User Guide





Contents

1. Copyright Notice	5
1.1. Third party license information	6
2. Introduction to Data Exchange	33
2.1. Data Exchange Preferences	33
3. The PDF Export Plug-in	34
3.1. Introduction	34
3.2. Saving a File as Normalized PDF or PDF+	34
3.2.1. PDF Export Settings	34
3.2.2. PDF Export Preferences	44
3.2.3. Linked ArtiosCAD Graphics for Normalized PDF export	45
3.3. Export Esko PDF for Sharing	45
3.3.1. Preset	46
3.3.2. PDF for Sharing Export Preferences	47
4. The Ink Manager Plug-in	49
4.1. Normalized PDF or PDF+	49
4.2. Using the Ink Manager palette	50
4.2.1. Ink Options	52
4.2.2. The Ink Manager fly-out menu	52
4.2.3. Job Setup	55
4.3. Ink Manager Preferences	55
4.4. Screening in Normalized PDF mode	57
4.4.1. DGC Curve	58
4.5. Screening in PDF+ mode	58
4.5.1. Manage Screen Sets	59
4.5.2. The Screen Sets Fly-out menu	59
4.6. Processing Steps	60
4.6.1. The Processing Steps palette	61
4.6.2. Colorants for Processings	62
4.6.3. Move to Processing Step	63
4.6.4. Plate ID Objects	63
4.7. Working with Printing Units	64
4.7.1. Viewing Order vs Printing Order	65
4.8. Known limitations	66
5. The Structural Design Plug-in	68
5.1. Introduction	68
5.2. Importing Structural Design files	68
5.2.1 General Principles	68

Contents



	5.2.2. Open or Place an ARD, ACD, DAE, ZAE file	69
	5.2.3. Update the Structural Design File	72
	5.2.4. Replace the Structural Design File	72
	5.2.5. Align Structure and Graphics	72
	5.2.6. Create Varnish Plate	75
	5.2.7. Expand Structural Design Layer	76
	5.2.8. Structural Design Preferences	77
	5.3. Exporting Structural Design files	
	5.3.1. Structural Design Export	
	5.3.2. Export Selected Objects to ArtiosCAD File	77
	5.3.3. ArtiosCAD - Copy to Clipboard	79
	5.3.4. Relationship between stroke color in Illustrator and line type in ArtiosCAD	80
	5.3.5. How to add a cutout window to an existing ArtiosCAD file?	
	5.3.6. How to modify a cutout window in an ArtiosCAD file?	82
6.	. The Page Box Plug-in	88
	6.1. Introduction	
	6.2. Trim Box and Media Box	88
	6.2.1. Moving and Scaling Trim Box and Media Box	
	6.3. All Page Boxes	
7	. The Inspection Setup Plug-In	94
•	7.1. Adding and changing Inspection points	
	7.2. Adding and changing Inspection boxes	
	7.3. Dynamic Art Placeholders	
	7.4. Import and Export	
8	. Messages	97
•	8.1. The Messages Palette	
	8.2. Filtering the Messages	
	8.3. Saving the Messages	
	8.4. Clearing the Messages	
۵	. Esko Document Setup	100
J.	9.1. Distortion	
	9.2. Screen Registration	
16	D. Annotations	100
IL	10.1. Loading XFDF files	
	10.2. The Annotations palette	
	10.3. Multipage PDF files with Annotations	
	10.4. Editing WebCenter annotations	
	10.5. Creating new annotations using the Annotation Tool	
	10.6. Updating and Saving Annotations	
11	l Shara 9 Annraya cannoction	107





11.1. Connecting to Share & Approve	107
11.2. Uploading the current document to Share & Approve	107
11.3. Working with an uploaded document	108
11.3.1. Sharing the document	110
11.3.2. Annotations	110
11.3.3. Download Annotation and Approval Report	11
12. Color Engine	112
12.1. Adding an ink from Ink Book	
12.2. Insert Ink into Inkbook	113
12.3. Remove Ink from Inkbook	115
12.4. Replacing an Ink	
12.5. Color Engine Plugin Preferences	
13. Esko Plug-ins Dashboard	119
13.1. Opt Out	
13.2. More about the dashboard and data collection	



1. Copyright Notice

© Copyright 2024 Esko Software BV, Gent, Belgium

All rights reserved. This material, information and instructions for use contained herein are the property of Esko Software BV. The material, information and instructions are provided on an AS IS basis without warranty of any kind. There are no warranties granted or extended by this document. Furthermore Esko Software BV does not warrant, guarantee or make any representations regarding the use, or the results of the use of the software or the information contained herein. Esko Software BV shall not be liable for any direct, indirect, consequential or incidental damages arising out of the use or inability to use the software or the information contained herein.

