

3. Create an EasyBuilder Pro Project

This chapter explains the basic steps to create an EasyBuilder Pro project.

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3.1. Overview

The following is the process of creating a project.

1. Create a new project file.
2. Save and compile the project file.
3. Run On-line or Off-line simulation.
4. Download the project file to HMI.

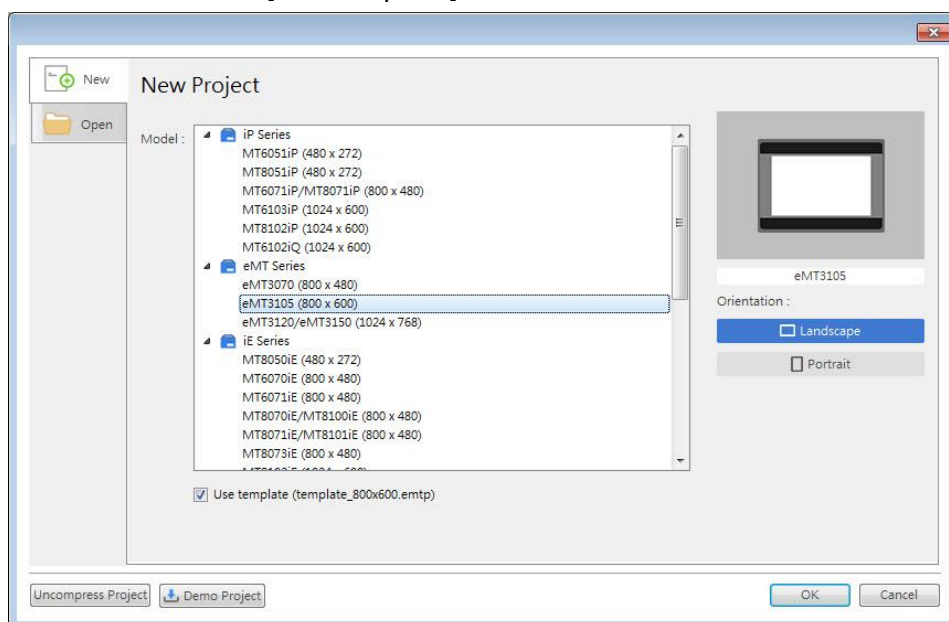
The following describes each process.



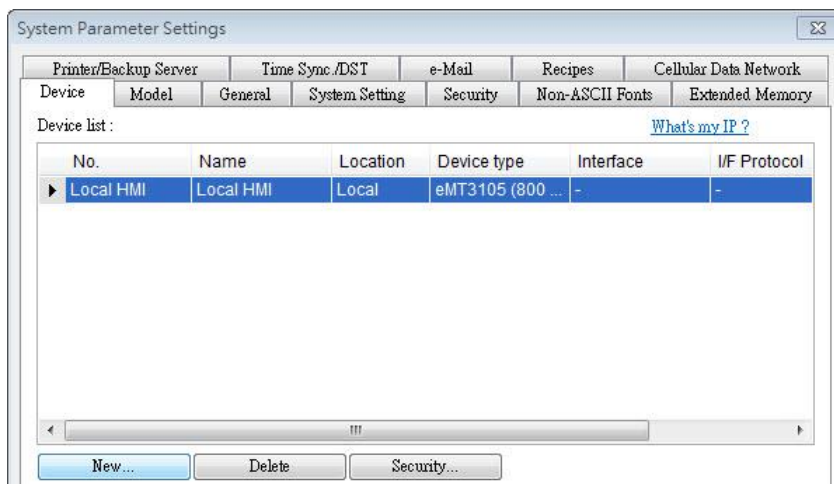
Click the icon to watch the demonstration film. Please confirm your internet connection before playing the film.

