

This guide is used to integrate your GraceSense EtherNet/IP™ ControlGate™ into Rockwell Automation Factory Talk Studio 5000® software. If you have not already downloaded an L5X XML file from the GraceSense™ Maintenance Hub and configured the Communication Settings, see the below guides. This is a requirement before integrating into Studio 5000®.

This guide is intended for users that are familiar with Studio 5000® and can create a new project or modify their existing project with the ControlGate™ data. It is not intended to be all encompassing and will skip over some steps for the sake of brevity. If you have any Studio 5000® specific navigation questions, please refer to the user guide for Studio 5000®.

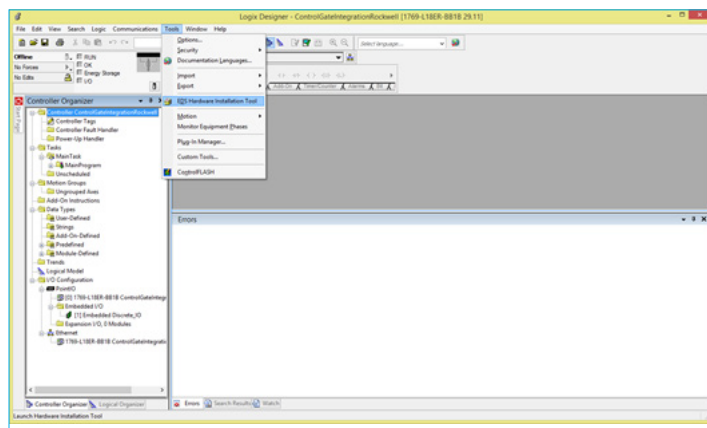
Your exact data, configuration, file names and locations, and program may vary based on a variety of factors. Your version of Studio 5000® may also change navigational steps and capabilities slightly.

See the below accompanying files for more information:

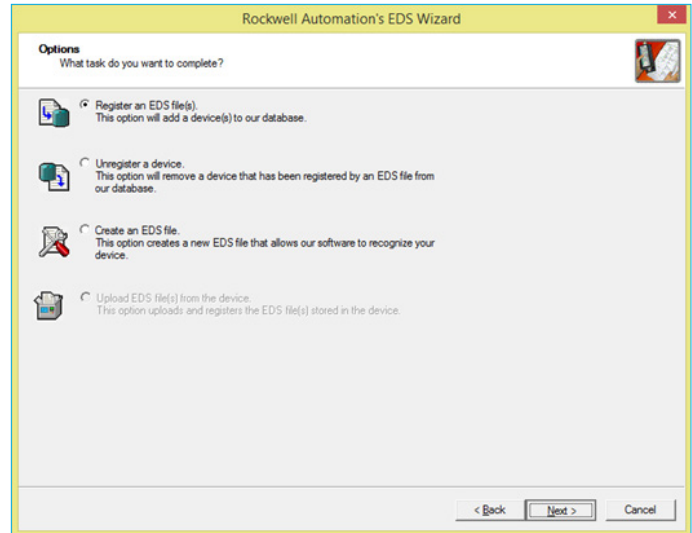
- ControlGate™ Communication Configuration Guide
- ControlGate™ L5X/XML Configuration Guide

REGISTERING THE CONTROLGATE EDS FILE:

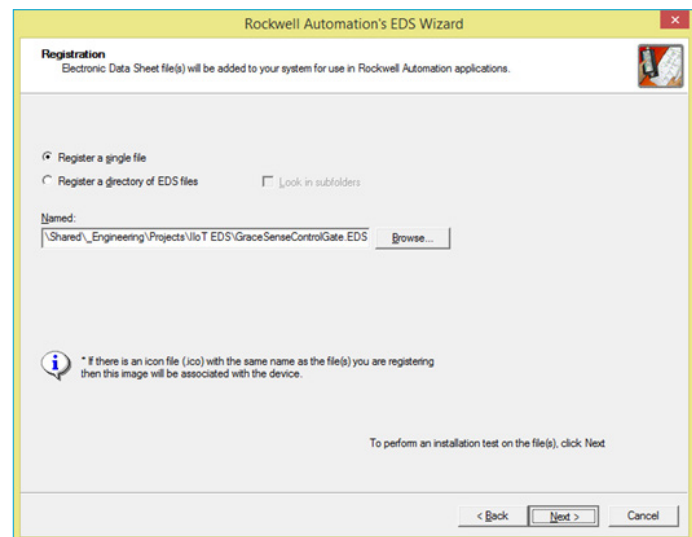
1. If you haven't yet installed the GraceSense™ ControlGate™ EDS file, download it from one of the following places: GraceSenseControlGate.EDS from www.gracesense.com/IloT-Resources OR from the dropdown menu in the Maintenance Hub. This will most likely be your downloads folder. Move the file to an appropriate location that you will remember in the future if desired.
2. From your Studio 5000® Project, navigate to Tools->EDS Hardware Installation Tool.



