

CHAPTER 2

CREATING PROJECTS

2.1.	Project Information and Protection	1
2.2.	Global Settings	3
2.2.1.	Languages	4
2.2.2.	Font Templates.....	5
2.2.3.	Picture Database	6
2.2.4.	Sound Database	10
2.2.5.	Text Database.....	12
2.3.	Working with Tags.....	15
2.3.1.	Types of Tags	15
2.3.2.	Opening and Closing Tags Editor.....	15
2.3.3.	Creating Tags by Tags Editor	16
2.3.4.	Importing and Exporting Tags.....	19
2.3.5.	Adding/Deleting/Renaming Tag Groups.....	19

2.1. Project Information and Protection

You can get the project information and set up passwords to protect your project, the password table and the global macros by using the Project information & Protection dialog box. To open the dialog box, you can do one of the followings:

- 1) In the Project Manager tool window, double-click the Project node (📁).
- 2) In the menu bar, click Project to bring up the Project sub-menu. Click Information & Protection... in the Project sub-menu.

The following is an example of the Project Information and Protection dialog box.

Project Information & Protection

Project Name: Author:

Created Time/date:

Last Saved Time/date: Version:

Developer Password:

Project File Protection

Protect Use Developer Password

Password Table Protection

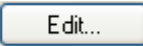
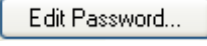
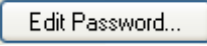
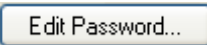


Protect Use Developer Password

Global Macro Protection

Protect Use Developer Password

Note:

The following table describes how to read or use each of the items in the dialog box.

Item		Description
Project Name		The name of the project. It is also the file name of the project.
Author		The author of the project.
Created Time/date		The time and date when the project was created.
Last Saved Time/date		The last time and date when the project was saved.
Version		The version number of the Software that was used to save the project last time.
Developer Password		Click it to bring up the Edit Developer Password dialog box and specify the developer password. The developer password must be an unsigned integer and can have up to 9 digits. The default developer password is 000000000 (nine 0's) for new projects and new panels. When you download the runtime data of an application to a panel, the panel compares its developer password with the developer password of that application. If they are identical, the panel accepts the download operation immediately. If they are different, the panel asks you to enter the developer password of the application. This is to make sure you have the right to use the runtime data. After you enter the application's developer password, the panel accepts the download operation and takes the developer password of the application as its developer password.
Project File Protection	Protect	Check this item to enable the project file protection. You need to enter the specified password to open the project file when this item is checked.
	Use Developer Password	Available when the Protect item is checked. Check this item if you want to use the developer password for the protection.
		Available when the Use Developer Password item is unchecked. Click it to bring up the Edit Password dialog box and specify the password.
Password Table Protection	Protect	Check this item to enable the password table protection. You need to enter the specified password to view the password table of any panel application of the project when this item is checked.
	Use Developer Password	Available when the Protect item is checked. Check this item if you want to use the developer password for the protection.
		Available when the Use Developer Password item is unchecked. Click it to bring up the Edit Password dialog box and specify the password.
Global Macro Protection	Protect	Check this item to enable the global macro protection. You need to enter the specified password for viewing any global macro of the project when this item is checked.
	Use Developer Password	Available when the Protect item is checked. Check this item if you want to use the developer password for the protection.
		Available when the Use Developer Password item is unchecked. Click it to bring up the Edit Password dialog box and specify the password.
Note		You can type a note for the project.
OK		Click it to close the dialog box and accepts all changes.
Cancel		Click it to close the dialog box and discard all changes.
		Click it to open the help document for more details about the dialog and how to use it.
		Click it to close the dialog box and discard all changes.

2.2. Global Settings

Global settings are the settings that can be used by all panel applications in the same project. They are accessible and modifiable throughout your project. The global settings help a designer to construct a project that can be flexible and easy to update. Designers can make changes to the overall design of the panel application by revising the global settings directly.

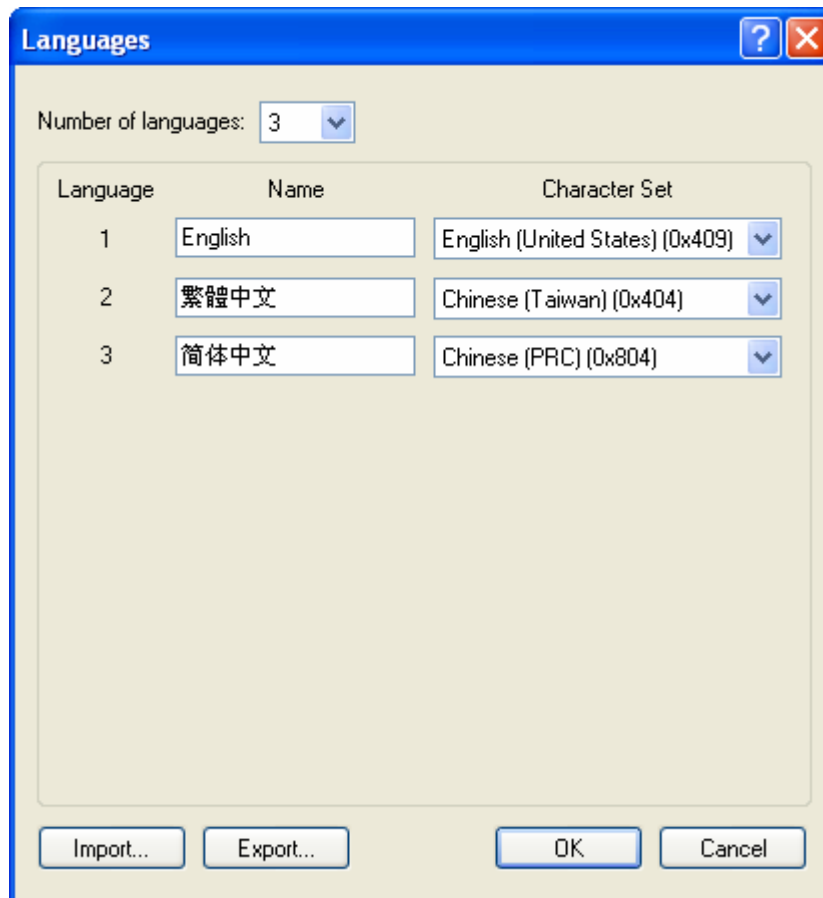
You can complete all the global settings in the corresponding dialog box. To open the dialog box, you can double-click the related node in the Global node in the Project Manager tool window, or you can click Project to bring up the Project sub-menu in the menu bar, and then click the related command in the Project sub-menu.