3.2. Create a New Project File

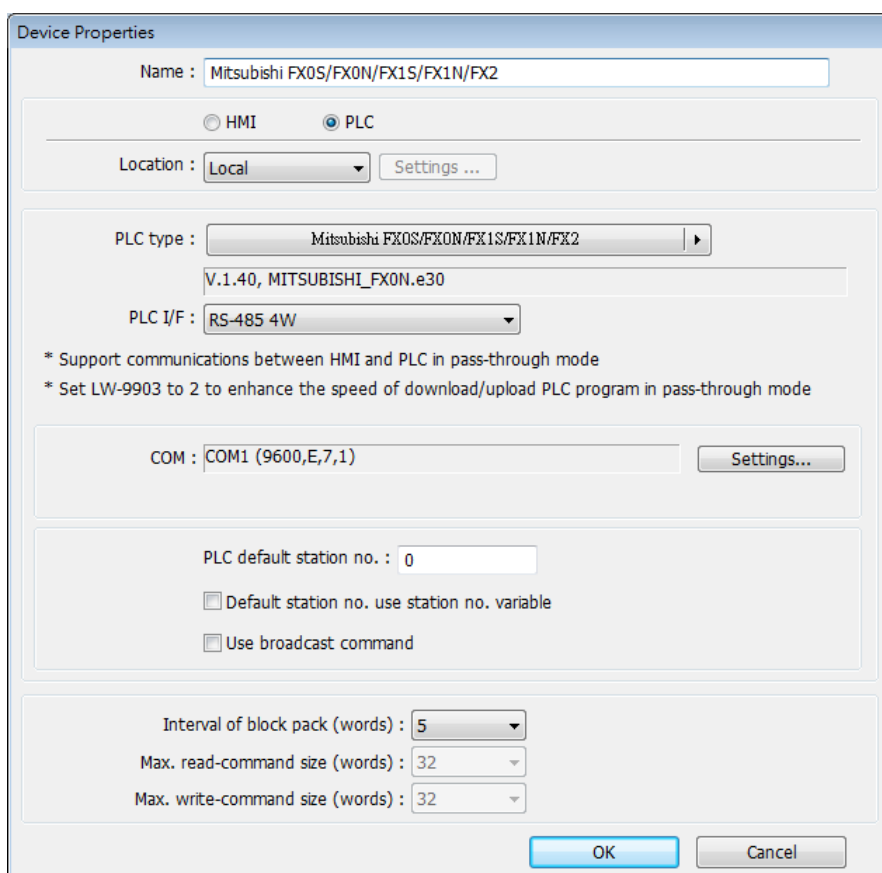
1. Launch EasyBuilder Pro and open a new project file.
2. Select a model and select [Use template] check box.



3. Click [New] button in the Device tab and select a device.



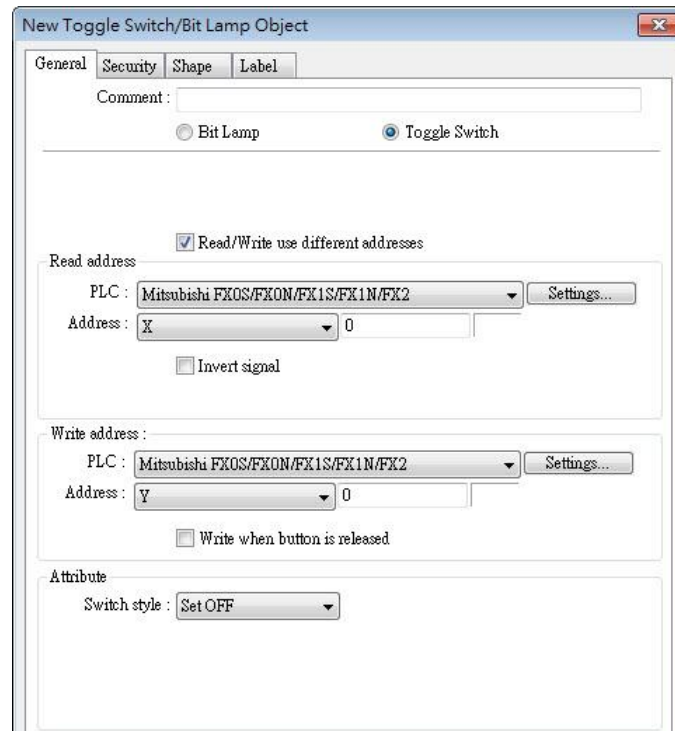
4. Configure parameters.



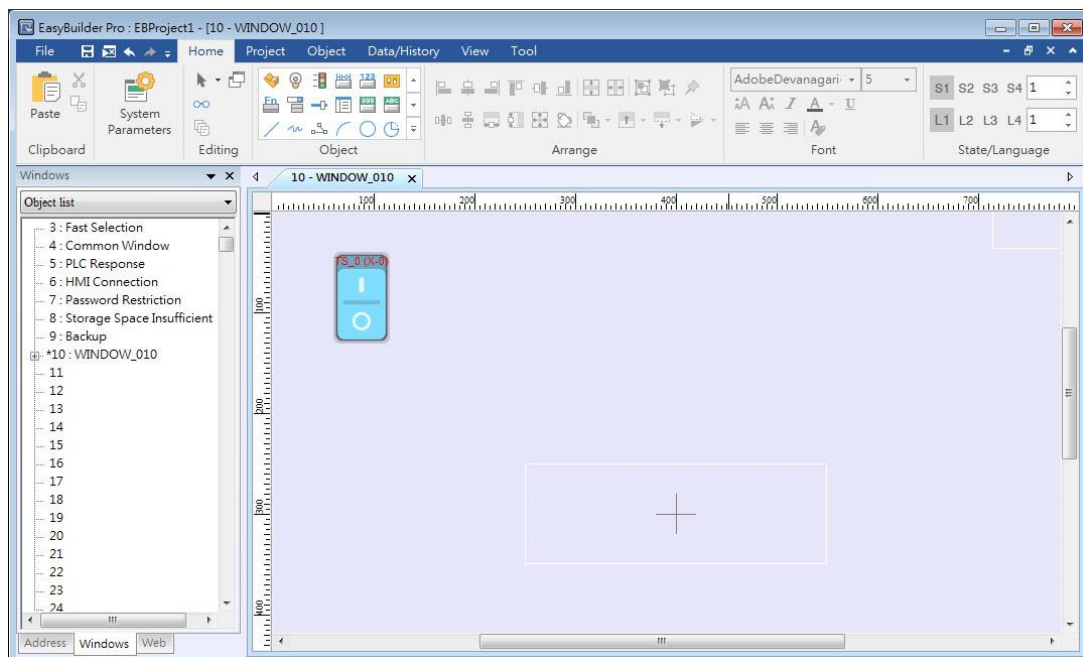
5. A new device is added to the [Device List].