3. Choose to Register an EDS file and click Next.



4. Click the Browse Button. Navigate to the file that you just downloaded and select Open. Click Next until the EDS Wizard tells you that you have successfully uploaded the EDS File.



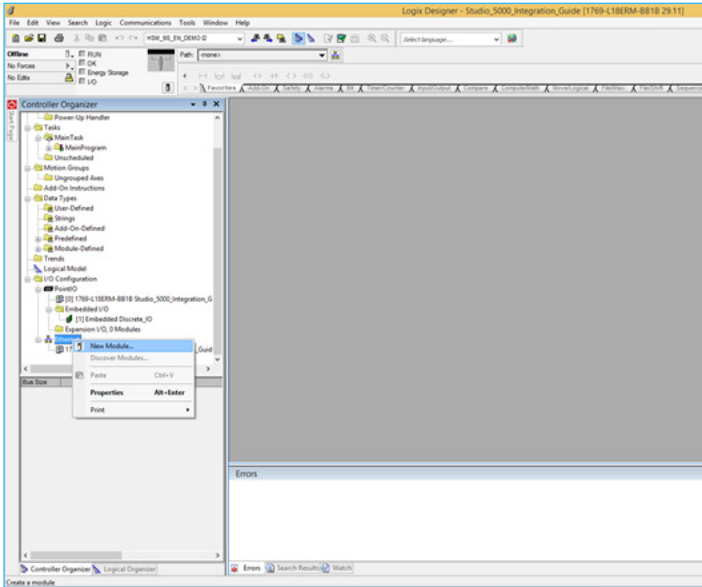
Warning: Verify an electrical conductor has been de-energized using an adequately rated test instrument before working on it. Follow appropriate Energy Control (Lockout/Tagout) procedures as per OSHA Subpart S. © Grace Technologies, Inc. All rights reserved. Specifications are subject to change with/without notice.

(Continued)

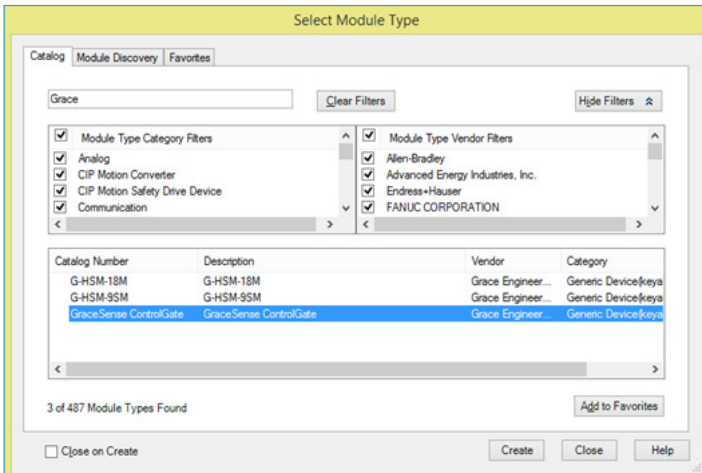
GS-EIPIG-AN-EN 2008

ADDING THE CONTROLGATE™ TO THE PROJECT

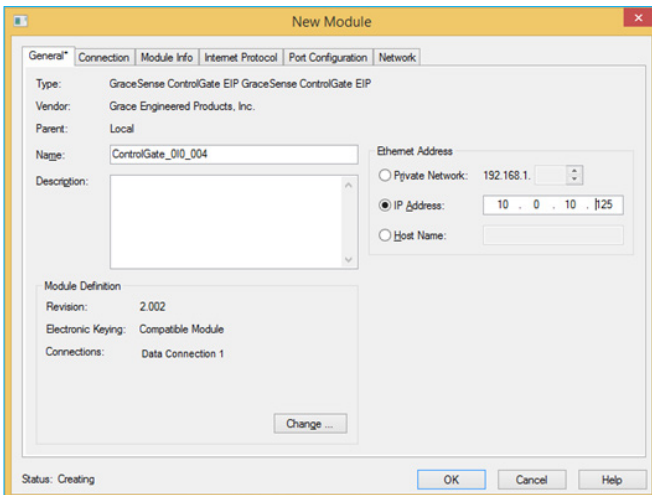
- Back in your Studio 5000® Controller Organizer, right-click on Ethernet and choose “New Module.”



