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ShapeMetriX

Center Window Settings

User Manual

for Version 5.0

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Project ID: 6800 Author: 3GSM	*Subject to change without notice*

CONTENTS

1 General information

The center window of your *ShapeMetriX* package is started is started by double-clicking with the computer mouse on the corresponding icon on the desktop. The individual software components can be started from the center window by clicking on the desired icon (Figure 1).

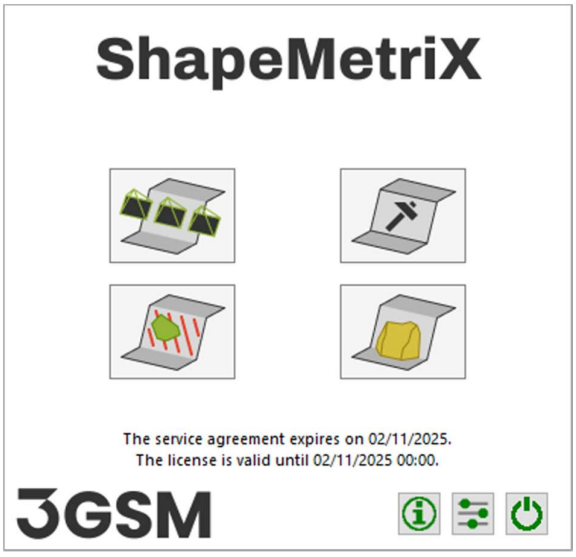


Figure 1: Center window of ShapeMetriX

The center window provides information on how long the software can be updated. Each software update has a release date. The installed software components will not launch, if a release date of a software update is later than the date shown. Software versions with an earlier release date are not affected and will continue working.

Several settings *ShapeMetriX* are user configurable in the setting dialog opened by clicking the *"Settings"* Settings button. In addition, the dialog allows to (re)installed the license.

The *Settings* are launched from the center window by clicking on the corresponding button (Figure 2). It comprises four sheets related to following topics:

