

EdPrep 1.6

A System Preparation Tool for Avid® editing clients

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Overview

EdPrep is a simple tool for optimising PCs running Microsoft Windows XP or Microsoft Windows Vista in preparation for the installation and operation of Avid video editing software. It is intended as a tool for Project Engineers and System Integrators as well as support staff.

EdPrep will now run on Windows 7 but no specific features have been added. Due to the more restrictive nature of the registry under Windows 7, some features may not work. These will be shown by the indicator remaining Red and must be set manually.

EdPrep2 will fully support Windows 7.

Intended Usage

EdPrep is intended for use on all Avid editing clients running on either Microsoft® Windows XP or Microsoft Windows Vista. By ensuring a consistent application of the appropriate optimisations, the overall support overhead for the system is reduced as the individual clients run as Avid intends and any support call will not require time to be wasted on troubleshooting basic configuration issues. The ideal deployment would be on a USB flash memory stick as, being composed of a single executable, no installation or supporting files are required. For large installations, a shared network folder or an Avid Advanced Response Server would be the preferred location as this provides a central location for log files to be saved as well as allowing local USB storage to be disabled as an anti-virus measure. For installations comprising multiple client workstations, new default settings may be saved to an additional file on the same stick or to another chosen folder to permit rapid, accurate and consistent configuration of a number of systems.

General Operation

In addition to applying the required optimisations, EdPrep displays coloured indicators to provide a rapid real-time indication of whether or not those settings are correctly configured. Each indication also displays a tool tip with further information. These appear as follows:

-  The setting is configured as Avid expects. No action is necessary.
-  This indicates a non-critical warning. Check the tool tip for more information.
-  This indicates a warning. Not applying this setting may compromise operation.
-  The setting is inapplicable to the currently detected configuration.

Buttons

- **Apply All Button**

This will save the selected options on all tabs as new defaults if the option is selected (see below), write a log file if this option is selected (see below) and then display a confirmation prompt asking whether you definitely want to apply all options and exit the tool. A system reboot will be offered if it is required to apply any setting.

Note that this is the default button on the main GUI and “Yes” is the default button on the confirmation prompt so all that is required to apply the default or saved settings is to simply run the tool and press the <Enter> key twice.
- **Apply This Tab Only**

Apply the optimisations selected on this tab only without exiting EdPrep. The tab is then refreshed to reflect the new status.
- **Help Button**

Displays help on command line options. Pressing the <F1> key performs the same function.
- **Close Button**

This will close the tool. A system reboot will be offered if required. Pressing the <Escape> key performs the same function.

Check Boxes

- **Save settings as defaults**

Checking this box causes all options to be saved to the file *EdPrep.ini*. You can use this to generate a set of defaults for a site when EdPrep is to be run from a shared folder. All settings (including NTP server and DNS suffix) are saved. The first time EdPrep is run after saving the user is asked whether or not these settings should be used as new defaults.

If the “Yes” button is pushed they are used as defaults until *EdPrep.ini* is manually deleted. The file is updated to reflect your choice.

If the “No” button is pushed then *EdPrep.ini* is deleted.
- **Create Log File**

Checking this box causes EdPrep to log all of the changes it makes as well as a brief system summary to a log file. The file is saved in the folder from which EdPrep was executed and, additionally, copied to the “All Users” desktop. By default the file name takes the form “<computername>_PrepLog.txt”.

A different file name may be specified using the /log command line option

Options Tab

The Options tab allows the setting of various options required for the proper operation of Avid editing systems as well as control of USB storage to help prevent the spread of viruses.

Windows Optimisations

- **Apply required Avid Editor Optimisations ***
Apply required settings from the file "*WinXP_Optimize_v3.reg*". Unlike applying the registry patch, it does not change the Windows Interface settings (colours, sizes, etc).
- **Apply Avid Power optimisations**
Creates and selects a new power scheme called "Avid Optimised" based on the "Always On" scheme ("High Performance" for Vista) with monitor sleep disabled.
- **Delay Login until Network is Started**
Apply a system-wide policy to delay the log-in prompt from appearing until the network has actually started. This prevents Ethernet Attached Clients from starting Connection Manager/Client Manager before the network is ready.
- **Disable IEEE-1394 Networking ***
Disables IEEE-1394 networking by disabling the device driver (*NIC1394.sys*)
- **Disable Java Update Scheduler**
Prevents the Java Update Scheduler from starting, kills the process if it's running and removes the Update tab from the Java Control Panel.
- **Disable NTFS Last Access Update**
Speeds up disc access – this complies with a Base Analyser rule.

** These options are required as detailed in the Windows 400 ACSR course book*

BOOT.INI file (Windows XP)

Each option in this group will create a new default entry and add the "/3GB" switch with either the "/userva=2500" or "/userva=2700" as selected.