The information contained herein is subject to change without notice. Revisions may be issued from time to time to advise of such changes and/or additions.

No part of this document may be reproduced, stored in a data base or retrieval system, or published, in any form or in any way, electronically, mechanically, by print, photoprint, microfilm or any other means without prior written permission from Esko Software BV.

This document supersedes all previous dated versions.

PANTONE[®] Colors displayed in the software application or in the user documentation may not match PANTONE-identified standards. Consult current PANTONE Color Publications for accurate color. PANTONE® and other Pantone trademarks are the property of Pantone LLC. ® Pantone LLC, 2015

Pantone is the copyright owner of color data and/or software which are licensed to Esko to distribute for use only in combination with Studio Visualizer. PANTONE Color Data and/or Software shall not be copied onto another disk or into memory unless as part of the execution of Studio Visualizer.

This software is based in part on the work of the Independent JPEG Group.

Portions of this software are copyright $^{\odot}$ 1996–2002 The FreeType Project (www.freetype.org). All rights reserved.

Portions of this software are copyright 2006 Feeling Software, copyright 2005-2006 Autodesk Media Entertainment.

Portions of this software are copyright ©1998-2003 Daniel Veillard. All rights reserved.

Portions of this software are copyright @1999-2006 The Botan Project. All rights reserved.

Part of the software embedded in this product is gSOAP software. Portions created by gSOAP are Copyright ©2001-2004 Robert A. van Engelen, Genivia inc. All rights reserved.

Portions of this software are copyright ©1998-2008 The OpenSSL Project and ©1995-1998 Eric Young (eay@cryptsoft.com). All rights reserved.

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

Adobe, the Adobe logo, Acrobat, the Acrobat logo, Adobe Creative Suite, Illustrator, InDesign, PDF, Photoshop, PostScript, XMP and the Powered by XMP logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Microsoft and the Microsoft logo are registered trademarks of Microsoft Corporation in the United States and other countries.

SolidWorks is a registered trademark of SolidWorks Corporation.

Portions of this software are owned by Spatial Corp. 1986 2003. All Rights Reserved.



JDF and the JDF logo are trademarks of the CIP4 Organisation. Copyright 2001 The International Cooperation for the Integration of Processes in Prepress, Press and Postpress (CIP4). All rights reserved.

The Esko software contains the RSA Data Security, Inc. MD5 Message-Digest Algorithm.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle corporation in the U.S. and other countries.

Part of this software uses technology by Best Color Technology (EFI). EFI and Bestcolor are registered trademarks of Electronics For Imaging GmbH in the U.S. Patent and Trademark Office.

Contains PowerNest library Copyrighted and Licensed by Alma, 2005 - 2007.

Part of this software uses technology by GlobalVision. ArtProof and ScanProof are registered trademarks of GlobalVision Inc.

Part of this software uses technology by Qoppa Software. Copyright © 2002-Present. All Rights Reserved.

All other product names are trademarks or registered trademarks of their respective owners.

Correspondence regarding this publication should be forwarded to:

Esko Software BV

Raymonde de Larochelaan 13

B - 9051 Gent

info.eur@esko.com

1.1. Third party license information

```
This product includes appleseed.
The MIT License (MIT)
Copyright (c) 2010-2013 Francois Beaune, Jupiter Jazz Limited
Copyright (c) 2014-2019 The appleseedhq Organization
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
AUTHORS OR COPYRIGHT HOLDERS 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.
This product includes bcd.
    Copyright (c) 2017 Malik Boughida and Tamy Boubekeur. 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. Neither the name of the copyright holder nor the names of its contributors 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 HOLDER 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.

You are under no obligation whatsoever to provide any bug fixes, patches, or upgrades to the features, functionality or performance of the source code ("Enhancements") to anyone; however, if you choose to make your Enhancements available either publicly, or directly to the authors of this software, without imposing a separate written license agreement for such Enhancements, then you hereby grant the following license: a non-exclusive, royalty-free perpetual license to install, use, modify, prepare derivative works, incorporate into other computer software, distribute, and sublicense such enhancements or derivative works thereof, in binary and source code form.

This product includes glad.

The MIT License (MIT)

Copyright (c) 2013-2018 David Herberth

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 AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABLLITY, 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.

This product includes murmurhash3.

MurmurHash3 was written by Austin Appleby, and is placed in the public domain. The author hereby disclaims copyright to this source code.

This product includes OpenShadingLanguage.

Copyright (c) 2009-present Contributors to the Open Shading Language project. 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.
- 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 the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes Qt.

The software uses Qt, licensed under LGPL v3. The Qt Toolkit is Copyright (C) 2019 The Qt Company Ltd.

Portions of this software are copyright (C) 2006-2015 The FreeType Project (www.freetype.org). All rights reserved.

Copyright (C) 1991-2011, Thomas G. Lane, Guido Vollbeding. This software is based in part on the work of the Independent JPEG Group.

Secure Hash Algorithm SHA-3 - brg_endian Copyright (c) 1998-2013, Brian Gladman, Worcester, UK. All rights reserved.

LICENSE TERMS

The redistribution and use of this software (with or without changes) is allowed without the payment of fees or royalties provided that:

- source code distributions include the above copyright notice, this list of conditions and the following disclaimer;
- binary distributions include the above copyright notice, this list of conditions and the following disclaimer in their documentation;
- 3. the name of the copyright holder is not used to endorse products built using this software without specific written permission.

DISCLAIMER

This software is provided 'as is' with no explicit or implied warranties in respect of its properties, including, but not limited to, correctness and/or fitness for purpose.

This product includes LibTIFF.

Copyright (c) 1988-1997 Sam Leffler Copyright (c) 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.

This product includes zlib.

(C) 1995-2013 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.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

- The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
- 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
- 3. This notice may not be removed or altered from any source distribution.

This product includes svgio.

Copyright Oleg Maximenko 2014. Distributed under the Boost Software License, Version 1.0.

This product includes xxHash.

xxHash Library Copyright (c) 2012-2020 Yann Collet All rights reserved.

BSD 2-Clause License (https://www.opensource.org/licenses/bsd-license.php)

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.

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 HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, 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.

This product includes OpenJPEG.

The copyright in this software is being made available under the 2-clauses BSD License, included below. This software may be subject to other third party and contributor rights, including patent rights, and no such rights are granted under this license.

Copyright (c) 2002-2014, Universite catholique de Louvain (UCL), Belgium Copyright (c) 2002-2014, Professor Benoit Macq Copyright (c) 2003-2014, Antonin Descampe Copyright (c) 2003-2009, Francois-Olivier Devaux Copyright (c) 2005 Herve Dralon Francis-Olivier Devaux

Copyright (c) 2005, Herve Drolon, FreeImage Team Copyright (c) 2002-2003, Yannick Verschueren

Copyright (c) 2001-2003, David Janssens Copyright (c) 2011-2012, Centre National d'Etudes Spatiales (CNES), France

Copyright (c) 2012, CS Systemes d'Information, France

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.
- 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 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.

This product includes Micorsoft.Web.WebView2.

Copyright (C) Microsoft Corporation. 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.
- * The name of Microsoft Corporation, or the names of its contributors may not 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.

This product includes ${\tt GLEW:}$ The OpenGL Extension Wrangler Library.

The OpenGL Extension Wrangler Library
Copyright (C) 2002-2007, Milan Ikits <milan ikits[]ieee org>
Copyright (C) 2002-2007, Marcelo E. Magallon <mmagallo[]debian org>
Copyright (C) 2002, Lev Povalahev
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.
- * The name of the author 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.

Mesa 3-D graphics library Version: 7.0

Copyright (C) 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.

Copyright (c) 2007 The Khronos Group Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and/or associated documentation files (the "Materials"), to deal in the Materials without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Materials, and to permit persons to whom the Materials are 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 Materials.

THE MATERIALS ARE 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 AUTHORS OR COPYRIGHT HOLDERS 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 MATERIALS OR THE USE OR OTHER DEALINGS IN THE MATERIALS.

This product includes OpenEXR.

Copyright (c) Contributors to the OpenEXR Project. 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. Neither the name of the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes tesseract.

Copyright (C) 2016 Google, Inc. Licensed under the Apache License, Version 2.0

This product includes JPEGLib.

This software is copyright (C) 1991-2016, Thomas G. Lane, Guido Vollbeding.

All Rights Reserved.

This software is based in part on the work of the Independent JPEG Group.

This product includes Little CMS.

Little CMS

Copyright (c) 1998-2020 Marti Maria Saguer

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 AUTHORS OR COPYRIGHT HOLDERS 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.

This product includes libxml2.

Copyright (C) 1998-2012 Daniel Veillard. 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 AUTHORS OR COPYRIGHT HOLDERS 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.

This product includes cereal.

Copyright (c) 2013-2022, Randolph Voorhies, Shane Grant 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 the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes pugixml.

MIT License

Copyright (c) 2006-2023 Arseny Kapoulkine

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 AUTHORS OR COPYRIGHT HOLDERS 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.

This product includes QtSingleApplication.

Copyright (C) 2013 Digia Plc and/or its subsidiary(-ies). Contact: http://www.qt-project.org/legal

This file is part of the Qt Solutions component.

You may use this file under the terms of the BSD license as follows:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 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 Digia Plc and its Subsidiary(-ies) nor the names of its contributors 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.



