 · 44.3 · 0.1 · 0.1 · 44.9 · 44.4 · 44.7 · 44.2 · · · · · 147260.00 · 73830.00 · · · · · |
| USD | 0 · 260 · US Dollar1 · 2 · · 1 · 0 · B 366/360 · · 1 · 10 · · · · · 1000000.00 · 1000000.00 · · · · · 1 · 1 · NO · US · · · · · |

In SQL mode, in case of a SELECT, the first 200 rows of the result set are going to be fetched.



You could either change this default fetch size or check option “Fetch all rows” to have all rows being displayed.

A button is available on the right top and corner of the view to clean the command history. If not cleaned before exiting the editor, the history will be available on your next use.

To execute OFS requests you need to specify your OFS source, default is GCS, and you could choose whether or not you want the OFS response to be splitted into lines according a separator.

By default the OFS response is splitted into lines according “,” separator.

```

Result
HEADER="No Historical Data Found for this Currency"
@ID:Ccy Id/NUM.CCY:Ccy No/NO.OF.DECIMALS:No Of Decimals/QUOTATION.CODE::Quotation Code/DAYS.DELIVERY::Delivery Days/MID.REVAL.RATE::Mid Reval rate/BUYRATE::Buy Rate/SELL::Sell Rate/DATE.TIME:
"AED""784""2 "" ""1 "" 3.67300"" 3.67350"" 3.67250""18 MAR 13 13:49"
"ARS""32""2 "" ""1 "" 5.05800"" 5.05810"" 5.05790""06 MAR 13 16:51"
"AUD""36""2 "" ""0 ""1 "" 1.02693"" 1.01693"" 1.03693""06 MAR 13 15:55"
"CAD""124""2 "" ""1 "" 1.02722"" 1.02747"" 1.02697""06 MAR 13 16:52"
"CHF""756""2 "" ""1 "" 0.94311"" 0.95311"" 0.93311""06 MAR 13 15:55"
"DKK""208""2 "" ""1 "" 5.71234"" 5.71734"" 5.70734""06 MAR 13 15:55"
"EUR""978""2 "" ""0 ""1 "" 1.30507"" 1.25507"" 1.35507""06 MAR 13 16:52"
"GBP""826""2 "" ""0 ""1 "" 1.02500"" 0.96000"" 1.09000""29 MAR 13 10:40"
"HKD""344""2 "" ""1 "" 7.75604"" 7.75654"" 7.75554""06 MAR 13 15:55"
"INR""356""2 "" ""1 "" 54.80354"" 54.80854"" 54.79854""06 MAR 13 15:55"
"JPY""392""0 "" ""1 "" 93.39546"" 93.89546"" 92.89546""06 MAR 13 15:56"
"KWD""414""3 "" ""1 "" 0.28375"" 0.28475"" 0.28275""06 MAR 13 15:56"
"LBP""422""2 "" ""1 "" 1507.50000"" 1512.50000"" 1502.50000""06 MAR 13 15:56"
"LRK""144""2 "" ""1 "" 127.34992"" 127.84992"" 126.84992""06 MAR 13 15:56"

```

Since R15 you could also execute OFS request on remote server installation by using a webservice call behind the scene.

Simply tick the hostname checkbox and provide server hostname (could be localhost) and the application server port for HTTP request.

| | | |
|------|--|---|
| Mode | OFS parameters | Server |
| OFS | Source: GCS <input checked="" type="checkbox"/> Split response | <input checked="" type="checkbox"/> Hostname: 10.41.5.51 Port: 8080 |



The screenshot shows the TAFJ-Eclipse interface. In the top left, there's a "Mode" dropdown set to "OFS". To its right are "OFS parameters" (Source: GCS, Split response checked) and "Server" settings (Hostname: localhost, Port: 8080). The "Request" pane contains the command: ENQUIRY.SELECT,,INPUTT/123456,ACCOUNT.DETAILS,CURRENCY:EQ=EUR|. The "History" pane shows the same command. The "Result" pane displays the account details for various accounts, such as 111612 and 111614, including their currency (EUR) and implementation.

```
HEADER="Account Details"/HEADER="Account Details"/HEADER="Account not found"  
@ID::Account No/CUSTOMER::Customer/ACCOUNT.TITLE.1::Name/CATEGORY::Product/CURRENCY::Ccy/ACCOUNT.OFFICER::Account Off  
"Account Details"  
"68799 "  
"Account Details"  
"111612 ""ABCEUR      ""Current Account    ""EUR ""Implementation      "  
"Account Details"  
"68764 "  
"Account Details"  
"111614 ""ABCTREUR     ""Current Account    ""EUR ""Implementation      "  
"Account Details"  
"68837 "
```

Since R15 invoking a subroutine through CALL-AT is available through the menu SUBROUTINE.

The screenshot shows the TAFJ-Eclipse interface with the "Mode" dropdown now set to "SUBROUTINE". The "Server" section remains the same, with Hostname: localhost and Port: 8080.

It will invoke the corresponding webservice on the specified application server deployment.

Simply provide server hostname (could be localhost) and the application server port for HTTP request.

The request format, as presented below, is :

[SUBROUTINE.NAME]<FM>[NUMBER OF PARAMETER]<IM>[PARAM VAL 1]<IM>[PARAM VAL 2]...