6. Create an object, for example, a Toggle Switch, and then set the address.



- Place the object in the edit window. A project is now created.

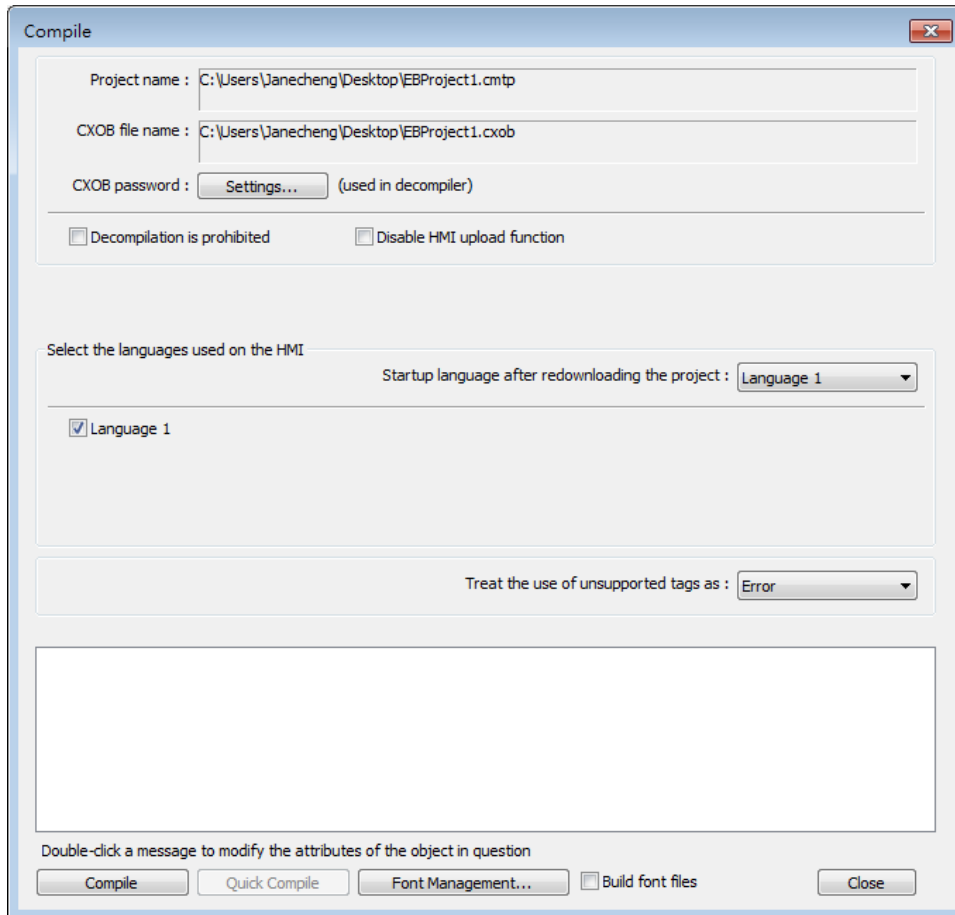


3.3. Save and Compile the Project File

- In EasyBuilder Pro toolbar click [File] » [Save] to save the .emtp file.
- In EasyBuilder Pro toolbar click [Project] » [Compile] to compile .emtp file as .exob file, which could be downloaded to HMI. This also checks if the project can run correctly.

 **Note**

- For cMT / cMT X Series models, the project file extension is .cmt, and the compiled file extension is .cxob.
- 3. To use multiple languages, all languages must be configured in Label Tag Library first. When downloading the project to HMI, select the needed languages only. A successful compilation is shown in the following figure.



3.4. Compile and Quick Compile

The [Compile] and [Quick Compile] modes can be selected in the Compile window. To compile a relatively large file in which only a few windows are modified, the Quick Compile mode can be used to save compilation time.

Compile:

Compile the whole project file.

Quick Compile:

Only compile the modified window or event log. When one of the records in the event log is changed, the whole event log will be compiled.

 **Note**

- If the project file is compiled for the first time, the Quick Compile mode is not supported.
- In a project file, when its system settings, picture library, sound library, or label library is modified, then Quick Compile mode is not supported for the first compilation after modification.
- The whole project file must be compiled before it is downloaded to HMI.
- Utility Manager does not support the project file compiled using Quick Compile mode. To download a project file using Utility Manager, please compile the whole project file first.

