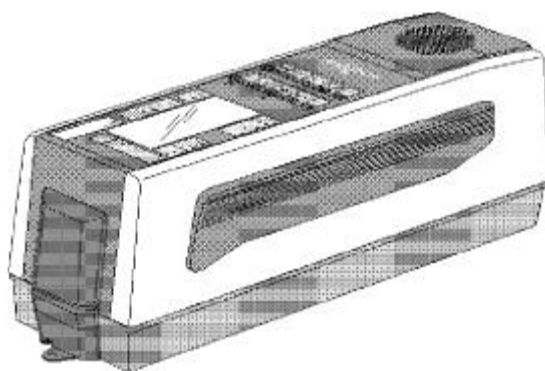




KeyWizard™

User Manual

Edition 04



(GretagMacbeth 98.42.06 9612 en; printed in Switzerland)

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Introduction

1. Why using the GretagMacbeth KeyWizard™?

- Did you ever have the need to down load readings from **GretagMacbeth** densitometers or spectrophotometers into Windows or MAC applications?
- Did you ever want to do quality control with a specific „spread sheet“ ?
- Do your measurement values have to be presented in a special form according to your needs?
- Do you want to exchange readings in a quick and simple way?
- Are you tired of typing in measurement values?
- Do you wish to connect a **GretagMacbeth** measurement device to a custom specific data base?
- Would you like to have a printout of measurement values on your Windows / Mac printer?

All this and much more is possible with the **GretagMacbeth KeyWizard™**.

2. What exactly is GretagMacbeth KeyWizard™?

GretagMacbeth KeyWizard™ is a program, which inserts selected measurement values of **GretagMacbeth** measuring devices, in a simple and easy way, directly into your active Windows or Mac application! The only thing you have to do is to measure a color sample. **GretagMacbeth KeyWizard™** will automatically get selected measurement data from your measuring device and insert this data into the actual position of your Windows / MAC application.

GretagMacbeth KeyWizard™ inserts measurement data by simulating keyboard input.

3. System requirements

- **GretagMacbeth** spectrophotometer (**SPM 10, SPM 50, SPM 55, SPM 60, SPM 100, SPM 100-II, Spectrolino/Spectroscan**) or **GretagMacbeth** densitometer (**D196, D19C, D118, D182/3/4/5/6, D200**). Any device with a ASCII printout on a serial interface.
- Cable to connect your GretagMacbeth measuring device to a serial communication port.
- Microsoft Windows 3.1 / 3.11 / 95 / NT 3.x / NT 4 or Apple Macintosh system 7.x, 8.x
- Free disk memory space > 2 MByte.

Installation of the GretagMacbeth KeyWizard™

1. Connect your measurement device to a free serial communication port. Plug in the charging unit (for D196 and D19C densitometers with a delivery date before November 94 compulsory, for spectrophotometers recommended).
2. **Windows:** Run the installation program “*SETUP.EXE*” on the floppy-disk.
Mac: Copy all files to your hard-disk.

Start the **GretagMacbeth KeyWizard™** with a double click on the **GretagMacbeth KeyWizard™** Icon.

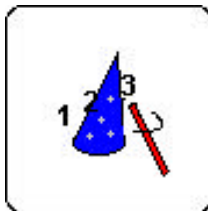


3. Press the button „Setup-assistant“.

Windows



MAC



5. Select in the setup „COM-port settings“ the serial communication „port“ to connect your unit. If the connection is ok, a corresponding picture in the **GretagMacbeth KeyWizard™** main window will be shown.

Windows



MAC



6. Select in the setup „General Settings“ the measuring conditions.
7. Choose the desired functions as well as separators between the different measurement values as described in chapter „Dialog: Program Settings“.
8. Start up your Windows / Mac application into which data have to be inserted (e.g. Word for Windows, Word for Mac, Excel, Lotus, Notepad, MS-Write ...). Put cursor at the position where you wish to insert data. Press the measurement key of the **GretagMacbeth** measurement device. Selected measurement data will be inserted at the current position.

Remarks:

A part of the available system's resources will be used by the **GretagMacbeth KeyWizard™**. This becomes apparent by a slightly decreased response time in your active application. However, it is possible to switch off the **GretagMacbeth KeyWizard™** at any time and restart it later on.

