# Table of Contents

ReadMe Document Revision History ......................................................... 3  
Feature Summary .................................................................................... 4  
   New Features for the PDW-700 XDCAM HD 422 Camcorder .................. 4  
   New Features for the PDW-HD1500 XDCAM HD 422 Deck .................... 5  
Version 1.5 Update Notes ...................................................................... 6  
   Introduction ......................................................................................... 6  
Before Applying the Version 1.5 Firmware Update .............................. 6  
A Note for PDW-U1 Users ..................................................................... 7  
   New Windows and Mac Software For Version 1.5 Machines ............... 8  
      Using Version 1.5 Discs in Earlier XDCAM Models ....................... 9  
      “Clip Folder”, “General Folder”, and “UserData Folder” Capability Comparison and Usage Notes ................................................................. 10  
      “Mixed Format Recording” Capability and Usage Notes .................. 11
ReadMe Document Revision History

July 31, 2009

PDW-U1 version 2.21 VFAM drivers for Windows and Mac released. Updated PDW-U1 version notes.

July 15, 2009

Initial Draft
Feature Summary

New Features for the PDW-700 XDCAM HD 422 Camcorder

Each feature is described on the indicated page in the PDW-700 Operation Manual (1st Edition, Revision 3)

- 23.98p and additional SD formats can be supported with installable options (p. 12 – Multi-format Support)
- ALAC (Automatic Lens Aberration Compensation) (p. 183)
- ATW (Auto Tracing White Balance) Hold (p. 64)
- Clip Continuous Recording (p. 95)
- Single Clip Playback (p. 84)
- Clip Filtering (p. 120)
- Mixed Format Recording Mode (p. 58)
- Upload files via FTP without an external PC (Direct FTP) (p. 141)
- Multi-national Support (for Clip/Disc Names and Title2 in Chinese and Korean)
- Proxy Recording on USB Memory (p. 104)
- Planning Metadata FTP support (p. 100)
- Metadata Transfer via a MPEG transport stream (when used with HDCA-702 adapter upgrade to v1.1 firmware)
- Recording can be triggered over i.LINK connection with HDCA-702 connected via 50-pin connection
- Fan Motor Slow Down Mode (p. 182)
**New Features for the PDW-HD1500 XDCAM HD 422 Deck**

Each feature is described on the indicated page in the PDW-HD1500 Operation Manual (1st Edition, Revision 3)

- 23.98p and additional SD formats can be supported with installable options (p. 12 – Recording and Playback functions)
- Clip Continuous Recording (p. 57)
- Single Clip Playback (p. 62)
- Clip Filtering (p. 78)
- Mixed Format Recording Mode (p. 54)
- Upload files via FTP without an external PC (Direct FTP) (p. 97)
- Multi-national Support (for Clip/Disc Names and Title2 in Chinese and Korean)
- Planning Metadata FTP support (p. 151)
- Manual Frame Sync (p. 65)
- SD Closed Caption data (EIA-608) on SD-SDI input converted to (EIA-708) during HD upconversion and recorded to XDCAM disc
- FTP / FAM read and write speed to General and Userdata folders improved from v1.2.
Version 1.5 Update Notes

Introduction

This version 1.5 update provides many new features for the PDW-700 camcorder and PDW-HD1500 deck. It also provides enhancements to the XDCAM format file system for using XDCAM discs to archive video and other file types: Mixed Format Recording and the Userdata folder.

These file system enhancements require that you also upgrade your other XDCAM equipment (i.e. standard definition XDCAM and the 4:2:0 XDCAM HD products) to a required minimum firmware version, so discs which take advantage of these new file system enhancements are appropriately handled by the earlier XDCAM models.

Discs formatted by the XDCAM HD 422 machines running version 1.5 firmware will be referred in this document as “version 1.5 discs”.

Before Applying the Version 1.5 Firmware Update

Before upgrading your PDW-HD1500 or PDW-700, please check to see if your machine is running firmware version 1.2x. Do NOT apply the version 1.5 firmware update if your XDCAM machine is not at version 1.2x. Applying version 1.5 on an XDCAM machine lower than this version may disable it. Please contact your Sony representative for guidance.

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.
A Note for PDW-U1 Users

The corresponding upgrade (PDW-U1 version 2.21) for the PDW-U1 XDCAM Drive which provides compatibility with the version 1.5 discs is now available. The VFAM driver is revised to version 2.21. Note: you must use the U1 Utility software to upgrade the firmware of your PDW-U1 to version 2.42.

If you must read or write 23.98p, 50 Mbps XDCAM 422 MXF files, version 1.5 discs with files stored in the Userdata folder, or version 1.5 discs written with the “mixed format recording” enabled, you will temporarily need to use either the PDW-HD1500 or the PDW-700.

See the section titled “New Windows and Mac Software for Version 1.5 Machines” for the appropriate versions of XDCAM software which are compatible with your upgraded PDW-U1.