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i.e. : EXCHRATE<FM>10<IM>1<IM>CHF<IM>500<IM>GBP<IM><IM><IM><IM><IM><IM>

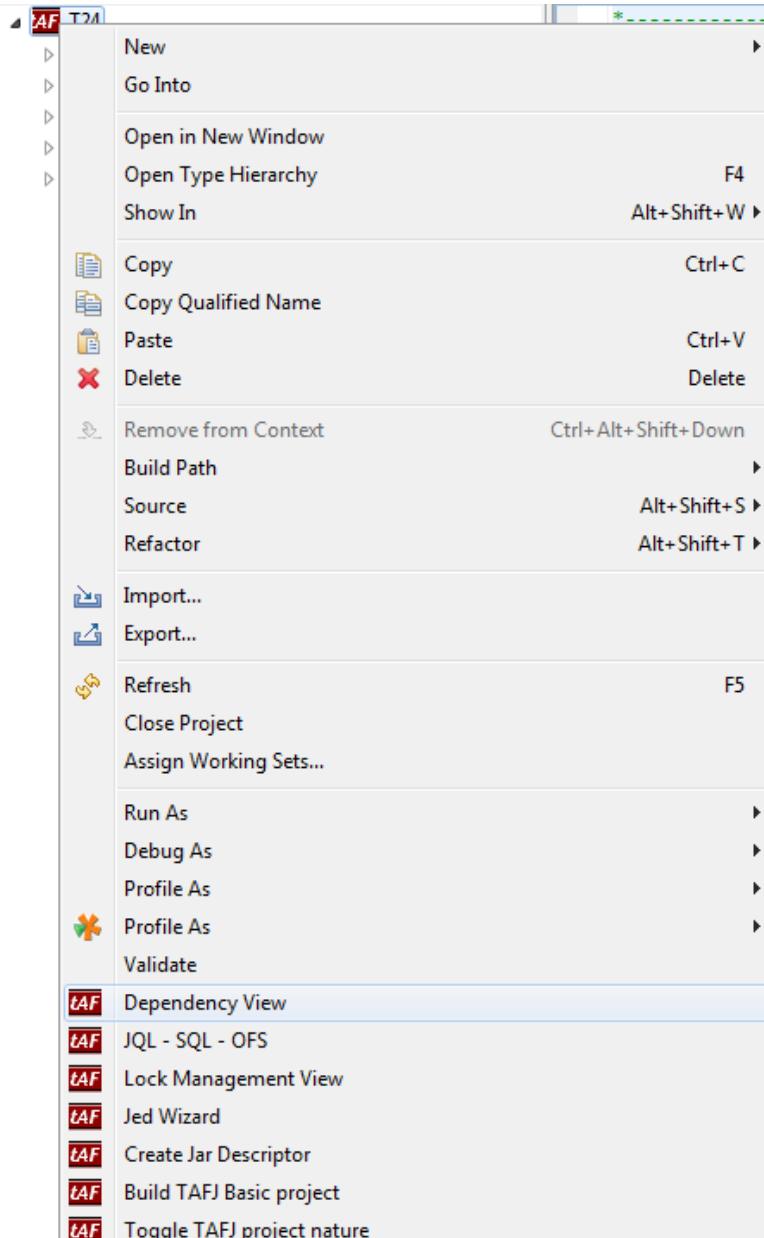
| | |
|--|--|
| Mode | |
| SUBROUTINE | Server <input checked="" type="checkbox"/> Hostname: localhost Port: 8080 |
| Request | |
| EXCHRATE<FM>10<IM>1<IM>CHF<IM>500<IM>GBP<IM><IM><IM><IM><IM><IM> | |
| History | |
| EXCHRATE<FM>10<IM>1<IM>CHF<IM>500<IM>GBP<IM><IM><IM><IM><IM><IM> | |
| Result | |
| 1 CHF 500.00 GBP 336.35 GBP 1.486555946 0.00 565.43 Y | |

Dependency View

The dependency view displays on a graph:

- dependencies between T24 routines (CALL graph)
- dependencies between labels within a T24 routine (GOSUB graph)

This view will be opened automatically when editing a T24 routine, or it could be opened on demand if it has been closed by clicking in the contextual menu on the TAFJ project.



GOSUB Graph

When editing a basic file the Gosub graph for this file will be automatically generated and updated according the basic code change.

Double clicking on a graph node will redirect you to the corresponding label in the basic editor.

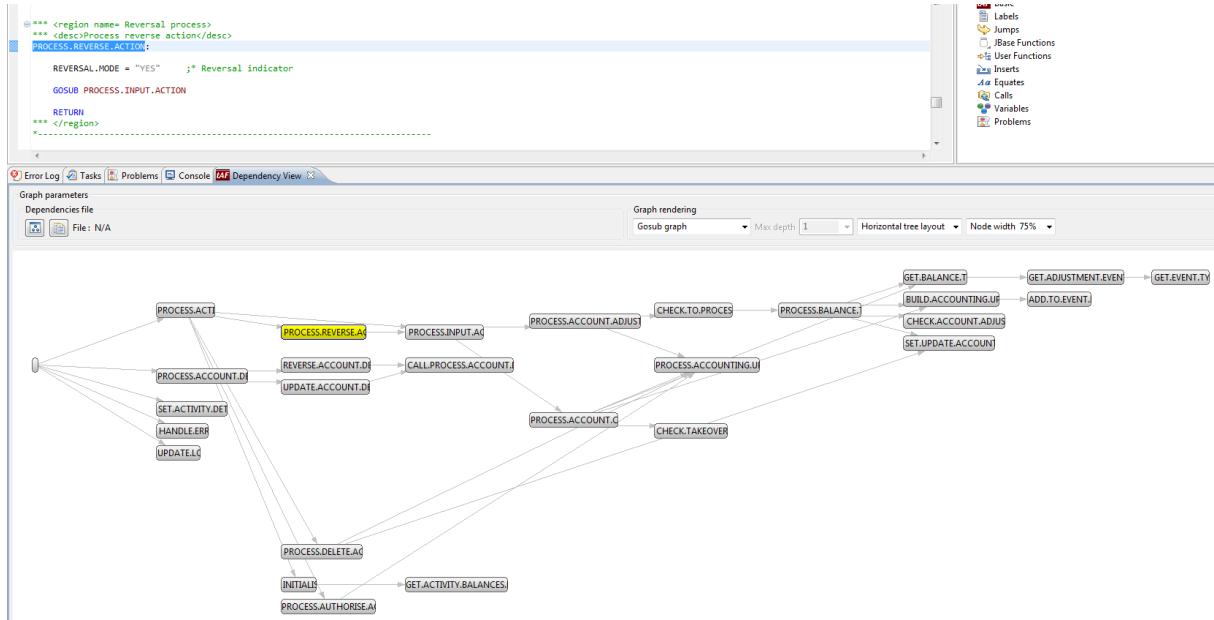
When you have an important number of node levels, you could tune the node size to have the graph fit the screen.

