2. **Utility Manager**

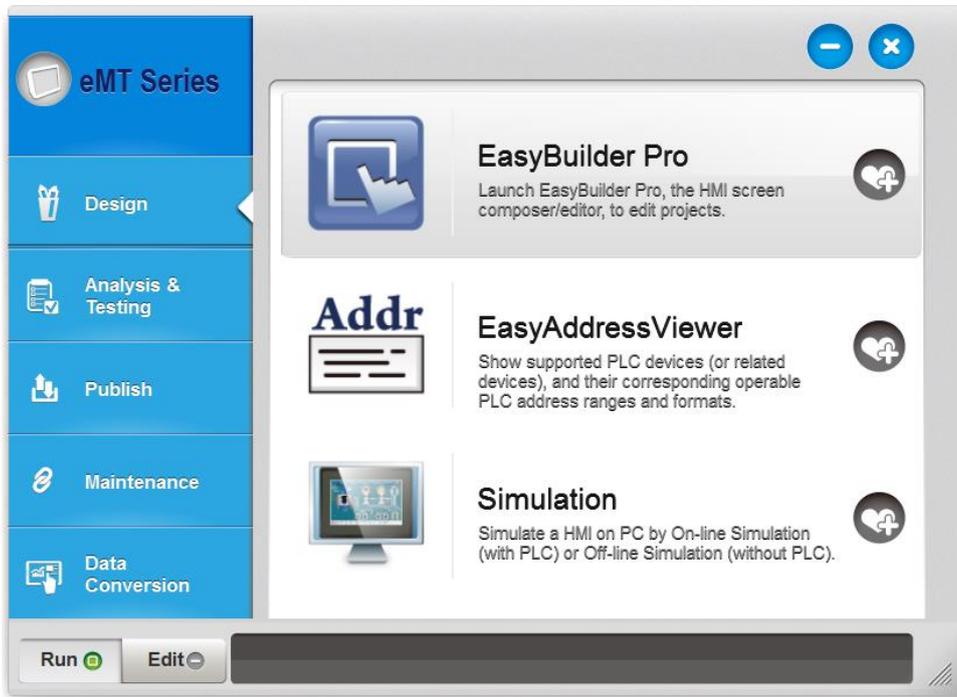This chapter explains how to use Utility Manager.

2.1. Overview

After installing EasyBuilder Pro, double click [UtilityManagerEx] shortcut on the desktop to start. Utility Manager is for launching several utilities and it is a stand-alone program. Please select a model first and note that certain features may not work as expected if an incorrect model is selected.
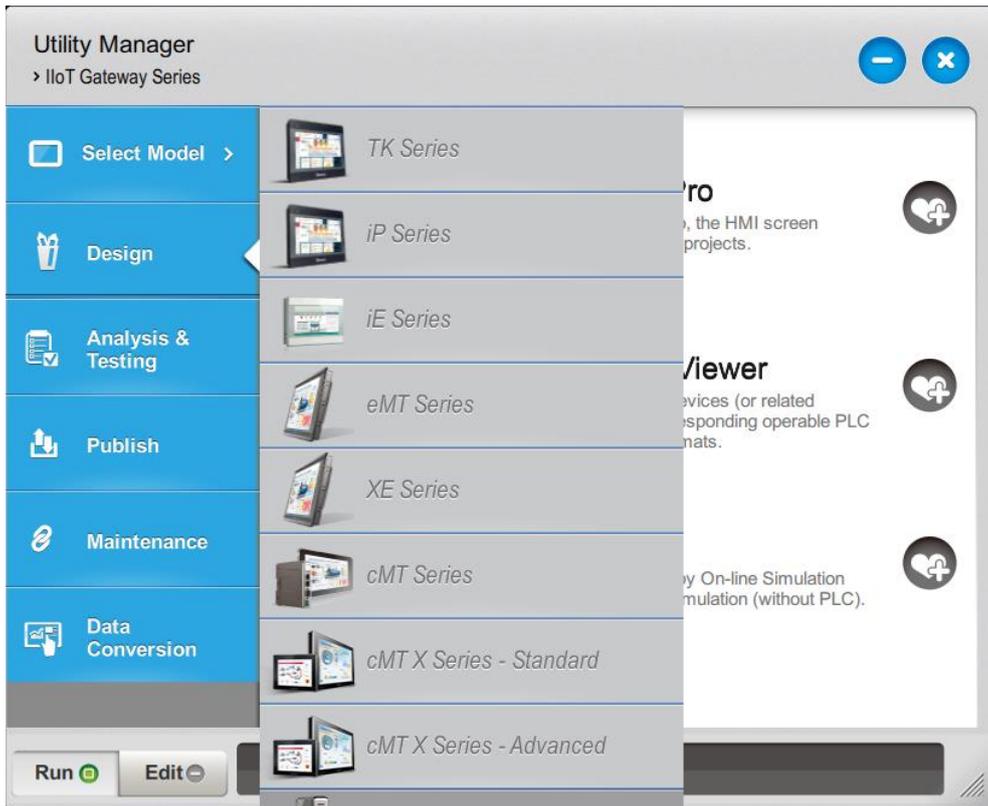
Utilities	Description
	Minimize Utility Manager window.
	Close Utility Manager.
	Add the frequently used utilities to the toolbar at the bottom of the window.
Run	Run the selected utility on the toolbar.
Edit	Delete the selected utility on the toolbar.

