Component Based Test Automation

How-to guide

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# 1 Introduction

Component Based Test Automation (CBTA) is new functionality of SAP Solution Manager. CBTA helps in creation of test scripts which are modular in nature. The test script created by CBTA can be viewed and edited in Test Composition Environment of SAP Solution Manager. Component Based Test Automation (CBTA) is integrated into SAP Solution Manager.

CBTA has following features:
- CBTA Test Creation Wizard for test script creation by Business Analysts
- CBTA test scripts are composed by reusing SAP delivered default components and customer specific screen components
- Fast repair of damaged test scripts
- Supported UI technologies: SAPGUI, SAP CRM web-client

The above graphic explains the flow of test script creation using CBTA. Test Composition Environment (TCE) also enables chaining of multiple CBTA script to create an end-to-end business process test scripts.

TCE has following features:
- Attributes for Test Configuration and Test Scripts
- Maintenance and composition of CBTA test scripts: It is possible to modify an existing test scripts e.g. it is possible to insert/delete a component present in a test script
- Parameter handling: Enables creation of end-to-end business process tests.
• Composition of E2E process tests including parameter handover
• Test data assignment

The above figure shows the parameter tab of TCE.
2 Scope of Document

This document is based on Component Based Test Automation (CBTA) which can automate SAPGUI and SAP CRM web client transactions.

3 Procedure to Download ST-TST 300 from SWDC

This section explains the step by step procedure to download ST-TST 300 from Software Download Corner (SWDC) from Service Market Place (SMP). ST-TST 300 is an add-on which needs to be installed on SAP Solution Manager System.

- Open the link - www.service.sap.com in your web browser and you should see the below page.
- Click on highlighted link below “Consulting, Solutions and User Group Areas”

Below page opens and click on the “Download Software”
• Below page opens and click on the “Search for Software Downloads”

• Search for ST-TST 300
Select the highlighted “Installation Software Component” and continuation with the installation.
- Download SAPKITLEG file
- This file contains the initial installation for SAP Solution Manager add-on ST-TST. Install the ST-TST add-on using SAINT.
ATTENTION:

- Should you be SAP TAO 2.0 Customer, then you cannot install SAPKITLEG but you need to install the ST-TST 300 Add-On delivered for SAP TAO 3.0. This allows you to upgrade the existing ST-TAO 200 Add-On and continue using the previously created test data.
- If you are not SAP TAO 2.0 customer (your SAP Solution Manager has consequently no SAP TAO 2.0 installation), but you want to become SAP TAO 3.0 customer and use same time CBTA 3.0, then it is possible to install either SAPKITLEG or SAPKITLEG Add-On and to enable the desired test option via installation of either CBTA 3.0 or SAP TAO 3.0 clients. It is not possible to install both clients on the same computer, but you can do so on different computers in Landscape.
4 Procedure to download CBTA from SWDC

This section explains the step by step procedure to download CBTA from Software Download Corner (SWDC) from Service Market Place (SMP). CBTA installer needs to be installed on your system.

- Open the link - www.service.sap.com in your web browser and you should see the below page.
- Click on highlighted link below “Consulting, Solutions and User Group Areas”

Below page opens and click on the “Download Software”
• Upon clicking below page is displayed

• Click on A-Z Index
- Click on S to search for Solution manager
- Click on SAP Solution Manager
- Click on SAP Solution Manager 7.1

- In the below page click on as shown in the picture below
Click on Win32 as shown below
- And download the CBTA 3.0 installer
5 Setup

5.1 Pre-requisites
Component Based Test Automation (CBTA) is integrated into SAP Solution Manager. CBTA is composed out of 2 software components: An Add-On to be installed on SAP Solution Manager 7.1 from SP7 and a frontend component to be installed on the user’s desktop.

Please go through the Pre-requisites section of the Note: 1763697

5.2 Installation
Please refer the installation Note: 1763697.

5.3 Configuration
Please refer the Configuration section of the Note: 1763697

5.4 Enabling CBTA in SolMan
Please refer the Note: 1763697

5.5 Configuration of User on SolMan
Please refer the Note: 1763697

5.6 Configuration of Scripting & Security Popups
Please refer the Note: 1763697

5.7 Related Notes
Please have a look into the below related CBTA Notes for more information

- 1763697 Component Based Test Automation: Installation Information
- 1771699 CBTA 3.0 Release Documentation SP0
- 1778899 CBTA 3.0 Release Documentation

5.8 CBTA 3.0 Default Components
This section explains the step by step procedure to download CBTA 3.0 Default components document from Software Download Corner (SWDC) from Service Market Place (SMP). This document gives detailed overview of the components.

- Open the link - www.service.sap.com in your web browser and you should see the below page.
- Please find the CBTA 3.0 Default Components in the below link
6 Creation of CBTA test configuration for a Business process step

This section explains creation of test configuration for a business process step, e.g. Create sales order transaction

6.1 Creation of Test Configuration from Business Blueprint (SOLAR02)

This section explains creation of test configuration for a business process step through SOLAR02 transaction, e.g. Create sales order transaction

- Start Transaction SOLAR02
- Select a SAP Solution Manager Project
- Ensure the project displayed is the desired project
- Move to the Test cases tab

- Select the Test case type: CBTA Test Configuration
- Enter the name of the Test Configuration to be created and hit Enter key, select Yes option in the pop to confirm the creation of Test Configuration.

- Enter the title, application component and search terms and click on save.
- Select the package you want to save your script.
- Move to the Configuration tab and find that CBTA test script is created automatically with the same name as the Test Configuration and the CBTA is the test tool.
- Click on Compose button to perform the recording

- Ensure the Test Script opens in Test Composition Environment
- Ensure the below details of the Test Script & in the attributes tab are correct, specify the System Data Container, Target system where you want to perform the recording of the application
Specify the Executable Type and Executable values. These values vary based on the application you want to automate.

For SAPGUI application please enter the below values.

- Executable Type: **BMTA**
- Executable: [transaction which you want to automate] e.g. VA01

For CRM application please enter the below values.

- Executable Type: **CRM_WEBCLIENT**
- Executable: [depends on the functionality you intend to automate]

Once the details are maintained click on save button to save the changes.
6.1.1 Automating SAP GUI transactions

This section describes procedure to create CBTA Business process step test script for VA01 transaction.

