

TeamPoS3000 XL² Video Setup

1. Intel Graphics Media Accelerator Driver Video Setup

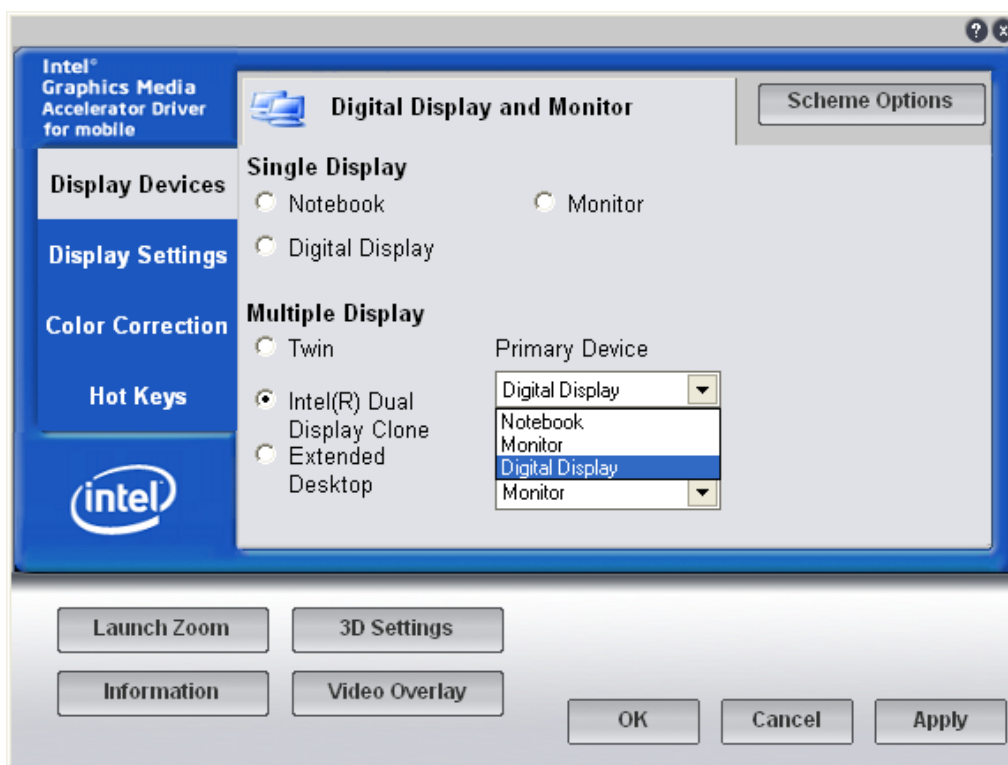
Use the Intel Graphics Media Accelerator Driver video setup utility to manage video settings. The utility can be launched from the task tray icon *Intel Graphics Media Accelerator Driver for Mobile*; select "Graphics properties", or launch from *Display Control Panel/Settings/Advanced/Intel Media Accelerator Driver for Mobile/Graphics Properties*



Graphics modes, such as single, extended, etc., can be manipulated from this screen. Display properties, such as resolution, can be found by clicking the *Display Settings* tab on the left navigation pane.

Note the entries under the *Single Display* area in the picture below. Three displays are itemized, *Monitor*, *Digital Display*, and *Notebook*.

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Monitor refers to the display connected via the analog (VGA) connection.

Digital Display refers to the display connected via the DVI connection.

Notebook refers to the LVDS (Low Voltage Differential Signaling) display connection that is used with the *TeamPoS3000 XT KIOSK* units. The Notebook display type is itemized even though no display device is attached because the internal circuitry to drive this display is present in the Intel Chipset. This is the method typically used in notebook/laptop configurations that utilize this chipset, and is used in *TeamPoS3000 XT KIOSK*.

2. Display_Select Utility

Background



TeamPoS3000XL²

TeamPoS3000 XL² utilizes Intel's GME965 chipset, which supports multiple video channel output. This chipset is typically targeted at the notebook computer market. It is used in *TeamPoS3000 XL²* because of its dual-monitor capability. Either analog or DVI monitors can be utilized in single or dual configurations on *TeamPoS3000 XL²*.

