

Autodesk®
Inferno® 2009 SP3

A Discreet® Systems product

Autodesk®
Flame® 2009 SP3

A Discreet Systems product

Autodesk®
Flint® 2009 SP3

A Discreet Systems product

Release Notes

© 2008 Autodesk, Inc./Autodesk Canada Co. All rights reserved. Except as otherwise permitted by Autodesk, Inc./Autodesk Canada Co., this publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.

Autodesk® Inferno® 2009, Autodesk® Flame® 2009, Autodesk® Flint® 2009, Autodesk® Smoke® 2009, Autodesk® Backdraft® Conform 2009

Portions relating to MXF-SDK was developed by Media, Objects and Gadgets - Soluções de

Software e Hardware, S.A. (<http://www.mog-solutions.com>) in co-operation with Institut für Rundfunktechnik GmbH (<http://www.irt.de>).

Portions relating to Libxalan-c 1.9.0 are Copyright © 1999-2004. The Apache Software Foundation. Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>. Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Portions relating to Libxerces-c 2.6.0 are copyright 1999-2000, 2004 The Apache Software Foundation. Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>. Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Portions relating to JPEG © Copyright 1991-1998 Thomas G. Lane. All rights reserved. This software is based in part on the work of the Independent JPEG Group.

Portions relating to Libnuma Copyright 2002, 2004, Andi Kleen, SuSE Labs. Libnuma is under the GNU Lesser General Public License, v 2.1.

Portions relating to Libelf v 0.97 © 2008 Michael Riepe. Distributed under the terms of the GNU Lesser General Public License, v 2.1.

Portions relating to OpenMotif Copyright © 2007 by Integrated Computer Solutions, Inc. This material may be distributed only subject to the terms and conditions set forth in the Open Publication License, v2 .3 or later (the latest version is presently available at <http://www.opencontent.org/openpub/>).

Portions relating to LAPACK © 1999. LAPACK Users' Guide Third Edition is the official reference for LAPACK.

Portions relating to BLAS © 2005. ACM Transactions on Mathematical Software.

Portions relating to MD5 Copyright © 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved. License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function. License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work. RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind. These notices must be retained in any copies of any part of this documentation and/or software.

Portions relating to LibGCC Copyright © 2007 The GGC Team. Distributed under the terms of the GNU General Public License (or the Lesser GPL) <http://www.gnu.org/copyleft/library.html>.

Portions relating to ALSA version 1.0.6 Copyright © 2004 Jaroslav Kysela, Abramo Bagnara, Takashi Iwai, and Frank van de Pol.

Portions relating to Audiobogus Copyright © 1998-1999, Michael Pruett (michael@68k.org).

Portions relating to Audiofile 0.2.6 Copyright © 2005 Michael Pruett. Distributed under the terms of GNU General Public License, v2.

Portions relating to Berkeley Database software Copyright ©1990-2002, Sleepycat Software. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. 3. Redistributions in any form must be accompanied by information on how to obtain complete source code for the DB software and any accompanying software that uses the DB software. The source code must either be included in the distribution or be available for no more than the cost of distribution plus a nominal fee, and must be freely redistributable under reasonable conditions. For an executable file, complete source code means the source code for all modules it contains. It does not include source code for modules or files that typically accompany the major components of the operating system on which the executable file runs. THIS SOFTWARE IS PROVIDED BY SLEEPYCAT SOFTWARE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ARE DISCLAIMED. IN NO EVENT SHALL SLEEPYCAT SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions relating to DIRAC Time Stretch/Pitch Shift technology licensed from The DSP Dimension, <http://www.dsdimension.com> Developed and © 2005 Stephan M. Bernsee.

Portions relating to GLEE Copyright © 2006 Ben Woodhouse. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer as the first lines of this file unmodified. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. THIS SOFTWARE IS PROVIDED BY BEN WOODHOUSE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL BEN WOODHOUSE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions of LibFreeType 2.1.19 are copyright © 2000. The FreeType Project (www.freetype.org). All rights reserved.

Portions relating to LibImageDL software are Copyright © 1991, 1999 Free Software Foundation, Inc.

Portions relating to Libpopt Copyright © 1998 Red Hat Software. Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE X CONSORTIUM BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of the X Consortium shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from the X Consortium.

Portions relating to libquicktime, Copyright © 2007. Distributed under the terms of the GNU General Public License (or the Lesser GPL).

Portions relating to Mesa Copyright © 1999-2007 Brian Paul. All Rights Reserved. Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL BRIAN PAUL BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Portions relating to Open Inventor 2.1.5-9 Copyright © 1991, 1999 Free Software Foundation, Inc.

Portions relating to Python version 2.3.3 Copyright © 2001, 2002, 2003 Python Software Foundation; All Rights Reserved.

Portions relating to XXDiff Copyright © 1999-2004, Martin Blais. All Rights Reserved.

Portions powered by Automatic Duck. © 2006 Automatic Duck, Inc. All rights reserved.

PORTIONS OF THIS PRODUCT IS LICENSED UNDER THE VC-1 PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE VC-1 STANDARD ("VC-1 VIDEO") AND/OR (ii) DECODE VC-1 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE VC-1 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).

Portions relating to Glibc file contains the copying permission notices for various files in the GNU C Library distribution that have copyright owners other than the Free Software Foundation. These notices all require that a copy of the notice be included in the accompanying documentation and be distributed with binary distributions of the code, so be sure to include this file along with any binary distributions derived from the GNU C Library.

Portions relating to X11-libs v. 6.8.2 Copyright © 1994-2003 The XFree86 Project, Inc. All Rights Reserved. Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE XFREE86 PROJECT BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. Except as contained in this

notice, the name of the XFree86 Project shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from the XFree86 Project.

Portions relating to zlib ©1995-2004 Jean-loup Gailly and Mark Adler. This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Portions relating to FireFox 2 are © 2005-2008. Mozilla. All rights reserved. Distributed under the Mozilla Public License Version 1.1.

Autodesk® WiretapCentral™ 2009

Portions relating to Libxalan-c 1.8.0 are Copyright © 2004 The Apache Software Foundation. Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>. Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License. This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>).

Portions relating to Libxerces-c 2.5.0 are Copyright © 1999-2004 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear. 4. The names "Xerces" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org. 5. Products derived from this software may not be called "Apache" nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation. THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions relating to JPEG are copyright © 1991-1996, Thomas G. Lane. All Rights Reserved except as specified below. The authors make NO WARRANTY or representation, either express or implied, with respect to this software, its quality, accuracy, merchantability, or fitness for a particular purpose. This software is provided "AS IS", and you, its user, assume the entire risk as to its quality and accuracy.

