Package "nslmdoc"

The package "nslmdoc" takes a .docx template file, documents all the task view images with measurement parameters for a selected task, and saves them in a .docx file format. The user can also select a desired language for the documentation.

A settings script "mdocgensettings.py" is used to locate the template file that is provided as "nslmdoctemplate.docx" in the data folder of the nslmdoc scripting folder. The user can also select a name prefix for the output document in this script and select one of the available languages for the measurement report. These details are stored in the "mdoc_gen_settings.json" file in the project directory.

The script "mdoc.py" is used to open a dialog where a task can be selected from a list of all active tasks on the SignalShark. The user can browse the Datalogger directory of the SignalShark and choose a name for the new folder where the script will save the task screenshots, datasets, and the measurement report. The dialog also provides the option to add the name of the user and optional comments regarding the measurements. The file "mdoc_gen_settings.json" provides all settings for the report creation.

Details:

The graphical user interface for the settings dialog is created using the wxFormBuilder tool. The python script generated for this dialog is provided in the file "mdocdlgsbase.py", where MDocSettingsDlgBase is the class for the settings dialog. The class DocSettingsDlgBase creates the dialog for task selection, the measurement directory details, and the user details. The script "mdocdlgs.py" provides the event handling functionality for both the wxFB dialogs by deriving classes from the base classes in the script "mdocdlgsbase.py" and also manages the progress bar.

The script "basedata.py" provides the IDocDataItem class as a blue-print for documenting all SignalShark tasks. The script "docitemdata.py" provides separate base classes for all task views derived from the IDocDataItem class and manages the results for the task.

The script "docmethods.py" provides all the settings for document formatting, whereas the script "langhelper.py" provides access to all the supported languages for the measurement report.

The script "mdoc.py" allows the task selection parameters to be parsed from the dialog to the Narda Script Launcher application in the "_run_script" method. The measurement thread in this script manages all the above scripts for collecting data and taking screenshots of all task views, which are then documented in the measurement report.

Procedure

Hold Measurements

1. Press the "Run" icon on the SignalShark device to make sure that the measurements are put on hold. It can be found on the top panel of the device:


If the measurements are on hold already, skip this step and proceed with the next steps for the document creation.

Documentation Settings

2. Open the Narda Script Launcher application and select the "nslmdoc" tab.

3. Select the script "Meas. Documentation General Settings".
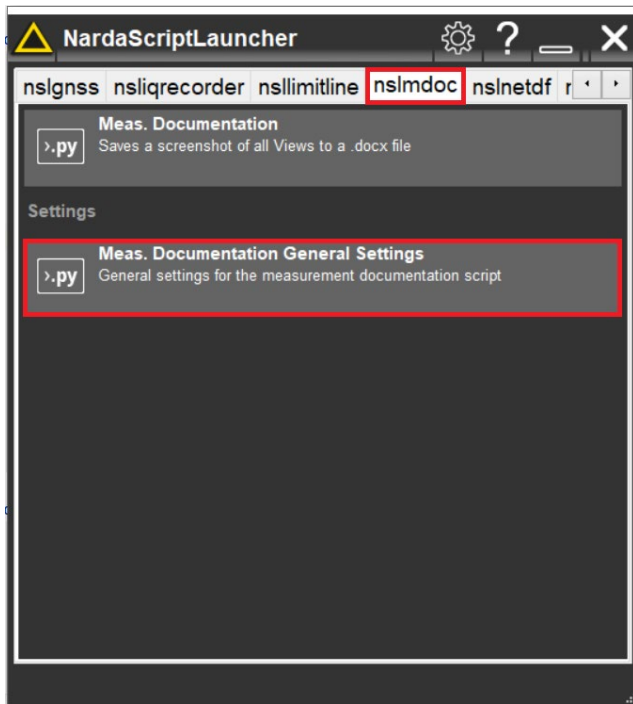
4. When the script is executed, a dialog box opens that asks the user to locate the template file and provide the name prefix for the document to be generated:
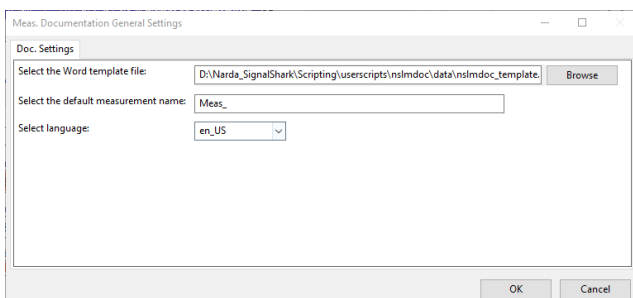
5. Select the "Ok" button to save the details in the "mdoc_gen_settings.json" file.