You could also switch between different nodes layout.

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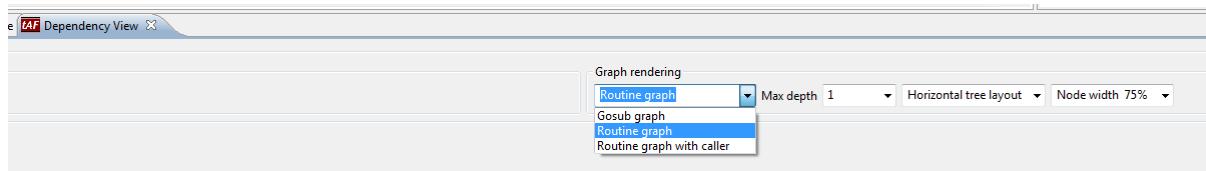




Routine Graph

This graph is also available in the Dependency View, by default the Gosub Graph is selected in the “Graph Rendering” combo box.

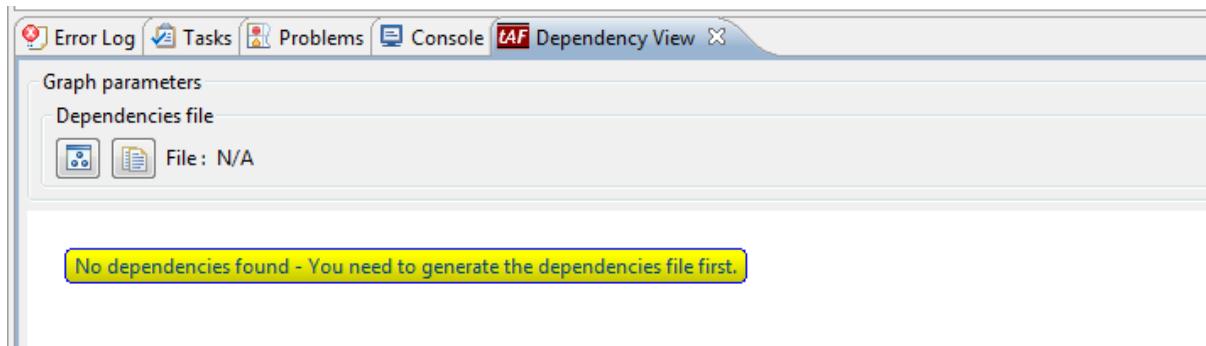
You will have to switch to one of the Routine graph to have it displayed.



This graph requires a full basic code parsing to generate a file containing all dependencies.

This file is generated once for all and will be updated according your basic code change.

Until this file is generated you will have the following node displayed.



