SAP AG

Integration Certification

Documentation and Test Cases

Integration Scenario
BC-ITS-VOICE 7.0 Version 1.0

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1. Abstract

This document contains the test cases for the certification of the interface called „BC-ITS-VOICE". The interface is used to control Dynpro based applications by voice in- and output.

2. ITSmobile

The technology which is used in this certification is called ITSmobile. ITSmobile is an enhancement of the Internet Transaction Server (ITS) for mobile applications. To learn more about ITSmobile please refer to:

http://help.sap.com   → SAP NetWeaver
                               → SAP NetWeaver Library
                               → SAP NetWeaver by Key Capability
                               → Application Platform by Key Capability
                               → ABAP Technology
                               → UI Technology
                               → Web UI Technology
                               → SAP ITS in SAP NetWeaver Application Server
                               → Creating Mobile Applications with ITSmobile

for the documentation on ITSmobile.

http://wiki.sdn.sap.com/wiki/display/HOME/Internet+Transaction+Server
for the Wiki area on the Internet Transaction Server

http://sdn.sap.com   → Forums
                               → Application Server
                               → Internet Transaction Server (ITS)

for the SAP Community Network Forum

If you look for notes on ITSmobile the search term "ITSmobile" will give you the best results.

If you still have unanswered questions or you experience problems please open a support ticket on component BC-FES-ITS.

3. Test Environment

To perform these test cases you need to have a NetWeaver ABAP system with an integrated ITS. To install an SAP supported ABAP system you need either an SAP NetWeaver developer license or a test and demo license. In order to obtain the needed license please fill out the form located under this link: http://www.sap.com/community/survey/index.epx?SurveyID=1089. To see if your system fulfills the minimum requirements or if you need to apply further patches or notes please have a look at note **1100618** located on the SAP Support Portal (http://service.sap.com/support).

On the client side you need to have a device (usually a mobile device connected by WLAN) with the software you are going to certify installed. The software must have the following features:

- o The ability to control a web like application (like a browser)
- o Support of XHTML+Voice 1.2 (see the W3C homepage at www.w3.org for reference)
- o Support of Java Speech Grammar Format (JSGF) V 1.0 (see the W3C homepage at www.w3.org for reference)
- o Speech output (e.g. text to speech)

o Speech input (either speaker independent or speaker dependent)

4. Certification Application

The application which is used for the certification is a very simple and small ABAP program ITSMOBILE_CERT_VOICE. There is an internet service called "CERTVOICE" which comes with this program and which contains the necessary HTML Business templates to run this program from a speech enabled device.

The application can be started by opening the URL
"http://<servername>:<serverport>/sap/bc/gui/sap/its/test/mobile/certvoice"

In preparation to run the application you need to do some preparations in the system:

   o Start the transaction SE80; Click "Utilities (M)" → "Settings"; Go to tab "Internet Transaction Server"; Go to tab "Publish"; Make sure "Integrated ITS" is selected.
   o Start the transaction SE80; Select "Repository Browser"; Select "Internet Service"; Enter "CERTVOICE"; Click on "Display"; Right click on the top node of the tree (CERTVOICE) and select "Publish" → "Complete Service".
   o Start the transaction SICF; Press "F8"; Go to default_host/sap/bc/gui/sap/its/test/mobile/certvoice; Right click on this entry and select "Activate Service" from the context menu.
   o Repeat the previous step for the following nodes:
   default_host/sap/public/icman
   default_host/sap/public/bc/ur
   default_host/sap/public/bc/its (at this node you must select the "Yes" button with the icon on it, this will activate all sub nodes also)

5. Test cases

5.1. Startup

The purpose of this step is to test general voice in- and outputs. The screen only shows one input field which must be filled with the number 5 to get on the next screen. In order to test also wrong entries we will first enter a wrong number.

1. Start the application on your device.
   → Audio output "Voice integration test, please enter 5" is uttered.

2. Tester gives speech input "four".
   → Audio output "Enter command".

3. Tester gives speech input "send".
   → The page is submitted to the backend system. Content is the given number (4). 4 is not the expected result so the program sends the same page again. Audio output "Voice integration test, please enter 5" is uttered.

4. Tester gives speech input "five".
   → Audio output "Enter command".

5. Tester gives speech input "send".
   → The page is submitted to the backend system. Content is the given number (5). 5 is the expected result the backend will continue with the next case.

5.2. Help Text

The purpose of this step is to test if help texts are uttered correctly and that navigation on the page works correctly (from one input filed to the next one). There are 2 input fields on the screen the values which must be entered are stored in the help text and must be heard from there.

1. This test cast is entered automatically after test case 1 has been finished.
   → Audio output "Please enter first value" is uttered.

2. Tester waits for about 20 seconds.
   → The help text is uttered automatically "Possible values are: go on, cancel, abort, finish. Expected is go on."

3. Tester gives speech input "go on".
   → Audio output "Please enter second value" is uttered.

4. Tester waits for about 20 seconds.
   → The help text is uttered automatically "Possible values are: go on, cancel, abort, finish. Expected is finish."

5. Tester gives speech input "finish".
   → Audio output "Enter a command" is uttered.

6. Tester gives speech input "send".
   → The page is submitted to the backend system. Content of the first field is "GO ON", content of the second field is "FINISH". Since these are the expected results the backend will continue with the next case.

5.3. Alternate field order

The purpose of this step is to test an alternate field order. The Dynpro has 3 input fields which all have to be filled. First the field 2 has the focus and the tab sequence is 2, 3, 1. On the device the tab sequence should be 2, 1, 3.

1. This test case is entered automatically after test case 2 has been finished.
   → Audio output "Please enter 2" is uttered.

2. Tester gives speech input "two".
   → Audio output "Selected value is 2. Please enter 1" is uttered.

3. Tester gives speech input "one".
   → Audio output "Selected value is 1. Please enter 3" is uttered.

4. Tester gives speech input "three".
   → Audio output "Selected value is 1. Enter a command" is uttered.

5. Tester gives speech input "send".
   → The page is submitted to the backend system. Content of the first field is "1", the content of the second field is "2" and the content of the third field is "3". Since these are the expected results the backend will continue with the next case.

5.4. Button activation

The purpose of this step is to test the dynamically adding of application buttons to the command menu. The Dynpro has only one button labeled "finish" on the screen. By activating this button the test case is fulfilled.

1. This test case is entered automatically after test case 3 has been finished.
   → Audio output "Please confirm finish of test. Enter a command" is uttered.

2. Tester gives speech input "finish".
   → Audio output "Selected command is finish." Is uttered. The page is submitted to the backend system. Transmitted function code is "FINISH". Since this is the expected result the backend will continue with the next case.

5.5. Finish page

The purpose of this step is to display the success message. This step end the test.

1. This test case is entered automatically after test case 4 has been finished.
   → Audio output "Test successfully finished. Enter a command." Is uttered.