



TAURUS

Integrating Tools in RDz
Serena ChangeMan Integration

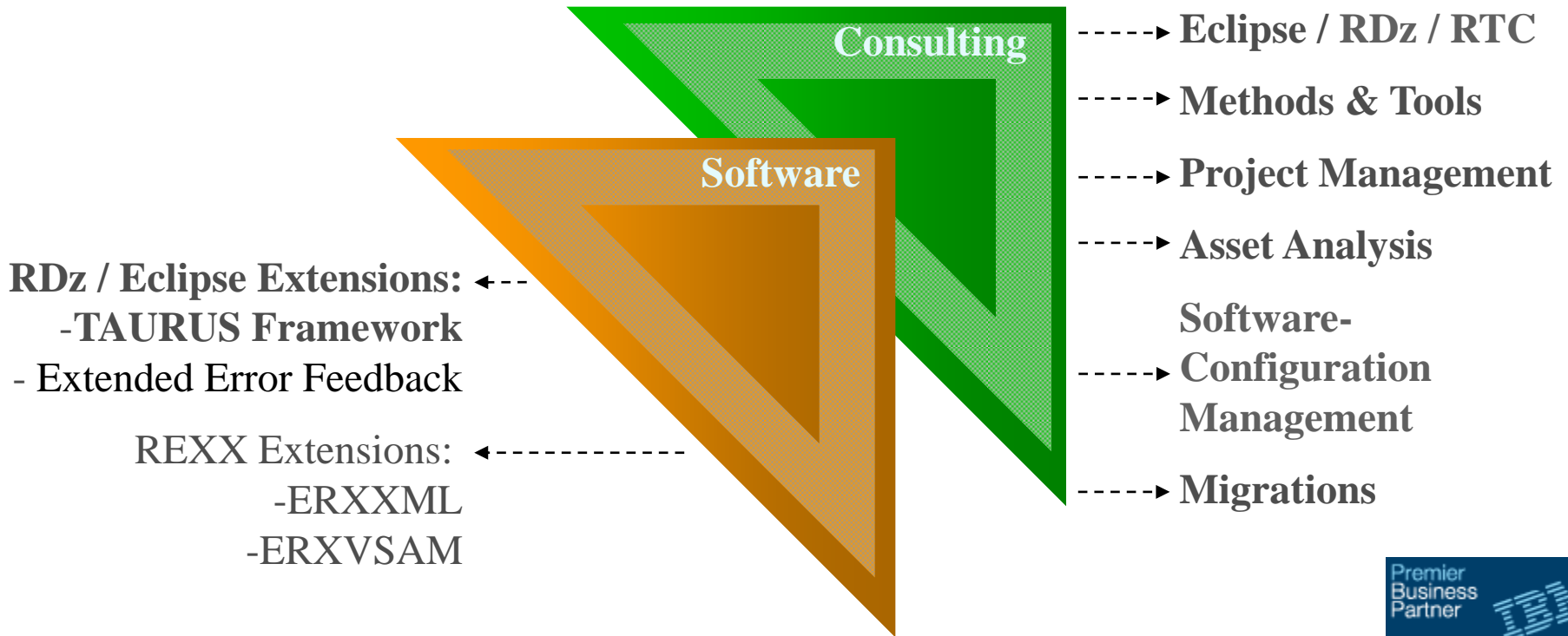
October 26, 2011

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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 RDz is time consuming and requires special skills
- Risk – Implementation is not done to the full extend and developers reject RDz
- Current “out of the box” solutions are not sufficient for 80% of European RDz implementations

- **Consequence**

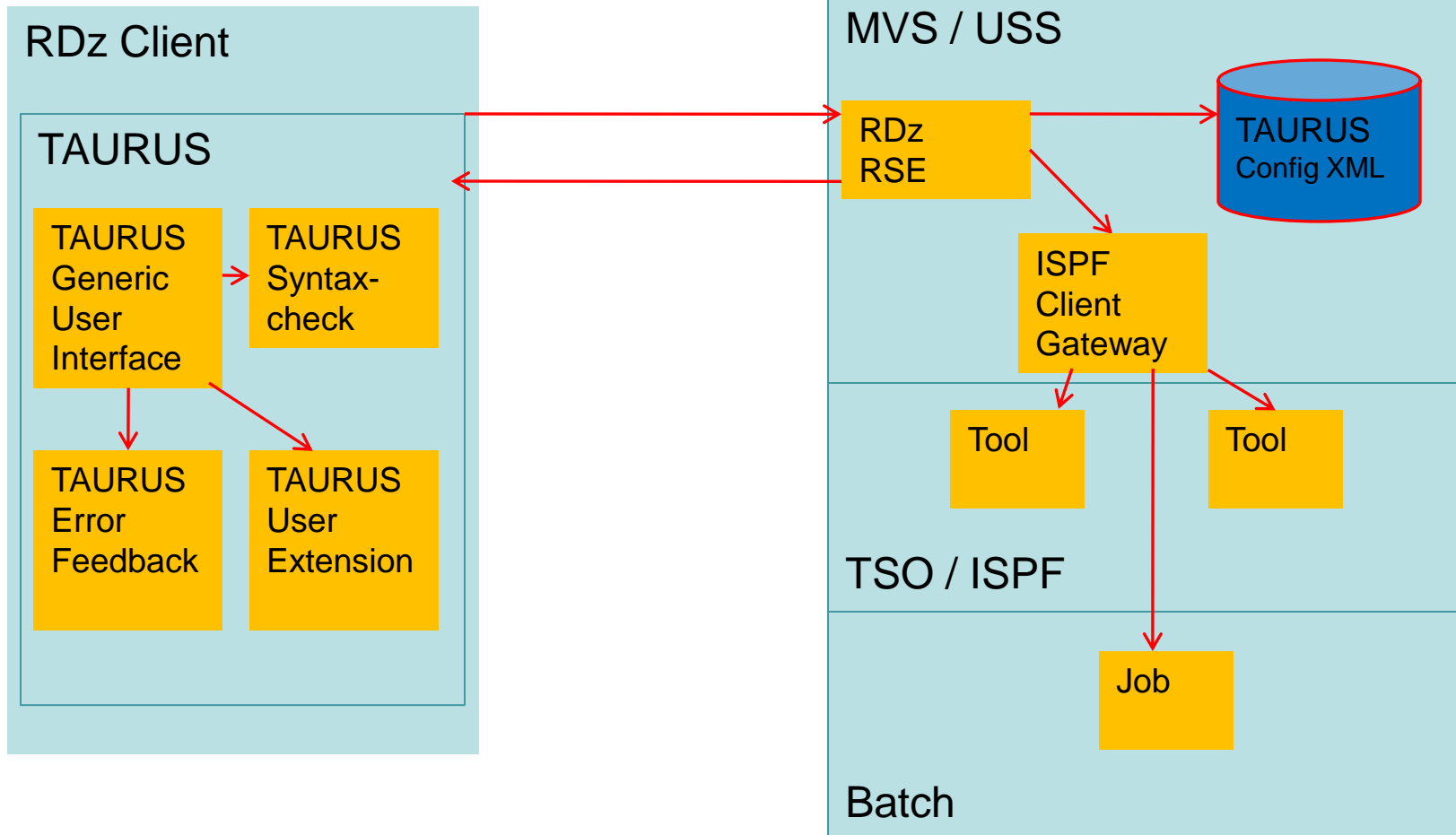
- RDz Implementations need to be simplified and easily customizable for the customers existing development process
- => development of TAURUS Integration toolkit

- **Model driven tool integration**
 - Modeling of user interfaces and tool integration
 - Supports integration of SCLM, Endeavor, ChangeMan, ...
 - Fully customizable
 - Fully integrated into Eclipse and 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
 - The financial hurdle for RDz implementations is reduced significantly

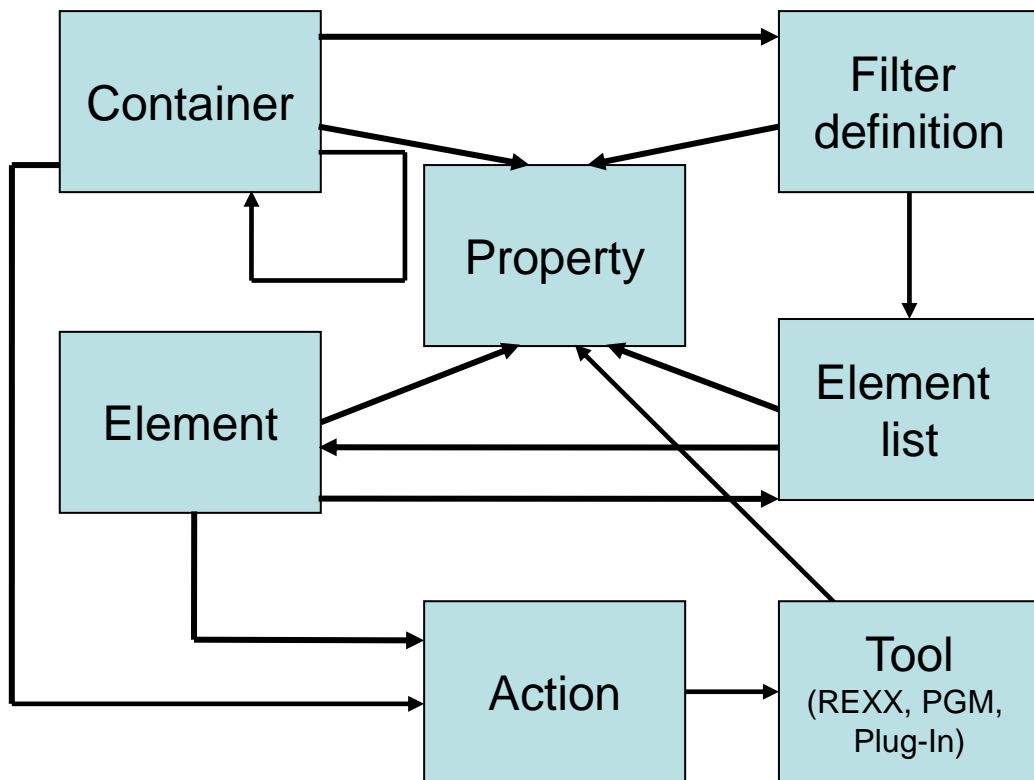
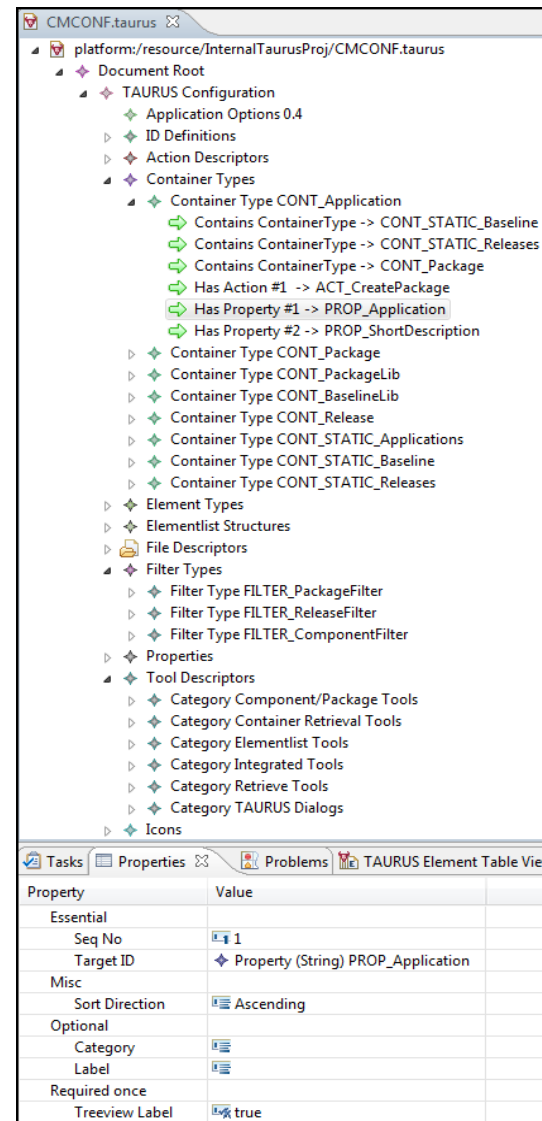
SoforTe – TAURUS – architecture

