

ControlEdge RTU

Release 170

ControlEdge Builder Bulk Configuration User's Guide

RTDOC-X648-en-170A March 2021

DISCLAIMER

This document contains Honeywell proprietary information. Information contained herein is to be used solely for the purpose submitted, and no part of this document or its contents shall be reproduced, published, or disclosed to a third party without the express permission of Honeywell International Sàrl.

While this information is presented in good faith and believed to be accurate, Honeywell disclaims the implied warranties of merchantability and fitness for a purpose and makes no express warranties except as may be stated in its written agreement with and for its customer.

In no event is Honeywell liable to anyone for any direct, special, or consequential damages. The information and specifications in this document are subject to change without notice.

Copyright 2021 - Honeywell International Sàrl

CONTENTS

Contents	
Chapter 1 - About this guide	5
Chapter 2 - Overview	7
Chapter 3 - Installation	9
Hardware Requirements	9
Software Requirements	9
Installing Bulk Configuration	
Chapter 4 - Launching Bulk Configuration	
Chapter 5 - Configuration	
Configuring a controller list	17
Creating a controller list	
Renaming a controller list	17
Deleting a controller list	
Adding controllers to a controller list	
Importing controllers into the current list	20
Removing controllers from a controller list	21
Configuring a variable list	21
Creating a variable list	21
Renaming a variable list	22
Deleting a variable list	
Importing variables into the current list	23
Adding variables to a variable list	25
Removing variables from a variable list	27
Configuring a table	27
Creating a table	27

Contents

Renaming a table	
Deleting a table	
Chapter 6 - Operation	
Bulk authenticating controllers	29
Bulk reading variables	
Bulk writing variables	32
Chapter 7 - Notifications	
Notices	

CHAPTER



Revision history

Revision	Date	Description
A	March 2021	Initial release of this document

Intended audience

This documentation is intended for the following audience: Users who plan, install, configure, operate, or maintain ControlEdge[™] 2020 controllers running the eCLR (IEC 61131-3) execution environment.

Prerequisite skills

Knowledge of SCADA systems and experience of working in a Microsoft Windows environment are required.

Introduction to ControlEdge Technology

Item	Description
ControlEdge PLC	ControlEdge 900 controllers running the eCLR (IEC 61131-3) execution environment with PLC software options configured with ControlEdge Builder.
ControlEdge RTU	ControlEdge 2020 controllers running the eCLR (IEC 61131-3) execution environment with RTU software options configured with ControlEdge Builder.
ControlEdge UOC	ControlEdge 900 controllers running the Honeywell control execution environment (CEE) configured with Experion Control Builder.

Special terms

The following table describes some commonly used industry-wide and Honeywell-specific terminology:

Terminology	Description
Bulk Configuration	A tool to read and write multiple variables for multiple controllers.

Related documents

The following list identifies publications that may contain information relevant to the information in this document.

- ControlEdge Builder Software Installation User's Guide
- ControlEdge Builder Software Change Notice
- ControlEdge PLC and ControlEdge RTU Getting started
- ControlEdge 2020 Platform Hardware Planning and Installation Guide
- ControlEdge Builder Function and Function Block Configuration Reference
- ControlEdge Builder Protocol Configuration Reference Guide
- ControlEdge PLC and ControlEdge RTU Network and Security Planning Guide
- ControlEdge RTU and PLC DNP3 Device Profile
- Firmware Manager User Guide

CHAPTER

OVERVIEW

Bulk Configuration is a utility of ControlEdge Builder to read and write multiple variables on multiple controllers at the same time.

Key features are listed below:

- Detect online controllers automatically
- Group controllers through controller lists
- Group variables through variable lists
- Add and delete controller lists and variable lists
- Import controllers into an existing controller list from an external .csv file
- Import variables into an existing variable list from an external .csv file
- Save controllers of an existing controller list to the corresponding default .csv file
- Save variables of an existing variables list to the corresponding default .csv file
- Bulk authenticate controllers
- Save tables based on the combination of a controller list and a variable list
- Bulk read values of multiple variables from multiple controller

NOTE: String variables are not supported.

- Export read values
- Bulk write values of multiple variables to multiple controller

NOTE: String variables are not supported.

Import or Export modified values of variables

The following table lists bulk configuration procedures.

Table 2-1:	Bulk	configuration	procedures

	Task	Go to
Step 1	Install Bulk Configuration	See Installing Bulk Configuration for more information.
Step 2	Launch Bulk Configuration	See Launching Bulk Configuration for more information.
Step 3	Create a controller list	See Creating a controller list for more information.
Step 4	Add controllers into a controller list	See Adding controllers to a controller list for more information.
		or,
		See Importing controllers into the current list for more information.
Step 5	Create a variable list	See Creating a variable list for more information.
Step 6	Add variables into a variable list:	
	 If variables are not existing in Bulk Configuration 	• See Importing variables into the current list for more information.
	• If variables are existing in Bulk Configuration	• See Adding variables to a variable list for more information.
Step 7	Configure a table	See Creating a table for more information.
Step 8	Authenticate controllers	See Bulk authenticating controllers for more information.
Step 9	Read variables	See Bulk reading variables for more information.
Step 10	Write variables	See Bulk writing variables for more information.

