Application Frame

Software documentation



SENTECH Instruments GmbH

Document information:

Authors:

Datum: 10/12/2009 10:37:58 AM

File: 20091012_applicationframe_engl.doc

History:

© 2009 by Sentech Instruments GmbH. All rights reserved.

Address: Sentech Instruments GmbH

Carl-Scheele-Straße 16

D-12489 Berlin

Germany

Email: info@sentech.de

Web site: http://www.sentech.de

0.1 Table of figures

3

1.	INTRODUCTION	4
2.	OPERATING WITH THE APPLICATION FRAME	5
2.1	Starting the Software	5
2.2	User authorisation	5
2.3	Appearance of the application frame	6
2.4	Menus	6
	4.1 Title- and system menu 4.2 Main menu	6 7
2.	2.4.2.1. Data menu	7
	2.4.2.2. View menu	8
	2.4.2.3. The logon-Menu2.4.2.4. User administration	9
	2.4.2.4. User administration 2.4.2.5. "window" menu	9 11
	2.4.2.6. Help menu	11
2.5	Toolbar	12
2.6	Navigation tree	12
2.7	Main window of the application frame	12
	••	
0.1	Table of figures	
	. 1-1: structure of the application frame	1
i ig.	. 2-1: Starting symbol of the application frame	4
	. 2-2: Login window	
Fig.	. 2-3: Application frame with default view (example SENDURO®)	6
Fin	. 2-4: System menu of the application frame	7
Fin	. 2-6: main menu (example SENDURO®)	7
Fia	2-7: Data menu (example SENDURO®)	7
Fia	. 2-7: Data menu (example SENDURO®)	8
Fia.	. 2-9: default view of the application frame (example SENDURO 6)	8
Fia.	. 2-10: Logon-menu	9
Fia.	. 2-11: user administration	9
	. 2-12: user frame	
_	. 2-13: create new users	
	. 2-14: Deleting a current user	
	. 2-15: modify existing user	
_	. 2-16: user rights frame	
_	. 2-17: assigning predefined rights	
Fig.	. 2-18: modified user rights	11
Fig.	. 2-19: Toolbar with most common functions (example SENDURO®)	12
Fig.	. 2-20: main window of the SENDURO $^{ exttt{B}}$	13
Fig.	. 2-21: Application frame of the SE500advanced	14

1. Introduction

The application frame includes all applications of Sentech Instruments. The purpose of the application frame is to start the components and to run the background program SiALoad.exe, as well as switching between the different components, menus and toolbars. Fig. 1-1 shows a schematic overview of the application frame structure.

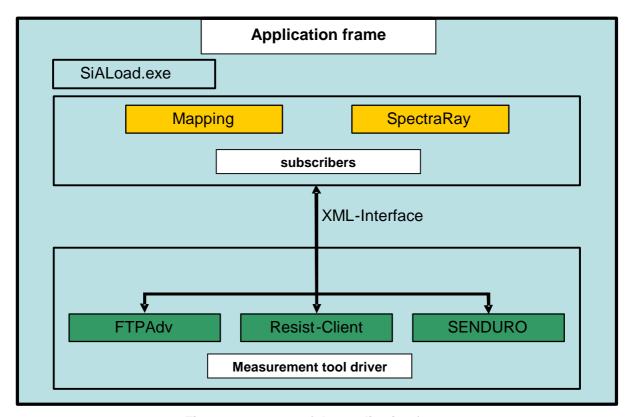


Fig. 1-1: structure of the application frame

As visible in the figure the application frame works as environment for the components, which communicate via XML-Interface. There are 2 different kinds of components, first group is the "subscribers" (for example: the mapping program or SpectraRay 3) and the second group is the "measurement tool drivers" (for example: FTPadv). The "subscribers" are using the services of the different measurement tools therefore they are sending operation commands including the chosen settings via interface to the measurement tools. These commands are received and executed by the programs. The result with a specific data volume which depends on the settings for the recipes is sent back.

The task of the "subscribers" is to collect all measurement data while the measurement tools collect the data at the specific measuring point. The application frame also manages the users and assigning the user rights. While different users may operate with the device this is useful because the rights can limit their access on changing specific settings or executing functions. In this way the number of damages caused by failures or incorrect measurements can be minimized.