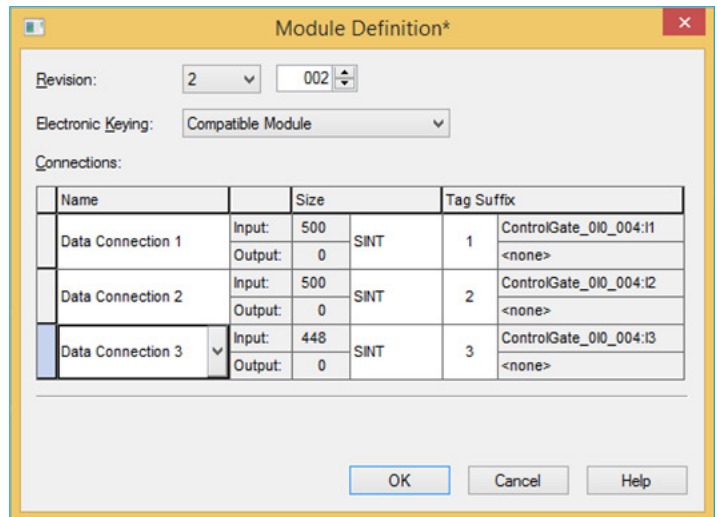
- Search for the GraceSense™ ControlGate™ device, and click “Create.”



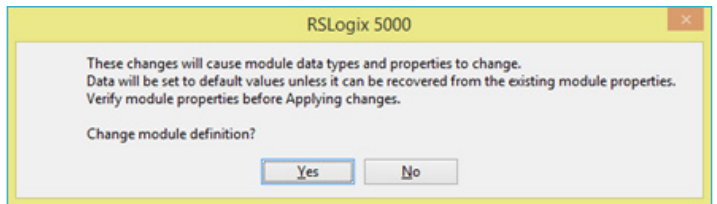
- Name your new device “ControlGate_XXX_YYY”, where “XXX_YYY” is the Serial Number of the ControlGate™ that you are configuring. Enter the IP Address of this device that was configured using the aforementioned ControlGate™ Communication Configuration Guide.



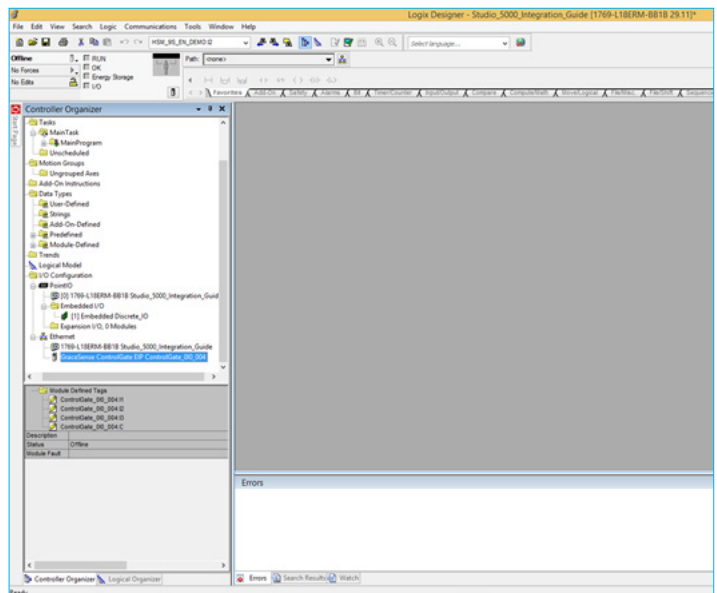
- At the bottom of the New Module window, click on the “Change” button. This will expose the Module Definition window, where you should select all three available Data Connections. Click OK.



- Click Yes to confirm that you want to change the module definition.