3.5. Run On-Line or Off-Line Simulation



Off-line simulation: Simulate project operation on PC without the need for connecting any device.



On-line simulation: Simulate project operation on PC without downloading the project to HMI. The PLC is connected to PC, please set correct parameters.

 **Note**

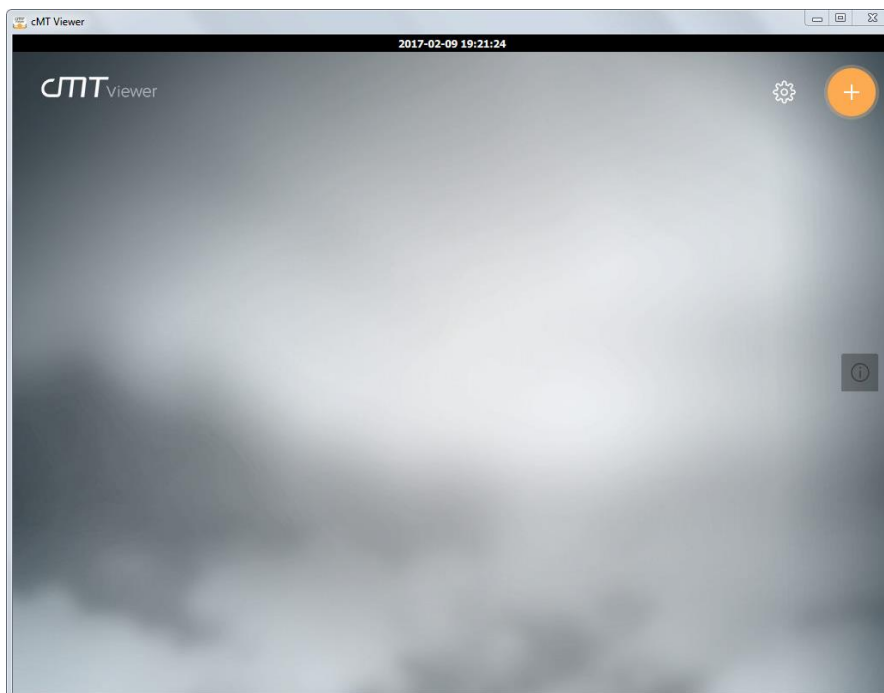
- (iE/XE/eMT Series) When using On-line Simulation on PC, if the target device is the PLC directly connected to PC, there is a 10-minute simulation limit.
- (cMT/cMT X Series) When using On-line Simulation on PC, the monitoring time is limited to one hour and a prompt window pops up every 15 minutes.

3.6. cMT Viewer

This program connects to cMT Series models via network. To run this program, execute cMTViewer.exe under installation directory. Or, in EasyBuilder Pro toolbar, click [Tools] » [cMT Viewer].




Click the icon to watch the demonstration film. Please confirm your internet connection before playing the film.



3.7. Download the Project File to HMI

The following explains four ways to download the project file to HMI.

Note

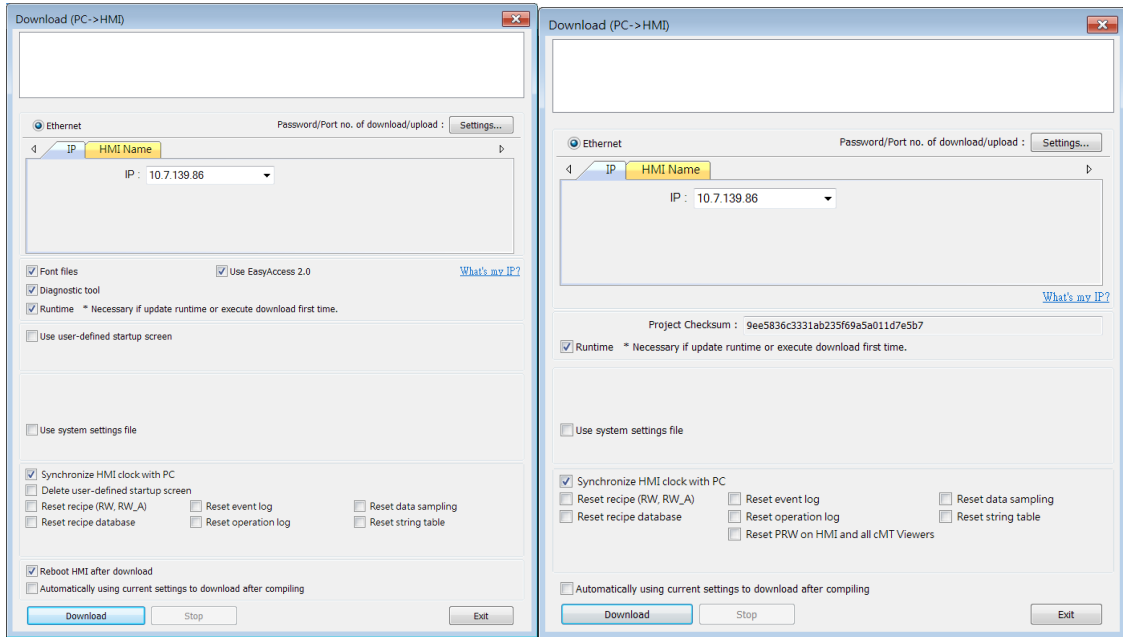
- For cMT-SVR, only the way described in 3.6.1 is available.
- When download project file to HMI using mini USB cable, please do not connect PLC simultaneously, in order to avoid noise from PLC interfering with HMI.
-  Click the icon to watch the demonstration film. Please confirm your internet connection before playing the film.

