

# **EdPrep 2.1.1**

**A System Preparation Tool for Avid® editing clients**

# Table of Contents

General Operation .....	3
Options Tab.....	4
Services Tab.....	6
Network Tab.....	7
NTP Tab.....	8
Tools tab .....	9
Command Line Options .....	10
Revision History .....	11
Known Issues .....	11

## Overview

EdPrep is a simple tool for optimising PCs running Microsoft Windows 7 64-bit in preparation for the installation and operation of Avid video editing software. The optimisations it applies are in accordance with recommendations from Avid as well as those tested by the Collect tool from the Avid System Diagnostic Tools suite.

It is intended as a tool for Project Engineers and System Integrators as well as support staff.

## Intended Usage





EdPrep is intended for use on all Avid editing clients running on Microsoft Windows 7 x64. 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 calls will not require time to be wasted on troubleshooting basic configuration issues.

The ideal deployment is 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 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 created and 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 *EdPrep2.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 *EdPrep2.ini* is manually deleted. The file is updated to reflect your choice.

If the “No” button is pushed then *EdPrep2.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.

### Editor Optimisations

- **Apply System Optimisations**  
Apply basic system optimisations for Avid editing software.  
Click the "Details ..." button to examine, select or deselect individual optimisations.
- **Apply Optimised Power Scheme**  
Creates and selects a new power scheme called "Avid Optimised" based on the "High Performance" power scheme but with monitor sleep disabled.
- **Disable IEEE-1394 Networking**  
Disables IEEE-1394 networking by disabling the device driver (*NIC1394.sys*). The IEEE-1394 network driver causes issues with FireWire-connected devices such as DNAs and VTRs.
- **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. This is necessary to prevent inappropriate versions of Java being installed which can affect the operation of both the ISIS and Interplay client software.
- **Disable QuickTime Updater**  
Prevents the Apple Software Update from installing untested and undesirable QT updates by uninstalling it.
- **Disable User Access Control (UAC)**  
UAC can cause check-in problems with Interplay and prevent the mounting of Unity MediaNetwork shared drives.
- **Disable Windows Defender**  
Windows Defender can cause performance issues with Avid Symphony and its scans interrupt captures and digital cuts.
- **Disable Scheduled Disc Defragmentation**  
Disc defragmentations cause a performance reduction when active and interrupt captures and digital cuts.
- **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 shared-storage client software from starting before the network is ready.

### USB Storage

- **Enable/Disable USB Storage**  
Enable or disable the use of USB Storage to assist in preventing the spread of viruses. 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 to assist in preventing the spread of viruses. Note that this can prevent AMA mounting P2 drives
- **Disable Autorun for all drives**  
Disables AutoPlay on all drives without disabling the Shell Hardware Detection service.

### 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.

# Graphics Tab

The Graphics tab allows the setting of various options required for the proper operation of Avid editing systems.

## Graphics Optimisations

- **Minimise basic visual effects**  
Apply basic graphical optimisations. Selecting this is exactly the same as setting "Visual Effects" to "Adjust for best performance". This is an Avid requirement.
- **Disable Desktop Composition**  
Desktop composition takes a large amount of graphic resources just to make the screen pretty. Disabling this is an Avid requirement.
- **Disable the Windows Sidebar**  
The Windows Sidebar causes flickering on source and record monitors when enabled. Disabling this is an Avid requirement.
- **Disable Font Smoothing**  
Disables windows smoothing the edge of fonts on the screen which takes up graphic resources. This is not really necessary on more powerful machines and the default is not to apply this but it remains for lower spec machines..
- **Disable full window dragging**  
Disables showing the contents of a dragged window (just shows the outline instead) which takes up graphic resources. This is not really necessary on more powerful machines and the default is not to apply this but it remains for lower spec machines.
- **Disable Screen Saver**  
A screen saver cutting in on an unattended machine can interrupt a capture operation. Avid recommends that the screen saver is disabled. Screen savers are unnecessary on modern flat screen monitors.

## nVidia Driver Service

- **Enable/Disable nVidia Driver Service**  
For versions of the nVidia driver lower than 259.77 the nVidia Driver service performs no useful function and should be disabled as it simply consumes resources (a lot), floods the registry with irrelevant data and potentially will install an unqualified driver version. For driver version 259.77 (as supplied with MC 5.5) and above, the service needs to be running to enable the required "Video Editing Mode". Once this has been enabled, the service can be stopped if desired. It may easily be restarted using this control if required. EdPrep detects the driver version and sets the control to "Enable" for 259.77 and higher and "Disable" for older versions.