- Click on “Start CBTA” button and ensure you are prompted with opening of ags_work_appln.sap and select open.
Upon opening of Test Creation Wizard ensure below details in the screen shot are accurate.
• Upon hitting Next, executable object in our case VA01 open in system under test YA3 and perform the steps to create the sales order and save the Sales order.
• Ensure you get the success message as shown below, upon completion of recording

![Success message]

- Standard Order 14459 has been saved

• Upon completion of the recording, Stop the recording
• Ensure in the below screen all the actions performed during the recording are captured in the Process Flow Analyzer (PFA) and click on Next.
- Upon Next, refer the status of PFA & Inspection, Generation & Upload activities are successful, then click on Finish to complete the recording.
Refresh the Test script by clicking on the Refresh button.
Parameters are created automatically based on the values input during the script creation in the Input Parameters section.

6.1.2 Automating CRM transactions
This section describes procedure to create CBTA Business process step test script for CRM application.

For CRM application please enter the below values.

- Executable Type: CRM_WEBCLIENT
- Executable: [depends on the functionality you intend to automate]
Upon opening of Test Creation Wizard ensure below details in the screen shot are accurate.

- Title: "CBTA Test: Z_VA01_CR_SO_CRM"
- Version:
- Test Tool: CBTA
- Executable: SALESPRO:logical link-SLS-SL2-OR
- Target System: YAZ-000

- The executable object for the executable type SALESPRO:logical link-SLS-SL2-OR cannot be checked.
- The executable object for the executable type CRM_WEB CLIENT cannot be checked.
- The executable object for the executable type CRM_WEB_CLIENT cannot be checked.

- System Under Test:
  - System Data Container: Z_SPM_SMT_TM
  - Target Component: Z_SPM: VAY_SALESMAN
  - Executable Type: CRM_WEB_CLIENT
  - Executable: SALESPRO:logical link-SLS-SL2-OR

- SAP Solution Manager Context:
  - Project: AGS SMT testing Project template_H3
  - System Role: Quality Assurance System
  - Structure Node: Not Available

- Other Details:
  - Status: Active
  - Release Status: Not Released
  - Time Required: 0.00 Minutes
  - Priority: Normal

- Executable depends on functionality you want to automate.
Upon hitting Next, executable object in our case Create Sales Order open in system under test YAZ and perform the steps to create the sales order and save the Sales order.

Confirmation message with Sales order number is captured.

Upon completion of the recording, Stop the recording and click Next.
Ensure in the below screen all the actions performed during the recording are captured in the Process Flow Analyzer (PFA) and click on Next.
Upon Next, refer the status of PFA & Inspection, Generation & Upload activities are successful, then click on Finish to complete the recording.
- Refresh the Test script by clicking on Refresh button.
6.2 Creation of Test Script from Test Repository (SOLMAN_WORKCENTER)

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System
- Start the transaction solman_workcenter. This will open a new web browser window named “SAP Solution Manager: Work Centers”
• Then, you have to choose “Test Management”, enter to “Test Repository”.

• Under Test Repository Sub-Views, select “Test Scripts”.

• Create a new test script by Clicking on Create button

• A new Test Script Window is displayed & ensure that all fields are filled and click on OK button
• Corresponding error message is displayed if one field is not entered (ie: Test Tool, Package, ..)
• If the Test script already exists then appropriate error message should be displayed indicating Test Script already exists
• Once all the input values are validated press ok, now the user is directed to “Test Composition Environment” web interface
• Ensure Test Script name is correctly displayed.
• Under CBTA Test → Attributes → SAP Attributes, ensure that related information is correctly displayed.
  o CBTA Test Name
  o Title
  o Version
  o Test Tool
  o Target System: The Managed System which you logged on
Input all the necessary details.
• Click on “Start CBTA” button and ensure you are prompted with opening of ags_work_appln.sap and select open.
 Upon opening of Test Creation Wizard ensure below details in the screen shot are accurate.
Upon hitting Next, executable object in our case VA01 open in system under test YA3 and perform the steps to create the sales order and save the Sales order.
• Ensure you get the success message as shown below, upon completion of recording

![Standard Order 14459 has been saved]

• Upon completion of the recording, Stop the recording
Ensure in the below screen all the actions performed during the recording are captured in the Process Flow Analyzer (PFA) and click on Next.
Upon Next, ensure the status of PFA & Inspection, Generation & Upload activities are successful, then click on Finish to complete the recording.
- Refresh the Test script by clicking on Refresh button.
- Parameters are created automatically based on the values input during the script creation in the Input Parameters section.

**Note:** We have automated for SAPGUI transaction; likewise CRM automation can also be performed by changing the values of Executable type and Executable.
7 Creation Business process test

This section describes procedure to create CBTA Business process step test.

7.1 Creation of business process step test

7.1.1 Business Process 1: Create & Change Sales Order

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- We have created Business Process Step Test script above Z_VA01_CR_SO (for creation of Sales order), similarly we have created another Business Process Step Test script Z_VA02_CH_SO (for change of Sales order) this test script changes the sales order created above.

- Mapping the Sales order number from Create Sales Order script Z_VA01_CR_SO into an export parameter. From the execution of the test script Z_VA01_CR_SO we found that the sales order number is captured in the GETMESSAGEPARAMS component in the Parameter1.

- Now map the Export parameter SALES_ORDER_NUM to Parameter1. Open the test script Z_VA01_CR_SO in edit mode, move to the Test Script tab and select the Default component CBTA_GUI_SB_GETMESSAGEPARAMS, parameters associated with the component is shown in the parameters tab. Move to the parameter MESSAGEPARAMETER1 and change the usage type to Exposed.

- By default an Output parameter MESSAGEPARAMETER1 is created.
Now rename the `MESSAGEPARAMETER1` to `SALES_ORDER_NUM` in the Parameters tab. Move to the Parameter tab and rename the parameter created `MESSAGEPARAMETER1` to `SALES_ORDER_NUM`.
Upon changing the name of the parameter to SALES_ORDER_NUM ensure that the name has been changed in the parameter sub tab in the Test Script tab.