3.7.1. Configure in EasyBuilder Pro

1. In EasyBuilder Pro toolbar, click [Project] » [Download]. Make sure that all the settings are correct.
2. Select [Ethernet], set password and HMI IP.

eMT, iE, XE, mTV Series

cMT, cMT X Series



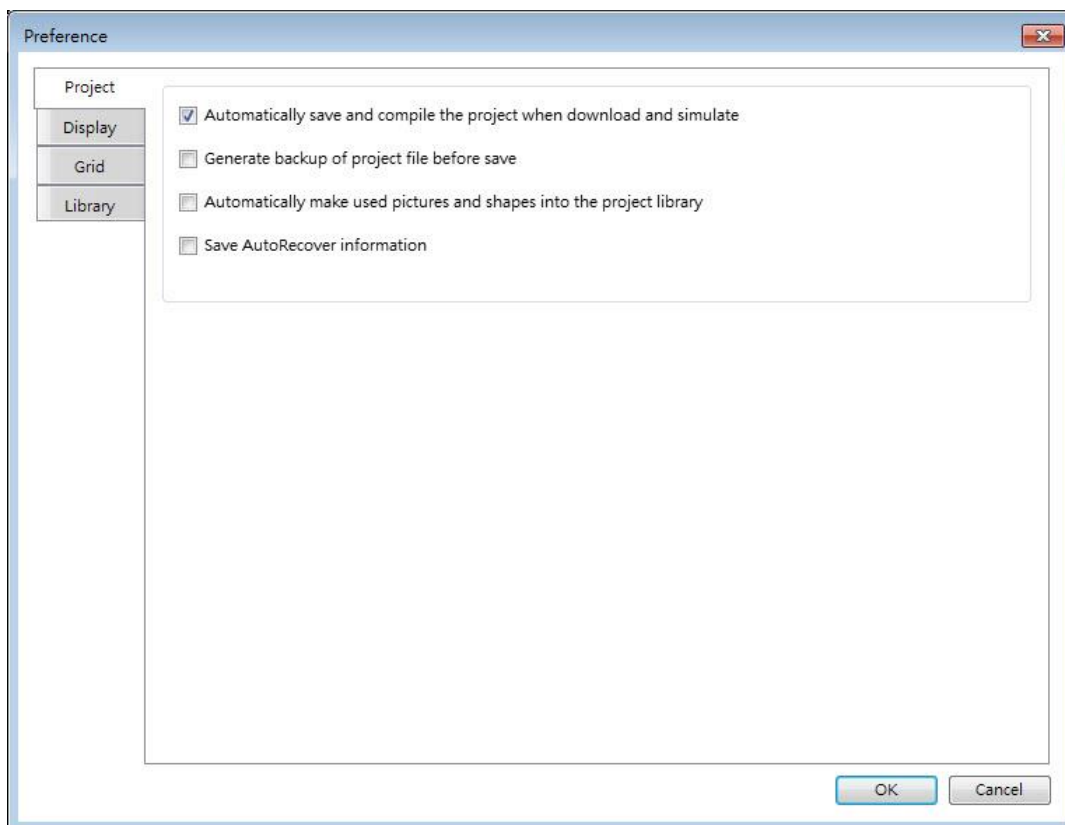
Setting	Description
Font files	Download the font used in the project to HMI.
Runtime	Select the check box to update the HMI kernel programs. If this is the first time downloading file or EasyBuilder Pro version is updated, please download the firmware before downloading files to HMI.
EasyAccess 2.0	Download EasyAccess 2.0 driver to HMI. (This option is available only for MT8000iE models. For other models, EasyAccess 2.0 will be automatically downloaded.)
Use user-defined startup screen	Download the specified .bmp image file to the HMI as the startup screen. For cMT/cMT X HMI, please see chapter 5.4 General Settings in this user manual for more information on updating the startup screen on the HMI.
Use system settings file	Download the system settings file to update hardware settings.
Synchronize HMI clock with PC	Synchronize HMI time with PC time when downloading project file.
Delete existing user accounts, e-Mail contacts and SMTP settings	Select the check box to delete existing user accounts, e-Mail contacts or SMTP settings before downloading the project. This setting is only effective when one of the following settings is

