



## TAURUS

Integrating Tools in Eclipse  
Serena ChangeMan Integration

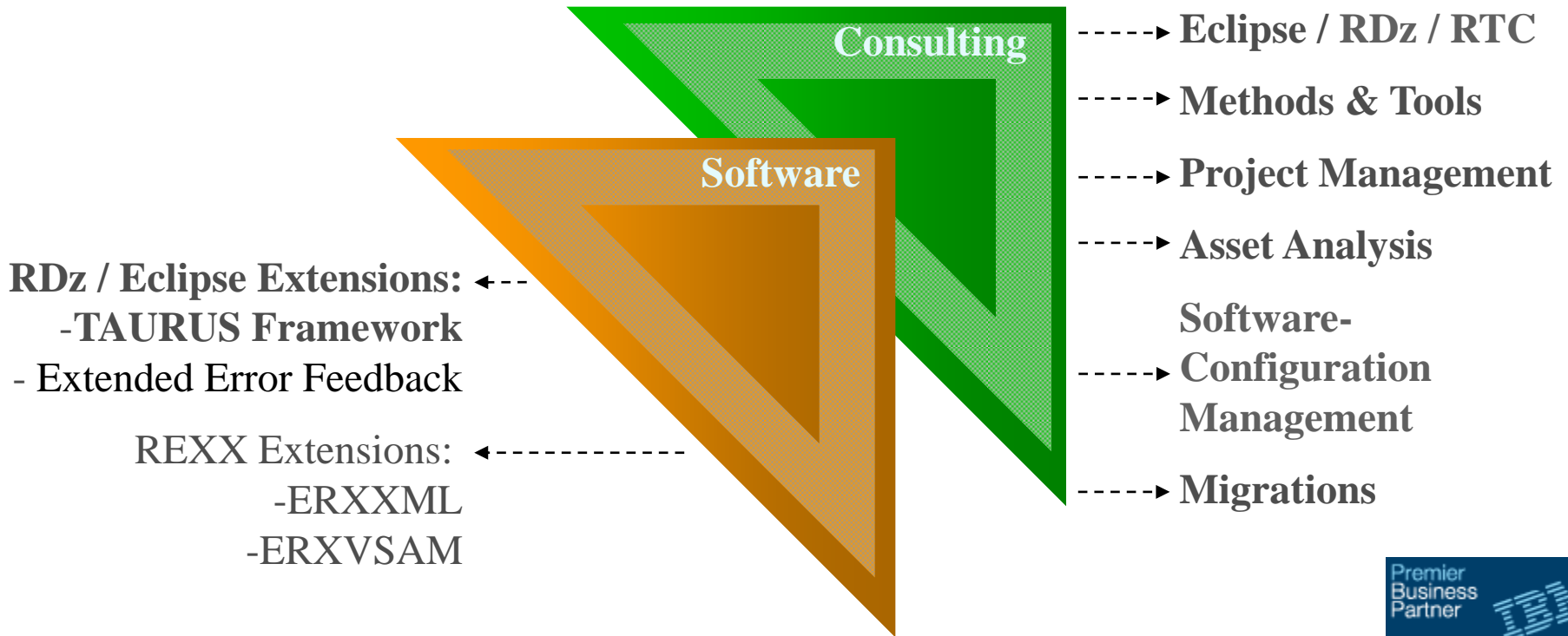
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<http://www.soforte.com>

## Your specialist for Enterprise Development Processes



- **Focus**

- SoforTe is specialized in optimizing mainframe based application development processes and team collaboration
- RDz, RTC EE, RAA, ....
- SCLM, Endeavor, ChangeMan, ...

- **Clients**

- Mainframe customers across all industries

- **Technology**

- TAURUS

- **Lessons learned**

- Integrating existing development processes in Eclipse is time consuming and requires special skills
- Risk – Implementation is not done to the full extend and developers reject Eclipse
- Current Eclipse “out of the box” solutions are not sufficient

- **Consequence**

- Eclipse Implementations need to be simplified and easily customizable for the customers existing development process
- => development of TAURUS Integration toolkit

- **Supports standard mainframe utilities in Eclipse**
  - MVS dataset explorer
  - JES Job explorer
- **Model driven tool integration**
  - Modeling of user interfaces and tool integration
  - Supports integration of SCLM, Endeavor, ChangeMan, ...
  - Fully customizable
  - Fully integrated into Eclipse or RDz
- **Reducing effort**
  - Integration with major SCM systems out of the box
  - Predefined models for different development processes
  - Integration with all kinds of tools like RAA, RTC, ...
  - Existing skill is sufficient – no plug-in development skill required
- **10 times faster compared to plug-in development**
  - Plug-in development becomes obsolete
  - Complete and deep integration becomes affordable
  - High functionality and quality of UI increase developer acceptability and productivity

# SoforTe – TAURUS – Architecture

Windows / Linux

z/OS

Eclipse or RDz Client

TAURUS

TAURUS  
Generic  
User  
Interface

TAURUS  
MVS  
Explorer

TAURUS  
JES Job  
Explorer

TAURUS  
Error  
Feedback

TAURUS  
User  
Extension

TAURUS  
Syntax-  
check

TCP/IP

MVS

TAURUS  
zServer

TCP/IP

TAURUS  
Config XML

zServer  
ISPF  
Interface

Tool

Tool

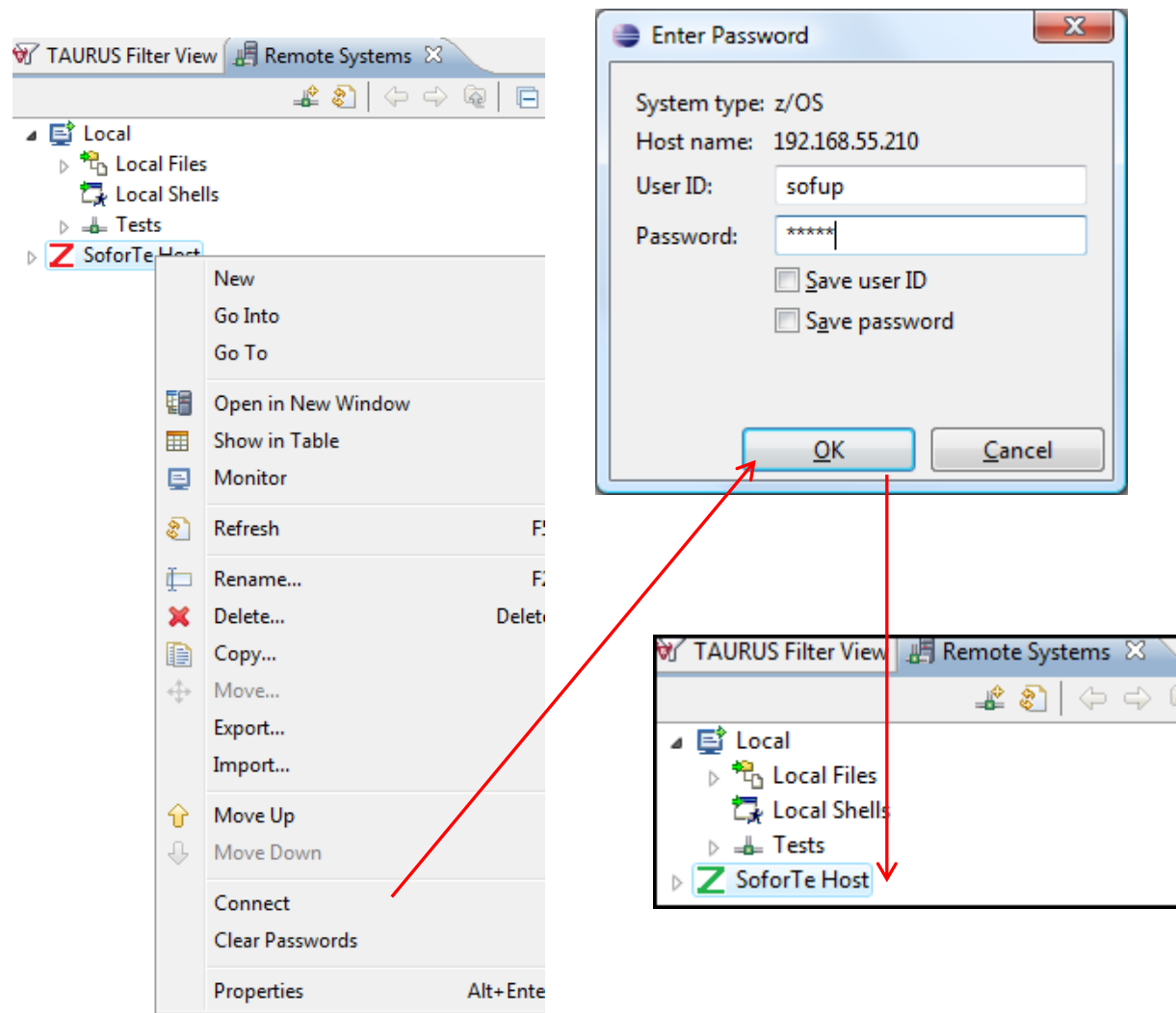
TSO / ISPF

Job

Batch

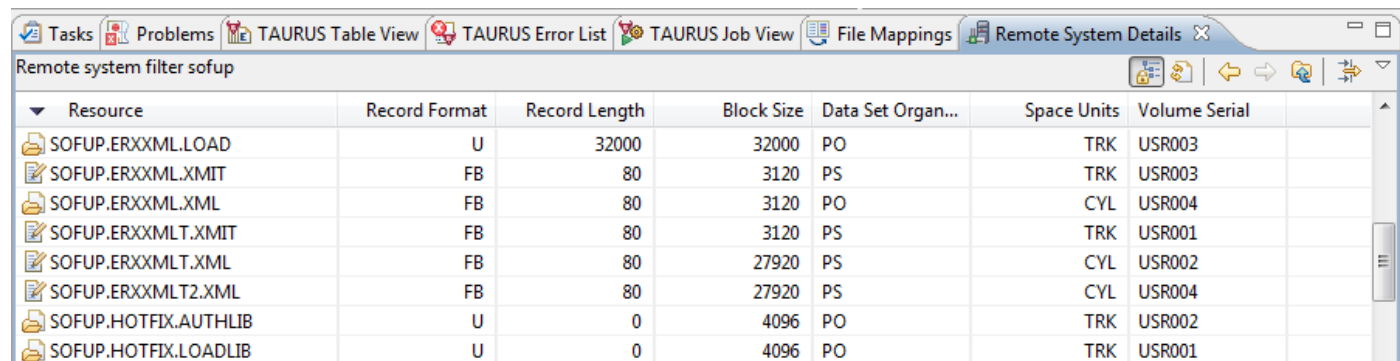
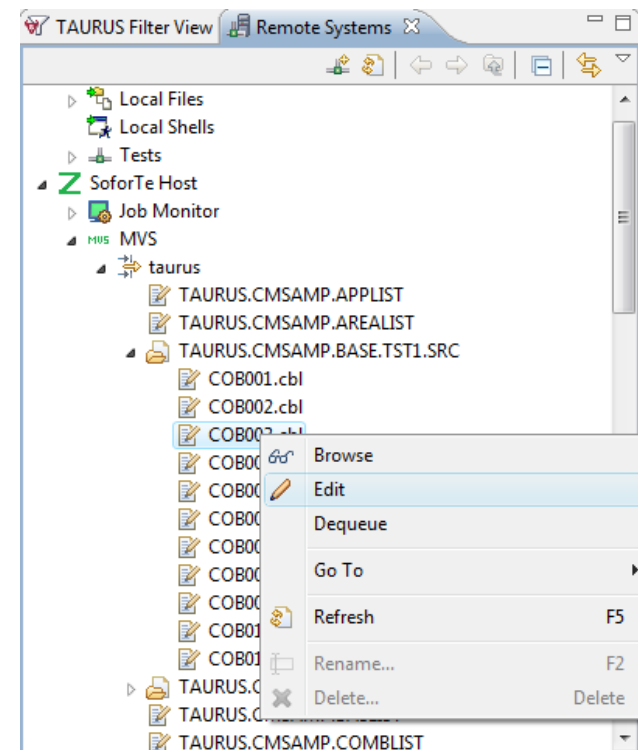
# Connecting to the TAURUS zServer on z/OS

- Connecting to a z/OS system
- RACF Logon



# TAURUS – MVS Explorer / MVS Dataset Support

- Creating Dataset Filter
- High Performance Communication:
  - List Datasets
  - List Members
  - Browse / Edit
  - Enqueue / Dequeue
  - HSM Support : Recall of migrated datasets
- File Mapping (Dataset / Member → File Suffix)
- Show in Table (Column sort ...)
- Dataset / Member functions (planned for Vnext):
  - Create/Delete
  - Copy / Paste
  - Rename
  - Search
  - Compare

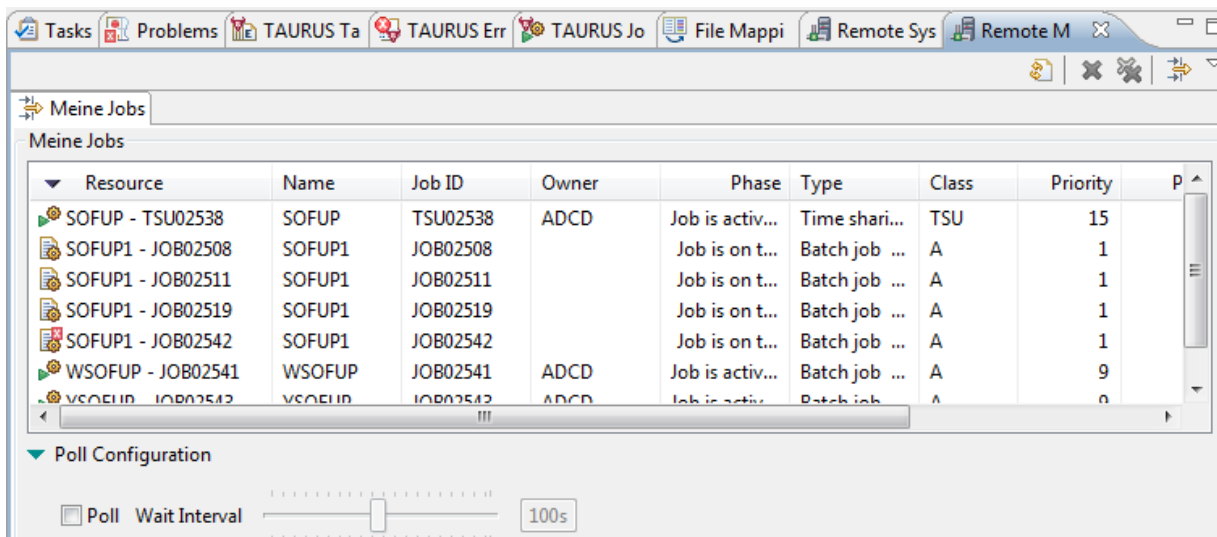


The screenshot shows the 'TAURUS Table View' window displaying a table of dataset members. The table has columns for Resource, Record Format, Record Length, Block Size, Data Set Organ..., Space Units, and Volume Serial.

