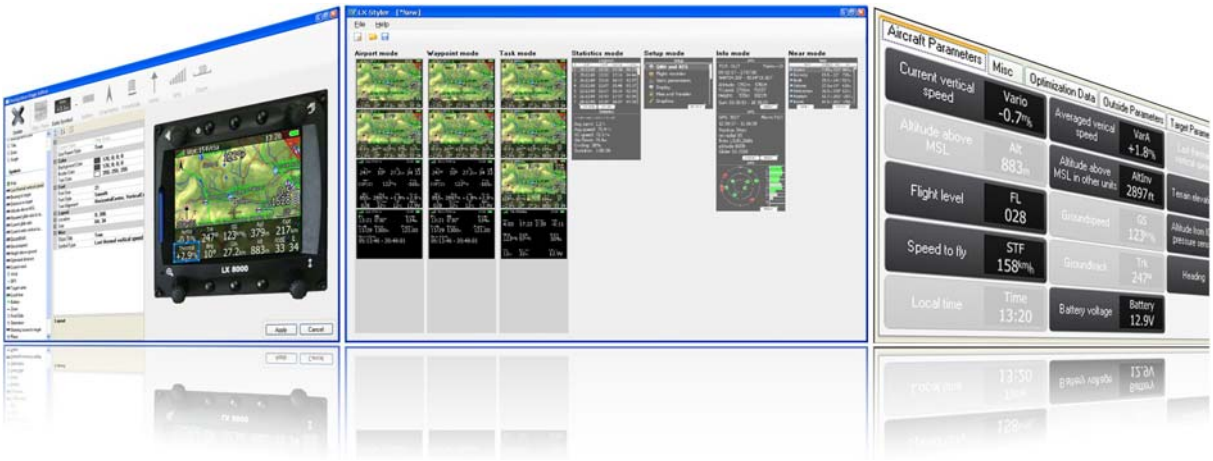
LX Styler

customization tool for LX8000

Version 1.0



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1 Introduction

1.1 What is LX Styler

LXStyler is customization tool for LX8000. Using it, you will be able to modify existing navigational pages or add new navigational pages. It allows you to choose from 80 different data symbols to suit your needs. You can also change the shape and size of an airplane or remove unnecessary elements.
Within the manual following the symbols are shown.

Yellow triangle is shown for part of manual which should be read very carefully.

Bulb icon is shown when useful hint is given for reader.

1.2 System requirements

LXStyler is written for Windows operating system. Minimum requirements are simple:
Pentium processor

- Windows XP or higher
- .NET Framework 2.0
- 10MB free disk space

1.3 Installing and uninstalling

Download program from our webpage www.lxnav.com
Run installation program and follow on-screen instructions to complete the installation.
To uninstall a program navigate to uninstall icon in LX Styler group and run it.
Or open Control panel, select Add or Remove Programs, find LX Styler line and press Remove button

1.4 Starting LX Styler

After successful installation a program group named LX Styler is created and an icon is placed on your desktop. Double click the icon to run.