Autodesk® SystemCentral™ 2009

Portions relating to pySerial Copyright © 2001-2004 Chris Liechti cliechti@gmx.net; All Rights Reserved.

Autodesk® Inferno® 2009, Autodesk® Flame® 2009, Autodesk® Flint® 2009, Autodesk® Smoke® 2009, Autodesk® Backdraft® Conform 2009, and Autodesk® WiretapCentral™ 2009

Portions relating to OpenExr 1.2.1 Copyright © 2004, Industrial Light & Magic, a division of Lucasfilm Entertainment Company Ltd. Portions contributed and copyright held by others as indicated. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of Industrial Light & Magic nor the names of any other contributors to this software may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions relating to libtiff are Copyright © 1988-1997 Sam Leffler. Copyright © 1991-1997 Silicon Graphics, Inc. Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics. THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR

PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Portions relating to libffmpeg Copyright © 2003-2006, Fabrice Bellard.

Portions relating to LAME 3.97 Copyright © 2006 Mark Cheng. www.mp3dev.org. Distributed under the terms of the GNU General Public License (or the Lesser GPL) <http://www.gnu.org/copyleft/library.html>.

PORTIONS RELATING TO H. 264 IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).

PORTIONS OF THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT LICENSE PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER FOR (i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD ("MPEG-4 VIDEO") AND/OR (ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDED LICENSED BY MPEG LA TO PROVIDE MPEG-4 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL USES AND LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).

PORTIONS OF THIS PRODUCT IS LICENSED UNDER THE MPEG-2 PATENT PORTFOLIO LICENSE ANY USE OF THIS PRODUCT OTHER THAN CONSUMER PERSONAL USE IN ANY MANNER THAT COMPLIES WITH THE MPEG-2 STANDARD FOR ENCODING VIDEO INFORMATION FOR PACKAGED MEDIA IS EXPRESSLY PROHIBITED WITHOUT A LICENSE UNDER APPLICABLE PATENTS IN THE MPEG-2 PATENT PORTFOLIO, WHICH LICENSE IS AVAILABLE FROM MPEG LA, L.L.C., 250 STEELE STREET, SUITE 300, DENVER, COLORADO 80206.

Portions relating to MPEG Layer- 3, supply of this product does not convey a license under the relevant intellectual property of Thomson multimedia and/or Fraunhofer Gesellschaft nor imply any right to use this product in any finished end user or ready-to-use final product. An independent license for such use is required. For details, please visit <http://www.mp3licensing.com>.

The following are registered trademarks or trademarks of Autodesk, Inc., in the USA and other countries: 3DEC (design/logo), 3December, 3December.com, 3ds Max, ActiveShapes, Actrix, ADI, Alias, Alias (swirl design/logo), AliasStudio, Alias|Wavefront (design/logo), ATC, AUGI, AutoCAD, AutoCAD Learning Assistance, AutoCAD LT, AutoCAD Simulator, AutoCAD SQL Extension, AutoCAD SQL Interface, Autodesk, Autodesk Envision, Autodesk Insight, Autodesk Intent, Autodesk Inventor, Autodesk Map, Autodesk MapGuide, Autodesk Streamline, AutoLISP, AutoSnap, AutoSketch, AutoTrack, Backdraft, Built with ObjectARX (logo), Burn, Buzzsaw, CAiCE, Can You Imagine, Character Studio, Cinestream, Civil 3D, Cleaner, Cleaner Central, ClearScale, Colour Warper, Combustion, Communication Specification, Constructware, Content Explorer, Create>what's>Next> (design/logo), Dancing Baby (image), DesignCenter, Design Doctor, Designer's Toolkit, DesignKids, DesignProf, DesignServer, DesignStudio, Design|Studio (design/logo), Design Web Format, Design Your World, Design Your World (design/logo), DWF, DWG, DWG (logo), DWG TrueConvert, DWG TrueView, DXF, EditDV, Education by Design, Exposure, Extending the Design Team, FBX, Filmbox, FMDesktop, Freewheel, GDX Driver, Gmax, Heads-up Design, Heidi, HOOPS, HumanIK, i-drop, iMOUT, Incinerator, IntroDV, Inventor, Inventor LT, Kaydara, Kaydara (design/logo), LocationLogic, Lustre, Maya, Mechanical Desktop, MotionBuilder, Mudbox, NavisWorks, ObjectARX, ObjectDBX, Open Reality, Opticore, Opticore Opus, PolarSnap, PortfolioWall, Powered with Autodesk Technology, Productstream, ProjectPoint, ProMaterials, Reactor, RealDWG, Real-time Roto, Recognize, Render Queue, Reveal, Revit, Showcase, ShowMotion, SketchBook, SteeringWheels, StudioTools, Topobase, Toxik, ViewCube, Visual, Visual Bridge, Visual Construction, Visual Drainage, Visual Hydro, Visual Landscape, Visual Roads, Visual Survey, Visual Syllabus, Visual Toolbox, Visual Tugboat, Visual LISP, Voice Reality, Volo, Wiretap, and WiretapCentral.

The following are registered trademarks or trademarks of Autodesk Canada Co. in the USA and/or Canada and other countries: Backburner, Discreet, Fire, Flame, Flint, Frost, Inferno, Multi-Master Editing, River, Smoke, Sparks, Stone, and Wire.

Automatic Duck and the duck logo are trademarks of Automatic Duck, Inc. All other brand names, product names or trademarks belong to their respective holders.

FFmpeg is a trademark of Fabrice Bellard, originator of the FFmpeg project.

All other brand names, product names or trademarks belong to their respective holders.

Disclaimer

THIS PUBLICATION AND THE INFORMATION CONTAINED HEREIN IS MADE AVAILABLE BY AUTODESK, INC./AUTODESK CANADA CO., "AS IS." AUTODESK, INC. DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REGARDING THESE MATERIALS.

Published by:

Autodesk, Inc.