- General
- User Data
- License
- System

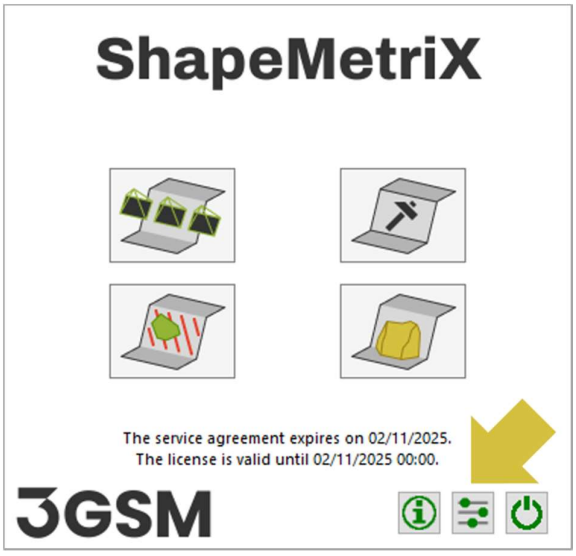


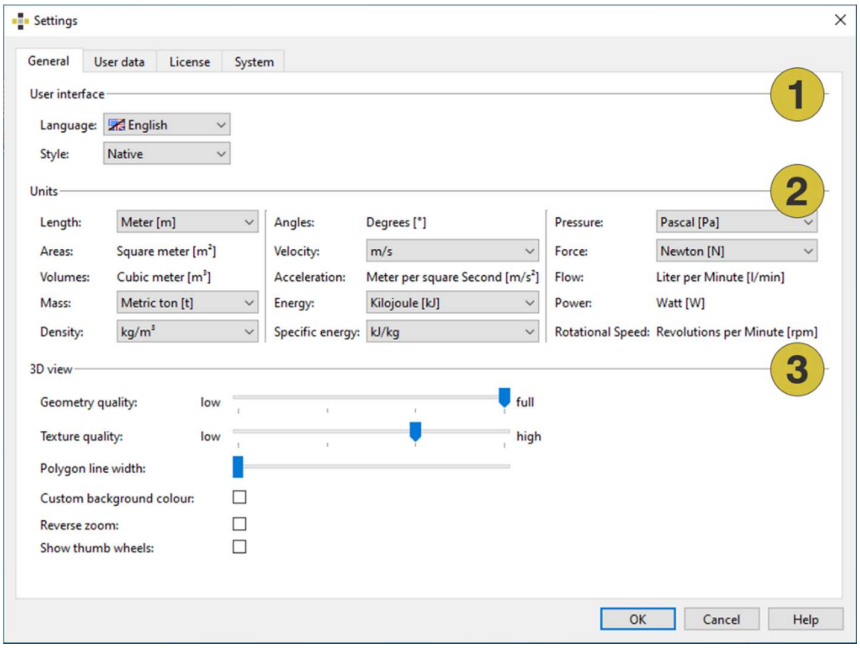
Figure 2: The Settings dialog is opened by clicking the corresponding button (red arrow)

Note:
Changes in the general settings affect all software component.

Note:
General user manuals for *ShapeMetriX* and corresponding software components are available in ".html" or ".pdf" format by clicking the "*User Manuals*" button.

2 General settings

The *General* sheet shown in *Figure 3* allows the user to customize general settings like the operating system language, units and 3D view options.



1 User interface

2 Units

3 3D view

Figure 3: General sheet

2.1 User interface

- *Language*
  Available languages are English, German and (partly) Russian
- *Style*
  Native or dark style mode

2.2 Units

- *Length*
  Available units are millimetre [mm], meter [m], inch [in], international foot [ft (int)], and US survey foot [ft (us)]

- *Areas*
  Available units are square millimetre [mm^2], square meter [m^2], square inch [sq. in], square foot international [sq. ft (int)] and square foot US survey [sq. ft (us)]
- *Volumes*
  Available units are cubic millimetre [mm^3], cubic meter [m^3], cubic inch [cu. in] and cubic yard [cu. yd]
- *Mass*
  Available units are kilogram [kg], pound [lb], metric ton [t], short ton [tn. s] and long ton [tn. l]
- *Density*
  Available units are kilogram per cubic meter [kg/m^3], metric ton per cubic yard [t/cu. yd], short ton per cubic yard [tn. sh./cu. yd], and long ton per cubic yard [tn. l./cu. yd]
- *Angles*
  Unit is degree [°]
- *Velocity*: Available units are meter per second [m/s], meter per minute [m/min], millimetre per second [mm/s], millimetre per minute [mm/min], inch per second [in/s], inch per minute [in/min], foot per second [tf/s] and foot per minute [ft/min]
- Acceleration: Unit is meter per square second [m/s^2]
- *Energy*: Available units are kilojoule [kJ], and megajoule [MJ]
- *Specific energy*: Available units are kilojoule per [kJ/kilogram], and megajoule per kilogram [MJ/kilogram]
- *Pressure*: Available units are pascal [Pa], bar [bar], psi [psi]
- *Force*: Available units are newton [N], kilonewton [kN]
- *Flow*: Unit is liter per minute [l/min]
- *Power*: Unit is watt [W]
- *Rotational Speed*: Unit is revolutions per minute [rpm]

Table 1: Conversion of units. Note, 1 International Foot equals 0.999998 US Survey Foot.