1.5 Get in contact with us

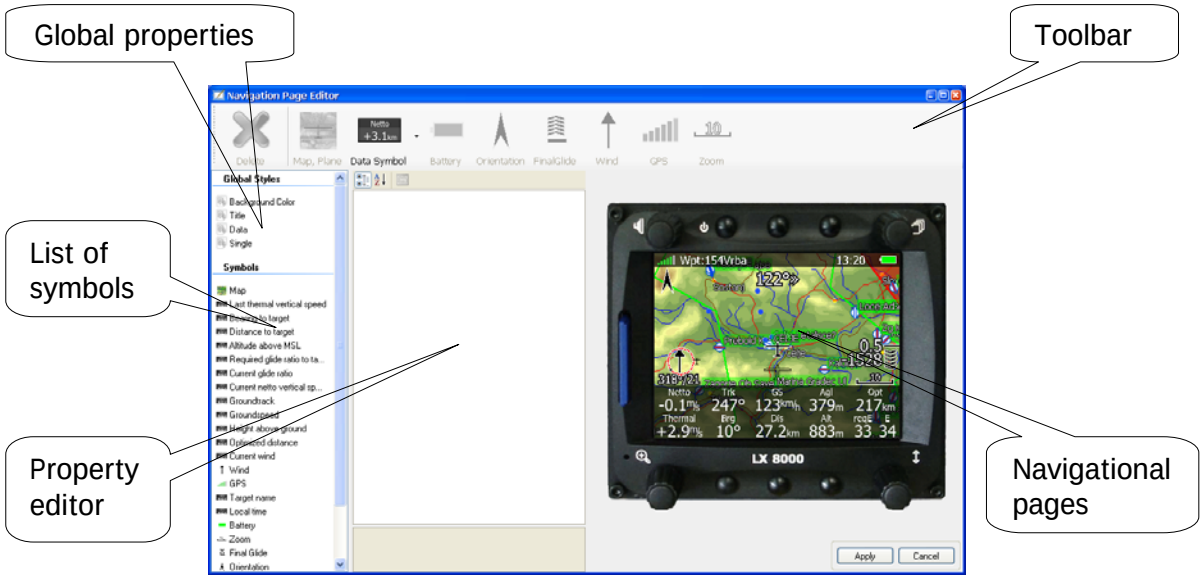
In case you have difficulties understanding or running LX Styler or you discovered a bug, please send us an email to info@lxnav.com or call us +386 3 490 46 70
Visit our webpage regularly for free updates and new help files.

2 Getting Started

2.1 LX Styler windows

Once a program is started the main window will show the last configuration opened or it will be empty.

The main window consists of menu, toolbar and main view, where all seven LX8000 navigational modes are shown, namely airport mode, waypoint mode, task mode, statistics mode, setup mode, info mode and near mode.
You will notice that the last four modes are in gray and this means that it is not possible to modify them.
In each mode relevant pages are shown. If you left click on any of navigational pages the Navigation Page editor will be opened.



The Navigation Page editor is used to define all small details of the selected page. It is divided into four sections:

- Toolbar
- Global properties
- List of all symbols on the page
- Property editor for selected symbol

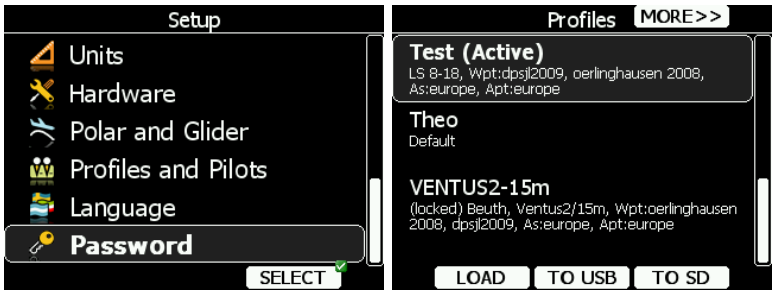
- Graphical representation of LX8000 navigational page

More details about the Navigation Page Editor are given in chapter 2.4 and 3.2.

2.2 Managing configurations

The complete look and feel of the navigational pages is stored in a configuration file with .lxprofile extension. Configuration file can be newly created or it can be also downloaded from the LX8000.

To download configuration file from LX8000 enter Setup mode on LX8000 and select Profile and Pilots menu item. Press ENTER and MORE>> button twice. Press TO SD to copy selected profile to a SD card.



You can now load stored configuration file in LX Styler through File->Open Configuration or pressing open configuration icon on toolbar.

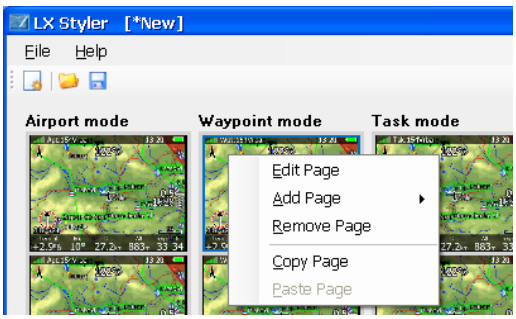
To create a new configuration press File->New Configuration or select new configuration icon on toolbar.