111 McInnis Parkway
San Rafael, CA 94903, USA

Title: Autodesk Inferno, Flint, and Flame 2009 SP3 Release Notes

Document Version: 1

Date: October 15, 2008

contents

Contents

1	Release Information	1
	Summary	1
	About these Release Notes.....	1
	Service Pack Information	1
	Compatibility.....	2
	Related Documentation.....	2
	Contacting Customer Support	5
2	System Information	7
	Summary	7
	Overview.....	7
	Licensing Requirements.....	7
	Hardware System Requirements	8
	Operating System Requirements	9
	DKU Requirements	10
	Mandatory AJA OEM 2K Firmware Upgrade	11
	Statement of Compatibility for Media Transfer over Wire	12
	Removing Invalid Frame References from the Stone and Wire Database.....	13
	Troubleshooting Missing Frames.....	14
	Dlmpd Compatibility.....	16
	Using Lustre Colour 2008	16
	Cleaner XL Version 1.5.2 Required	16
	File Archiving over NFS.....	17
	Autodesk Wiretap 2009 SDK	17
	Linux Product Characteristics	17

3	User Guide Addendum	19
	Summary	19
	User Guide Updates	19
	MXF P2 Support	20
	Exporting QuickTime DVCPro HD	20
	Audio Delays for 720p with the AJA and DVI Ramp Cards	21
	Preventing Symbolic Links across Filesystems	21
	Maximum Resolution for the Paint Node in Batch	21
	Support for GPU-Accelerated 3D LUT Display	21
	Burn and Floating Point Media	22
	Tooltips	22
4	Installation Documentation Workflows	23
	Summary	23
	Overview	23
	Reinstalling from Scratch	23
	Connecting New or Expanded Stone Direct Storage	24
	Upgrading Your Visual Effects and Finishing Application	25
	Upgrading Your Operating System	26
	Which Document Do I Need	26



Release Information

Summary

About these Release Notes	1
Service Pack Information	1
Compatibility	2
Related Documentation	2
Contacting Customer Support	5

About these Release Notes

This document provides important release information relating to the release, and service packs, of Autodesk® Inferno® 2009, Autodesk Flame® 2009, and Autodesk Flint® 2009. You can find the latest version of this document at www.autodesk.com/me-documentation.

This document contains the following chapters:

Chapter 1: Release Information — Provides information about related documentation, compatibility, and contacting customer support.

Chapter 2: System Information — Provides infrastructure and hardware-related information.

Chapter 3: User Guide Addendum — Provides new information that was released after the User Guide went to print.

Chapter 4: Installation Documentation Workflows — Provides common installation workflows, such as reinstalling your entire system and upgrading your operating system.

Service Pack Information

About Service Pack 3

The following table highlights new information related to the 2009 Service Pack 3 release.

Item	Page
Mandatory AJA OEM 2K Firmware Upgrade	11
Removing Invalid Frame References from the Stone and Wire Database	13

For information on major and minor issues fixed in Service Pack 3, see *Autodesk Visual Effects and Finishing 2009 - Fixed and Known Bugs*. You can get its latest version from the Autodesk Web site at www.autodesk.com/me-documentation.

About Service Pack 2

For information on major and minor issues fixed in Service Pack 2, see *Autodesk Visual Effects and Finishing 2009 - Fixed and Known Bugs*. You can get its latest version from the Autodesk Web site at www.autodesk.com/me-documentation.

About Service Pack 1

The following table highlights new information related to the 2009 Service Pack 1 release.

Item	Page
DKU Version Requirements	10
Mandatory AJA OEM 2K Firmware Upgrade	11

For information on major and minor issues fixed in Service Pack 1, see *Autodesk Visual Effects and Finishing 2009 - Fixed and Known Bugs*. You can get its latest version from the Autodesk Web site at www.autodesk.com/me-documentation.

Compatibility

Autodesk makes every effort to ensure that the compatibility of media and resources is as complete as possible when you upgrade your application, or when you share projects between Visual Effects and Finishing applications .

For information on clip and setup compatibility with the 2007 and 2008 release of your application, see the Compatibility chapter of your application's 2009 User Guide.

For information and guidelines about filesystem and Wire® networking compatibility with previous versions of your application, see [“Statement of Compatibility for Media Transfer over Wire”](#) on page 12.

Related Documentation

This release has documentation that helps you install, configure, and use the software. It is available from your product DVD, on the Autodesk web site, and from the product (as PDF files and as an HTML help system).

The table lists the available documentation. Visit www.autodesk.com/me-documentation to access the complete documentation library.

User and Reference Guides

Autodesk Inferno 2009 New Features Guide

Autodesk Inferno 2009 User Guide

Autodesk Flame 2009 New Features Guide

Autodesk Flame 2009 User Guide

Autodesk Flint 2009 New Features Guide

Autodesk Flint 2009 User Guide

*Autodesk Inferno 2009, Autodesk Flame 2009, Autodesk Flint 2009
Hot Key Reference Guide*

Installation and Configuration Guides

Autodesk Stone and Wire 2009 Filesystem and Networking Guide

Autodesk Stone Direct 2009 Configuration Guide

Autodesk Visual Effects and Finishing 2009 HP xw9400 Hardware Setup Guide

Autodesk Visual Effects and Finishing HP xw8600 Hardware Setup Guide

*Red Hat Enterprise Linux Workstation 4 Update 2 Installation and Configuration
Guide*

*Red Hat Enterprise Linux Workstation 4 Update 3 Installation and Configuration
Guide*

Autodesk Visual Effects and Finishing 2009 Software Installation Guide

Autodesk Visual Effects and Finishing 2009 Configuration File Reference Guide

NOTE: For workstations other than the HP xw9400 or the HP xw8600, consult the 2007 version of the hardware guides, located at www.autodesk.com/me-documentation, under the *Hardware Platform* section.

Other Product and Reference Guides

Autodesk Burn 2009 Installation and User Guide

Autodesk Backburner 2008.1 Installation Guide

Autodesk Backburner 2008.1 User Guide

Autodesk WiretapCentral 2008 User Guide

Autodesk Wiretap 2009 SDK Guide

Using Autodesk Cleaner XL with Autodesk Visual Effects and Finishing 2009 Applications

Lustre Color Management 2008 User Guide

Autodesk Visual Effects and Finishing 2009 Sparks API Reference Guide

Autodesk Visual Effects and Finishing 2009 Configuration Guide for Autodesk Developer Network Sparks Plug-ins

Updated Product Disclaimer

In the electronic version of the documentation that comes with your application, the content of the Disclaimer section has been updated since the User Guides were printed. Therefore, the electronic version of the Disclaimer supersedes the content in the printed books.

However, if you ordered your printed documentation On Demand, the content of the Disclaimer section is identical and both versions are valid.

Consulting the Latest Version of Release Notes

Always check the Web for the most recent updates to the Release Notes. The information contained in this document is continuously updated and the version provided on your product DVD may already be lacking important release information. You can get the latest version of all documents from the Autodesk Web site at www.autodesk.com/me-documentation.

To identify Release Notes versions, use the Document Version located at the end of the disclaimer.

Fixed and Known Bugs

Find the *Autodesk Visual Effects and Finishing 2009 Fixed and Known Bugs* document for a list of fixed and known bugs for this release, on the Autodesk Web site at www.autodesk.com/me-documentation.