CHAPTER



Hardware Requirements

Item	Specification
Processor	Minimum: Pentium or compatible 2 GHz
	Recommended: Intel® Core™ i5 or equivalent better
System RAM	Minimum: 1 GB
	Recommended: 4 GB
Hard disk	5 GB free memory space
DVD-ROM drive	Required
Graphic Card	DirectX9 compatible graphic adapter
Display color settings	True color (32 bit)
RS232 interface	Optional
Resolution	Recommended: 1280x800 or above
	Optimal: 1920x1080, 1366x768, 1280x1024 and 1280x800

Software Requirements

Item	Specification	
Installation Media	ControlEdge Builder Media Kit	
Operation system	Windows 10 32-bit or 64-bit (Support Secure Communication)	
	Windows Server 2016 Standard Edition 64-bit	
Certified antivirus software	McAfee AV + Virus Scan Engine + patch (8.7i + Engine 5400 + Patch3)	

ATTENTION: If Bulk Configuration does not display correctly on your computer, try upgrading the computer's graphic driver to the latest version available.

Installing Bulk Configuration

Prerequisites

- The user must log on the computer as an administrator or a member of the Administrator group to install Bulk Configuration.
- Bulk Configuration can be installed over a previous version without uninstalling it first.
- The user should set the format language, keyboards default input language as English and set the location of English speaking region.

To install Bulk Configuration

- 1. Insert the ControlEdge Builder Media Kit into the DVD-ROM drive.
- Browse to the folder "BulkConfiguration" containing BulkConfiguration.exe. Double-click this file.
 The User Account Control dialog appears to ensure that you allow
- the app to make changes to your device.Click Yes. The BulkConfiguration- InstallShield Wizard dialog appears.
- 4. Click Next to continue.
- 5. In the License Agreement page, click I accept the terms in the license agreement and click Next.
- 6. In the Setup Type page, select Complete and click Next.
- 7. In the **Ready to Install the Program** page, click **Install** to begin the installation.
- 8. The installation is in progress. Then in the InstallShield Wizard Completed page that appears, click Finish.

Results

Bulk Configuration is installed successfully.

CHAPTER

LAUNCHING BULK CONFIGURATION

Click **Start > All Programs > Honeywell > Bulk Configuration** to launch Bulk Configuration, and the Home Page appears.

Controllers tab is selected by default and online controllers are detected and listed on the right panel automatically.

Figure 4-1: Home Page



Item	Description
1	Controllers: adds controller lists, and add controllers into the controller lists.
2	Variables: adds variables lists and add variables into the variables lists.
3	Configuration: configures tables, and read/write variables.
4	Add New: used to add a controller list or variable list.
5	List Panel: lists created controller lists, or variable lists, or tables.
6	Progress: shows status of the latest operation.
	• 🗠 : represents the operation is successful.

Item	Description			
	· represents the operation is failed			
7				
1	Notifications: shows status of all operations.			
8	Filter: shows controller from Controllers tab or variables from Variables tab according different filters.			
	• From the Controllers tab, the following filters are available:			
	PERSONALITY			
	RUNNING STATUS			
	SYNC STATUS			
	AUTHENTICATED			
	CON LIST			
	• From the Variables tab, the following filters are available:			
	• Туре			
	Variable List			
9	The right panel shows information that depends on the tab you selected.			
	Controllers List : When you select Controllers tab, it lists all online controllers in the network.			
	Variables List : When you select Variables tab, it lists all variables you have imported.			
	Table : When you select Configuration tab and select a table, it lists variables and controllers in the table.			

Controllers List displays details of all controllers present in the network.

Figure 4-2: Controllers List

	Controllers > All							
	All Controllers							
\heartsuit	List A	All (50)	50 Selected 50 items				â Authenticate □	Add to List $ imes$
%	RTUv2_10	10	CONTROLLER	CON LIST	ADDRESS 🗇	TYPE 🗘	PERSONALITY 🗇	RUNNING STATUS 💲
	RTUv2_20	10	BOC_RTUv2_48	R_N +3	eth2:192.168.1.205	2020CPM	SC-UCNN11	Running
	RTUv2_30	10	BOC_RTUv2_07	R_N +3	eth2:192.168.1.123	2020CPM	SC-UCNN11	Running
	RTUv2_40	10	BOC_RTUv2_34	R_N +3	eth1:10.1.0.177 \sim	2020CPM	SC-UCNN11	Running
	RTUv2_50	10	BOC_RTUv2_27	R_N +3	eth1:10.1.0.163 V	2020CPM	SC-UCNN11	Running
	RTUv2_AIILLLLLLLLLLLL	. 50	BOC_RTUv2_41	R_N +3	eth1:10.1.0.191 $$	2020CPM	SC-UCNN11	Running
	RTUv3_10	10	BOC_RTUv2_11	R_N +3	eth2:192.168.1.131 \sim	2020CPM	SC-UCNN11	Running

Item	Description
CONTROLLER	Controller name
CON LIST	Controller list name which the controller is added in.
	If the controller is added into multiple controller lists, a number appears. You can put the cursor on it to show the corresponding controller lists.
ADDRESS	IP address of the controller
ТҮРЕ	Controller type
	• 2020CPM
	• 900CPM
PERSONALITY	Hardware type
	• SC-UCMX01
	• SC-UCMX02
	• SC-UCNN11
RUNNING STATUS	Controller running status
	• Running
	• Stopped
	• On
SYNC STATUS	Sync status

Item	Description
	Not synchronized
	• Synchronizing
	Synchronized
BOOT/RECOVERY	Boot/recovery version of the controller
APPLICATION	Application version of the controller
AUTHENTICATED	Authentication status:
	Not Attempted
	• PASS
	• FAIL

Variables List displays all variables you have imported.