Windows / Linux

z/OS



SoforTe – TAURUS – modeling

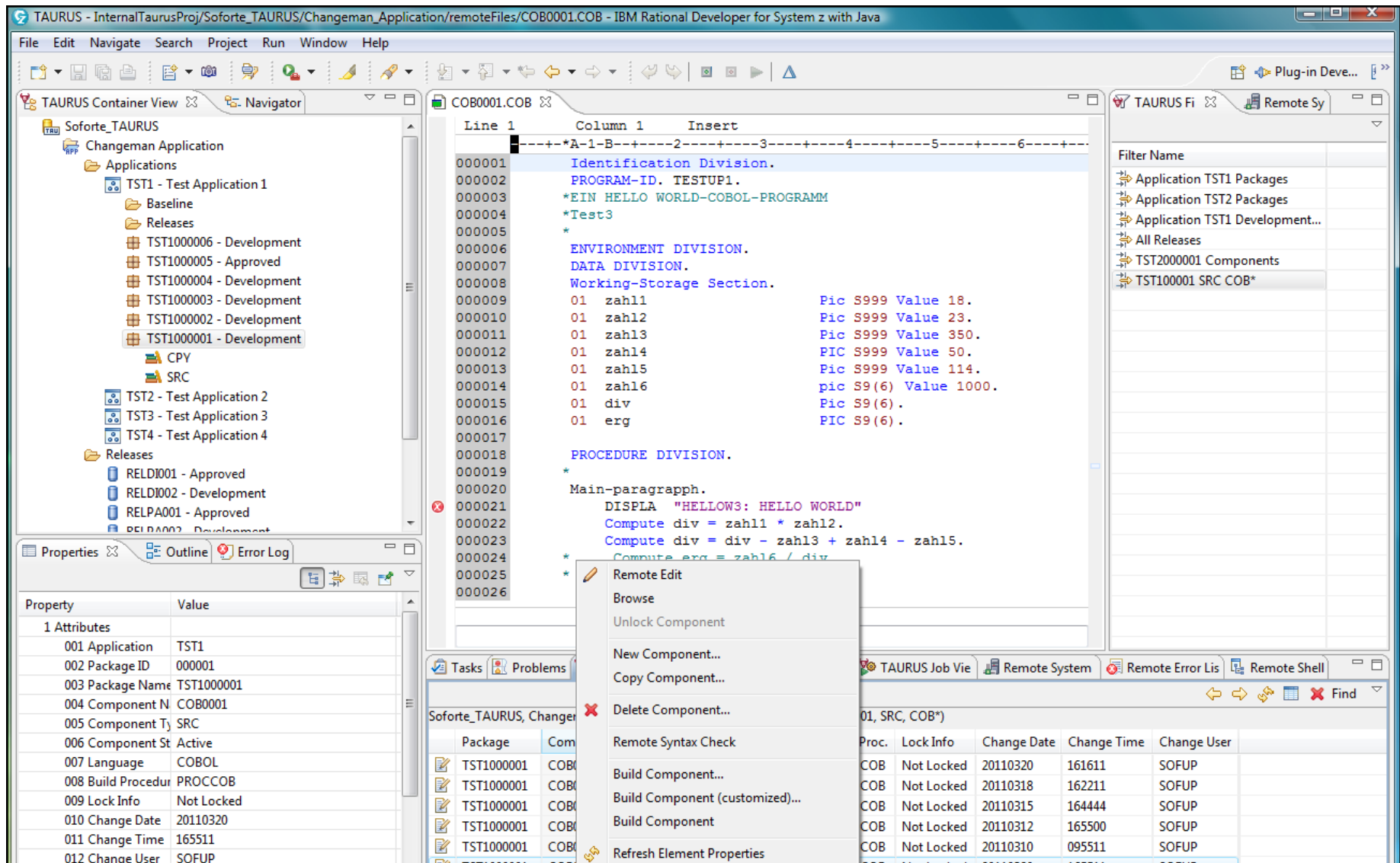



CMCONF.taurus

- 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 displays the IBM Rational Developer for System z with Java interface. The main editor shows COBOL code for 'COB0001.COB'. The code includes sections for Identification, Environment, Data, Working-Storage, and Procedure divisions. A context menu is open over the code, listing actions like 'Remote Edit', 'Browse', 'New Component...', 'Copy Component...', 'Delete Component...', 'Remote Syntax Check', 'Build Component...', 'Build Component (customized)...', 'Build Component', and 'Refresh Element Properties'.

The left sidebar shows the project structure for 'Soforte_TAURUS' under 'ChangeMan Application'. It includes applications (TST1-TST4), releases, and source components (CPY, SRC, RELDI001-002, RELPA001-002).

The bottom-left pane shows the 'Properties' view for the selected component:

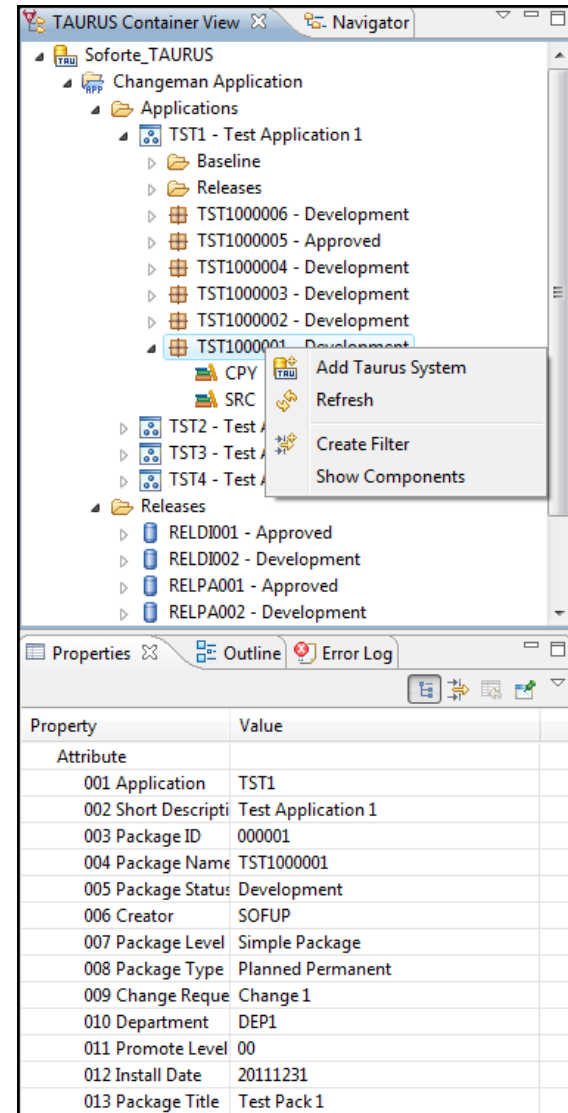
Property	Value
1 Attributes	
001 Application	TST1
002 Package ID	000001
003 Package Name	TST1000001
004 Component Name	COB0001
005 Component Type	SRC
006 Component State	Active
007 Language	COBOL
008 Build Procedure	PROCCOB
009 Lock Info	Not Locked
010 Change Date	20110320
011 Change Time	165511
012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

The bottom-right pane shows a table of components with columns for Proc., Lock Info, Change Date, Change Time, and Change User.

Proc.	Lock Info	Change Date	Change Time	Change User
COB	Not Locked	20110320	161611	SOFUP
COB	Not Locked	20110318	162211	SOFUP
COB	Not Locked	20110315	164444	SOFUP
COB	Not Locked	20110312	165500	SOFUP
COB	Not Locked	20110310	095511	SOFUP

Taurus - ChangeMan Tree View

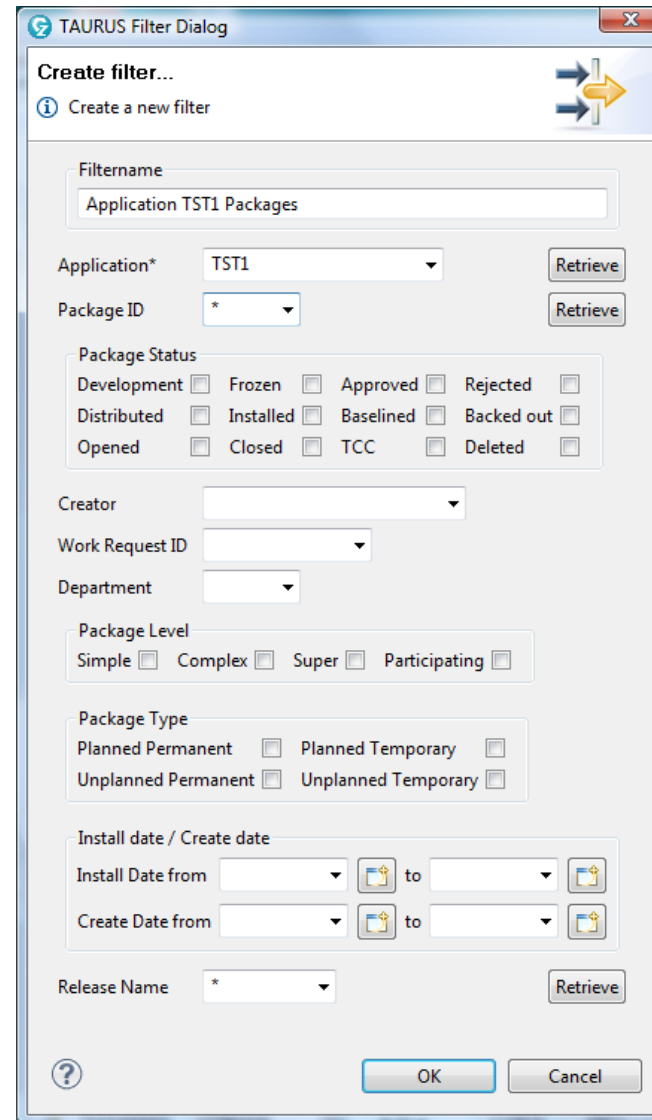
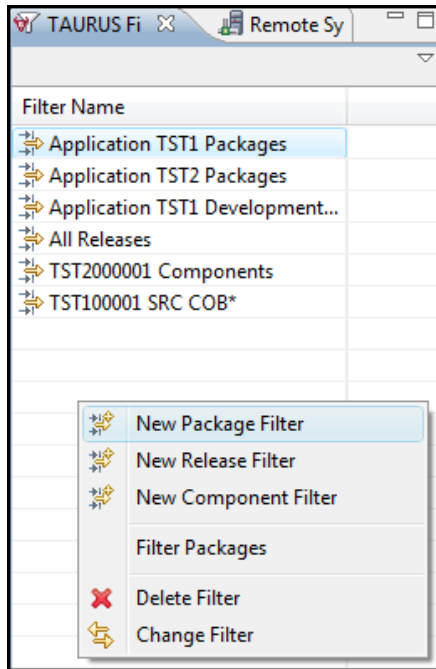
- **Supports a hierarchical view to:**
 - Applications
 - Packages
 - Baselines
 - Promotion Libs
 - Types
 - Releases (if ERO option is in use)