Resource	Record Format	Record Length	Block Size	Data Set Organ...	Space Units	Volume Serial
SOFUP.ERXXML.LOAD	U	32000	32000	PO	TRK	USR003
SOFUP.ERXXML.XMIT	FB	80	3120	PS	TRK	USR003
SOFUP.ERXXML.XML	FB	80	3120	PO	CYL	USR004
SOFUP.ERXXMLT.XMIT	FB	80	3120	PS	TRK	USR001
SOFUP.ERXXMLT.XML	FB	80	27920	PS	CYL	USR002
SOFUP.ERXXMLT2.XML	FB	80	27920	PS	CYL	USR004
SOFUP.HOTFIX.AUTHLIB	U	0	4096	PO	TRK	USR002
SOFUP.HOTFIX.LOADLIB	U	0	4096	PO	TRK	USR001

# TAURUS – JES JOB Explorer

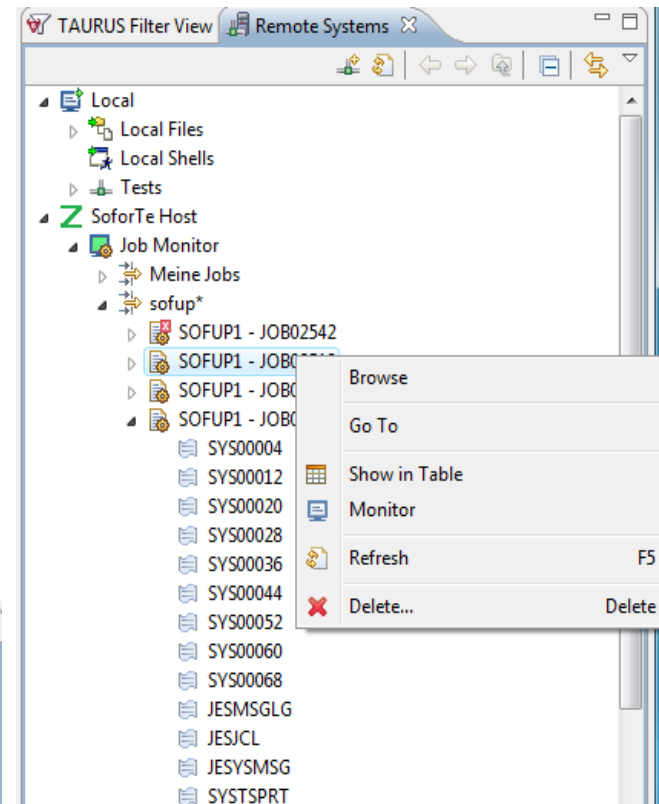
- Creating Job Filter
- High Performance Communication:
  - List Jobs
  - List Job Parts
  - Browse Jobs / Parts
- Submit Jobs
- Show in Table (Column sort ...)
- Automatic Refresh (Polling)



The screenshot shows the 'Meine Jobs' window in the TAURUS Filter View. It displays a table with columns: Resource, Name, Job ID, Owner, Phase, Type, Class, Priority, and p. The table contains several rows of job information, including SOFUP and WSOFUP jobs with their respective IDs and owners.

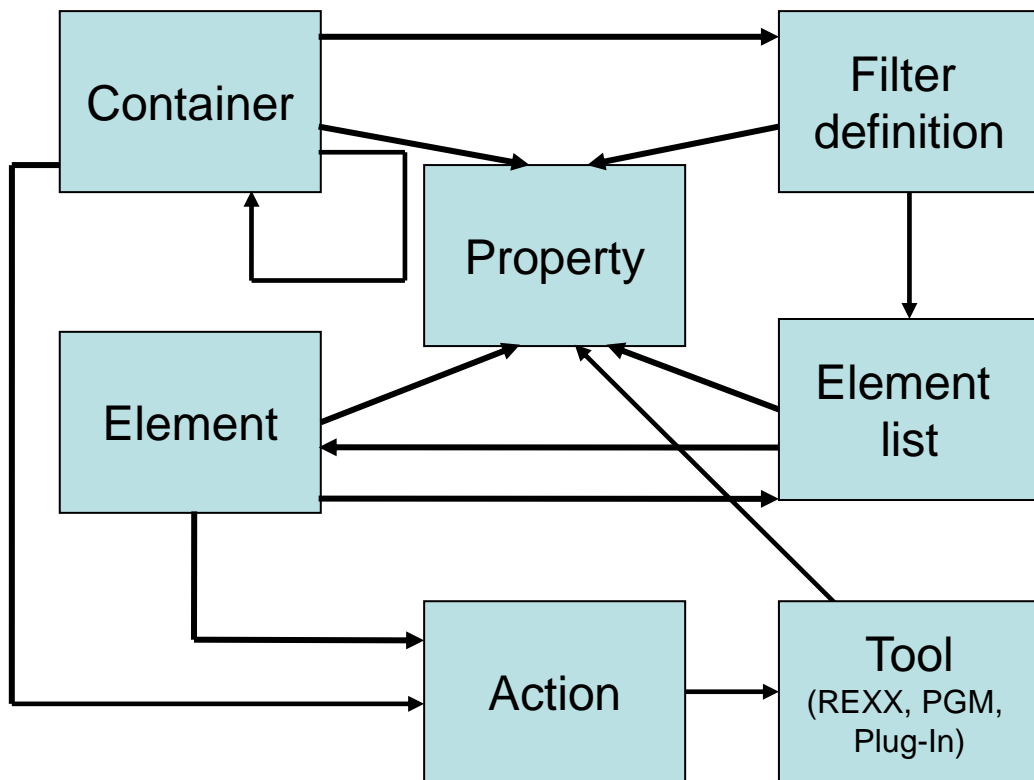
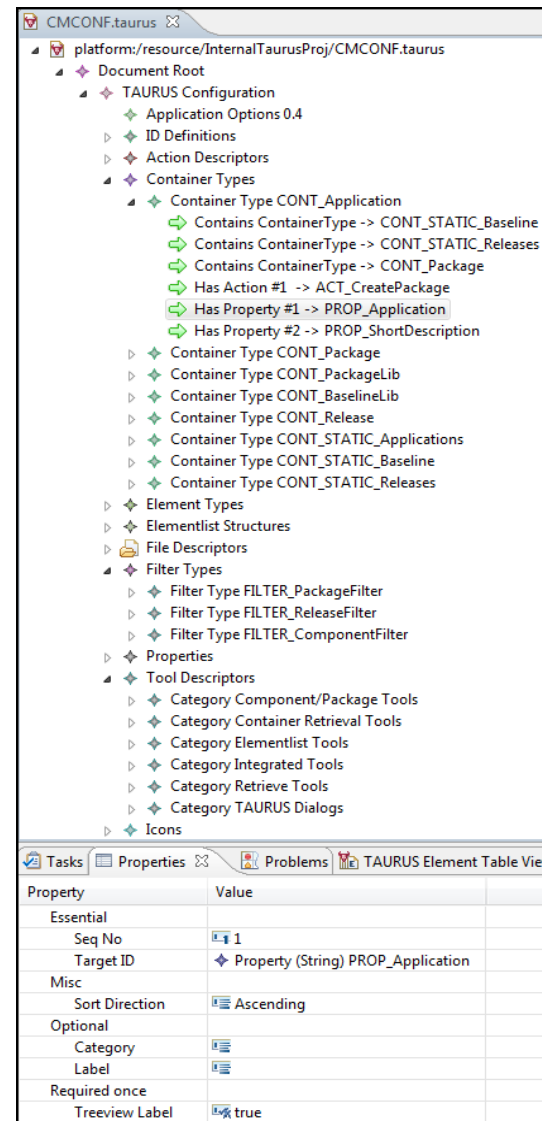
Resource	Name	Job ID	Owner	Phase	Type	Class	Priority	p
SOFUP - TSU02538	SOFUP	TSU02538	ADCD	Job is activ...	Time shari...	TSU	15	
SOFUP1 - JOB02508	SOFUP1	JOB02508		Job is on t...	Batch job ...	A	1	
SOFUP1 - JOB02511	SOFUP1	JOB02511		Job is on t...	Batch job ...	A	1	
SOFUP1 - JOB02519	SOFUP1	JOB02519		Job is on t...	Batch job ...	A	1	
SOFUP1 - JOB02542	SOFUP1	JOB02542		Job is on t...	Batch job ...	A	1	
WSOFUP - JOB02541	WSOFUP	JOB02541	ADCD	Job is activ...	Batch job ...	A	9	
WSOFUP - JOB02542	WSOFUP	JOB02542	ADCD	Job is activ...	Batch job ...	A	9	

Below the table, there is a 'Poll Configuration' section with a 'Poll' checkbox and a 'Wait Interval' slider set to 100s.



The screenshot shows the 'Remote Systems' window in the TAURUS Filter View. It displays a tree view of remote systems, including 'Local Files', 'Local Shells', 'Tests', and 'SoforTe Host'. A context menu is open over the 'SOFUP1 - JOB02542' job, showing options: Browse, Go To, Show in Table, Monitor, Refresh, and Delete... The 'Show in Table' option is highlighted.

# SoforTe – TAURUS – modeling

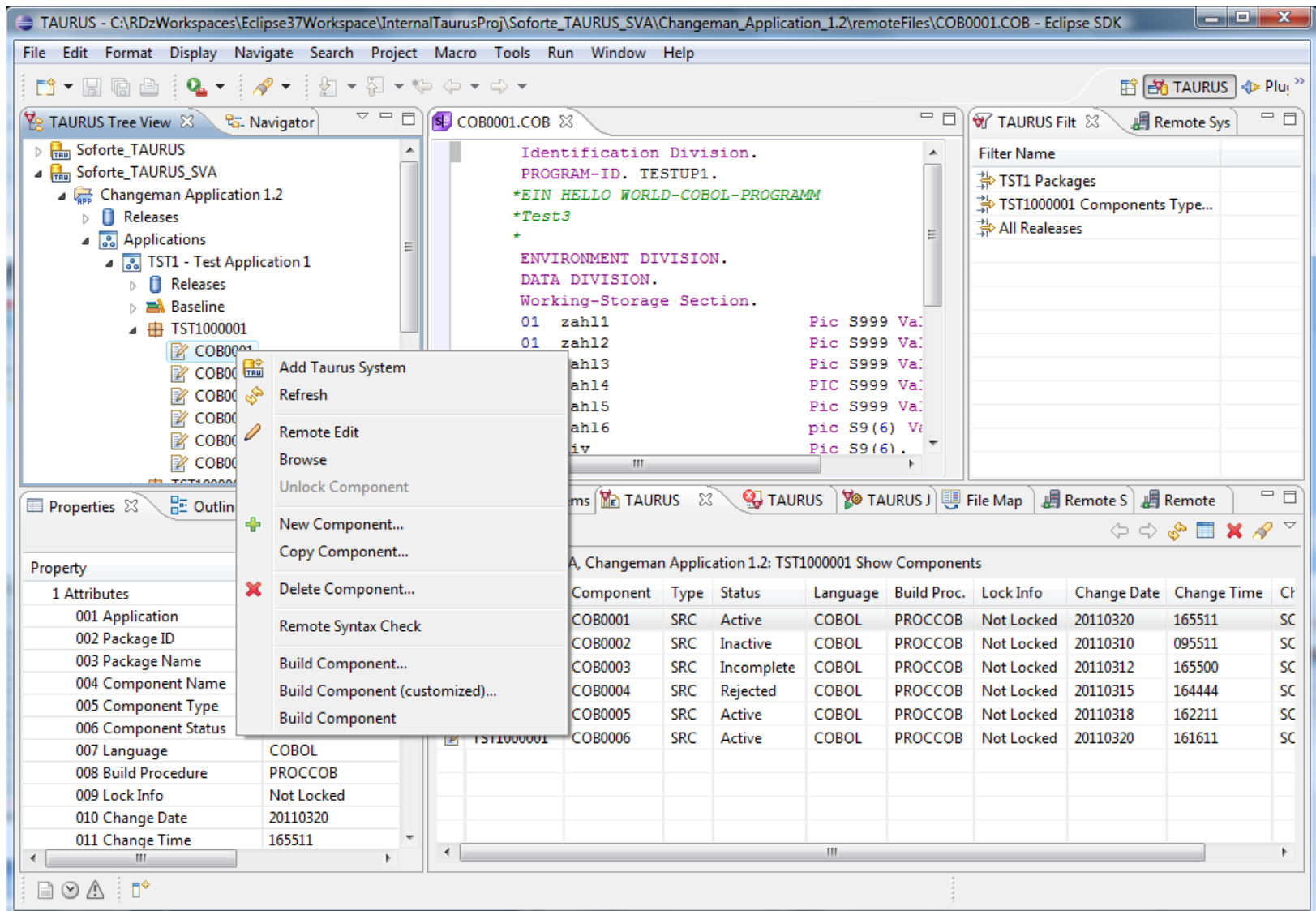



CMCONF.taurus

- platform:/resource/InternalTaurusProj/CMCONF.taurus
  - Document Root
    - TAURUS Configuration
      - Application Options 0.4
      - ID Definitions
      - Action Descriptors
      - Container Types
        - Container Type CONT\_Application
          - Contains ContainerType -> CONT\_STATIC\_Baseline
          - Contains ContainerType -> CONT\_STATIC\_Releases
          - Contains ContainerType -> CONT\_Package
          - Has Action #1 -> ACT\_CreatePackage
          - Has Property #1 -> PROP\_Application
          - Has Property #2 -> PROP\_ShortDescription
        - Container Type CONT\_Package
        - Container Type CONT\_PackageLib
        - Container Type CONT\_BaselineLib
        - Container Type CONT\_Release
        - Container Type CONT\_STATIC\_Applications
        - Container Type CONT\_STATIC\_Baseline
        - Container Type CONT\_STATIC\_Releases
      - Element Types
      - Elementlist Structures
      - File Descriptors
        - Filter Types
          - Filter Type FILTER\_PackageFilter
          - Filter Type FILTER\_ReleaseFilter
          - Filter Type FILTER\_ComponentFilter
        - Properties
        - Tool Descriptors
          - Category Component/Package Tools
          - Category Container Retrieval Tools
          - Category Elementlist Tools
          - Category Integrated Tools
          - Category Retrieve Tools
          - Category TAURUS Dialogs
        - Icons