The configuration file consists also of other settings essential for the LX8000. Variometer setting, pilot information, files in use and glider polar are also stored in the configuration file. This settings cannot be modified with LX Styler and can be changed only on the LX8000 itself.
If you create a new profile all this settings will be set to default values and you will have to modify them on the LX8000.

Once configuration that suits your needs has been created you can save it with File->Save Configuration or by clicking the save configuration icon on a toolbar.

2.3 Managing navigational pages

Navigational pages can be easily moved, copied or removed using the mouse. A single left click on a selected navigation page will open Navigation Page Editor. Press right mouse button and a pop up menu will open.



Select appropriate menu item to add, remove, copy or edit page. You can also drag page to another location. Press left mouse button and while holding it down, drag selected navigational page to desired location. A red line will indicate new position of page. Release mouse button to place page.

2.4 Navigation Page Editor

If you left click on any of navigational pages, or you selected Edit page on the popup menu, Navigation Page Editor will be opened. It is divided into four sections:

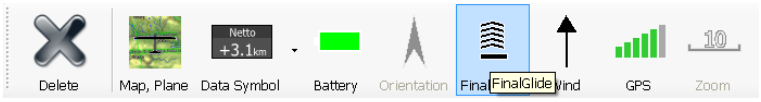
- **Toolbar** contains all symbols which can put on a navigational page.
- **Global properties** define global colors for page symbols
- **List** of all symbols on the page
- **Property editor** for selected symbol displays of all the properties for selected symbol
- **Graphical representation** of LX8000 navigational page.

Select an item from a list or pick it on the LX8000 screen. The selected item will be highlighted on the list and a blue rectangle will be drawn around it. Property editor will fill in the properties for the selected item.

Once you have finished editing a page, press Apply button to accept changes and return back to main window. Press Cancel to abandon all changes and return back to main window.

2.4.1 Toolbar

Select a desired item from the toolbar to place it on page. Some of items will be grayed if they are already on the page or they are unavailable.

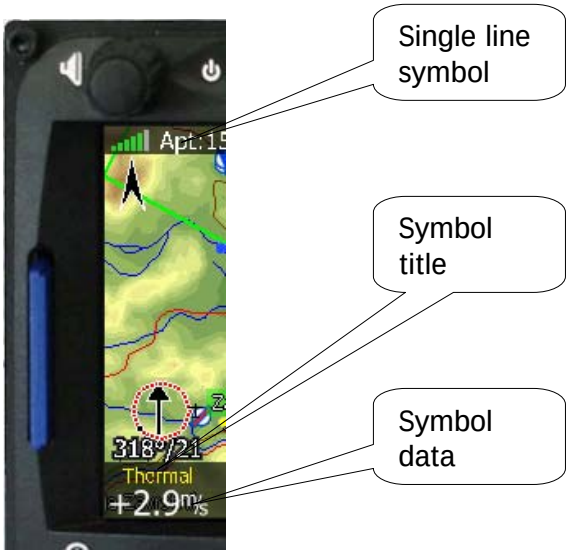


Left click on item and it will automatically be placed in the top-left corner of the page. If you select Data Symbol a new dialog will open where you can then select the desired symbol.

Data symbols are grouped in six groups: aircraft parameters, outside parameters, target parameters, task parameters, optimization data and misc tab. More details about data symbols on particular tab are given in chapter 3.2.2.
The toolbar also has a delete button which will delete the currently selected item. You can also delete an item pressing delete key.

2.4.2 Global Styles and Symbols list

When you want to change color for all symbols on the page simultaneously, you should use global styles. Global styles have four items:
Background color defines background color of page. Default color is black
Title style defines font, background color, border color and text color of data symbol title
Data style defines font, background color, border color and text color of data value
Single line symbol style defines font, background color, bolder color and text color of single line data symbols.

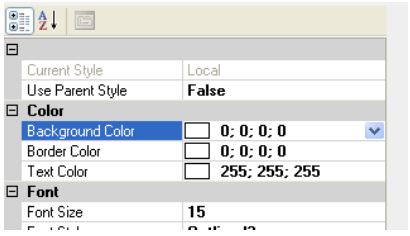


If you change color or font of any of global styles, it will be applied only to the data symbols, which have property “Use Parent Style” set to true. If you wish to force a global style to all elements, right-click selected global style and select Apply ‘Data’ style to all.