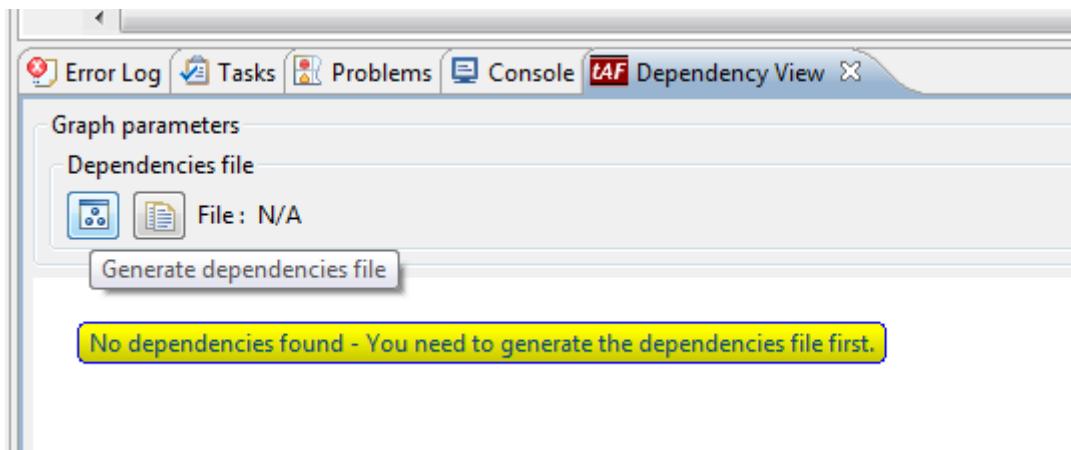
Dependencies file generation

You could either generate your own file by clicking on the icon

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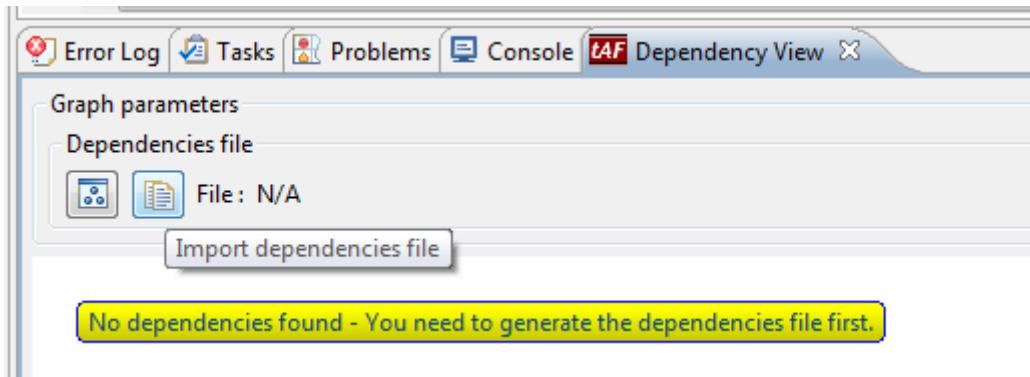


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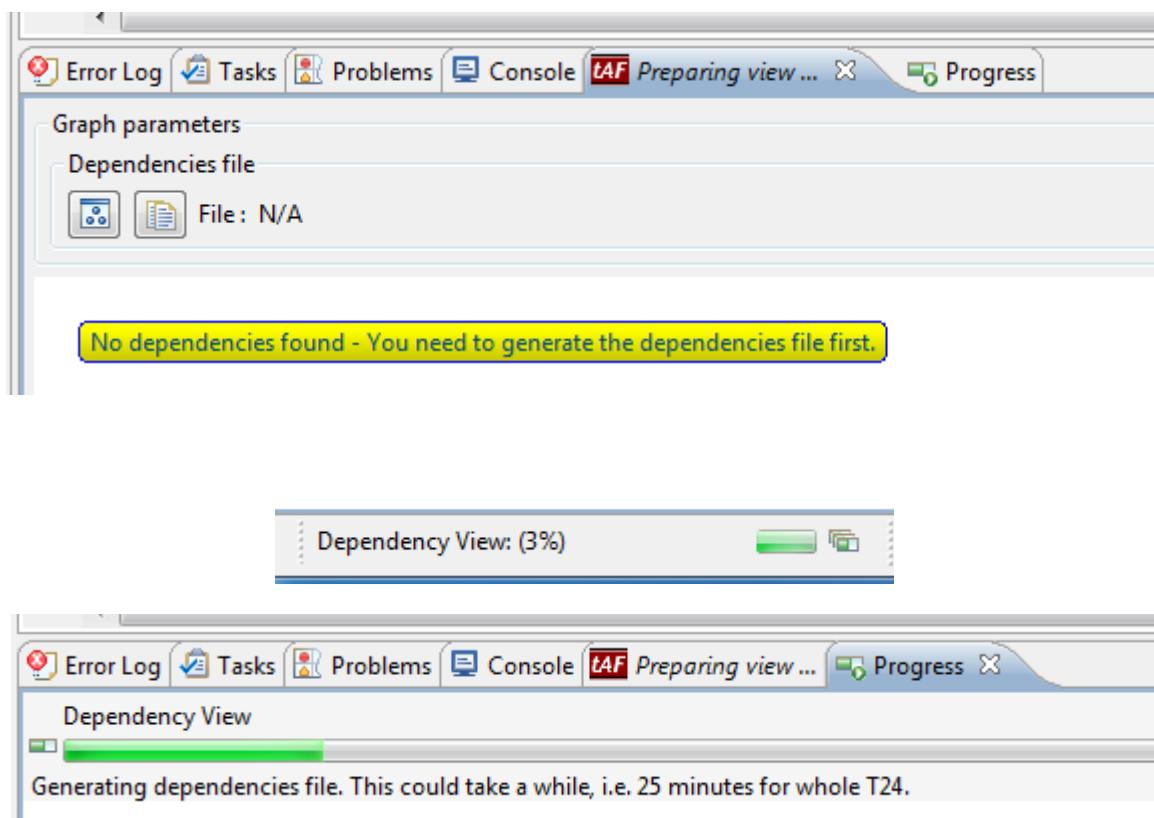
Or you could import an existing file from your file system if you have one.



Please note the file generation could take about 20-30 minutes to get generated for whole T24 (20000 files to be parsed).

This is a background process, you could continue to use eclipse at the same time.

A progress bar is available and you could see the status of the view turned to "Preparing view".

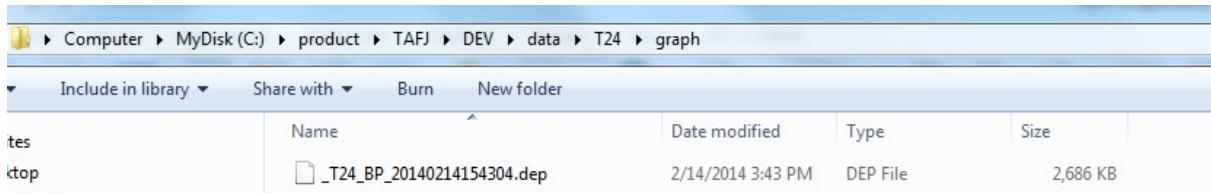


Dependencies are logged in file \$TAFJ_HOME/dependency.log then transformed into a file that could be imported / shared between people using same source code.