Property	Value
Essential	
Seq No	1
Target ID	Property (String) PROP_Application
Misc	
Sort Direction	Ascending
Optional	
Category	
Label	
Required once	
Treeview Label	true

# SoforTe – TAURUS – ChangeMan Integration



The screenshot shows the Eclipse IDE interface for the TAURUS project. The main editor displays the following COBOL code:

```

Identification Division.
PROGRAM-ID. TESTUP1.
*EIN HELLO WORLD-COBOL-PROGRAMM
*Test3
*
ENVIRONMENT DIVISION.
DATA DIVISION.
Working-Storage Section.
01  zah11                               Pic S999 Val
01  zah12                               Pic S999 Val
    zah13                               Pic S999 Val
    zah14                               Pic S999 Val
    zah15                               Pic S999 Val
    zah16                               pic S9(6) Val
    iv                                   Pic S9(6) Val
    
```

The context menu is open over the 'TST1000001' component in the tree view. The menu items are:

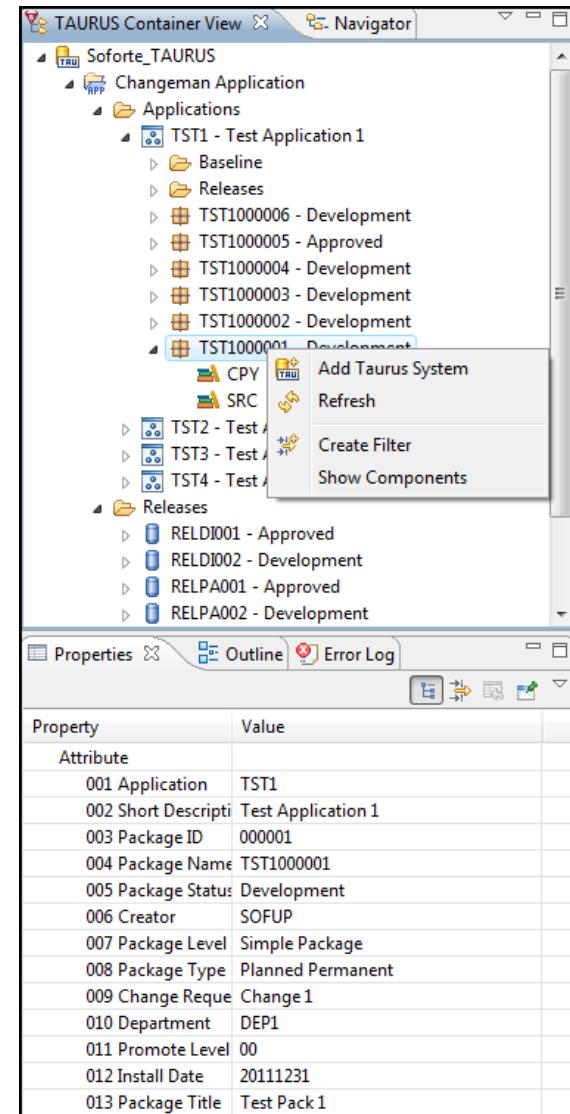
- Add Taurus System
- Refresh
- Remote Edit
- Browse
- Unlock Component
- New Component...
- Copy Component...
- Delete Component...
- Remote Syntax Check
- Build Component...
- Build Component (customized)...
- Build Component

The bottom panel shows a table of components for 'Changeman Application 1.2: TST1000001'.

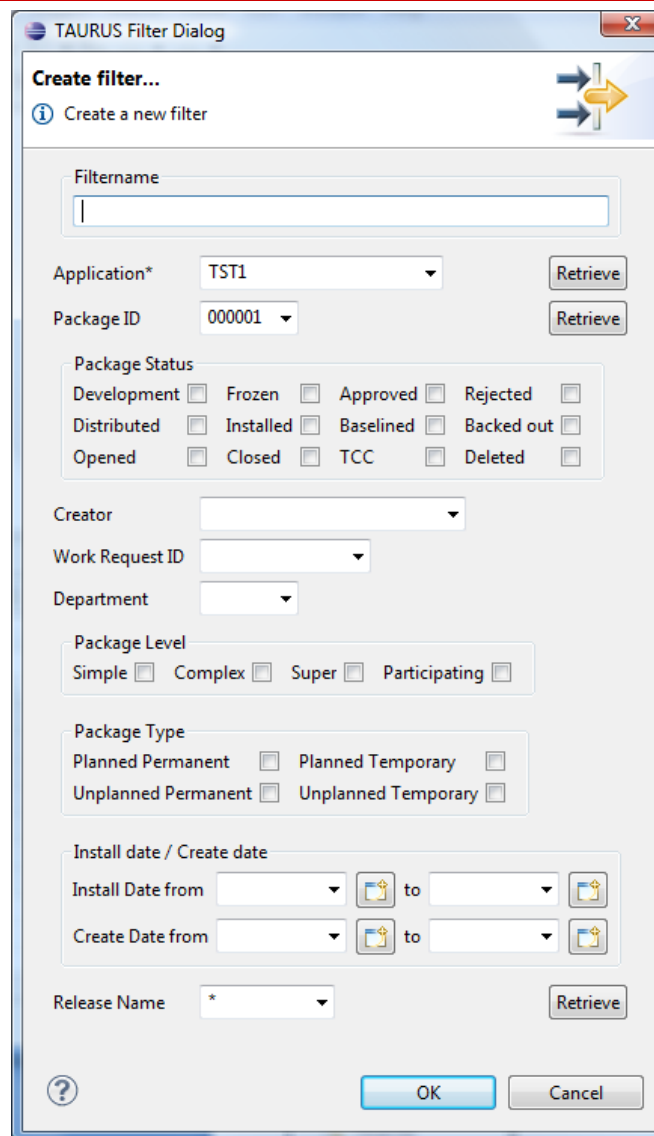
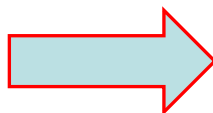
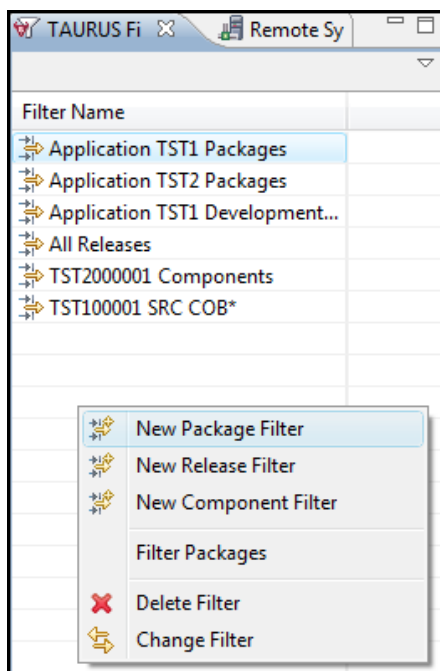
Component	Type	Status	Language	Build Proc.	Lock Info	Change Date	Change Time	Cl
COB0001	SRC	Active	COBOL	PROCCOB	Not Locked	20110320	165511	SC
COB0002	SRC	Inactive	COBOL	PROCCOB	Not Locked	20110310	095511	SC
COB0003	SRC	Incomplete	COBOL	PROCCOB	Not Locked	20110312	165500	SC
COB0004	SRC	Rejected	COBOL	PROCCOB	Not Locked	20110315	164444	SC
COB0005	SRC	Active	COBOL	PROCCOB	Not Locked	20110318	162211	SC
COB0006	SRC	Active	COBOL	PROCCOB	Not Locked	20110320	161611	SC

# Taurus - ChangeMan Tree View

- **Supports a hierarchical view to:**
  - Applications
  - Packages
  - Baselines
  - Promotion Libs
  - Types
  - Releases (if ERO option is in use)

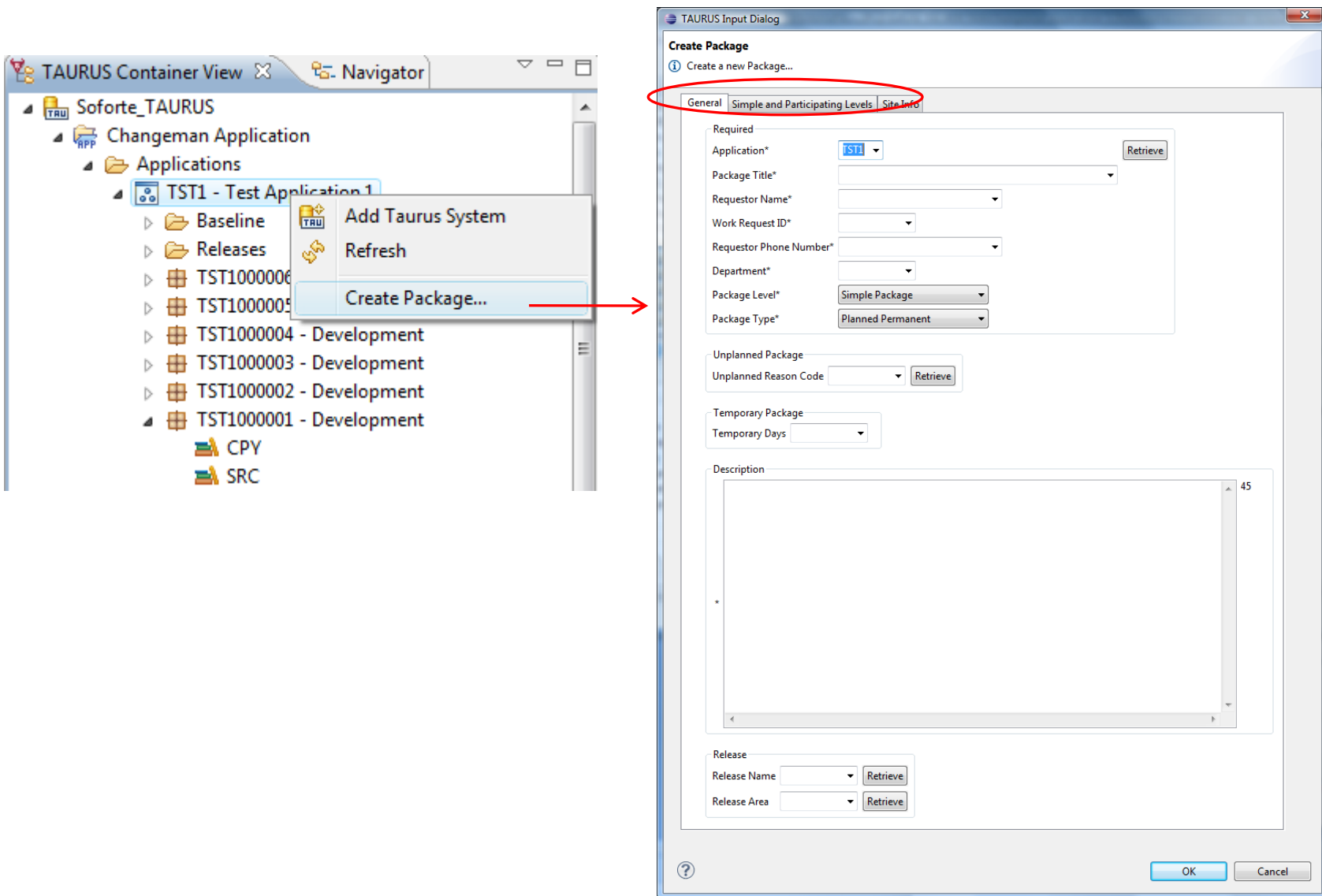


# Taurus - Create a ChangeMan Package List





# TAURUS – Create a new ChangeMan Package



The image shows two screenshots from the TAURUS application. On the left is the 'TAURUS Container View' showing a tree structure of folders: Soforte\_TAURUS, Changeman Application, Applications, and TST1 - Test Application 1. Under TST1 - Test Application 1, there are folders for Baseline, Releases, and several TST100000x - Development packages. A context menu is open over the TST1000005 - Development package, with options: Add Taurus System, Refresh, and Create Package... (highlighted in blue). A red arrow points from the 'Create Package...' option to the right-hand screenshot.

The right-hand screenshot is the 'TAURUS Input Dialog' window, titled 'TAURUS Input Dialog' and 'Create Package'. It has three tabs: 'General' (selected and circled in red), 'Simple and Participating Levels', and 'Site Info'. The 'General' tab contains the following fields:

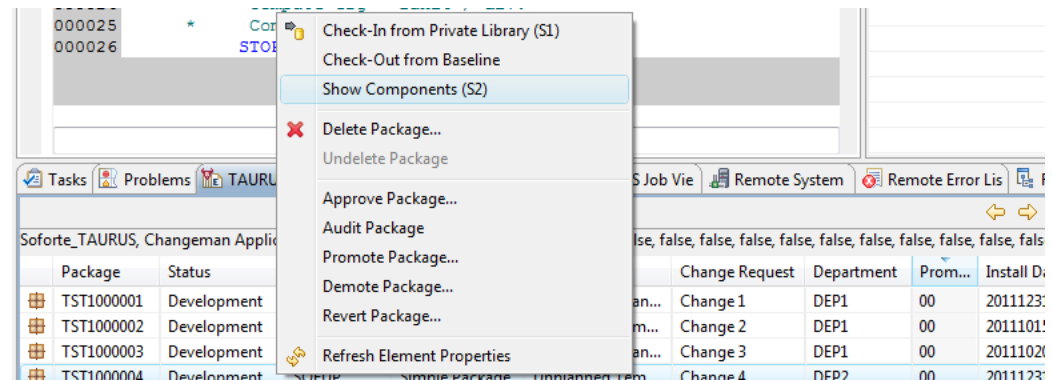
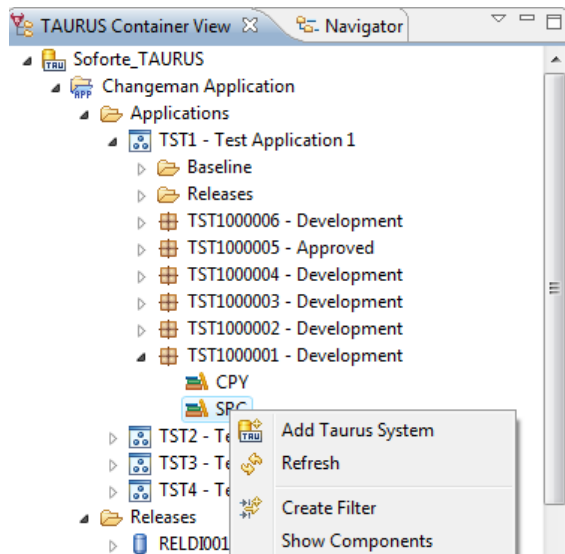
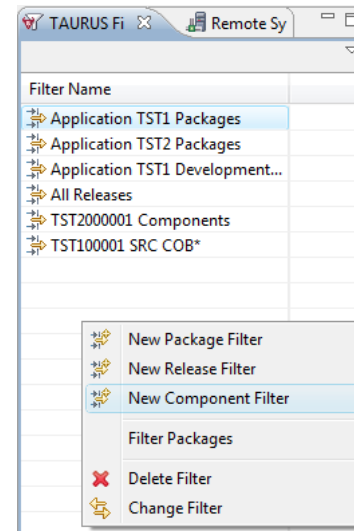
- Required Application\*: TST1 (dropdown), Retrieve button
- Package Title\*: (empty dropdown)
- Requestor Name\*: (empty dropdown)
- Work Request ID\*: (empty dropdown)
- Requestor Phone Number\*: (empty dropdown)
- Department\*: (empty dropdown)
- Package Level\*: Simple Package (dropdown)
- Package Type\*: Planned Permanent (dropdown)
- Unplanned Package: (empty dropdown)
- Unplanned Reason Code: (empty dropdown), Retrieve button
- Temporary Package: (empty dropdown)
- Temporary Days: (empty dropdown)
- Description: (empty text area, 45 lines)
- Release: (empty dropdown)
- Release Name: (empty dropdown), Retrieve button
- Release Area: (empty dropdown), Retrieve button