```
This product includes ICU.
       Copyright (c) 1991-2023 Unicode, Inc. All rights reserved.
       Distributed under the Terms of Use in https://www.unicode.org/copyright.html.
       Permission is hereby granted, free of charge, to any person obtaining
      a copy of the Unicode data files and any associated documentation (the "Data Files") or Unicode software and any associated documentation
      (the "Software") to deal in the Data Files or Software without restriction, including without limitation the rights to use,
      copy, modify, merge, publish, distribute, and/or sell copies of the Data Files or Software, and to permit persons to whom the Data Files or Software are furnished to do so, provided that either
       (a) this copyright and permission notice appear with all copies
       of the Data Files or Software, or
       (b) this copyright and permission notice appear in associated
       Documentation.
      THE DATA FILES AND SOFTWARE ARE 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 OF THIRD PARTY RIGHTS.
       IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS
       NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL
       DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE,
       DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER
       TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR
       PERFORMANCE OF THE DATA FILES OR SOFTWARE.
       Chinese/Japanese Word Break Dictionary Data (cjdict.txt)
               The Google Chrome software developed by Google is licensed under
        # the BSD license. Other software included in this distribution is
        # provided under other licenses, as set forth below.
           The BSD License
          http://opensource.org/licenses/bsd-license.php
           Copyright (C) 2006-2008, Google Inc.
          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 Google Inc. nor the names of its
        # contributors 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.
         The word list in cjdict.txt are generated by combining three word lists
        # listed below with further processing for compound word breaking. The
        # frequency is generated with an iterative training against Google web
        # corpora.
```



```
* Libtabe (Chinese)
  - https://sourceforge.net/project/?group id=1519
  - Its license terms and conditions are shown below.
* IPADIC (Japanese)
  - http://chasen.aist-nara.ac.jp/chasen/distribution.html
  - Its license terms and conditions are shown below.
-----COPYING.libtabe ---- BEGIN-----
* Copyright (c) 1999 TaBE Project.
* Copyright (c) 1999 Pai-Hsiang Hsiao.
 * All rights reserved.
 ^{\star} Redistribution and use in source and binary forms, with or without
 ^{\star} 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.
 \ensuremath{^{\star}} . 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 the TaBE Project nor the names of its
     contributors 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
 * REGENTS 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.
 * Copyright (c) 1999 Computer Systems and Communication Lab,
                        Institute of Information Science, Academia
                            Sinica. All rights reserved.
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
  . 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 the Computer Systems and Communication Lab
     nor the names of its contributors 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
 \star "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 * REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT,
 * INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES
* (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR
 ^{\star} 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.
```



Copyright 1996 Chih-Hao Tsai @ Beckman Institute, University of Illinois c-tsai4@uiuc.edu http://casper.beckman.uiuc.edu/~c-tsai4

-----END-----END-----

-----BEGIN-----BEGIN-----

Copyright 2000, 2001, 2002, 2003 Nara Institute of Science and Technology. All Rights Reserved.

Use, reproduction, and distribution of this software is permitted. Any copy of this software, whether in its original form or modified, must include both the above copyright notice and the following paragraphs.

Nara Institute of Science and Technology (NAIST), the copyright holders, disclaims all warranties with regard to this software, including all implied warranties of merchantability and fitness, in no event shall NAIST be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortuous action, arising out of or in connection with the use or performance of this software.

A large portion of the dictionary entries originate from ICOT Free Software. The following conditions for ICOT Free Software applies to the current dictionary as well.

Each User may also freely distribute the Program, whether in its original form or modified, to any third party or parties, PROVIDED that the provisions of Section 3 ("NO WARRANTY") will ALWAYS appear on, or be attached to, the Program, which is distributed substantially in the same form as set out herein and that such intended distribution, if actually made, will neither violate or otherwise contravene any of the laws and regulations of the countries having jurisdiction over the User or the intended distribution itself.

NO WARRANTY

The program was produced on an experimental basis in the course of the research and development conducted during the project and is provided to users as so produced on an experimental basis. Accordingly, the program is provided without any warranty whatsoever, whether express, implied, statutory or otherwise. The term "warranty" used herein includes, but is not limited to, any warranty of the quality, performance, merchantability and fitness for a particular purpose of the program and the nonexistence of any infringement or violation of any right of any third party.

Each user of the program will agree and understand, and be deemed to have agreed and understood, that there is no warranty whatsoever for the program and, accordingly, the entire risk arising from or otherwise connected with the program is assumed by the user.

Therefore, neither ICOT, the copyright holder, or any other organization that participated in or was otherwise related to the development of the program and their respective officials, directors, officers and other employees shall be held liable for any and all damages, including, without limitation, general, special, incidental and consequential damages, arising out of or otherwise in connection with the use or inability to use the program or any product, material or result produced or otherwise obtained by using the program, regardless of whether they have been advised of, or otherwise had knowledge of, the possibility of such damages at any time during the project or thereafter. Each user will be deemed to have agreed to the foregoing by his or her commencement of use of the program. The term "use" as used herein includes, but is not limited to, the use, modification, copying and distribution of the program and the production of secondary products from the program.

In the case where the program, whether in its original form or modified, was distributed or delivered to or received by a user from any person, organization or entity other than ICOT, unless it makes or grants independently of ICOT any specific warranty to the user in