2.2. Design

Utilities	Description
EasyBuilder Pro	Launch EasyBuilder Pro to edit projects.
EasyAddressViewer	Review the address ranges and formats of supported PLCs.
Simulation	Simulate an HMI on PC by running On-line Simulation or Off-line Simulation. Please select an .exob / .cxob file as source first. **Off-line simulation:** Simulate project operation on PC without connecting any devices. **On-line simulation:** Simulate project operation on PC and PLCs are directly connected with PC. ✎**Note** ■ When using [On-line simulation] on PC, if the target device is a local PLC (the PLC directly connected to PC), there is a one-hour simulation limit.

2.3. Analysis & Testing

Utilities	Description
cMT Diagnoser	A diagnostic tool that can monitor data and status of all objects in the current window when it is connected to a cMT Series HMI, show the status of individual communication packet, show communication status with MQTT server, and debug macros. See "31 cMT Diagnoser".
EasyDiagnoser	Diagnoses the connection status between eMT/iE/XE/mTV HMI and PLC. See "33 EasyDiagnoser".
EasyWatch	Allows users to monitor or configure HMI or PLC address values via Ethernet on PC. See "35 EasyWatch".
Reboot HMI	Reboots the HMI without unplugging. After reboot, the system returns to the initial state.
Serial Pass-	Opens a local serial port (virtual/physical) and allow other PC

| **Through** | applications to connect to PLC via HMI. |
	The Serial Pass-Through feature provides two modes: Ethernet and COM port.
	Before using [Ethernet] mode, please check if virtual serial port driver has been installed.
	☞See "29 Pass-through".
Ethernet Pass-Through	When PC and PLC are respectively connected to different Ethernet ports of a Dual-port HMI, this feature allows running the application on PC to control PLC through HMI. This feature is only supported on cMT / cMT X Series models.
	☞See "29 Pass-through".

Pass-through feature allows the PC application to connect PLC via HMI. In this case, the HMI works like a converter.

2.4. Publish
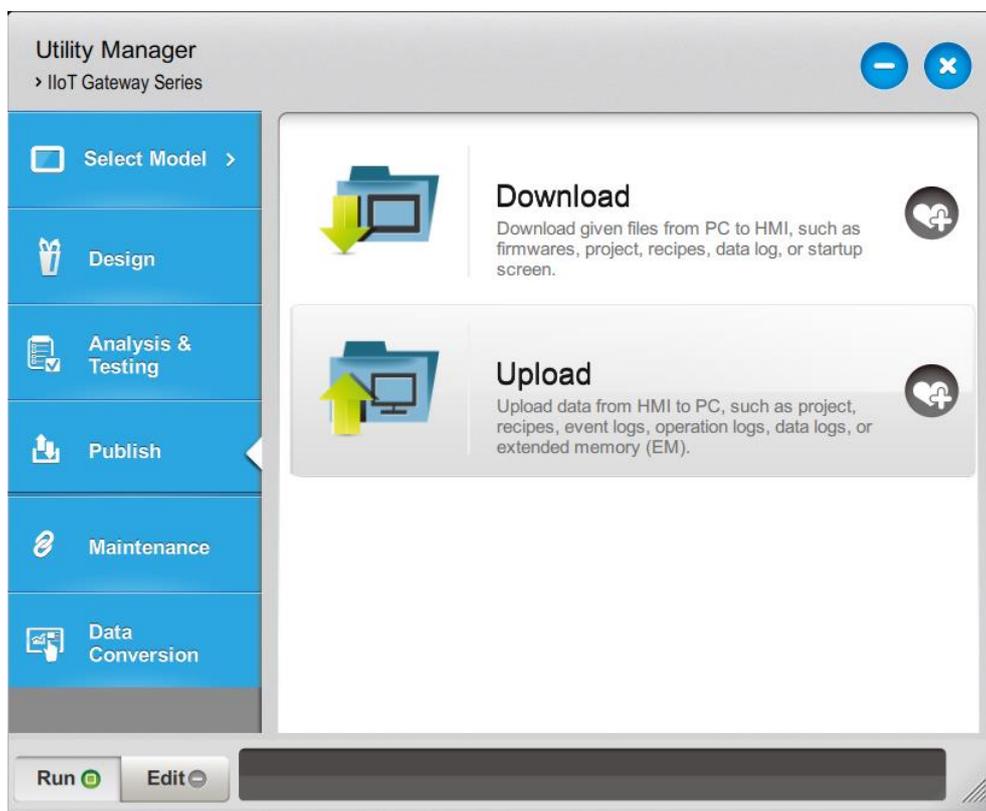
| Utilities	Description
Download	Downloads project file to HMI via Ethernet or USB cable.
Upload	Uploads files on HMI to PC via Ethernet or USB cable.
Build Download Data for SD/USB Disk	Builds the data to be downloaded to HMI in an SD card / USB drive. For cMT / cMT X Series, the data needs to be built in EasyBuilder Pro.