The global settings contain the following items.



- **Languages**
Described in [Section 2.2.1.](#)
- **Font Templates**
Described in [Section 2.2.2.](#)
- **Picture Database**
Described in [Section 2.2.3.](#)
- **Sound Database**
Described in [Section 2.2.4.](#)
- **Text Database**
Described in [Section 2.2.5.](#)
- **Global Tags**
Described in [Section 2.3.](#)
- **Global Macros**
Described in [Chapter 14.](#)

2.2.1. Languages

This section describes how to set up the languages for the project using the Languages dialog box. Each panel application in the project can have up to 10 languages for the screen texts. The following is an example of the Languages dialog box.

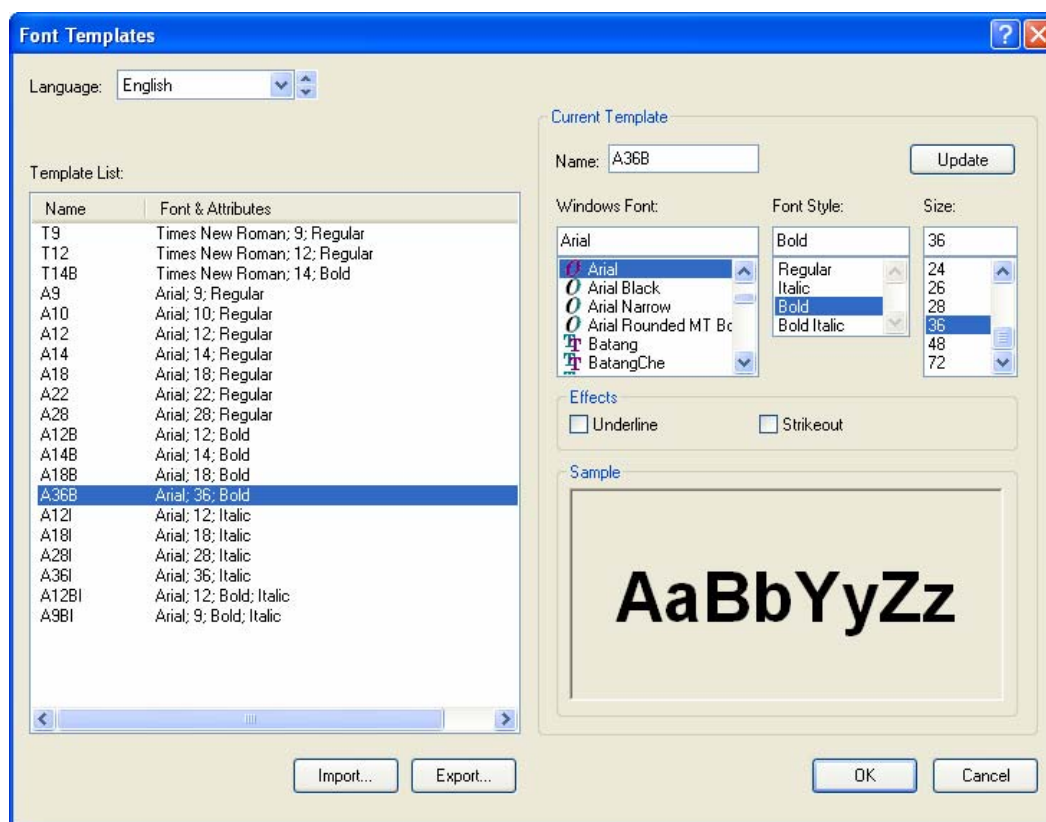


The following table describes each property in the Languages dialog box.



Property	Description
Number of language	Specifies how many languages the project will have.
Language	The index of the language.
Name	Specifies a name for a language. The name must be unique within the project.
Character Set	Specifies the character set for a language to determine how to translate the bytes in the text into characters on the screen.
Import...	Click it to import the languages settings from a LNG file.
Export...	Click it to export the languages settings to a LNG file.
OK	Click it to close the dialog box and accepts all changes.
Cancel	Click it to close the dialog box and discard all changes.
	Click it to open the help document for more details about the dialog and how to use it.
	Click it to close the dialog box and discard all changes.

2.2.2. Font Templates

The following is an example of the Font Templates dialog box.



The following table describes how to read or use each of the items in the dialog box.

Item	Description	
Language	Specifies the language that you are working for.	
Template List	Lists the font templates of the selected language. You can select a font template here as the current template.	
Current Template	Name	The name of the current template.
	Windows Font	Specifies the Windows font for the current template.
	Font Style	Specifies the font style for the current template.
	Size	Specifies the size for the current template.
	Underline	Specifies if the Underline feature is selected for the current template.
	Strikeout	Specifies if the Strikeout feature is selected for the current template.
	Update	Click it to update the selected template using the new settings.
Import...	Click it to import the font templates from an FTF file.	
Export...	Click it to export the font templates to an FTF file.	
OK	Click it to close the dialog box and accepts all changes.	
Cancel	Click it to close the dialog box and discard all changes.	
	Click it to open the help document for more details about the dialog and how to use it.	
	Click it to close the dialog box and discard all changes.	



2.2.3. Picture Database

The picture database contains all the pictures used by the project. The picture database is empty initially after the project is created.

2.2.3.1. Importing and Exporting Pictures

■ Importing Pictures

You need to import a picture before you can use it for the project. There are 5 ways to import pictures:

- 1) Use the Picture Database dialog box to import one picture at a time from a picture file. The types of importable picture files include: BMP, JPG, GIF, and WMF.
- 2) Use the Picture Database dialog box to import many pictures at a time from a picture database (PDB) file.
- 3) Use the Picture Database dialog box to import one or many pictures at a time by dragging the pictures files from the Windows Explorer to Picture Database list.
- 4) Click the icon  to select and import a picture file when you specify a picture in a dialog box or a property sheet.
- 5) Click the icon  to select and import a picture in a picture database file when you specify a picture in a dialog box or a property sheet.