Figure 4-3: Variables List

	Variables > All All Variables					
\odot	List	All (1504)	1504 total			2
\gg	Aarry_L	100	🗌 VARIABLE 🗇	VARIABLE LIST	TYPE 🛇	
	Al_Local111	100	DftInst.AYL[1]	Aarry_L +2	Local	
	AO-OP	100	DftInst.AYL[2]	Aarry_L +2	Local	
	AO_Local	100	DftInst.AYL[3]	Aarry_L	Local	
	DI_Local	100	DftInst.AYL[4]	Aarry_L	Local	
	DO_Local	100	DftInst.AYL[5]	Aarry_L	Local	

Item	Description
VARIABLE	Variable name
VARIABLE	Variable list name which the variable is added in.
LIST	If the variable is added into multiple variable lists, a number appears. You can put the cursor on it to show the corresponding variable lists.
TYPE	Variable type
	• Local
	• Global

Table displays variables and controllers in the table.

Figure 4-4: Table

	_{Read} ⇒	ктоv2_алании инининини figure	Read	🖉 Write					📋 Dele	e Table	∱ Export
\heartsuit	۲	Table_6	100 total Last u	pdated at 17:48:41					() A	uto-Refresh	🔿 Refresh
\gg	0	Table_7	VARIABLE 🗘	DATA TYPE 💲	BOC_RTUv2_01	BOC_RTUv2_02	BOC_RTUv2_03	BOC_RTUv2_04	BOC_RTUv2_05	BOC_RTUv2_0	06 BOC_I
	0	Table_8	AY[1]	INT	0	0	0	0	0	0	0
	0	Table_9	AY[2]	INT	0	0	0	0	0	0	0
	0	Table_10	AY[3]	INT	0	0	0	0	0	0	0
	0	Table_1111111111	AY[4]	INT	0	0	0	0	0	0	0
	0	Table_1211111111	AY[5]	INT	0	0	0	0	0	0	0
	\sim	*** ********									

Item	Description
VARIABLE	Lists all variables in the table
DATA TYPE	Data type of a variable
[Controller name]	Lists all controllers in the table

Chapter 4 - Launching Bulk Configuration

CHAPTER

CONFIGURATION

Configuring a controller list

A controller list can group multiple controllers.

Creating a controller list

- 1. From the Home Page, select the **Controllers** tab, and click **Add New**. The **Create New List** dialog appears.
- 2. Enter a name for the controller list, and click **Create**. The controller list is added.

A .csv file with the same name is created at the same time and stored in the location:

 $\label{eq:c:ProgramData} C: \end{tabulk} Bulk Configuration \bulk config\control oller Lists$

Renaming a controller list

The controller list name cannot be modified if the corresponding .csv file is already opened.

- 1. From the Home Page, select the Controllers tab.
- 2. Put the cursor on a controller list, and the edit button appears.

Controllers > All			
All Controllers			
List	All (1)		
Controller list 1 🧷	3		
Controller list 2	1		

Or select the controller list, and the edit button appears above.

Controllers > Selected List				
Controller list 1 🥖				
List	All (1)			
Controller list 1	3			
Controller list 2	1			

- 3. Click the edit button, and the Rename List dialog appears.
- 4. Enter the required name, and click Save.

The corresponding .csv file stored in "C:\ProgramData\Honeywell\BulkConfiguration\bulkconfig\contr ollerLists" is renamed at the same time.

Deleting a controller list

The controller list cannot be deleted if the corresponding .csv file is already opened.

- 1. From the Home Page, select the Controllers tab.
- 2. Select the controller list you want to delete, the **Delete List** button appears at the top right corner.

िवव	Controllers > Selected List								
88	Controller list	1 🖉					E	Delete List	L
\heartsuit	List	All (1)	3 total						2
\approx	Controller list 1	3	CONTROLLER 🗘	ADDRESS 🗘	TYPE 🗘	PERSONALITY 💲	RUNNING STATUS	SYNC STATUS	

- 3. Click the **Delete List** button, and then the **Delete List** dialog appears to ensure that you want to delete the controller list.
- 4. Click Confirm to delete the list.

Adding controllers to a controller list

ATTENTION: Up to 50 controllers can be added in a controller list.

There are two ways to add controllers to a controller list.

 From the Home Page, select the Controllers tab. All online controllers are detected automatically and displayed on the right panel. 1. Select the checkboxes of controllers you want to add, the Add to List button appears.

	Controllers > All All Controllers							
V	List	All (1)	1 Selected 1 items				🔒 Authenticate 🕞	Add to List $ imes$
\gg	Controller list 1	2	CONTROLLER	CON LIST	ADDRESS 🛇	ТҮРЕ 🗘	PERSONALITY 🗘	RUNNING STATUS
	Controller list 2	0	RTUV2_g_2	Controller list 1	eth1:10.1.0.122	2020CPM	SC-UCNN11	

2. Click the Add to List button, the existing controller lists are displayed.



3. Select the target controller list, the Add to List dialog appears.



- 4. Click **Confirm**. The controllers are added into the target controller list.
- From the Home Page, select the Controllers tab, and select the controller list including the controllers you want to add to another list.
 - 1. Select the checkboxes of controllers you want to add, the Add to List button appears.