2. Operating with the Application Frame

2.1 Starting the Software

The user software can by executed by clicking the Symbol from Fig.2-1 on your desktop. In addition the software can be started via windows explorer. The default installation path is 'C:\Sentech\ApplicationFrame\SiAFrame.exe' but may also have been changed by the administrator during the installation.

.



Fig. 2-1: Starting symbol of the application frame

2.2 User authorisation



Fig. 2-2: Login window

To take advantage of the software a valid username and password have to be submitted after starting. The master password and the related user name can be found in the file "password.txt", the path is "password" on the delivered CD-ROM.

Start

Repeat

E Edit View Logon Device Extra Windo DIR LOAD SAVE SAMPLE RUN FIT REPORT PRINT LOGRILE NAK TOP DEV ALIGN Recipe: 02 - SiO2 100 nm on Silicon Options ... C:\Programme\SENDURO\Recipies_Demo Sample Holder\02 - Si02 100 nm on Silicon.recipe.xn Thickness and refractive index 70th=105.4 nm n=1.464 60-50-Layer Name Thickness [nm] n(632.8 nm) SiO2 (Silicon dioxide) - therm 105.4 1.464 Si (Silicon) Substrate 3.872 +i -0.016 500 600 700 Wavelength [nm] MSE: 0.024182 Measured: 10/12/09 at 10:16:26 Fit method: Spectrumfit Levenberg-Marquardt + Thickness Scan Auto model: Off Datasource: Old data loaded with recipe 250-150 100

2.3 Appearance of the application frame

Fig. 2-3: Application frame with default view (example SENDURO®)

Ready

The main window can be seen in Fig. 2-3. It consists of the following visible details:

- Title- und system menu
- Main menu
- Toolbar

500

10:16:26.528ms: Ready.

Wavelength [nm]

600

700

Main window frame

The different items in the main window can be used or changed with the common windows commands. The visible buttons and menu entries can be accessed with help of the mouse of keyboard shortcuts. To use the shortcut press "Alt" + the underlined letter (for example: "<Alt>+M" measure sample or "<Alt>+F" for file menu).

2.4 Menus

2.4.1 Title- and system menu

The main window has a product specific title including a version number, e.g. "SENresearch 1.21" and shows also the current active task. The application frame is the standard software basis. Integrating different kinds of measurement tools into a standard software construct has several internal and external advantages, for example: standard data libraries, calculation routines and a familiar user interface for the users.

The symbol in the upper left corner can be clicked to access the system menu, including options for minimizing or closing the window.

Fig. 2-4 shows the system menu in the upper right corner of the application frame. This may also be used to minimize, close or restore the window. To close the window the data menu "File\Exit" or the keyboard shortcut "<Alt>+F4" are also available options.



Fig. 2-4: System menu of the application frame

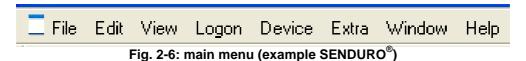
Once the application frame has been started and is running the symbol in Fig. 2-5 will be visible in the windows taskbar. Click on the symbol to restore the window.



Fig. 2-5: Symbol in the windows taskbar (example: SENDURO®)

2.4.2 Main menu

The main menu provides access to various functions of the application frame and the active components.



The menu entries 'File', 'View', 'Logon', 'Window' und 'Help' belong to the application frame the other entries visible in Fig. 2-6 depend on the active measurement tool driver and subscriber.

2.4.2.1. Data menu



Fig. 2-7: Data menu (example SENDURO®)

The data menu provides the possibility to load and save experiments or applications. In addition print settings and previews can be created here. Depending on your active components additional options like saving spectres or export data may occur.

2.4.2.2. View menu



Fig. 2-8: view menu (example SENDURO®)

The view menu ('View') allows configuring the display of the several components in the main frame of the window. The status bar, the navigation tree and the toolbar may be set to be visible or hidden. With default settings only status bar and toolbar will be visible, the rest is hidden and has to be activated. Fig. 2-9 shows the default view.

Switching to full screen mode is possibly and can be ended by pressing the <Esc>button on the keyboard.