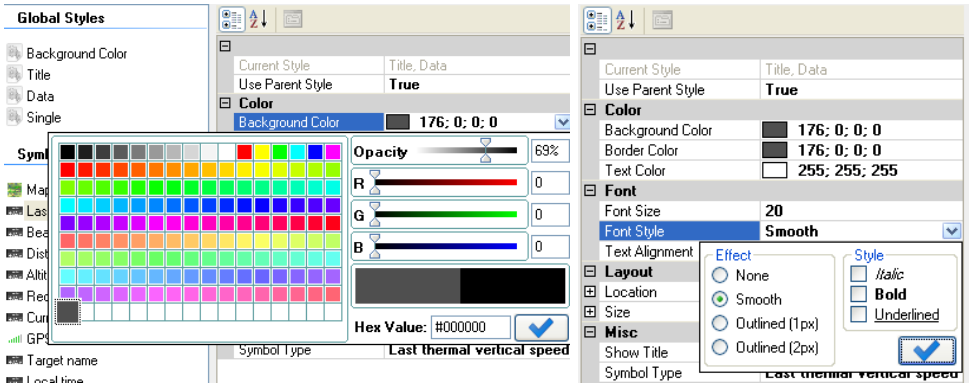
The symbol list shows all elements of a page. Left click on item to select it. It will highlight it and a blue rectangle will be drawn around it in graphical view and properties for selected item will be shown in property editor.
Right click on item and a popup menu will appear. It is possible to copy style and paste it to another item or you can also delete item for page

2.4.3 Property editor

Property editor shows all the properties of selected element, which can be modified. Property editor is a table having two columns.



Left column displays property name and right column displays property value. Click on property value to modify it. Press blue arrow on right side and additional dialog for selected property will be displayed.



At the bottom side of property editor hint for selected item is shown. Properties can be categorized or sorted by alphabet. Press the sort button or category button at the top or the property editor.

2.4.4 LX8000 Screen

LX8000 Screen is a graphical representation of navigational page.

Point to a symbol and select it with left mouse click. If you hold left mouse button on a symbol, you can drag it around and place it into the desired position.

3 Commands

3.1 Main window

Main window commands are new configuration, open configuration, save configuration, recent files and exit. Recent files are displayed only if a previous configuration is opened. About dialog will display program version.

3.1.1 New configuration

New configuration will create a new configuration file with default navigational pages and default settings.

Configuration file consists also of other settings essential for LX8000. Variometer setting, pilot information, files in use and glider polar are also stored in configuration file. These settings cannot be modified with LX Styler and can be changed only on LX8000 itself.
If you create a new profile all this settings will be set to default values and you have to modify them on the LX8000.

3.1.2 Open configuration

Open configuration opens existing configuration file.

3.1.3 Save configuration

Save configuration saves current configuration file.

3.1.4 Exit

Exit will close LX Styler. Please make sure current configuration is saved before exiting program as no prompt will be given that configuration is not saved. You may also exit program pressing Alt+F4 key combination.

3.1.5 Edit page

When you right click on a page a popup menu will appear. Select Edit Page item and Navigation Page Editor will then open.

3.1.6 Add page

Select this option to add a blank page. Page can be added before selected page or after it.

3.1.7 Remove page

Select Remove page to delete a page.

3.1.8 Copy page

Page can be also copied. Select a page and copy it to a local clipboard. Once page is copied it can be pasted afterwards.

3.1.9 Paste page

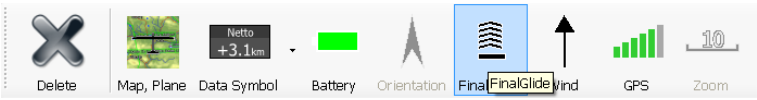
Paste a page. This will create a copy of a page in the clipboard.

3.2 Navigational Page Editor

Navigation Page is divided into four sections:

- **Toolbar** is containing all symbols which can be put on a navigational page.
- **Global properties** define global colors for page symbols
- **List** of all symbols on the page
- **Property editor** for selected symbol displays of all the properties for selected symbol
- **Graphical representation** of LX8000 navigational page.