Reference Part

1. Menu points

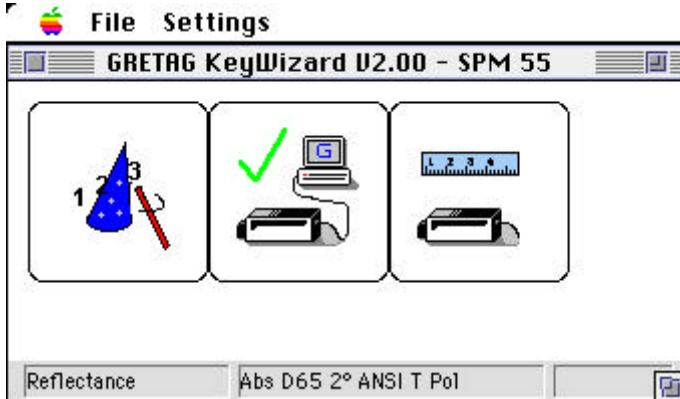
Menu	Submenu	Action
<i>File</i>	<i>Exit</i>	exit from the GretagMacbeth KeyWizard™
<i>Settings</i>	<i>General</i>	configuration of measuring conditions and measurement mode
<i>Settings</i>	<i>Program</i>	configuration of GretagMacbeth KeyWizard™ (Interface, separator, functions)
<i>Settings</i>	<i>SPM</i>	configuration of the communication interface
<i>Help</i>	<i>Info</i>	show current version

2. Main window

Windows



MAC



In the main window you see 3 buttons.

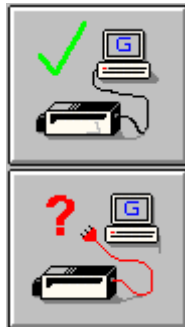
Button 1:

The first button does start the setup assistant. This assistant will guide you through the **GretagMacbeth KeyWizard™** setup procedure.

Button 2:

The second button shows you if your measurement device is connected properly. If your measurement device has not been connected to your computer during start up of the **GretagMacbeth KeyWizard™**, connection can be achieved by pressing this button.

**GretagMacbeth
KeyWizard™** is active.



**GretagMacbeth
KeyWizard™** is inactive or
not properly connected to
your measurement device

Button 3

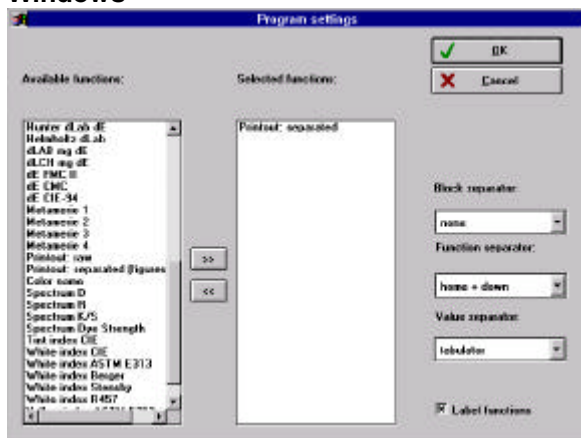
Button three does start the calibration procedure of your measurement device.

3. Settings

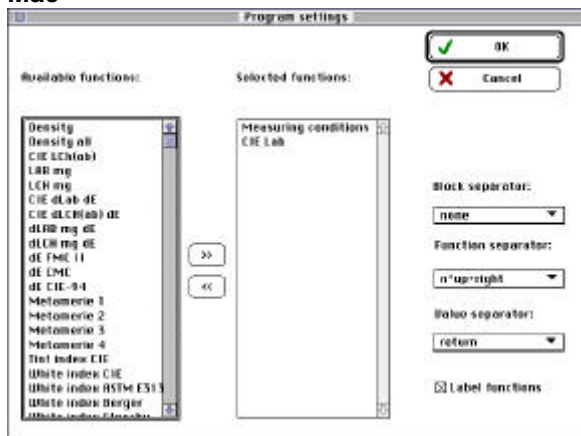
3.1 Dialog: “Program Settings”

The dialog “*Program Settings*” is used to configure the program.

Windows



Mac



3.1.1 Selection of measurement functions

In the list “*Available Functions*” all functions are listed whose measurement values can be inserted into your application. All functions needed from this list can be selected and can be moved into the list „Selected functions“ by selecting the line with a mouse click and pressing the button „>>“.