Meter	Millimetre	Inches	Int. Foot	US Survey Foot
1 m =	1000 mm	39.37 in	3.28 ft (int)	3.28 ft (us)
1 m^2 =	1,000,000 mm^2	1,550.00 in^2	10.76 ft^2 (int)	10.76 ft^2 (us)
1 m^3 =	1,000,000,000 mm^3	61,023.38 in^3	35,32 ft^3 (int)	35,32 ft^3 (us)

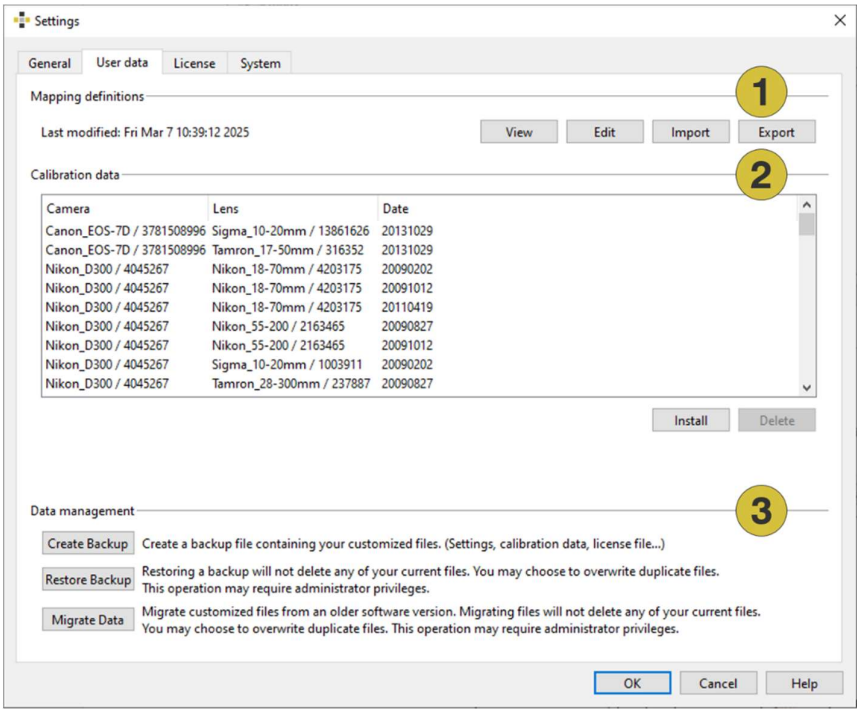
Kilogram	Pound	Metric Ton	Short Ton	Long Ton
1 kg =	2.204620 lb	0.001000 t	0.1102 h.	0.984 tn. l.

2.3 3D view

- *Maximum number of points for one 3D scene*
  Defines the number of displayed points building up the 3D scene. If the interactive motion of the 3D image is not smooth, a reduction of displayed 3D points helps. The more points are used, the more precise is the displayed 3D image. Important note: Measurements are always taken in the full set of 3D points.
- *Geometry quality*
  Changes the geometry reproduction on the screen from low to high
- *Texture quality*
  Changes the texture reproduction on the screen from low to high
- *Polygon line width*
  The line width of polygons is set by moving the slider (e.g. Annotations like *Traces, Areas, etc.* in the *Analyst*)
- *Custom background colour*
  Enabling the checkbox allows the user to change the background colour of the 3D viewer
- *Reverse zoom*
  Changes the zoom direction when scrolling the mouse
- *Show thumb wheels*
  Shows/Hides thumb wheels in the 3D viewer that can be used for rotation and zooming

3 User Data settings

The *User Data* sheet shown in Figure 4 allows the user to install camera calibrations files and provides features for data management.