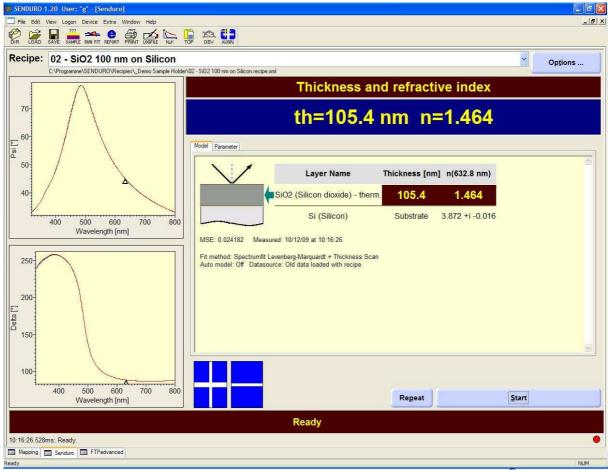


Fig. 2-9: default view of the application frame (example SENDURO®)

The other options in Fig. 2-8 are provided by the active component. A specific documentation can be found in the user manual of device. The menu also provides

access to the available measurement tool drivers (for example: SENDURO) and an offline version of the SENTECH homepage.

2.4.2.3. The logon-Menu



Fig. 2-10: Logon-menu

This menu provides access to change the active user and enter the user administration window.

2.4.2.4. User administration

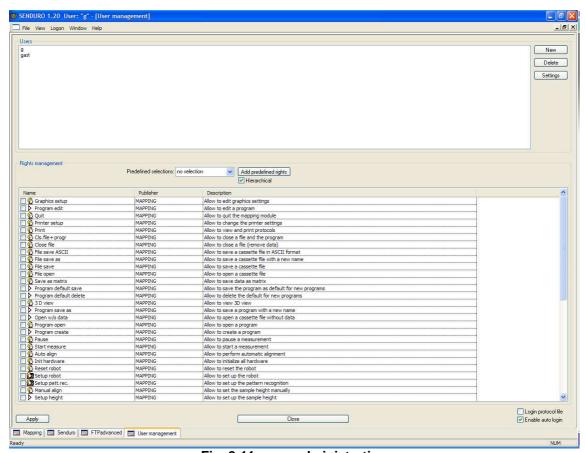


Fig. 2-11: user administration

In this window all user access rights may be set up. It is possible to add, delete or edit the users. Specific settings can be assigned for every user or user group. Though this may only be changed by administrators.

Editing users



Fig. 2-12: user frame

Fig. 2-12 displays the user frame. This frame shows all existing users. With the help of the button New additional user accounts can be created.



Fig. 2-13: create new users

With the help of the button Delete user accounts can be deleted.

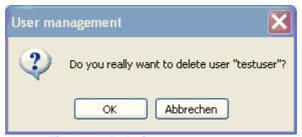


Fig. 2-14: Deleting a current user

Existing accounts can be modified with the help of the button

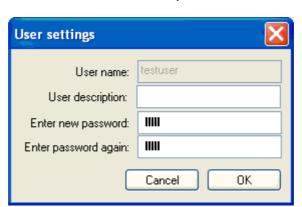


Fig. 2-15: modify existing user

Settings

Assigning user rights

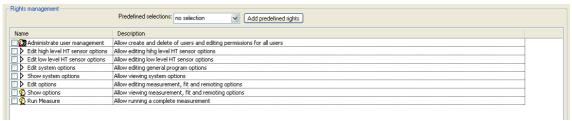


Fig. 2-16: user rights frame

Fig. 2-16 shows the user rights frame. In this frame specific rights can be assigned to existing user accounts. Therefore the respective user account has to be selected in the upper user frame.

The assigned user rights are displayed in the checkboxes of the bottom frame. Specific rights may be granted or denied by checking the boxes. All rights belong to a certain category and can therefore be granted within one step. To do this choose the

access-category as shown in Fig.2-17 and click the button Add predefined rights



Fig. 2-17: assigning predefined rights

Now all rights for the user category have been granted to the user account.

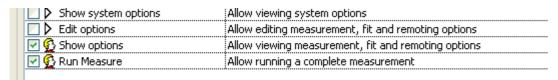


Fig. 2-18: modified user rights

Apply By clicking lall changes that have been made will be applied. Changes will also be applied if the modified user is currently logged in.