In the list “*Selected Functions*” all functions are listed whose measurement values are actually inserted into the application after next measurement. Functions which are in this list can be selected and moved back into the list „Available Functions“ by selecting the line with a mouse click and pressing the button “<<”.

In addition to select a standard function this setup allows to select 3 different printout redirection modes. Most measurement devices allow to connect to a PC by a serial interface. Often the instruments do send a serial data stream to the PC for every measurement. This data stream may be redirected by KeyWizard to the keyboard. Different redirection modes exists:

1. Printout raw: The data stream is redirected without modification to the application (the only modification KeyWizard does is removing unprintable characters).
2. Printout separated: KeyWizard will separate the data stream into items representing figures and strings. This items will be sent to the keyboard using the separators set up in KeyWizard.
3. Printout separated (figures only): Same as 2 but only figures (no strings) are sent to the application.

Limitations: Only one printout redirection mode may be active simultaneously.

Printout redirection can not be combined with standard functions.

3.1.2. Separators

3.1.2.1 What are separators?

Separators are characters which are transmitted to your application to separate figures (measurement values consisting of various figures) functions or blocks. Separators are used to separate measurement values. Three different types of separators can be defined in the **GretagMacbeth KeyWizard™**.

Separator	Function
<i>Value separator</i>	separates figures of a measurement function e.g. CIE-L, CIE-a, CIE-b.
<i>Function separator</i>	separates various measurement functions e.g. CIE-Lab, Density, CIE-LCh.
<i>Block separator</i>	will be sent out after having sent out all selected measurement functions.

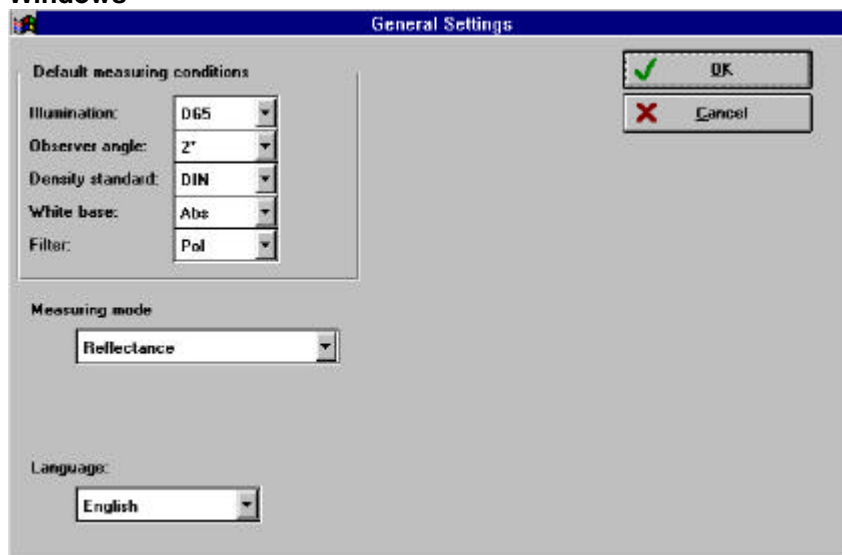
3.1.2.2. Proposition to select separators

A possibility to select separators for different standard applications:

Application	Value Separator	Function Separator	Block Separator
<i>MS-Excel (Win)</i> <i>data in rows;</i> <i>left aligned in sheet</i>	tabulator	tabulator	home+down
<i>MS-Excel</i> <i>data in rows</i>	tabulator	tabulator	n*left+down
<i>MS-Excel</i> <i>data in columns</i>	down	down	n*up+right
<i>MS-Word (Win)</i>	tabulator	tabulator	return
<i>MS-Access (Win)</i>	tabulator	tabulator	none
<i>Lotus 123</i>	right	right	none
<i>MS-Notepad</i>	space	space	return
<i>MS-Write</i>	space	space	return
<i>MS-Terminal</i>	space	space	return
<i>Claris Works 2.1</i>	tabulator	tabulator	return
<i>Free Hand 4.0</i>	tabulator	tabulator	return
<i>Aldus Page Maker</i>	tabulator	tabulator	return
<i>Teach Text 7.1</i>	tabulator	tabulator	return
<i>Simple Text 1.1</i>	tabulator	tabulator	return
<i>MS Word (Mac)</i>	tabulator	tabulator	return