The final file is generated under \$TAFJ_HOME/data/graph

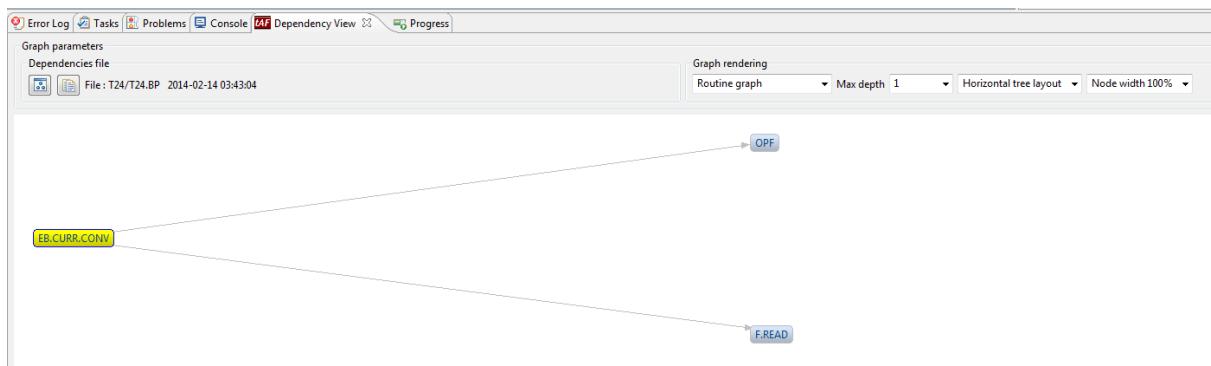


The file name follows the pattern : _YourProjectName_YYYYmmDDhhMMss.dep.

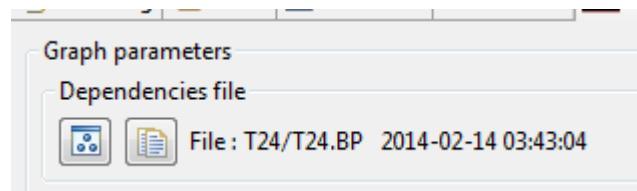


Graph options

Once the file has been generated, the routine graph will be displayed.

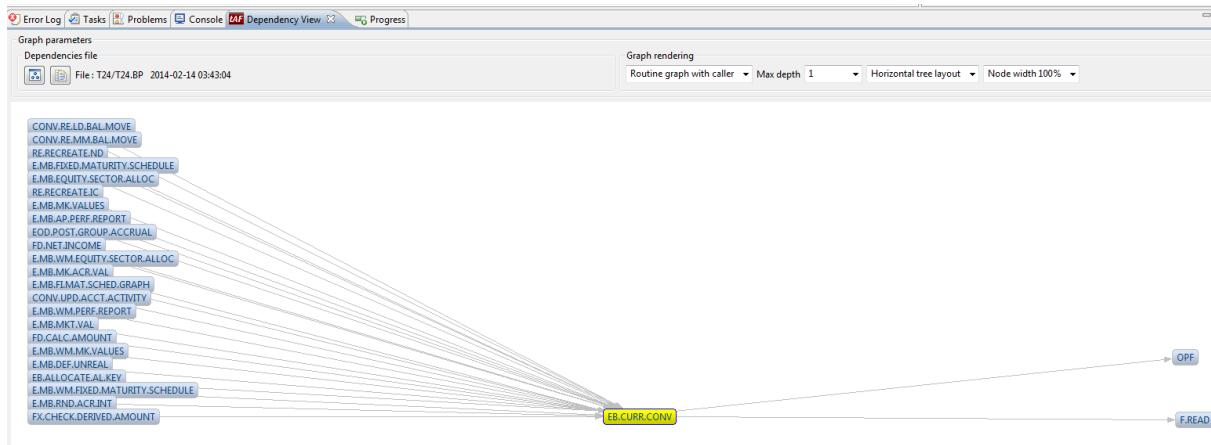


You can see that the dependencies file name is being displayed. This way you know when it has been generated.

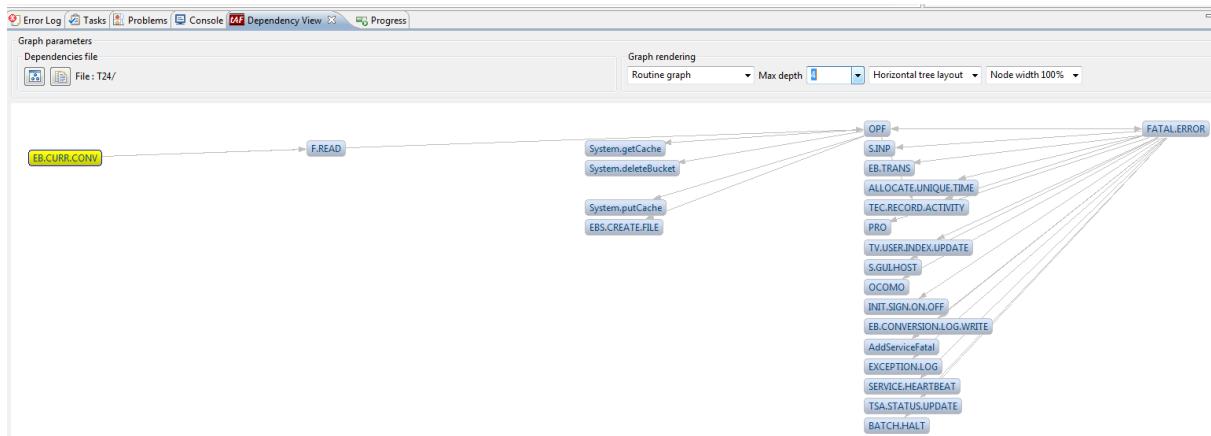


By double clicking on a node you will jump on the basic editor for the corresponding file.