■ Exporting Pictures

You can export the pictures of the project so the other projects can share those pictures by importing them. There are 2 ways to export pictures:

- 1) Use the Picture Database dialog box to export one picture at a time to a picture file.
- 2) Use the Picture Database dialog box to export many pictures at a time to a picture database (PDB) file.

2.2.3.2. Picture Groups

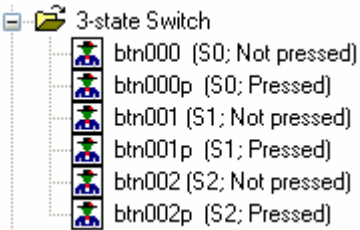






The picture database can contain picture groups.

A picture group is a collection of pictures. Each picture in a picture group represents one state. When a picture group is displayed as the picture shape for an object, the picture that corresponds to the current object state is shown. This is the main benefit of using a picture group as the object shape because it can show each object state with a different picture.

When a picture group is used as the shape for buttons or switches, you may want it to have a different look when it is pressed. In order to support the pressed look, a picture group needs two pictures for each state; one picture is for the normal (released) look and another picture is for the pressed look.

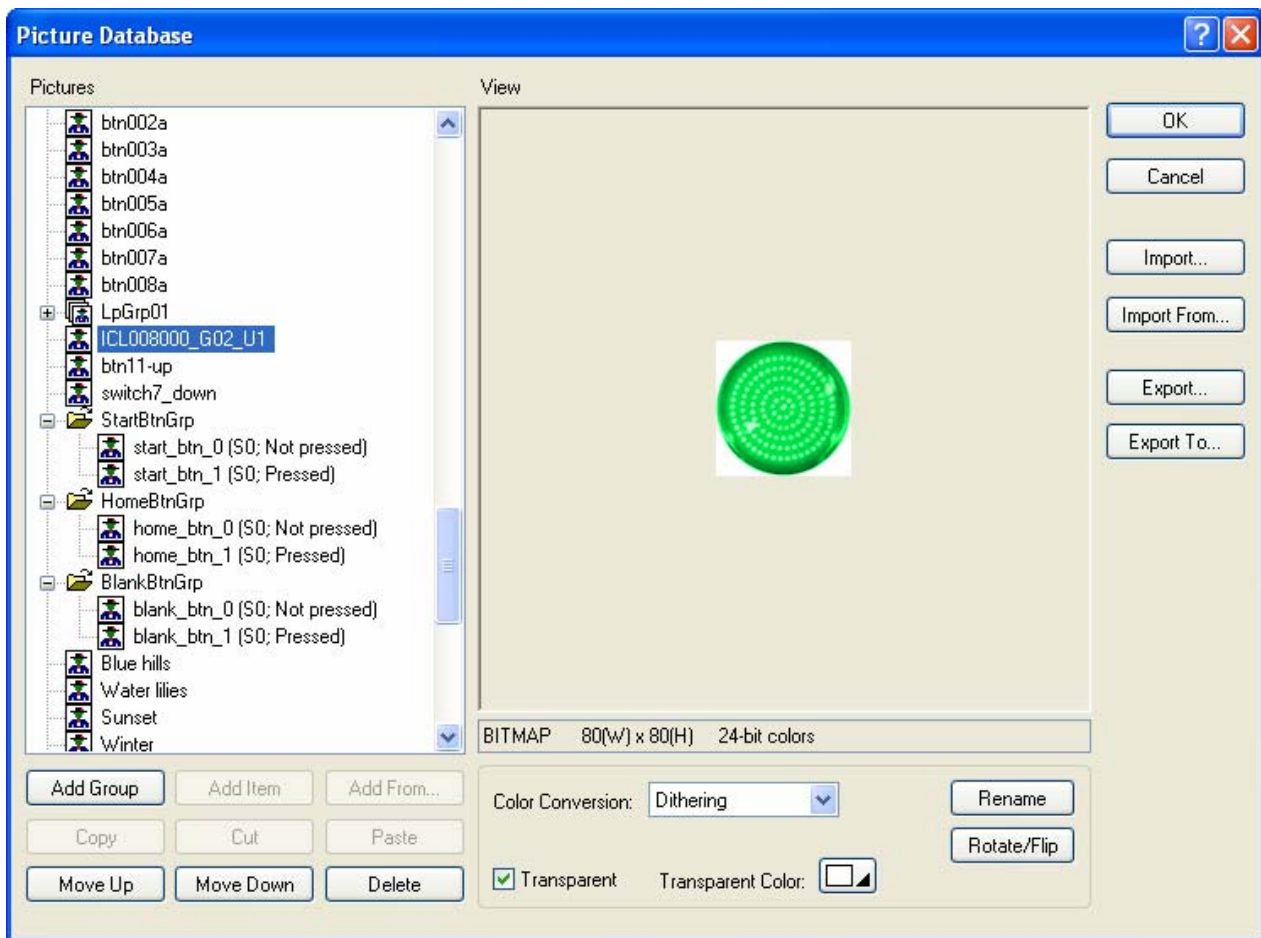
For example, a 3-state multi-state switch needs a picture group that contains 6 pictures as its picture shape if the pressed look is required.

The following is an example of a picture group supporting 3 states and the pressed look.



Picture Group	State	Pictures
	0 (Normal/Released)	
	0 (Pressed)	
	1 (Normal/Released)	
	1 (Pressed)	
	2 (Normal/Released)	
	2 (Pressed)	

2.2.3.3. Picture Database dialog box




























The following is an example of the Picture Database dialog box.



The following table describes how to read or use each of the items in the dialog box.