3.2 Dialog „General Settings“

Windows



The screenshot shows the 'General Settings' dialog box for a Windows application. The title bar is blue with the text 'General Settings'. The dialog is divided into three main sections. The top section, 'Default measuring conditions', contains five dropdown menus: 'Illumination' (D65), 'Observer angle' (2°), 'Density standard' (DIN), 'White base' (Abs), and 'Filter' (Pol). The middle section, 'Measuring mode', has a dropdown menu set to 'Reflectance'. The bottom section, 'Language', has a dropdown menu set to 'English'. In the top right corner, there are two buttons: 'OK' with a green checkmark icon and 'Cancel' with a red X icon.

General Settings

Default measuring conditions

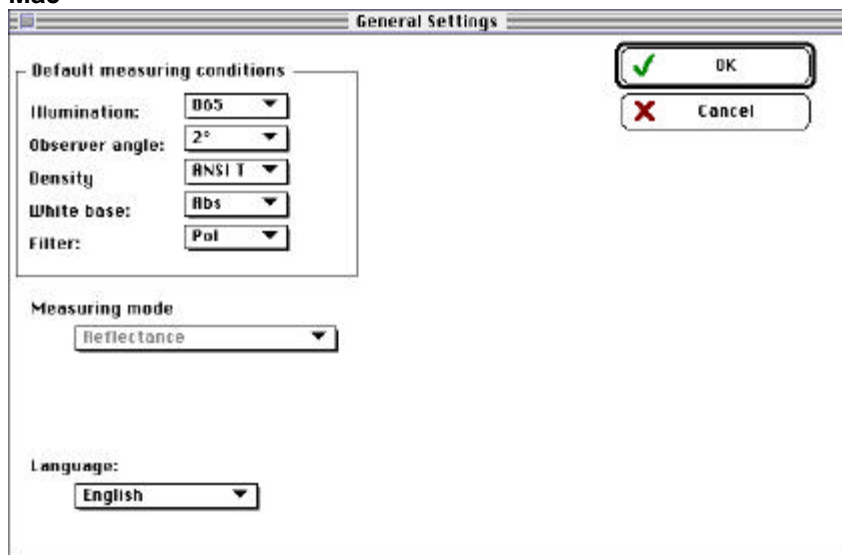
Illumination: D65
Observer angle: 2°
Density standard: DIN
White base: Abs
Filter: Pol

Measuring mode
Reflectance

Language:
English

OK
Cancel

Mac



The screenshot shows the 'General Settings' dialog box for a Mac application. The title bar is light gray with the text 'General Settings'. The dialog is divided into three main sections. The top section, 'Default measuring conditions', contains five dropdown menus: 'Illumination' (D65), 'Observer angle' (2°), 'Density' (ANSI T), 'White base' (Abs), and 'Filter' (Pol). The middle section, 'Measuring mode', has a dropdown menu set to 'Reflectance'. The bottom section, 'Language', has a dropdown menu set to 'English'. In the top right corner, there are two buttons: 'OK' with a green checkmark icon and 'Cancel' with a red X icon.

General Settings

Default measuring conditions

Illumination: D65
Observer angle: 2°
Density: ANSI T
White base: Abs
Filter: Pol

Measuring mode
Reflectance

Language:
English

OK
Cancel

3.2.1 Default measuring conditions (illumination, observer angle, filter)

You can define the default measuring conditions for your job in accordance with your wishes. You have the following options to set the measuring parameters:

- illumination (D65/D50/Dxx/A/C/F1..F11),
- observer angle (2°, 10°)
- filter (Polarisation Filter, No-Filter, D65 Filter, UV cut filter, Repro filter)
- density standard (DIN, DIN NB, ANSI A, ANSI T)
- white base (Abs = absolut, Pap = paper/substrate)

Note: Ensure that these values are correctly set to your standards before doing measurements. Some of these settings are not available or preset if **GretagMacbeth KeyWizard™** is connected to a densitometer.