Save the changes and exit the script. Now the created Sale order number from the create Sales order script Z_VA01_CR_SO is captured in the parameter SALES_ORDER_NUM.

7.1.2 Business Process 2: Creation of Quotation & Sales Order (SAPGUI)
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

7.1.2.1 Creation of Quotation Test (T-code: VA21)
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Select the Radio button “Test Script”, click create , maintain all the mandatory details Test Script Name (Z_VA21_CR_QUOT_SAPGUI), Version (00000001) , Test Tool (CBTA), Title (Create Quotation SAPGUI), Package ($TMP) and click on “OK” button.
- In the TCE maintain all the details SDC, Target Component, Executable Type, Executable and click on “Save” button.
• Click on “Start CBTA“ button to start recording. Ensure Test Creation Wizard starts, ensure the details and click on Next button.

• Ensure the SAPGUI session starts with Transaction **VA21** (Creation of Quotation). Continue the recording as below
Maintain the details as shown above and click Ok button.
- Click on Save button and make a note of the Quotation Number created.
- Stop the recording and transfer the PFA into the Test Script.
- Create Quotation Script is created.
- Export the Quotation number created in the export Parameter QUOTATION_NUM by exposing it as shown below.

- Upon execution we see that the Quotation number is captured in the export parameter created.
7.1.2.2 Creation of Sales Order Test (T-code: VA01)

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Similarly Create Sales Order script
- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Select the Radio button “Test Script”, click create, maintain all the mandatory details Test Script Name (Z_VA01_CR_SO_SAPGUI), Version (00000001), Test Tool (CBTA), Title (Create Sales Order SAPGUI), Package ($TMP) and click on “OK” button.
- In the TCE maintain all the details SDC, Target Component, Executable Type, Executable and click on “Save” button.
- Start recording the creation of Sales Order with reference to Quotation created earlier.
• Click on Copy button.

Enter Quotation created earlier & click on Copy

• Click on Ok button in the pop-up
- In the Create Standard Order: Overview screen click on Save button and Stop the recording.
- Make a note of the Sales Order number created.

- Transfer the PFA into the Test script but clicking on Finish button.
Now the Creation of Sales order with reference to Quotation is complete. Now we can include these scripts into the Test Configuration to create a scenario in the next section.

7.1.3 Business Process 3: Creation of Quotation & Sales Order in SAP CRM
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

7.1.3.1 Create Quotation
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System

- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

- Then, you have to choose “Test Management”, enter to “Test Repository”.

- Select the Radio button “Test Script”, click create , maintain all the mandatory details Test Script Name (Z_QUOT_CR_CRM), Version (00000001), Test Tool (CBTA), Title (Create Sales Order CRM), Package ($TMP) and click on “OK” button.

- In the TCE fill the details as shown below
• Click on “Start CBTA” to start recording creation Quotation as shown below.

• Fill in the details and click on Save button.
• Make a note of the Quotation Number and stop the recording.
• Transfer the PFA into the Test script.
• Now we created the Create Quotation Script for CRM.
• Export the Quotation number created in the export Parameter QUOTATION_NUM by exposing it as shown below.

Upon execution we see that the Quotation number is captured in the export parameter created.
7.1.3.2 Create Follow-up Sales Order

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Similarly Create Sales Order script

- Use SAP Logon to log on with the appropriate Managed System

- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

- Then, you have to choose “Test Management”, enter to “Test Repository”.

- Select the Radio button “Test Script”, click create, maintain all the mandatory details Test Script Name (Z_SO_CR_CRM), Version (00000001), Test Tool (CBTA), Title (Create Sales Order CRM), Package ($TMP) and click on “OK” button.
Click on “Start CBTA” button to start recording.

Enter the Quotation number created earlier and click on Search button, select the quotation and click on Create Follow-up button.

Move to Page 2 and select Sale Order option.
Click on Save button to save the Sales Order.
Make a note of the Sales order number created.
Now we created the Sales order script
Now we can include these scripts into the Test Configuration to create a scenario in the next section.

7.2 Creation of Business process test
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

7.2.1 Business Process 1: Create & Change Sales Order
This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System

- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

- Then, you have to choose “Test Management”, enter to “Test Repository”.

- Under Test Repository Sub-Views, select “Test Configuration”.
• Click on “Create” button to create Test Configuration, enter the details with Test Configuration name: Z_CR_CH_SO_SCN (Create & Change Sales Order Scenario), Test Tool type “eCATT”, test script name is defaulted with Test Configuration name, Version, Title & package details and click on “OK” button.

• Maintain the details of Application component, SDC, Target component for Test Configuration attributes.

• Similarly maintain the SDC, Target component for Test script attributes by switching in the Show Data to Test Script.
- Save the changes made to the Test Configuration.

- Move to the Test Script tab & in the Test Script Steps enter the two script created for Create Sales Order and Change Sales Order above.

- Upon the selection of the Script we see the corresponding parameters of the script in the Parameter sub tab below in the screen.

- After the mapping is done to the created Sales order in the previous step to the output parameter \texttt{SALES\_ORDER\_NUM}.

- Now Map this Output parameter \texttt{SALES\_ORDER\_NUM} to input sales order number of the test script \texttt{Z\_VA02\_CH\_SO}. Now the sales order created in the create Sales order script is passed as an input into the changes sales order script.

- Save the changes and exit the test configuration.
7.2.2 Business Process 2: Creation of Quotation & Sales Order (SAPGUI)

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System

- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

- Then, you have to choose “Test Management”, enter to “Test Repository”.

- Under Test Repository Sub-Views, select “Test Configuration”.

- Click on “Create” button to create Test Configuration, enter the details with Test Configuration name: **Z_QUOT_SO_SAPGUI_SCN** (Create & Change Sales Order Scenario), Test Tool type “eCATT”, test script name is defaulted with Test Configuration name, Version, Title & package details and click on “OK” button.
Now move to the Test Script in the TCE of Test Configuration and refer/call the two CBTA test scripts created for Create Quotation & Create Sales Order.

QUOT_NUM is the input parameter in the script Z_VA01_CR_SO_SAPGUI which will receive its value from the out of put the script Z_VA21_CR_QUOT_SAPGUI.
• Now we will map the output parameter quotation number from the VA21 script to the Input parameter of VA01 script.