2.4.1.   Download (PC->HMI)

Download files to HMI via Ethernet or USB cable.

eMT, iE, XE, mTV Series   **cMT, cMT X Series**
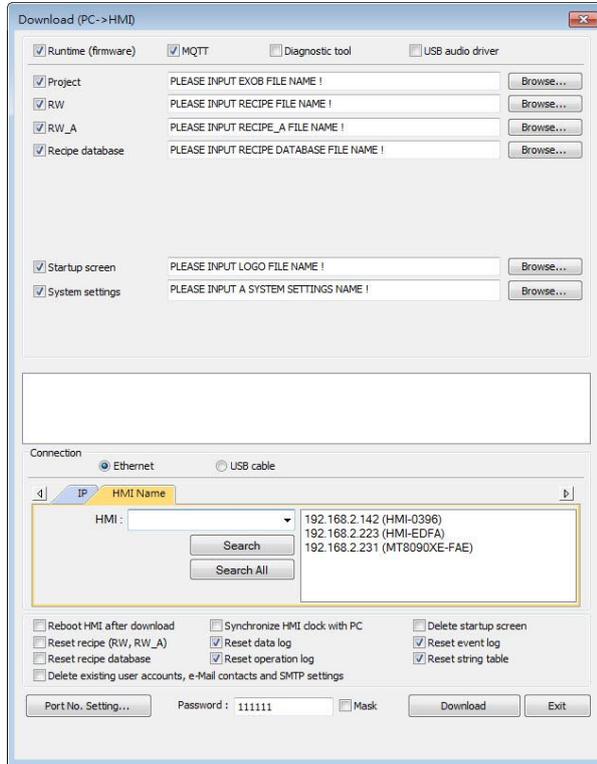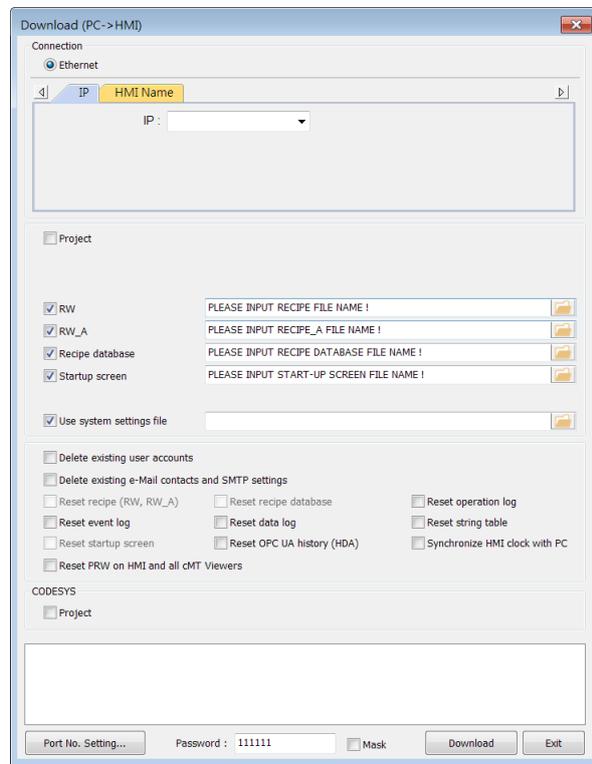
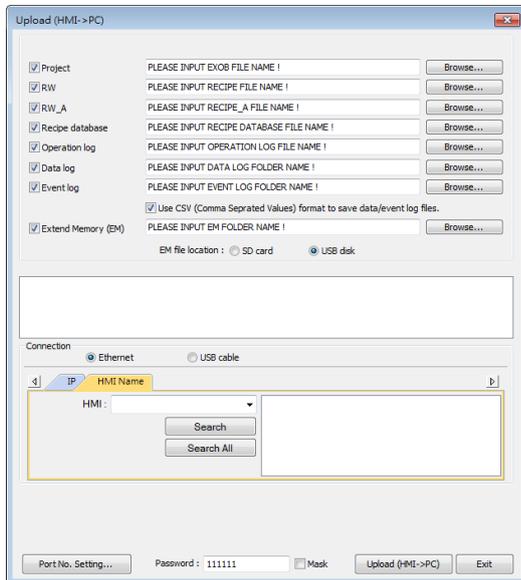| Setting	Description
Project	Select an .exob or .cxob project file. For a cMT / cMT X project, the Project Checksum will be shown under the directory of the project for users to check whether the project file has been tempered with.
Runtime (firmware)	Update HMI kernel programs. The firmware must be downloaded at the first time downloading data to HMI.
MQTT	If MQTT is used in the project and HMI is the broker, this checkbox must be selected before download.
Diagnostic tool	Enable the diagnostic tool to send diagnostic data to the developers when an error occurs for quick troubleshooting.
USB Audio Driver	Enable audio output on HMI so it can immediately emit a sound when a USB sound card and a speaker are connected.