Login protocol file . if selected, a protocol file is written for all login/logoff events Enable auto login . if selected, no login dialog will be displayed; instead last (administrative) user will be login automatically (only for test purposes)

2.4.2.5. "window" menu

The different windows on the display can be arranged with the help of the window menu. Therefore the functions "cascade", "tile\horizontal", "tile\vertical" and "arrange icons" can be used. At the bottom of the sub menu table open windows are displayed and may be chosen so that they are in front.

2.4.2.6. Help menu

The help menu displays the current version ID of the application frame.

2.5 Toolbar

The Toolbar provides quick access on the most common functions with the help of self-explanatory symbols.

Fig. 2-19 displays the SENDURO toolbar. The functions may vary with different devices and depend of the frame in the front.



Fig. 2-19: Toolbar with most common functions (example SENDURO®)

Mouse-over information is provided when resting above the symbol with the mouse

2.6 Navigation tree

The navigation tree on the left side provides the possibility to switch between the available windows. The button website will display an offline copy of the SENTECH homepage. Depending on the device, different specific options may occur.

For example the SENDURO provides the button "SENDURO\SENDURO" which will lead to the display of the SENDURO measurement tool driver. The navigation tree will not be displayed with the default options and therefore has to be activated in the view menu.

2.7 Main window of the application frame

In the main window of the application frame the opened windows will be displayed depending on the settings of the view menu. This might be subscribers and measurement tool drivers. Depending on the device and the installed hard- and software the appearance of the main window may vary. The following figures will schematically display different appearances of the main window in specific devices. Fig. 2-20 shows the main window of the SENDURO which primarily consists of the SENDURO measurement tool driver.

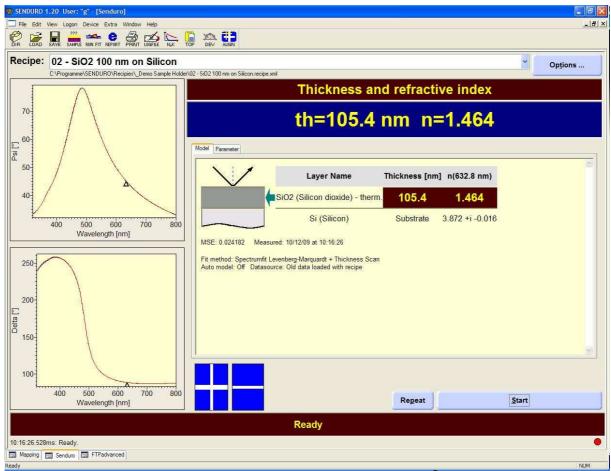


Fig. 2-20: main window of the SENDURO®

Alternatively to the upper appearance several measurement tool drivers and a subscriber may be arranged within the window. This might be advantageous when for example the measurement tool driver has to be visible while mapping to simultaneously verify or change the settings for the measuring points. Fig. 2-21 shows the main window of the SE500advanced with mapping option. Within the window the driver for the SE400 and the FTPadv are visible. In addition the window for the camera in the autocollimation scope for adjustment and installation and the mapping software are combined in the application frame. In case of specific measurements which don't require certain components can simply be deactivated with the help of the window menu.

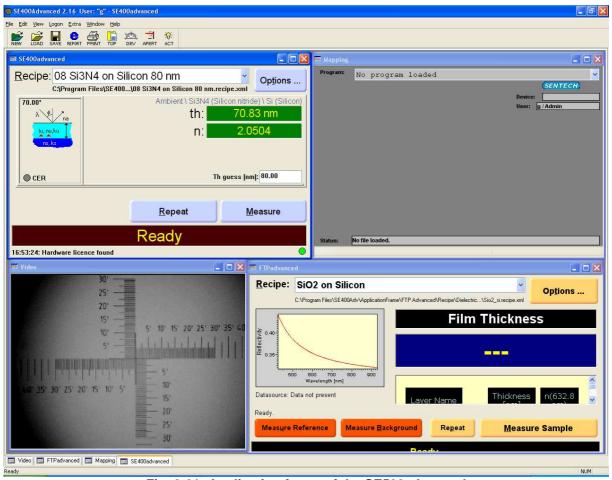


Fig. 2-21: Application frame of the SE500advanced