***	Controllers > Selected List	L Ø					🗊 Delete List	↓ Import
\bigtriangledown	List	All (1)	1 Selected 2 items			යි	Authenticate 🕞 Add to List 💼 Remo	ove X
\gg	Controller list 1	2	CONTROLLER 🗘	ADDRESS 🛇	туре 🛇	PERSONALITY 🗘	RUNNING STATUS 🗘 SYNC STATUS 🗘	BOOT/R
	Controller list 2	0	RTUV2_g_2	eth1:10.1.0.122	2020CPM	SC-UCNN11		
			RTUV3_161_3	eth1:10.1.0.80				

2. Click the Add to List button, the existing controller lists are displayed.



Select the target controller list, the Add to List dialog appears.
 A checkbox is provided to remove the selected controllers from the current list if required.

 Add to List Adding 1 controllers to 'Controller list 2' 	
Remove controllers from 'Controller list 1'	
Confirm	Cancel

- 4. Click **Confirm**. The controllers are added into the target controller list.
 - If the checkbox is selected, the controllers are removed from the current list at the same time.
 - If the checkbox is not selected, the controllers are existing in both of controller lists.

Importing controllers into the current list

You can import multiple controllers into a controller list from a .csv file. Before being imported, the required controllers should be added in the .csv file.

You can take a .csv file as a template stored in "C:\ProgramData\Honeywell\BulkConfiguration\bulkconfig\controlle rLists", or add required controllers directly in the .csv file with the same name of the controller list. **ATTENTION:** Up to 50 controllers can be imported in a controller list even though you add more than 50 controller in the .csv file.

1. From the Home Page, select the **Controllers** tab, and select a controller list. The **Import** button appears.

:	Controllers > Selected List	LØ						前 Delete List	↓ Import
\bigtriangledown	List	All (1)	2 total						<u>.</u>
%	Controller list 1	2	CONTROLLER 🗘	ADDRESS 🗇	туре 🗘	PERSONALITY	RUNNING STATUS	SYNC STATUS	BOOT/RE
	Controller list 2	o	RTUV2_g_2	eth1:10.1.0.122	2020CPM	SC-UCNN11			
			RTUV3_161_3	eth1:10.1.0.80					

- 2. Click the Import button, the Open dialog appears.
- 3. Select the target .csv file and click **Open**. The **Import to List** dialog appears.
- 4. Click Confirm. The controllers are imported to the controller list.

Removing controllers from a controller list

- 1. From the Home Page, select the **Controllers** tab, and select a controller list.
- 2. Select the checkboxes of controllers you want to remove. The **Remove** button appears.

888	Controllers > Selected List						🛱 Delete Liet	L Immert
088	Controller list 1	. Ø					III Detete List	141 Import
\bigtriangledown	List	All (1)	2 Selected 2 items			ଌ Authentica	te 🕞 Add to List <u> </u> Rem	ove X
Ľ	Controller list 1	2	CONTROLLER	ADDRESS 🗘	түре 🗘	PERSONALITY 🗘 RUNNING	STATUS 🗘 SYNC STATUS 🔇	BOOT/RE
	Controller list 2	o	RTUV2_g_2	eth1:10.1.0.122	2020CPM	SC-UCNN11		
			RTUV3_161_3	eth1:10.1.0.80				

- 3. Click the **Remove** button, the **Remove Controllers** dialog appears to ensure that you want to remove the selected controllers.
- 4. Click Confirm. The controllers are removed from the controller list.

Configuring a variable list

A variable list can group multiple variables.

Creating a variable list

1. From the Home Page, select the Variables tab, and click Add New. The Create New List dialog appears. 2. Enter a name for the variable list, and click **Create**. The variable list is added.

A .csv file with the same name is created at the same time and stored in the location:

C:\ProgramData\Honeywell\BulkConfiguration\bulkconfig\variab leLists

Renaming a variable list

The variable list name cannot be modified if the corresponding .csv file is already opened.

- 1. From the Home Page, select the Variables tab.
- 2. Put the cursor on a variable list, and the edit button appears.

Variables > All	Variables > All					
All Variables						
	AUL (2)					
List	All (2)					
Variable list 1 🔗	2					
Variable list 2	0					

Or select the variable list, and the edit button appears above.



- 3. Click the edit button, and the Rename List dialog appears.
- 4. Enter the required name, and click Save.

The corresponding .csv file stored in

"C:\ProgramData\Honeywell\BulkConfiguration\bulkconfig\varia bleLists" is renamed at the same time.

Deleting a variable list

The variable list cannot be deleted if the corresponding .csv file is already opened.

- 1. From the Home Page, select the Variables tab.
- 2. Select the variable list you want to delete, the **Delete List** button appears at the top right corner.

0000	Variables > Selected List	>			💼 Delete List	↓ Import
\heartsuit	List	All (2)	2 total			
Ľ	Variable list 1	2	VARIABLE 🗘	TYPE 🛇		

- 3. Click the **Delete List** button, and then the **Delete List** dialog appears to ensure that you want to delete the variable list.
- 4. Click Confirm to delete the list.