The PDW-U1 version 2.21 release provides support for the following features:

- 50 Mbps XDCAM HD 422, 23.98p MXF file reading/writing support
- Reading and Writing to the Userdata folder
- Discs created by version 1.5 with Mixed Format Recording feature enabled

Bug Fix

In some rare cases certain SD discs created by the version 1.06 VFAM driver release would not mount if you were using the version 2.20 Windows VFAM driver released in mid July 2009. This has been fixed in version 2.21.

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.
**New Windows and Mac Software For Version 1.5 Machines**

It is critical that the following new software and drivers be used in conjunction with the XDCAM HD 422 version 1.5 machines. Using older versions of drivers may prevent applications from properly reading the version 1.5 discs and recognizing the 50 Mbps XDCAM HD 422 clips recorded at 23.98p.

The following new applications are available for download from SoftwarePlus:

- **32-bit Windows XP SP3, Vista Business and Ultimate Editions**
  - PDZ-1 Proxy Browsing Software version 2.6 / FAM driver version 2.2
  - PDZ-VX10 Sony XDCAM Viewer version 2.30

- **Mac OS X**
  - PDZK-P1 XDCAM Transfer version 2.10
    - This installer will also load an updated FAM driver for Mac OS X

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.
Using Version 1.5 Discs in Earlier XDCAM Models

In a facility which has a mixture of earlier XDCAM SD and XDCAM HD (4:2:0, 1440x1080) models and will be used with version 1.5 discs, please make sure all machines are running the following minimum firmware versions listed below. This is important to make sure that the earlier decks are able to correctly detect discs formatted by version 1.5 machines and appropriately handle discs which are written with the version 1.5 “mixed format recording” function enabled.

Standard Definition XDCAM machines: Package Version 1.56

Camcorders
PDW-510/530

Decks
PDW-1500
PDW-R1
PDW-V1
PDW-D1 XDCAM Drive

XDCAM HD (4:2:0) machines: Package Version 1.56 or higher

Note: The current package version 1.9x is highly recommended

Camcorders
PDW-F350
PDW-F355

Decks
PDW-F70
PDW-F75
PDW-F30

PDW-U1 XDCAM Drive

Please use XDCAM Drive software version 2.11 until v2.20 is available.

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.
“Clip Folder”, “General Folder”, and “UserData Folder” Capability
Comparison and Usage Notes

The “Clip” and “General” folders have been part of the XDCAM format
definition from the initial introduction of the optical XDCAM products. The General
folder is a 500 MB area on the disc which can be used to store any files on the XDCAM
disc without impacting video / audio recording capacity. The Clip and General folders
are created when the disc is formatted in any optical XDCAM machine. The Clip folder
is used to hold all of the high resolution MXF files which are shot / recorded by an
optical disc based, XDCAM product. MXF files stored in the Clip folder can be played
back by the XDCAM disc camcorder or deck. Prior to the introduction of “Mixed
Format Recording” feature, only certain combinations of files (i.e. SD, HD, 1080i, 720p)
are permitted to be mixed together in the Clip folder on the same disc.

The “UserData” folder was introduced in the XDCAM HD 422 products (i.e.
PDW-700 and PDW-HD1500) running version 1.2x firmware. The UserData folder
enables users to store any files (i.e. graphics or XDCAM EX format SxS card images) on
the XDCAM disc and use nearly the full capacity of the XDCAM disc (i.e. approximately
21 GB on a 23 GB PFD-23 disc and approximately 46.4 GB on a 50 GB PFD-50 disc).
Naturally, this capability also means that these files reduce the video/audio recording
time. However, files in the UserData folder cannot be directly played back by the
XDCAM disc machine.

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.
“Mixed Format Recording” Capability and Usage Notes

Version 1.5 firmware for the XDCAM HD 422 machines introduces a new XDCAM format file system functionality called “Mixed Format Recording.” This feature enables PDW-700 and PDW-HD1500 operators to consolidate a greater diversity of MXF files which can be created by the optical XDCAM products into the Clip folder of a single disc.

This feature is designed to be used when the operator needs to force the maximum number of files on the disc for file based ingesting or archiving. The main premise is to store as many files in the Clip folder which can be played back directly by the deck or camcorder to identify content, but not for seamless, on air playback. Other files will be stored in the UserData folder (and must be played back by a software application).

By default, this function is disabled in the menu so XDCAM discs created by the version 1.5 XDCAM machines will follow the same file writing restrictions as the earlier XDCAM model and the resulting discs will have the highest backward compatibility with the earlier XDCAM models. When mixed format recording is enabled (and a disc is created with a mixture of files which are not normally allowed together), these discs will not be accepted by the earlier XDCAM models.

An early XDCAM model running the recommended minimum firmware version described a previous section will display the following message when a Mixed Format disc is inserted:

“No Support – Format not supported. Recording and Playback is not possible.”

This disc will need to be read by a XDCAM HD 422 machine running version 1.5 firmware (and eventually the PDW-U1 with version 2.20 software).

“Memory Stick”, “i.LINK”, and “XDCAM” are trademarks of Sony Corporation
“Microsoft” is a registered trademark and “Windows” is a trademark of Microsoft Corporation
“Apple”, “Final Cut Pro”, and, “Mac OS” are registered trademarks of Apple Computer, Inc.