```
writing, such person, organization or entity, will also be exempted from and not be held liable to the user for any such damages as noted
   above as far as the program is concerned.
        -----END-----
Lao Word Break Dictionary Data (laodict.txt)
 # Copyright (C) 2016 and later: Unicode, Inc. and others.
 # License & terms of use: http://www.unicode.org/copyright.html
 # Copyright (c) 2015 International Business Machines Corporation
 # and others. All Rights Reserved.
 # Project: https://github.com/rober42539/lao-dictionary
  Dictionary: https://github.com/rober42539/lao-dictionary/laodict.txt
  License: https://github.com/rober42539/lao-dictionary/LICENSE.txt
            (copied below)
 # This file is derived from the above dictionary version of Nov 22, 2020
   Copyright (C) 2013 Brian Eugene Wilson, Robert Martin Campbell.
   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.
 # 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 HOLDER 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.
Burmese Word Break Dictionary Data (burmesedict.txt)
  Copyright (c) 2014 International Business Machines Corporation
   and others. All Rights Reserved.
   This list is part of a project hosted at:
     github.com/kanyawtech/myanmar-karen-word-lists
   Copyright (c) 2013, LeRoy Benjamin Sharon
   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 Myanmar Karen Word Lists, nor the names of its
      contributors 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 HOLDER 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.
```

Time Zone Database

ICU uses the public domain data and code derived from Time Zone Database for its time zone support. The ownership of the TZ database is explained in BCP 175: Procedure for Maintaining the Time Zone Database section 7.

7. Database Ownership

The TZ database itself is not an IETF Contribution or an IETF document. Rather it is a pre-existing and regularly updated work that is in the public domain, and is intended to remain in the public domain. Therefore, BCPs 78 [RFC5378] and 79 [RFC3979] do not apply to the TZ Database or contributions that individuals make to it. Should any claims be made and substantiated against the TZ Database, the organization that is providing the IANA Considerations defined in this RFC, under the memorandum of understanding with the IETF, currently ICANN, may act in accordance with all competent court orders. No ownership claims will be made by ICANN or the IETF Trust on the database or the code. Any person making a contribution to the database or code waives all rights to future claims in that contribution or in the TZ Database.

Google double-conversion

Copyright 2006-2011, the V8 project authors. 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 Google Inc. nor the names of its contributors 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.

File: aclocal.m4 (only for ICU4C) Section: pkg.m4 - Macros to locate and utilise pkg-config.

Copyright (c) 2004 Scott James Remnant <scott@netsplit.com>. Copyright (c) 2012-2015 Dan Nicholson <dbn.lists@gmail.com>





This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.

As a special exception to the GNU General Public License, if you distribute this file as part of a program that contains a configuration script generated by Autoconf, you may include it under the same distribution terms that you use for the rest of that program.

(The condition for the exception is fulfilled because ICU4C includes a configuration script generated by Autoconf, namely the `configure` script.)

File: config.guess (only for ICU4C)

This file is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, see https://www.gnu.org/licenses/.

As a special exception to the GNU General Public License, if you distribute this file as part of a program that contains a configuration script generated by Autoconf, you may include it under the same distribution terms that you use for the rest of that program. This Exception is an additional permission under section 7 of the GNU General Public License, version 3 ("GPLv3").

(The condition for the exception is fulfilled because ICU4C includes a configuration script generated by Autoconf, namely the `configure` script.)

File: install-sh (only for ICU4C)

Copyright 1991 by the Massachusetts Institute of Technology

Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. M.I.T. makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

This product includes XercesC.



NOTICE file corresponding to section 4(d) of the Apache License, Version 2.0, in this case for the Apache Xerces distribution.

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

Portions of this software were originally based on the following: - software copyright (c) 1999, IBM Corporation., http://www.ibm.com.

This product includes QtSvg.

The Qt Toolkit is Copyright (C) 2019 The Qt Company Ltd.

This product includes OpenSSL.

Copyright (c) 1998-2019 The OpenSSL Project. 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.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
- 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
- 5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
- 6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``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 OPENSL PROJECT 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.