Importing variables into the current list

Before reading or writing variables, you must import them into a variable list from a .csv file. Before being imported, the required variables should be added in the .csv file.

You can take a .csv file as a template stored in "C:\ProgramData\Honeywell\BulkConfiguration\bulkconfig\variableL ists", or add required variables directly in the .csv file with the same name of the variable list.

ATTENTION: Up to 100 variables can be imported in a variable list even though you add more than 100 variables in the .csv file.

The following two items should be filled in the .csv file.

ltem	Description					
Variable Name	Variables can be divided into three categories classified by data type:					
	• Primitive data type (including BOOL, INT, DINT, REAL etc.)					
• Array						
	• Struct					
	Variables can be divided into two categories classified by variable scope:					
	• Global					
	• Local					
	Enter the full name of a variable by following the rule below:					

Item	Description						
	[POU Instance Name].[Variable Name]						
	 [POU Instance Name] is a must for Local variables, but not required for Global variables. 						
	Here is an example of [POU Instance Name]:						
	 Physical Hardware* NewRTU : eCLR* eclrRes : ARM_LE_GCC3* Tasks Task1 : CYCLIC PRO1 : POU1* OftTask : CYCLIC DftTask : CYCLIC 						
	• [Variable name]						
	Primitive data type: variable name						
	 Array: array variable name[index] 						
	E.g. ArrayVar[1]						
	Struct: struct variable name.member name						
	E.g. StrVar.PV						
IsGlobal	Enter FALSE or TRUE						
	• FALSE is for local variables.						
	TRUE is for global variables.						

To import variables into a variable list

1. From the Home Page, select the **Variables** tab, and select a variable list. The **Import** button appears.

•••	Variables > Selected List	Ø			📋 Delete List	<u>↓</u> Import
\heartsuit	List	All (O)	0 total			<u></u>
$\widetilde{\mathcal{X}}$	Variable list 1	0	VARIABLE 🗘	түре 🗘		
	Variable list 2	0				

- 2. Click the Import button, the Open dialog appears.
- 3. Select the target .csv file and click **Open**. The **Import to List** dialog appears.
- 4. Click Confirm. The variables are imported to the variable list.

Adding variables to a variable list

ATTENTION: Up to 100 variables can be added in a variable list.

Prerequisite

The required variables must be imported in a variable list before adding them to another variable list. See Importing variables into the current list for more information.

To add variables to a variable list

There are two ways to add variables to a variable list.

- From the Home Page, select the Variables tab. All imported variables are displayed in Variables List.
 - 1. Select the checkboxes of variables you want to add, the Add to List button appears.

***	All Variables						
\odot	List	All (5)	2 Selected 5 items			🕞 Add to List	\times
\gg	Variable list 1	5	VARIABLE 🗘	VARIABLE LIST	туре 🗘		
	Variable list 2	o	V1	Variable list 1	Local		
			✓ V2	Variable list 1	Global		
			Task1.V3	Variable list 1	Local		

2. Click the Add to List button, the existing variable lists are displayed.



3. Select the target variable list, the Add to List dialog appears.



- 4. Click **Confirm**. The variables are added into the target variable list.
- From the Home Page, select the Variables tab, and select the variable list including the variables you want to add to another list.
 - 1. Select the checkboxes of variables you want to add, the Add to List button appears.

****	Variables > Selected List	۶			🗂 Dele	te List 🕁	Import
\odot	List	All (5)	2 Selected 5 items		Add to List	🛱 Remove	×
\gg	Variable list 1	5	VARIABLE 🛇	түре 💲			
	Variable list 2	0	✓ V1	Local			
			✓ V2	Global			
			Task1.V3	Local			

2. Click the Add to List button, the existing variable lists are displayed.



Select the target variable list, the Add to List dialog appears.
 A checkbox is provided to remove the selected variables from the current list if required.

 Add to List Adding 2 variables to 'Variab' 	le list 2'	
Remove variables from 'Va	ariable list 1'	
	Confirm	Cancel

- 4. Click **Confirm**. The variables are added into the target variable list.
 - If the checkbox is selected, the variables are removed from the current list at the same time.
 - If the checkbox is not selected, the variables are existing in both of variable lists.

Removing variables from a variable list

- 1. From the Home Page, select the Variables tab, and select a variable list.
- 2. Select the checkboxes of variables you want to remove. The **Remove** button appears.

	Variables > Selected List	>			📋 Delete List	🕁 Import
\heartsuit	List	All (2)	2 Selected 2 items		⊡ Add to List 💼 Reme	ove X
\gg	Variable list 1	2	VARIABLE 🗘	түре 🗘		
	Variable list 2	0	✓ V1	Global		
			✓ V2	Local		

- 3. Click the **Remove** button, the **Remove Variables** dialog appears to ensure that you want to remove the selected variables.
- 4. Click Confirm. The variables are removed from the variable list.

Configuring a table

A table can integrate multiple controllers and multiple variables based on a controller list and a variable list.

Creating a table

Before creating a table, at least one controller list and one variable list must be configured. See Configuring a controller list and Configuring a variable list for more information.