|	
RW / RW_A	Select an .rcp recipe file.
Recipe database	Select a .db file of Recipe Database.
Startup screen	Download a .bmp file to the HMI, which will be displayed after the HMI is started, and then the downloaded project is loaded. Please note that when downloading a project to a cMT / cMT X model, it is not possible to select both Project and Startup Screen in the download window.
Use system settings file	Select a .conf system settings file.
Reboot HMI after download	Automatically reboot after download.
Port No. Setting	Select the port by which to download the project file via Ethernet.
Synchronize HMI clock with PC	Synchronize HMI time with PC time when downloading project file.
Reset recipe / recipe database / event log / data log / operation log / string table / OPC UA history (HDA) / startup screen / Delete existing user accounts, e-Mail contacts and SMTP settings	Erase the selected files on HMI before download.
CODESYS	Use Utility Manager to download CODESYS boot project.

2.4.2. Upload (HMI->PC)

Upload files from HMI to PC via Ethernet or USB cable. Click [Browse] and assign the file path before uploading.

**eMT, iE, XE, mTV Series**   **cMT, cMT X Series**
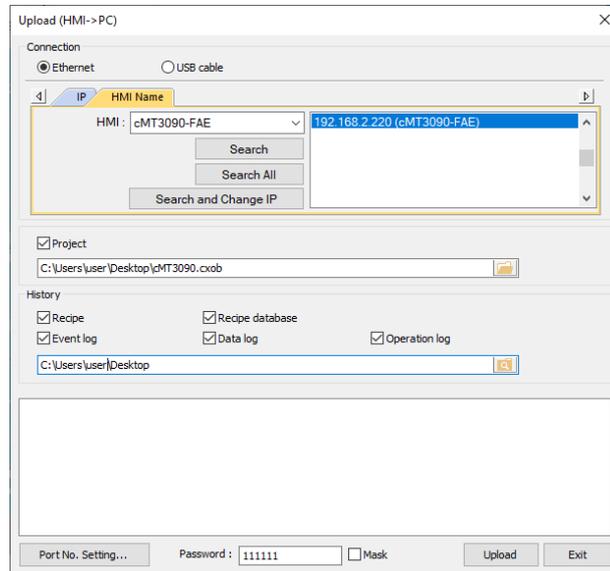
Setting	Description
Event log	Upload the .evt file on HMI to PC.
Extended Memory (EM)	Upload the .emi file saved in SD card or USB disk to PC.

☞ For information about [Project], [RW / RW_A], [Recipe database] or [Data log], see "2.4.1 Download" in this chapter.