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

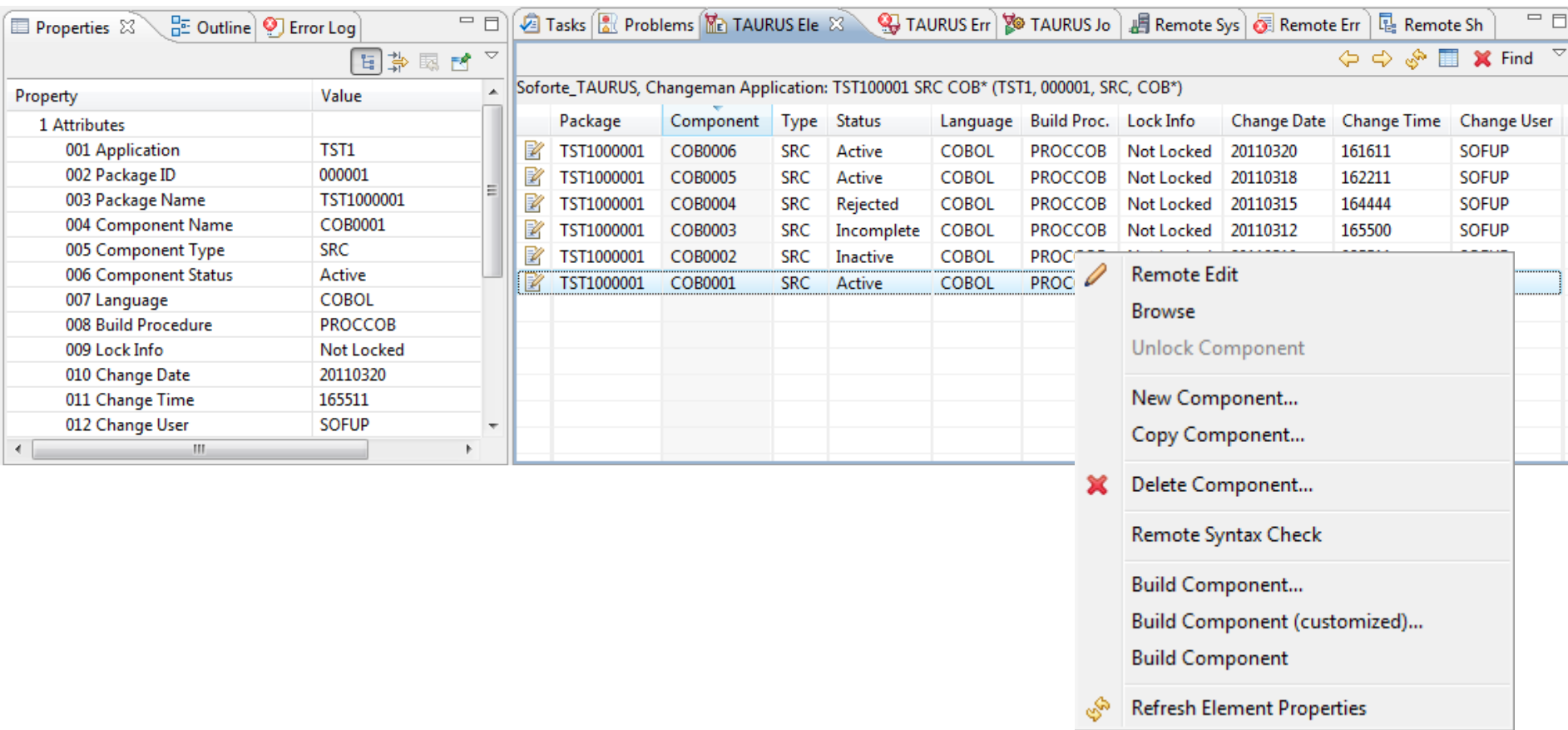
# TAURUS – Create a ChangeMan Component List

- **Several ways to create a component list:**

- From the filter view
- From the package list
- From the tree view



# TAURUS – ChangeMan Component Functions



The screenshot displays the SoforTe TAURUS interface. On the left, the 'Properties' pane shows the following details for component COB0001:

Property	Value
1 Attributes	
001 Application	TST1
002 Package ID	000001
003 Package Name	TST1000001
004 Component Name	COB0001
005 Component Type	SRC
006 Component Status	Active
007 Language	COBOL
008 Build Procedure	PROCCOB
009 Lock Info	Not Locked
010 Change Date	20110320
011 Change Time	165511
012 Change User	SOFUP

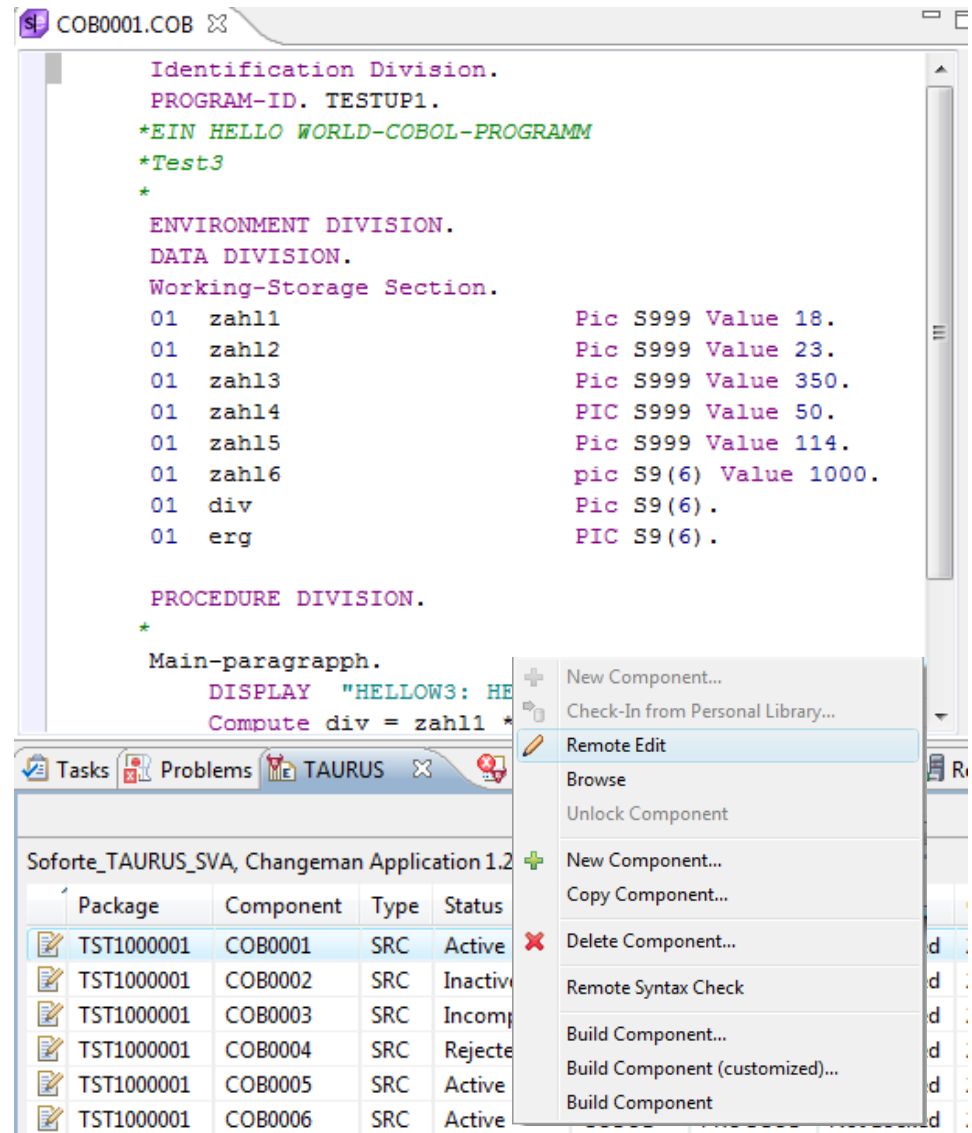
The main window shows a table of components for application TST1000001 SRC COB\*. A context menu is open over the selected component COB0001, listing the following actions:

- Remote Edit
- Browse
- Unlock Component
- New Component...
- Copy Component...
- Delete Component...
- Remote Syntax Check
- Build Component...
- Build Component (customized)...
- Build Component
- Refresh Element Properties

Package	Component	Type	Status	Language	Build Proc.	Lock Info	Change Date	Change Time	Change User
TST1000001	COB0006	SRC	Active	COBOL	PROCCOB	Not Locked	20110320	161611	SOFUP
TST1000001	COB0005	SRC	Active	COBOL	PROCCOB	Not Locked	20110318	162211	SOFUP
TST1000001	COB0004	SRC	Rejected	COBOL	PROCCOB	Not Locked	20110315	164444	SOFUP
TST1000001	COB0003	SRC	Incomplete	COBOL	PROCCOB	Not Locked	20110312	165500	SOFUP
TST1000001	COB0002	SRC	Inactive	COBOL	PROCCOB	Not Locked			
TST1000001	COB0001	SRC	Active	COBOL	PROCCOB	Not Locked			

# Taurus – Editing a ChangeMan Component

- **Modeling your own Edit Scenario:**
  - Scenario A:
    - Remote Edit of a package component
  - Scenario B:
    - Check-Out from a package to the RDz workspace
    - Local Edit
    - Check-In
  - Scenario C:
    - Check-out from the baseline to a private PDS
    - Remote Edit
    - Check-In package
  - .....
- **Support of the local and remote syntax check**



The screenshot displays the SoforTe Taurus IDE interface. The main window shows a COBOL source file named 'COB0001.COB' with the following content:

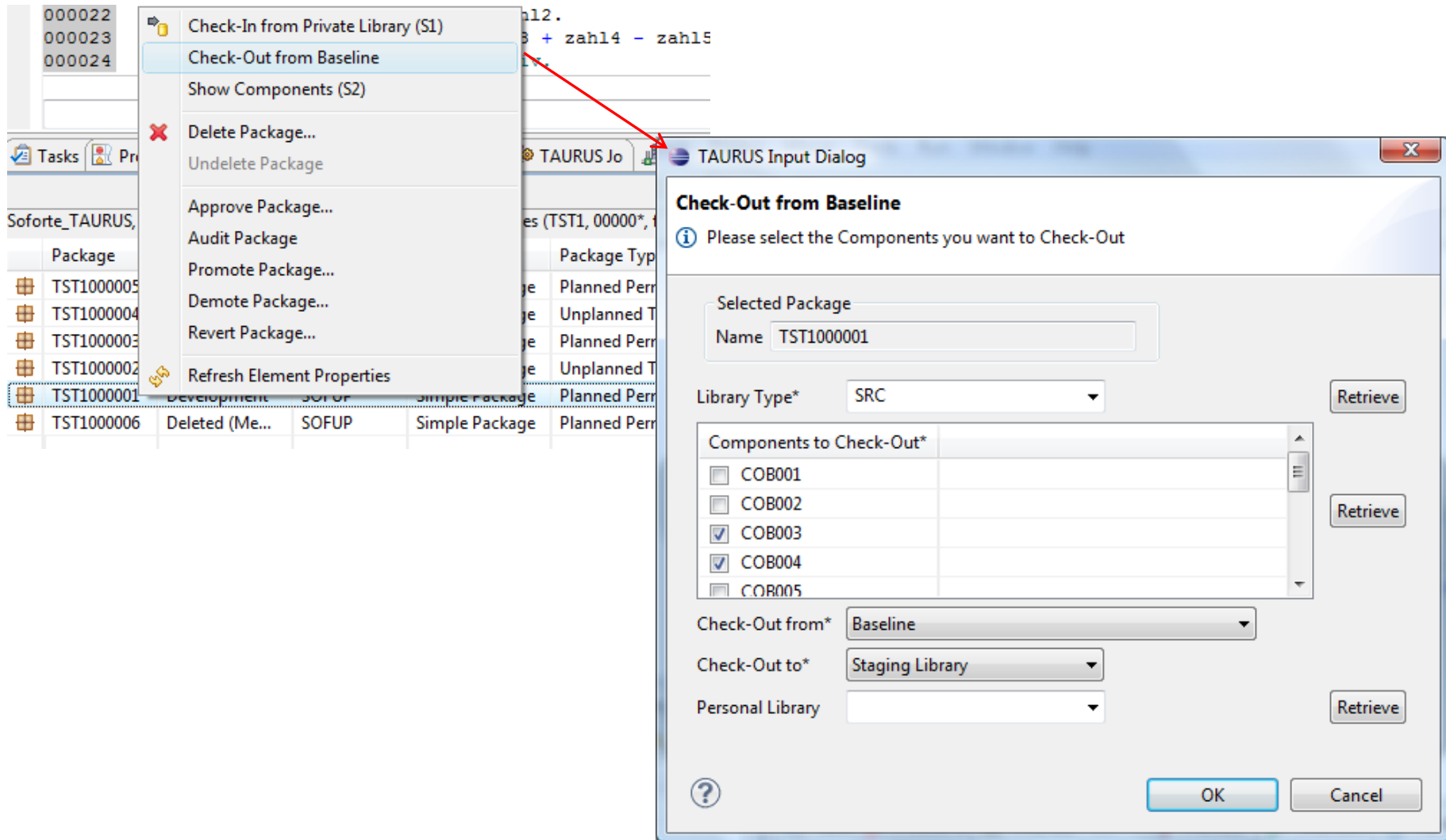
```
Identification Division.  
PROGRAM-ID. TESTUP1.  
*EIN HELLO WORLD-COBOL-PROGRAMM  
*Test3  
*  
ENVIRONMENT DIVISION.  
DATA DIVISION.  
Working-Storage Section.  
01  zahl1          Pic S999 Value 18.  
01  zahl2          Pic S999 Value 23.  
01  zahl3          Pic S999 Value 350.  
01  zahl4          PIC S999 Value 50.  
01  zahl5          Pic S999 Value 114.  
01  zahl6          pic S9(6) Value 1000.  
01  div            Pic S9(6) .  
01  erg            PIC S9(6) .  
  
PROCEDURE DIVISION.  
*  
Main-paragraph.  
  DISPLAY  "HELLOW3: HE  
  Compute div = zahl1 *
```

The bottom panel shows the 'Soforte\_TAURUS\_SVA, Changeman Application 1.2' component browser with the following table:

Package	Component	Type	Status
TST1000001	COB0001	SRC	Active
TST1000001	COB0002	SRC	Inactive
TST1000001	COB0003	SRC	Incomplete
TST1000001	COB0004	SRC	Rejected
TST1000001	COB0005	SRC	Active
TST1000001	COB0006	SRC	Active

A context menu is open over the component browser, showing options such as 'Remote Edit', 'Browse', 'Unlock Component', 'New Component...', 'Copy Component...', 'Delete Component...', 'Remote Syntax Check', 'Build Component...', 'Build Component (customized)...', and 'Build Component'.

