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ENGINEERING PUBLICATION
MOTION CONTROL DIVISION

PRODUCT: HMI & JUSP-NS600

SUBJECT: Commander (EXOR) HMI Driver for Sigma II Indexer

CATEGORY: Technical Note
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Summary: A driver is available[*] for the Yaskawa Commander (Exor) HMI series to communicate with the JUSP-NS600 Sigma II Indexer Application Module.   Up to 16 Indexers can be networked over a dedicated serial network to one HMI.

Driver Features:
The Commander HMI series in conjunction with the driver for the Indexer will allow the user to apply the following into simple user-friendly screens.

- Read and write all NS600 and SGDH parameters
- Read and write the index, jog speed, and zone tables
- Monitor I/O, position, speed, torque, program status, alarms, errors, product information, and more
- Perform setup procedures such as absolute encoder setup and online auto-tuning
- Perform basic operation commands
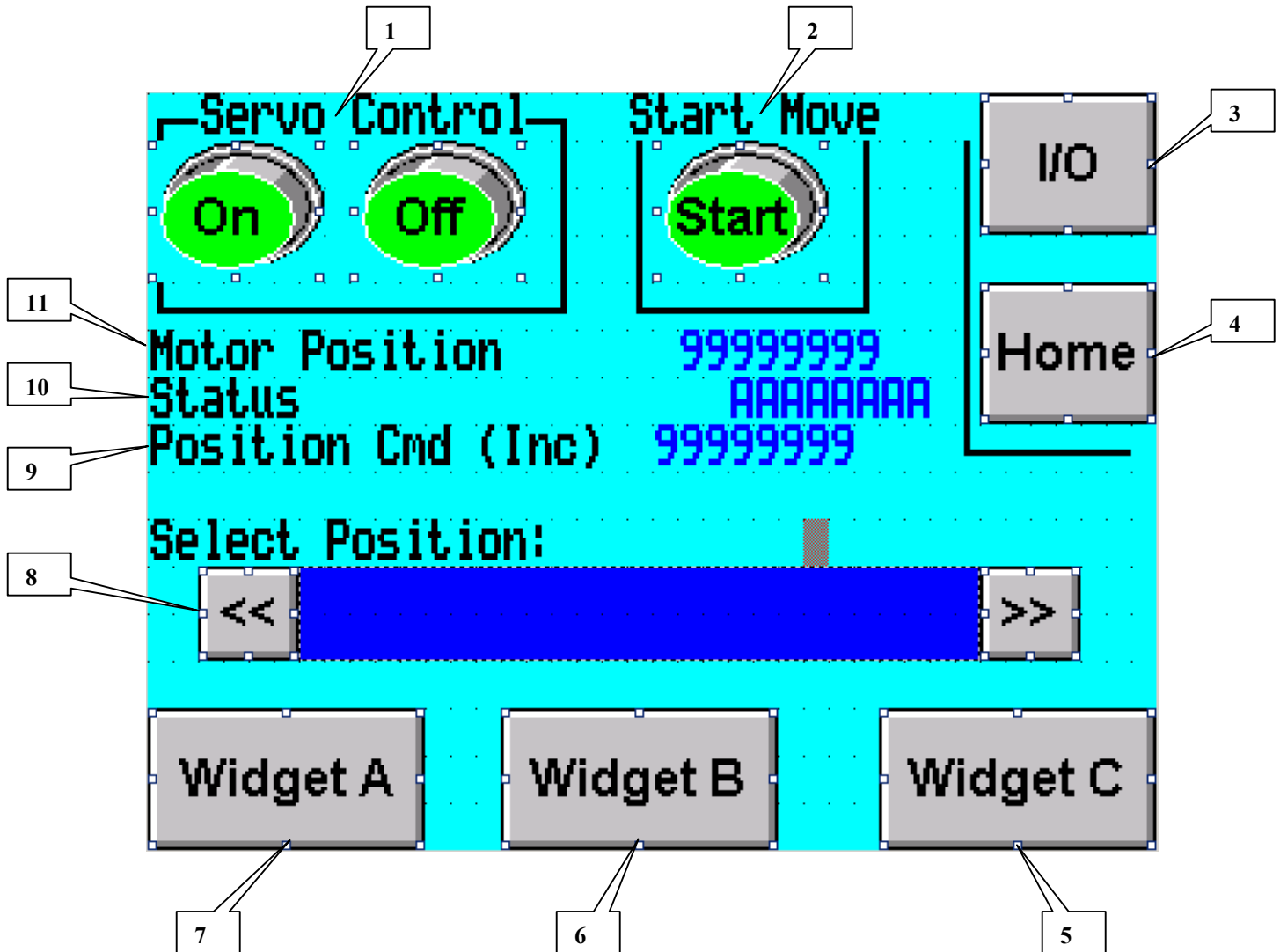- Broadcast global commands to all axes on the network

Programming Features:
The Commander HMI series is programmed with the powerful yet intuitive Designer software package, which includes such features as data display and data entry, the ability to define macros, recipe data storage and many others. Attached is an example screen, which demonstrates some of these features of the Commander software and the NS600 driver.

- Display Variables: Variable data from the NS600 can be displayed in a variety of ways, including numeric fields, message fields, bar graphs, analog gauges and trends. The number of variables that can be displayed at one time is limited only by the display size.
- Data Entry: Values of an editable field can be changed on the screen. Values can be scaled and verified to be within the acceptable max/min limits set by the programmer before it is written to the NS600. Touch cells or function keys can also be defined to directly write a value to the NS600.
- Macro Editor: This feature allows the user to configure touch cells or function keys to do a variety of functions locally in the HMI.
- Recipes: This feature allows the user to create a recipe with up to 255 parameter sets for each page of the project file. Parameter sets in the recipe can be uploaded or downloaded from or to the NS600. Parameter data can also be modified on the screen.

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[*] The Commander (EXOR) driver for the Sigma II Indexer is available on the ftp site: ftp://ftp.yaskawa.com/public/development/Servo/Indexer/HMI

Example Screen:
Main Menu

1 — Servo Control — On / Off
2 — Start Move — Start
3 — I/O
4 — Home
11 — Motor Position   99999999
10 — Status   AAAAAAAA
9 — Position Cmd (Inc) 99999999

Select Position:
8 — << >>

7 — Widget A
6 — Widget B
5 — Widget C

1: Touch cells for servo on and servo off.
2: Touch cell to start program.
3: Touch cell to go to I/O page.
4: Touch cell to go to Home page.
5: Touch cell to download recipe for Widget C.
6: Touch cell to download recipe for Widget B.
7: Touch cell to download recipe for Widget A.
Note: Recipes include data for new positions, speeds, acceleration, deceleration, and tuning gains. Recipes are stored in the HMI.
8: Horizontal bar graph to select target position.
9: Target position display and data entry.
10: Program status display.
11: Motor position monitor display.

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Page 2 of 2