SerialFP2 KeyMapper Tutorial

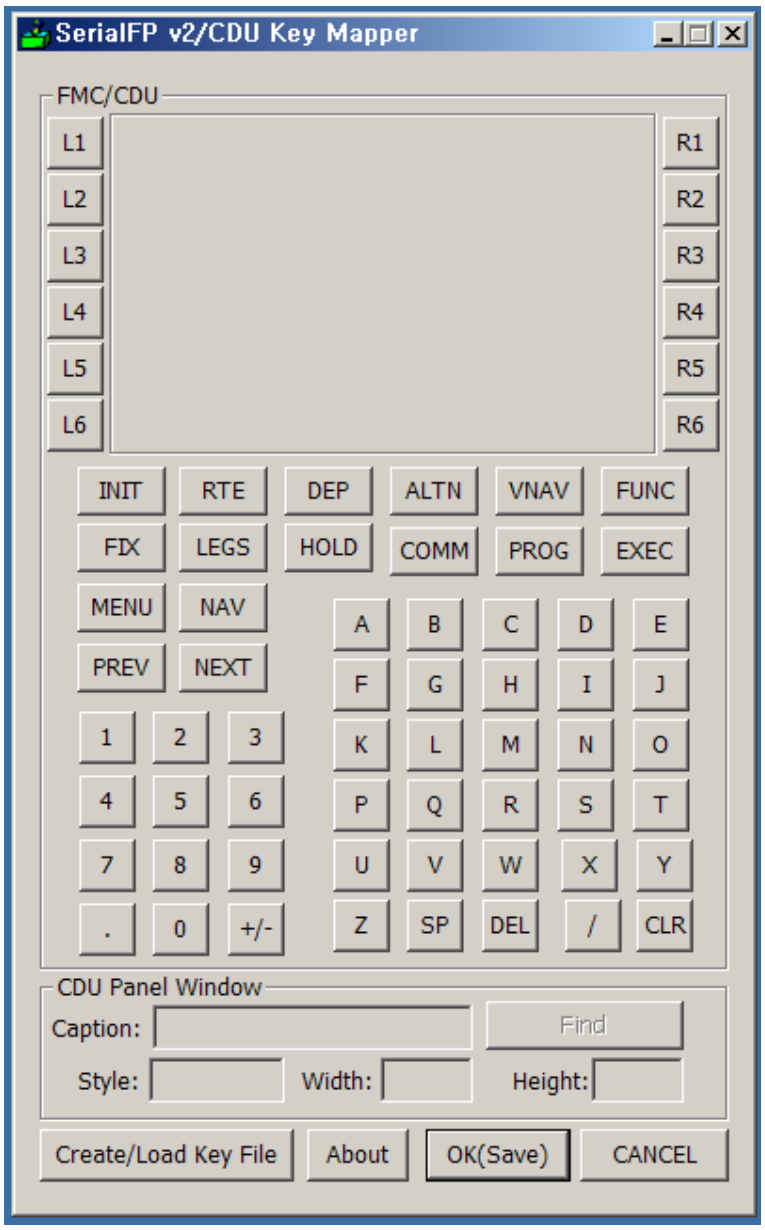
About KeyMapper:

There're three interface method to control an aircraft with VRinsight's panel hardwares; Direct, Key-Command and Mouse-emulation. If the aircraft does not provide development kit, direct interface is not impossible. For those of aircrafts, Key-Mapping(or programming) is required. This document explains how to program panel hardware keys as user's preference.