# Taurus – Check-out Components from Baseline

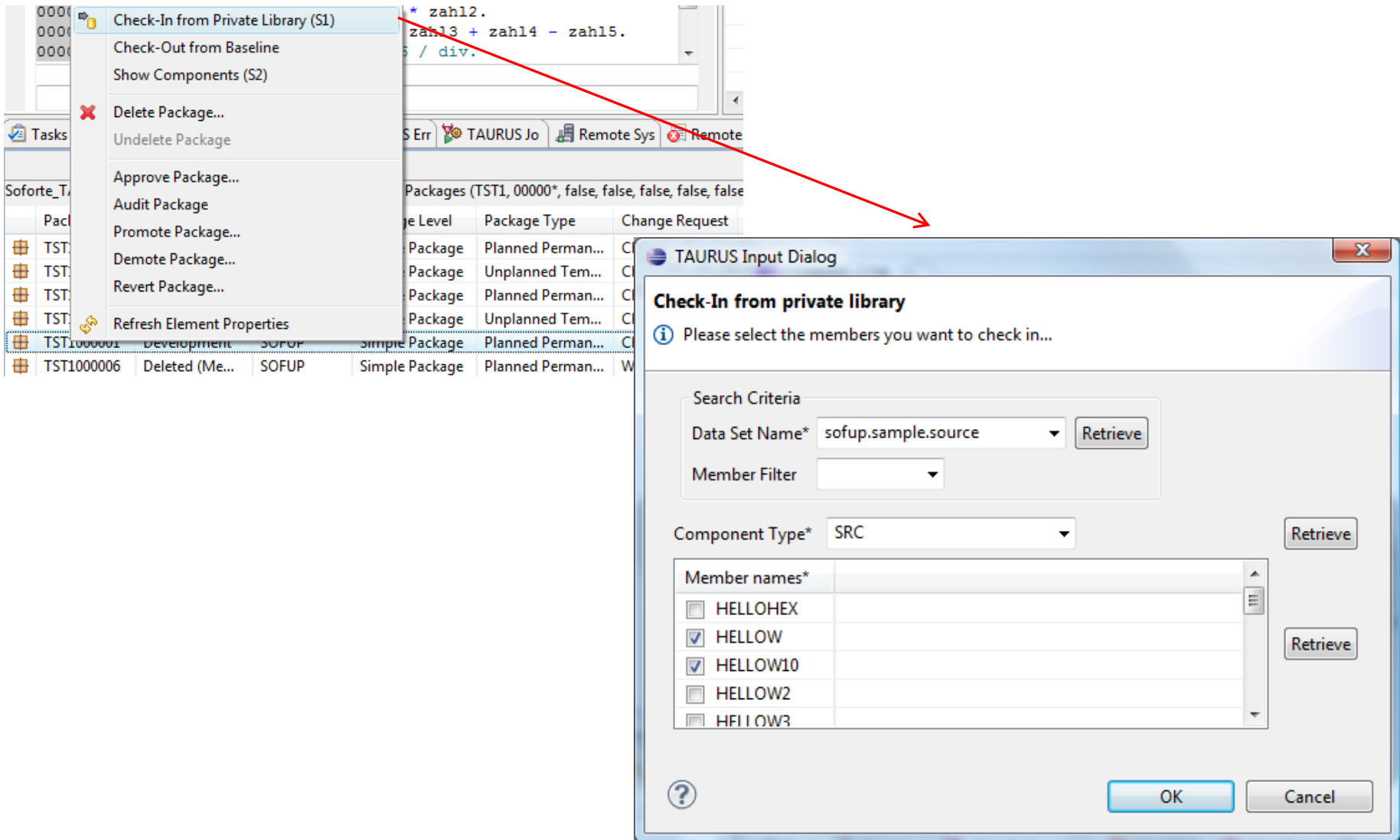


The screenshot shows the Taurus software interface. A context menu is open over a package list, with 'Check-Out from Baseline' selected. A red arrow points from this menu item to the 'TAURUS Input Dialog' window. The dialog box is titled 'Check-Out from Baseline' and contains the following fields and controls:

- Selected Package:** Name: TST1000001
- Library Type\*:** SRC
- Components to Check-Out\*:** A list with checkboxes for COB001, COB002, COB003 (checked), COB004 (checked), and COB005.
- Check-Out from\*:** Baseline
- Check-Out to\*:** Staging Library
- Personal Library:** (empty)
- Buttons:** Retrieve (next to Library Type), Retrieve (next to Components list), Retrieve (next to Personal Library), OK, and Cancel.

Package	Development	SOFUP	Simple Package	Planned Per
TST1000005				
TST1000004				
TST1000003				
TST1000002				
TST1000001	Development	SOFUP	Simple Package	Planned Per
TST1000006	Deleted (Me...	SOFUP	Simple Package	Planned Per

# Taurus – Check-in Components from a PDS

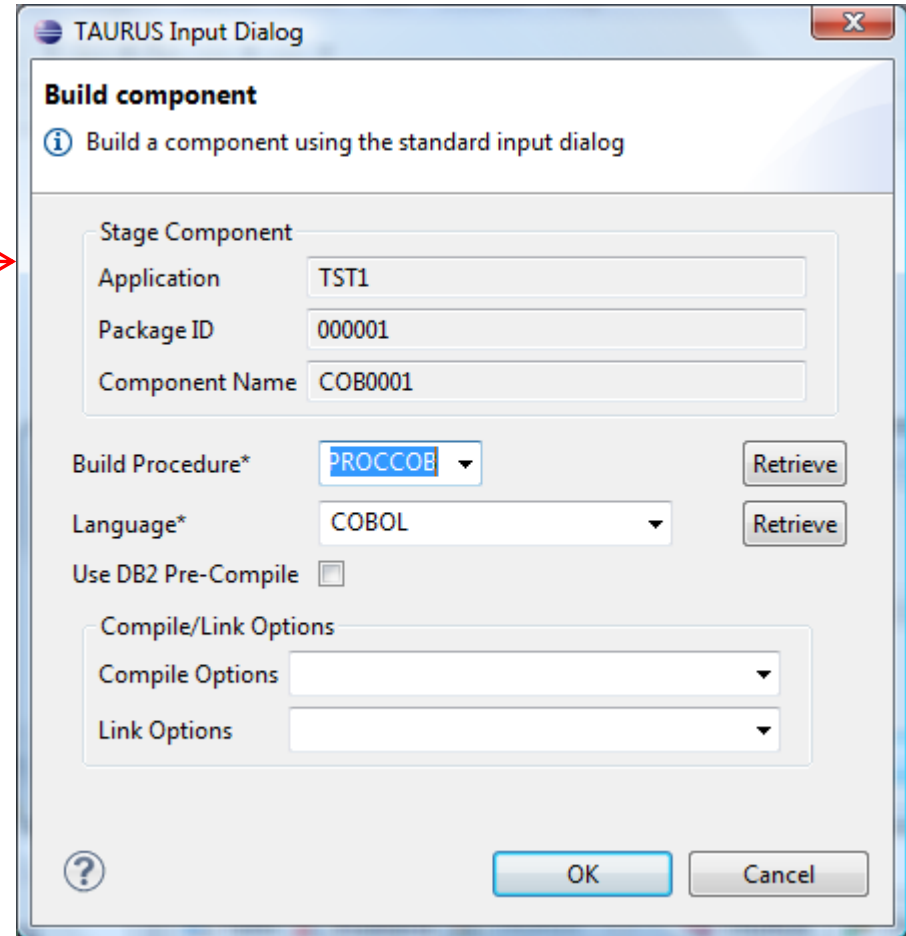
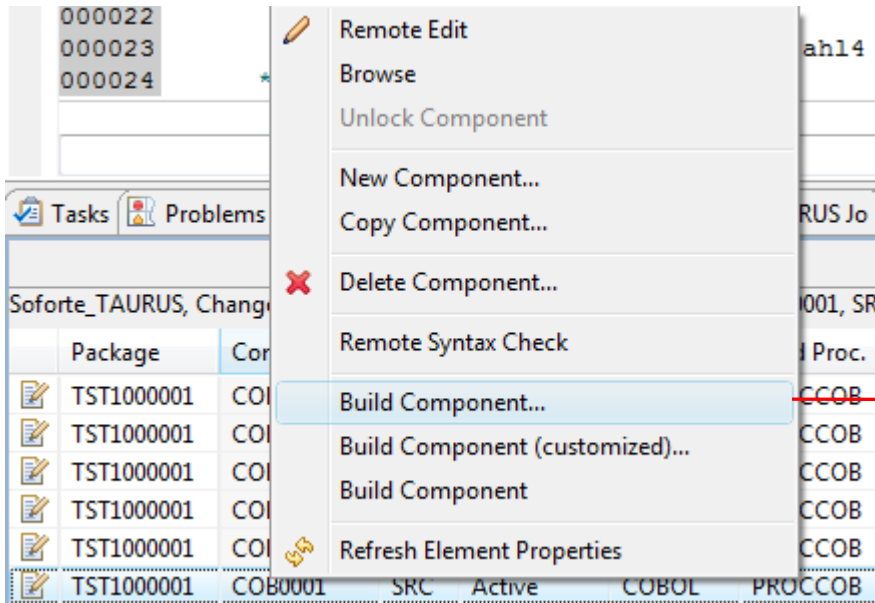


The screenshot shows the Taurus software interface. A context menu is open over a package, with the 'Check-In from Private Library (S1)' option selected. A red arrow points from this menu item to the 'TAURUS Input Dialog' window. The dialog box is titled 'Check-In from private library' and contains the following fields and controls:

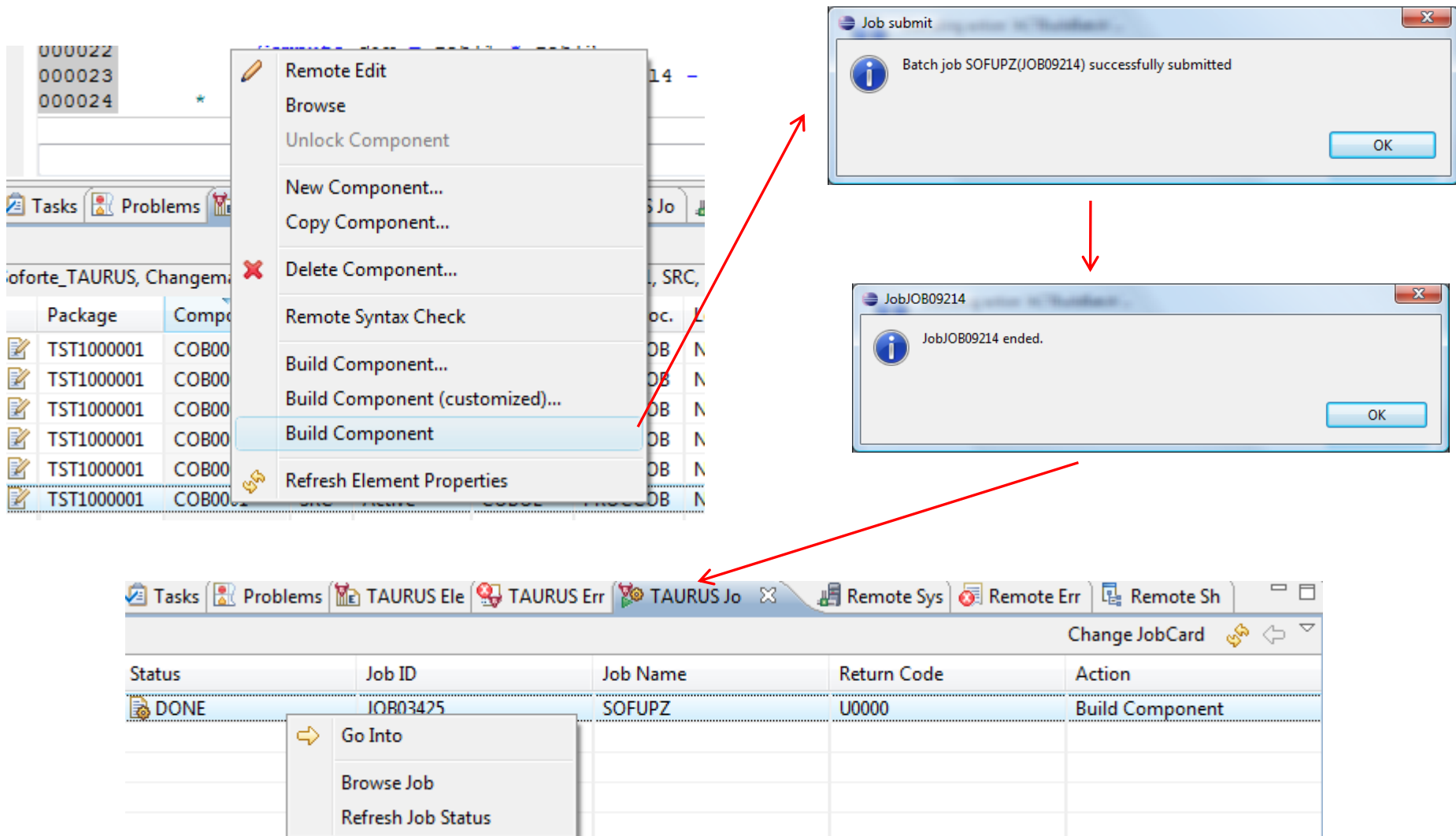
- Search Criteria:**
  - Data Set Name\*:
  - Member Filter:
- Component Type\*:**
- Member names\*:**

<input type="checkbox"/>	HELLOHEX
<input checked="" type="checkbox"/>	HELLOW
<input checked="" type="checkbox"/>	HELLOW10
<input type="checkbox"/>	HELLOW2
<input type="checkbox"/>	HELLOW3
- Buttons:

# Taurus – Build a Component (standard Dialog)



# Taurus – Build a Component (reuse options)



The screenshot illustrates the process of building a component in the SoforTe TAURUS environment. It shows a context menu with the 'Build Component' option selected. This action triggers a 'Job submit' dialog box, followed by a 'JobJOB09214' dialog box indicating the job has ended. The final step shows a table view with a job status of 'DONE' and a return code of 'U0000', with a context menu open over the status, showing the 'Go Into' option.