## nVidia Performance Service

- **Enable/Disable nVidia Performance Service**  
The nVidia Performance driver service is only useful for Autodesk applications and should be disabled to free up resources.

## Show nVidia version

This button will display the detected version of the currently installed nVidia driver.

## 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. All services disabled by this tab are as required by the rules used by Base Analyser and Collect.

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.

Note that disabling certain services duplicates (and, in fact, enforces) optimisations set elsewhere in EdPrep. For example, disabling the *Themes* service will prevent all users from re-enabling Themes.

### **Required to be Disabled (🔴)**

These services are detrimental to the operation of Avid editing software and should be disabled.

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 both new and existing users.

### **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.

## 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**  
Sets the Tx & Rx descriptors of all installed Intel PRO/1000 network adapters to 1024.
- **Set Intel NIC speed to 1000Mbps**  
Sets the speed of all Intel PRO/1000 network adapters to "1000Mbps Full Duplex" greatly reducing the time taken to renegotiate the connection speed after a disconnection.
- **Disable Intel NIC power management**  
Turns off power management for all Intel PRO/1000 network adapters.
- **Set Broadcom NIC Rx descriptor to 511**  
Sets the Rx descriptor of an installed Broadcom network interface card to 511.  
*N.B. The above entries will be "greyed out" if no appropriate network adapter is found.*
- **Disable Network Auto-Disconnection**  
Prevents Windows from disconnecting network connections which it decides are "idle".

### 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. Note that, while IP v6 is disabled, the check box will still appear in the NIC properties dialogue. See this Microsoft KB article for more information: <http://support.microsoft.com/kb/929852>.
- **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*

### Windows Network Options

- **Disable TCP Auto Tuning**  
TCP Auto Tuning should be disabled for proper network performance with both ISIS and Interplay
- **Disable Distributed Filing System**  
Disabling DFS improves Interplay, ISIS and MediaNetwork performance.
- **Disable Remote Differential Compression**  
Disabling RCD improves Interplay, ISIS and MediaNetwork performance.  
Note that selecting this option will disable RDC by uninstalling it.

### Show Detected NICs

This button will display detected network adapters - both ISIS-compatible and otherwise.

### 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.
- **Primary 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 and may be checked using the "Check Connection to NTP Server" button described below.

This setting is only available if "NTP Client" is selected in the "Machine Role" combo box.
- **Secondary NTP Server**

Optionally enter either the IP Address or network name of a second NTP server (this is typically used with dual redundant Interplay Capture servers). This address must be accessible from the client being configured and may be checked using the "Check Connection to NTP Server" button described below.

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(s). Note that you must apply the settings first.

Connection 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 firstly with the primary NTP server or, if the primary is unavailable and a secondary is specified, the secondary 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.

Synchronisation 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.

### **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.

Note that the functionality of this button is identical to the "Interplay batch files".

## 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.
- **/forcerun – Force EdPrep to run regardless of OS**  
Use at your own risk!

## Revision History

- 2.0 Initial Release.
- 2.0.1 Changed: nVIDIA Driver Service now defaults to Deselected for 259.77 and above
- 2.1 Added: Kill Background Transfer service (BA Rule 0207)  
Kill Computer Browser service (BA Rule 0207)  
Kill Remote Registry service (BA Rule 0207)  
Disable NIC "auto disconnect" (BA Rule 0118)  
Disable Apple Software Update (BA Rule 0212)  
Button to display detected nVidia driver version  
  
Removed: Unblock Automatic SP installation button  
  
Changed: Graphics options moved to new Graphics tab  
nVidia services now have full control and version checking  
Full Window Drag default is now Unchecked  
Font Smoothing default is now Unchecked  
  
Fixed: Java Update now disables correctly on 64-bit OS  
Defender - now kills the service properly  
Show all tray icons now works correctly  
Show all desktop icons now works correctly
- 2.1.1 Fixed: Updated Full Window Drag routines  
Correctly detects Embedded Intel 82579LM on HP Z210

## Known Issues

None currently

Simon Dorricott – Avid EMEA - July 2013

EdPrep is available from: <http://www.preptools.net>