3.2.1 Toolbar



The toolbar contains the different symbols which can be placed on a navigational page. The following symbols are found on toolbar: Map, aircraft symbol, data symbol, battery, orientation, final glide symbol, wind, gps status and zoom symbol
Some of the symbols can be placed only once on a page and will be grayed if they are already on a page.
Some of the symbols can be placed on a page only in combination with others and will be grayed if a particular symbol is missing. (e.g.: zoom symbol can be placed on a page only if map, and aircraft symbol is already on the page.)
When you click on data symbol selector a dialog will open.

Data symbols are grouped in six logical groups: aircraft parameters, outside parameters, target parameters, task parameters, optimization data and misc tab.
More details about particular symbol is given in next chapter

3.2.2 Symbols

Map symbol

A map will be added to a page. By default it will be stretched to the whole screen. Select edge points to resize it or to move it around. Map symbol is always added together with aircraft symbol.

Aircraft symbol

The aircraft symbol shows the current position on the map. The aircraft symbol will automatically be added together with the map.

You will notice there are actually two aircraft symbols shown. The one drawn as a shadow is showing position of on airplane when Track Up, Goal Up or Heading Up map orientation is

selected on the LX8000 (See LX8000 manual for more details about map orientation). In property editor this position is referred as Track and the other position is referred as North. There are several types of aircraft available. Change style to select different aircraft symbol. You can also add a wind vector, which will rotate around the symbol. Set wind to true.

Battery

Battery will visually display current level of battery. Green indicates battery is ok. It will turn yellow and later red, when battery is empty.

Orientation symbol

Orientation symbol points always towards true north. It can be placed on a page only when map symbol is already on a page.

Final glide symbol

Final glide symbol is very complex symbol and it is highly recommend to have it on the page. It will display current MacCready value, arrival altitude at goal and many other features which are very important for task start procedure. Please refer to LX8000 manual for more details.

Wind symbol

Wind symbol shows wind direction. It is useful to combine it with wind data symbol in order also to get wind strength. Around wind symbol a thermal assistant can be shown during circling. Enable or disable this feature with “Has Thermal” property.

GPS symbol

GPS shows current status of GPS. Green color indicates GPS is acquiring 3D position and yellow color stands for 2D position fix. When red no position is calculated by GPS. Each bar represents two visible satellites.

Zoom symbol

Zoom symbol shows current map zoom. It can be used only when the map symbol is already on the map. Zoom can presented in two ways; number on symbol indicates the length of the zoom symbol or number indicates length of whole screen. Use “Full” property to modify it.

Data symbol

There are a variety of data symbols available. A data symbol is a numerical representation of different parameters. A data symbol consists of title field, which stores name of data symbol and data field which is shown a the paramter. Title can be omitted if Show title property is set to false. When „Use Parent Style“ property is set to true, data symbol will follow global styles properties. Disabling „Use Parent Style“ property allows a full customization of selected data symbol.

Values written in data symbols inside LX Styler are totally useless and are not correlated to each other. These values are only for demonstration purposes.

Data symbols are grouped into six groups.

Aircrafts parameters

Title	Description
Vario	Current vertical speed
VarA	Averaged vertical speed (average time can be set in LX8000)
Thermal	Last thermal vertical speed
Netto	Current netto vertical speed
Alt	Altitude above MSL
AltInv	Altitude above MSL in other units
Gnd	Terrain elevation
Agl	Height above ground
FL	Flight level
AltIGC	Altitude from IGC pressure sensor
GS	Groundspeed
TAS	True airspeed
STF	Speed to fly
STFreq	Speed to fly for required MacCready (used for Pirker final glide)
Trk	Groundtrack
Hdg	Heading
E	Current glide ratio
Time	Local time
Battery	Battery voltage
Emc	MacCready glide ratio
Mc	Set MacCready value

Outside parameters

Title	Description
Wind	Current wind with direction and strength
cWind	Head/Tail wind component. There are two values displayed. First is calculation based on track and wind direction and second is difference between TAS and GS.
OAT	Outside temperature
Humidity	Relative humidity. (A special sensor must be attached to LX8000)
Dew.Temp	Dewpoint temperature. (A special sensor must be attached to LX8000)
Pot.Temp	Potential temperature