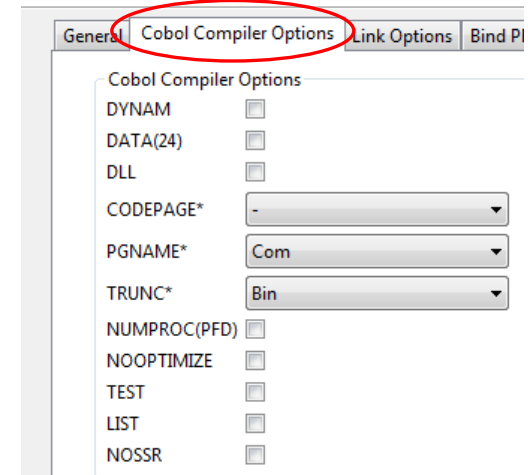
Status	Job ID	Job Name	Return Code	Action
DONE	JOB03425	SOFUPZ	U0000	Build Component

# Taurus – Build a Component (customized)

- Defining your own Build Options Dialog without Plug-in programming effort (sample modeling result):

## Build Package Component

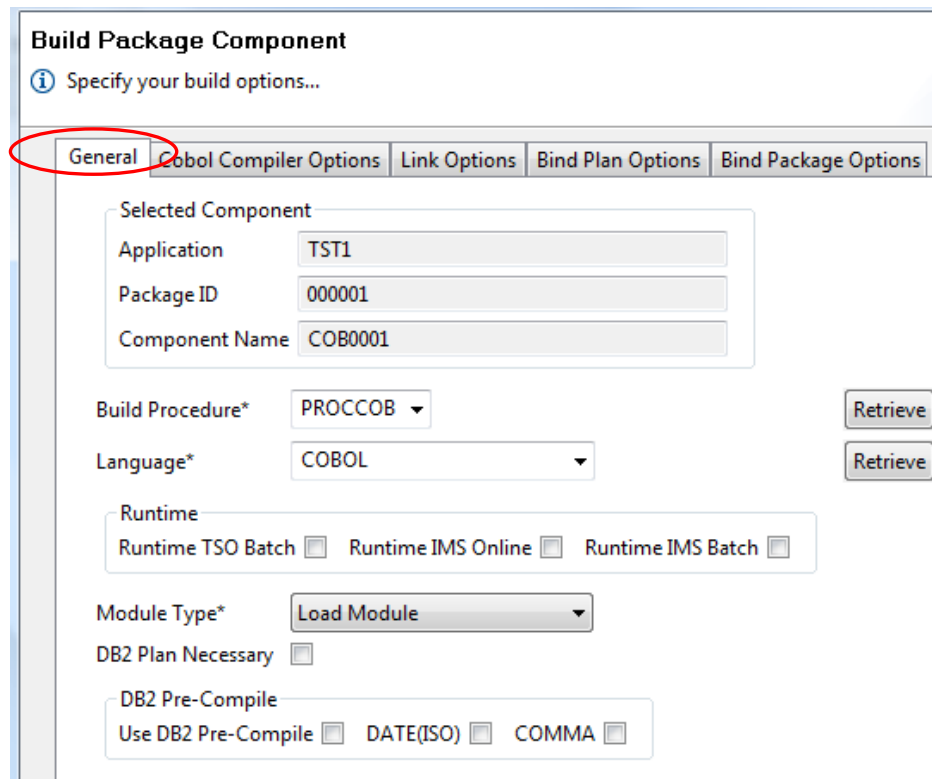
Specify your build options...



General | **Cobol Compiler Options** | Link Options | Bind P

Cobol Compiler Options

DYNAM	<input type="checkbox"/>
DATA(24)	<input type="checkbox"/>
DLL	<input type="checkbox"/>
CODEPAGE*	-
PGNAME*	Com
TRUNC*	Bin
NUMPROC(PFD)	<input type="checkbox"/>
NOOPTIMIZE	<input type="checkbox"/>
TEST	<input type="checkbox"/>
LIST	<input type="checkbox"/>
NOSSR	<input type="checkbox"/>



Build Package Component

Specify your build options...

General | Cobol Compiler Options | Link Options | Bind Plan Options | Bind Package Options

Selected Component

Application	TST1
Package ID	000001
Component Name	COB0001

Build Procedure\* PROCCOB Retrieve

Language\* COBOL Retrieve

Runtime

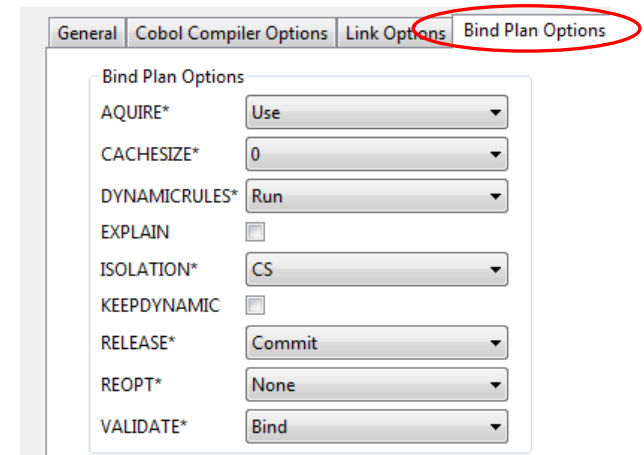
Runtime TSO Batch  Runtime IMS Online  Runtime IMS Batch

Module Type\* Load Module

DB2 Plan Necessary

DB2 Pre-Compile

Use DB2 Pre-Compile  DATE(ISO)  COMMA

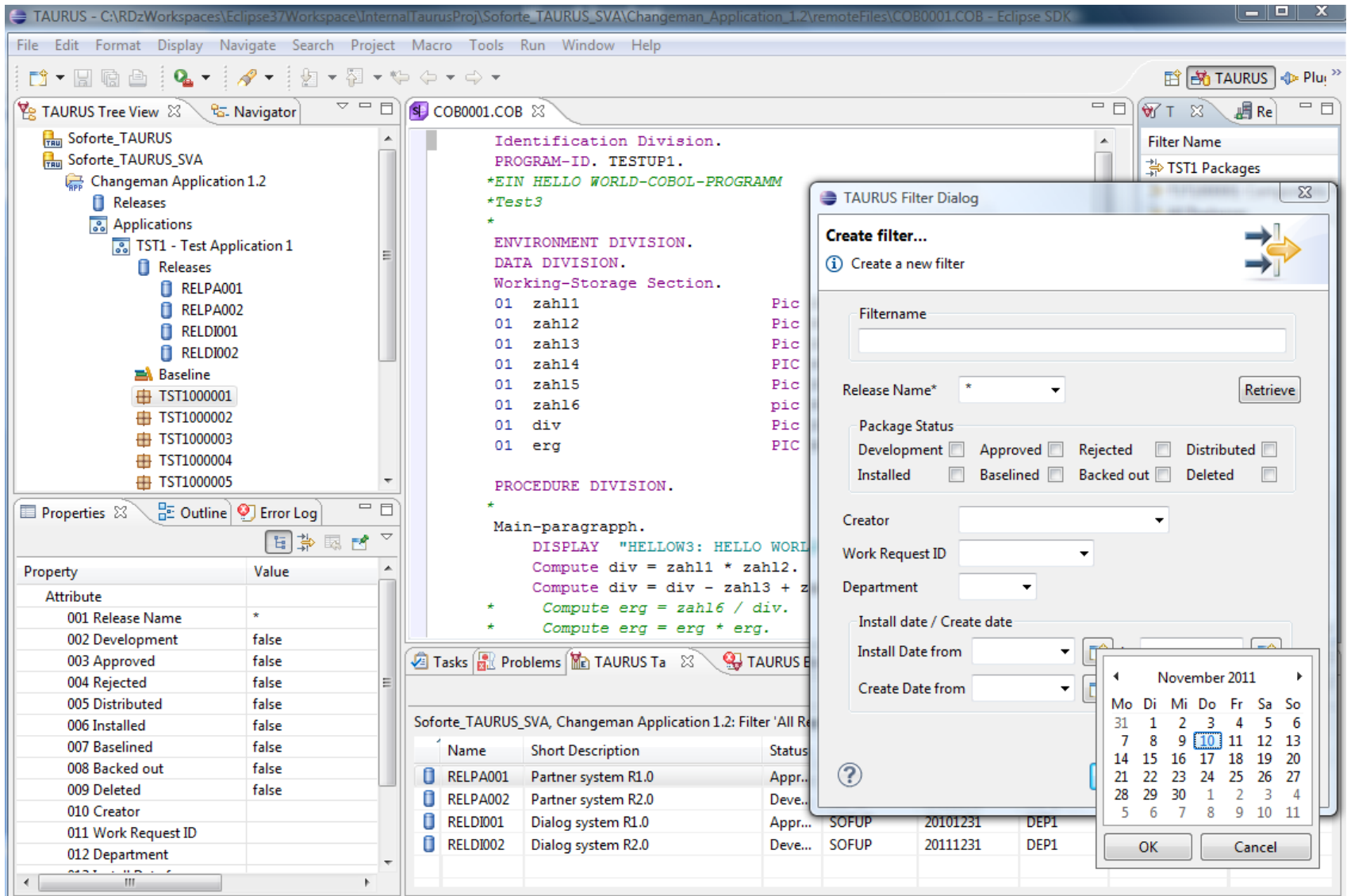


General | Cobol Compiler Options | Link Options | **Bind Plan Options**

Bind Plan Options

AQUIRE*	Use
CACHESIZE*	0
DYNAMICRULES*	Run
EXPLAIN	<input type="checkbox"/>
ISOLATION*	CS
KEEPDYNAMIC	<input type="checkbox"/>
RELEASE*	Commit
REOPT*	None
VALIDATE*	Bind

# Taurus – Release support (ERO Option only)



The screenshot displays the Taurus IDE interface. The main editor shows a COBOL program with the following code:

```

Identification Division.
PROGRAM-ID. TESTUP1.
*EIN HELLO WORLD-COBOL-PROGRAMM
*Test3
*
ENVIRONMENT DIVISION.
DATA DIVISION.
Working-Storage Section.
01 zahl1 Pic
01 zahl2 Pic
01 zahl3 Pic
01 zahl4 PIC
01 zahl5 Pic
01 zahl6 pic
01 div Pic
01 erg Pic
*
PROCEDURE DIVISION.
*
Main-paragraph.
DISPLAY "HELLOW3: HELLO WORLD"
Compute div = zahl1 * zahl2.
Compute div = div - zahl3 + zahl4.
* Compute erg = zahl6 / div.
* Compute erg = erg * erg.
    
```

The Taurus Filter Dialog is open, showing the "Create filter..." tab. The dialog includes the following fields and options:

- Filter Name: TST1 Packages
- Filename: [Empty text box]
- Release Name\*: [Dropdown menu with asterisk]
- Retrieve: [Button]
- Package Status:
  - Development
  - Approved
  - Rejected
  - Distributed
  - Installed
  - Baselined
  - Backed out
  - Deleted
- Creator: [Dropdown menu]
- Work Request ID: [Dropdown menu]
- Department: [Dropdown menu]
- Install date / Create date:
  - Install Date from: [Dropdown menu]
  - Create Date from: [Dropdown menu]

A calendar widget is visible, showing the month of November 2011. The date 10 is selected.

The Properties window at the bottom left shows the following table:

Property	Value
Attribute	
001 Release Name	*
002 Development	false
003 Approved	false
004 Rejected	false
005 Distributed	false
006 Installed	false
007 Baselined	false
008 Backed out	false
009 Deleted	false
010 Creator	
011 Work Request ID	
012 Department	

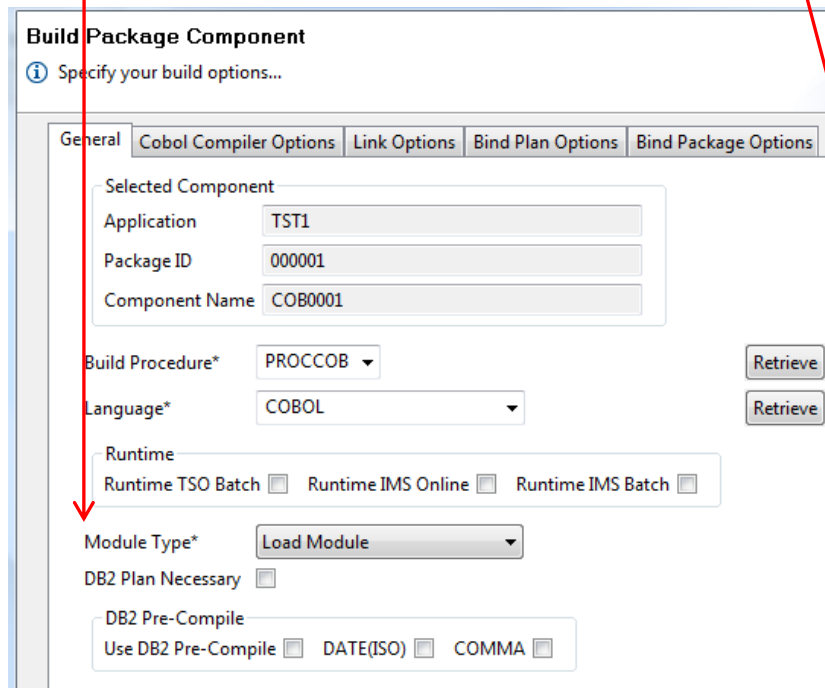
The Tasks window at the bottom shows a table of packages:

Name	Short Description	Status
RELPA001	Partner system R1.0	Appr...
RELPA002	Partner system R2.0	Deve...
RELDI001	Dialog system R1.0	Appr...
RELDI002	Dialog system R2.0	Deve...