Item	Description
	Click it to open the help document for more details about the dialog and how to use it.
	Click it to close the dialog box and discard all changes.
Pictures	Lists the pictures and picture groups of the project. You can select a picture or a picture group as the current selection. You can also make multiple selections.
View	Shows the current selection. If the selection is a picture group, the first picture of the group will be shown.
OK	Closes the dialog box and accepts all changes to the picture database.
Cancel	Closes the dialog box and discards all changes to the picture database.
Import...	Imports a picture from a picture file. The types of importable picture files include: BMP, JPG, GIF, and WMF.
Import From...	Imports pictures from a picture database (PDB) file.
Export...	Exports the current picture to a picture file.
Export To...	Exports the current selection to a picture database (PDB) file.
Add Group	Adds one picture group to the picture database.
Add Item	Imports a picture from a picture file and adds the picture to the current picture group.

Continued

Item	Description																
Add From...	Imports pictures from a picture database (PDB) file and adds those pictures to the current picture group.																
Move Up	Moves the selection down in the list																
Move Down	Moves the selection up in the list																
Delete	Delete the selection.																
Color Conversion	Select Dithering or Nearest Color as the color conversion method. If the color resolution of a picture is not compatible with the target panel, the application compiler will use the specified method to convert the picture data so it can be displayed without too much color distortion at runtime.																
Support Pressed Look	Available when the selection is a picture group. Check this item so the current picture group supports the pressed look. When a picture group supports the pressed look, it needs two pictures for each state; one picture is for the normal (released) look and another picture is for the pressed look.																
Transparent	<p>Check this item to enable the transparent feature of the selection; if the selection is a picture, the picture will be transparent for the specified transparent color; if the selection is a picture group, all the pictures of the picture group will be transparent for the specified transparent color. Note that this feature is effective only when a picture or a picture group is shown as the picture shape for an object.</p> <p>It is a common practice to make a picture transparent for a certain color so the picture can be shown as a non-rectangle shape. The following are some examples:</p> <table border="1"> <thead> <tr> <th>Original Picture</th> <th>Transparent Color</th> <th>Picture Shown</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Original Picture	Transparent Color	Picture Shown													
Original Picture	Transparent Color	Picture Shown															
																	
																	
																	
Transparent Color	Available when the Transparent item is checked. Select a color for the transparent color.																
Rename	Click this button to rename the current picture or the current picture group.																
Rotate/Flip	<p>Rotates or flips the current picture and saves it as another picture in the picture database. You can select one of the following 7 methods for the Rotate/Flip operation.</p> <table border="1"> <thead> <tr> <th>Method</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>90°</td> <td>Rotates the picture clockwise by 90 degree</td> </tr> <tr> <td>180°</td> <td>Rotates the picture clockwise by 180 degree</td> </tr> <tr> <td>270°</td> <td>Rotates the picture clockwise by 270 degree</td> </tr> <tr> <td>X</td> <td>Flips the picture over X axis</td> </tr> <tr> <td>90° & X</td> <td>Rotates the picture clockwise by 90 degree and flips it over X Axis</td> </tr> <tr> <td>Y</td> <td>Flips the picture over Y axis</td> </tr> <tr> <td>90° & Y</td> <td>Rotates the picture clockwise by 90 degree and flips it over Y Axis</td> </tr> </tbody> </table>	Method	Description	90°	Rotates the picture clockwise by 90 degree	180°	Rotates the picture clockwise by 180 degree	270°	Rotates the picture clockwise by 270 degree	X	Flips the picture over X axis	90° & X	Rotates the picture clockwise by 90 degree and flips it over X Axis	Y	Flips the picture over Y axis	90° & Y	Rotates the picture clockwise by 90 degree and flips it over Y Axis
Method	Description																
90°	Rotates the picture clockwise by 90 degree																
180°	Rotates the picture clockwise by 180 degree																
270°	Rotates the picture clockwise by 270 degree																
X	Flips the picture over X axis																
90° & X	Rotates the picture clockwise by 90 degree and flips it over X Axis																
Y	Flips the picture over Y axis																
90° & Y	Rotates the picture clockwise by 90 degree and flips it over Y Axis																

2.2.4. Sound Database

The sound database contains all the sounds used by the project. The sound database is empty initially after the project is created.

You can use a function button to play a sound or stop playing sound. For details, please see [Section 5.4.1 Basic Operations](#) of function buttons

You can use Execute General Command (\$C2.f) command flag setting in Command Block to play a sound. For details, please see [Section 3.6.7 Using General Commands](#).

2.2.4.1. Importing and Exporting Sounds

■ Importing Sounds

You need to import a sound before you can use it for the project. There are two ways to import sounds:

- 1) Use the Sound Database dialog box to import one sound at a time from a sound file. The types of importable sound files include: WAV.
- 2) Use the Sound Database dialog box to import many sounds at a time from a sound database (SDB) file.