- 1. From the Home Page, select the **Configuration** tab.
- 2. Select a controller list and a variable list, then click **Save table**. The **Save to Table** dialog appears.
- 3. Enter a name for the table, and click **Save**. The table is added, and controllers and variables in the table appear on the right panel.

Renaming a table

- 1. From the Home Page, select the **Configuration** tab.
- 2. Select the table you want to rename, and click **Save table**. The **Save to Table** dialog appears.
- 3. Enter a new name for the table, and click Save.

A new table with the new name is created. You can delete the old table then.

Deleting a table

- 1. From the Home Page, select the **Configuration** tab.
- 2. Select the table you want to delete, and the **Delete Table** button appears.

000	Read > Controller list 1 Variable list 1 Configure	⊚ Read	🛿 Write				🛅 Delete Tab	e 🛧 Export
\heartsuit	Saved Tables	5 total					O Auto-Ref	esh 💭 Refresh
%	Table 1	VARIABLE 🗘	DATA TYPE 🗘	RTUV2_g_2	RTUV3_161_3	Controller test		

- 3. Click the **Delete Table** button, and the **Delete Table** dialog appears to ensure that you want to delete the table.
- 4. Click Confirm to delete the table.

CHAPTER



Bulk authenticating controllers

Before reading and writing variables, you must authenticate the corresponding controllers.

ATTENTION: Up to 50 controllers can be authenticated at one time.

There are two ways to authenticate controllers.

- From the Home Page, select the Controllers tab. All online controllers are detected automatically and displayed on the right panel.
 - 1. Select the checkboxes of controllers you want to authenticate, the **Authenticate** button appears.

	Controllers > All								
\heartsuit	List Al	(50)	50 Selected 50 items					🕹 Authenticate	Add to List $ imes$
ž	RTUv2_10	10	CONTROLLER 🗘	CON LIST	ADDRESS 🗇		туре 🗘	PERSONALITY 🗘	RUNNING STATUS 💲
	RTUv2_20	10	BOC_RTUv2_48	R_N +3	eth1:10.1.0.205		2020CPM	SC-UCNN11	Running
	RTUv2_30	10	BOC_RTUv2_07	Controller list 1 +4	eth2:192.168.1.123	\sim	2020CPM	SC-UCNN11	Running
	RTUv2_40	10	BOC_RTUv2_34	R_N +3	eth2:192.168.1.177		2020CPM	SC-UCNN11	Running
	RTUv2_50	10	BOC_RTUv2_27	R_N +3	eth2:192.168.1.163		2020CPM	SC-UCNN11	Running
	RTUv2_AIILLLLLLLLLLL	50	BOC_RTUv2_41	R_N +3	eth2:192.168.1.191		2020CPM	SC-UCNN11	Running
	RTUv3_10	10	BOC_RTUv2_11	R_N +3	eth1:10.1.0.131	\sim	2020CPM	SC-UCNN11	Running
	RTUv3_20	10	BOC_RTUv2_44	R_N +3	eth1:10.1.0.197		2020CPM	SC-UCNN11	Running
	RTUv3_30	10	BOC_RTUv2_26	R_N +3	eth2:192.168.1.161		2020CPM	SC-UCNN11	Running
	RTUv3_40	0	BOC_RTUv2_39	R_N +3	eth1:10.1.0.187		2020CPM	SC-UCNN11	Running
	RTUv3_50	0	BOC_RTUv2_04	Controller list 1 +5	eth1:10.1.0.117	\sim	2020CPM	SC-UCNN11	Running

2. Click the Authenticate button, the Authenticate dialog appears.

Administrator
Password

3. Select the user type and enter the password.

For the initial password of each user type, see "User privileges" in the *ControlEdge Builder User's Guide*.

4. Click **SIGN IN**. Click the Progress button to check if the authentication is successful or not.



- From the Home Page, select the Controllers tab, and select a controller list.
 - 1. Select the checkboxes of the controllers, the **Authenticate** button appears.

288	Controllers > Selected List									٦.
	RTUv2_10 🖉								Delete List	Import
\heartsuit	List Al	l (50)	10 Selected 10 items				[🕹 Authenticate 🕞 🖟	ldd to List 🗂 Remove	×
%	RTUv2_10	10	CONTROLLER 🗇	ADDRESS 🗇		ТҮРЕ 🗘	PERSONALITY 🗘	RUNNING STATUS	♦ SYNC STATUS	BOOT/RE
	RTUv2_20	10	BOC_RTUv2_01	eth2:192.168.1.111		2020CPM	SC-UCNN11	Stopped		160.1.01
	RTUv2_30	10	BOC_RTUv2_02	eth1:10.1.0.113		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv2_40	10	BOC_RTUv2_03	eth1:10.1.0.115		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv2_50	10	BOC_RTUv2_04	eth1:10.1.0.117		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv2_AIILLLLLLLLLLLLL	50	BOC_RTUv2_05	eth1:10.1.0.119		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv3_10	10	BOC_RTUv2_06	eth2:192.168.1.121		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv3_20	10	BOC_RTUv2_07	eth2:192.168.1.123		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv3_30	10	BOC_RTUv2_08	eth1:10.1.0.125		2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01
	RTUv3_40	0	BOC_RTUv2_09	eth2:192.168.1.127		2020CPM	SC-UCNN11	Running		160.1.01
	RTUv3_50	0	BOC_RTUv2_10	eth1:10.1.0.129	\sim	2020CPM	SC-UCNN11	Running	Not synchronized	160.1.01

2. Click the Authenticate button, the Authenticate dialog appears.

Administrator	
Administrator	\sim
assword	
•••••	

3. Select the user type and enter the password.

For the initial password of each user type, see "User privileges" in the *ControlEdge Builder User's Guide*.