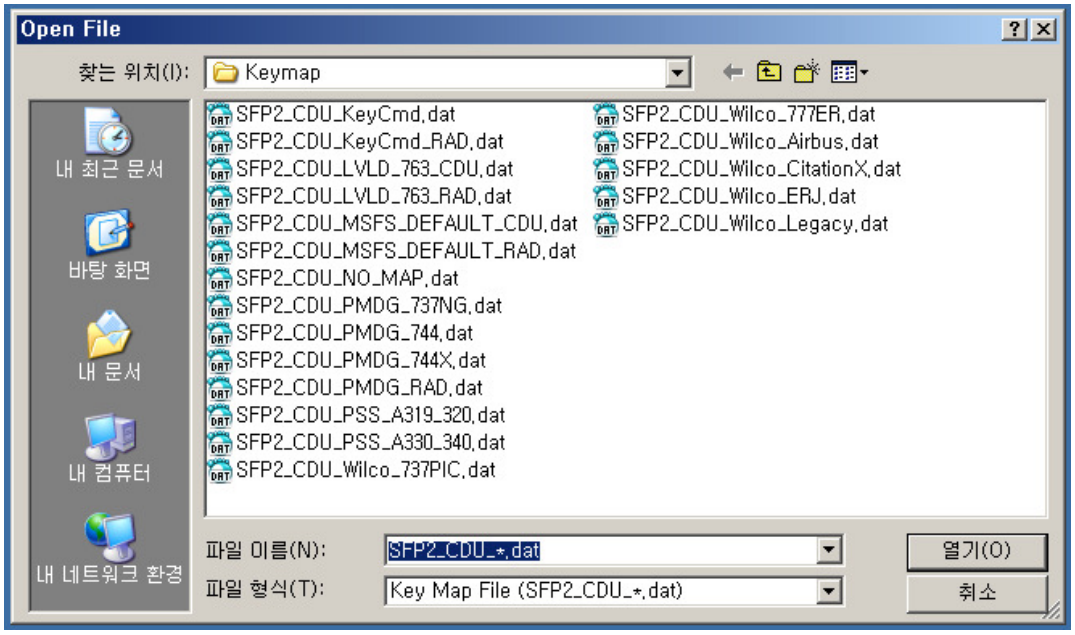
Key-mapping software is available to assign controls to buttons and knobs on the VRinsight's panel hardware; CDU and MCP-Combo. Combination of keyboard strokes and/or mouse-emulation, moving mouse pointer with left or right button click, double click of left mouse button, or mouse wheel rotation can be programmed into the button or knobs.

How to program the panel:

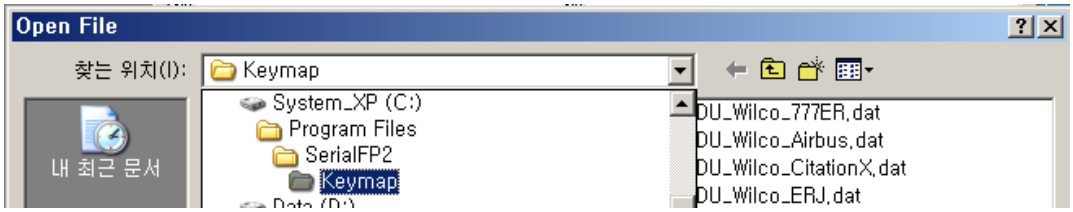
1. Run CDU or MCP's key mapping software. You can find this software at Start -> SerialFP2 -> "CDU Keymapper" or "MCP Keymapper". "CDU Keymapper" appears as following fig. Buttons are shown as same as panel hardware. Several set-up is required before programming.



2. Open existing pre-defined key file or create new one by pressing “Create/Load Key File” button.



Pre-defined keymap files are listed at the “Open File” dialog box. If NOT, go to the Keymap folder where “SerialFP2” is installed. The key-map file must be existed in the “Keymap” folder.



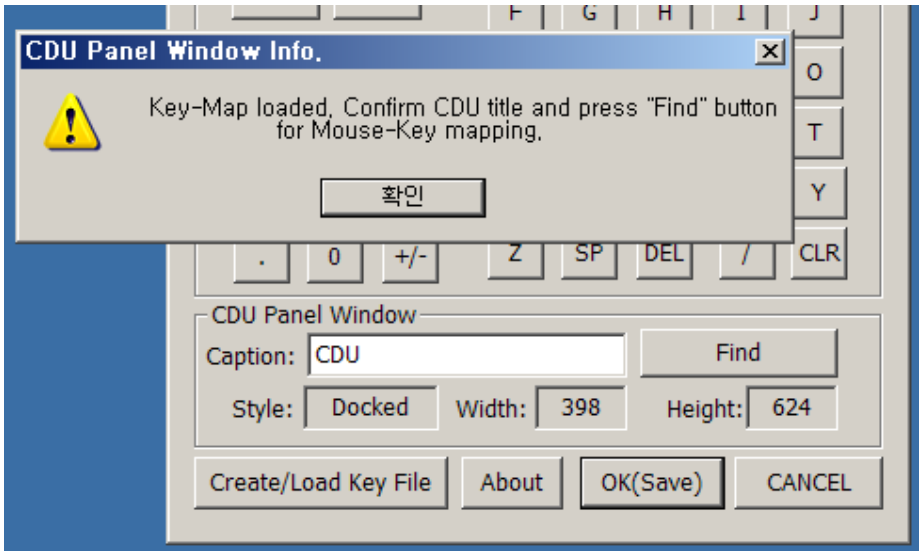
3. If you want to change pre-programmed command choose one of file listed in the dialog box or give new file name to create new. For the case of creating new file, be aware of naming rule.