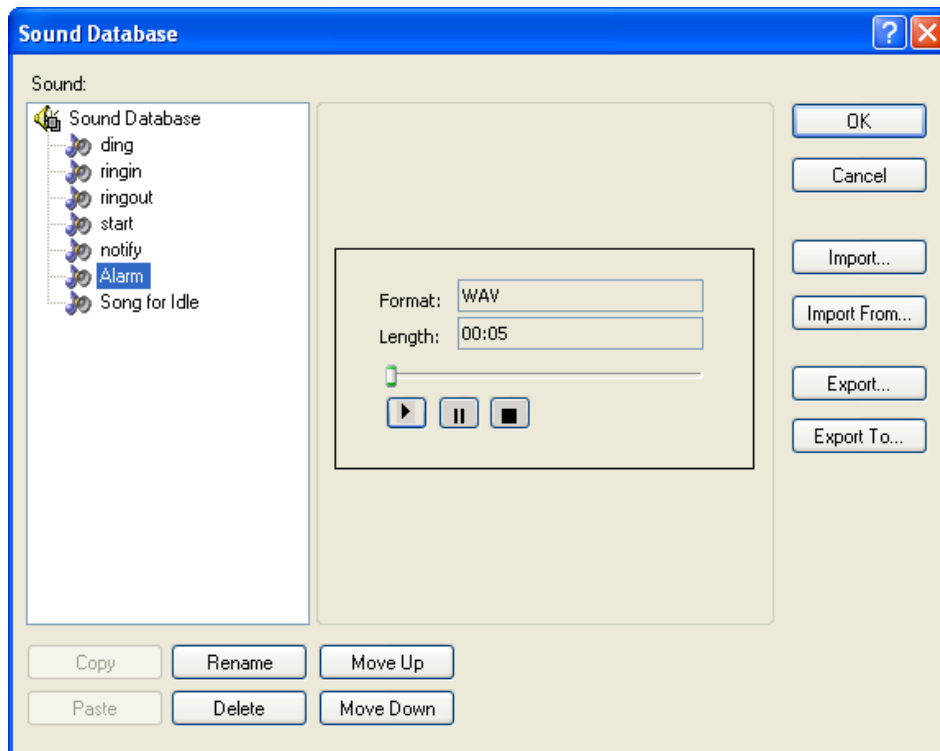
■ Exporting Sounds

You can export the sounds of the project so the other projects can share those sounds by importing them. There are 2 ways to export sounds:






- 1) Use the Sound Database dialog box to export one sound at a time to a sound file.
- 2) Use the Sound Database dialog box to export many sounds at a time to a sound database (SDB) file.

2.2.4.2. Sound Database dialog box

The following is an example of the Sound Database dialog box.



The following table describes how to read or use each of the items in the dialog box.

Item	Description
	Click it to open the help document for more details about the dialog and how to use it.
	Click it to close the dialog box and discard all changes.
Sounds	Lists the sounds of the project. You can select a sound as the current selection. You can also make multiple selections.
Sound Information	Shows the sound information of the current selection such as sound format and the length. You can click  to start playing the sound. Click  to pause playing the sound. Click  to stop playing the sound.
OK	Closes the dialog box and accepts all changes to the sound database.
Cancel	Closes the dialog box and discards all changes to the sound database.
Import...	Imports a sound from a sound file. The types of importable sound files include: WAV.
Import From...	Imports sounds from a sound database (SDB) file.
Export...	Exports the current sound to a sound file.
Export To...	Exports the current selection to a sound database (SDB) file.
Rename	Click this button to rename the current sound.
Delete	Delete the selection.
Move Up	Moves the selection down in the list
Move Down	Moves the selection up in the list

2.2.5. Text Database

The Text Database is a dockable window. With the Text Database, you can manage the texts in multiple languages of your project easily. To open the Text Database, check the Text Database menu item in the Project menu or double click the Text Database node in the Global in Project Manager tool window.

The following is an example of the Text Database that lists the texts in all the languages of the project.