4. Click SIGN IN. Click the Progress button to check if the authentication is successful or not.



Bulk reading variables

NOTE: String variables are not supported.

- 1. From the Home Page, select the **Configuration** tab.
- 2. Select a table, variables and controllers in the table are displayed on the right panel.
- 3. There are two ways to read values of variables.
 - Manual refresh

Click Refresh to display the latest values of variables manually.



NOTE: If **Auto-Refresh** is already selected, click it to switch to the manual refresh.

Auto refresh

Click **Auto-Refresh**, and set a time interval to refresh values periodically.

Auto Dofroch	60 5000	\sim	
Auto-Refresh	00 Secs	\sim	

NOTE: The default time interval is 60 seconds, and the minimum time interval is 10 seconds.

- 4. (Optional) Export a table
 - a. Select the table you want to export, and the **Export** button appears.

000	Read > Controller list 1 Variable list 1 Configure	⊘ Read	📓 Write	箇 Delete Table	Export
\heartsuit	Saved Tables	5 total		O Auto-Refrest	⊖ Refresh
\gg	Table 1	VARIABLE 🗘	DATA TYPE 〈	RTUV2_g_2 RTUV3_161_3 Controller test	

- b. Click the Export button, and the Save As dialog appears.
- c. Select a destination location, and enter a name for the exported file.
- d. Click Save. A .csv file is exported and saved.

Bulk writing variables

This feature enable users to assign values to variables for controllers at the same time.

ATTENTION: Before the first write, you must read variables to get data types from the controllers. See Bulk reading variables for more information.

NOTE: String variables are not supported.

- 1. From the Home Page, select the Configuration tab.
- 2. Select a table, and click Write.
- 3. Change values for variables. There are three ways to change variable values:
 - Change one variable value for multiple controller
 - a. From the right panel, click the variable you want to change value. The following dialog appears.

AY[1]			
	CONTROLLER	Current Value	New Value
	BOC_RTUv2_01	0	0
	BOC_RTUv2_02	0	0
	BOC_RTUv2_03	0	0
	BOC_RTUv2_04	0	0
	BOC_RTUv2_05	0	0
	BOC_RTUv2_06	0	0
	BOC_RTUv2_07	0	0
	BOC_RTUv2_08	0	0
	BOC_RTUv2_09	0	0
	BOC_RTUv2_10	0	0
	BOC_RTUv2_11	0	0
	BOC_RTUv2_12	0	0
	BOC_RTUv2_13	0	0
	BOC_RTUv2_14	0	0
	BOC_RTUv2_15	0	0
		SAVE	Cancel

b. Select the checkboxes of controllers, and enter a new value for the variable.

50 sel	ected 50 items	1	~
~	CONTROLLER	Current Value	New Value
~	BOC_RTUv2_01	0	0
~	BOC_RTUv2_02	0	0
~	BOC_RTUv2_03	0	0
~	BOC_RTUv2_04	0	0
~	BOC_RTUv2_05	0	0
~	BOC_RTUv2_06	0	0
~	BOC_RTUv2_07	0	0
~	BOC_RTUv2_08	0	0
~	BOC_RTUv2_09	0	0
~	BOC_RTUv2_10	0	0
~	BOC_RTUv2_11	0	0
~	BOC_RTUv2_12	0	0
~	BOC_RTUv2_13	0	0
~	BOC_RTUv2_14	0	0
~	BOC_RTUv2_15	0	0
		SAVE	Cancel

c. Click the "

	Write > RTUV2_AIILLILLILLILLILLILLILLILLILLILLILLILLIL	◎ Read	🕼 Write				SUBMIT	📋 Delet	e Table 🗔 II	mport
\oslash	Saved Tables	100 total						_		
\gg	Table_1	VARIABLE 🗇	DATA TYPE 💠	BOC_RTUv2_01	BOC_RTUv2_02	BOC_RTUv2_03	BOC_RTUv2_04	BOC_RTUv2_05	BOC_RTUv2_06	BOC_I
	Table_2	AY[1]	INT	1	1	1	1	1	1	1
	Table_3	AY[2]	INT	0	0	0	0	0	0	0
	Table_4	AY[3]	INT	0	0	0	0	0	0	0
	 Table_5 	AY[4]	INT	0	0	0	0	0	0	0
	Table_6	AY[5]	INT	0	0	0	0	0	0	0

- Change values of multiple variables for one controller
 - a. From the right panel, click the controller you want to change variable values. The following dialog appears.

BOO	_RTUv2_02		
	VARIABLE	Current Value	New Value
	AY[1]	1	1
	AY[2]	0	0
	AY[3]	0	0
	AY[4]	0	0
	AY[5]	0	0
	AY[6]	0	0
	AY[7]	0	0
	AY[8]	0	0
	AY[9]	0	0
	AY[10]	0	0
	AY[11]	0	0
	AY[12]	0	0
	AY[13]	0	0
	AY[14]	0	0
	AY[15]	0	0
		SAVE	Cancel

b. Select the checkboxes of variables, and enter a new value.