	<p>enabled:</p> <ol style="list-style-type: none"> 1. [System Parameters] » [Security] » [Enhanced security mode] » [Use existing user accounts on HMI first (if existed), Othrewise, use settings below]. 2. [System Parameter s] » [e-Mail] » [Use existing user accounts on HMI first (if existed), Othrewise, use settings below].
<p>Reset recipe/ event log/ data sampling/ recipe database/ operation log/ string table/ user-defined startup screen</p>	<p>The selected files will be erased before downloading.</p>
<p>Reboot HMI after download</p>	<p>HMI will reboot after the downloading process is done.</p>
<p>Automatically using current settings to download after compiling</p>	<p>The system will compile the project and download it to the latest target HMI. The way to enable this function is described in the following part.</p>

[Automatically using current settings to download after compiling]

If this check box is selected, EasyBuilder Pro will compile the project and download it to the latest target HMI.

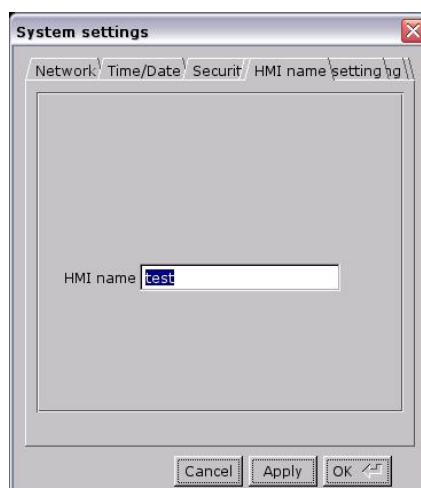
1. In EasyBuilder Pro toolbar, click [File] » [Preferences].
2. Select [Automatic save and compile when download and simulate] check box.



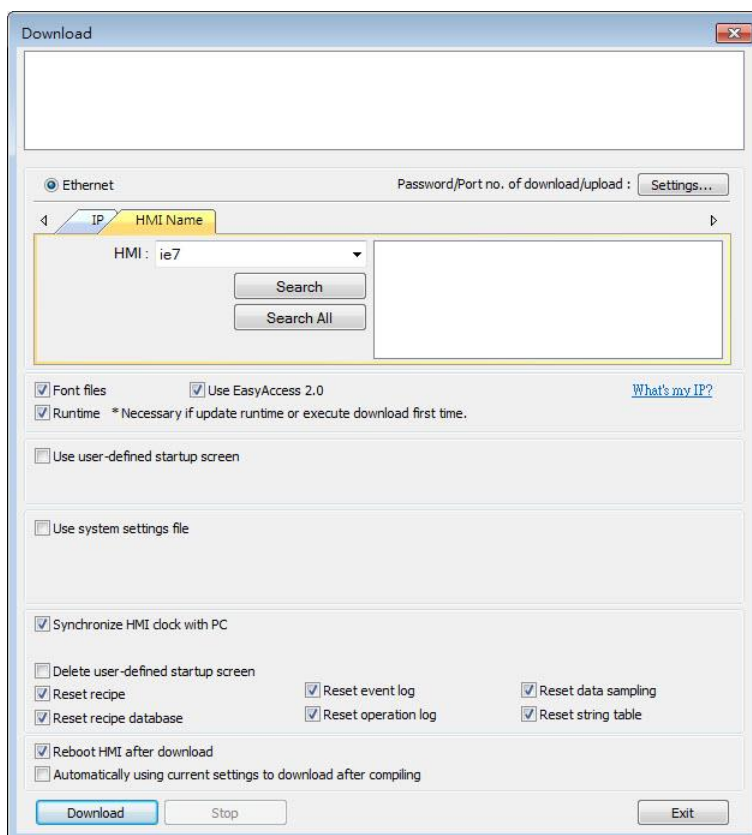
3. In EasyBuilder Pro toolbar, click [Save] and then [Download].
4. In the dialog box, select [Automatically using current settings to download after compiling] check box.
5. Click [Download].
6. When finished, next time when [Download] is clicked, EasyBuilder Pro will automatically compile and download the project to the latest target HMI.