6. Open the Narda Script Launcher application and select the "nslmdoc" tab again.

7. Then select the script "Meas. Documentation".
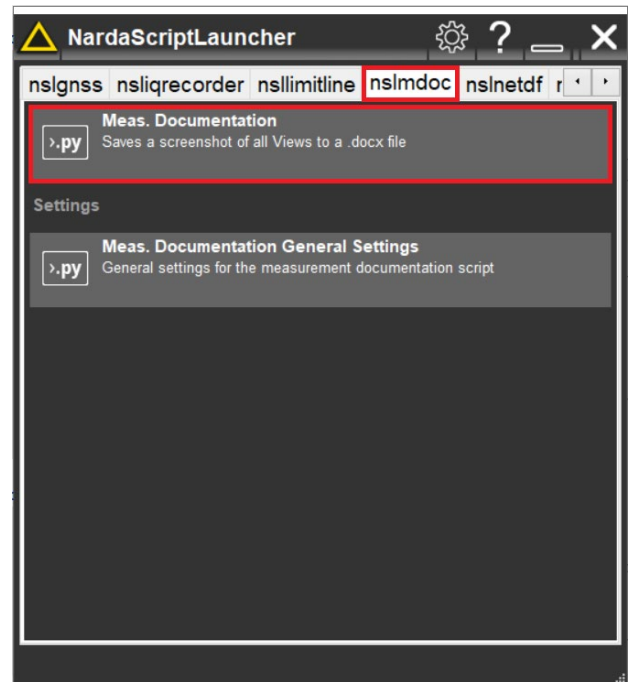
8. When the script is executed, a task selection dialog box opens that asks the user to select a working directory. This directory must be inside the Datalogger directory of the SignalShark:
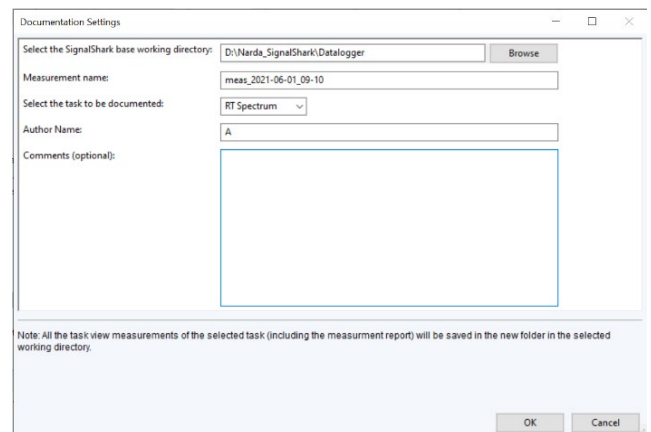
9. Select a name of the new folder in the Datalogger directory. The measurement screenshots, datasets, and document will be saved in this folder.

10. Select a task from the list of all active tasks running of the connected device using the drop down menu.

11. The user performing the measurements can enter the name as the author of the document and add optional comments regarding the performed measurements as well.
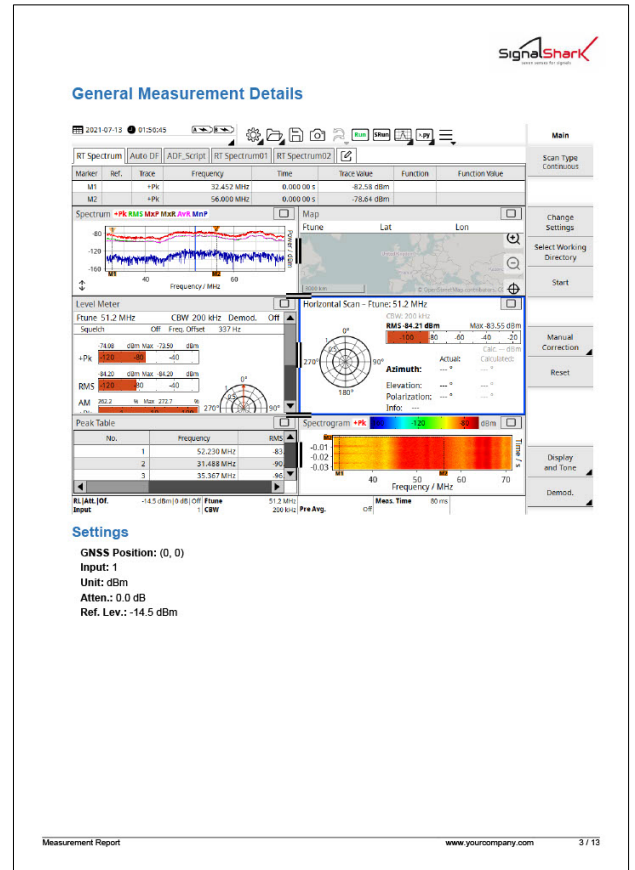
12. Press "OK" button to execute the script.

Introduction

Contents

General Measurement Details

Settings

- **GNSS Position:** (0, 0)
- **Input:** 1
- **Unit:** dBm
- **Atten.:** 0.0 dB
- **Ref. Lev.:** -14.5 dBm

13. The .docx document is created in the selected datalogger working directory with the file name consisting the prefix combined with date time information.