BCD Settings (Windows Vista 32)

Each option in this group will add the "increaseuserva" line to the BCD (Boot Configuration Data) with either the 2500 or 2700 value as selected. This setting is inactive for Vista 64.

USB Storage

- **Enable/Disable USB Storage**
Enable or disable the use of USB Storage. The operation of other USB devices (dongles, printers, etc) is not affected. This setting is "On" by default.
- **USB Storage Status**
Displays the current status of USB Storage functionality.
- **Disable Shell Hardware Detection service**
Kills the service that provides AutoPlay functionality.

Apply This Tab Only

Apply the optimisations selected on this tab only without exiting EdPrep. The tab is then refreshed to reflect the new status.

Services Tab

This tab displays services that are either detrimental to the performance of Avid editing software or just to general system performance. If the service is not found then its entry is greyed-out. If the service indicated is found and running then its check box is selected. It may either be required to be disabled or recommended to be disabled as described below. When the settings are applied, the selected services are stopped and their Startup Type set to Disabled.

Required to be Disabled (🔴)

These services are detrimental to the operation of Avid editing software and should be disabled as per the document *WinXP_tuning_2005.pdf* published by Avid.

Note that stopping the Themes service prevents an inexperienced user re-applying themes as can happen if the theme is simply removed. This is effective for all users both new and existing.

Stopping the Disk Indexing service disables Indexing for all drives in a single action. This is effective for all users both new and existing.

** The Windows Firewall should be left enabled during set-up for DS Nitris systems.*

Recommended to be Disabled (🟡)

These services are not required for the operation of Avid software or any related application and should be disabled as they simply consume resources.

They may be left active if they are required.

Kill These Services

This button kills the selected services without exiting EdPrep. The tab is then refreshed to reflect the new status.

Vista Tab

The Vista tab allows the setting of required and recommended options for the proper operation of Avid editing systems under Microsoft Windows Vista. The options on this tab are disabled when running under Windows XP.

Vista Optimisations

- **Disable Desktop Composition ***
This option stops and disables the service which provides Desktop Composition which is part of the "Aero" interface. Editor performance may be seriously compromised if this service is running
 - **Disable the Vista Sidebar ***
Stops and disables the Sidebar. Apart from wasting valuable desktop space, the operation of the Composer monitors may be affected if the Sidebar is running.
 - **Disable "SuperFetch" service**
The "SuperFetch" service turns all free RAM into a cache and can seriously impair editor performance if running.
 - **Disable "ReadyBoost" service**
As well as taking up resources, the "ReadyBoost" service tries to use all removable storage as a cache and can cause problems with USB memory sticks and drives. It will also impair the performance of local external drives.
 - **Disable User Access Control**
As well as frustrating experienced users, UAC can prevent the check-in of assets to Avid Interplay.
 - **Disable Windows Defender**
Windows Defender causes performance problems with Avid Symphony and the scans it performs can interrupt capturing and Digital Cuts.
 - **Disable TCP Auto Tuning**
This causes inconsistent and reduced performance with Avid Unity ISIS and should be disabled.
 - **Disable Distributed File System**
Disabling DFS is recommended to improve performance with Unity MediaNetwork.
 - **Disable Remote Differential Compression**
Reduces ISIS network performance
N.B. Not implemented in this release. Please set manually.
 - **Force all network ports to "Private"**
Stops random "flipping" of network ports between "Private" and "Unknown"
N.B. Not implemented in this release. Please set manually.
- * Disabling these options is an Avid requirement.*

Vista Optimisations

- **Display "Classic" Log-In dialogue**
Causes Vista to display a more traditional User-name/Password type dialogue instead of the "Welcome Screen".
- **Don't remember last User name**
This option prevents the last User name being displayed at the Log-In prompt.

Apply This Tab Only

Apply the optimisations selected on this tab only without exiting EdPrep. The tab is then refreshed to reflect the new status.

Network Tab

ISIS Network Options

These options relevant to systems connected to Avid Unity ISIS shared storage. They are not applicable to Avid Unity MediaNetwork clients.