You could also display on the graph the routine which are calling your current routine. You need to select in the graph rendering parameters, the combo value "Routine graph with caller".



By changing combo value “Max depth” you will specify the number of dependency level you want to display on your graph.

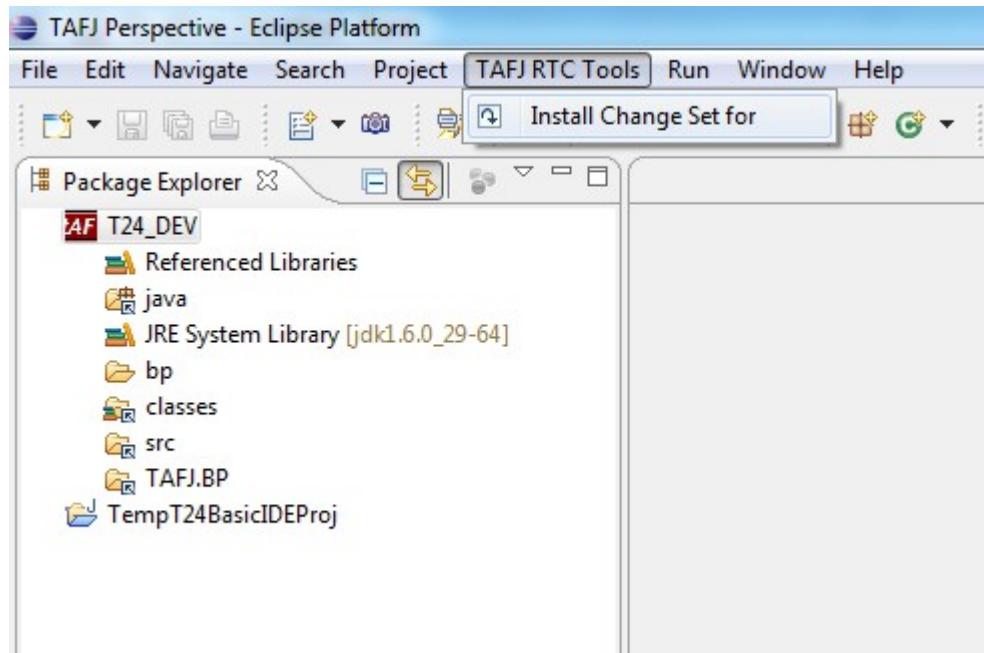




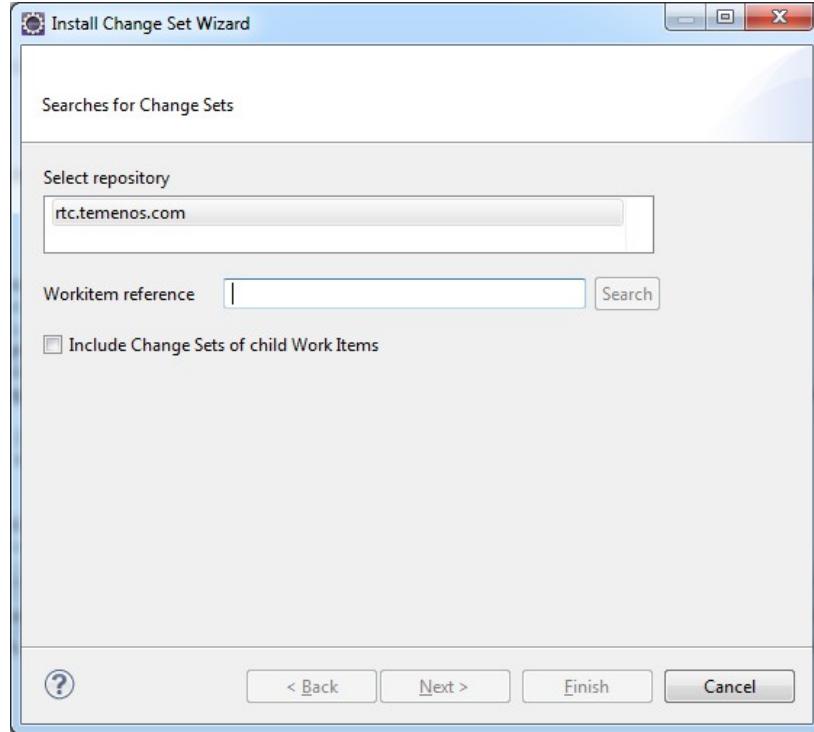
Install Change Set (RTC)

From the TAFJ perspective you have the ability to install a change set into your environment.

This functionality is available only when your eclipse environment has a full RTC support and will work if you are connected to the Temenos RTC repository.