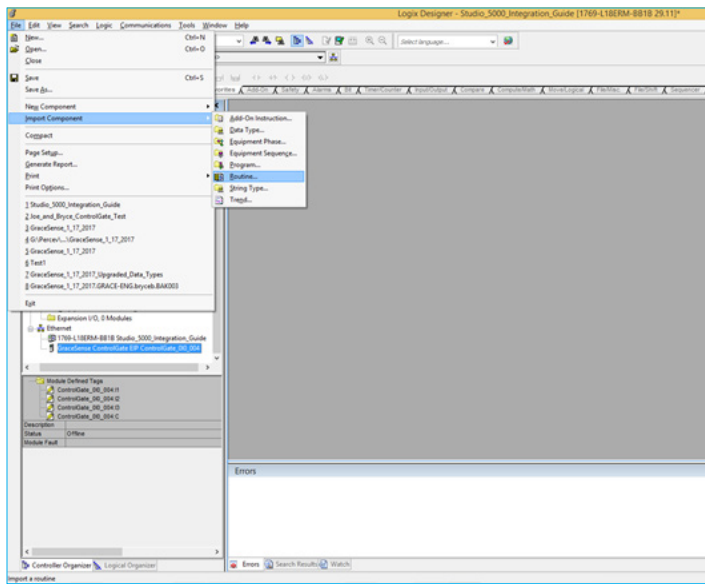
- Your ControlGate™ has been added to the project and will now appear in your Controller Organizer.



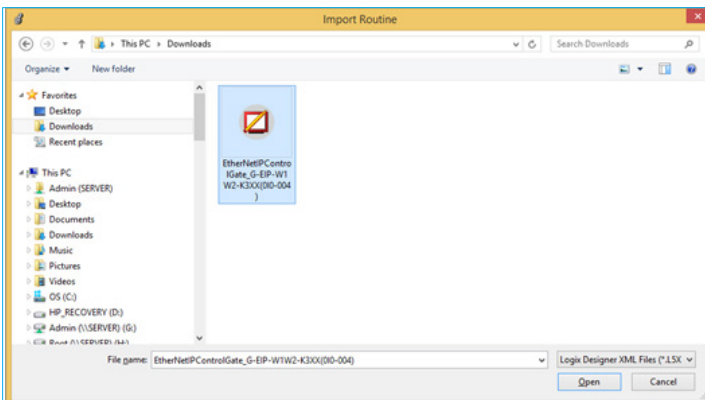
(Continued)

IMPORTING L5X FILE AND CREATING USER DEFINED DATA TYPE

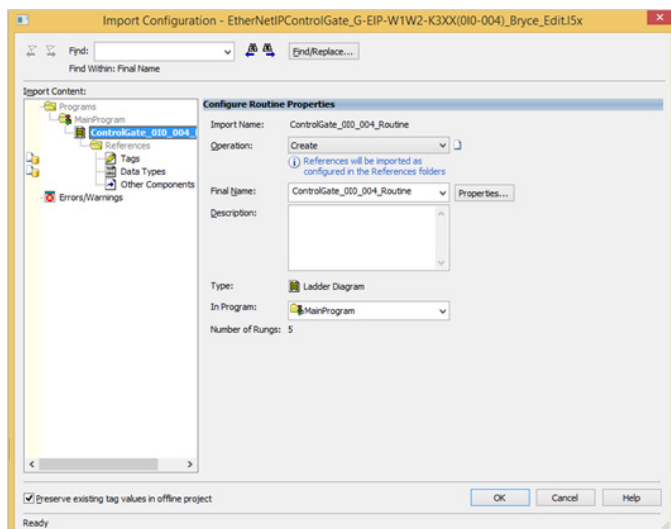
11. Navigate to File->Import Component->Routine.



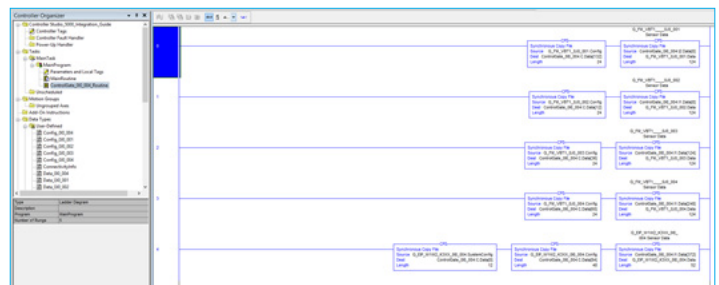
12. Select the L5X file for this device downloaded from the Maintenance Hub using the ControlGate™ aforementioned L5X/XML Configuration Guide. Click Open.



13. Click OK create the Routine. This import process brings in User-Defined Data Types, Routines, Descriptive Tags, and Configuration Values. Note that if any routine, datatype, or tag name already exists, Studio 5000 will provide a dialogue for you to modify parameters accordingly.