Accessing Documentation and Online Help

You can access PDF documentation from the *Documentation* directory on the application DVD and from the Preferences menu in the application.

Included with the application is an HTML online help system that is displayed in a Web browser. It contains comprehensive information on the full feature set of the software. To access the help from anywhere in the application, press **CTRL+=**.

You can view the Visual Effects and Finishing online help on any computer, using the following Web browsers:

- Microsoft® Internet Explorer® 7
- Firefox™ 2

For complete information on accessing PDF and online help documentation, see the “Introduction” chapter of your application User Guide.

Contacting Customer Support

You can contact Autodesk Media and Entertainment Customer Support at www.autodesk.com/support. Refer to the following table for additional contact information.

Location:	Contact Information:
North America:	Telephone support: 8 am - 8 pm EST, Monday - Friday (excluding certain holidays) Hotline (from Montreal): 1.800.925.6442 or 1.514.954.7199 Fax: 1.514.954.7254 me.support@autodesk.com
UK, Europe, Middle-East, and Africa:	Telephone support: 9 am - 5:30 pm, local time, Monday - Friday (excluding certain holidays) Hotline (from London): +44.207.851.8080 Fax: +44.20.7851.8001 me.emea.support@autodesk.com
India:	Telephone support: 9:30 am - 6:30 pm, local time, Monday - Friday (excluding certain holidays) Hotline (from Mumbai): +91.22.6695.2244 Fax: +91.22.66952211 me.support.india@autodesk.com

Location:	Contact Information:
Japan :	Telephone support: 10 am - 6 pm, local time, Monday - Friday (excluding certain holidays) Hotline (from Tokyo): +81.3.6221.1810 Fax: +81.3.6221.1800 <i>me.support.japan@autodesk.com</i>
Singapore and Asia Pacific:	Telephone support: 9 am - 6 pm, local time, Monday - Friday (excluding certain holidays) Hotline (from Singapore): +65.555.0399 Fax: +65.6552.0483 <i>me.support.singapore@autodesk.com</i>
Australia and New Zealand:	Telephone support: 9 am - 6 pm, AEST, Monday - Friday (excluding certain holidays) Hotline (Melbourne): +1.300.36.8355 Hotline (New Zealand): +0800.555.301 <i>me.support.anz@autodesk.com</i>
China:	Telephone support: 9 am - 6 pm, local time, Monday - Friday (excluding certain holidays) Hotline: +86.10.6505.6848 <i>me-support-china@autodesk.com</i>

Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database at www.autodesk.com/resellers.

System Information



Summary

Overview	7
Licensing Requirements	7
Hardware System Requirements	8
Operating System Requirements	9
DKU Requirements	10
Mandatory AJA OEM 2K Firmware Upgrade	11
Statement of Compatibility for Media Transfer over Wire	12
Removing Invalid Frame References from the Stone and Wire Database	13
Troubleshooting Missing Frames	14
Dlmpd Compatibility	16
Using Lustre Colour 2008	16
Cleaner XL Version 1.5.2 Required	16
File Archiving over NFS	17
Autodesk Wiretap 2009 SDK	17
Linux Product Characteristics	17

Overview

This chapter describes important installation-related and hardware-related notes and procedures.

Licensing Requirements

No New License is Required when Upgrading to 2009 SP3

No new license is required when installing 2009 SP3 over a valid base 2009 license.

A Valid License for 2009 Visual Effects and Finishing Applications

All users need a valid license to install the 2009 release of Autodesk Visual Effects and Finishing applications. Users under subscription receive this license as part of their subscription agreement. New users or users who are not currently under subscription must contact Autodesk to request the 2009 license update.

For information on requesting or installing a license code, see the Software Installation Guide for your operating system.

Optional HDIO License is Deprecated

HDIO licenses from previous releases are no longer required and do not need to be updated for the 2009 release.

Autodesk Wire No Longer Requires a License

As of the 2007 SP3 release, Autodesk Wire licenses are no longer required to enable Wire services. Any system on the Wire network can wire to and from a system running 2007 SP3 or later: no action is required on your part. Old Wire license strings can be left in or removed from the license file, as they will simply be ignored by the application.

Also review the statement of compatibility for Wire, see [“New Wire 2009 Compatibility Policy”](#) on page 12.

Hardware System Requirements

Linux® workstations — This release fully supports all previously certified 64-bit Linux workstations. 32-bit workstations are not supported. If you are upgrading from a pre-2007 version of your Visual Effects and Finishing application, you may have to make some minor changes to video I/O connections or update your BIOS. Consult these *Release Notes* and the *Hardware Setup Guide* for your workstation for information on BIOS requirements and on connecting peripherals such as audio/video I/O hardware.

SGI® workstations — The 2009 version does not support IRIX® workstations.

Storage — XR-series Autodesk Stone® Direct storage is supported in 4Gb or 2Gb mode for all supported Linux workstations (depending on fibre-channel adapter configuration). IR-series is supported in 2Gb mode only on IBM® workstations. For information on how to connect and configure your XR and IR series Stone Direct, refer to the *Stone Direct 2009 Configuration Guide* and the *Stone Storage Manager 2007*.

For guaranteed real-time playback and capture performance, Stone Direct storage (XR or IR) is a minimal requirement.

NVIDIA Quadro FX 5600 Support

The new NVIDIA® Quadro® FX 5600 graphics board is installed by default in HP xw8600 workstations. It can also be installed as an upgrade to HP xw9400 workstations. This graphics board supports only the 2009 release of Autodesk Visual Effects and Finishing applications. Do not install previous releases on workstations using this graphics board.

Network Interfaces on HP xw8600

By default on HP xw8600 workstations, the operating system assigns the two integrated network ports to the last available Ethernet interfaces. This means that, on an HP xw8600 equipped with a supplementary quad-port network card, the on-board network interfaces are assigned to `<eth4>` and `<eth5>`. This differs from other workstations, where the on-board network interfaces are generally assigned to `<eth0>` and `<eth1>`.

Operating System Requirements

The 2009 version of Autodesk Visual Effects and Finishing applications run on Red Hat® Enterprise Linux WS 4, Update 2 (64-bit) on IBM workstations and Red Hat Enterprise Linux WS 4, Update 3 (64-bit) on HP workstations.

IRIX-Based Systems

Autodesk Visual Effects and Finishing 2009 applications do not support IRIX systems. You must switch to a Linux workstation to use the latest version of the software.

No OS Upgrade when Moving from a 2007 or 2008 Release

When upgrading from a 2007 or 2008 release of your Visual Effects and Finishing application to the 2009 release, you do not need to upgrade the operating system.

