



shaping tomorrow with you

Notes for using Graphics, Keyboard and Mouse with Fujitsu SPARC M12 and Fujitsu M10 servers

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Fujitsu Limited

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■ Purpose and limitations of this document

- The information included in this document is intended as a guide for using Fujitsu, Oracle and 3rd Party graphics card, keyboard and mouse with Fujitsu SPARC M12 and Fujitsu M10 servers.
- This document is being provided for informational purposes only and may change at any time.

■ Contact

- If you have questions, please contact US FOrCE at: M10_FORCE@us.fujitsu.com

■ Terms

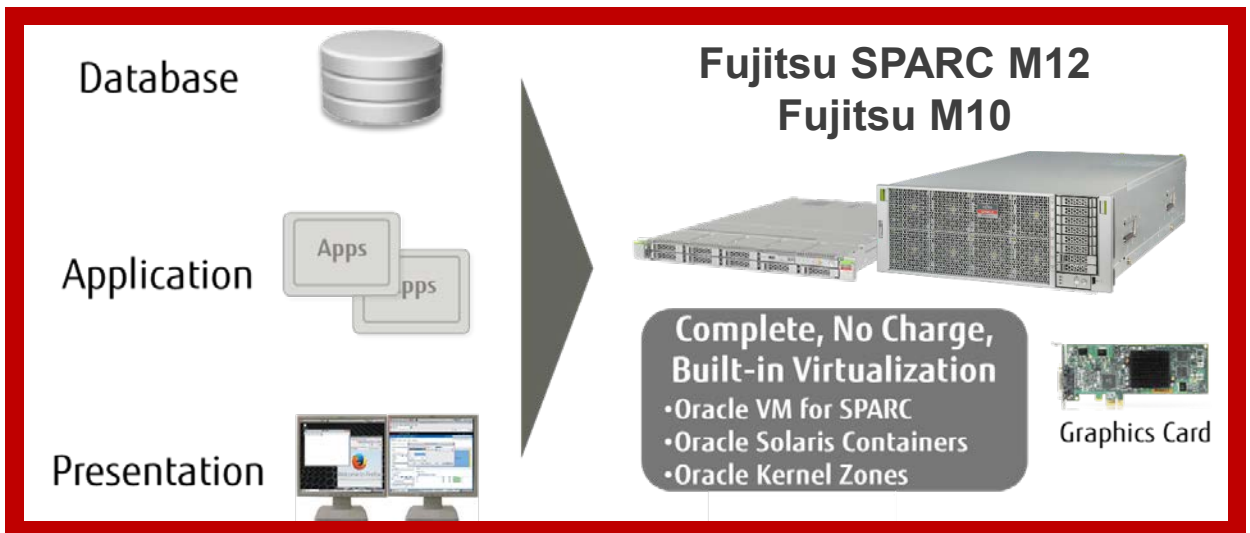
- Oracle Solaris may be referred to as Solaris.

- Fujitsu has tested Fujitsu M10 (all models) with the IHV Graphics Card, Keyboard and Mouse.

■ Use Cases

□ Fujitsu SPARC M12 and Fujitsu M10 servers are the best consolidation platform that includes Graphics capabilities.

- Extreme Capacity and Processing Power for Extreme Consolidation
- Complete Built-in Virtualization with No Additional License Cost
- Flexible Capacity to Start Small and Grow
 - CPU Core Activation
 - Mix DIMM sizes
 - Wide Range of PCIe Cards



□ Fujitsu M10-1 as a replacement from aging SPARC workstations or office servers.

- Low entry list price SPARC server → starting under \$10,000.
- Supports Oracle Solaris 10 in both control and guest domain.



■ Graphics Card



- Product Name: Raptor GFX550e
- Vender: EIZO Rugged Solutions (formerly Tech Source)
- P/N: 19-0156-02
- Features: High Resolution PCI Express Graphics Board
- Supported Fujitsu SPARC M12 and Fujitsu M10 Models: All models and frequencies
- Supported OS: Oracle Solaris 11.2 SRU11.2.6.4.0 or later (Solaris 11.4 is not currently supported)
Oracle Solaris 10 1/13
- Driver (mko) revision:
 - Solaris 10: 1.3 (No console frame buffer function support)
1.49 (Console frame buffer function support)
 - Solaris 11: 1.4 (No console frame buffer function support)
1.47 (Console frame buffer function support)
- [Notes]
 - You can identify the driver revision as follows:

```
# modinfo | grep mko
98 118662a0 12f08 318 1 mko (TSI tspci driver $Revision : 1.47)
```
 - When you use the console frame buffer function, confirm the output-device and input-device OBP variables are set correctly.
For example:

```
ok printenv output-device
output-device = screen
ok printenv input-device
output-device = keyboard
```
- Contacts
Please contact EIZO Rugged Solutions or one of its distributors (such as SHOSHIN).
 - EIZO Rugged Solutions, Inc.
 - E-mail: ers-info@eizo.com
 - SHOSHIN CORPORATION
 - E-mail: is@shoshin.co.jp
- Resources
 - Oracle Hardware Compatibility List
http://www.oracle.com/webfolder/technetwork/hcl/data/components/details/techsource_inc/sol_11_2/10870.html
 - Latest driver (GFX550e_1.5.tar.Z includes the drivers for Solaris 11 and 10)
<http://www.eizorugged.com/support/drivers/index.html>