# Taurus – How to model the customized build

- **(1) Define a property for each dialog field**

Model  
Result



Build Package Component

Specify your build options...

General | Cobol Compiler Options | Link Options | Bind Plan Options | Bind Package Options

Selected Component

Application: TST1

Package ID: 000001

Component Name: COB0001

Build Procedure\*: PROCCOB

Language\*: COBOL

Runtime

Runtime TSO Batch  Runtime IMS Online  Runtime IMS Batch

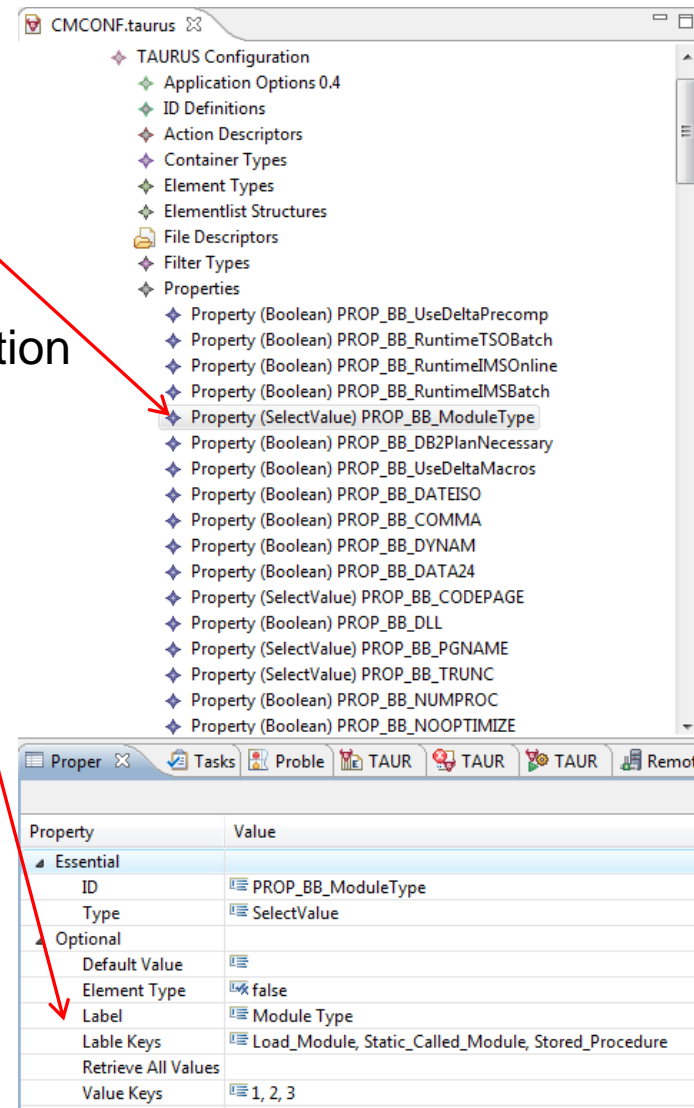
Module Type\*: Load Module

DB2 Plan Necessary

DB2 Pre-Compile

Use DB2 Pre-Compile  DATE(ISO)  COMMA

Model  
Definition



CMCONF.taurus

TAURUS Configuration

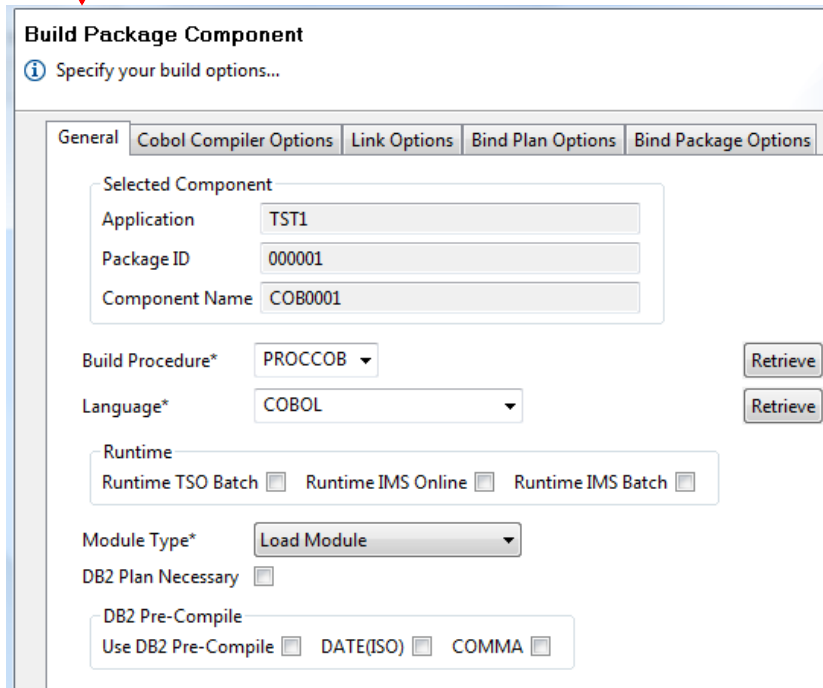
- Application Options 0.4
- ID Definitions
- Action Descriptors
- Container Types
- Element Types
- Elementlist Structures
- File Descriptors
- Filter Types
- Properties
  - Property (Boolean) PROP\_BB\_UseDeltaPrecomp
  - Property (Boolean) PROP\_BB\_RuntimeTSOBatch
  - Property (Boolean) PROP\_BB\_RuntimeIMSOnline
  - Property (Boolean) PROP\_BB\_RuntimeIMSBatch
  - Property (SelectValue) PROP\_BB\_ModuleType
  - Property (Boolean) PROP\_BB\_DB2PlanNecessary
  - Property (Boolean) PROP\_BB\_UseDeltaMacros
  - Property (Boolean) PROP\_BB\_DATEISO
  - Property (Boolean) PROP\_BB\_COMMA
  - Property (Boolean) PROP\_BB\_DYNAM
  - Property (Boolean) PROP\_BB\_DATA24
  - Property (SelectValue) PROP\_BB\_CODEPAGE
  - Property (Boolean) PROP\_BB\_DLL
  - Property (SelectValue) PROP\_BB\_PGNAME
  - Property (SelectValue) PROP\_BB\_TRUNC
  - Property (Boolean) PROP\_BB\_NUMPROC
  - Property (Boolean) PROP\_BB\_NOOPTIMIZE

Property	Value
Essential	
ID	PROP_BB_ModuleType
Type	SelectValue
Optional	
Default Value	
Element Type	false
Label	Module Type
Label Keys	Load_Module, Static_Called_Module, Stored_Procedure
Retrieve All Values	
Value Keys	1, 2, 3

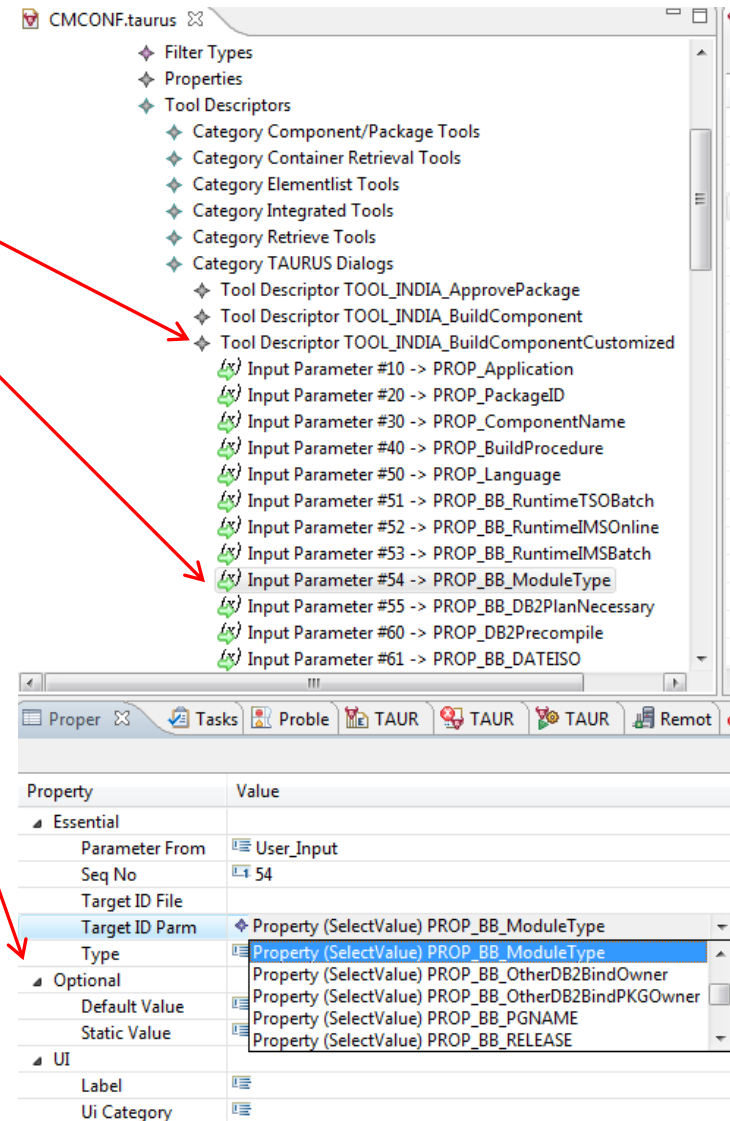
# Taurus – How to model the customized build

- (2) Define the dialog and associate the dialog fields

Model Result



Model Definition

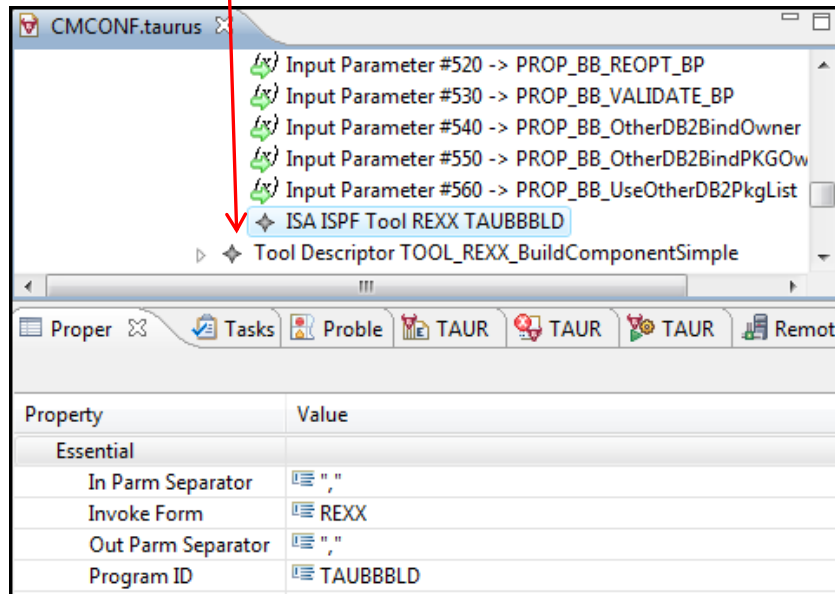


Property	Value
Essential	
Parameter From	User_Input
Seq No	54
Target ID File	
Target ID Parm	Property (SelectValue) PROP_BB_ModuleType
Type	Property (SelectValue) PROP_BB_ModuleType
Optional	
Default Value	Property (SelectValue) PROP_BB_OtherDB2BindOwner
Static Value	Property (SelectValue) PROP_BB_PGNAME
UI	
Label	
Ui Category	

# Taurus – How to model the customized build

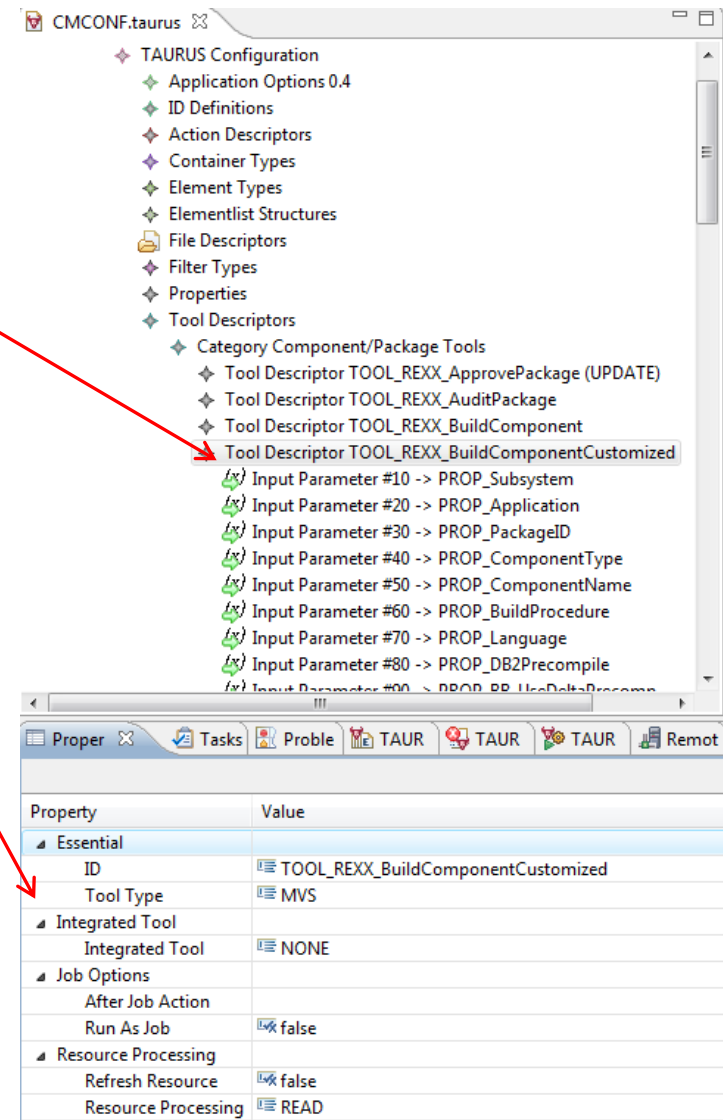
- (3) Define the REXX tool which calls the ChangeMan Build and associate the dialog fields as input parameters.

