Customizing the TCA Report Templates

Application Note

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General Considerations

Both the Telephony Conformance Analyzer (TCA 4100) and the Telecom Conformance Analyzer (TCA 8200) (*) generate reports of the completed tests in the Microsoft Word format.

It is possible to customize these reports. Customization can include, for example, use of the customer’s logo, changing of the page format and fonts, modification of the different report fields, and even translation of the report into a different language.

The purpose of this Application Note is to explain both what can be customized in the test report generated by the TCA and how to customize the report.

The TCA uses templates when creating test and calibration reports. Templates are documents with pre-existing blank sections and with texts required for use in the report. Templates also contain content controls such as a logo, predefined page layout, fonts, margins, and styles.

These templates are stored in “c:\Program Files\Hermon Labs\TCA\report templates”. We recommend using the original test report template as a basis for new and modified templates. The original test report template is called “TCA report template.doc”. The new, modified templates must be saved with a different name. Users can prepare several templates and chose the appropriate one when generating a test report.

The name of the calibration report template is fixed and cannot be changed while creating a calibration report. Therefore, if it is necessary to modify a calibration report template, we recommend that, before editing, save the original “TCA calibration template.doc” using different name. That will create a backup of the template.

NOTE: For purposes of this document, TCA stands for both Telecom Conformance Analyzer (TCA 8200) and Telephony Conformance Analyzer (TCA 4100).
TCA Report Generation Algorithm

To better understand how the TCA report generator templates works, we recommend studying the report generation algorithm described below:

1. A new document is created based on selected report template.
2. General document variables are filled in using both placeholders (such as `<SuiteSpec>`) and document variables (such as “LabPhone”). Document variables may be shown in Word by enabling the ‘Show field codes’ option. Document variables are used in headers and footers of report template.
3. Logo is replaced by putting configured image into first frame of headers.
4. Results summary table is filled at table in “ResultsSummaryTable” bookmark.
5. Report summary is generated according to report results (<ReportSummary>). This is one of texts that cannot be translated.
6. Requirement conditions table is filled at table in “ConditionsTable” bookmark.
7. For each test result
   a. New section is created starting from “DetailedResults” bookmark
   b. Results header is copied from “ResultsHeader” bookmark into section header and placeholders are replaced with actual values
   c. Measurement uncertainty is added if not disabled in TCA
   d. If result is Word document, then it’s inserted into the report as it is. If not:
      i. General parameters table is copied from “GeneralParams” bookmark and filled with parameter values
      ii. Test ranges table is inserted (this table cannot be translated)
      iii. For each graph result:
         1. Graph table is copied from “GraphTable” bookmark
         2. Graph image is placed into table
         3. Legend is configured using template under “LegendBullet” bookmark (this text is copied and colored in appropriate color)
      iv. For table results, a new table is created and filled with results
8. Text under “Delete” bookmark is deleted
9. TOC is updated
10. File is saved
Concerns Regarding Editing

Be very careful when editing the template. The template has been prepared according to a specific format and violation of this format may cause unpredictable results and even make it impossible to create a report.

The following items must be preserved during template customization:

- Existing bookmarks should not be deleted.
- The key words in the <> angle brackets should not be modified. TCA recognizes these words as placeholders, and during the report generation the appropriate information from the actual test results is inserted in place of these key words.

Report Translation Procedure

During report generation, the TCA uses text strings, not only from the template document, but also from the Test Suites and Test properties. Therefore, to translate as much of the document as possible, it is necessary to translate not only the template but also several appropriate Test Suite items and Test properties. This procedure is detailed below.

1. Translate the template and save it under a different name (see Template Customization Procedure on page 5).

**WARNING:** Do not translate or modify the key words in the <> angle brackets.

As described above, several textual entities are defined in the Test Suite and Test properties. Their translation should be done using the TCA application by modifying the appropriate fields in the properties, as follows:

2. If translating the Test Suite from the Standard Suites group, first copy the suite to the User Suite group. See the Online Help for more details regarding User Suite creation.

3. Open the Test Suite Properties and select the General tab.
4. Enter the translated Test suite name.

![Test Suite Properties - Artificial line characteristics](image)

*Translating the Test Suite Name*

5. Click OK. The name is saved and the Test Suite Properties dialog box closes.

6. Open the **Test Properties** and select the **General** tab.

7. Enter the translated Name and Purpose.

![Test Properties - Group delay](image)

*Translating the Name and Purpose*

8. In the Results area, translate the Clauses. Do not change any other names.

![Test Properties - Group delay](image)

*Translating the Clauses*

9. Click OK.
Template Customization Procedure

We strongly recommend that, before modifying the template, save the original template using a different name.

1. Save the original template using a different name. This creates a backup.
2. Open the folder “c:\Program Files\Hermon Labs\TCA\report templates\”.
3. Make a copy of the template file that will be customized.
4. Open Microsoft Word.
5. Open the template document to be customized from “c:\Program Files\Hermon Labs\TCA\report templates\”.
6. Make the changes. These changes will appear in all reports that are based on the template.

WARNING: Do not translate or modify the key words in the <> angle brackets.

7. Click Save As.
8. In the Save As dialog box:
   a. From the Save as type dropdown menu, select Document template (*.dot).
   b. In the Save in field, browse to “c:\Program Files\Hermon Labs\TCA\report templates\”.
   c. Click Save.
9. Close both the template document and Microsoft Word.