1 Mapping definitions

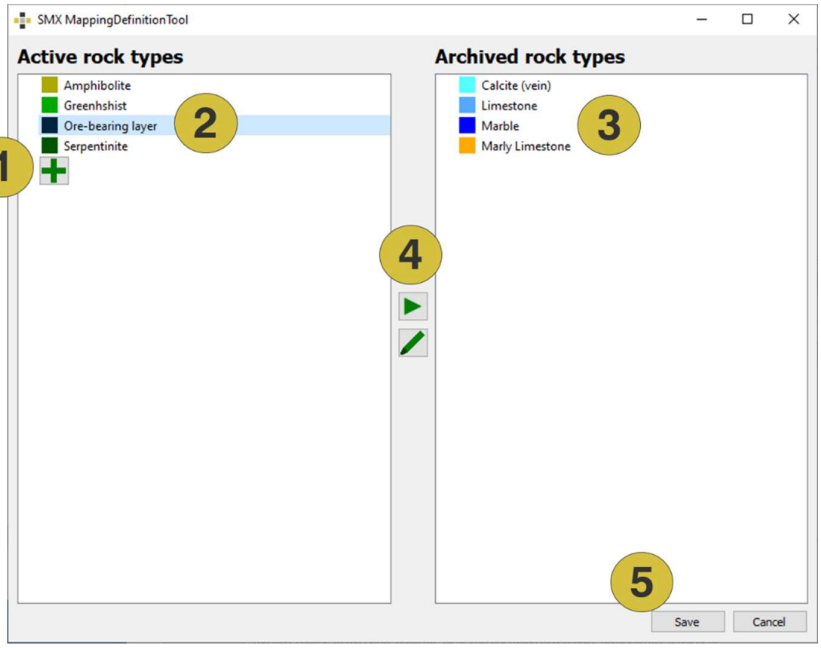
2 Install camera calibrations

3 Data management

Figure 4: User Data sheet

3.1 Mapping definitions

The *User Data* sheet enables the generation of a *Mapping Definition File* (".pb" file). The file contains user defined rock types used for mapping of *Lithologic Regions* in the *Analyst* (see user manual of *Analyst*). The dialog *Mapping Definitions Tool* (Figure 4) is opened by clicking the "*Edit*" button. Rock types are added by clicking the "*Add Rock Type*" icon. The name and colour of the rock type can be defined in the occurring dialog. After closing the dialog, the rock types appear in the *Active Rock Types* list. Rock types are archived by selecting the desired type and clicking the icon. The rock type is moved to the *Archived Rock Types* list. Activation of an archived rock type is performed by selecting the desired type and clicking the icon. The rock type is moved to the *Active Rock Types* list again. Editing of rock types is performed by clicking the icon. The *Mapping Definition File* (".pb" file) is generated and saved by clicking the "*Save*" button. Import and export of the file is performed by clicking the "*Import*" or "*Export*" button, respectively.



1 Add rock types
2 Active rock types
3 Archived rock types
4 Edit rock types
5 Save mapping definitions

Figure 5: Mapping Definition Tool

3.2 Calibration data

The *User Data* sheet is used for viewing, adding and removing calibration files to the software. It lists camera calibrations installed on your computer. The camera model, e.g. Nikon D90, with the corresponding serial number is given in the left column. Each camera is calibrated with one or several lenses specified by the lens type, the focal length and the lens serial number. The right column shows the date of calibration. The calibration files are delivered in a ".zip" file format, which can be found on the original *ShapeMetriX* CD, the recalibration CD, or on your ftp account. If a specific camera calibration is required, please contact 3GSM at support@3gsm.at.