The following settings are used often:

US spectralphotometer settings:	D50, 2°, No-Filter, ANSI A, Abs
US densitometer settings:	Abs
European spectralphotometer settings:	D65, 2°, Pol-Filter, DIN, Abs
European densitometer settings	Pap

3.2.2 Language

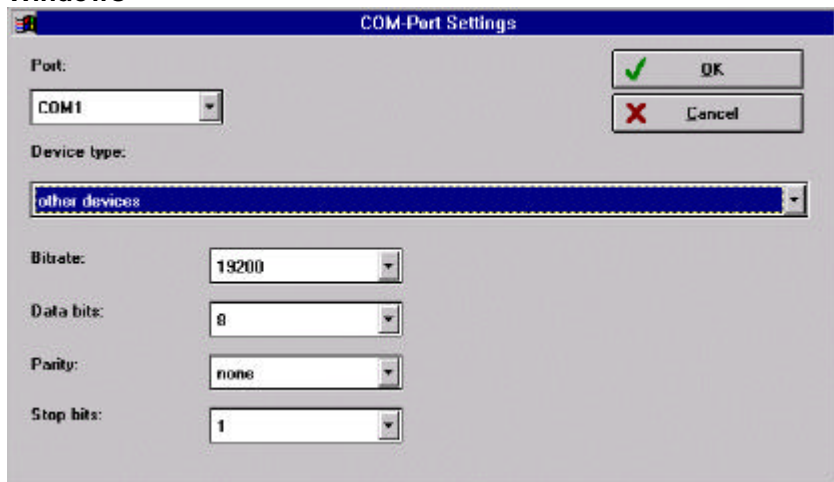
The language in which the program is communicating with you. The new language will be activated only after a restart of the program.

3.2.3 Measurement mode

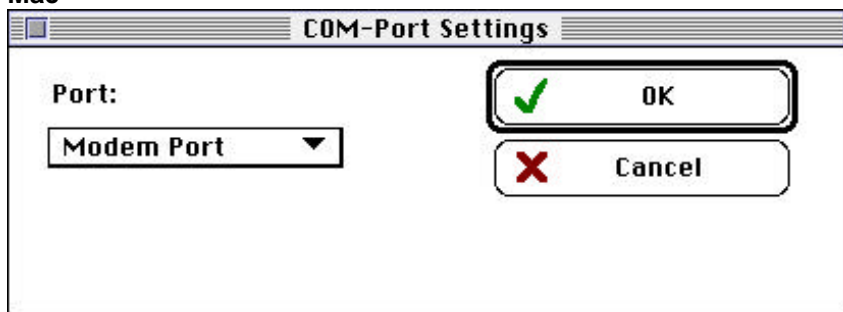
- Reflectance: To measure printed material
- Emission (absolut): To measure a monitor.
- Emission (relativ 80 cd/m²): To measure a monitor. Y=100 is equal to a white monitor with an intensity of 80 cd/m².

3.3 Dialog: “COM-Port Settings”

Windows



Mac



In the dialog “COM-Port Settings” you can define the serial communication port to which your measuring device is connected. In the main window you can check by the above shown pictures if a connection at the indicated interface port could be established. For device types unknown to KeyWizard you have to enter the communication parameters.

Hotline and Support

If you have any problems concerning this software please contact your local **GretagMacbeth** representative or contact us directly:

Switzerland:	Gretag-Macbeth AG Althardstrasse 70 CH-8105 Regensdorf Tel: +41 (1) 842 2400 Fax: +41 (1) 842 2222
United States:	GretagMacbeth LLC 617 Little Britain Road New Windsor, NY 12553 Tel: 800 622-2384 (USA and Canada), Tel: +1 (914) 565-7660 (Elsewhere) Fax: +1 (914) 561-0267
Germany:	GretagMacbeth GmbH Fraunhoferstrasse 14 D-82152 Martinsried, Munich Tel: +49 (89) 85707 0 Fax: +49 (89) 85707 111
Hong Kong:	GretagMacbeth Ltd. 12A Wardley Centre 9-11 Prat Avenue Tsimshatsui, Kowloon Tel: +852 (2368) 7738 Fax: +852 (2368) 6717
United Kingdom:	GretagMacbeth Ltd. Macbeth House Pacific Road Altrincham, Cheshire WA14 5BJ Tel: +44 (161) 926 9822 Fax: +44 (161) 926 9835

E-Mail: support@gretagmacbeth.ch
WWW: <http://www.gretagmacbeth.ch>
<http://www.gretagmacbeth.com>

