

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.

Explanation of File Contents

UFRAME = User frame number

NAME = User defined name given to the user frame

TOOL = Robot TCP used to create the user frame (all 3 positions must be recorded using the same TCP)

GROUP = Robot group referenced for the user frame. (Reading left to right R1, R2, R3, R4, etc. 0 = not referenced 1 = referenced. A user frame can only reference a single robot.)

BASICFRM = Basic coordinate frame referenced. 2nd value 16 = Base Frame, 19 = User Frame, 20 = Master Tool Frame. 3rd value = user frame # referenced.

BASEP = location of base axis when the user frame was created. (Will read 0.000,0.000,0.000,0.0000,0.0000,0.0000 if base axis does not exist. Order of values: X, Y, Z, Rx, Ry, Rz)

PULSE = Coordinate frame of the taught user frame. (Will read PULSE in most cases.)

RORG, RXX, RXY data reads as follows: S, L, U, R B, T, 7th, 8th, 9th axes. (If axis is not used - will read 0.)

RORG = Recorded position of the user frame ORG (origin.)

RXX = Recorded position of user frame XX. (Establishes the user frame X+ direction.)

RXY = Recorded position of user frame XY. (Establishes the user frame Y+ and Z+ directions.)

BUSER = distance from the referenced frame (BASICFRM) zero position to the TCP selected for the user frame definition at the ORG position. (Order of values: X, Y, Z, Rx, Ry, Rz.) BUSER can be displayed and edited from the teach pendant by selecting ROBOT - USER COORDINATE. Move the cursor to the defined user frame. Press DISPLAY from USER COORD list. Robot group, Basic Coord, position, and orientation of frame can all be changed from this page. See image below.

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