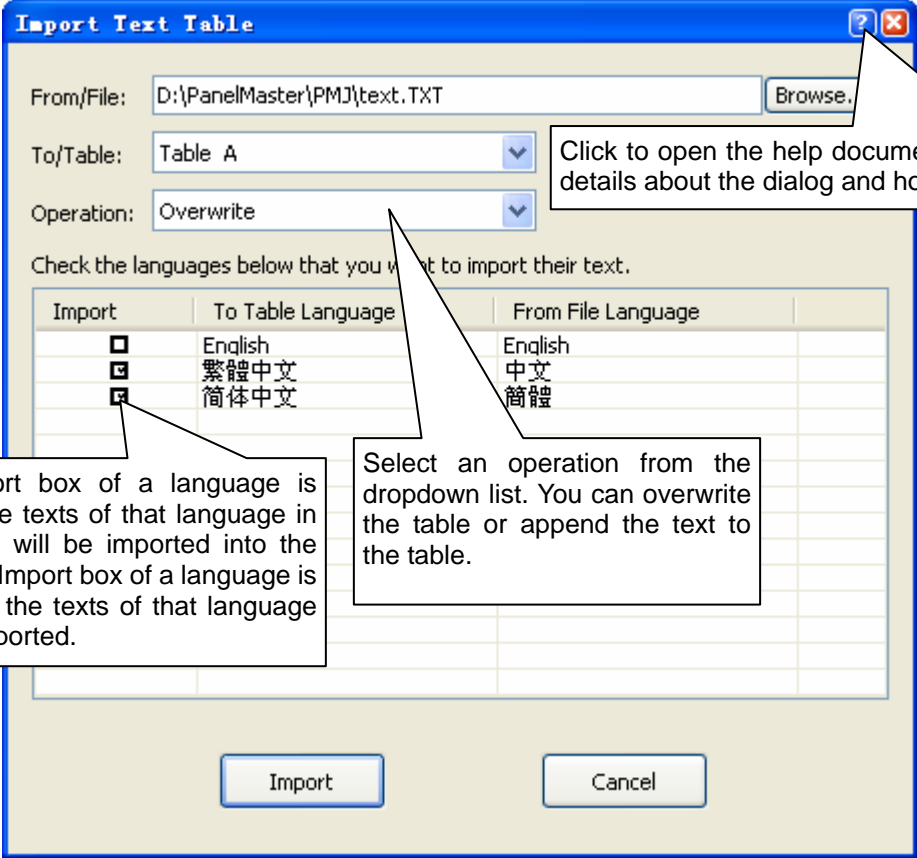

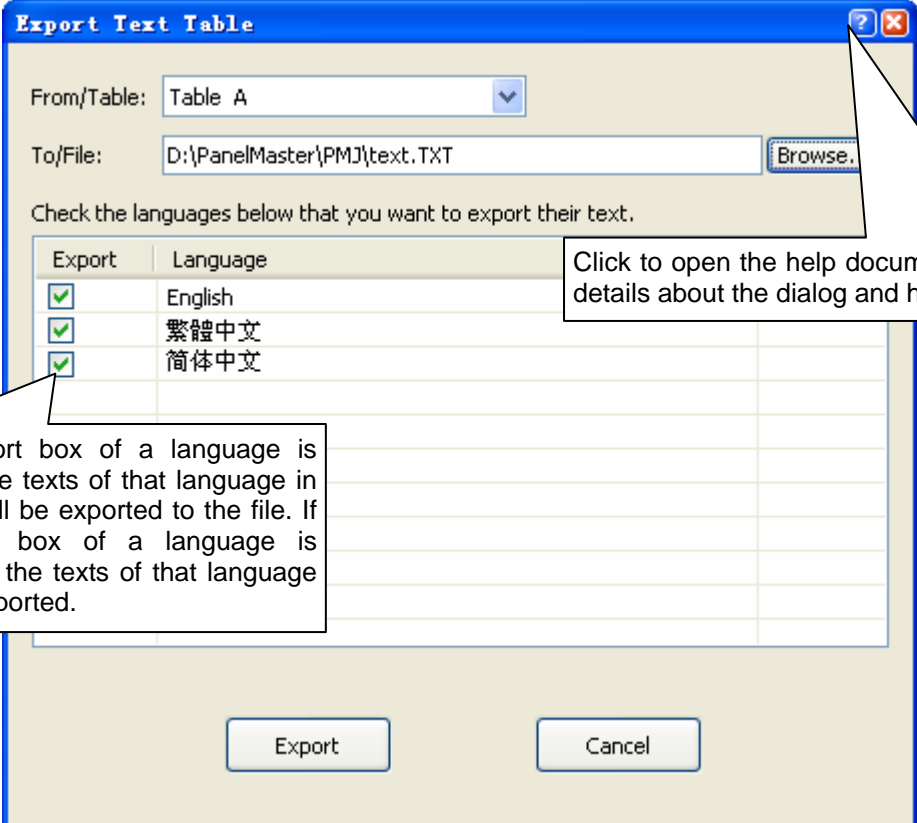
The screenshot shows the 'Text Database' window with a table of strings. The table has four columns: 'String ID', 'English', '繁體中文', and '簡體中文'. The rows contain various system messages and settings. Callouts point to the table selection icons and the editing process.


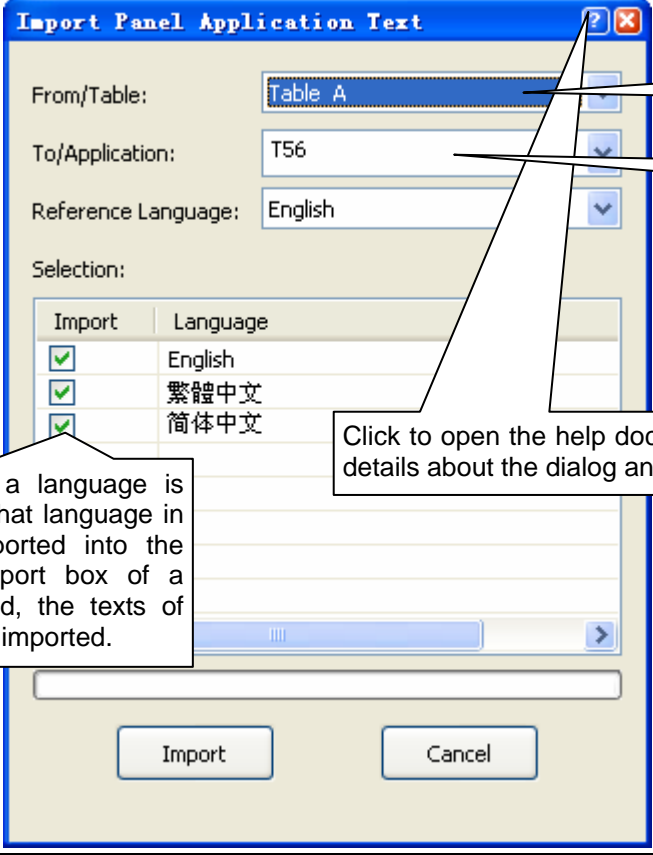

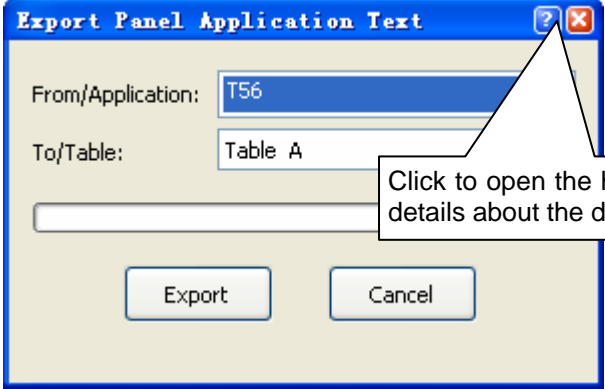
String ID	English	繁體中文	簡體中文
A0001	General	一般設定	一般设定
A0002	Touch Panel	校正觸摸面板	校正触摸面板
A0003	Link 1	連線一	连接一
A0004	Link 2	連線二	连接二
A0005	Panel Setup	人機設置	人机设置
A0006	Run	運行	运行
A0007	Copy AP to HMI	複製應用到人機	复制应用到人机
A0008	Link 3	連線三	连接三
A0009	Link 4	連線四	连接四
A0010	Boot from File	從檔案運行應用	从文件运行应用
A0011	Update from File	從檔案更新應用	从文件更新应用
A0012	Copy AP to File	複製應用到檔案	复制应用到文件
A0013	FTP Site	FTP伺服器	FTP 服务器
A0014	Clear Recorded Data	清除記錄數據	清除记录数据
A0015	LAN Printer Address	網路印表機地址	网络打印机地址
A0016	Set Time/Date	設定萬年曆	设定万年历
A0017	Check Battery:	檢查電池:	检查电池:
A0018	False	否	否
A0019	True	是	是
A0020	Screen Saver Time (minutes):	螢幕保護時間(分):	屏幕保护时间(分):
A0021	Allow To Run Panel Setup:	允許執行人機設置程式:	允许执行人机设置程序:
A0022		開機後執行應用程式:	开机后执行应用程序:
A0023		網路印表機地址	网络打印机地址
A0024		增	增
A0025		減	减
A0026		減	减

Callouts in the image explain the following:

- File to Table Icon:** Icon for selecting a table.
- Table to File Icon:** Icon for saving a table to a file.
- Table to Application Icon:** Icon for saving a table to an application.
- Application to Table Icon:** Icon for loading a table from an application.
- The name of the table. You can select a table from Table A to Table L.** Points to the 'Table A' dropdown menu.
- To edit a text, you need to select a text row first by left-click anywhere in it, and then click the cell of the row to bring up the edit box. In the edit box, you can type the text.** Points to the 'Allow To Run Panel Setup:' cell in row A0021.
- To stop or confirm editing, you can click anywhere outside the selected row.** Points to the area below the selected row.