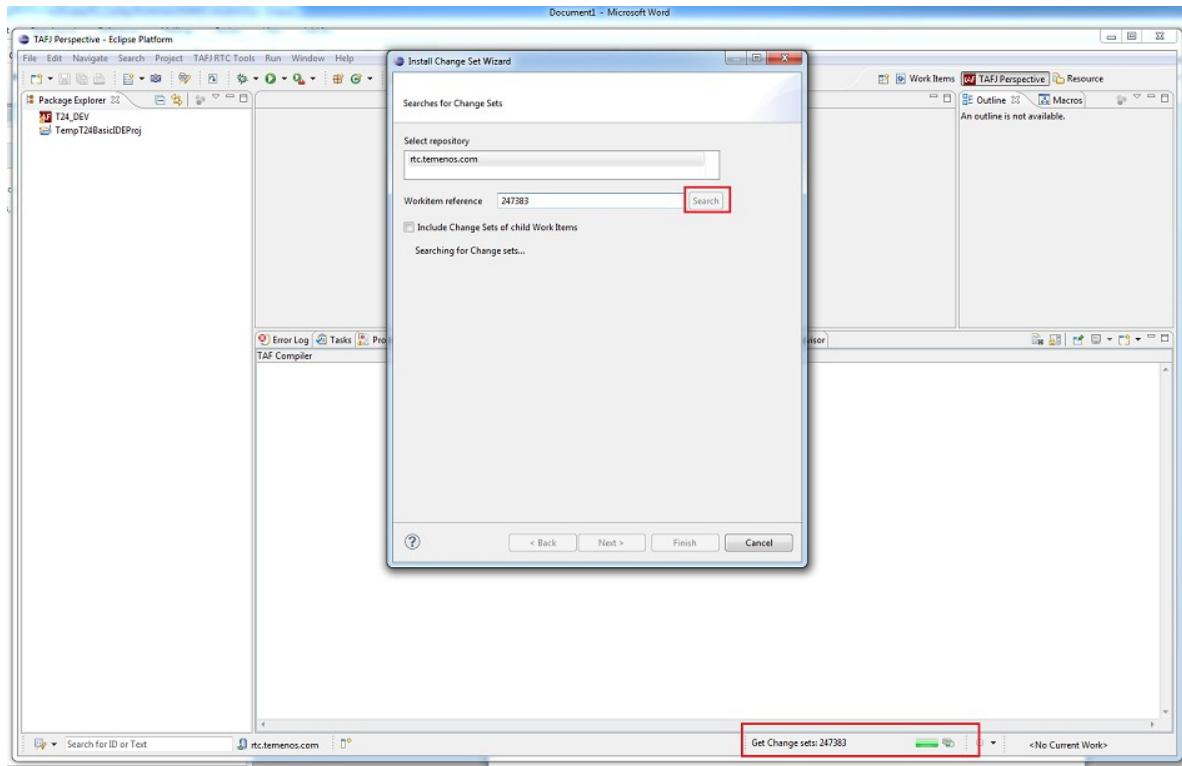


Then enter the number of the work item containing the change set you want to install.

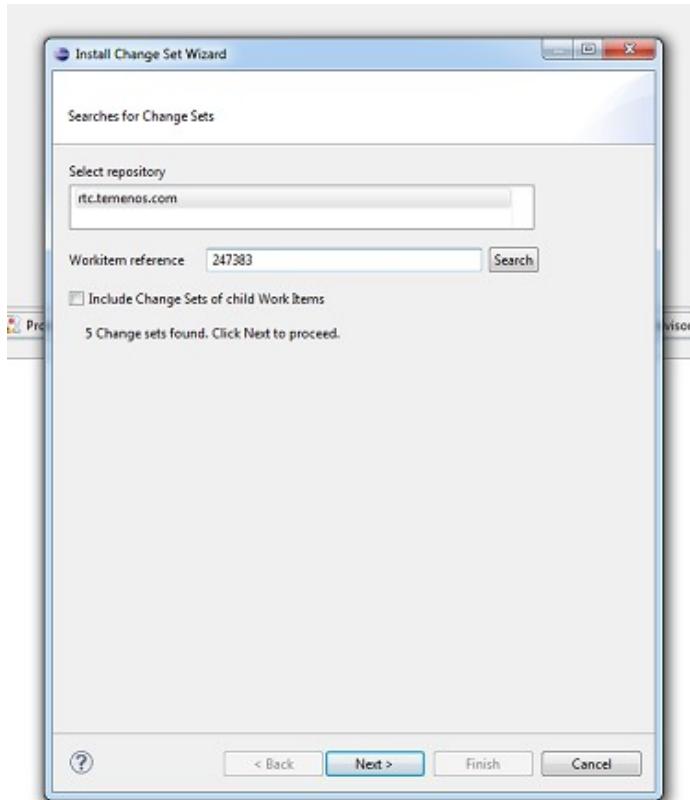


Searching a change set is in TAFJ plugin a non-blocking operation to avoid eclipse warnings regarding “long operation prohibited in thread UI”.

You can see the job execution progression on the eclipse task bar.