• Now the Quotation number from the previous script VA21 is passed to VA01 script.
7.2.3 Business Process 3: Creation of Quotation & Sales Order (CRM)

This section describes procedure to create CBTA Business process step test script through SOLMAN_WORKCENTER transaction.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Click on “Create” button to create Test Configuration, enter the details with Test Configuration name: Z_QUOT_SO_CRM_SCN (Create & Change Sales Order Scenario CRM), Test Tool type “eCATT”, test script name is defaulted with Test Configuration name, Version, Title & package details and click on “OK” button.

Save the changes and exit the script.
- Move to the Test Script tab and refer/call the two scripts for create quotation and create sales order CRM scripts.
- Map the output quotation number from the create quotation script into the input quotation number of the create sales order script as shown below.

7.3 Execution of Business process test
This section describes procedure to execute CBTA Business process step test script.

7.3.1 Business Process 1: Create & Change Sales order
This section describes procedure to execute CBTA Business process step test script.

- Execute the Test configuration and find that the created sales order number is passed to changes sales order script.
- Execution can be done either in transaction SOLMAN_WORKCENTER or in transaction SOLAR02 or in STCE transaction or by linking the test configuration into the Test workbench.
7.3.2 Business Process 2: Creation of Quotation & Sales Order (SAPGUI)

This section describes procedure to execute CBTA Business process step test script.

- Start transaction STCE and enter the Test configuration name and click on change button.
Now create the Input parameters in the Script for Sold to party, product, quantity for the create quotation script and map to the corresponding input parameters of the create quotation script as shown below in its interface. Output quotation number from the `Z_QUOT_SO_SAPGUI_SCN` is captured in the local parameter LOC_PARAM_1.
• Save the Test script and move back to the Test Configuration.
• In the Variants tab of Test Configuration create a variant and map the values to the corresponding parameters of the Test Script. Save the changes.

• Click on Execute button in the Start Option screen, select the Variant VARIANT_1 and click on Execute again. Now we can view that the values from the variants are passed to the scripts.
• Execute the Test configuration and find that the created sales order number is passed to changes sales order script.
• Execution can be done either in transaction SOLMAN_WORKCENTER or in transaction SOLAR02 or in STCE transaction or by linking the test configuration into the Test workbench.
7.3.3 Business Process 3: Creation of Quotation & Sales Order (CRM)

This section describes procedure to execute CBTA Business process step test script.

- Now we create input parameters for the Test configuration & create Variants for the same Test Configuration.
- Start transaction STCE and enter the Test configuration name and click on change button.
• Double click on the Test script to move into the Test Script.

• Now create the Input parameters in the Script for Sold to party, product, quantity for the create quotation script and map to the corresponding input parameters of the create quotation script as shown below in its interface. Output quotation number from the Z_QUOT_CR_CRM is captured in the local parameter LOC_PARAM_1.
Similarly create input parameters for the Z_SO_CR_CRM script and map to the corresponding parameters of the Z_SO_CR_CRM in its interface, if there is any.

Save the test script and move back to the Test Configuration.

In the Variants tab of Test Configuration create a variant and map the values to the corresponding parameters of the Test Script. Save the changes.

Click on Execute button in the Start Option screen, select the variant VARIANT_1 and click on Execute again. Now we can view that the values from the variants are passed to the scripts.

Execute the Test configuration and find that the created sales order number is passed to changes sales order script.
- Execution can be done either in transaction SOLMAN_WORKCENTER or in transaction SOLAR02 or in STCE transaction or by linking the test configuration into the Test workbench.
8 CBTA Functionalities
This section describes the various functionalities of CBTA in Test composition environment (TCE) as shown below

8.1 General Display & Attributes
This section describes General display & Attributes section of TCE.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Select the Test Configuration to view/edit

- Ensure Test Script name is correctly displayed.
- Attributes of Test Configuration and Test Script can be viewed upon selecting the appropriate radio button in the Show Data view
- Ensure that related information is exact: Title, Version, Test Tool, Target Component, Package (field have to be disabled), Person Responsible.
- Ensure that description texts besides fields are correctly displayed (if these fields have description)
Remark that Executable value is not set for moment since user doesn’t precise it yet and Target Component contains value of system used to connect to Solman Workcenter. This value will be modified when user precise a new Target Component for System Under Test.

Ensure Buttons: Save, Display, Start SAP TAO, Execute, Display Log (Test Tool Log, Solution Manager Log sub menu), Logon, Where-Used, Goto (Export Mode disabled and System Data Container sub menu), Refresh and Close buttons have to be present. Just after test script creation, some buttons are disabled: Display, Execute, Where-Used and Refresh:

Appropriate Error message has to be displayed when the user doesn’t maintain the Mandatory values or maintains invalid entry and clicks on Save button.

Values for System Data Container, Target Component, and Executable Type & Executable needs to be maintained in order to perform the recording the using CBTA when Start CBTA button is pressed.

Move to the Test Tool Attributes sub tab in Attributes tab and ensure the values displayed.

Save the changes made and exit the Test Configuration.

**8.2 Test Script**

This section describes Test Script section of TCE.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Select the Test Configuration to view/edit
- Move to the Test Script tab of Test Configuration
- Ensure that the table “Test Script Steps” is filled with CBTA Default/ Screen components.
- Ensure the values displayed for each of the columns is valid.
- Ensure for each selected Component, details are displayed in the table Parameters below.
- Ensure that tabs (Parameters, Attributes, Description and Image) exist.

- Click on the link CBTA Screen Component name in the column “Name” for example Z_VA01_101
- Ensure that the links allows jumping directly to the current Test Script as shown below.

- Ensure that parameters displayed in the CBTA Default/Screen Component window are the same as parameters in the parameters sub tab.

- Ensure that the links in the Reference column allow jumping to Parameters tab.

- Ensure in the Sub tab Parameter we have parameters in the order Import & Export.

- Ensure the Usage column has default values Exposed, Fixed and Empty.

- In case of complex parameter type (structure or table) type, parameter should be displayed hierarchically.

- For the parameter which are of Usage type Fixed or Not Defined, one should be able to set value in the Value column.