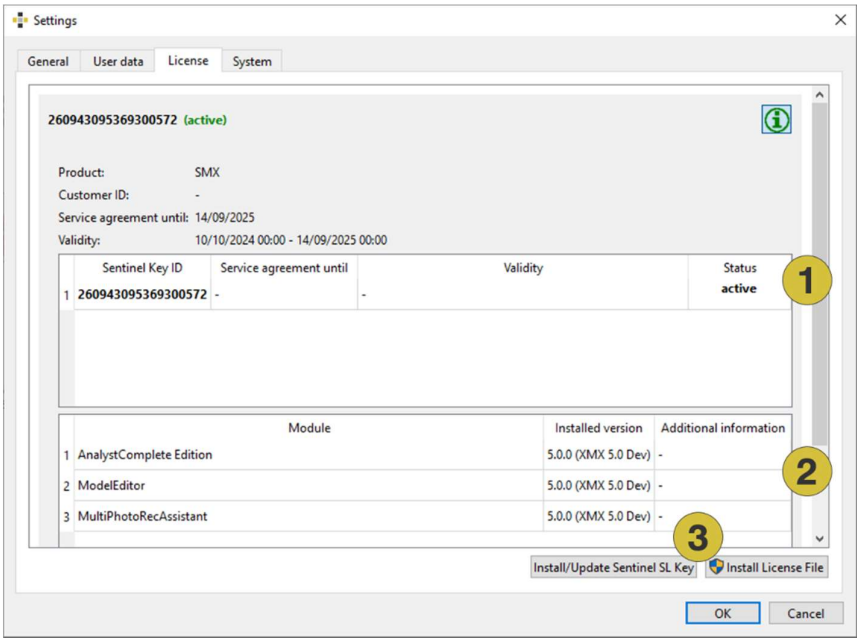
In order to install a camera calibration file choose the "*Install*" button and specify the folder and name (".zip") of the calibration file. After confirmation the camera calibration is installed to the *ShapeMetriX* software. In order to remove a camera calibration from the *ShapeMetriX* software, click on the calibration entry in the calibration list and choose "*Delete*". After confirmation the calibration entry is removed.

3.3 Data management

- *Create Backup*
  Creates a backup file (“.zip”) containing the customized files (license, settings, calibration data, ...)
- *Restore Backup*
  Restores a backup. This operation may require administration privileges.
- *Migrate Data*
  Migrate customized files form an older software version. This operation may require administration privileges.

4 License settings

The *License* sheet shown in Figure 6 provides detailed information of the installed *ShapeMetriX* system and allows the installation or update of the license and the Sentinel key.



1 Sentinel key(s) status

2 Installed and licensed software components

3 Installation/Update of the Sentinel SL Key and license

Figure 6: License sheet

Available Sentinel key(s) with and their validity period and the expiry date of the service agreement is listed with the status of the key:

- Active: used by active session
- Available: present and active
- Expired: validity expired
- Unavailable: service agreement not valid

The active and licensed modules with their version number is listed for each key.

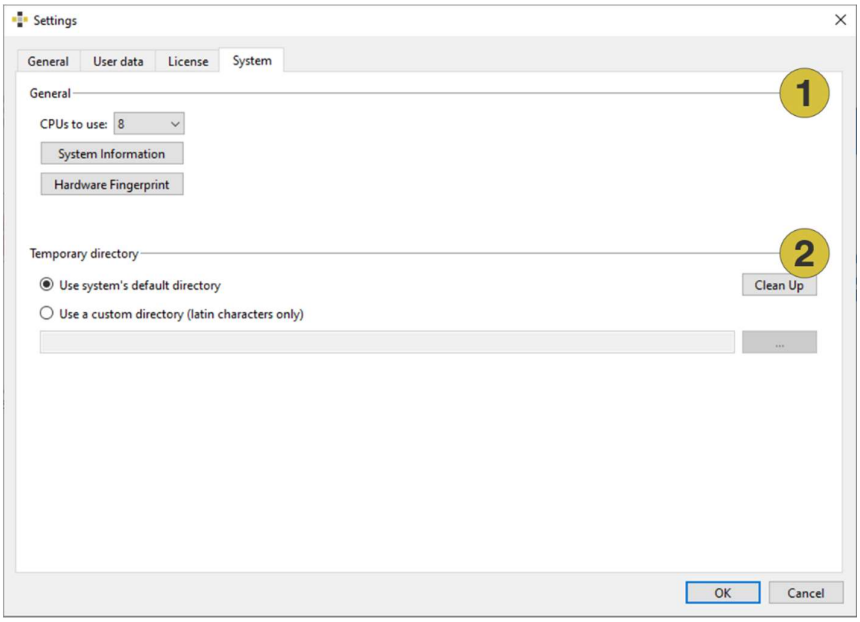
A new key and/or license is installed by clicking the button "*Install/Update Sentinel SL Key*" and "*Install License File*" respectively. License installation is required in the following cases:

- First installation of the software
- Reinstallation of the software after a new computer set up

- Extension of a service and update license
- Extension of a temporary license
- Installation of additional software components (Add-on)

5 System settings

The *System* sheet shown in Figure 7 shows specific system information and provides access to a demo license server. In addition it allows the user to customize the directories for temporary files.