📝Note

■ The file will be uploaded to PC in .exob / .cxob format. Please decompile it into editable .emtp / .cmtp file first and open the .emtp / .cmtp file in EasyBuilder Pro.

■ To upload the historical files saved in the external device, please use FTP. See "32 FTP Server Application" for more information.

2.4.3. Build Download Data for SD/USB Disk
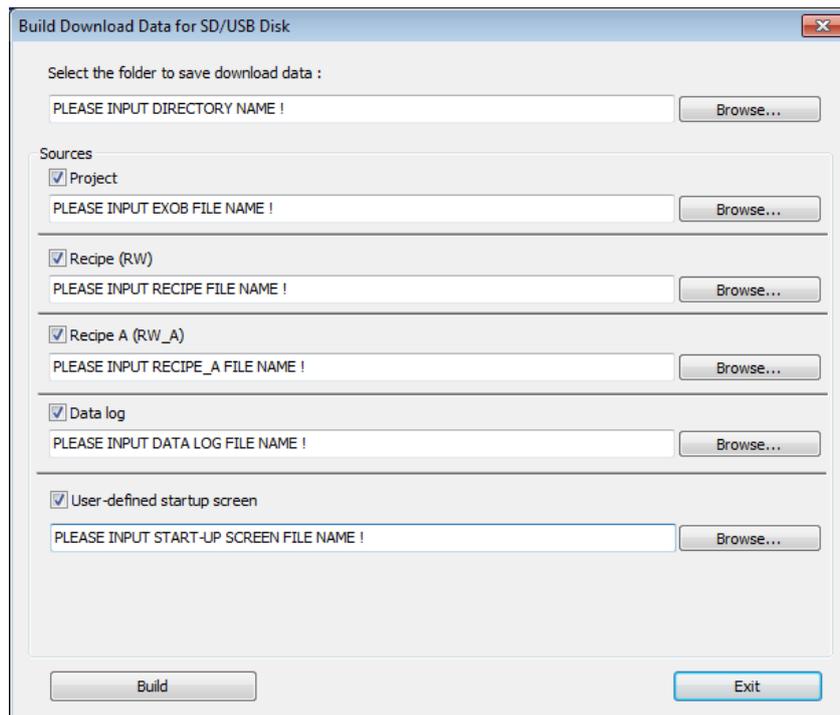
1. Insert an external device (SD card or USB drive) to PC.
2. Designate the directory to save data.
3. Browse for the directory of the source files.
4. Click [Build] to create download file.

Files will then be saved to the inserted device for users to download to HMI without having to use a USB cable or Ethernet.

2.4.4. Steps to Download Project to HMI via USB Disk or SD Card

To download data in a folder (e.g. a folder named "123" (K:\123)) in a USB disk.

1. Insert USB (in which the project is saved) to HMI.
2. In [Download / Upload] dialog box select [Download].
3. Enter Download Password.
4. In [Download Settings] dialog box, select [Download project files] and [Download history files].
5. Press [OK].
6. In [Pick a Directory] dialog box, select directory: usbdisk\disk_a_1\123.
7. Press [OK].

Project will then be updated.

📝Note

■ If history data is downloaded but not the project file, please reboot HMI to update files.

2.5. Maintenance

Options in this tab may vary according to model.

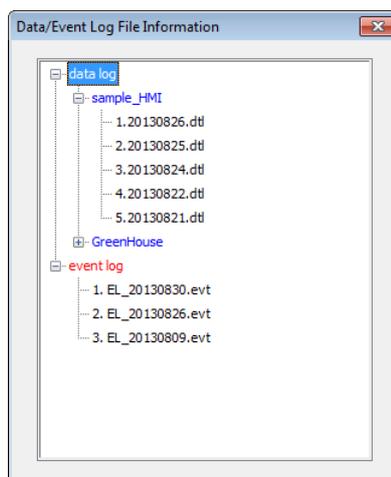| Utilities	Description
Administrator Tools	Allows saving the data of [User Accounts], [USB Security Key], [e-Mail SMTP Server Settings], and [e-Mail Contacts] to USB. See "36 Administrator Tools".
cMT Viewer	cMT Viewer can connect to a cMT / cMT X Series model. PC is the display terminal for cMT / cMT X project.
cMT-iV5/cMT-iV6 Firmware Update	Updates cMT-iV5/iV6 runtime (firmware) or OS.
cMT-Server OS Update	Updates cMT-SVR/SVR-200 OS.
cMT-Gateway/CTRL OS Update	Updates cMT-Gateway/CTRL OS.
CODESYS Firmware Upgrade	Updates CODESYS firmware on cMT / cMT X HMI.
SSL/TLS Certificate	Upgrades the built-in expired SSL/TLS certificate on HMI.

|	
Upgrade	
FTP Server Certificate Update	Update the certificate and private key for the FTP server on the HMI.
HMI Information Collector	Obtains a file with diagnostic information from HMI.
EasyPrinter / Backup Server	Runs remote backup/printer server on PC.