**Fixed Parameter usage type**

- For Fixed parameter usage type, “reference parameter” column should be disabled else user should be able to map the parameter to another step/script parameter from “reference parameter” field.

- For Fixed parameter usage, user is not asked to enter the value.
• If user changes Usage of a parameter which has already a value or parameter reference: fixed value should be deleted and mapping target parameter should be deleted if it is no used anywhere else.

Exposed Parameter usage type

• If the usage is changed to Exposed, New external parameter is created.

• If user changes the new created one to an existing parameter, the new parameter should be removed.

• If usage is changed from “Exposed”, main script parameter is removed if it's no mapped to another step parameter.

Multiple Mapping

• New column “Mapping” is added to indicate if a parameter has multiple mapping or not. In case of multiple mapping existences, an icon is displayed to indicate multi mapping existence. Ensure tool type text “Multi mapping exists”.

• Icon should be removed from “Multiple Mapping” column if there exists no multiple mapping.

• Click on Get Technical UI information to display the Object Spy which is explained in detail in the below section

8.3 Parameters
This section describes Parameters section of TCE.
• Use SAP Logon to log on with the appropriate Managed System
• Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
• Then, you have to choose “Test Management”, enter to “Test Repository”.
• Under Test Repository Sub-Views, select “Test Configuration”.
• Select the Test Configuration to view/edit
• Move to the Parameter tab of Test Configuration
• Ensure that Parameter tab is divided into two sections Input Parameters and Output Parameters
• The parameter type description should be derived from the system under test if the target system was specified correctly in test script attributes.

![CBTA Screen Component: Z_VA01_0101](image)

• Ensure that all main Test Script parameters with checkbox “Exposed” are displayed
• Ensure that the view show should be set to "Script Parameters" on first display. There are two possible views All Possible Parameters and Script Parameters

• Parameters tab should be modifiable in Edit mode

• For "Exposed" script parameters, columns "Default Value" and "Description" should be changeable.

• Ensure that the checkbox "Expose" is modifiable. It allows the user to expose/unexposed script parameters. If the parameters are with usage "Exposed", the checkbox should be set; else, it should be empty. If a script parameter is unexposed, its usage should be changed to "Fix Value" and the current default value is taken as fixed value.

• In edit mode, in case of a simple parameter (not structured one), ensure that the field "Default Value" is changeable or contains a value.

• Ensure that the two columns "Component" and "Component Parameter" are links and allow the user to navigate to the corresponding step script/parameter on the Test script tab.

• Ensure if the step is eliminated in the current test script, the step parameter references should also be removed.

8.4 Search Terms
This section describes Search Terms section of TCE.
• Use SAP Logon to log on with the appropriate Managed System

• Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

• Then, you have to choose “Test Management”, enter to “Test Repository”.

• Under Test Repository Sub-Views, select “Test Configuration”.

• Select the Test Configuration to view/edit

• Move to the Search Terms Tab, Maintain the search terms which would help to search/identify your scripts/configuration created easily. Upto 10 search terms can be maintained

• Search terms can be maintained to both Test Configuration and Test Script by selecting the appropriate Radio button in the Show Data view

• Save the changes made to the Test Configuration and exit.

8.5 Administrative Data
This section describes Administrative section of TCE.

• Use SAP Logon to log on with the appropriate Managed System

• Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

• Then, you have to choose “Test Management”, enter to “Test Repository”.

• Under Test Repository Sub-Views, select “Test Configuration”.

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• Select the Test Configuration to view/edit

• Move to Administrative Data tab to view the Administrative Data

Ensure the data displayed Created By, Created By Name, Created on, Changed By, Changed By Name, Changed on & Changed At with Actual values.

8.6 Inspection
This section describes Inspection of TCE.

• Use SAP Logon to log on with the appropriate Managed System

• Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

• Then, you have to choose “Test Management”, enter to “Test Repository”.

• Under Test Repository Sub-Views, select “Test Configuration”.

• Select the Test Configuration to view/edit

• Move to Test Script tab & click on CBTA Inspection button
• Ensure that SAP GUI interface is launched.

• Ensure that “Inspection Wizard” is launched.

• Ensure corrected transaction is used (e.g. VA01),

• Ensure that message “The list of UI elements is being calculated” when loading UI elements’ list.

• Click on new “New” button to add manually an UI element as shown below.
- Upon clicking on New button Ensure that “Add an Item to Inspect” window appears with field for a CRM script.
  - Executable Object: have to contain name of selected transaction,
  - Application Name
  - View Name
- Below fields become visible for SAPGUI script.
  - Executable Object: have to contains name of selected transaction,
  - Screen Program Name
  - Screen Dynpro Number
- Enter the values for Application Name/Program Name and View Name/Screen Dynpro Number and click on OK button in the script is a CRM script
- Ensure that new added element exists in UI elements’ list and click on Next
- Upon Clicking Next Ensure that UI elements’ list is correctly displayed with following columns:
  - Name
  - Screen Number
  - Program Name
- Selected UI is displayed, Status is set to Creating component
- Component Generation has the following status
  - Inspecting
  - Inspection succeeded
  - Inspection failed
Then Status is set to Creating Component

If creation succeeds, status is to Creation Succeed, else Creation failed.

Finally Status will be set to Upload succeeded, click on Finish button to put an end to Inspection Inspection wizard and Test Composition environment is displayed.

8.7 Test Data Assignment Wizard
This section describes Test Data Assignment Wizard (TDW) is used for assignment of values to the parameters of the Test configuration through Test Data Container. Pre-req is to have the Test Configuration and the Test Data Container created.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Select the Test Configuration to view/edit
- Move to Test Data tab in Edit mode.
- As a pre-req please create Test Data Container (TDC) with parameters of the Test Configuration/Test Script.
- TDC can be created using the transaction STCE
- Add the TDC created in the Test Data tab of the Test Configuration.
- Ensure that “Add” and “Remove” buttons should be enabled only in Edit mode.
- Click to “Add” button to add a Test Data Container (TDC)
- Ensure that Test Data Container Name links to TDC under SAPGUI:
- Ensure that Help icon related to Test Data Container row allows user to choose a TDC
- Ensure that related information about TDC is correctly displayed (Alias, Title...)
- Ensure “External Variants” column if TDC uses external variants, else uncheck
- File name column has to display file name related to external Variants location.
- Click to “Remove” button and ensure that selected Test Data Container is omitted.
- In case of no selected TDC, ensure that remove action is not possible and an information message is issued “Please select at least 1 line”.
- Ensure that the same TDC alias can be entered only once.