1 General

2 Temporary directories

Figure 7: System sheet

5.1 General

- *CPUs to use*
  Allows to limit the number of CPUs (center processing units) used by the software (only relevant for multi-core processors). The standard setting is the number of CPUs of your computer.

- *System Information*
  A dialog is opened by a click on "*System Information"* providing overall information about the installed software (e.g. operating system, installation directory, temporary directory etc.). The specifications can be sent as e-mail, copied to clip board or saved to file (".txt") with a click on the corresponding button, i.e. "*Send as Email*", "*Copy* to Clipboard" or "*Saved to File*" respectively.

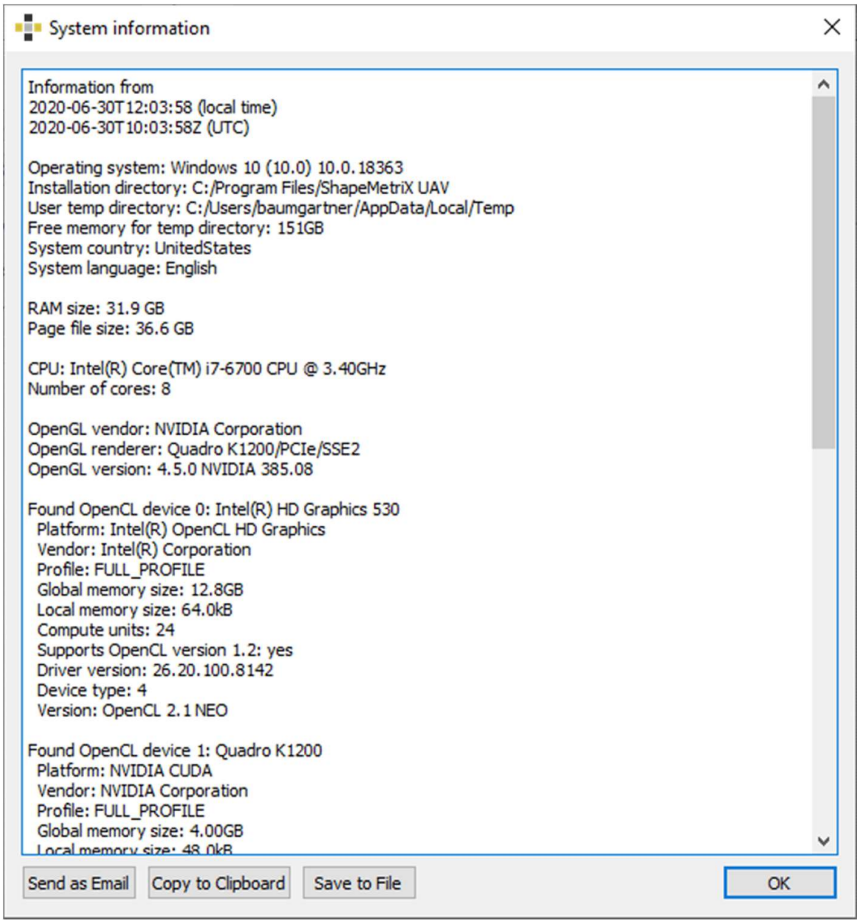


Figure 8: License Tester

5.2 Temporary Directory

- *Use system´s default directory*
  Uses system's default directory, when running computers with an ASCII operating system.
- *Use a custom directory*
  Uses a custom directory, when running computers with a non ASCII operating system. The custom directory can be anywhere on the computer but the path and the directory name must be written in Latin letters.
- *Clean up*
  Removes temporary files from the computer.