OS Upgrade when Moving from a Pre-2007 Release

When upgrading from a pre-2007 release of your Visual Effects and Finishing application, you must upgrade your operating system to:

- Red Hat Enterprise Linux WS 4, Update 2 (64-bit) on IBM workstations
- Red Hat Enterprise Linux WS 4, Update 3 (64-bit) on HP workstations

If you are upgrading from a pre-2007 version of an Effects or Editing application, you must perform a fresh installation of the Linux operating system. You cannot upgrade to Red Hat Enterprise Linux WS 4 from a previous version. A fresh installation of Linux erases the contents of the system disk so you must archive any user settings, project settings, and media that you want to preserve, prior to performing the upgrade.

Your Linux installation media should be as follows:

- IBM workstations: Autodesk's 64-bit distribution of Red Hat Enterprise Linux Workstation 4 Update 2
- HP workstations: Autodesk's 64-bit distribution of Red Hat Enterprise Linux Workstation 4 Update 3

This is packaged on one DVD included with your release shipment. Autodesk Visual Effects and Finishing applications only run on the Autodesk distribution of the Linux software; they cannot run under commercial distributions of Red Hat Enterprise Linux WS 4. If you received a new workstation, your shipment also included the CD set for the commercial distribution of Red Hat Enterprise Linux WS 4. Do not install this commercial distribution; install the DVD distribution instead. Use the commercial distribution to activate your Red Hat subscription if it is not already activated.

If you do not have the correct DVD distribution, contact Customer Support or your local sales representative.

For complete operating system upgrade information, see the *Installation and Configuration Guide* for your operating system.

DKU Requirements

New DKU Version 3.0.2

The 2009 SP3 version of your Visual Effects and Finishing application requires version 3.0.2 of the DKU. If you are upgrading from a previous release, you must perform a DKU upgrade.

For information about upgrading the DKU on your workstation, see “Installing the Discreet Kernel Utility” in the Red Hat Enterprise Linux Workstation 4 Update 3 Installation and Configuration Guide.

NOTE: If you have an AJA OEM 2K board, you must also upgrade its firmware after upgrading the DKU. See [“Mandatory AJA OEM 2K Firmware Upgrade”](#) on page 11.

Installing the DKU on an HP xw9400 Upgraded to an NVIDIA FX 5600

If you upgrade an HP xw9400 workstation from the NVIDIA Quadro FX 5500 graphics board to the NVIDIA Quadro FX 5600 graphics board, you need to boot Linux in text mode and install the latest version of the DKU before using your workstation in graphic mode.

The DKU installs and configures the driver for the new graphics card, and makes the appropriate changes in the `/etc/X11/xorg.conf` file.

To boot Linux in text mode and install the DKU:

1. Power on your workstation.
After the HP boot menu, the Red Hat boot loader appears.
2. Press any key to enter the GRUB boot menu.
3. Using your keyboard up and down arrows, select your current kernel (usually the first in the list), and press **A** to edit its boot parameters.
4. Add a 3 to the end of the kernel line to force Linux to boot in text mode.
The modified line should look like the following:

```
ro root=LABEL=/ hdc=ide-scsi selinux=0 bigphysarea=73729
powernow-k8.disable=1 3
```
5. Press **ENTER** to accept changes and boot the kernel.
Linux boots in text-only mode.
6. Log in as root and follow the normal DKU installation procedure. See the *Red Hat Enterprise Linux Workstation 4, Update 3 Installation and Configuration Guide*.
7. When the DKU installation completes, reboot your workstation.
Linux boots in normal graphic mode.

Mandatory AJA OEM 2K Firmware Upgrade

The firmware of your AJA OEM 2K board must be upgraded to version 0x73 to use it with the 2009 SP3 release of your Visual Effects and Finishing application.

To verify the AJA PCI-X firmware version:

- Open a terminal, and type:

```
cat /proc/driver/aja
```

If `PCI version` lists a version older than 0x73, you must upgrade the firmware.

The latest version of the AJA firmware and of the AJA driver rpm can be downloaded as a *tar* file from Autodesk.

Perform the following steps to upgrade your AJA firmware and driver.

To upgrade your AJA firmware and driver:

1. Download the AJA firmware upgrade package from the following location:
ftp://ftp.discreet.com/pub1/release/Utilities/aja_update_FPGA05-20_PCI0x73.tar.gz

2. Untar and uncompress the package. As root, type:
tar -zxvf aja_update_FPGA05-20_PCI0x73.tar.gz
A new directory is created containing the following three files:
 - The AJA driver rpm.
 - The AJA firmware bit file
 - A README file containing instructions on how to upgrade the driver and firmware.
3. Follow the instructions in the README file to complete the upgrade.
Make sure to shut down the workstation when the upgrade is complete.
4. Restart the workstation, and verify the PCI version and FPGA build date again, by typing:

```
cat /proc/driver/aja
```

The following two lines should be part of the output:

```
PCI version: 0x73
```

```
FPGA built on 2008/05/20 at 14:28:27
```

NOTE: Before upgrading your firmware, make sure you have upgraded your DKU, as described in [“DKU Requirements”](#) on page 10, and that you have restarted the system.

Statement of Compatibility for Media Transfer over Wire

Please consider the following compatibility guidelines when preparing to transfer media between 2007 or 2008 systems and 2009 systems in your facility.

New Wire 2009 Compatibility Policy

The 2009 version supports the reading of older projects, libraries, and media going back to version 2007. Remote access (via Wire) to an older version is only permitted if the 2009 software is installed on the remote host alongside the older version. A standalone Stone and Wire package is not provided in this release.

For a Linux production system running a 2007 or 2008 release where you do not wish to install 2009 software, or for IRIX systems (where the 2009 release is not supported), you can use a simple workflow to move media from any 2007 or 2008 clip library to the 2009 system using an intermediary 2007 or 2008 project.

Sample workflow to transfer media from a 2007 or 2008 system to a 2009 system:

1. Use Backdraft Conform 2007 or any 2008 application to remotely create a project and a clip library on the 2009 workstation. The project and library will be formatted for 2007 or 2008.
2. Use the 2007/2008 application to move clips from the 2007/2008 system over the network into the previously created project on the 2009 system. You can use Background Wire to help free the resources of the 2007/2008 system.
3. Use the 2009 application to open the 2007 or 2008 library (the library will be in read-only mode).
4. Use Dual View to drag the 2007 or 2008 clips into a 2009 library.

Making the Transition from 2007 to 2009

You can transfer media between 2007 and 2009 releases if the media managed by the 2007 system is stored on a Stone FS volume. You cannot transfer soft-imported and published media from the 2007 system to the 2009 system. You must stonify this media before you transfer it; otherwise, you must archive it using the 2007 release and then restore it using the 2009 system.

