

# Application Note

## Updating the DeTwo firmware.

### Overview

This document provides step by step instructions updating the firmware in the Amulet Hotkey DeTwo digital KVM extender products. You will need a copy of the updated firmware and the firmware update utility 'DDSYSMFG.exe' to carry out this procedure. Both are available from Amulet Hotkey Technical Support.

The update utility is used to update the firmware in both the DeTwo desktop appliance and the PCI add-in host card.

### Preparation

The DeTwo Desktop appliance and host PCI add-in card firmware can only be updated when they are connected to a host computer. The usual method for doing this is to install the update utility (DDSYSMFG.exe) onto a computer that is already equipped with a working PCI Add-in card and remotely located desktop appliance.

### Installing the update application

The DDSYSMFG.exe utility is provided as a “zip” file. Copy this file to the PC that will be used to perform the upgrade procedure. Unzip the files and run the setup.exe program. Unless otherwise directed the setup program will create a folder with the following path on the main hard drive: “Program Files\Avocent\DDSYSMFG”. For convenience you may wish to create a shortcut to ddsysmfg.exe on the PC’s desktop.

**NOTE:** If an existing version of DDSYSMFG is installed on the PC, remove the old program before installing a new version. Use “Add or Remove Programs” found in “Control Panel” to remove the existing program..

### Running the DDSYSMFG Utility

Run “ddsysmfg.exe” by double clicking on the .exe file icon or shortcut.

### General Operation

The program will automatically scan for Digital Desktop components.

**NOTE:** DeTwo PCI Add In Cards may be accessed with or without a Desktop Appliance connected. However, a PCI Add In Card is required in order for the program to access a Desktop Appliance.

The program will display the FLASH version, Part Number, Serial Number and MAC address of both the PCI Add In Card and Detwo desktop appliance (if present).

**NOTE:** The P/N, S/N and MAC address fields will be left blank if these entries have not been stored in FLASH memory.

A button located in the upper right-hand section of the Graphical User Interface (GUI) is provided to alternate between the PCI Add In Card and the Desktop Appliance. Bold text in the upper left-hand section of the GUI indicates which system component is currently selected.

### File / Help Functions

The following functions may be selected using the “File” or “Help” menu pull downs located in the top left-hand corner of the GUI:

- |       |  |
|-------|--|
| File: | Update Image: Brings up the FLASH Update dialog box                |
|       | View Config Details: Displays configuration details                |
|       | Dump FLASH Contents to file: Brings up FLASH file save dialog box  |
|       | Preferences: Allows setting of default FLASH and Config files      |
|       | Exit: Exits DDSYSMFG with Restart prompt if FLASH has been updated |
| Help: | Help: Displays DDSYSMFG help text                                  |
|       | About: Displays DDSYSMFG version                                   |

## Update Image

The FLASH content of the selected system component is totally rewritten when the "Update Image" function is executed. The update image function may be selected using the "Update Image" button located on the main GUI (Fig.1).

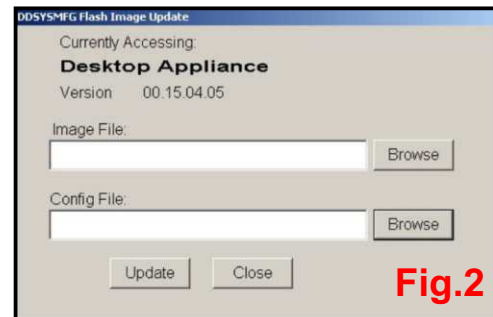
Once selected the user is prompted for the name and location of the binary image file to be loaded into FLASH (Fig.2). A browse button is provided to aid in locating the file.

The user is also prompted for the name and location of a text configuration file. This file is not required unless specific directions are given to modify the default configuration settings.

The image of the selected system component is updated when the "Update" button is activated. The update should take approximately 40 seconds. Any previous FLASH version, configuration settings or component identifiers will be erased when this update is performed. Component identifiers (P/N, S/N and MAC address) should be written immediately following an image update.

NOTE: Each system component (add in card and desktop appliance) must be updated independently.

NOTE: The active FLASH version running in the system components will not change following an update until after the PC has been shutdown. Therefore, the user must perform a shutdown and reboot of the PC (not a "restart") before proceeding with any functional tests.



## Component Identifiers

The FLASH memory is used to uniquely identify each DeTwo system component. These identifiers are the component's part number, serial number and MAC address. The identifiers must be loaded into the FLASH following the update image function.

The keyboard tab button may be used to select the desired field. The selection will walk through each field as entries are made. It is recommended that a bar code scanner be used to scan in the component identifiers to both ease the manual entry requirement and to reduce error.

Once the fields have been entered they are written into FLASH with the selection of the "Write" button.

NOTE: The "Scanner Input" field may be selected when a bar code reader is used to enter the identifiers. The utility will automatically enter the data into the appropriate field based on the format of the entry.

## Refresh

A "Refresh" button is provided on the upper right-hand side of the main GUI. Activating this button forces a re-read of the selected system component's FLASH. The screen will automatically update with any new information.

NOTE: If the system has not been shutdown and then re-booted since a FLASH modification, then the FLASH version(s) actively running in the system will not be the updated version(s) read from the FLASH by the DDSYSMFG utility.

## Completing the update.

As highlighted above, the updated firmware will not be employed until the entire system has been power cycled. It is not sufficient to simply 'restart' the host workstation.

It is recommended that, following a firmware update, you carry out a full check of the DeTwo system to ensure that it is working as expected.