Model  
Definition



Input Parameter #520 -> PROP\_BB\_REOPT\_BP  
Input Parameter #530 -> PROP\_BB\_VALIDATE\_BP  
Input Parameter #540 -> PROP\_BB\_OtherDB2BindOwner  
Input Parameter #550 -> PROP\_BB\_OtherDB2BindPKGOW  
Input Parameter #560 -> PROP\_BB\_UseOtherDB2PkgList  
ISA ISPF Tool REXX TAUBBLD  
Tool Descriptor TOOL\_REXX\_BuildComponentSimple

Property	Value
Essential	
In Parm Separator	" "
Invoke Form	REXX
Out Parm Separator	" "
Program ID	TAUBBLD



TAURUS Configuration  
Application Options 0.4  
ID Definitions  
Action Descriptors  
Container Types  
Element Types  
Elementlist Structures  
File Descriptors  
Filter Types  
Properties  
Tool Descriptors  
Category Component/Package Tools  
Tool Descriptor TOOL\_REXX\_ApprovePackage (UPDATE)  
Tool Descriptor TOOL\_REXX\_AuditPackage  
Tool Descriptor TOOL\_REXX\_BuildComponent  
Tool Descriptor TOOL\_REXX\_BuildComponentCustomized  
Input Parameter #10 -> PROP\_Subsystem  
Input Parameter #20 -> PROP\_Application  
Input Parameter #30 -> PROP\_PackageID  
Input Parameter #40 -> PROP\_ComponentType  
Input Parameter #50 -> PROP\_ComponentName  
Input Parameter #60 -> PROP\_BuildProcedure  
Input Parameter #70 -> PROP\_Language  
Input Parameter #80 -> PROP\_DB2Precompile  
Input Parameter #90 -> PROP\_BB\_UseDeltaPrecomp

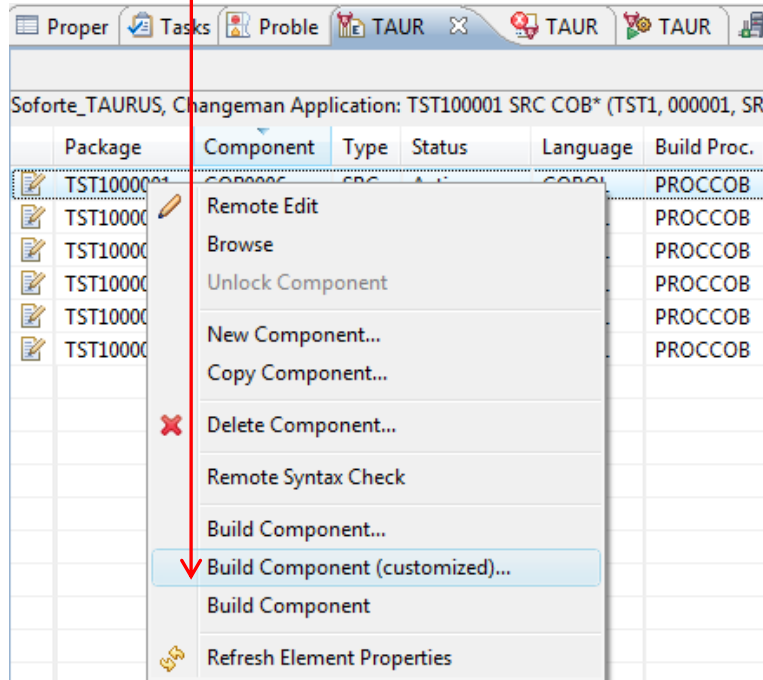
Property	Value
Essential	
ID	TOOL_REXX_BuildComponentCustomized
Tool Type	MVS
Integrated Tool	
Integrated Tool	NONE
Job Options	
After Job Action	
Run As Job	false
Resource Processing	
Refresh Resource	false
Resource Processing	READ

# Taurus – How to model the customized build

- (4) Define an action and associate the input dialog and the REXX tool
- (5) Associate the action to the ChangeMan package component type

Model Definition

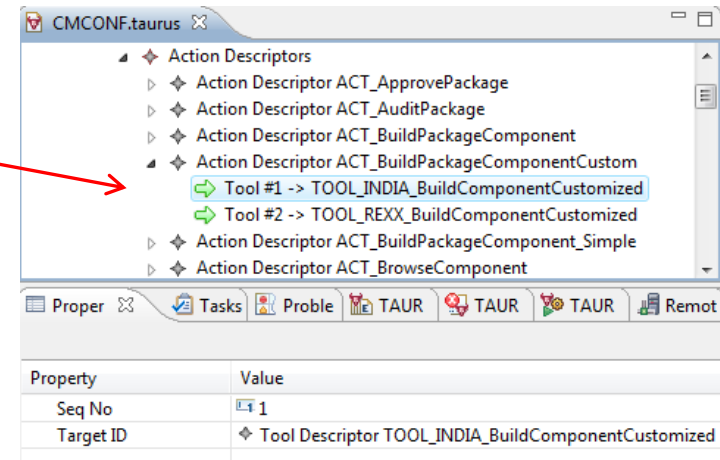
Model Result



Package	Component	Type	Status	Language	Build Proc.
TST100001	COB0001	SRC	Active	COBOL	PROCCOB
TST100002					PROCCOB
TST100003					PROCCOB
TST100004					PROCCOB
TST100005					PROCCOB
TST100006					PROCCOB

Context menu for component COB0001:

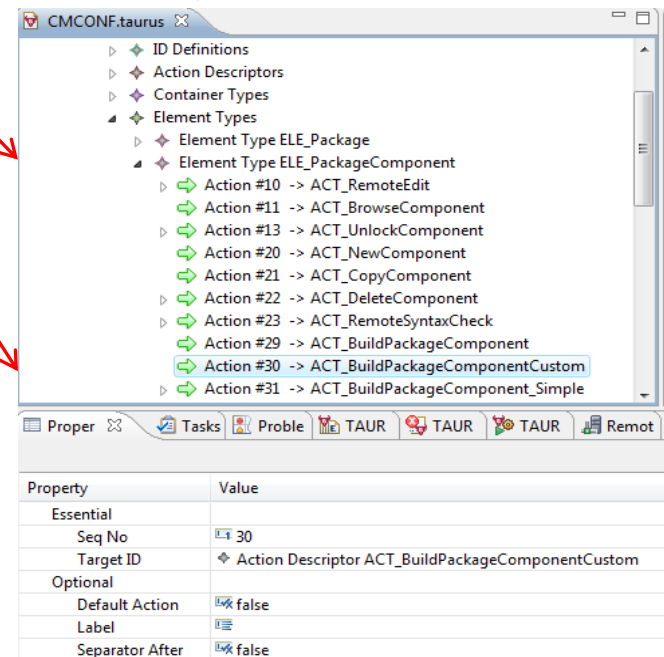
- Remote Edit
- Browse
- Unlock Component
- New Component...
- Copy Component...
- Delete Component...
- Remote Syntax Check
- Build Component...
- Build Component (customized)...**
- Build Component
- Refresh Element Properties



CMCONF.taurus

- Action Descriptors
  - ACT\_ApprovePackage
  - ACT\_AuditPackage
  - ACT\_BuildPackageComponent
  - ACT\_BuildPackageComponentCustom**
    - Tool #1 -> TOOL\_INDIA\_BuildComponentCustomized
    - Tool #2 -> TOOL\_REXX\_BuildComponentCustomized
  - ACT\_BuildPackageComponent\_Simple
  - ACT\_BrowseComponent

Property	Value
Seq No	1
Target ID	Tool Descriptor TOOL_INDIA_BuildComponentCustomized



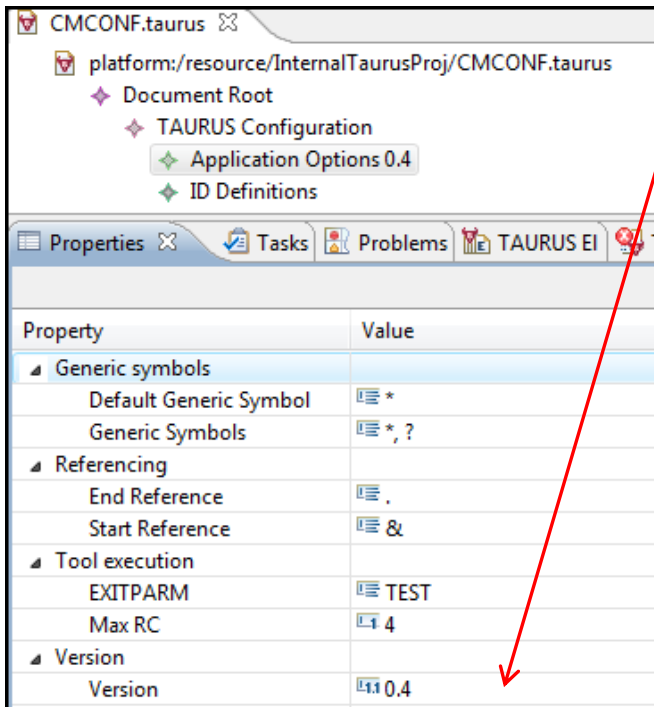
CMCONF.taurus

- ID Definitions
- Action Descriptors
- Container Types
- Element Types
  - ELE\_Package
    - ELE\_PackageComponent
      - Action #10 -> ACT\_RemoteEdit
      - Action #11 -> ACT\_BrowseComponent
      - Action #13 -> ACT\_UnlockComponent
      - Action #20 -> ACT\_NewComponent
      - Action #21 -> ACT\_CopyComponent
      - Action #22 -> ACT\_DeleteComponent
      - Action #23 -> ACT\_RemoteSyntaxCheck
      - Action #29 -> ACT\_BuildPackageComponent
      - Action #30 -> ACT\_BuildPackageComponentCustom**
      - Action #31 -> ACT\_BuildPackageComponent\_Simple

Property	Value
Essential	
Seq No	30
Target ID	Action Descriptor ACT_BuildPackageComponentCustom
Optional	
Default Action	false
Label	
Separator After	false

# Taurus – How to model the customized build

- (6) validate your model (consistency check)
- (7) Store the model in a PDS or USS and test your customization
- (8) Promote the new model to all client users only by changing the version number (no client installation process necessary)

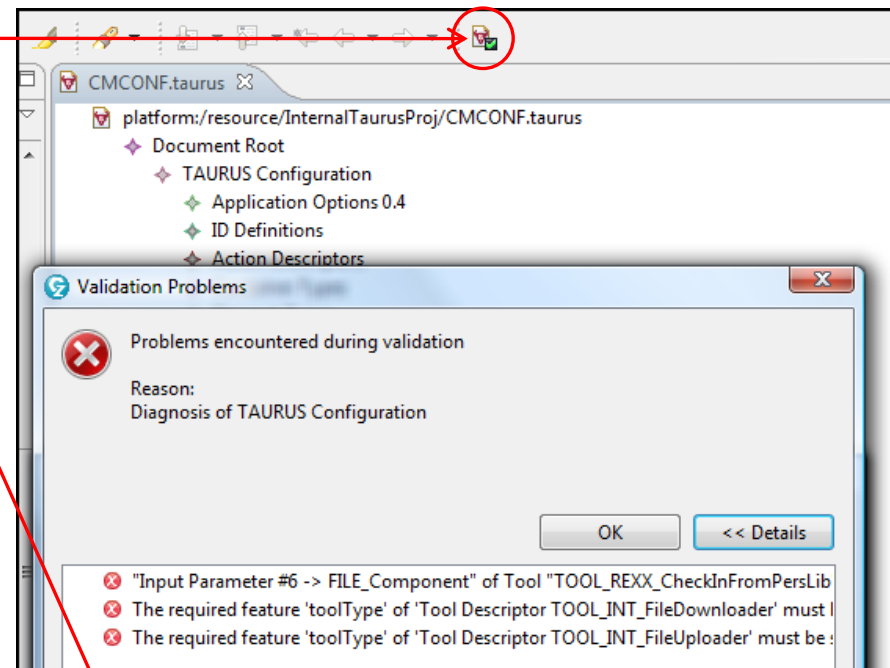


CMCONF.taurus

- platform:/resource/InternalTaurusProj/CMCONF.taurus
  - Document Root
    - TAURUS Configuration
      - Application Options 0.4
      - ID Definitions

Properties

Property	Value
Generic symbols	
Default Generic Symbol	*
Generic Symbols	*, ?
Referencing	
End Reference	.
Start Reference	&
Tool execution	
EXITPARM	TEST
Max RC	4
Version	
Version	0.4



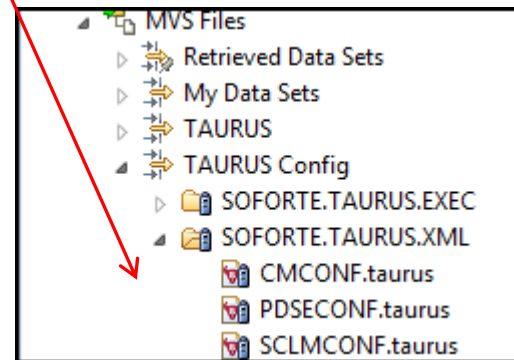
Validation Problems

Problems encountered during validation

Reason:  
Diagnosis of TAURUS Configuration

OK    << Details

- ✗ "Input Parameter #6 -> FILE\_Component" of Tool "TOOL\_REXX\_CheckInFromPersLib"
- ✗ The required feature 'toolType' of 'Tool Descriptor TOOL\_INT\_FileDownloader' must be
- ✗ The required feature 'toolType' of 'Tool Descriptor TOOL\_INT\_FileUploader' must be



MVS Files

- Retrieved Data Sets
- My Data Sets
- TAURUS
  - TAURUS Config
    - SOFORTE.TAURUS.EXEC
    - SOFORTE.TAURUS.XML
      - CMCONF.taurus
      - PDSECONF.taurus
      - SCLMCONF.taurus

- **High Performance Host Communication**
- **Mainframe utilities available out of the box**
  - MVS Explorer
  - JES JOB Explorer
- **Reduces hurdle for Host tool implementation**
  - The financial hurdle for Eclipse tool implementations is reduced significantly
- **Reduces risk for Eclipse Implementation**
  - Complete and deep integration becomes affordable
  - Predefined models for different development processes
  - Integration with all kinds of tools like RAA, RTC, SCLM, ChangeMan, Endeavor, ...
  - High functionality and quality of UI increase developer acceptability and productivity
- **Reduces Maintenance Effort**
  - TAURUS model is managed centrally on z/OS
  - Allows much faster deployment of changed or new functions