■ USB Keyboard

- Product Name: KB410 USB, KB521 USB
- Vender: Fujitsu Limited
- Supported Fujitsu SPARC M12 and Fujitsu M10 Models: All models and frequencies
- Supported OS: Oracle Solaris 11.2 SRU11.2.6.4.0 or later
Oracle Solaris 10 1/13
- Resources:
 - Datasheets
<http://sp.ts.fujitsu.com/dmsp/Publications/public/ds-Keyboard-KB410-K-USB.pdf>
<http://sp.ts.fujitsu.com/dmsp/Publications/public/ds-Keyboard-KB521.pdf>
 - Websites
<http://www.fujitsu.com/fts/products/computing/peripheral/accessories/input-devices/keyboards/keyboard-kb410-usb.html>
<http://www.fujitsu.com/uk/products/computing/peripheral/accessories/input-devices/keyboards/keyboard-kb521.html>



KB410 USB



KB521 USB

■ Sun Type7 Keyboard (EOL)

- Product Name: Sun Type7 Keyboard
- Vender: Oracle
- P/N: X3701A-UNIX
- Supported Fujitsu SPARC M12 and Fujitsu M10 Models: All models and frequencies
- Supported OS: Oracle Solaris 11.2 SRU11.2.6.4.0 or later
Oracle Solaris 10 1/13
- Resources:
 - Website
<http://www.oracle.com/technetwork/server-storage/sunrayproducts/docs/pkits-faq-092013-2022932.pdf>

■ USB Mouse

- Product Name: M510 (EOL), M520
- Vender: Fujitsu Limited
- Supported Fujitsu SPARC M12 and Fujitsu M10 Models: All models and frequencies
- Supported OS: Oracle Solaris 11.2 SRU11.2.6.4.0 or later
Oracle Solaris 10 1/13



M510



M520

- Resources:
 - Datasheets
<http://sp.ts.fujitsu.com/dmsp/Publications/public/ds-Mouse-M510.pdf>
<http://sp.ts.fujitsu.com/dmsp/Publications/public/ds-Mouse-M520-black.pdf>
 - Website
<http://www.fujitsu.com/fts/products/computing/peripheral/accessories/input-devices/mice/mouse-m520-black.html>

■ Sun Type7 Mouse (EOL)

- Product Name: Sun Type7 Mouse (included with Sun Type 7 Keyboard)
- Vender: Oracle
- P/N: X3701A-UNIX
- Supported Fujitsu SPARC M12 and Fujitsu M10 Models: All models and frequencies
- Supported OS: Oracle Solaris 11.2 SRU11.2.6.4.0 or later
Oracle Solaris 10 1/13

- Resources:
 - Website
<http://www.oracle.com/technetwork/server-storage/sunrayproducts/docs/pkits-faq-092013-2022932.pdf>

■ Issue

- STOP-A or sendbreak does not function when using the Raptor GFX 550e graphics board (GFX550e) as console in Solaris 11 environment.

■ Symptom

- With a keyboard connected to an M10-1 USB port (front or rear) or M10-4/4S rear USB port, after entering debug mode with **STOP-A** or **Shift-Pause/Break** or sending a break signal with the **sendbreak** XSCF command, no key input is accepted due to the following bug.
- Bug 22097720 – “After sendbreak by STOP-A, the key cannot be inputted with the USB keyboard”

■ Workarounds

- A) Use a USB2.0 Hub between the USB port and keyboard
You may need to type "c", "s" or "r" keys several times before key input is accepted.
- B) Use the XSCF **reset** command
Example to get a crash dump:
`XSCF> reset -y -p 0 -g primary panic`

■ Solution

- SRU 11.3.33.5.0 includes the fix for bug 22097720.

Keyboard Layout/Keymap settings for KB410 USB and KB521 USB

You may need the following settings depending on your international language environment.

■ OBP mode

- Set the keyboard-layout OBP variable to US-English as follows:
`ok setenv keyboard-layout US-English`

■ Solaris 11.3 Console

- Set the keymap to US-English as follows:
`# nlsadm set-console-keymap US-English`
see http://docs.oracle.com/cd/E53394_01/html/E54757/glmj.html#scrolltothe

■ Solaris 11.2 Console

- Set the keymap to US-English as follows:
`# svccfg -s keymap:default setprop keymap/layout = astring:
"US-English"
svcadm refresh keymap
svcadm restart keymap`

■ Solaris 11.2 and 11.3 GUI (GNOME)

- Select USA from the "Keyboard Layout Selection" panel located at the bottom of the GDM window.
- For a Solaris 11.3 example, see:
http://docs.oracle.com/cd/E53394_01/html/E54757/glqpa.html#scrolltoc

■ Solaris 10 GUI (CDE/JDS)

- Modify the keyboard layout definition line in the `/etc/default/kbd` file as follows:
`LAYOUT=US-English`
Then reboot, or execute `kbd -i` and restart the CDE desktop (logout/login).
- Or, execute `kbd -s US-English` to change the keyboard layout temporarily, and then restart the CDE desktop (logout/login).
Note that `kbd -s US-English` must be executed after each reboot.

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