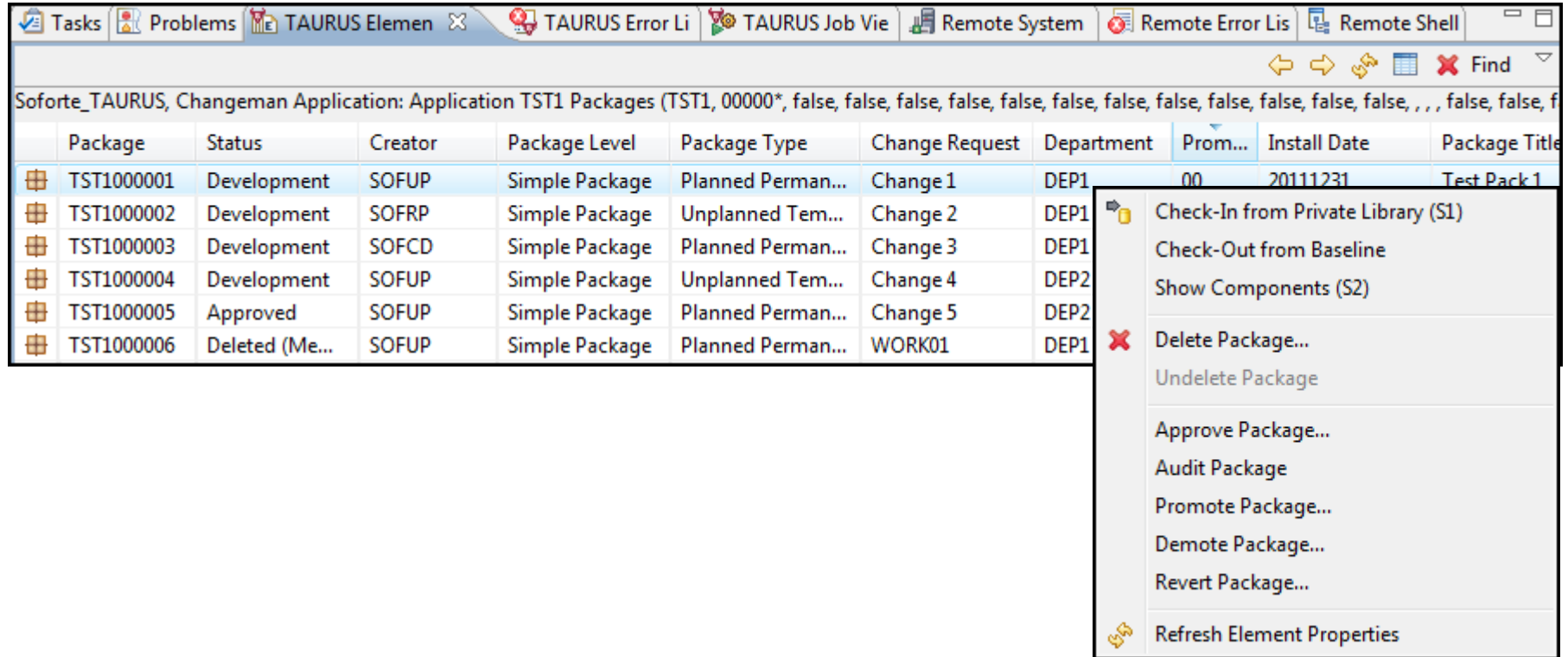
The screenshot displays the Taurus Container View interface. The main window shows a hierarchical tree structure under 'Soforte_TAURUS'. The tree is organized into 'Applications' and 'Releases'. Under 'Applications', there is a folder 'TST1 - Test Application 1' which contains sub-folders 'Baseline', 'Releases', and several packages. A context menu is open over the package 'TST1000001 - Development', showing options: 'Add Taurus System', 'Refresh', 'Create Filter', and 'Show Components'. Below the tree, there is a 'Properties' pane with a table of attributes and values.

Property	Value
Attribute	
001 Application	TST1
002 Short Description	Test Application 1
003 Package ID	000001
004 Package Name	TST1000001
005 Package Status	Development
006 Creator	SOFUP
007 Package Level	Simple Package
008 Package Type	Planned Permanent
009 Change Request	Change 1
010 Department	DEP1
011 Promote Level	00
012 Install Date	20111231
013 Package Title	Test Pack 1

Taurus - Create a ChangeMan Package List



TAURUS – ChangeMan Package Functions

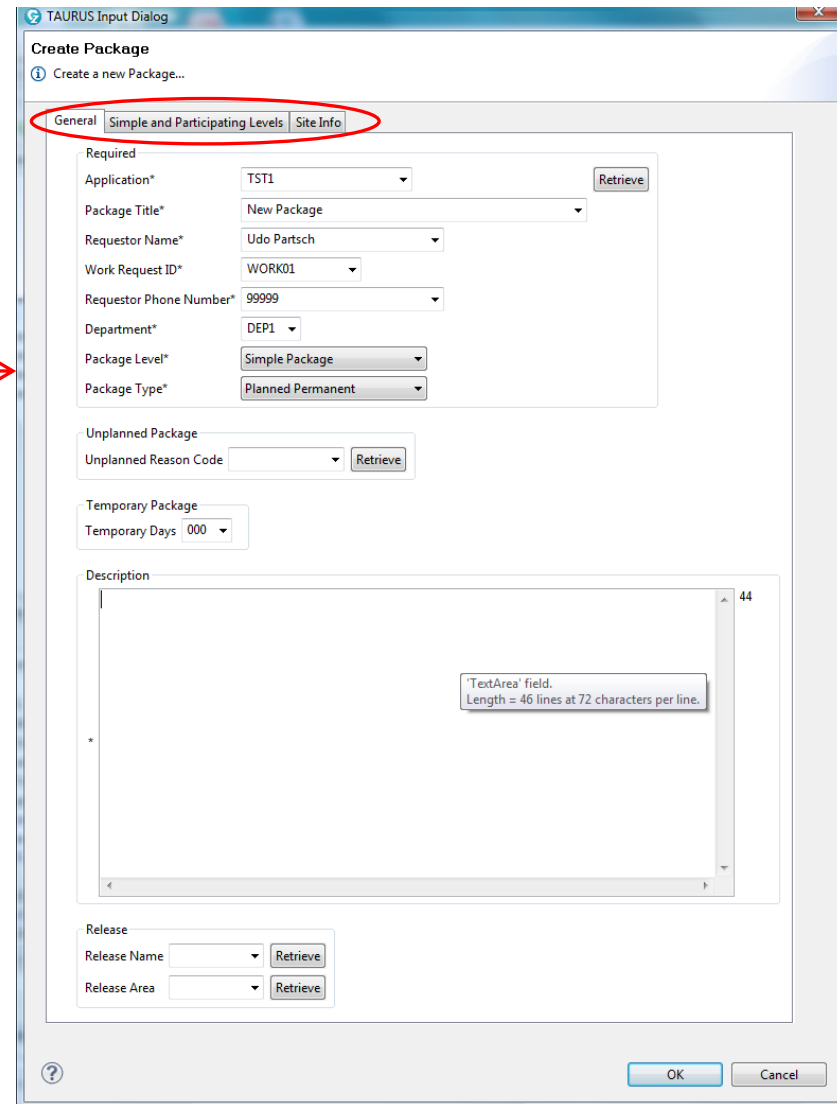
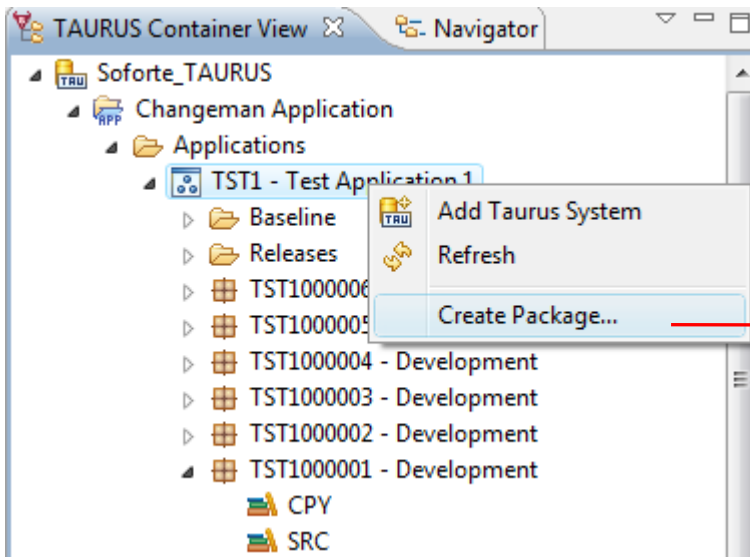


The screenshot displays the TAURUS application interface. At the top, there are several tabs: Tasks, Problems, TAURUS Elemen, TAURUS Error Li, TAURUS Job Vie, Remote System, Remote Error Lis, and Remote Shell. Below the tabs is a toolbar with navigation arrows and a Find button. The main area shows a table of packages with the following columns: Package, Status, Creator, Package Level, Package Type, Change Request, Department, Prom..., Install Date, and Package Title. A context menu is open over the table, listing various actions such as Check-In from Private Library, Check-Out from Baseline, Show Components, Delete Package, Undelete Package, Approve Package, Audit Package, Promote Package, Demote Package, Revert Package, and Refresh Element Properties.

Package	Status	Creator	Package Level	Package Type	Change Request	Department	Prom...	Install Date	Package Title
TST1000001	Development	SOFUP	Simple Package	Planned Perman...	Change 1	DEP1	00	20111231	Test Pack 1
TST1000002	Development	SOFRP	Simple Package	Unplanned Tem...	Change 2	DEP1			
TST1000003	Development	SOFCD	Simple Package	Planned Perman...	Change 3	DEP1			
TST1000004	Development	SOFUP	Simple Package	Unplanned Tem...	Change 4	DEP2			
TST1000005	Approved	SOFUP	Simple Package	Planned Perman...	Change 5	DEP2			
TST1000006	Deleted (Me...	SOFUP	Simple Package	Planned Perman...	WORK01	DEP1			

- Check-In from Private Library (S1)
- Check-Out from Baseline
- Show Components (S2)
- Delete Package...
- Undelete Package
- Approve Package...
- Audit Package
- Promote Package...
- Demote Package...
- Revert Package...
- Refresh Element Properties

TAURUS – Create a new ChangeMan Package



TAURUS Input Dialog

Create Package

Create a new Package...

General | Simple and Participating Levels | Site Info

Required

Application* TST1 [Retrieve]

Package Title* New Package

Requestor Name* Udo Patsch

Work Request ID* WORK01

Requestor Phone Number* 99999

Department* DEP1

Package Level* Simple Package

Package Type* Planned Permanent

Unplanned Package

Unplanned Reason Code [Retrieve]

Temporary Package

Temporary Days 000

Description

TextArea field.
Length = 46 lines at 72 characters per line.