You can continue working in 2007 with soft-imported media, as long as this media is not wired to a 2009 version.

Backburner Compatibility

The 2008.1 version of Backburner™ is fully compatible with all 2007, 2008, and 2009 applications, without having to install anything on the existing systems or perform any special configurations. This compatibility also applies to server components (Burn).

As with previous releases, you must upgrade all Backburner components (Manager, Server, and Monitor) to the 2008.1 release. You cannot mix versions.

Removing Invalid Frame References from the Stone and Wire Database

The current release of Stone and Wire introduces a new database inconsistency detection mechanism.

If you change the framestore ID of a Stone filesystem or standard filesystem partition in your system without reformatting the Stone and Wire database, when you restart Stone and Wire the inconsistency check mechanism detects invalid frame references in the database, and prevents the Stone and Wire database server (*sw_dbd*) from starting

If you receive an error message that *sw_dbd* could not be started when you start a Visual Effects and Finishing application or Stone and Wire, perform the following steps to determine if the

problem is related to invalid frame references, and to remove those references from the Stone and Wire database.

To remove invalid frame references from the Stone and Wire database:

1. Open a terminal and log in as root.
2. Search the `/usr/discreet/sw/log/sw_dbd.log` file for the text “Bad framestore ID”:


```
cat /usr/discreet/sw/log/sw_dbd.log | grep -i bad/framestore/ id
```

 - If the search returns one or more lines, the problem is related to invalid frame references. Perform the remaining steps in this procedure to clean up the Stone and Wire database.
 - If the search returns no results, the problem is not related to invalid frame references. Read the `/usr/discreet/sw/log/sw_dbd.log` file to determine the cause of the problem.
3. Stop Stone and Wire by typing:


```
/etc/init.d/stone+wire stop
```
4. Clean up the Stone and Wire database by typing:


```
/usr/discreet/sw/sw_dbd -C
```

A message is displayed in the terminal asking you to confirm the deletion of invalid entries from the database.
5. Type `Y` to confirm the operation.

Invalid entries are removed from the Stone and Wire database.
6. Restart Stone and Wire by typing:


```
/etc/init.d/stone+wire start
```

Troubleshooting Missing Frames

If the application cannot find some of the frames referenced by your clips, the following error message is displayed when the application starts:

- In the terminal:

```
WARNING: <nnnn> <volume_type> frames are missing on this volume; see Release Notes for corrective measures.
```

Where `<nnnn>` represents the number of missing frames, and `<volume_type>` can be `stonefs` or `standardfs`.

- In the application start-up screen:

```
VOLUMEMGT: WARNING: Some frames not found; see Release Notes for corrective measures.
```

NOTE: By default, the message only appears in the terminal. To have it appear also in the start-up screen, you must configure the application. See [“Setting the Start-up Screen Message”](#) on page 16.

The error message appears in one or both of the following situations:

- Some clips in your libraries or desktops reference missing frames on a remote volume.
- Some clips in your libraries or desktops reference local frames that no longer exist.

To identify the type of issue:

► Open a terminal and type:

```
vic -v <volume_name> -s remote -s lost
```

where `<volume_name>` is the name of the affected volume, for example `stonefs` or `standardfs`.

The output of this command should be similar to the following:

```
Checking libraries for remote and lost frames...
```

```
/usr/discreet/clip/stonefs/My_Project1/editing.000.desk has none
```

```
/usr/discreet/clip/stonefs/My_Project1/Default.000.clib references 30 missing frames.
```

```
/usr/discreet/clip/stonefs/My_Project2/editing.000.desk has none
```

```
/usr/discreet/clip/stonefs/My_Project2/from_caplan.000.clib references 70 remote frames.
```

Depending on the result of the previous command, do one of the following:

- For clips with frames listed as `missing`, contact your local Autodesk support representative for help on resolving this issue.
- For clips with frames listed as `remote`, perform the following procedure.

To recover remote frames:

1. Archive all clip libraries that are reported as containing `remote` frames. In the previous example, the fourth library (`from_caplan`) contains remote frames.
2. Rename the libraries you just archived, such as by adding the `remote` suffix to the library name.
3. Restore the clip libraries from the archives.

All the frames referenced by the clips should now be stored locally.

4. Delete the original libraries.

Setting the Start-up Screen Message

By default, the message about missing frames only appears in the terminal. To make it appear in the application start-up screen, create an environment variable called `DL_IC_NOTIFY_MISSING`. Open a terminal and type:

```
setenv DL_IC_NOTIFY_MISSING 1.
```

NOTE: The environment variable is set for the current session only. To set it permanently, open the `~/.cshrc` file in a text editor and add the following on a new line: `setenv DL_IC_NOTIFY_MISSING 1.`

Dlmpd Compatibility

A 2009 Visual Effects and Finishing application cannot check the validity of lock files owned by a 2008 (or earlier) system. This is because the 2009 application looks for version 1.4 of the `dlmpd "Sys"` plugin, but older systems have version 1.3 installed.

To work around this problem, you need to install the 2009 DLmpd on the older systems. You can only do this on 64-bit Linux systems.

To install the 2009 version of the dlmpd on older systems

1. Find the package called `dlmpd_sys.sw.base-1.4.0-###` that came with your 2009 Visual Effects and Finishing application.
2. Copy it to the 2008 machine(s).
3. Install this package using the `rpm -Uhv` command, followed by the package name.

Using Lustre Colour 2008

The 2009 version of your Visual Effect and Finishing application uses the 2008 version of Lustre® Colour.

Cleaner XL Version 1.5.2 Required

To set up network encoding services, Cleaner® XL version 1.5 and the Cleaner XL 1.5.2 upgrade are required. You cannot install the Cleaner XL 1.5.2 upgrade without having installed Cleaner XL 1.5 first.

This upgrade is available online at <http://www.autodesk.com/support>. To download the upgrade, select Autodesk Cleaner XL from the drop-down list, click Data & Downloads, and then click Updates & Services Packs.

For information on setting up Cleaner XL network encoding, see the guide Using Cleaner XL with Autodesk Visual Effects and Finishing Applications, available from the application and the Autodesk Media and Entertainment Documentation Library on the Web.

File Archiving over NFS

When performing file archiving and saving the file archives to an NFS mounted volume, better performance results can be achieved by using the *async* NFS export option.

On the NFS server workstation, that is, the workstation exporting the volume where the file archives are being saved, log in as root and edit the */etc/exports* file as follows.