14. For all formatting features to be enabled, the document can be best viewed in Microsoft Word. After opening the document, manually update the Table of Contents (TOC) to show as many levels of headings in the TOC as intended. The above example shows level 1 and level 2 headings of the document.

15. The unformatted report can also be viewed in Wordpad on the SignalShark device, however, the TOC will not be visible in it.

16. The document provides general measurement overview and settings (e.g. the GNSS position, inputs, attenuation, reference level, and the measurement units). The above image is an example of the task overview and general measurement settings.

17. However, the details of the device on which the measurements were performed (e.g. part number, serial number, firmware, etc.) are documented at the last page of the measurement report.
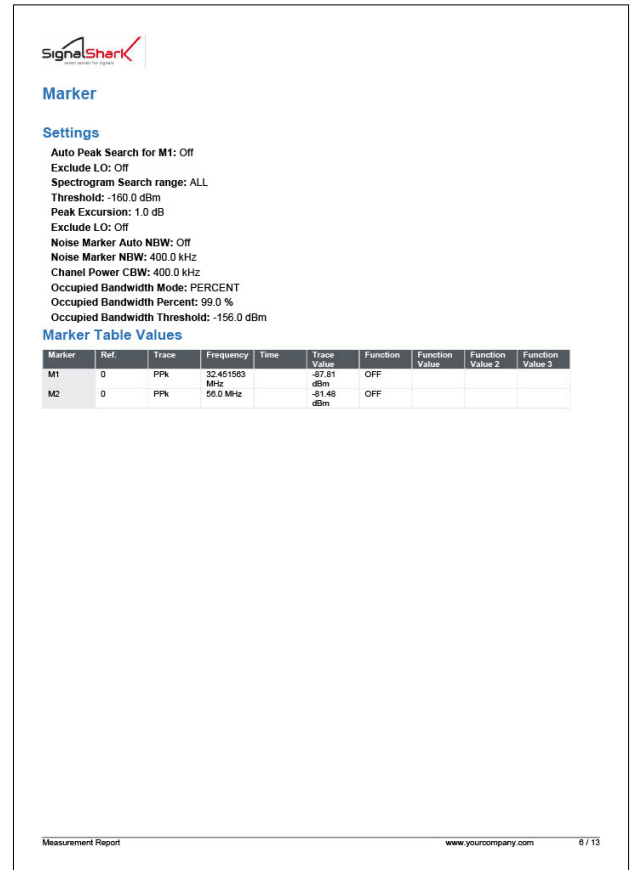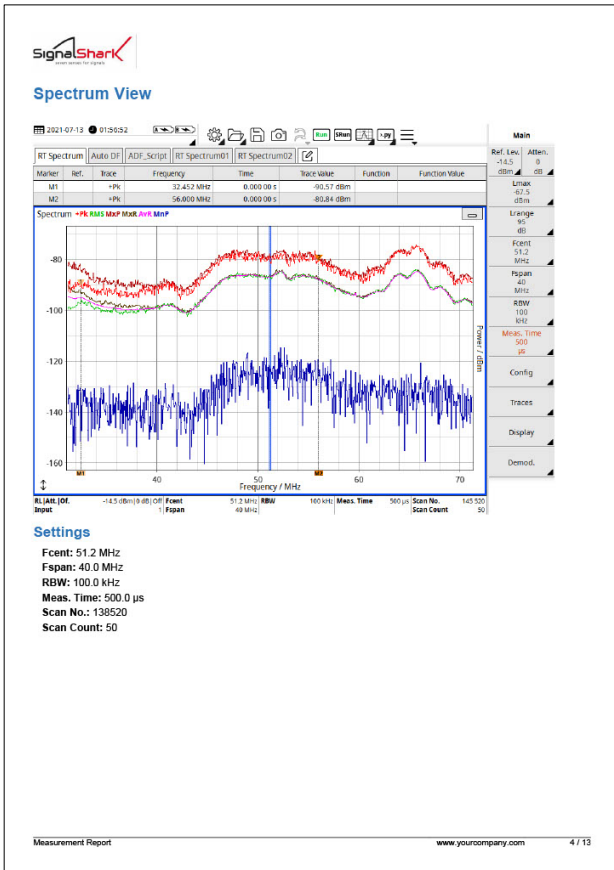
18. For each task view, a maximized image is added to the document and measurement parameters are listed alongside. The above image shows the spectrum view and its measurement parameters. The measurement report in .docx format compiles all the task views and their measurement parameters in a similar manner.

19. If markers are used, then a marker table will be added separately to the document. Likewise, if peak tables are added to the task views, then it will also be added to the document. The above image shows an example of marker table only.

20. The compiled report can be accessed in the measurement folder in the Datalogger directory.