Release

Release Name [Retrieve]

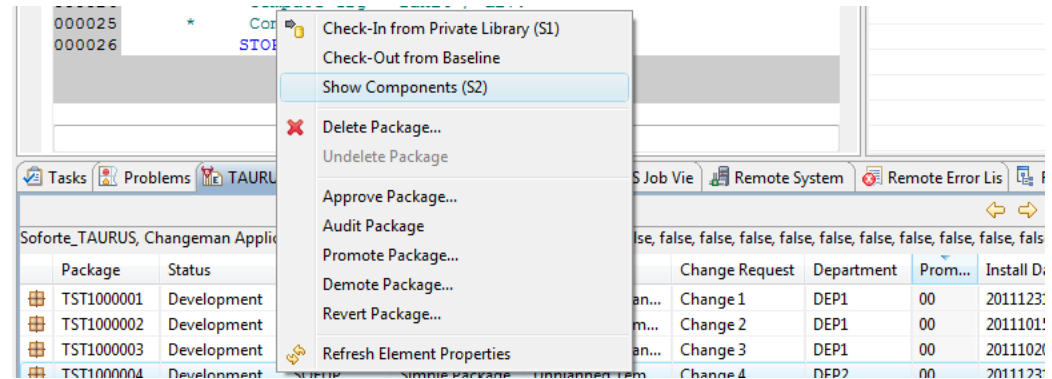
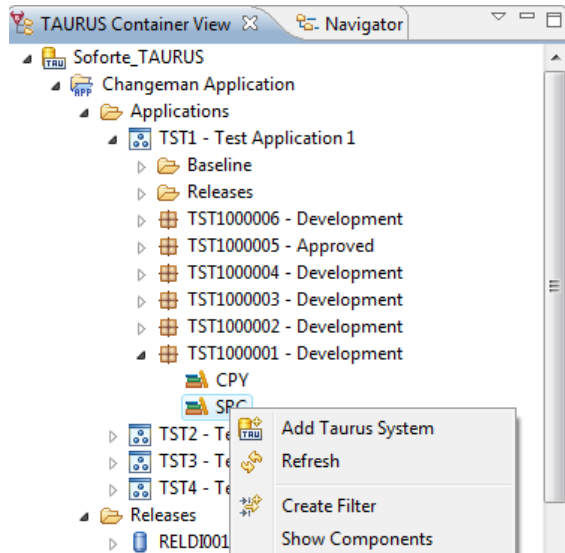
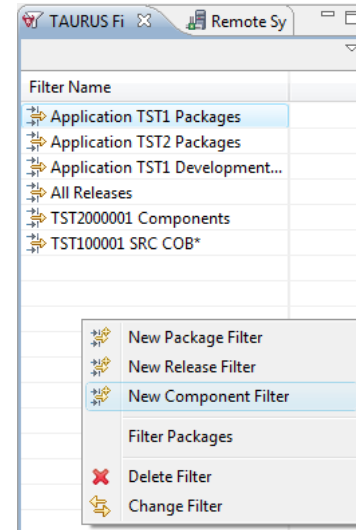
Release Area [Retrieve]

OK Cancel

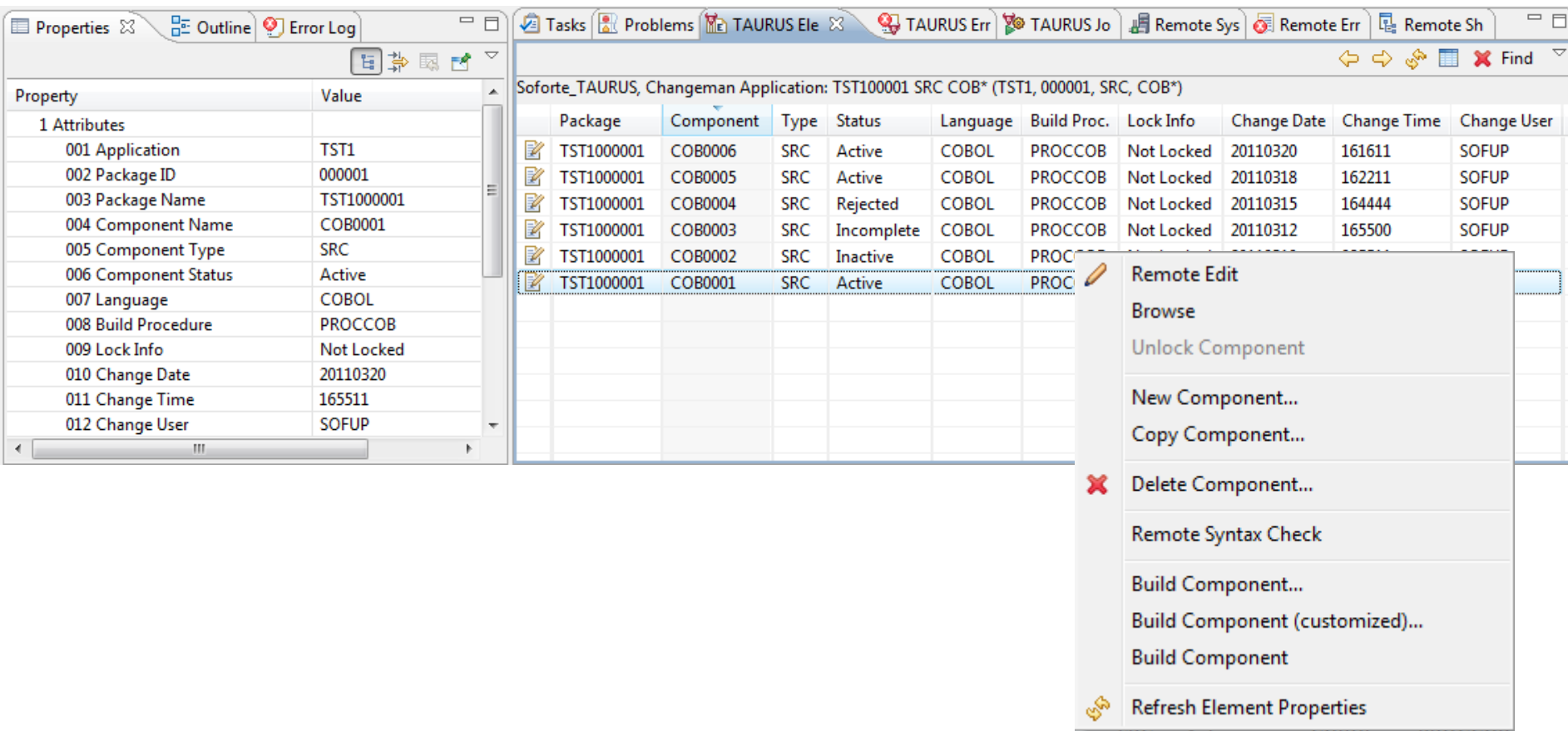
TAURUS – Create a ChangeMan Component List

- **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, a 'Properties' window shows the attributes of a selected component. The main window displays a table of components for the application 'TST100001 SRC COB*'. A context menu is open over the first row of the table, listing various actions such as 'Remote Edit', 'Browse', 'Delete Component...', and 'Build Component...'.

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			

Properties Window:

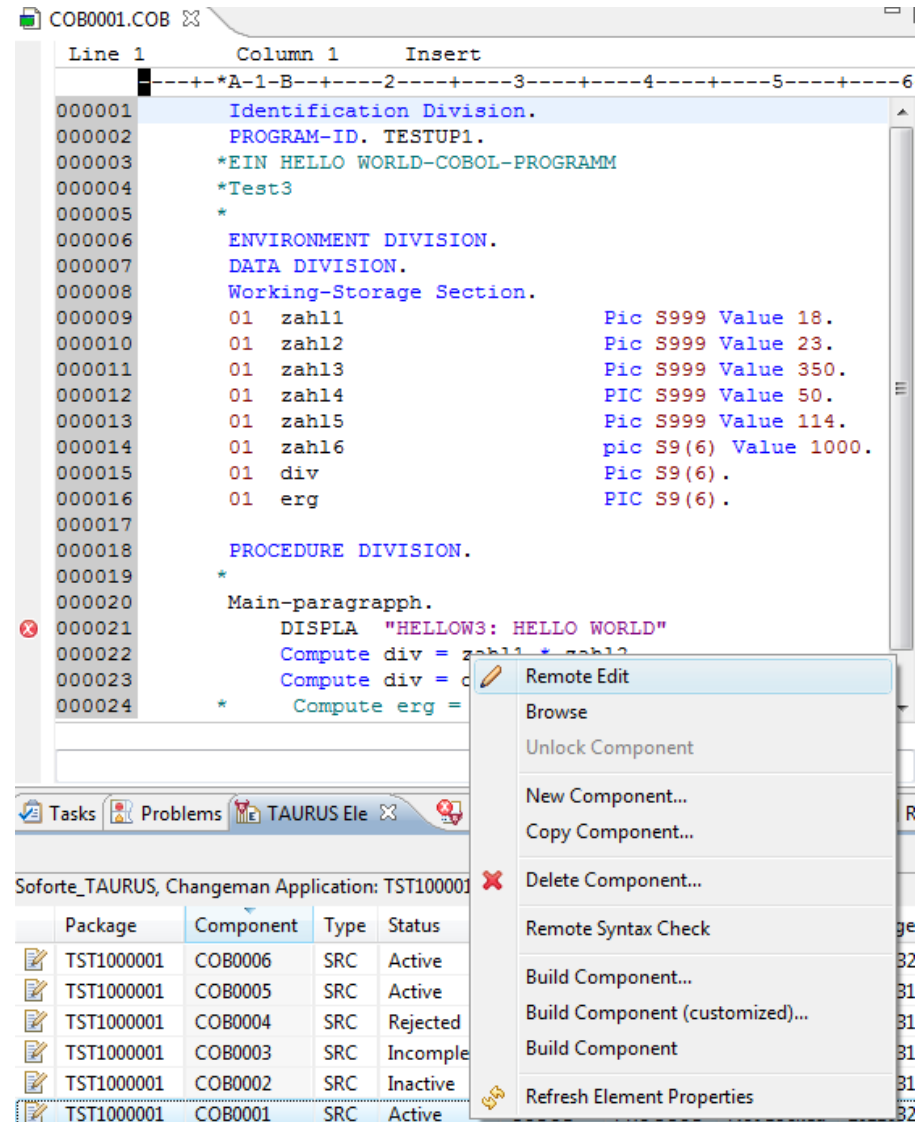
Property	Value
1 Attributes	
001 Application	TST1
002 Package ID	000001
003 Package Name	TST1000001
004 Component Name	COB0001
005 Component Type	SRC
006 Component Status	Active
007 Language	COBOL
008 Build Procedure	PROCCOB
009 Lock Info	Not Locked
010 Change Date	20110320
011 Change Time	165511
012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

Context Menu:

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

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 Taurus IDE interface. The main window shows a COBOL program editor for 'COB0001.COB'. The editor content is as follows:

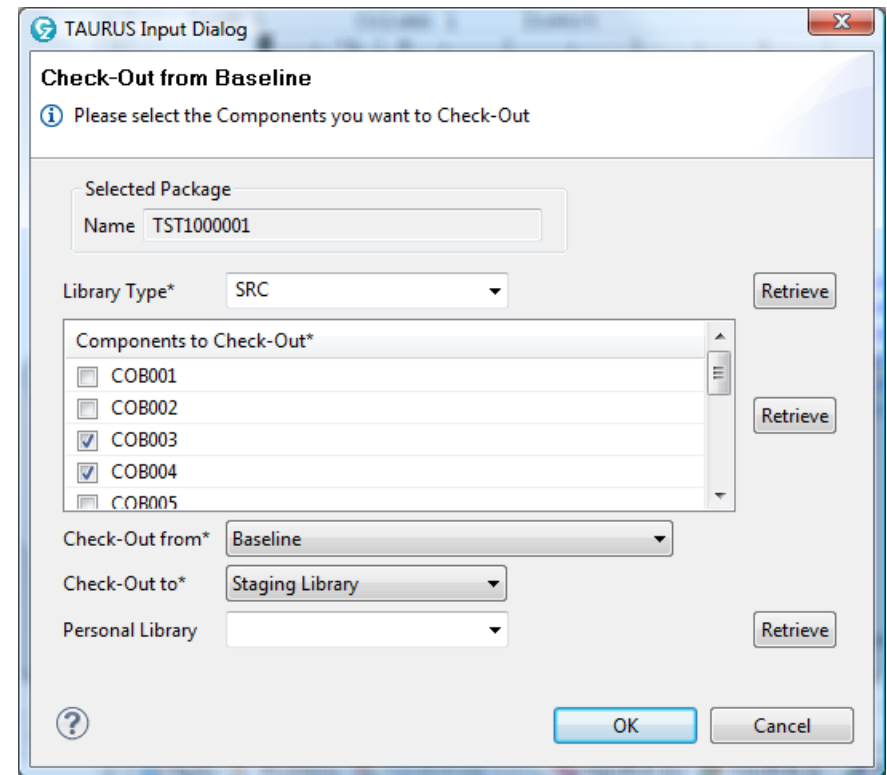
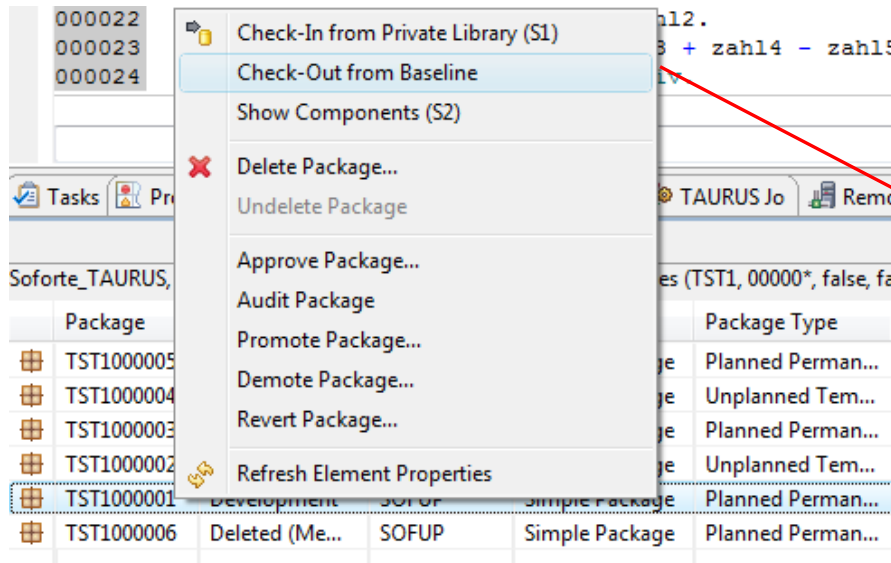
```
Line 1      Column 1      Insert
-----*A-1-B-----2-----3-----4-----5-----6
000001      Identification Division.
000002      PROGRAM-ID. TESTUP1.
000003      *EIN HELLO WORLD-COBOL-PROGRAMM
000004      *Test3
000005      *
000006      ENVIRONMENT DIVISION.
000007      DATA DIVISION.
000008      Working-Storage Section.
000009      01  zahl1                      Pic S999 Value 18.
000010      01  zahl2                      Pic S999 Value 23.
000011      01  zahl3                      Pic S999 Value 350.
000012      01  zahl4                      PIC S999 Value 50.
000013      01  zahl5                      Pic S999 Value 114.
000014      01  zahl6                      pic S9(6) Value 1000.
000015      01  div                        Pic S9(6).
000016      01  erg                        PIC S9(6).
000017
000018      PROCEDURE DIVISION.
000019      *
000020      Main-paragraph.
000021      DISPLA "HELLOWS: HELLO WORLD"
000022      Compute div = zahl1 * zahl2
000023      Compute div = c
000024      *      Compute erg =
```

A context menu is open over the editor, listing the following options: Remote Edit, Browse, Unlock Component, New Component..., Copy Component..., Delete Component..., Remote Syntax Check, Build Component..., Build Component (customized)..., Build Component, and Refresh Element Properties.

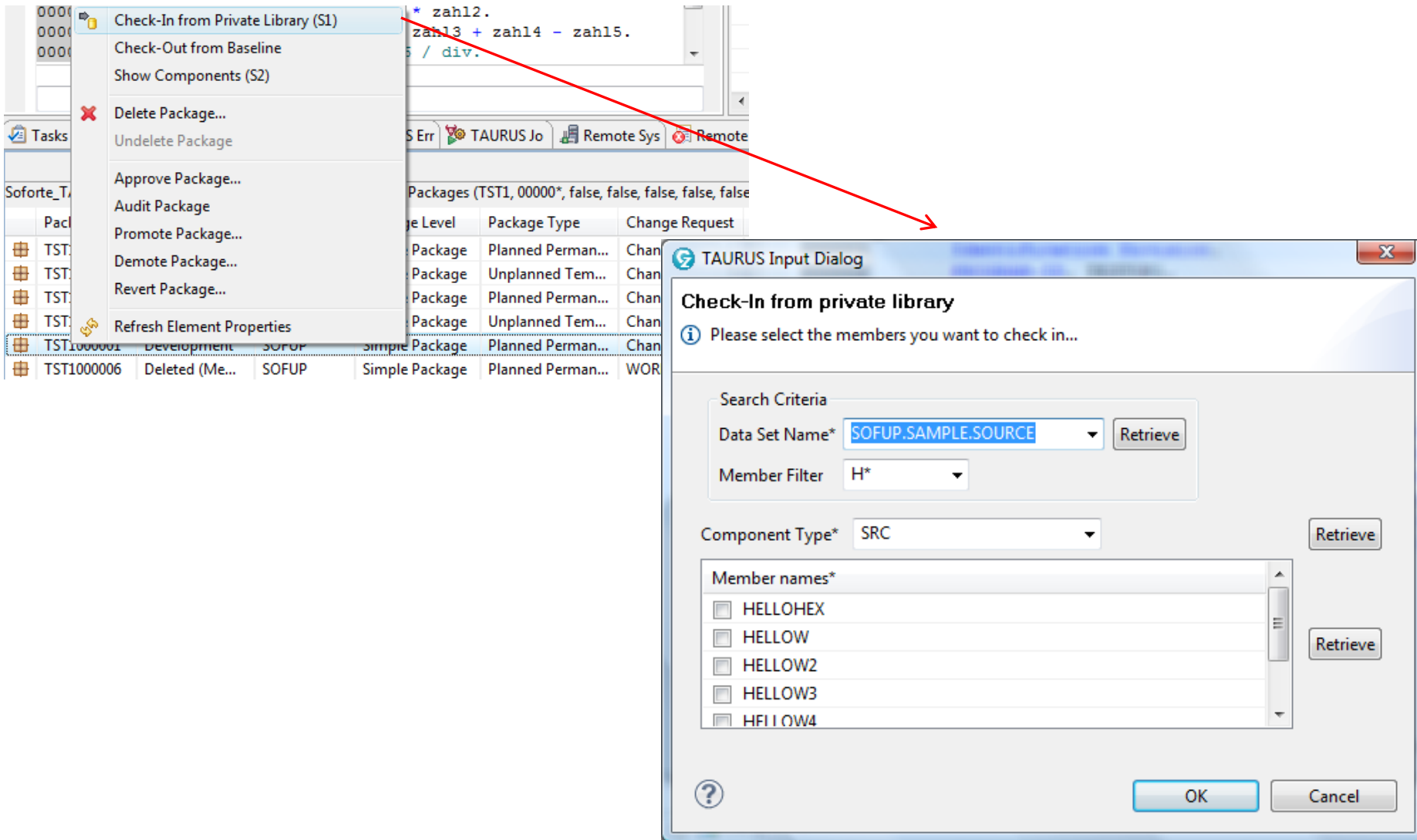
At the bottom of the IDE, there is a table showing the component structure:

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

Taurus – Check-out Components from Baseline



Taurus – Check-in Components from a PDS

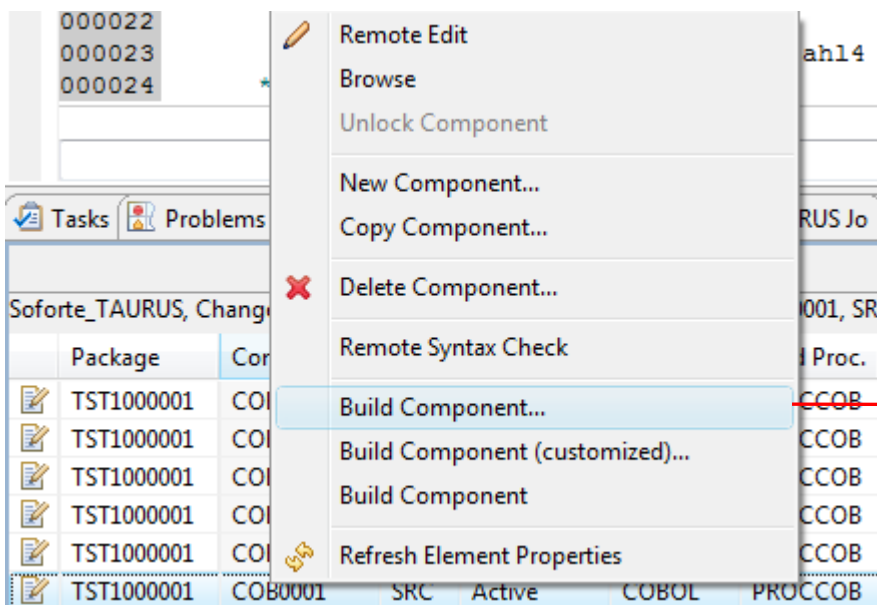


The screenshot shows the Taurus software interface. A context menu is open over a package, with the 'Check-In from Private Library (S1)' option selected. A red arrow points from this menu item to the 'TAURUS Input Dialog' window. The dialog box is titled 'Check-In from private library' and contains the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

- Search Criteria:**
 - Data Set Name*: SOFUP.SAMPLE.SOURCE (with a 'Retrieve' button)
 - Member Filter: H* (with a dropdown arrow)
- Component Type*:** SRC (with a dropdown arrow and a 'Retrieve' button)
- Member names*:** A list box containing:
 - HELLOHEX
 - HELLOW
 - HELLOW2
 - HELLOW3
 - HELLOW4(with a 'Retrieve' button)

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

Taurus – Build a Component (standard Dialog)



000022
000023
000024

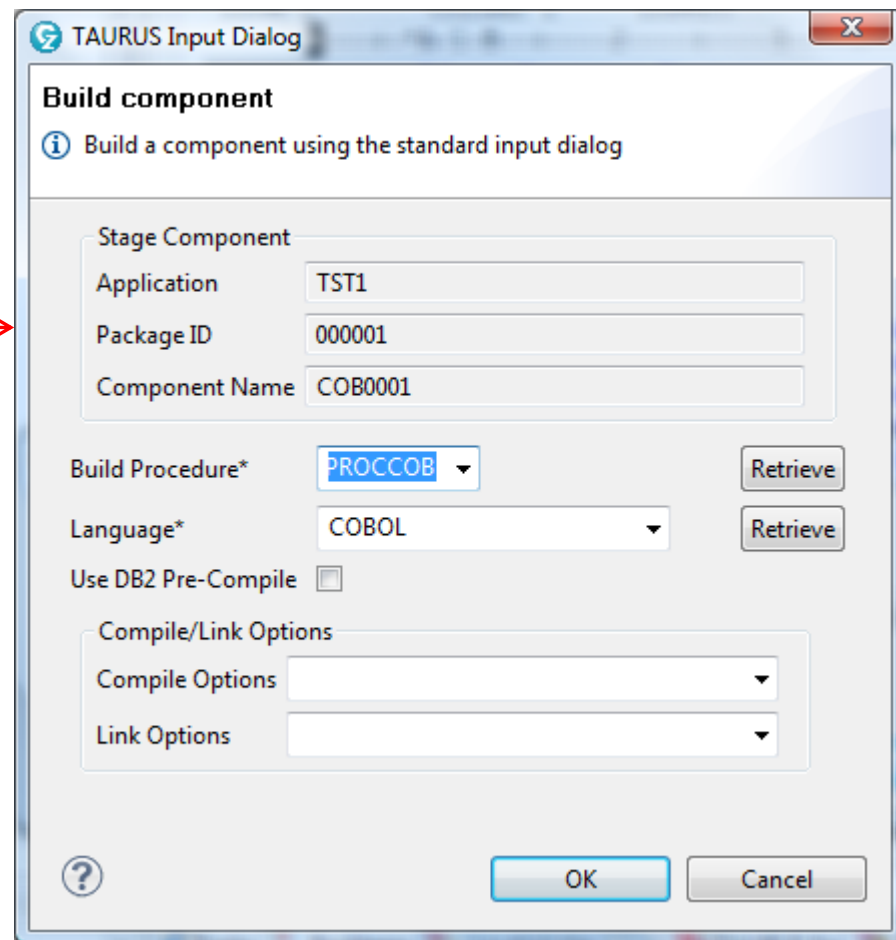
ah14

Tasks Problems

Soforte_TAURUS, Change

Package	Cor				
TST1000001	CO				CCOB
TST1000001	CO				CCOB
TST1000001	CO				CCOB
TST1000001	CO				CCOB
TST1000001	CO				CCOB
TST1000001	CO				CCOB
TST1000001	COB0001	SRC	Active	COBOL	PROCCOB

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



TAURUS Input Dialog

Build component

Build a component using the standard input dialog

Stage Component

Application: TST1

Package ID: 000001

Component Name: COB0001

Build Procedure*: PROCCOB [Retrieve]

Language*: COBOL [Retrieve]

Use DB2 Pre-Compile:

Compile/Link Options

Compile Options: [Dropdown]

Link Options: [Dropdown]

[?] [OK] [Cancel]

Taurus – Build a Component (reuse options)

The screenshot illustrates the workflow for building a component in SoforTe TAURUS. It shows the 'Build Component' menu option in the context menu, the 'Job submit' dialog box indicating successful submission, the 'JobJOB03425' dialog box indicating job completion, and the job status table with a context menu for the selected job.