On Linux:

```
/mnt/array1 *(rw,async,no_root_squash)
```

WARNING: Do not use the *async* option on the */usr/discreet* export path, as this could lead to data corruption. Default NFS export settings use the *sync* option. Please consult your network administrator to confirm whether the *async* option is appropriate for your network.

Autodesk Wiretap 2009 SDK

An updated version of Autodesk Wiretap™ 2009 SDK is not required for 2009 SP3.

Linux Product Characteristics

If you previously used IRIX as the operating system for your Visual Effects and Finishing applications, you should be aware of the following Linux characteristics for the 2009 version of your Visual Effects and Finishing application.

Feature	Linux
Audio	
• VST® audio Sparks®	Not supported
• Apply audio trim levels to monitoring during capture	Not supported

Feature	Linux
<ul style="list-style-type: none"> • AES and analog audio in/out tracks 	<p>4x AES audio in/out: each track carries two streams, which equals eight simultaneous audio tracks (connected to a Lucid box for monitoring). 2x RCA Analog in/out</p> <p>NOTE: AJA SD OEM-LH only supports 2 tracks AES in/out or analog in/out, but supports eight tracks with embedded audio (you do not need to use a Lucid converter). You can only monitor two audio tracks on a mixer.</p>
Video	
<ul style="list-style-type: none"> • 1035i video format 	Not supported
<ul style="list-style-type: none"> • Video input programmable dominance 	Supported
<ul style="list-style-type: none"> • NTSC/PAL cross synchronization with HD reference 	Not supported Must use TL sync for HD output
<ul style="list-style-type: none"> • Stream embedding audio tracks in the Video in/out 	8 tracks in/out
Media Import and Export	
<ul style="list-style-type: none"> • Video file format: MPEG-1 and AVI 	Not supported
<ul style="list-style-type: none"> • Audio file format: MPEG-1, Sound Designer, Audio Visual Research, Creative Labs VOC, Sample Vision, Sound Font2 	Not supported
Storage	
<ul style="list-style-type: none"> • Framestore capacity 	16 TB
<ul style="list-style-type: none"> • Software parity disk 	Not supported
<ul style="list-style-type: none"> • 4 Gbit technology 	Supported
<ul style="list-style-type: none"> • 2 loop / 4 loop 	4 loop
<ul style="list-style-type: none"> • HIPPI support 	Not supported
<ul style="list-style-type: none"> • Infiniband HBAs 	Supported
SCSI archiving devices	Not supported

User Guide Addendum



Summary

User Guide Updates	19
MXF P2 Support	20
Exporting QuickTime DVCPro HD	20
Audio Delays for 720p with the AJA and DVI Ramp Cards	21
Preventing Symbolic Links across Filesystems	21
Maximum Resolution for the Paint Node in Batch	21
Support for GPU-Accelerated 3D LUT Display	21
Burn and Floating Point Media	22
Tooltips	22

User Guide Updates

Due to last minute changes to the Visual Effects and Finishing application, some information in the printed version of the User Guide is outdated. Check the following sections in the electronic versions of the User Guide, or the online help, for updated information:

- “Importing and Soft-Importing Video Files” in the Importing Media Files chapter. See also [“Importing MXF P2 Media”](#) on page 20 for the updated information.
- “Exporting Video Files” in the Exporting Media Files chapter. See also [“Exporting QuickTime DVCPro HD”](#) on page 20 for the updated information.
- “Audio Preferences” in the Setting Preferences chapter. See also [“Audio Delays for 720p with the AJA and DVI Ramp Cards”](#) on page 21 for the updated information.
- “Creating One Clip Per Timeline Layer” in the Batch FX chapter for changes in the Split Layer feature.

MXF P2 Support

Importing MXF P2 Media

You cannot import or soft-import MXF P2 content that contains 2:3 or 2:3:3:2 pulldown or variable framerates (such as from VariCam cameras).

Panasonic® P2 MXF Media consists of various individual components (a.k.a. "Essences") that store each audio and video component individually. When importing P2 MXF files, you must select whether you want to import partial essences or the entire P2 content ("Clip") with its associated audio files. When you load a P2 clip, it joins all of the audio and video essences together, completing the clip.

To import audio or video only, select "Essence" from the MXF Options box; use the P2 option only when importing the entire clip structure.

Support for Non-Standard MXF P2 Directory Names

When working with MXF files, you can scan and import P2 clips whose directory names are either uppercase or lowercase.

The standard format for P2 directory names is to use all uppercase. For example:

/CONTENTS/VIDEO

Lowercase P2 directory names are non-standard, but can be created inadvertently when crossing operating system platforms (such as when the files are copied to a storage device on a Linux system that is formatted as FAT32). For example:

/contents/video

A mixture of uppercase and lowercase is not supported. For example:

/Contents/Video

Exporting QuickTime DVCPRO HD

When selecting QuickTime® for export and using a DVCPRO HD codec, the possible framerates (not fields) are listed for each. For compressed media export, there is no framerate conversion during the process. The framerate attached to the exported clip passes on to the final output.

Audio Delays for 720p with the AJA and DVI Ramp Cards

If your hardware setup includes the DVI Ramp 2 and AJA cards, and you are working in 720p, you must make adjustments in the Preferences menu. In the Player options, set the Broadcast Delay and Hi-Res Delay fields to -3.5.

For more information on setting audio delays for high-resolution and broadcast monitors, refer to your application User Guide.

Preventing Symbolic Links across Filesystems

When publishing clips from one mounted standard filesystem to another using the Link option, it might be desirable to prevent the use of symbolic links between the source and the published media. Using symbolic links across filesystems means that if the source frames are deleted or overwritten, the published frames are also affected, which may not be the desired result in certain workflows.

To prevent this from occurring, either intentionally or through operator error, uncomment the following keyword in the *stone+wire.cfg* configuration file:

SymlinkAcrossFilesystems=False

NOTE: The default value for this keyword is True.

For more details on configuring the *stone+wire.cfg* file, see the Autodesk Stone and Wire 2008 Filesystem and Networking Guide.

Maximum Resolution for the Paint Node in Batch

Due to a limitation inherent to the graphics card, the maximum resolution supported by the Paint Node in Batch is 4096 x 4096.

Support for GPU-Accelerated 3D LUT Display

Autodesk Inferno 2009 and Autodesk Flame 2009 now support GPU-accelerated 3D LUT display, resulting in improved processing performance, such as real-time playback using 3D LUTs. This feature is available when a compatible graphics card is installed in your workstation.

Burn and Floating Point Media

On a Burn network, you must process Floating Point media on your Visual Effects and Finishing workstation. You cannot send such media to a Burn node as it does not support Floating Point media.