- **Set Intel NIC Tx & Rx descriptors to 1024**
Set the Tx & Rx descriptors of all installed Intel PRO/1000 network adapters.
- **Set Intel NIC speed to 1000Mbps**
Set the speed of all Intel PRO/1000 network adapters to "1000Mbps Autonegotiate". This prevents the speed of the adapter dropping to 100Mbps when renegotiating after a disconnection.
- **Disable Intel NIC power management**
Turns off power management for all Intel PRO/1000 network adapters.
N.B. The entries above are "greyed out" if no Intel PRO/1000 network adapter is found.
- **Set Broadcom NIC Rx descriptor to 511**
Sets the Rx descriptor of an installed Broadcom network interface card to the value required for ISIS. This entry is disabled if no suitable card is found.
- **Add 'Starbucks' fix to lmhosts file**
Adds the entry "127.0.0.1 <VSD> #PRE to the *lmhosts* file where <VSD> is the name of the ISIS Virtual System Director. When the box is checked or the VSD Name(s) box is clicked, a dialogue box opens to permit entry of the VSD name(s). If nothing is entered it is ignored. If a suitable #PRE entry (or entries) already exists in the *lmhosts* file it is displayed in the ISIS VSD Name(s) box. Any existing *lmhosts* file is renamed to *lmhosts.bak*. Up to 8 VSD names may be entered to allow for connection to multiple ISIS systems. The settings "Enable LMHOSTS lookup" and "Enable NetBIOS over TCP/IP" are enabled in the WINS settings.
N.B. This setting is not required for ISIS 1.5 or later.

Interplay Network Options

- **Clear 'HOSTS' file entries**
The HOSTS file is reset to default (localhost only) to avoid conflicts with DNS. The original file is saved as *hosts.bak*. If entries are detected in the file, a button is displayed for quick viewing or manual editing of the file.
- **Disable TCP/IP v6**
Disables Microsoft TCP/IP v6 (if installed) which has been seen to cause DNS issues with the Interplay Service Framework.
- **Add DNS suffix to Network and Computer Name**
Applies the DNS Suffix entered to the Computer Name, the Network Name and the DNS search list and enables the setting "Register this connection's addresses in DNS" for all installed NICs. If these are already properly set then the existing suffix is displayed in the DNS Suffix box.
N.B. Selecting this option will cause EdPrep to prompt for a reboot. If this is ignored the change will not take effect until the next system reboot.

Show Detected NICs

This button displays detected network adapters. Most Avid configurations required that the on-board adapter is disabled if a PCI adapter is fitted.

Apply This Tab Only

Apply the options selected on this tab only without exiting EdPrep. The tab is refreshed to reflect the new status.

NTP Tab

The NTP tab offers a quick method of configuring the client's NTP settings. The currently configured settings are read and displayed. If the settings are saved using the "Save settings as defaults" option (see below) then they can be easily and quickly applied to each client on which EdPrep is run. EdPrep does not offer the option to configure an NTP server.

NTP Settings

- **Machine Role**

Selecting "NTP Client" will apply all settings necessary to configure the "*W32time*" service as an NTP client using the following two options.

Selecting "NTP not used" will give the option to kill the "*W32time*" service. This is to avoid conflicts with the Avid Time Synchronisation Service when that is used for time synchronisation instead of NTP. Note that selecting this option will "grey-out" the options to enter an Update Interval and a Server Address as well as the buttons for testing an NTP server.

- **Update Interval (minutes)**

This setting controls the interval at which the server will update it's time from the NTP server specified in the next option. It is specified in minutes for ease of use and converted to seconds before being applied. This setting is only available if "NTP Client" is selected in the "Machine Role" combo box.

- **Address of NTP Server**

Enter either the IP Address or network name of the NTP server to synchronise to. This address must be accessible from the client being configured. This setting is only available if "NTP Client" is selected in the "Machine Role" combo box.

- **W32time Service Status**

Displays the current status of the W32time service.

- **Local System Time**

Provides a display of the current system time for reference.

- **Save and Restart NTP service / Kill NTP Service**

If "NTP Client" is selected this will apply the settings entered above and restart the NTP service to activate them. If "NTP not used" is selected but the NTP service is running EdPrep offers the option to kill it.

- **Check Connection to NTP Server**

Click this button to test the network connection to the specified NTP server (note that you must apply the settings first). The indicator will be green for a good connection or red for no connection – more information is available from the indicator's tool-tip. If "NTP not used" is selected this button is disabled.

- **Resync Clock with NTP server**

Click this button to resynchronise the PC's local clock to the specified NTP server (note that you must apply the settings first). The indicator will be green if the resync is successful or red if it is not possible to synchronise – more information is available from the indicator's tool-tip. If "NTP not used" is selected this button is disabled.

Tools tab

This tab contains some simple functions that do not necessarily relate to configuration but which may be useful when setting up a system

Display System Configuration

This button will display some basic configuration information about the system such as Machine Name, Operating System, CPU and RAM, display adapter information and NIC information. If a log file is created this information is also contained in the log.

Unblock Automatic SP installation

This button reverses an additional action performed by stopping the "Automatic Updates Service" from the Services tab. This may be necessary when deploying Windows Service Packs on a site via Active Directory.

Show "Classic" Log On dialogue

Displays the Windows 2000 Users dialogue to enable selection of Automatic Log On. Note that, while the dialogue will still display, the Automatic Log On option will not appear on machines connected to a domain.