   Keymap filename for CDU Panel: SFP2_CDU_XXXXXXX.dat
   Keymap filename for MCP Panel: SFP2_MCO_XXXXXXX.dat

   According to the hardware panel, “SFP2_CDU_” or “SFP2_MCP_” must be preceded in the file name and any string can be used as the file name. Choose a name that is identifying an aircraft.

4. Giving key file name and pressing “Open” button, a message box is pop-up as following

fig and an edit box on the right of “Caption:” is activated. Close message box by pressing “OK” button.



The “Caption:” is the name string of the aircraft’s panel window. This name-string is important when button and/or knob are programmed with “mouse-key”. If you’re plan to assign “Key-command” only, discard this.

Identifying Window “Caption:” String Name and Size (Width and Height):

In the Windows System, every window has its own name. A panel window on the FS screen has the name, too. When “Mouse-Key”(mouse emulation) is assigned to the VRI’s panel hardware, programmed mouse point, (X,Y), is managed relatively according to the window size (width and height) on the FS screen.

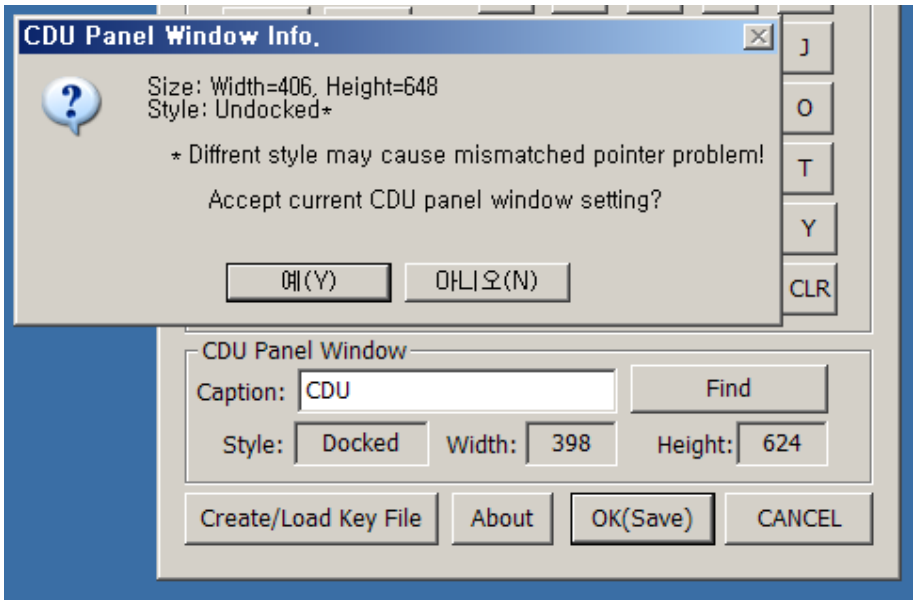
To point and click a position in the client area the FS screen using VRi’s hardware, basic information must be given: windows name and size. For the purpose of identifying the FS panel window, “Caption:” string-name is used. The saved size is a reference to calculate relative position if the window is re-sized during flight. You can move or re-size as the pilot’s preference during flight, but do not re-size window during programming.

Open an window to be controlled with the panel and “Undoc window”. For example, Press SHIFT+6 to open PMDG’s CDU window and undock it by clicking right mouse

button over the window and selecting “Undock Window”.

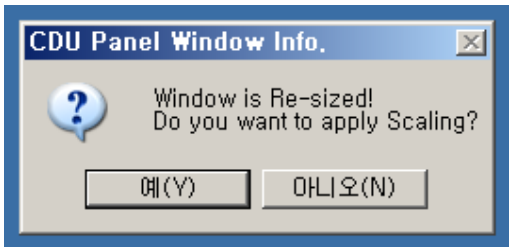
Then, find the name of “CDU”, the PMDG’s CDU window on the screen.

