Topic: **Minor Video Defects Associated with Multi-Video Expander (MVX)**
Component(s) Affected: **All Revisions of MVX**
Date: **May 15, 2003**

OVERVIEW / ENVIRONMENT

This bulletin describes several minor video defects associated with the MVX. More information is available under Defect #1062.

DETAILED DESCRIPTION

General Description: The MVX expands the video stream from the UCP out to as many as 4 monitors using either digital (DVI) or analog (VGA) video output formats. Certain minor video defects can be observed, which are either present in the video stream from the UCP or introduced by the MVX.

UCP Video Defects: The UCP recovers the video from the CAT-5 cable connection from the blade. The resulting video stream is not entirely free of defects. Certain background patterns (e.g. vertical bars of alternating black and white) may result in visible "noise," "snow," or "flicker" on the screen. Also, at extreme CAT-5 cable lengths (e.g. 200m), the UCP may approach the limit of its capabilities with respect to tuning, which could result in inadequate "crispness" and/or some background "sparkles" (individual pixels brighter than surrounding background briefly, in a random pattern). The MVX, in an effort to reliably reproduce the video from the UCP, may propagate these video defects to one or all of the video outputs. Such problems can be isolated to the UCP by switching to single monitor mode and recabling the primary monitor to the UCP output directly (thereby removing the MVX from the user configuration). If the video defect in question is still visible, then the problem is associated with the UCP and may simply be a limitation of the UCP and/ or may suggest upgrading the UCP to a newer version.

MVX Video Defects: The MVX, while expanding the video out to as many as 4 monitors, may also introduce certain video defects. The most notable example of this effect is a crosstalk phenomenon which can occur between adjacent monitor channels in certain graphics resolutions. This can occur when large black fonts are being displayed on broad white backgrounds, and appears as an extremely faint "ghost" image of the black characters on the adjacent monitor. Such effects generally only occur at lower graphics resolutions (e.g. 800x600), with uniform medium background patterns (e.g. solid light grey), and for reasons unknown usually only in Windows XP. Also, these effects are only present in the Analog video outputs (VGA connections), and have never been observed in the Digital video outputs (DVI connections).

RESOLUTION

UCP video defects can often be mitigated by correctly tuning the UCP, using both the delay lines and the tuning knob. Older revision UCP units can also be replaced with newer versions to improve the video quality. In particular, revision "H" or later UCP PCBs have slightly improved video quality.

MVX-introduced video defects can usually be mitigated by either changing the graphics resolution and refresh rate, and/or by changing the background patterns selected for the Windows desktop. Also, these defects have not been observed in the DVI outputs, so switching from Analog VGA connections to DVI connections provides a very likely workaround. For more information, please contact ClearCube technical support.

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