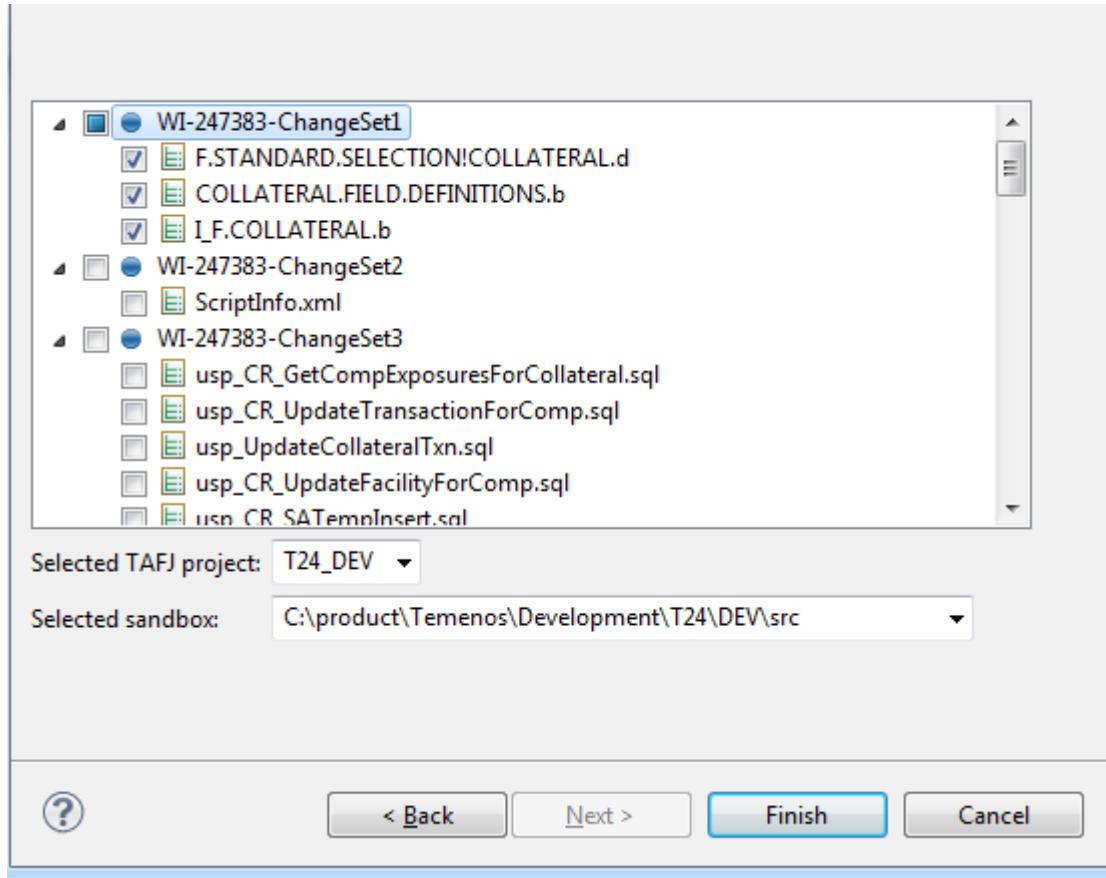


Once the search is complete you can click the “Next” button.





Then select the change set you want to install and the related TAFJ project and sandbox.

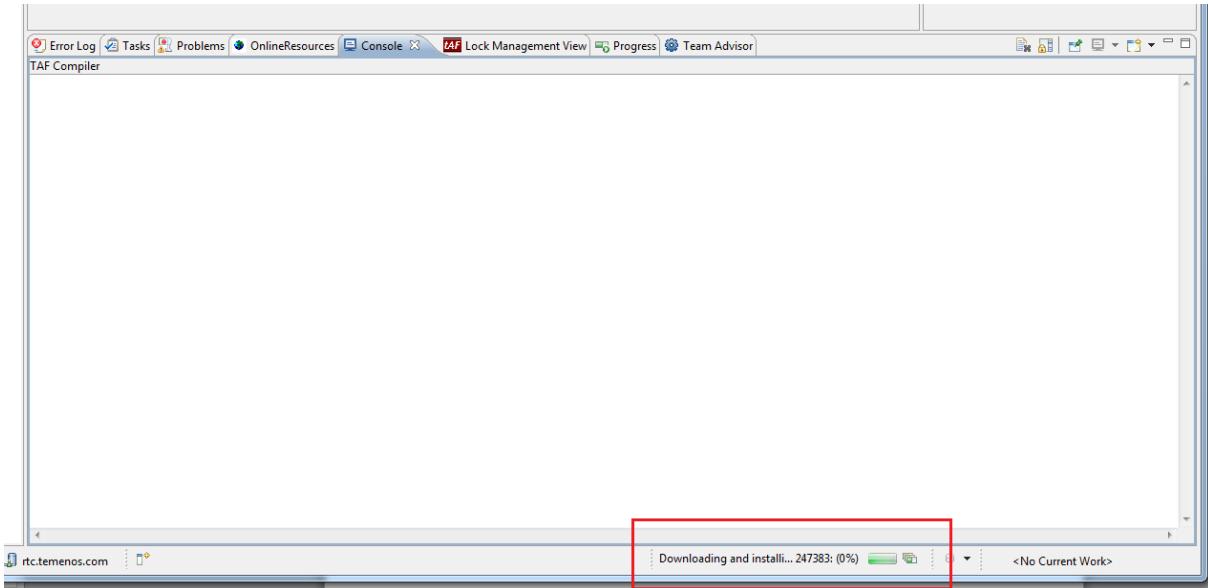


There must be only one TAFJ project and the appropriate sandbox should be selected by default.

Click "Finish", the popup will be closed to avoid blocking operation but the installation will still be running in a separate eclipse task.

Files will be downloaded to the sandbox under their related component and path.

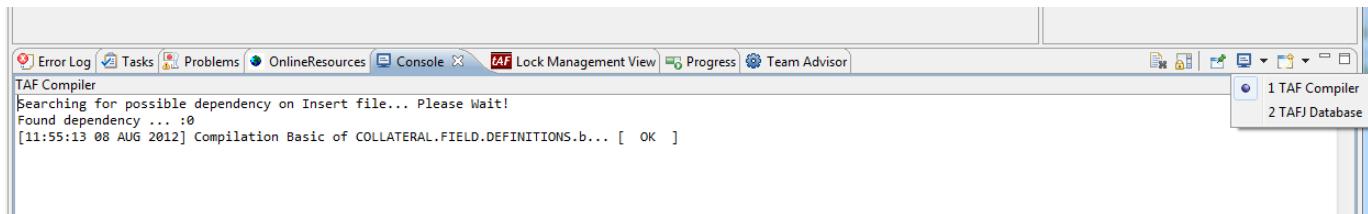
Job progression is being displayed in the eclipse task bar.



Once it's finished, compilation will be automatically triggered and data files uploaded to the database.

This information is being displayed by the Compiler log and Database log.

Basic file



Data file