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

Context menu for the selected job:

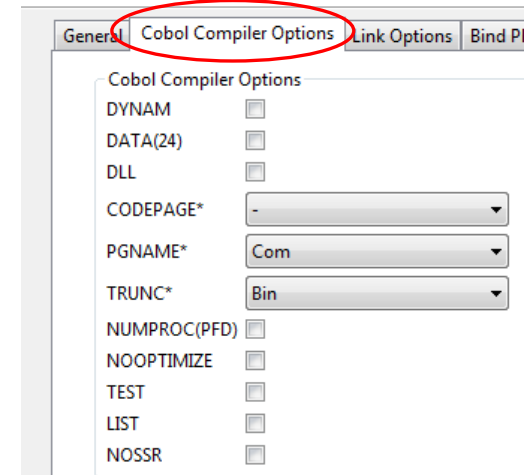
- Go Into
- Browse Job
- Refresh Job Status

Taurus – Build a Component (customized)

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

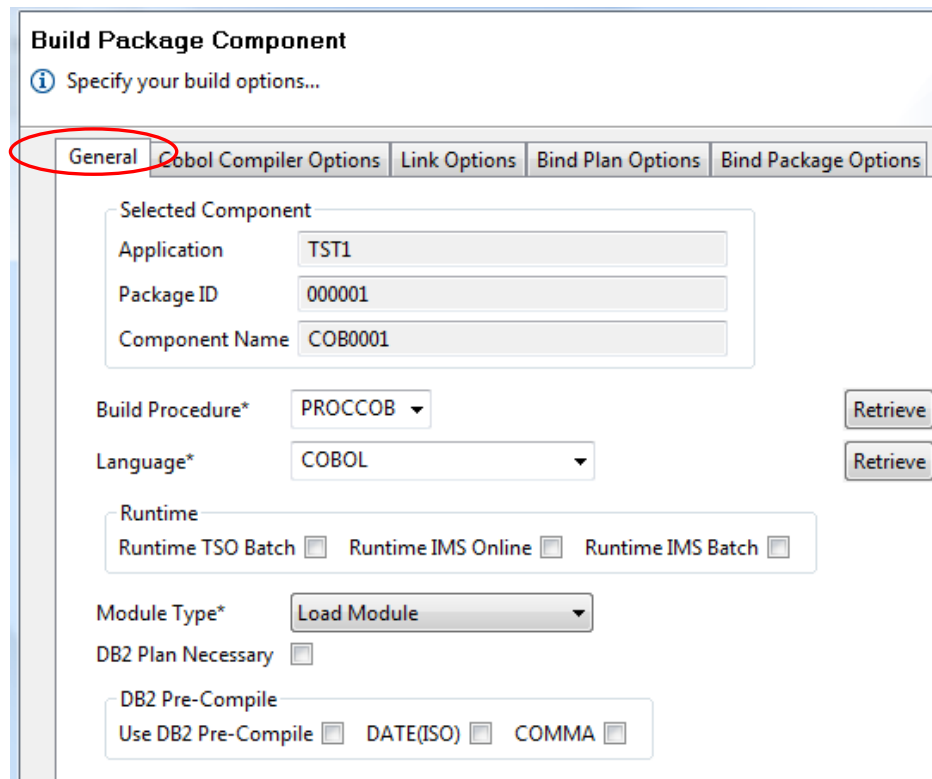
Build Package Component

Specify your build options...



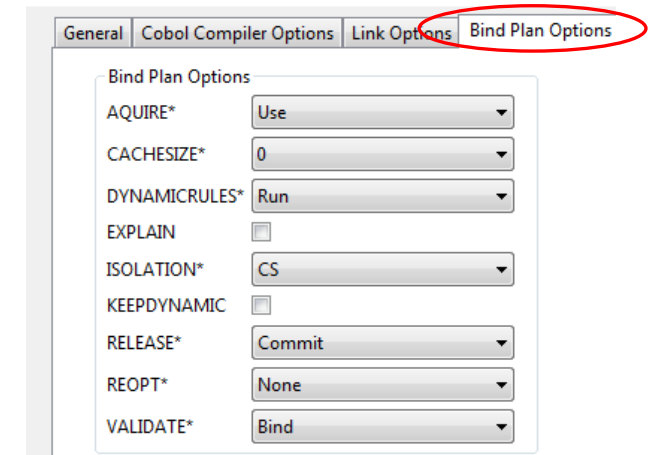
The screenshot shows the 'Cobol Compiler Options' tab. The 'General' tab is circled in red. The options listed are:

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"/>



The screenshot shows the 'General' tab. The 'General' tab is circled in red. The options listed are:

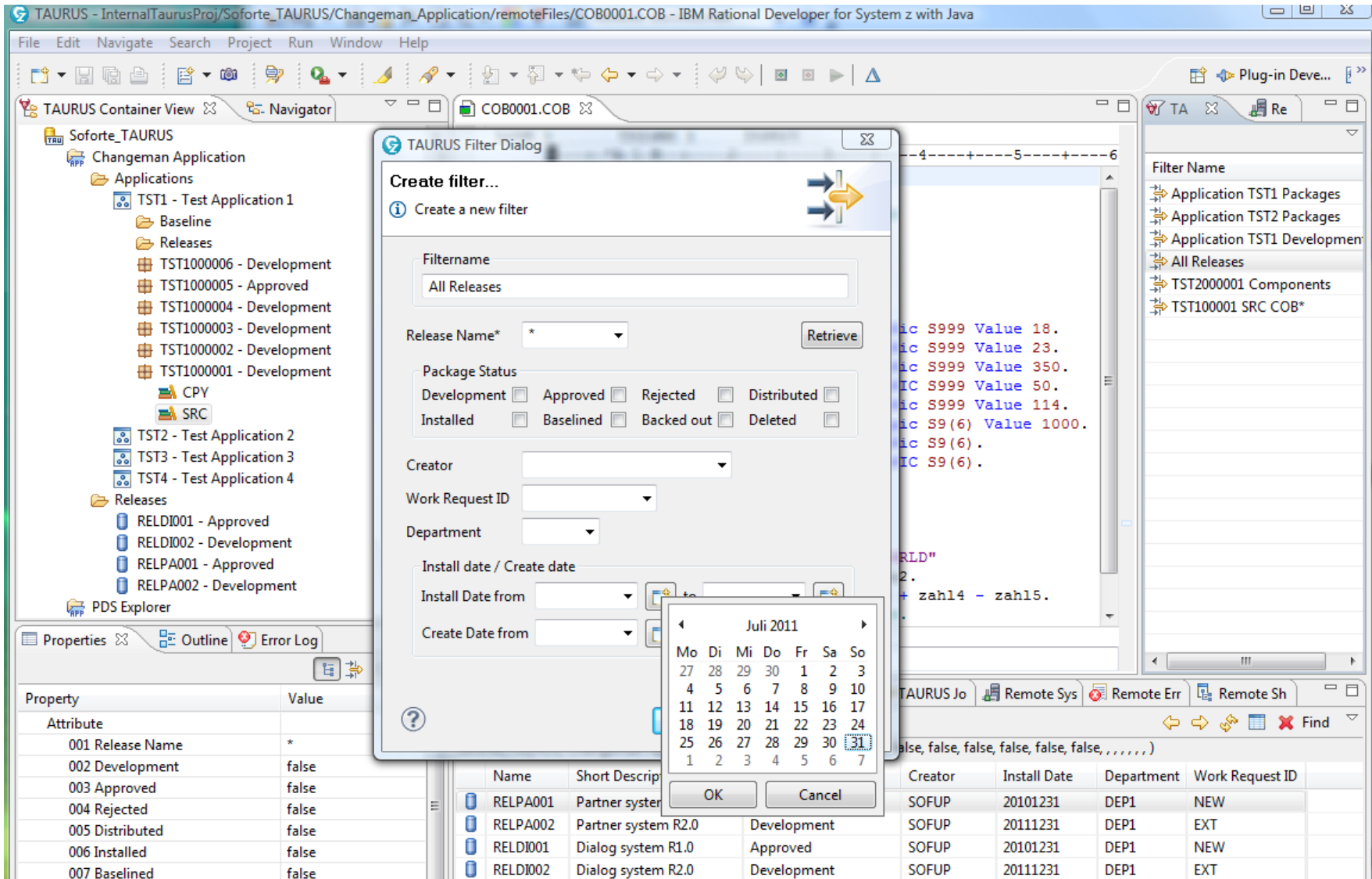
Selected Component	
Application	TST1
Package ID	000001
Component Name	COB0001
Build Procedure*	PROCCOB
Language*	COBOL
Runtime	
Runtime TSO Batch	<input type="checkbox"/>
Runtime IMS Online	<input type="checkbox"/>
Runtime IMS Batch	<input type="checkbox"/>
Module Type*	Load Module
DB2 Plan Necessary	<input type="checkbox"/>
DB2 Pre-Compile	
Use DB2 Pre-Compile	<input type="checkbox"/>
DATE(ISO)	<input type="checkbox"/>
COMMA	<input type="checkbox"/>



The screenshot shows the 'Bind Plan Options' tab. The 'Bind Plan Options' tab is circled in red. The options listed are:

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 IBM Rational Developer for System z with Java interface. The main window shows the 'TAURUS Filter Dialog' with the following fields and options:

- Create filter...:** Create a new filter
- Filtername:** All Releases
- Release Name*:** *
- Package Status:**
 - Development Approved Rejected Distributed
 - Installed Baselined Backed out Deleted
- Creator:** [Dropdown]
- Work Request ID:** [Dropdown]
- Department:** [Dropdown]
- Install date / Create date:**
 - Install Date from: [Dropdown]
 - Create Date from: [Dropdown]

A calendar for July 2011 is open, showing the date 31 selected. The background shows the 'TAURUS Container View' with a tree structure of applications and releases, and a 'Properties' table at the bottom left.