You can click the following icons to bring up the corresponding dialog box to import or export texts.

Icon	Description
	<p data-bbox="209 286 933 320">Imports texts from a text file(.txt file) to the selected the table.</p>  <p data-bbox="220 786 692 981">If the Import box of a language is checked, the texts of that language in the text file will be imported into the table. If the Import box of a language is unchecked, the texts of that language won't be imported.</p> <p data-bbox="724 763 1129 927">Select an operation from the dropdown list. You can overwrite the table or append the text to the table.</p> <p data-bbox="922 454 1441 524">Click to open the help document for more details about the dialog and how to use it.</p>
	<p data-bbox="209 1191 898 1225">Exports texts from the selected table to a text file (.txt file).</p>  <p data-bbox="220 1659 692 1854">If the Export box of a language is checked, the texts of that language in the table will be exported to the file. If the Export box of a language is unchecked, the texts of that language won't be exported.</p> <p data-bbox="938 1469 1453 1538">Click to open the help document for more details about the dialog and how to use it.</p>

Icon	Description
	<p>Imports texts from the selected table to a panel application in the same project.</p>  <p>Table Name</p> <p>Application Name</p> <p>If the Import box of a language is checked, the texts of that language in the table will be imported into the application. If the Import box of a language is unchecked, the texts of that language won't be imported.</p> <p>Click to open the help document for more details about the dialog and how to use it.</p>
	<p>Exports texts from a panel application of the project to the selected table.</p>  <p>Click to open the help document for more details about the dialog and how to use it.</p>

You can right-click the Text Database to get the popup menu with the following menu items:

Menu Item	Description
Cut	Cut the selected text and put it on the Clipboard.
Copy	Copy the selected text and put it on the Clipboard.
Paste	Insert the text on the Clipboard to the current table.
Delete	Delete the selected text.
<Language name>	Check the language name to display the text of objects in the selected language.

2.3. Working with Tags

A tag represents a single input or output variable monitored or controlled by the system. By changing tags, you can use any PLC or controller without re-developing the application. This chapter explains how you can define and manage tags by tags editor.

After the tag is created in tags editor, you can use it in your application by Select Tag Dialog Box. Please see [Section 4.4.3.3 Selecting Tags](#) for details. Or you can specify the tag by yourself. The format of a tag is Link Number\Tag Group Name\Tag Name.

For example:

Tags	Description
1\MONITOR\CORE DISPLAY	Indicates a local tag named CORE DISPLAY in MONITOR tag group of link 1
0\BOT\DECLARE	Indicates a local tag named DECLARE in BOT tag group of internal memory
0_ALARM SHOW	Indicates a global tag named _ALARM SHOW of internal memory

Note that the maximum text amount of the tag/tag group name is 48 characters. You are allowed to define not only tags for the link but also the tags for a tag group of the link.

2.3.1. Types of Tags

In Software, there are two types of tags: global tags and local tags.

■ Global Tag

A global tag is a tag that can be used by all panel applications in the same project. With global tags, the panel applications in the same projects can share the common address declaration without having to keep and maintain the same set of tags locally.

Note that a global tag can be only associated with internal variables.

■ Local Tag

A local tag is a tag that can be only used by the panel application which the tag is located in.

2.3.2. Opening and Closing Tags Editor

■ Opening Tags Editor

To open the global tags editor, use the Global Tags... command on the Project menu, or double click Global > Global Tags item in the Project Manager tool window, or right-click the Global > Global Tags item in the Project Manager tool window to bring out the popup menu and then use the Open command on the popup menu.

To open the local tags editor, use the Tags... command on the Panel menu, or double click Panel Application > Tags item in the Project Manager tool window, or right-click the Panel Application > Tags item in the Project Manager tool window to bring out the popup menu and then use the Open command on the popup menu.

■ Closing Tags Editor

To close the tag editor, select the window and click the close button, or choose Windows... on the Window menu, select the window you want to close in the window dialog and then click Close Window(s) button. You can also right-click the Global > Global Tags item (Panel Application > Tags item) in the Project Manager tool window to bring out the popup menu and then use the Close command on the popup menu to close the global tags editor(the local tags editor).

2.3.3. Creating Tags by Tags Editor

You can use tags editor to create and manage tags. The tags editor is split into two panes: Tag Group Explorer on the left and Tag List Window on the right. Each pane scrolls separately, both horizontally and vertically. You can position the mouse over the vertical splitter bar and drag the bar to resize the panes.

The following is an example of the tags editor.

The screenshot shows the Tags Editor interface. The left pane, labeled 'Tag Group Explorer', displays a tree view of tag groups. The right pane, labeled 'Tag List Window', displays a table of tags for the active tag group named 'MONITOR'. The table has the following columns: Name, Data Type, Address, Length, Scan Rate, and Comment.

	Name	Data Type	Address	Length	Scan Rate	Comment
1	CORE DISPLAY	32-Bit Unsigned Integer	QD512	n/a	Fast	CORE DISP...
2	START TIME	16-Bit Unsigned Integer	QW158	n/a	Fast	START TIME
3	CLM. TIME	16-Bit Unsigned Integer	QW159	n/a	Fast	CLOSE MOL...
4	REC. TIME	16-Bit Unsigned Integer	QW146	n/a	Fast	REC. TIME
5	SBK. TIME	16-Bit Unsigned Integer	QW133	n/a	Fast	SBK. TIME
6	OPM. TIME	16-Bit BCD	QW123	n/a	Fast	OPM. TIME
7	COOL TIME	32-Bit BCD	QD151	n/a	Fast	COOL TIME
8	CLOSE/OPEN BAR	16-Bit Signed Integer	IW23	n/a	Fast	
9	INJ/REC BAR	16-Bit Signed Integer	ID752	n/a	Fast	
10	light	ASCII String	C90	10	Normal	
11	CONTADOR	32-Bit Signed Integer	QD80	n/a	Fast	
12	DEFECTOS	32-Bit Signed Integer	QD200	n/a	Fast	
13	SCREW ROTATE	32-Bit Floating Point	VD56	n/a	Fast	
14	light 1	ASCII String	C200	20	Normal	
15	WSG 1	32-Bit Unsigned Integer	VD82	n/a	Fast	
16	light 2	ASCII String	C400	10	Normal	
17						