100 se	elected 1	100 items 2	~
~	VARIABLE	Current Va	lue New Value
~	AY[1]	1	1
✓	AY[2]	0	0
~	AY[3]	0	0
~	AY[4]	0	0
~	AY[5]	0	0
✓	AY[6]	0	0
~	AY[7]	0	0
~	AY[8]	0	0
~	AY[9]	0	0
✓	AY[10]	0	0
~	AY[11]	0	0
~	AY[12]	0	0
~	AY[13]	0	0
~	AY[14]	0	0
~	AY[15]	0	0
		SA	VE Cancel

c. Click the " button, and click Save.

8 8 8 8 8 8 8 8	Write > RTUV2_AIILLILLILL Configure		② Read	🕼 Write				SUBMIT	📋 Dele	te Table 🖳 lı	mport
\heartsuit	Saved Tables	~	100 total								
\approx	Table_1		VARIABLE 🗘	DATA TYPE 🔇	BOC_RTUv2_01	BOC_RTUv2_02	BOC_RTUv2_03	BOC_RTUv2_04	BOC_RTUv2_05	BOC_RTUv2_06	BOC_I
	Table_2		AY[1]	INT	0	2	1	1	1	1	1
	Table_3	- 1	AY[2]	INT	0	2	0	0	0	0	0
	Table_4	- 1	AY[3]	INT	0	2	0	0	0	0	0
	 Table_5 	- 1	AY[4]	INT	0	2	0	0	0	0	0
	Table_6		AY[5]	INT	0	2	0	0	0	0	0

• Change values of multiple variables for multiple controllers

You can add values for multiple variables of multiple controllers in a .csv file and import the file. Before adding values, the .csv file must be exported first. See <u>Export a table</u> for more information.

- a. From the top right corner, click the **Import** button. The **Open** dialog appears.
- b. Select the .csv file, and click **Open**. The values in the file are imported successfully.

200	Write > RTUv2_AIILLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL			_							
:88	Configure		Read	🛃 Write	SUBMIT						
\heartsuit	Saved Tables	~	100 total								
\approx	 Table_1 		VARIABLE 🗘	DATA TYPE 🗇	BOC_RTUv2_01	BOC_RTUv2_02	BOC_RTUv2_03	BOC_RTUv2_04	BOC_RTUv2_05	BOC_RTUv2_06	BOC_
	 Table_2 		AY[1]	INT	0	1	1	1	1	1	1
	 Table_3 		AY[2]	INT	0	2	2	2	2	0	0
	 Table_4 		AY[3]	INT	0	2	2	2	2	0	0
	O Table_5		AY[4]	INT	0	2	2	2	2	0	0
	Table_6		AY[5]	INT	0	2	2	2	2	0	0

4. Click **SUBMIT** to write variables to controllers.

5. Click Read and click Refresh, new values are displayed.

CHAPTER

NOTIFICATIONS

There are two notification buttons at the top right corner. One records status of the latest operations, and the other one records operation history.

Progress button:

The button appears after you perform an operation. You can click it to view operation status, and it will disappear after you close the status window.



• C: represents the operation is failed.

Click the button to view status of all operations.

There are three icons indicating different status.

lcon	Description
i	Records the operation
\odot	Records the successful result
Δ	Records the failed result

NOTICES

Trademarks

Experion[®] is a registered trademark of Honeywell International, Inc. ControlEdge[™] is a trademark of Honeywell International, Inc. OneWireless[™] is a trademark of Honeywell International, Inc.

Other trademarks

Microsoft and SQL Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Trademarks that appear in this document are used only to the benefit of the trademark owner, with no intention of trademark infringement.

Third-party licenses

This product may contain or be derived from materials, including software, of third parties. The third party materials may be subject to licenses, notices, restrictions and obligations imposed by the licensor. The licenses, notices, restrictions and obligations, if any, may be found in the materials accompanying the product, in the documents or files accompanying such third party materials, in a file named third_party_ licenses on the media containing the product, or at http://www.honeywell.com/en-us/privacy-statement.

Documentation feedback

You can find the most up-to-date documents on the Honeywell Process Solutions Support website at: http://www.honeywellprocess.com/support

If you have comments about Honeywell Process Solutions documentation, send your feedback to: https://www.horewate.com

Use this email address to provide feedback, or to report errors and omissions in the documentation. For immediate help with a technical problem, contact HPS Technical Support through your local Customer Contact Center, or by raising a support request on the Honeywell Process Solutions Support website.

How to report a security vulnerability

For the purpose of submission, a security vulnerability is defined as a software defect or weakness that can be exploited to reduce the operational or security capabilities of the software.

Honeywell investigates all reports of security vulnerabilities affecting Honeywell products and services.

To report a potential security vulnerability against any Honeywell product, please follow the instructions at:

https://www.honeywell.com/en-us/product-security.

Support

For support, contact your local Honeywell Process Solutions Customer Contact Center (CCC). To find your local CCC visit the website, <u>https://www.honeywellprocess.com/en-US/contact-</u> us/customer-support-contacts/Pages/default.aspx.

Training classes

Honeywell holds technical training classes that are taught by process control systems experts. For more information about these classes, contact your Honeywell representative, or see <u>http://www.automationcollege.com</u>. Notices