

Using Variables in place of Speed and Time Values in MotoSim

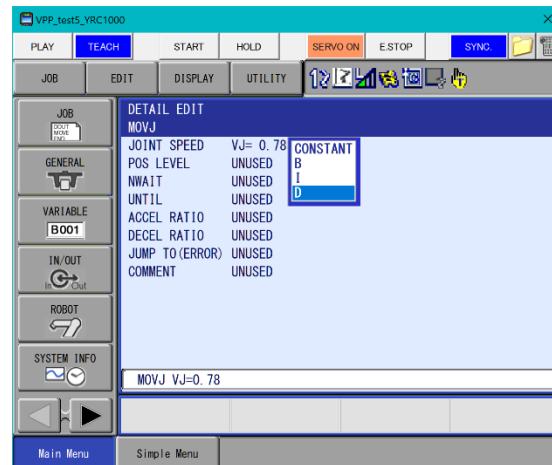
Introduction:

When working on a concept simulation it can be a pain having to constantly change speed and time values to optimize cycle-time. Instead of wasting time changing each instruction value, a variable can be set at the point of the creation of the programmed move instruction.

How-To Create a Variable in place of a Speed Value:

The process is simple.

1. Have an active job open and before recording the programmed point go into detail edit.
2. Cursor over to the speed drop-down list and select a variable.



3. Select enter to record the position...using a variable for a set speed.

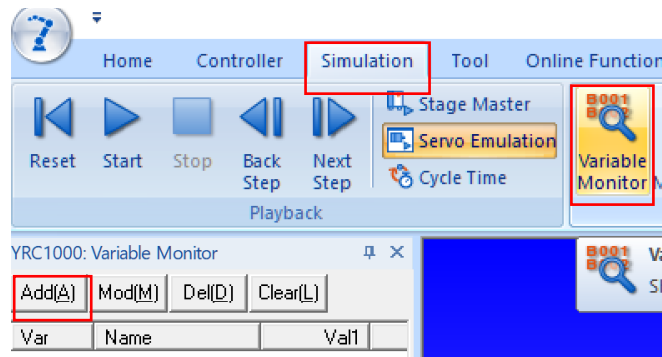
Continue to use the same variable for all similar programmed moves.

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.

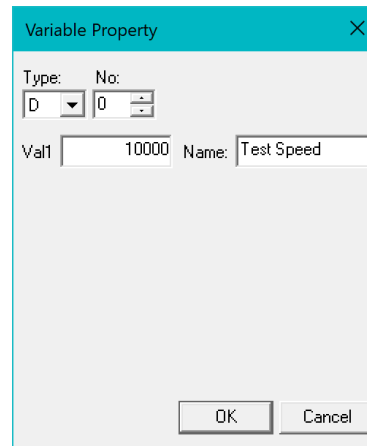
How-To Set and Modify Speed Variables:

To set and/or modify a variable used in place of a hard-coded value:

1. Select the Simulation Tab in MotoSim
2. Select the Variable Monitor button
3. A side panel will open...select ADD

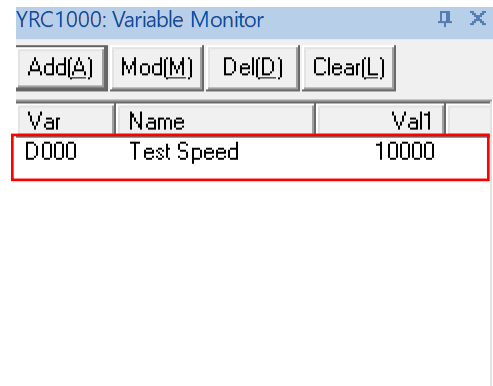


4. In the window that appears, define the variable created previously, the value, and a name (if needed).



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- The Value will appear in the listing and can be changed at any time...affecting all programmed commands using that variable.



Note: This process can be used for other values like Time.

Variable Syntax Examples:

For DX200 & Older			For YRC1000 & Newer		
Time as Variable:	Speed as Variable	Count as Variable	Time as Variable:	Speed as Variable	Count as Variable
Use "I" variable	Use "D" variable	Use "B" variable	Use "I" variable	Use "D" variable	Use "B" variable
.50 SEC	MOVJ 75%	PALLET 1 COUNT	.50 SEC	MOVJ 75%	PALLET 1 COUNT
SET I098 50	SET D050 7500	SET B010 1	SET I098 500	SET D050 7500	SET B010 1
1 SEC	MOVL 800MM/SEC	PALLET 2 COUNT	1 SEC	MOVL 800MM/SEC	PALLET 2 COUNT
SET I099 100	SET D060 8000	SET B020 1	SET I099 1000	SET D060 8000	SET B020 1
20 SEC	MOVL 1600MM/SEC		20 SEC	MOVL 1600MM/SEC	
SET I097 2000	SET D070 16000		SET I097 20000	SET D070 16000	
.25 SEC			.25 SEC		
SET I096 25			SET I096 250		