This product includes OpenSSL.

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) 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 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.



- 3. All advertising materials mentioning features or use of this software must display the following acknowledgement:
 "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"
 The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related:-).
- 4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement:

 "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``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 AUTHOR 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.

This product includes lzw-ab.

Copyright (c) David Bryant 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 Conifer Software nor the names of its contributors 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 REGENTS 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.

This product includes llvm.

University of Illinois/NCSA Open Source License

Copyright (c) 2003-2019 University of Illinois at Urbana-Champaign. All rights reserved.

Developed by:

LLVM Team

University of Illinois at Urbana-Champaign

http://llvm.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal with 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:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimers.



- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimers in the documentation and/or other materials provided with the distribution.
- * Neither the names of the LLVM Team, University of Illinois at Urbana-Champaign, nor the names of its contributors may be used to endorse or promote products derived from this Software without specific prior written permission.

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 CONTRIBUTORS OR COPYRIGHT HOLDERS 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 WITH THE SOFTWARE.

This product includes LibTIFF.

Copyright (c) 1988-1997 Sam Leffler Copyright (c) 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.

This product includes robin-map.

MIT License

Copyright (c) 2017 Thibaut Goetghebuer-Planchon <tessil@gmx.com>

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 AUTHORS OR COPYRIGHT HOLDERS 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.

This product includes 1z4.

Copyright (C) 2011-present, Yann Collet.

BSD 2-Clause License (http://www.opensource.org/licenses/bsd-license.php)

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 disclaimed

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 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.

This product includes FreeType.

Portions of this software are copyright (C) 2014 The FreeType Project (www.freetype.org) licensed under the Freetype License. All rights reserved.

This product includes XByak.

Copyright (c) 2007 MITSUNARI Shigeo 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 the copyright owner nor the names of its contributors 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.

##															# #	##	#	# #	##	#	# #	##	#	# #	#	#
##	#	##	# #	# +	+ #	# #	#	# #	#	##		# -	# #	+ #	# +	+ #	#	# +	+ #	#	# +	+ #	#	# #	+#	#
##	#	##	##				"																			
##																		# #	##	#	# #	##	#	##	#	#
##	#	##	##	# :	##	##	#	##	#	##	#	# :	# #	#	# #	##	#							# #	#	#
##							"										"							##	ŧ#	#
##	#	##	##	# :	##	##	#	##	#	##	#	# :	# #	#	# #	##	#	# #	##	#	# #	##	#	# #	#	#
##							"										"									
##	#	##	##	# :	##	##	#	##	#	##	#	# :	# #	#	# #	##	#	# #	##	#	# #	##	#	##	#	#
##							"																			
##	#	##	##	# :	##	##	#	##	#	##	#	# :	# #	#	# #	##	#	# #	##	#	# #	##	#	##	#	#
##										##	#	# :	##	#	# 1	##	#	# #	##	#	# #	##	#	##	#	



This product includes ittnotify.

Copyright (c) 2011, Intel Corporation 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. Neither the name of the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes JBIG2Lib.

Portions of this product copyrights (C) 2002 Glyph & Cog, LLC.

This product includes ZXing C++ Library.

Copyright 2016 ZXing authors. https://github.com/zxing

This product includes leptonica.

- Copyright (C) 2001-2016 Leptonica. 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.

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 ANY 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.

This product includes FCollada.

Copyright 2006 Feeling Software. All rights reserved.

Copyright 2005-2006 Feeling Software and

Copyright 2005-2006 Autodesk Media Entertainment.



Copyright (C) 1998-2003 Daniel Veillard. 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 AUTHORS OR COPYRIGHT HOLDERS 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.

This product includes JDFLibC.

This product includes software developed by the The International Cooperation for the Integration of Processes in Prepress, Press and Postpress (www.cip4.org)

Copyright (c) 2001-2020 The International Cooperation for the Integration of Processes in Prepress, Press and Postpress (CIP4). All rights reserved.

Licensee of the CIP4 Software expressly acknowledges and agrees that any use of the CIP4 Software is at the sole and entire risk of the user.

The CIP4 Software is provided "as is" without warranty, upgrades or support of any kind.