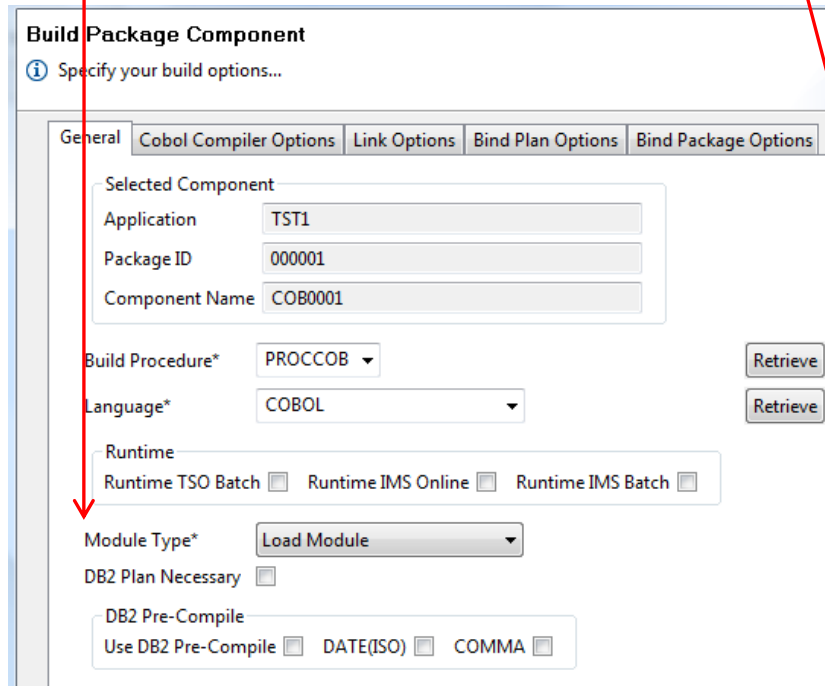
Property	Value
Attribute	
001 Release Name	*
002 Development	false
003 Approved	false
004 Rejected	false
005 Distributed	false
006 Installed	false
007 Baselined	false

Name	Short Description	Department	Work Request ID
RELPA001	Partner system	Development	NEW
RELPA002	Partner system R2.0	Development	EXT
RELDI001	Dialog system R1.0	Approved	NEW
RELDI002	Dialog system R2.0	Development	EXT

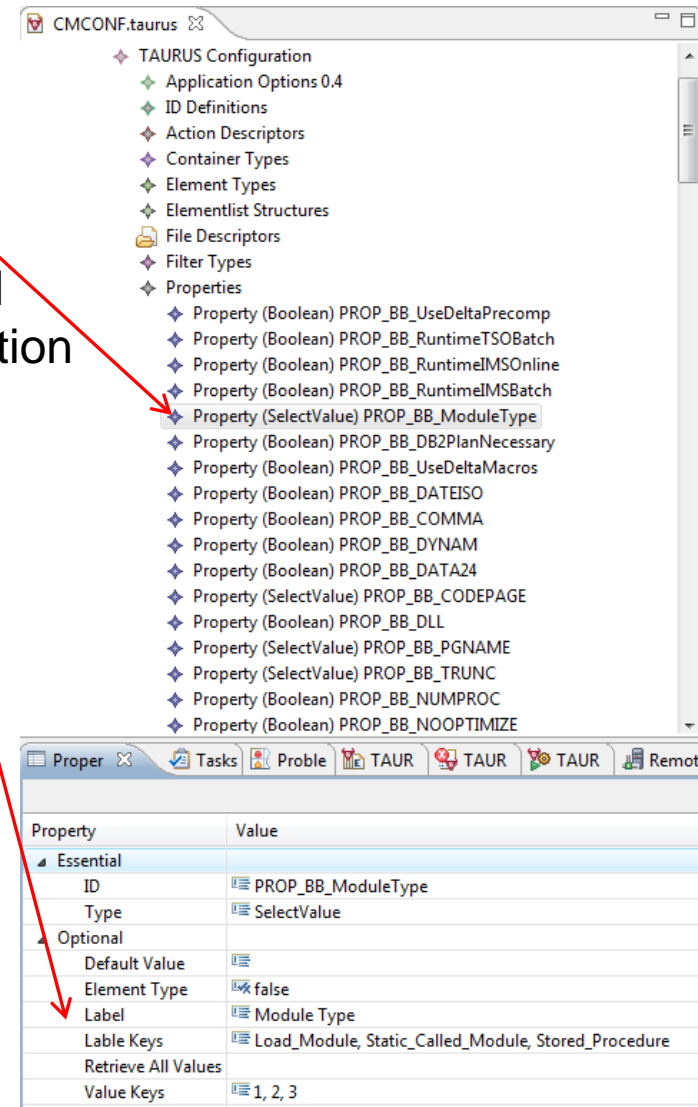
Taurus – How to model the customized build

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

Model
Result



Model
Definition

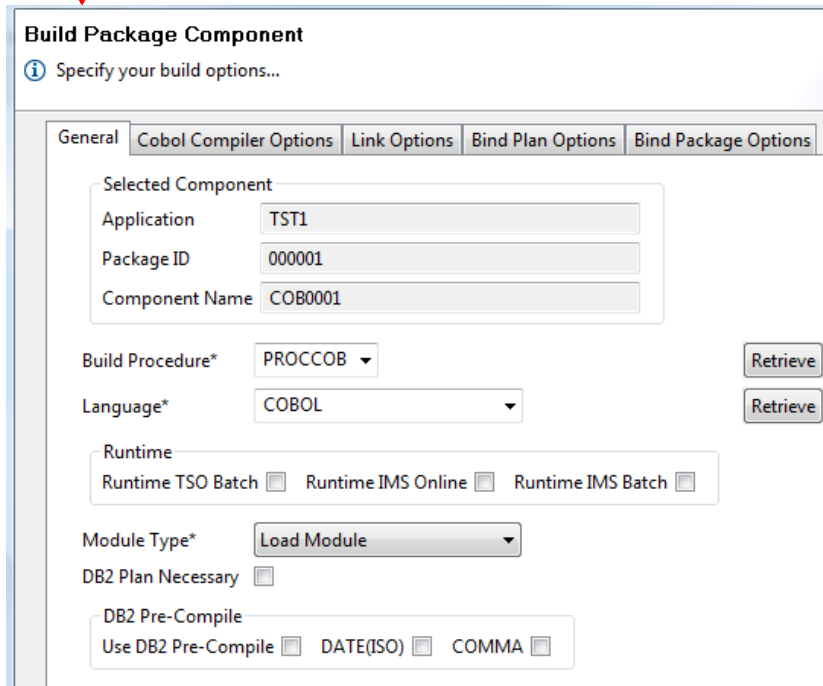


Property	Value
Essential	
ID	PROP_BB_ModuleType
Type	SelectValue
Optional	
Default Value	
Element Type	false
Label	Module Type
Label Keys	Load_Module, Static_Called_Module, Stored_Procedure
Retrieve All Values	
Value Keys	1, 2, 3

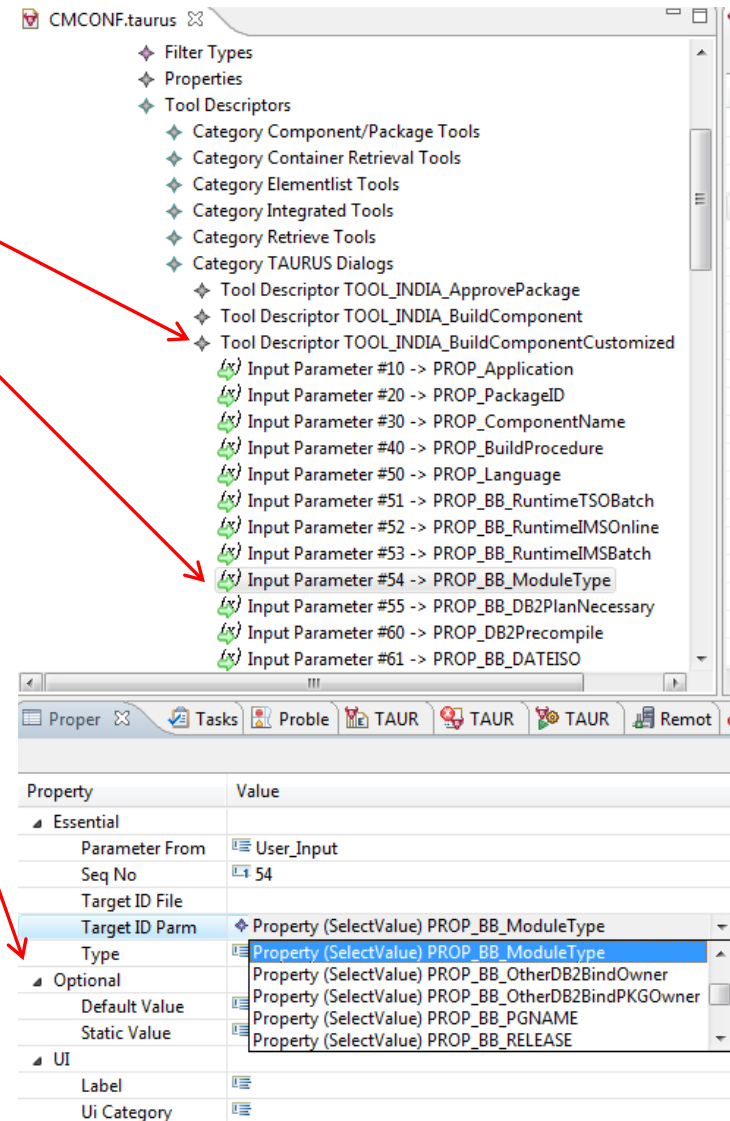
Taurus – How to model the customized build

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

Model
Result



Model
Definition

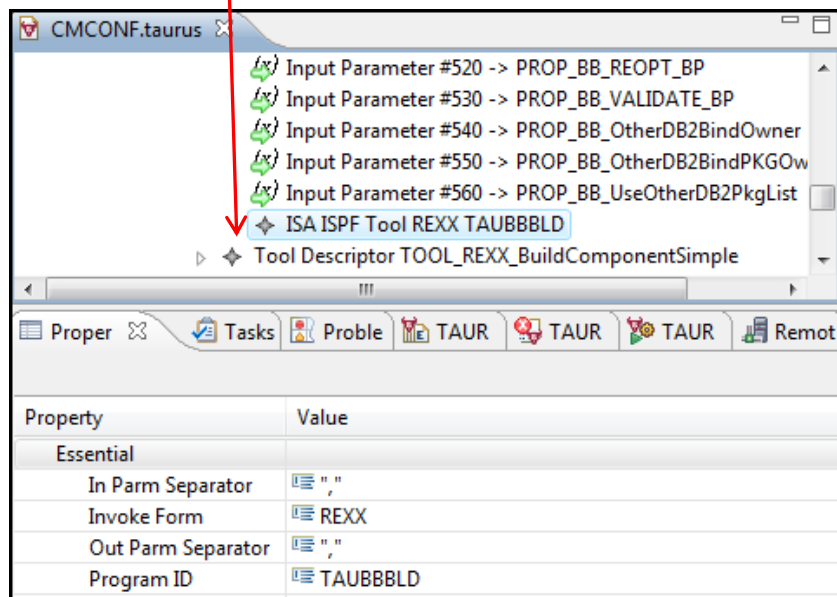


Property	Value
Essential	
Parameter From	User_Input
Seq No	54
Target ID File	
Target ID Parm	Property (SelectValue) PROP_BB_ModuleType
Type	Property (SelectValue) PROP_BB_ModuleType
Optional	
Default Value	Property (SelectValue) PROP_BB_OtherDB2BindOwner
Static Value	Property (SelectValue) PROP_BB_PGNAME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

Taurus – How to model the customized build

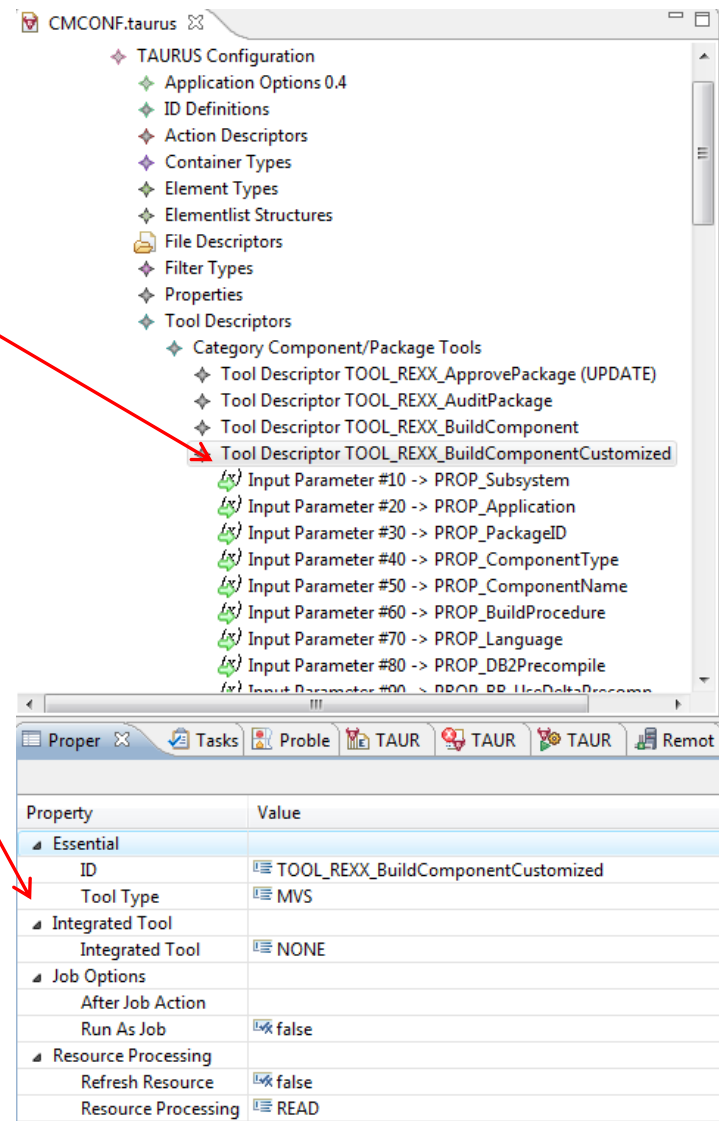
- (3) Define the REXX tool which calls the ChangeMan Build and associate the dialog fields as input parameters.

