

Alias Function for Variables and IO

Introduction

Yaskawa Motoman's controllers allow for the option of using Aliasing in jobs for all Global and Local variables as well as all Inputs and Outputs. This allows an operator or programmer to better understand on what variables, inputs, and outputs functionality are currently performing in a job.

Enabling the Function: Parameter Settings

- S2C 395 Set to 1 enables the name alias function for Inputs and Outputs. 0 = disabled
- S2C 396 Set to 1 enables the name alias function for all variables. 0 = disabled

Alias Name Rules

If the Alias functions are enabled, the following rules are applied as you enter name aliases for variables or Universal Inputs/Outputs.

1. No spaces.
2. No Math signs:
 - a. +
 - b. -
 - c. *
 - d. /
 - e. (
 - f.)
3. Names cannot start out with similar structure to default variables. Default structure is a capital B, I, R, D, S, P, BP, or EX followed by a number. Lower case followed by a number is allowed.
4. Maximum 16 characters.
5. No duplicate names through all IO and variables.
6. Local Variables Aliases may be used if variable alias is enabled.

This document captures ideas, experiences, and informal recommendations from the Yaskawa Partner Support team. It is meant to augment – not supersede manuals or documentation from motoman.com. Please contact the Partner Support team at partnersupport@motoman.com for updates or clarification.

Precautions

1. The Name Alias function was intended to be either enabled or disabled when the controller is first set up.
 - a. The Alias function verifies that Alias names follow the rules in 4 different cases.
 - i. When entering the name (but only if function enabled).
 - ii. When downloading a job to the controller.
 - iii. When downloading the VARNAME.DAT file to the controller.
 - iv. When downloading the IONAME.DAT file to the controller.
 - b. If any names were set before enabling the alias function, and do not follow the rules, then any JBI or .DAT file that contains the illegal alias will not load into the controller.
2. The name alias function does not allow you to modify alias names while downloading JBI or .DAT files. Therefore, if any names do not match between what is currently on the controller and what is in the file being loaded, the file will not load.
 - a. It is ok to add new names by loading JBI or .DAT files. However, existing names must match.
3. Jobs using the name alias function cannot be loaded into controllers that have the function disabled.
4. Only 32 Local Alias names may be assigned in a job header. (Global Variables and IO are not limited.)
5. Local Alias names are stored in the header of the job. If the job is in the controller, the alias names will remain. If the job is saved out of the controller, only alias names that are used in the job are saved. Any unused alias names are stripped from the header.

Tips

1. Direct Open is your friend when using the alias function. From any job line that contains variables or IO, you can directly open the variables or IO with direct open. When you press direct open, a list appears with the options. Select the one you want to go to.
2. Most of the controller files use the same format as .txt files and can be edited in text editors.
 - a. WARNING: there are no tools to help you fix one of the files if you get the syntax wrong while editing in a text editor.
 - b. If you decide to generate IO and variable alias names offline. If you make a mistake, you will get an alarm when you try to load. The alarm does not identify where the problem is. When you tried to load, it did actually load the file up to the point of the error. So, if you save the .DAT file from the controller, and compare what failed to load with what is in the controller, the first point in the files that do not match will indicate the location of the problem.



PARTNER SUPPORT

Shared Integration Experience

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For additional information on the ALIAS function, please refer to the manual links below.

Controller	Manual Name / Link
YRC1000	General Operator's
YRC1000micro	YRC1000micro Operator's Manual