2.3.3.1. Tag Group Explorer

Tag explorer displays links, recipes, data loggers and their tag groups if any. From tags explorer, you can:

- Open a tag group of a link for editing by clicking the node
- Import and export tags of a link
Described in [Section 2.3.4](#)
- Add new groups to a link and delete or rename the existing tag groups
Described in [Section 2.3.5](#)
- View tags (Data Items) of recipes and data loggers.

If there are any recipes or data loggers in the application, the tag editor will display their data items as the tags. All the data items (tags) for the recipes or data loggers are read only in the tag editor. If you want to edit the data items (tags), please use the corresponding dialog box.

You can edit the data items of the selected recipe block with the recipe block dialog box. Please see [Section 10.5 Setting up Recipe Blocks](#) for details.

Addr.	Name
CR0:0	Item 0
CR0:1	Item 1
CR0:3	Item 2
CR0:4	Item 3
CR0:6	Item 4
CR0:7	Item 5
CR0:8	Item 6
CR0:9	Item 7

Recipe Block Name (ID)


Data Logger Name (ID)

2.3.3.2. Tag List Window

Tag list window displays all the tags related to selected tag group. In the tag list window, you can:

- Make switching between tag groups by clicking the window tab
- Click any column header to sort the list
- Add a tag by defining the tag name and then click any other cells to edit the elements of the tag

The following table describes each attribute of the tag.

Item		Description
Name		Specifies the name for the tag. The name must be unique in the tag group. The maximum text amount of the name is 48 characters. And Chinese characters are supported. The name can not start with a number and can not be the same as a macro keyword. The name of global tags must start with underline (_). But the name of the local tags can not start with underline (_).
Data Type		Selects the data type for the tag from the dropdown list. The supported data types for each tag are some of the followings: 16-Bit Unsigned Integer, 32-Bit Unsigned Integer, 16-Bit Signed Integer, 32-Bit Signed Integer, 16-Bit BCD, 32-Bit BCD, 32-Bit Floating Point, ASCII String, Bit.
Address	<Edit Box>	Specifies the bit address when the Data Type is Bit, otherwise specifies the word address.
		Clicks this icon to bring up the Address Input Keypad and specify the desired address for the <Edit Box> field.
Length		Specifies the string length when the Data Type is ASCII string, otherwise displays n/a
Scan Rate		Selects the scan rate for the tag from the dropdown list. The supported scan rates for each tag are Fast and Normal.
Comment		Type a comment for the tag.

- Cut, copy, paste and delete selected tags using menu commands or key combination

You can right-click the number column to display a popup menu of editing commands. The editing commands available depend on what the pointer is pointing to.

The following table shows the supported editing commands.

Menu Command	Key Combination	Description
Cut	CTRL+X	Removes selected tags from the active window and saves them to the Clipboard.
Copy	CTRL+C	Duplicates selected tags in the active window.
Paste	CTRL+V	Pastes cut or copied tags into an active window.
Delete	DELETE	Deletes tags without copying it to the Clipboard.

Note that all editing commands require a selection in order to work. To select a tag, click the row on its header number column. To select multiple tags, click the row on its heard column and use Ctrl+Click to add a row to the selection.

2.3.4. Importing and Exporting Tags

■ Importing Tags

- 1) Right-click the Internal Memory or a link or any of their tag groups item in the Tag Group Explorer to bring out the popup menu and then use the Import Tags... command on the popup menu.
- 2) Click the *.csv file you want to import. If you want to open a tags import file that was saved in a different folder, locate and open the folder first.
- 3) Click Open.

Note: If the file format is not correct, the import operation will be cancelled.

Note: The tags import file can contain tags only or many tag groups and their tags.

Note: If the name of a tag in the file exists in the tag group, you will be asked to confirm whether to replace the existing tag or not.

- If selecting Yes, the tag in the tag group will be replaced by the tag from the file.
- If selecting No, only the tag with nonexistent name will be imported.
- If selecting Cancel, the import operation will be cancelled.

Note: If the tag group name in the file exists in the link, you will be asked to confirm whether to replace the existing tag group or not.

- If selecting Yes, the tags in the existing tag group will be removed and replaced by the tags from the file.
- If selecting No, only the tag group with nonexistent name and its tags will be imported.
- If selecting Cancel, the import operation will be cancelled.

■ Exporting Tags

If you have tags you want to reuse in another application panel, you can export the tags of the selected tag group as a .csv file. You may do the following:

- 1) Locate the tag group you would like to export
- 2) Right-click on the tag group to display the item's "popup menu"; and then click Export Tags..., the second menu item.
- 3) If you want to save tags in a different folder, locate and open the folder first. then click Save.

You can export all the tags of the internal memory or a link as a .csv file by right-clicking on the internal memory or a link item and then using the Export All Tags command on the popup menu.

2.3.5. Adding/Deleting/Renaming Tag Groups

■ Adding a Tag Group

- 1) Click the link or the internal memory you want to add a tag group for
- 2) Right-click the selected item to display the popup menu, and then click Add Group menu
- 3) The new tag group will be added at the end of the link. And the default tag group name will become selected for renaming.

■ Deleting a Tag Group:

- 1) Locate the tag group you would like to delete
- 2) Right-click on the tag group to display the popup menu; and then click Delete Group

Note: You can only select one tag group to delete at one time.

■ Renaming a Tag Group:

- 1) Locate the tag group you would like to rename
- 2) Right-click on the tag group to display the popup menu; and then click Rename Group or click the tag group
- 3) The tag group name will become selected, simply type the new name over the selected text, and then press the ENTER key or click anywhere outside the editing field.