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



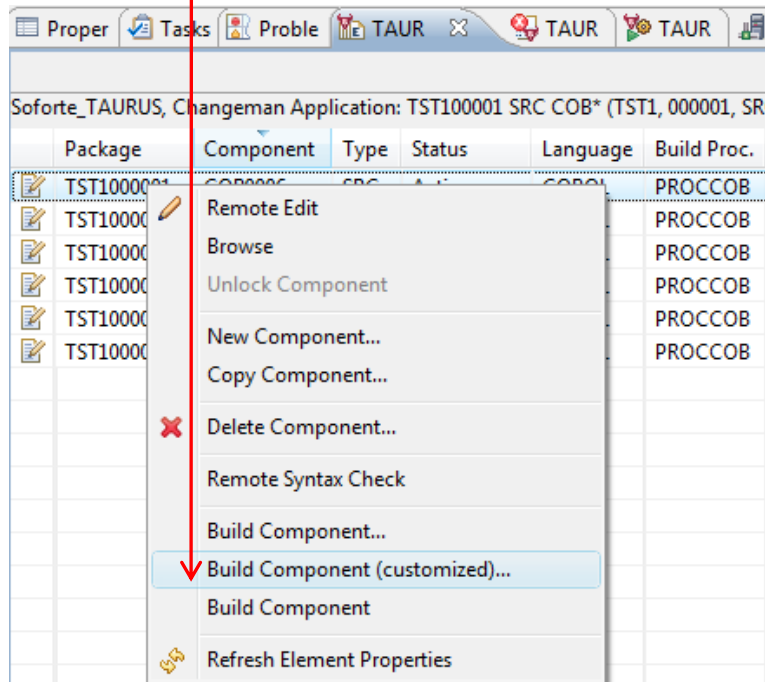
TAURUS Configuration
Application Options 0.4
ID Definitions
Action Descriptors
Container Types
Element Types
Elementlist Structures
File Descriptors
Filter Types
Properties
Tool Descriptors
Category Component/Package Tools
Tool Descriptor TOOL_REXX_ApprovePackage (UPDATE)
Tool Descriptor TOOL_REXX_AuditPackage
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

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

Model
Result



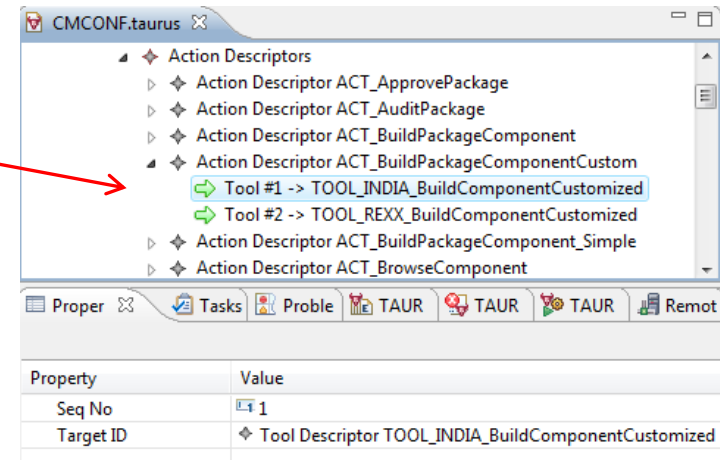
Soforte_TAURUS, Changeman Application: TST100001 SRC COB* (TST1, 000001, SR

Package	Component	Type	Status	Language	Build Proc.
TST100001	COB0001	SRC	Active	COBOL	PROCCOB
TST10000					PROCCOB
TST10000					PROCCOB
TST10000					PROCCOB
TST10000					PROCCOB
TST10000					PROCCOB

Context menu options:

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

Model
Definition

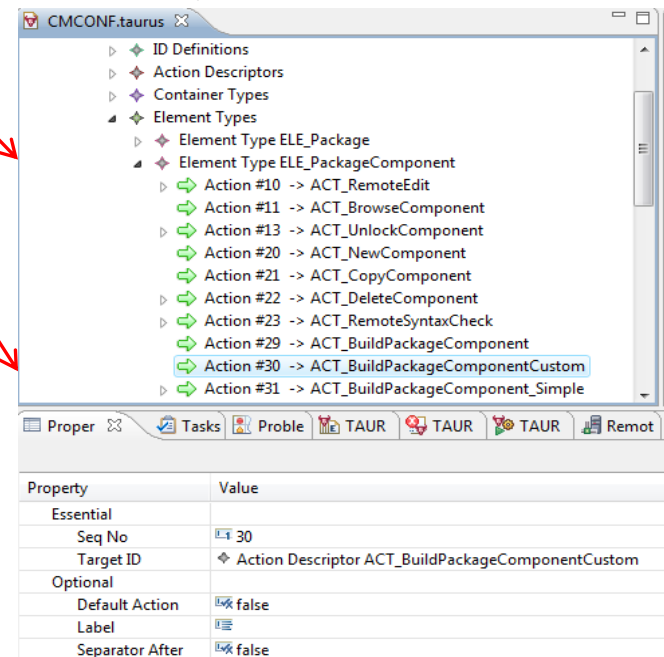


CMCONF.taurus

- 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

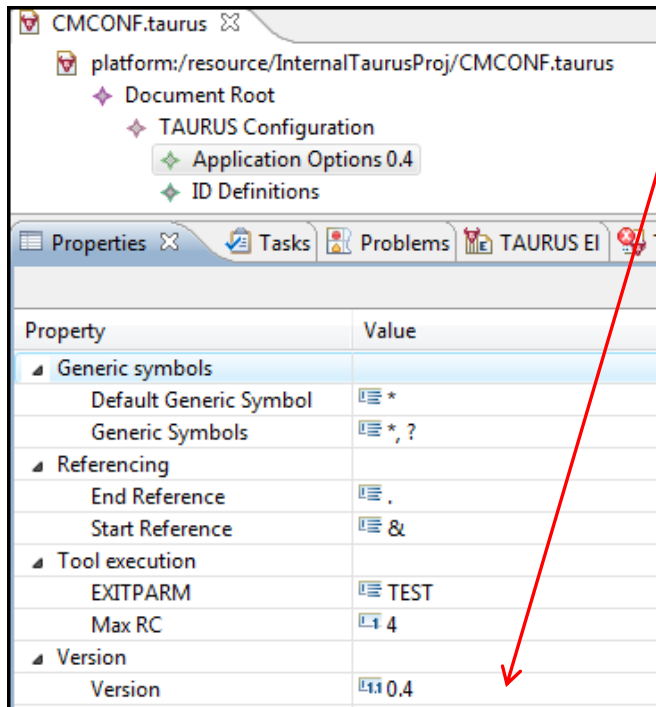
- ID Definitions
- Action Descriptors
- Container Types
- Element Types
 - ELE_Package
 - ELE_PackageComponent
 - Action #10 -> ACT_RemoteEdit
 - Action #11 -> ACT_BrowseComponent
 - Action #13 -> ACT_UnlockComponent
 - Action #20 -> ACT_NewComponent
 - Action #21 -> ACT_CopyComponent
 - Action #22 -> 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)

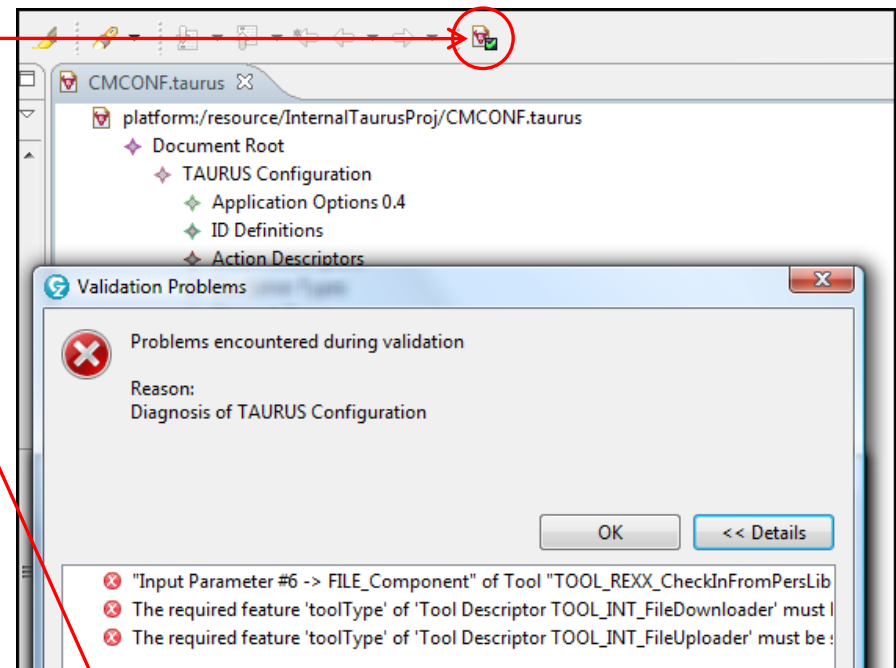


CMCONF.taurus

- 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



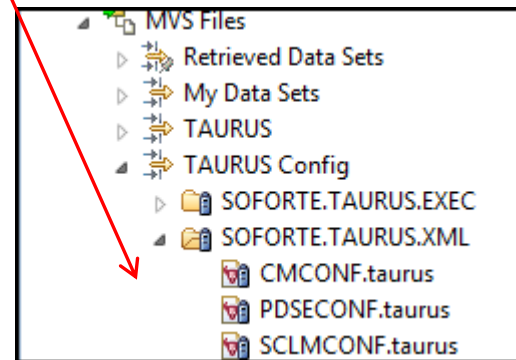
Validation Problems

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

- **Reduces hurdle for RDz implementation**
 - Plug-in development becomes obsolete
 - Existing skill is sufficient – no plug-in development skill required
 - Supports SCLM, Endeavor, ChangeMan
 - The financial hurdle for RDz implementations is reduced significantly
- **Reduces risk for RDz Implementation**
 - Complete and deep integration becomes affordable
 - Predefined models for different development processes
 - Integration with all kinds of tools like RAA, RTC, ...
 - High functionality and quality of UI increase developer acceptability and productivity
- **It's a product**
 - It's a product, not a service
 - Existing shortage in implementation skills is not a bottleneck anymore