Give this mane to “Caption” edit-box. If existing key-file is opened, pre-programmed name string and size could be displayed here. At any case, press “Find” button to identifying and getting size of specified window.

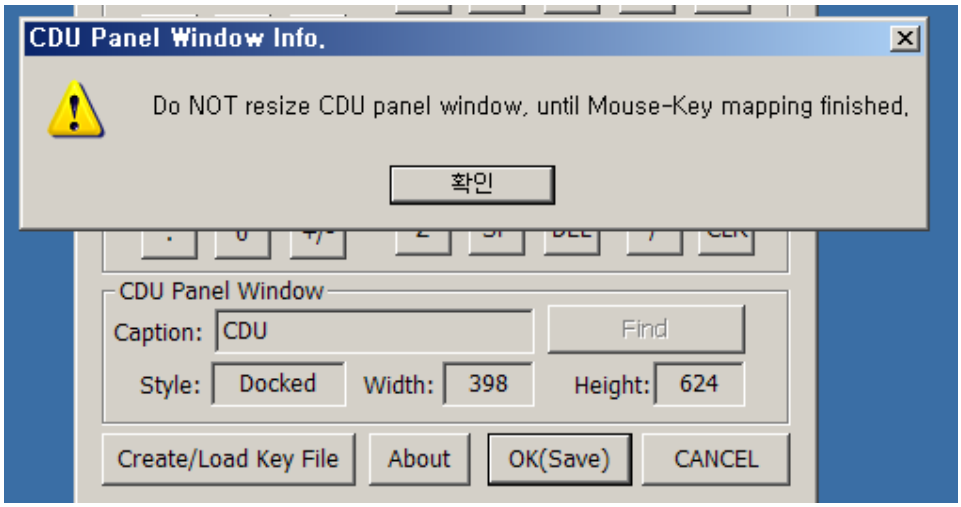


As the FS panel window named as “CDU” found, message-box pop up informing

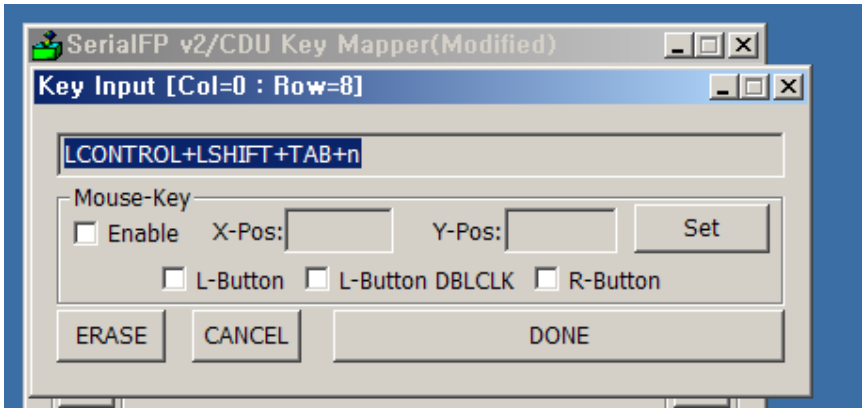
window's size. Press "Yes" as you want. If the size is differed to previous configuration, pre-programmed mouse position is re-calculated with current size.



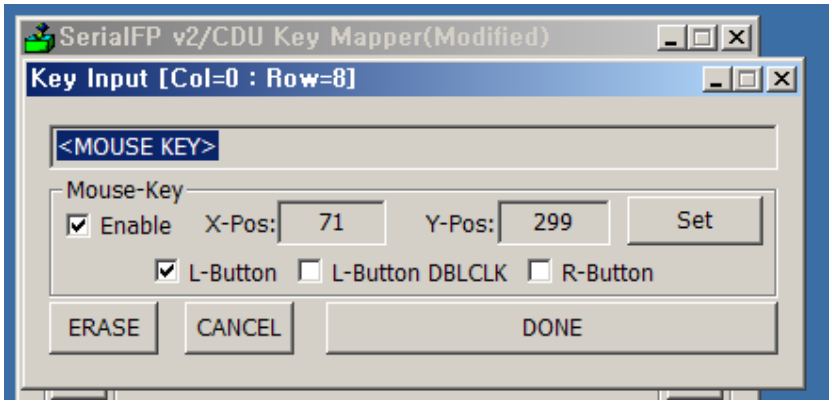
As the window's information is updated, don't re-size the window until the key-mapping is done.