- Save the changes made to the Test Configuration
- Ensure that “Test Data Assignment Wizard” button is disabled if script doesn’t have parameters and if the test composition is in display mode
- For script which has parameters and which is in edit mode, ensure that button Test Data Assignment Wizard is enabled.
- Before starting the Test Data Assignment Wizard ensure that the test composition environment changed to display mode, with save confirmation pop-up if necessary.
- Click on Test Data Assignment Wizard upon adding TDC
- Ensure that SAP GUI interface is launched.
- Test Data Assignment Summary window opens up.

  - Click on Select Test Data Container button
  - Select Test Data Container screen opens
- Select the TDC to be assigned or Unassign the TDC upon completion move to next view Assign Parameters clicking “Assign Parameters” button.

- Ensure if the status is set to Ok for the Select Test Data Container view if the operation is successful.
- Map the Parameters between Test Data Container and Test Configuration using either of the below options
  - Assign by Name
  - Assign by Data Type
  - Assign by Name & Data Type
  - Assign Manually

- On successful mapping between parameters of TDC & Test Configuration, the parameter text box changes in TDC changes to Blue in color if its mapped to Test Configuration parameter successfully.

- Mapping between the parameters of TDC & Test Configuration can be dropped by clicking on the “Drop Assignment” button.
- Upon successful mapping move to next view “Assign Variants” by clicking on the “Assign Variants” button and ensure the status of the “Assign Parameters” view is set to OK.

- Select the Variant of TDC to be used for execution in the Test Data Variants tab from which the values are picked & assigned into the corresponding Test Configuration Parameters.
Upon entry into the “Result - Test Configuration” view ensure the status of “Assign Variants” view is successful.

Select the Test Configuration Variant to be used for execution. We can toggle between the reference and the values from the TDC using the button shown above.

Upon completion click on “Transfer Wizard Result to Configuration” button to transfer the results to Test configuration.

Ensure if the successful message “Selected variants updated successfully to test configuration” appears on success.

Ensure if the Selected Test Configuration Variants are transferred to Test Configuration in the Test Data tab, ensure if the values are populated from TDC.
- Toggle between Reference and value using the button “References”.

- Select the Variant to be used for execution and click on Execute button.

- Ensure SAPGUI is launched and move to Variants tab of Start Options, select the variant and click on Execute button.

- Ensure the execution happens with the values for the parameters from the Test Data Container.

- Modify the values in the selected variant of the TDC and re-execute the Test Configuration selecting the Variant and ensure if the modified values from TDC are picked.

- Mapping can be done using multiple variants of TDC to multiple variants of Test Configuration.

- Mapping can be done to single variant of Test Configuration from multiple variants for TDC.
Upon execution log are generated. Ensure in the Log if the values from TDC are picked into the parameters of Test Configuration.

8.8 Checkpoints
This section describes Checkpoints section which helps to perform validation within the test script.

- Checkpoints can be added in Test Creation Wizard as shown below
Checkpoints added to below values of CRM screen
8.9 Object Spy
This section describes Object Spy section of TCE.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Select the Test Configuration to view/edit
- Move to the Test Script tab of Test Configuration
- Select any CBTA Screen component or Default component to have the detailed section displayed as show below
- Object Spy is used to learn the properties of UI elements on the screen.
- Ensure that SAP GUI is launched and “Object Spy” window is displayed.
Object Spy window is displayed as shown below.

Ensure that “Object Spy” window contains two tabs: “SAP_GUI” and “CRM_WEB”.

Under SAP_GUI tab, ensure that the information are correct (System, User and Transaction) and screenshot displayed corresponds to Window accessible.

Ensure that under SAP_GUI tab there exists two sub tab “Object Spy” and “Advanced”.
- Click on “Object Spy” button

- In case of no program available after connection select, ensure that a dialog box with warning message “Enable to get specified session” appeared after clicking on Object Spy button.

- Move the mouse over the Sap Gui window. Controls located under the mouse should be highlighted in red. Click on one control and the highlight mode should stop.
• If the session is available the corresponding screen element is highlighted for which one wants to read the properties.
- Spy results are displayed in a tree list.
- Move to Advanced tab and click “Dump all to a File” to save the properties
to save properties to a .xml file
Some sub-items are grouped in nodes to improve the readability.
Previous spy results are collapsed and kept in the result tree.
It is possible to locate the Sap Gui control which has been spied by a right-click on a spy result.
Similarly CRM application can be spied.
• Properties of CRM application captured below
8.10 PFA Wizard

This section describes PFA Wizard displayed during the recording of the test script. PFA Wizard will have details of the recording like the steps carried out and the fields for which the values are entered.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Script”.
- Select the desired Test Script to view/edit
• Click on “Start CBTA” button, ensure SAPGUI is launched

• Ensure Test Creation Wizard is launched and ensure the details executable object and the system under test is in order as expected & click on Next button.

• Ensure that CRM (executable object) is launched and perform the recording.

• Continue with the recording and click and “Stop the recording” button upon completion of the recording & click on Next button.
Upon Next ensure the details in the Test Creation Wizard – Analysis Details.

Click on “Show More Details” button to view details of the recorded PFA elements.

Click on “Expand All” / “Collapse All” button to expand & collapse the Process Flow Analysis (PFA).

Ensure Search functionality: insert a value into Search field then ensure that if search result exists, it will be highlighted

Ensure if the input & output details are rightly captured in PFA. Ensure if there is any recorded data being not captured or any additional unneeded data is not captured.

Click on Next.
- Switch to Sequence tab and ensure if the application chosen during recording is displayed.
- You can either click on Next or Cancel button to cancel the recording.
- Upon clicking Next, ensure Test Creation Wizard – Report is displayed & ensure if the Status of the recording for PFA & Inspection, Generation & Upload is changed to Successful.