3.7.2. Use HMI Name

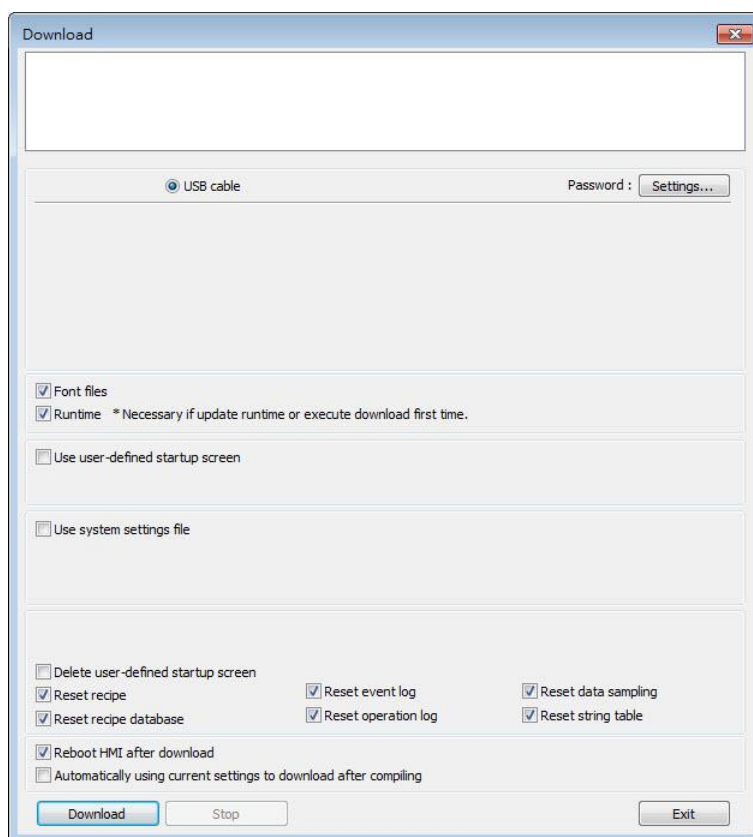
1. Go to [System settings] on HMI and then set HMI name first.



2. On PC, select the HMI name and start downloading. To use [Search], enter the HMI name first to search for the HMI. [Search all] searches for all HMIs in the same subnet network.



3.7.3. Use USB cable

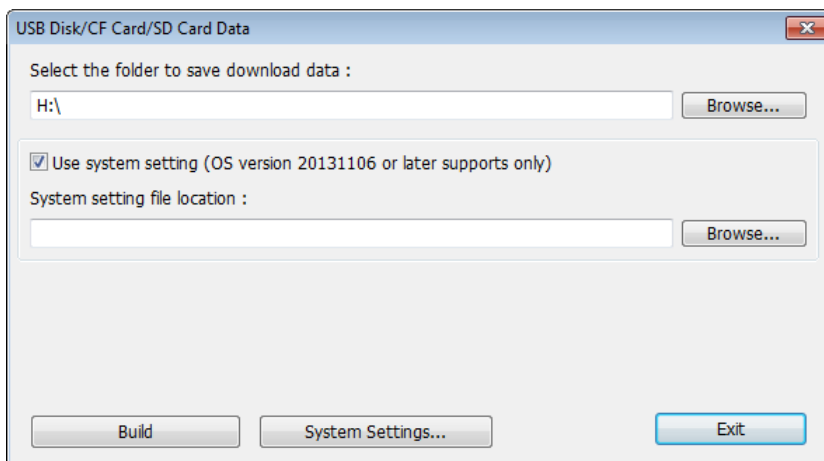


Select USB cable to download project to HMI. The way of setting is same as “3.6.1 Configure in EasyBuilder Pro”. Before downloading via USB cable, please make sure the USB driver is installed. Go to [Computer Management] » [Device Manager] to check if USB driver is installed. If it is not installed, please refer to [installation steps](#) to install manually.

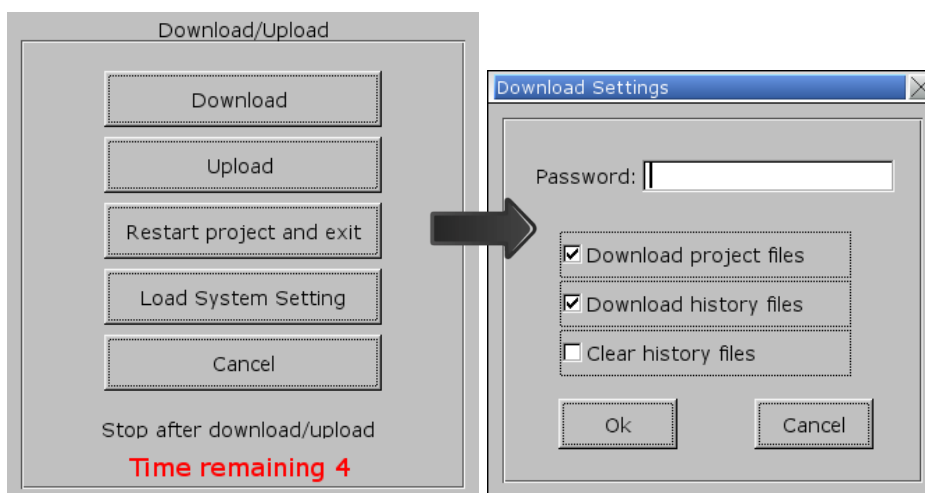
3.7.4. Use USB Drive or SD Card

The following explains how to download project file by using USB drive or SD card.