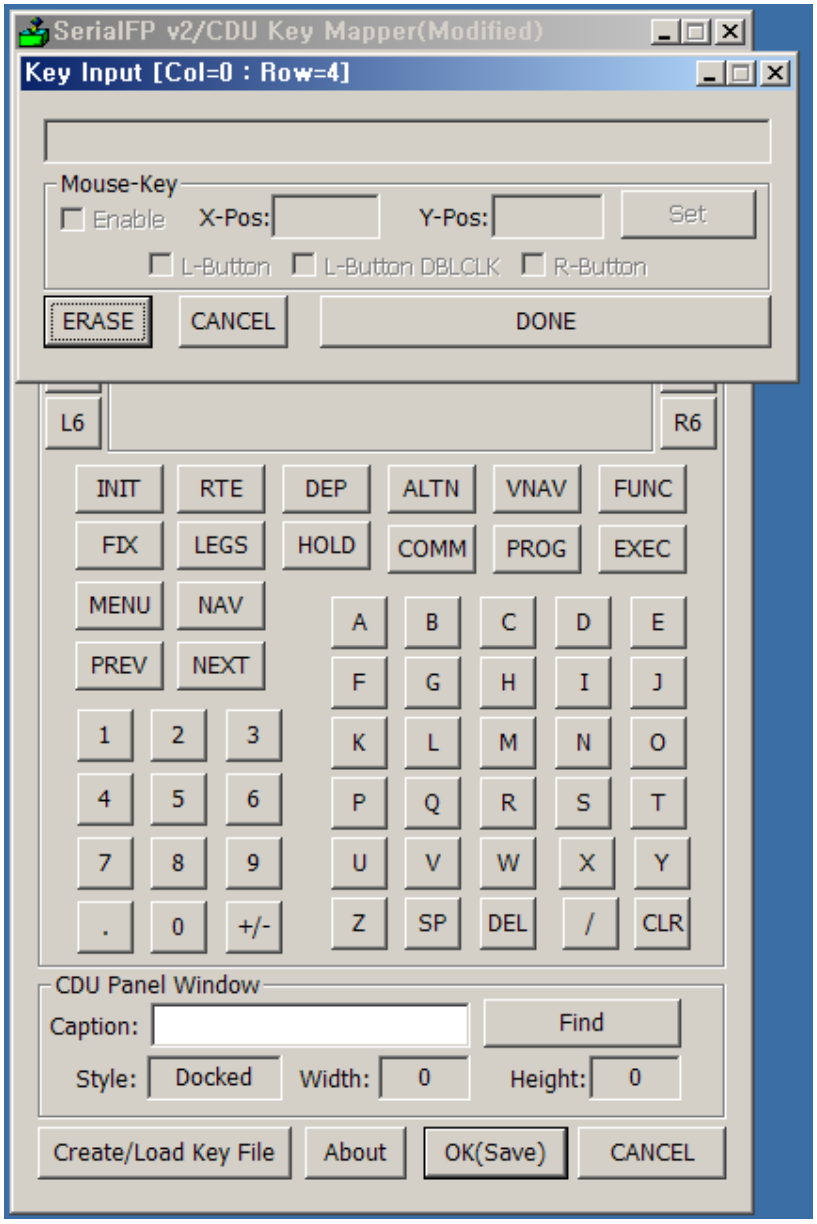
5. Press any button to program with key-stroke or mouse point. Pre-programmed key combination is displayed in the shaded edit box or it's blanked. If the button is programmed as "LCONTROL+LSHIFT+TAB+n", it's pressing 'Left Ctrl', 'Left Shift', 'TAB' and 'n' at same time. To change pre-programmed button, clear programmed data by pressing "ERASE" button.