- Ensure that Status message changes according to saving process:
  - Saving the process Flow Analysis...
  - Inspecting screens...
  - Saving screens...
  - Saving the test...
Click Finish button to complete the recording process. Ensure the Status is changed to “Status: Test Saved”.

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFA and Inspection</td>
<td>Successful</td>
<td>Save the Process Flow Analysis in SAP Solution Manager.</td>
</tr>
<tr>
<td></td>
<td>Ongoing</td>
<td>Inspection of screen of system being tested.</td>
</tr>
<tr>
<td>Inspection</td>
<td>Not Processed</td>
<td>Generate the test from the Process Flow Analysis.</td>
</tr>
<tr>
<td>Generate Test</td>
<td>Not Processed</td>
<td>Save the generated screen components in the Solution Manager.</td>
</tr>
<tr>
<td>Upload</td>
<td>Not Processed</td>
<td>Save the generated test in SAP Solution Manager.</td>
</tr>
<tr>
<td>Screen Component Upload</td>
<td>Not Processed</td>
<td>Save the generated screen components in the Solution Manager.</td>
</tr>
<tr>
<td>Upload Test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Upon click on “Finish” button ensure Test Composition Environment appears and click on “Refresh” button to see the CBTA Default & CBTA Screen components in the Test Script steps table of the Test Script tab.
## CBTA Test: Z_VA01_CR_SO_CRM

### Test Script Steps

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Version</th>
<th>Object under Test</th>
<th>Sub-Object 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_CLICK</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_T_SELECTROW</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Screen Component</td>
<td>Z_BT115H_SLG6_DETAILS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_IF_SETVALUE</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_IF_SETVALUE</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_PRESSKEY</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_BTNCLICKBUT...</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBTA Default Component</td>
<td>CBTA_CRM_A_GETMESSAG...</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Warning:** Specify a valid object type - Display Help
- **Warning:** No remote value help for executable type CRM_WEBOBJECT available - Display Help

Click on Refresh button
9 Multiple System CBTA Test Config Framework

This section describes about creating CBTA Test Configuration which consists of Business process steps executing on multiple systems.

9.1 Framework

Procedure to create Business Process step CBTA test scripts is described in the section 7 above.

Now consider the below Business Process where we have a Business Process step test script which needs to be executed on multiple system.

**Business Process Structure**

![Business Process Structure Diagram]

**Business Process Test Configuration structure**

![Business Process Test Configuration Diagram]

9.2 Creation of Business Process Step CBTA Test Scripts & referencing the scripts

This section describes how the created individual Business Process Step CBTA test script is referred in the Master eCATT test script.
• Once the individual CBTA test scripts are created, these individual scripts are called within the eCATT Test Script (Master Script) in the Test Script tab of the eCATT master script as shown below:

*CBTA script created for YA01 which executes in YA3 (ERP) system is referred in eCATT script*

• Similarly call the other CBTA test script created for CRM application into another eCATT master script as shown below:

*CBTA script created for CRM application which executes in YA2 (CRM) system is referred in eCATT script*

• Now we have created two master eCATT test scripts each having a call to CBTA script created for ERP & CRM application respectively.
• Now call each of these master eCATT test scripts into another master eCATT test script as shown below along with systems in which you want each of these master eCATT test scripts to be executed by specifying the Target Component.
• Note: Target components to be used should be created in the same System Data Container specified in the Attributes tab of the script.
Now create eCATT test configuration for this eCATT master test script as shown below:

- Upon execution of the Test Configuration the target system provided at runtime will be overridden by the target systems in the Target Component specified during reference of the eCATT Test script.
10 CBTA Test execution & logs

This section describes viewing of Test logs and the procedure of executing the Test Configuration or the Test script.

10.1 Test execution

10.1.1 From Tester Worklist in SAP Solution Manager Work Center

This section describes the most common way of executing a CBTA test script which is from Tester’s worklist present in the SAP Solution Manager Work Center. Kindly note this section assumes that Test Package is already assigned to a tester.

- Use SAP Logon to log on with the appropriate SAP Solution Manager system.
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Navigate to Tester Worklist
- Select a suitable Test Package.
• All the test cases present the assigned test package is shown in the lower part of the screen. Select a test case and click on Run.

![Assigned Test Cases](image1)

• In the “Start Options - eCATT” screen, choose a suitable “Error Behaviour” and “Target System”.

![Start Options - eCATT](image2)

• Click on and start the execution.
• CBTA would start execution of the recorded test script, and then the execution log would be displayed.

10.1.2 From Business Blueprint
This section describes procedure to execute the Test configuration created from SOLAR02.

• Use SAP Logon to log on with the appropriate SAP Solution Manager system.
- Start Transaction SOLAR02
- Select the SolMan Project
- Ensure the project displayed is the desired project
- Move to the Test cases tab
- Select the required Test Configuration to be executed and click on Execute button

Ensure that SAPGUI execution interface is launched.
Ensure that connection to Selected System under Test is correctly done.
Ensure that following information are correct:
  - Test Configuration Name
  - Test Tool is CBTA
  - System Data related information if its already maintained in Test Configuration
  - System Role will be set to “Quality Assurance System”
  - Log Display ensured to allow log display after Test Script execution
- Click on Execute button to execute the Test Configuration
- Upon completion of the Execution, ensure Test scripts steps recorded are all executed.
- Ensure execution result in Log Display window: Green if OK, else Red. Log is generated with unique Log number.
10.1.3 From Test repository in SAP Solution Manager Work Center

This section describes procedure to execute the Test configuration from Test Repository present in SAP Solution Manager Work Center.

- Use SAP Logon to log on with the appropriate Managed System
- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”
- Then, you have to choose “Test Management”, enter to “Test Repository”.
- Under Test Repository Sub-Views, select “Test Configuration”.
- Select the Test Configuration to be Executed and click on “Execute” button

- Ensure that SAPGUI execution interface is launched.
- Ensure that connection to Selected System under Test is correctly done.
- Ensure that following information are correct:
  - Test Configuration Name
  - Test Tool is CBTA
  - System Data related information if its already maintained in Test Configuration
  - System Role will be set to “Quality Assurance System”
  - Log Display ensured to allow log display after Test Script execution
- Click on Execute button to execute the Test Configuration
• Upon completion of the Execution, ensure Test scripts steps recorded are all executed
• Ensure execution result in Log Display window: Green if OK, else Red. Log is generated with unique Log number

10.1.4 From STCE transaction
This section describes procedure to execute the Test configuration created from STCE.

• Use SAP Logon to log on with the appropriate Managed System
- Start transaction STCE
- Enter the Test Configuration to be Executed and click on Execute button

![SAP Solution Manager Test Automation: In...