Data/Event log Information	Connects with HMI via USB cable or Ethernet to check the number of history files on HMI. This feature is not supported on cMT / cMT X Series.
	
	Data/Event Log File Information
	data log
	  sample_HMI
	    1.20130826.dtl
	    2.20130825.dtl
	    3.20130824.dtl
	    4.20130822.dtl
	    5.20130821.dtl
	  GreenHouse
	event log
	  1. EL_20130830.evt
	  2. EL_20130826.evt
	  3. EL_20130809.evt

EasyAccess 1.0	Supports access to remote HMI by connecting EasyAccess server over Internet. You can find more information at: www.ihmi.net

📝 **Note**

■ HMI Information Collector is available only on cMT / cMT X Series models, and the applicable OS version is 20210705 or later.

2.6. Data Conversion
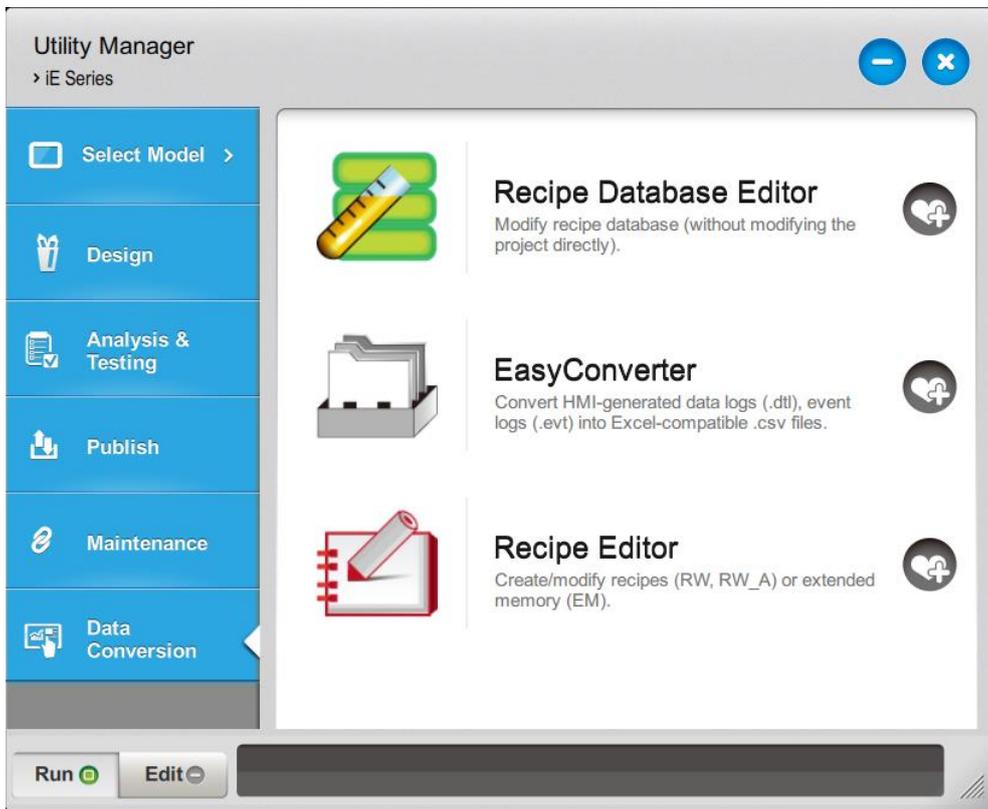
Utilities	Description
Recipe Database Editor	Edits recipe data. ⬇ Click the icon to download the document about Recipe Database.
Easy Converter	Reads HMI-generated data logs, event logs, and operation logs and converts the files to Excel (.xlsx) format. ☞See "25 EasyConverter".
Recipe Editor	Creates new recipe data to be used on HMI and modifies the existing recipe data. ☞See "24 Recipe Editor".