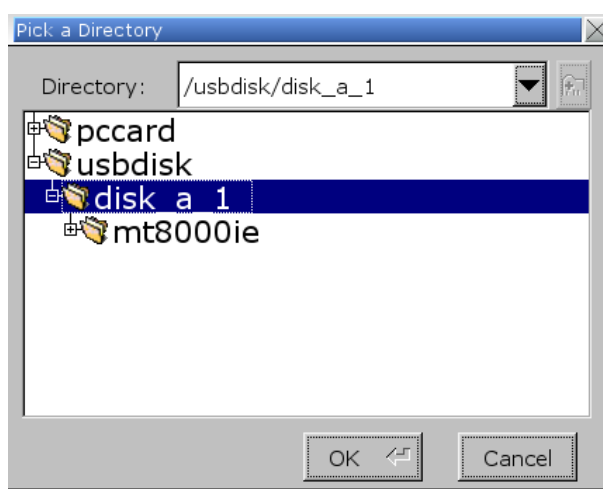
1. On EasyBuilder Pro toolbar click [Project] » [Build for SD card / USB disk download].
Browse for the project file and then click [Build], the file for download will be generated in the connected external device.



2. Insert an external device to HMI.
3. Select [Download] on HMI and enter password.




4. After password is confirmed, it will show the directories in the external device. (pccard: SD Card; usbdisk: USB Drive)



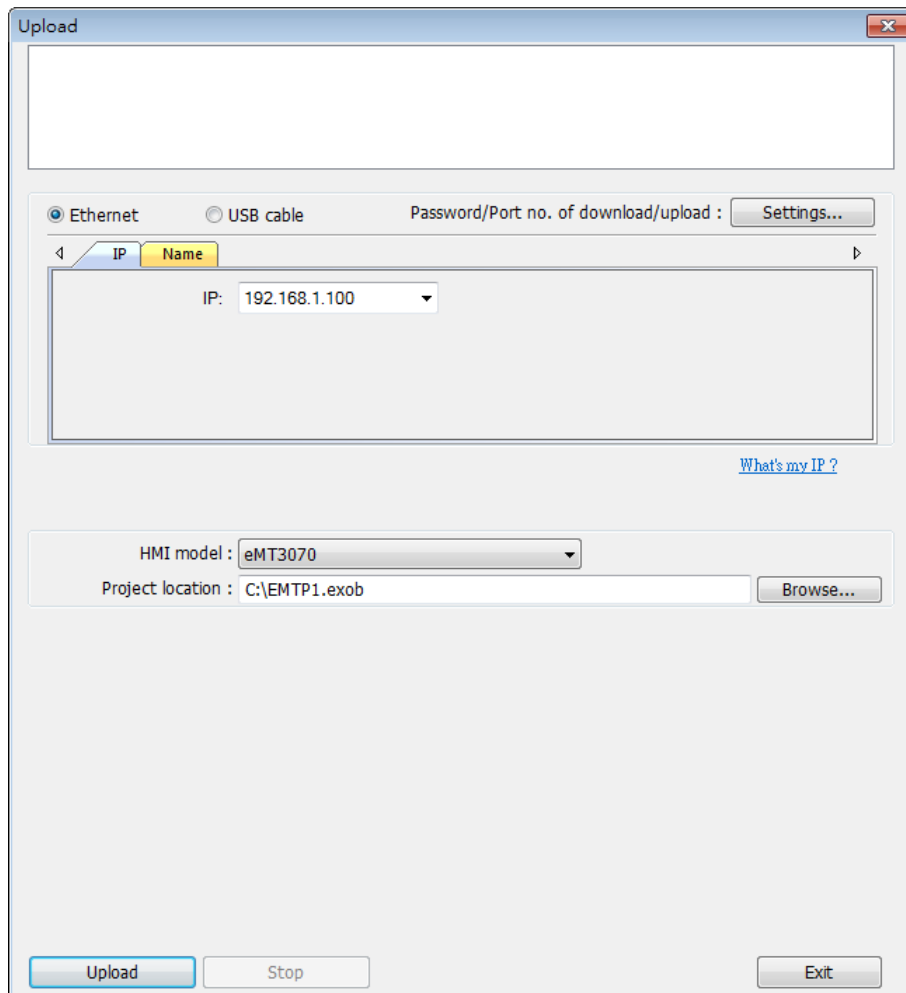
5. Select the directory that contains project, and then click [OK] to start downloading.

 **Note**

- Please select the parent directory of the generated files when downloading. For the structure above, please select **disk_a_1**, not **mt8000ie**.
 - You may click [System Settings] to save the hardware settings configured in EasyBuilder Pro into SD card or USB disk, and then download the settings file to HMI. See “4 Hardware Settings” for more information.
-  Click the icon to watch the demonstration film. Please confirm your internet connection before playing the film.

3.8. Upload the Project File from HMI

1. On EasyBuilder Pro toolbar click [File] » [Upload].
2. Set HMI IP, HMI model, project location and project name, and then click [Upload].



Upload

Ethernet USB cable Password/Port no. of download/upload : Settings...

IP	Name
IP: 192.168.1.100	

[What's my IP ?](#)

HMI model : eMT3070

Project location : C:\EMTP1.exob Browse...

Upload Stop Exit