Tooltips

Updates have been made to modules that had tooltips previously available, and new tooltips are now available in the following menus or modules:

- Animation
- GMask
- Hot Key Editor
- Keyer
- Preferences
- Soft Effects (Axis, Wipe, Blend)
- Transitions

You can set tooltip display options in the Preferences menu. See "Tooltips Preferences" in the "Setting Preferences" chapter.



Installation Documentation Workflows

Summary

Overview	23
Reinstalling from Scratch	23
Connecting New or Expanded Stone Direct Storage	24
Upgrading Your Visual Effects and Finishing Application	25
Upgrading Your Operating System	26
Which Document Do I Need	26

Overview

Your Autodesk Visual Effects and Finishing system is shipped preconfigured with the appropriate operating system and application already installed. In normal situations, the final configuration procedures are simple and well documented. In certain instances, you may be required to perform partial or complete reinstallation of some system components. Such instances might include a hardware or software upgrade, or an exceptional recovery procedure.

It is always recommended to identify and gather all relevant documentation before you proceed with these more involved configuration procedures.

This chapter highlights four of the more common installation workflows that you may need to perform on your Visual Effects and Finishing system. It also lists the documentation relevant to each step in each workflow.

Reinstalling from Scratch

Perform the tasks described in this workflow in cases where you need to rebuild your Visual Effects and Finishing system in its entirety: from cross-connecting the hardware peripherals and storage arrays, to installing the operating system, and installing, licensing, and configuring your Visual Effects and Finishing application.

To reinstall your system from scratch:

1. Prepare for the installation.
Consult the latest Release Notes for your release before you begin any installation. They contain the most current and updated information about requirements, late-breaking features and procedures, as well as a detailed list of all updated related documents and URLs to download the documents directly to your workstation.
2. Connect your workstation's hardware peripherals.
Consult the Hardware Setup Guide for your workstation.
3. Install the operating system and the DKU.
Consult the Installation and Configuration Guide for your operating system.
4. Connect your storage.
Consult the Autodesk Stone Direct Configuration Guide for your release.
5. Configure the RAID volumes and mount the storage.
Consult the Autodesk Stone Direct Configuration Guide for your release.
6. Install and license your Visual Effects and Finishing application.
Consult the Software Installation Guide.
7. Configure your Stone filesystem.
Consult the Autodesk Stone and Wire Filesystem and Networking Guide for your release.
8. Configure your application settings.
Consult the Configuration File Reference Guide.
9. Get going.
Read the User Guide, New Features Guide, and Hot Key Reference Guide to get familiar with your Visual Effects and Finishing application.

Connecting New or Expanded Stone Direct Storage

Perform the tasks described in this workflow in cases where you need to rebuild your Autodesk Visual Effects and Finishing workstation's Stone Direct storage array. For instance, this could happen when you purchase supplementary storage enclosures to expand available disk space.

To connect new or expanded Stone Direct storage:

1. Prepare for the installation.
Consult the Release Notes for your release before you begin any installation. They contain the most current and updated information about requirements, late-breaking features and

procedures, as well as a detailed list of all updated related documents and URLs to download documents directly to your workstation.

2. Connect your storage.

Consult the Autodesk Stone Direct Configuration Guide for your release.

3. Configure the RAID volumes and mount the storage.

Consult the Autodesk Stone Direct Configuration Guide for your release.

4. Configure your Stone filesystem.

Consult the Autodesk Stone and Wire Filesystem and Networking Guide for your release.

5. Get going.

Read the User Guide, New Features Guide, and Hot Key Reference Guide to get familiar with your Visual Effects and Finishing application.

Upgrading Your Visual Effects and Finishing Application

Perform the tasks described in this workflow in cases where you need to install or upgrade your Visual Effects and Finishing application. Typically, upgrading the application does not require the Stone filesystem to be reformatted or the operating system to be upgraded.

To upgrade your operating system:

1. Prepare for the installation.

Consult the Release Notes for your release before you begin any installation. They contain the most current and updated information about requirements, late-breaking features and procedures, as well as a detailed list of all updated related documents and URLs to download the documents directly to your workstation.

2. Install and license your Visual Effects and Finishing application.

Consult the Software Installation Guide for your operating system.

3. Configure your application settings.

Consult the Configuration File Reference Guide for your operating system.

4. Get going.

Read the User Guide, New Features Guide, and Hot Key Reference Guide to get familiar with your Visual Effects and Finishing application.

Upgrading Your Operating System

Perform the tasks described in this workflow in cases where you need to upgrade your operating system. For instance, this could be required by a new version of your Visual Effects and Finishing application. Typically, upgrading the operating system does not require the hardware components to be rewired or the Storage RAID devices to be reconfigured.

To upgrade your operating system:

1. Prepare for the installation.

Consult the Release Notes for your release before you begin any installation. They contain the most current and updated information about requirements, late-breaking features and procedures, as well as a detailed list of all updated related documents and URLs to download the documents directly to your workstation.

2. Install the operating system.

Consult the Installation and Configuration Guide for your operating system.

3. Install and license your Visual Effects and Finishing application.

Consult the Software Installation Guide for your operating system.

4. Configure your Stone filesystem.

Consult the Autodesk Stone and Wire Filesystem and Networking Guide for your operating system.

5. Configure your application settings.

Consult the Configuration File Reference Guide for your operating system.

6. Get going.

Read the User Guide, New Features Guide, and Hot Keys Reference Guide to get familiar with your Visual Effects and Finishing application.

Which Document Do I Need

Here are a few examples of common installation enquiries, and the documentation that provides the answers to each.

I need a license for my Visual Effects and Finishing application

Consult the *Software Installation Guide* for installation procedures and information on obtaining and installing the licenses required to launch the Visual Effects and Finishing application.

Do I connect the DVI ramp to serial port #1 or serial port #2

Consult the *Hardware Setup Guide* for your workstation for diagrams and guidelines on how to connect the hardware peripherals and video I/O components to your workstation.

I need to reformat my Stone FS partition

Consult the *Autodesk Stone and Wire Filesystem and Networking Guide* for procedures on how to create and mount the Stone filesystem.

I want to learn about the latest updates

Consult the *Release Notes* for your release. They contain the most current information about requirements and procedures, as well as a complete list of up-to-date related documents and URLs to download the documents directly to your workstation.

I want to know about all the new features for this release

Read the *What's New* for your Visual Effects and Finishing application for an overview of new features. For complete new feature information, consult the *User's Guide* for your application.

I need to upgrade the DKU

Consult the *Installation and Configuration Guide* for your operating system, for procedures on how to install the Linux operating system and DKU.

I would like to download the latest documentation

The latest documentation is accessible from www.autodesk.com/me-documentation. From this page you can access the complete documentation library.