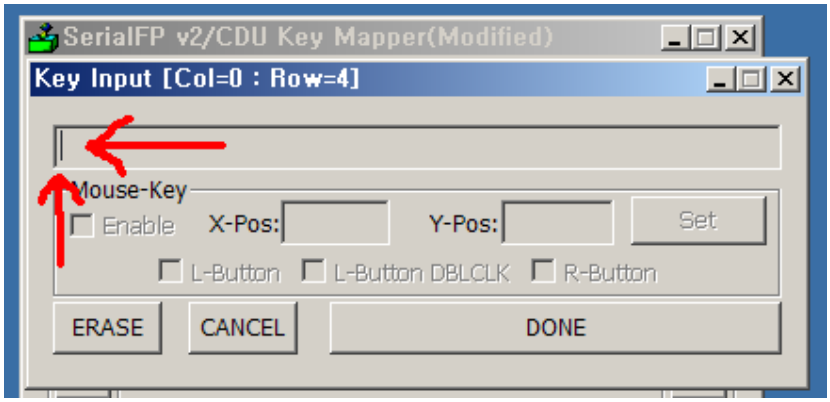
A button is programmed with “Mouse-Key”. The “Mouse-Key” can be enabled only when the “Caption:” is given and the window is found.



Although the window is not found (blanked “Caption:” and NO size), programming as key-command is possible. Blanked box is meaning not programmed.



6. **Program a button as "Key-Command".** Select the exit-box to capture keyboard input. Press any keyboard and see key-name displaying in the box. Keyboard stroke is entered only when the cursor is blinking in read-only edit box.



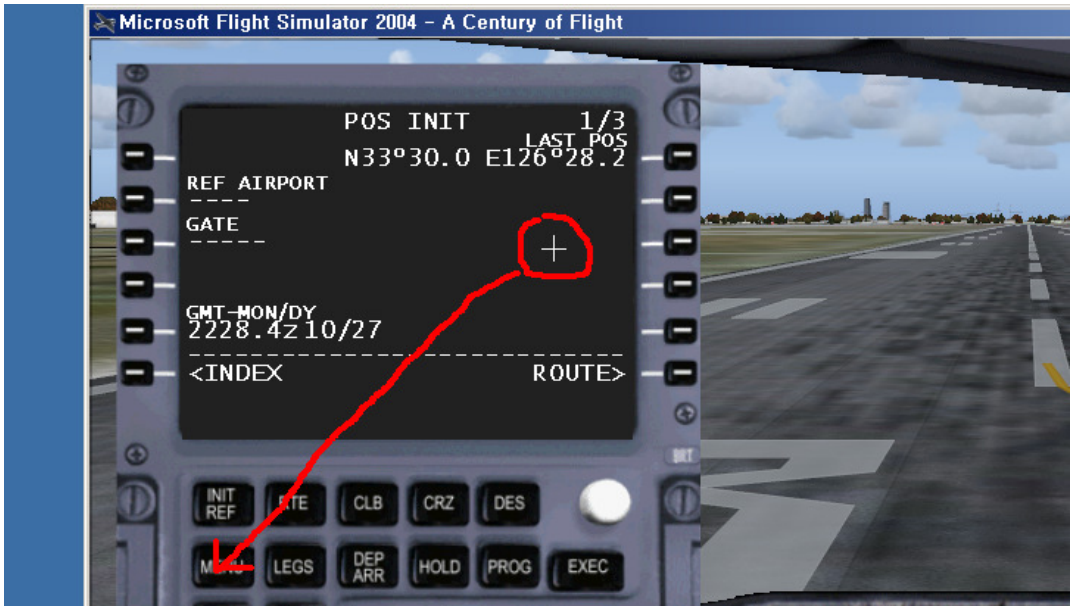
Although in a case of multiple keyboard stroke combination, press and release each keys separately. DO NOT PRESS keys at same time. For example, to program a button as “ALT+x”, press and release each keys subsequently, ‘ALT’ and ‘x’.

Maximum 6 key-stroke and mouse point combination is allowed. Mixed definition of “Key-command” and “Mouse-key” to a button is also possible.

7. **Program a button as “Mouse-Key”.** If a button is programmed as “Mouse-Key”, it emulate mouse (moving mouse pointer and/or clicking mouse left-, right-button). Check “Enable” of “Mouse-Key” and mouse button to emulate; L-Button, R-Button or L-Button DBLCLK(double click).

To capture mouse position press “Set” button. Then, Key-mapper is become set-back and mouse pointer is changed to cross-shaped. Move mouse cursor to the position to

be programmed and click left button.



Then, Key-Mapper is become front widow and captured position is displayed at “X-Pos” and “Y-Pos”.