This section discusses video management under Microsoft Windows® operating systems.

Intel's Graphics Media Accelerator video driver is used for video display. Display can be configured for:

- single display, either analog or DVI,
- dual display, one analog and one DVI monitor, in "Clone" mode where the same display is presented on both monitors
- dual display, one analog and one DVI monitor, in "Extended" windows mode.

At system start-up, the Graphics Media Accelerator driver determines the physical display devices, analog and/or DVI, attached to the *TeamPoS3000 XL²*. If the physical configuration has changed from the previous session, either due to accidental cable removal, or intentional re-configuring, less than desirable conditions may result.

For example, if the *TeamPoS3000 XL²* is configured with a single DVI display, and the system is shut-down in this configuration, and for some reason the DVI display cable is removed, and the system restarted, the result would be no display. If the error condition is recognized and the system is shut-down, the DVI cable reconnected, and system restarted, the result will be a dark, blank screen with no easy way to recover the video.

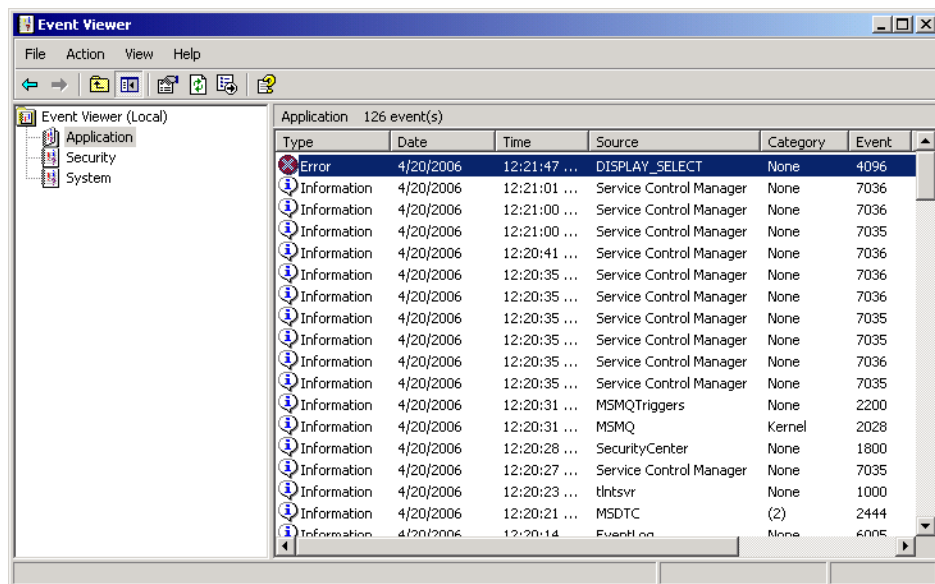
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This is due to the fact the Graphics Media Accelerator driver reverts to default "Notebook" video mode when this error condition is recognized, since this driver typically targets the notebook market. This condition persists across system cold or warm restarts.

To mitigate this situation, *TeamPoS3000 XL²* is supplied with the **Display_Select** utility to set the video mode, and restore the desired video configuration should problems occur. It only needs to be run once, after final video configuration is set. This state is saved.

A companion utility program, **SetDisp**, runs at Windows user logon and attempts to set the current video state as the saved state (/r command line option). If it detects an error (saved configuration cannot be set), SetDisp manipulates the video configuration to mitigate a failed video condition if a display (but not the expected primary display) is still physically connected. It first attempts to set a single DVI configuration, if this fails it will attempt to set a single CRT configuration. If this fails no other action is taken. SetDisp makes associated Application EventLog entries for the error and if an alternate display was selected (see figure below).



When the system is shut-down, and the physical display connects re-attached to the "saved" state, SetDisp.exe will, on the subsequent user logon, change the displays back to the "saved" configuration. This change may take a few moments after the desktop loads depending on other start-up process.