 ${\tt CIP4}$ expressly disclaims any expressed or implied warranties, including, but not limited to,

the implied warranties of merchantability, fitness for a particular purpose, and non-infringement of third party rights.

CIP4 does not warrant that the operation of the CIP4 Software will be error-free or that defects in the CIP4 Software will be corrected.

This product includes tessdata.

Inc. Licensed under the Apache License, Version 2.0

This product includes XMP Toolkit. Copyright (c) 2020, Adobe 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.
- 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. Neither the name of the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes Imath.



Copyright Contributors to the OpenEXR Project. 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. Neither the name of the copyright holder nor the names of its contributors 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 HOLDER 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.

This product includes Botan.

Copyright (C) 1999-2023 The Botan Authors All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: $\frac{1}{2}$

- 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.

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 HOLDER 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.

This product includes ICC Profiles.

Some ICC Profiles were created by FFEI Ltd. (www.ffei.co.uk) using Fujifilm ColourKit Profiler Suite (www.colourprofiling.com)

This product includes ICC Profiles.

Some ICC profiles are copyright (C) by European Color Initiative, www.eci.org

This product includes ICC Profiles.

Some ICC profiles are copyright (C) of WAN-IFRA, www.wan-ifra.org

This product includes ICC Profiles.

Some ICC profiles are copyright (C) IDEAlliance(R). G7(R), GRACol(R) and SWOP(R) are all registered trademarks of IDEAlliance(C).





This product includes PANTONE Color Libraries.

 ${\tt PANTONE}^{\scriptsize (0)}$ and other Pantone trademarks are the property of Pantone LLC. Pantone is a wholly owned subsidiary of X-Rite, Incorporated.

This product includes curl.

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2023, Daniel Stenberg, <daniel@haxx.se>, and many contributors, see the THANKS file.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

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 OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS 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 a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

This product includes OpenJDK.

The GNU General Public License (GPL)

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.



Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

O. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
 - a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
 - b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
 - c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the



right to control the distribution of derivative or collective works based on the $\operatorname{Program}$.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

- If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.
- 4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
- 7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.



If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

- 11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.
- 12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.



One line to give the program's name and a brief idea of what it does.

Copyright (C) copyright (C) copyright (C)

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

"CLASSPATH" EXCEPTION TO THE GPL

Certain source files distributed by Oracle America and/or its affiliates are subject to the following clarification and special exception to the GPL, but only where Oracle has expressly included in the particular source file's header the words "Oracle designates this particular file as subject to the "Classpath" exception as provided by Oracle in the LICENSE file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

This product includes Bonjour SDK.





Copyright (c) 2003-2004, Apple Computer, Inc. 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.
- 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.
- and/or other materials provided with the distribution.

 3. Neither the name of Apple Computer, Inc. ("Apple") nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY APPLE AND ITS 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 APPLE OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, 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.

This product includes Enfocus PitStop.

"Convert fill to stroke" Action, Patent Pending



2. Introduction to Data Exchange

The Esko **Data Exchange** plug-in for Adobe Illustrator combines several plug-ins into one package for easier installation. The combined plug-ins are:

- The PDF Export Plug-In on page 34
- The Ink Manager Plug-in on page 49
- The Structural Design Plug-in on page 68
- The Page Box Plug-in on page 88
- The Inspection Setup Plug-In on page 94
- Messages on page 97
- Esko Document Setup on page 100
- Annotations on page 102
- Share & Approve connection on page 107
- Color Engine on page 112

2.1. Data Exchange Preferences