Restore XP Power Schemes"

This will re-apply the raw default Windows XP power schemes as per the "GoodPowerBranch.reg" file.

Register "dvbuffers.ax"

Re-registers the file *dvbuffers.ax* to resolve some FireWire deck control issues.

Disconnect from / Reconnect to Interplay

Clicking this button enables temporary disconnection from Interplay allowing the editor work as a stand-alone system. When disconnected, the button text changes to "*Reconnect to Interplay*". The button is disabled if the system is not an Interplay client.

N.B. The functionality of this button is identical to the "Interplay batch files", i.e. Interplay.bat and Standalone.bat

Command Line Options

- **/log [filename] – Log EdPrep’s actions to a file**
Logs the changes made by EdPrep to a log file. If the file name is not specified then "*<computername>_PrepLog.txt*" will be used. The file name may include a path.
- **/u - Unattended operation**
Adding this option will cause the default settings to be applied and then the tool will exit. A log file will be generated even if not specified in which case the default name will be used. The intention is to allow the use of EdPrep with scripted and remote installations. This option also suppresses the reboot and exit confirmation prompts.
- **/inipath <path> – Save Settings to a different folder**
Indicates that the saved settings file (*EdPrep.ini*) is to be saved to or read from a folder other than the one from which EdPrep was run. If *<path>* is left blank then this switch is ignored. It is primarily intended for unattended operation and is not available as a function from the GUI.
- **/forcevista – Force display of the Vista tab**
Forces the Vista tab to be displayed when running under Windows XP to allow the creation of a default settings file for Windows Vista (and also Windows 7).

Revision History

- 1.6 Added "Check Connection to NTP Server" button and indicator
Added "Resync Clock with Server" button and indicator
- 1.5.6 EdPrep now correctly sets the Intel Speed Duplex setting under Windows Vista.
- 1.5.5 EdPrep will now run under Windows 7. No Windows 7 specific features have been added..
- 1.5.4 Setting the Intel PRO/1000 Tx/Rx descriptors did not work correctly on Vista – this is now fixed.
- 1.5.2 Added the option to Disable TCP/IP v6.
Disable Windows Firewall now defaults is now "Required" as per Joe Conforti's prep guide.
- 1.5.1 Fixed a bug where Windows XP power schemes could be overwritten.
Added a button to the Tools tab to reset Windows XP power schemes to default.
Added the option to Disable NTFS Last Access Update as per Base Analyser rules.
Removed the option to block Automatic Service Pack Installation. This is now included in the disabling of Automatic Updates.
- 1.5 Added the new nVIDIA Performance Service to the "Services" tab
The network speed setting no longer defaults to 1000Mb/s if it's already set to 100Mb/s
The check to see whether the system has had the Editor Optimisations applied is now restricted to the required settings.
The setting which modified the Icon spacing has been removed.
Added the option to disable DFS to the Vista tab.
Added a button to view/edit the HOSTS file.
Added the "/forcevista" command line option.
- 1.4 Fixed a bug in hosts file contents detection
Added "*Disconnect from Interplay*" button to Tools tab
EdPrep version and last run time are now recorded in the registry
Added W32time Status indicator
Now requests a reboot when disabling IEEE-1394 networking
Added Vista Tab
Modified Power Optimisation to work correctly with Vista
Modified *boot.ini* options to work with BCD on Vista 32
Modified Disk Indexing, Windows Firewall and Wireless LAN services to work with Vista
- 1.2.3 HOSTS file location was hard coded - now reads the *%windir%* environment variable
INI file wasn't being read correctly – now fixed.
- 1.2 Added Coloured indicators like SvrPrep
Added option to block Automatic Service Pack Installation
Removed Swap File optimisation option (not necessary with modern PCs)
Added proper /3GB switch options
Will now recognise Windows Vista
Added "Tools" tab
- 1.1.3 Fixed a bug where EdPrep would crash with a "Line -1" error with some unsupported NICs.
- 1.1 Added Confirmation Prompt for "Apply All"
Suppressed Reboot prompt for unattended use (e.g. Altiris, AARS)
No longer removes "*Apple Software Update*" folder
Added "*/inipath*" command line switch
Selecting "No" when asked to load settings now deletes the settings file
Added option to set DNS Suffixes
- 1.0 Initial Release.

Known Issues

There is currently an issue with some programmes (such as EdPrep) modifying certain parts of the registry under Windows Vista (and also Windows 7). Because of this, using EdPrep to disable Windows Defender (which causes issues with capturing and Digital Cuts) will cause an error message to be displayed on start up. Defender is disabled but the registry key which tries to start it still exists. Disabling Windows Defender manually will prevent this behaviour which will be addressed in the next release.

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EdPrep is available from:

<http://emeacs.avid.com>
<http://www.preptools.net>