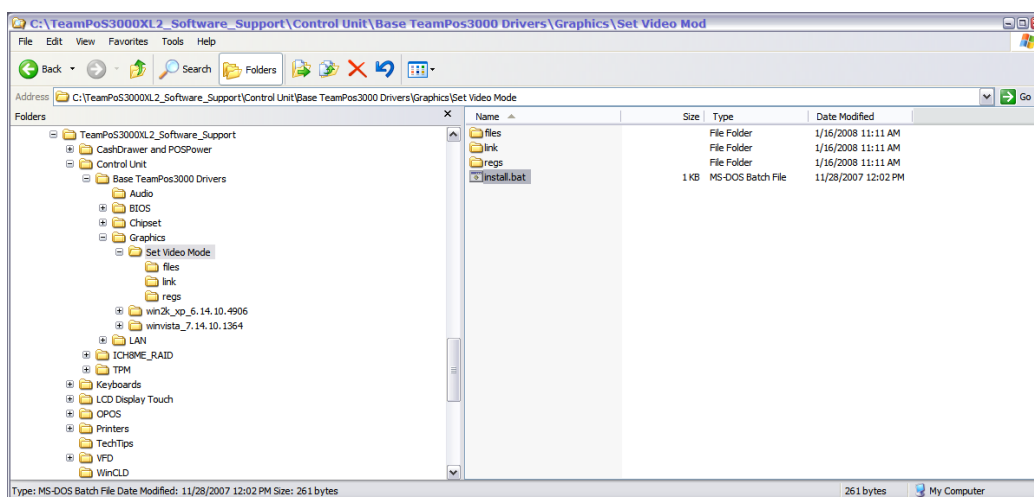
Note: For SetDisp to work automatically, you should use Windows auto logon. SetDisp runs at logon.

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Command line options for SetDisp:

- /r - Saved configuration from Display_Select
- /e - Extended - DVI primary, CRT secondary
- /x - Extended - CRT primary, DVI secondary
- /c - Clone - DVI & CRT
- /s - Single DVI
- /m - Single CRT
- /t - Test Mode GUI

Following are example scenarios and screen shots:
Display_Select Set Video Mode Utility Installation and Setup

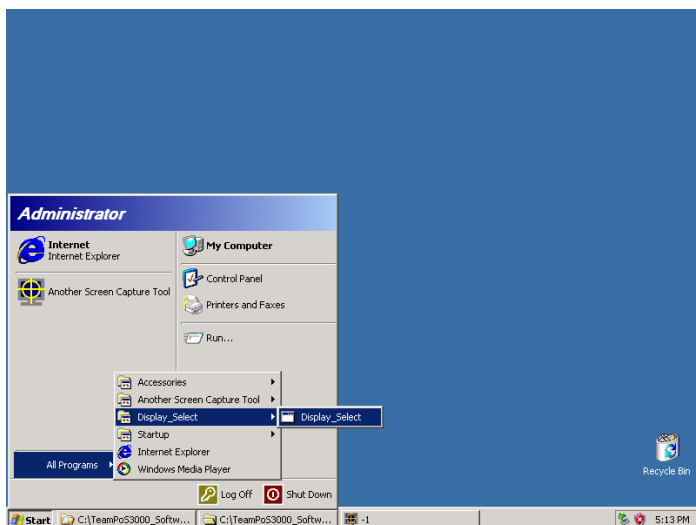


To install the Display_Select utility, navigate to the folder location containing the Set Video Mode install.bat file. In this example:

..\TeamPoS3000XL2_Software_Support\Control Unit\Base TeamPos3000 Drivers\Graphics\Set Video Mode

Select and run the file *install.bat* or *install_Vista.bat* (Windows Vista).

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Starting the Display_Select utility

The Display_Select utility program has been added to the Start Menu, and the SetDisp.exe program added to the system to run automatically at system start-up. Select and start the *Display_Select* utility from the Start Menu.



Display_Select options screen

The Display_Select utility presents a single, simple screen. Select the desired video mode from the list provided, and click "*Register*". The video mode is now saved and will be used by SetDisp.exe as the benchmark comparison at system start-up.