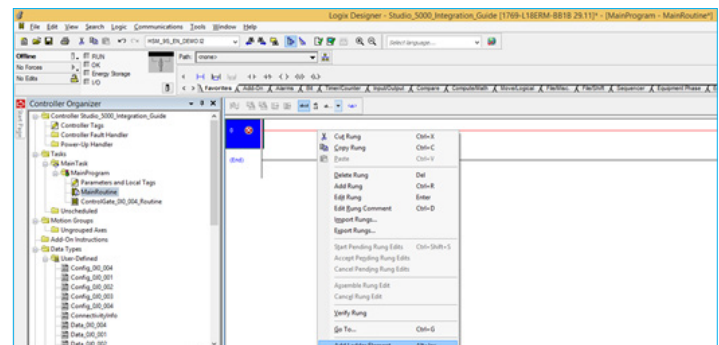


14. After successfully importing the L5X file, you will have a list of User-Defined Data Types (UDTs), local tags and parameters, and a new routine. The synchronous copy functions are automatically created with the download of the L5X file in the new routine named "ControlGate_XXX_YYY_Routine" as shown below.

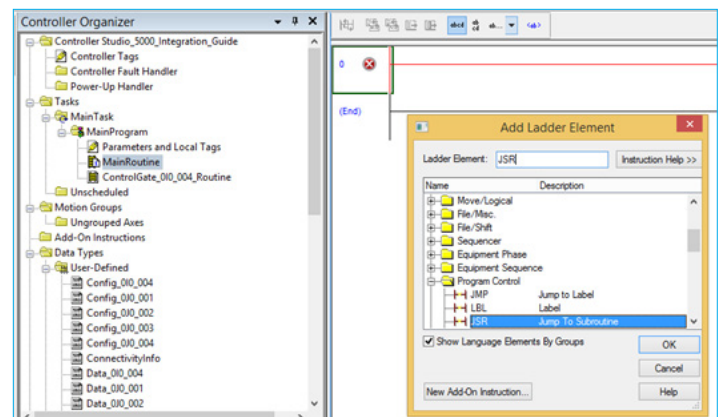


15. This newly created routine must be called from the Main Routine in order to sync the EDS File Tags with the UDT or the Rungs can be copied and pasted into the main program. To do this, first navigate to the Main Routine (below is showing a new project so no other rungs exist).

16. Add a rung and input a new element by right clicking and selecting Jump to Subroutine (JSR) element by right clicking and selecting "Add Ladder Element".

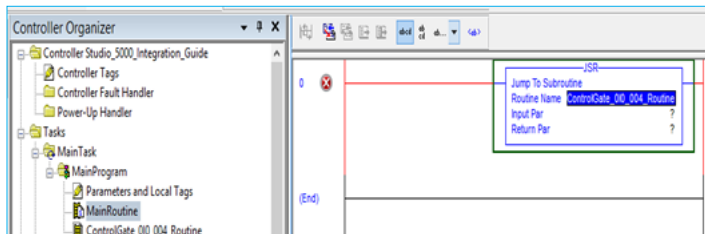


17. Search "JSR" to find and select Jump to Subroutine. Click OK.

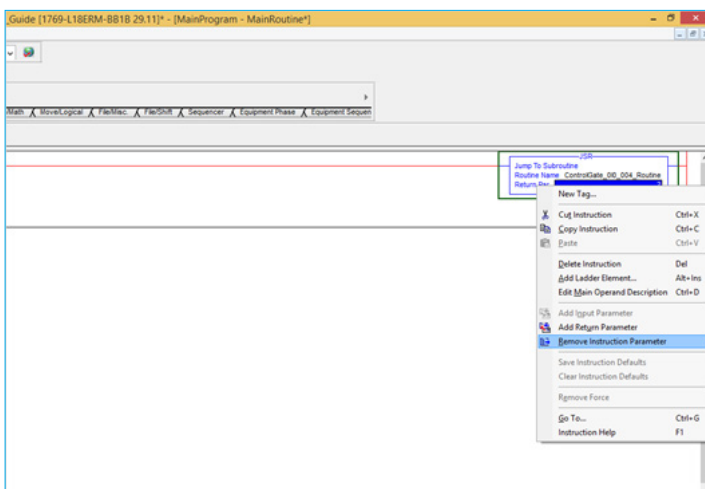


(Continued)

18. This inserts a Jump to Subroutine (JSR) Element into your Main Routine. From here, input the Routine Name of ControlGate_010_004_Routine or select from the dropdown. The Input Parameter and Return Parameter fields are outside of the scope of this document but they can typically be removed. Consult the Studio 5000® user guide for more information.



19. Remove the Input Par and Return Par fields by right clicking on them and selecting "Remove Instruction Parameter."



20. The ControlGate™ has now been integrated into your Project! From here, follow all safety precautions before downloading to your controller and going online with your project.