Target parameters

Title	Description
Dis	Distance to target
DisInv	Distance to target in other units
Arrival	Arrival altitude at target
ArrMc0	Arrival altitude at target with MacCready setting=0
ReqAlt	Required altitude to reach target
Brg	Bearing to target
Radial	Radial from target
To	Steering course to target
ETA	Estimated time of arrival
ETE	Established time en route
reqE	Required glide ratio to target
Target	Target name
Req.Mc	Required MacCready value to target, which takes into account also wind.
Elevation	Target elevation
Rwy.Dir	Target runway direction
Rwy.Len	Target runway length
Frequency	Target frequency
Sunrise & Sunset	Sunrise and sunset time at target location
Description	Additional description of target
toWind	Head/tail wind to target. There are two values displayed. First is calculation based on bearing and wind direction and second is difference between TAS and GS.

Task parameters

Title	Description
tDis	Task distance or task remaining distance
Fin.Elev	Task finish elevation
tArr	Arrival altitude on task finish calculated through all remaining task points
tArrMc0	Arrival altitude on task finish calculated through all remaining task points with MacCready set to 0
tETA	Task estimated time of arrival
tETE	Task established time
tRemain	Task remaining time
tDelta	Task delta time. A difference between tETA and tRemain
tskE	Required task glide ratio
Tsk.Sp	Task speed so far
tReq.Sp	Task required speed calculated from tRemain and tDis
60'.Sp	Last 60 minutes speed
tReq.Mc	Required MacCready value towards next task point, which takes into account also wind.
trqSTF	Required speed to fly calculated from required MacCready
xTrk	Current leg cross track distance

Optimization data

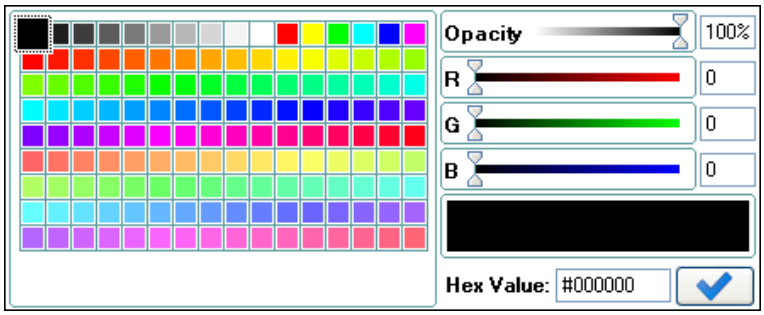
Title	Description
Opt	Optimized distance
Tri	Optimized FAI triangle distance

Misc

Title	Description
Label	An arbitrary text label. You can type whatever text you like inside.

3.2.3 Color editor

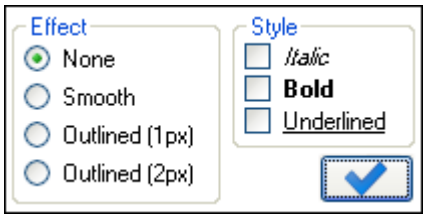
Color editor is used to define a color for a selected property. The color dialog will open if you click on down arrow in property value cell.



Color can be selected from a grid of predefined colors on the left side of dialog. Or you may change red, green and blue values with sliders or enter numerical values.
It is also possible to define opacity for selected color. Slide opacity slider towards zero to make selected property transparent. Color can be defined with hex value.

3.2.4 Font Style

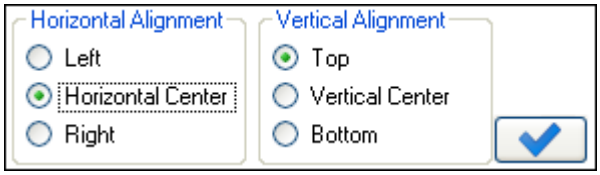
If you click on font style property a font style dialog will open.



Different font styles can be selected there

3.2.5 Text Alignment

Tex alignment dialog is used to define how text is aligned inside a symbol.



4 Revision history

December 2009	Initial release of manual