- Ensure that SAPGUI execution interface is launched.
- Ensure that connection to Selected System under Test is correctly done.
- Ensure that following information are correct:
  - Test Configuration Name
  - Test Tool is CBTA
  - System Data related information if its already maintained in Test Configuration
  - System Role will be set to “Quality Assurance System”
  - Log Display ensured to allow log display after Test Script execution
- Click on Execute button to execute the Test Configuration
Upon completion of the Execution, ensure Test scripts steps recorded are all executed

Ensure execution result in Log Display window: Green if OK, else Red. Log is generated with unique Log number

10.1.5 From Test workbench

This section describes procedure to execute the Test configuration created from Test workbench STWB_2 or STWB_WORK.

- Include the Test configuration created into the Test Package of a Test Plan in STWB_2 transaction and execute from Test Package assigned to you from the transaction STWB_WORK.

- Ensure that SAPGUI execution interface is launched.
- Ensure that connection to Selected System under Test is correctly done.
- Ensure that following information are correct:
  - Test Configuration Name
  - Test Tool is CBTA
  - System Data related information if its already maintained in Test Configuration
  - System Role will be set to “Quality Assurance System”
  - Log Display Ensured to allow log display after Test Script execution
- Click on Execute button to execute the Test Configuration
- Select the checkbox “Copy Status to TWB” in Test Workbench to capture the execution status into the Test Package
- Upon completion of the Execution, ensure Test scripts steps recorded are all executed.
- Ensure execution result in Log Display window: Green if OK, else Red. Log is generated with unique Log number.
10.2 View Logs
Upon Completion of execution of Test Configuration/Test Script, executed Logs can be viewed at various places Solar02, STCE, TCE and Test Work Bench.

10.2.1 Viewing logs in Business Configuration transaction (SOLAR02)
This section describes the procedure to view the logs of the execution performed through SOLAR02

- Start Transaction SOLAR02
- Select the SolMan Project
- Ensure the project displayed is the desired project
- Move to the Test cases tab
- Select the required Test Configuration to be view its log
- There are two types Logs can be viewed here
  - Test Configuration Log
  - Test Tool Log

- Test Tool Log is displayed as shown
Test Configuration Log is displayed by selecting the option Test Configuration Log.

Test Configuration Log is displayed with unique number as shown below.
10.2.2 Viewing logs from test management workcenter

This section describes the procedure to view the logs of the execution performed through SOLMAN_WORKCENTER

- Use SAP Logon to log on with the appropriate Managed System

- Start the solman_workcenter transaction. This will open a new web browser window named “SAP Solution Manager: Work Centers”

- Then, you have to choose “Test Management”, enter to “Test Repository”.

- Under Test Repository Sub-Views, select “Test Configuration”.

- Select the Test Configuration to be Executed and click on “Execute” button

- Detail screen of Test configuration opens up in the Test Composition environment

- Click on the Display Log button, there are two types of logs displayed Test Tool Log and Solution Manager Log
Select Solution Manager Log to display the details of Executed Log

Ensure if the information displayed in the Log are valid

Various options are available here to perform different operations

Solution Manager Log: Ensure that “Log Summary display” web browser window is displayed:

In case of execution error (status icon set to red and Statistics contain numbers of Errors):

In case of a correct execution (status icon is set to Green and Success statistics contain number of correctly executed Test Scripts):

Ensure that all displayed information related to Test Script is correct.

Ensure that data related to “Execution Status” result is correct (error numbers, warnings, execution status...)

Click on “Start Options” button and ensure that related window is displayed, Click on “Start System Data” button and check that correspondent window appears.

Ensure that content of “Executed Test Scripts” corresponds to test scripts execution result.

Ensure that link “Top Level Test Script” display Test Script from SAP GUI view

Ensure that link “Log” links to SAP GUI display log window.

Ensure that button “Close” closes current window, Test Composition environment is displayed again.
10.2.3 Viewing logs from STCE transaction

This section describes the procedure to view the logs of the execution performed through STCE:

- Use SAP Logon to log on with the appropriate Managed System
- Start transaction STCE
- Click on Execute button

Below Selection screen is displayed, enter the criteria to filter to view the specific log & click on Execute button.
• Click the Specific log to view the details.
10.2.4 Viewing logs from Test Workbench

This section describes the procedure to view the logs of the execution performed through Test workbench transaction STWB_WORK.

- Start transaction STWB_WORK and select the Test Package assigned to you to view the logs of the Executed Test Configurations attached to it.
- Note that the Traffic light value is set according to the result of execution (Green – Success, Red – Error, Yellow – In Process)

- Status Maintenance screen appears as below, click on the Log button
- Ensure execution result in Log Display window: Green if OK, else Red. Log is generated with unique Log number
## Execution Report

**Z_VA2T_CR_SO 8/30/2012 10:34:57 AM**

### Test Execution

**Overall Test Result**: PASSED

<table>
<thead>
<tr>
<th>Execution Time</th>
<th>Elapsed Time</th>
<th>Step Result</th>
<th>Component Name</th>
<th>Step Summary</th>
<th>Step Description</th>
</tr>
</thead>
</table>
| 8/30/2012 10:34 58 AM | 365484499 | INFO | Actions/LaunchAndLogin          | SAP Front End Initialization | System: V43  
Client: 860  
User: TSTNC_INT_60  
Language: EN |
| 8/30/2012 10:34 58 AM | 0            | INFO | Actions/LaunchAndLogin          | Login                 | Connection String: ./Mydata/ID/Weft_sap.corp/S/2012 |
| 8/30/2012 10:35 02 AM | 4            | INFO | Actions/StartTransaction        | Image Capture         | Create Sales Order - Initial Screen - Capture image              |

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*Executed by ME40S7  
Test executed on TSTNC/INT/VM/0343  
Execution Trace  
Detailed Log  
Log Folder*