The option **Update XMP on Document Save**defines if the document's XMP data is updated when the document is saved in the .Al format or as Adobe PDF with preserved Illustrator editing capabilities.

The option can be found in **Illustrator** > **Preferences** > **Esko** and is turned on by default. Deselecting this option results in slightly faster document saves.



3. The PDF Export Plug-In

3.1. Introduction

The **PDF Export** plug-in allows you to directly export your Illustrator files to **Normalized PDF** or to **PDF** +. See *Saving a File as Normalized PDF or PDF*+ on page 34. This is depending on the setting in the **Ink Manager**: see *Normalized PDF or PDF*+ on page 49

You can also export an Esko PDF for Sharing. See Export Esko PDF for Sharing on page 45

3.2. Saving a File as Normalized PDF or PDF+

To save your Illustrator file as Normalized PDF or PDF+ using **PDF Export**:

- 1. Go to File > Export... > Export As...
- In the dialog that opens, choose your file's name and location, and choose the Esko PDF (pdf) format.
- 3. Click Export.
- **4.** In the **PDF Export Settings** dialog that opens, fill in the export settings (see *PDF Export Settings* on page 34).
- **5.** Click **OK** to export the file.

3.2.1. PDF Export Settings

When exporting your files to Normalized PDF or PDF+ format, you need to set the PDF Export Settings. The settings are different when exporting Normalized PDF (left) or PDF+ (right), and depend on the setting in the lnk Manager. See *Normalized PDF or PDF+* on page 49

Preset

Using **Presets** you can store and reuse the settings for the PDF Export dialog.

You can save the current settings as a Preset by selecting **Save...** and entering a name. The location for the Presets is defined in the PDF Export Preferences. See PDF Export Preferences on page 44

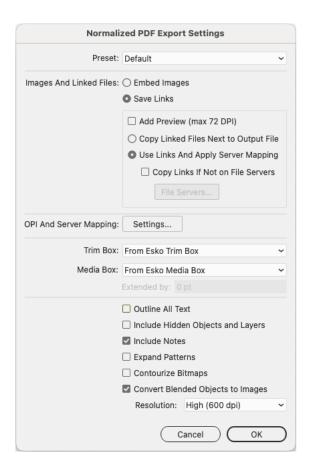
You can load a Preset by selecting it in the dropdown.

If you set the Preset to **Default**, the parameters as set in the **PDF Export Preferences** will be used. See *PDF Export Preferences* on page 44.

If the current settings are not saved as a setting, the **Preset** dropdown will show "Custom".

PDF Export: Normalized PDF





- 1. Set the Images and Linked Files settings. See Images and Linked Files on page 36
- 2. Set the Opi and Server Mapping settings. See OPI and Server Mapping on page 37
- 3. Set the **Trim Box** to be used:
 - From Esko Trim Box: the Trim Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Artboard will be used instead.
 - Current Artboard: the Trim Box will have the same size and position as the Artboard.
 - **Artwork Bounding Box**: the Trim Box will be as big as the bounding box of all currently selectable objects in the document.



Note: If any of the options is not defined, it will disabled in the dropdown.

4. Set the **Media Box** to be used:

- From Esko Media Box: the Media Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Trim Box will be used instead.
- Current Artboard: the Media Box will have the same size and position as the Artboard.
- **Artwork Bounding Box**: the Media Box will be as big as the bounding box of all currently selectable objects in the document.
- From Document Bleed: Bleed settings defined in Adobe Illustrator will be used as Media Box.
- **Custom Margins**: the Media Box will have the size of the Trim Box, **Extended by** the distance you enter.





Note: If any of the options is not defined, it will disabled in the dropdown.

- 5. Enable Outline All Text to convert all text to outlines.
- 6. Enable Include Hidden Objects and Layers to include hidden objects when the PDF file is exported.
- **7.** Enable **Include Notes** to include annotations in the PDF. This option is only available in combination with the PDF Import plug-in.
- **8.** Enable **Expand Patterns** to replace patterns by actual objects. The path containing the pattern fill, will then be filled with the objects as defined in the pattern.
- 9. Enable Contourize Bitmaps to convert 1-bit images (linked or embedded) into vectors.
- **10. Convert Blended Objects to Images** will convert blended objects to images. You can set the resolution for this images to High (600dpi), Medium (300dpi) or Low (150dpi)



Note: In case of converting blended objects with different overprint setting (one is overprinting, the other is not), the convertion might change the final result. The following message is shown: "Rasterized Blend combines art in overprint and not in overprint mode. Rasterization may have caused changed appearance."

Images and Linked Files

- 1. In the **Images and Linked Files** group, choose to either **Embed Images** in the Normalized PDF, or **Save Links** to the images.
 - If you choose to embed the images, you don't have any more preferences to fill in and you can just click **OK**.



Note: This doesn't save the images' link information (except for linked ArtiosCAD graphics, see *Linked ArtiosCAD Graphics for Normalized PDF export* on page 45).

- If you choose to use linked images, fill in the other preferences of the dialog.
- 2. Enable **Add Preview (max 72 DPI)** if you want your Normalized PDF to have a low resolution preview of the linked images.

This preview allows you to view the linked images when opening your file for example in Acrobat.

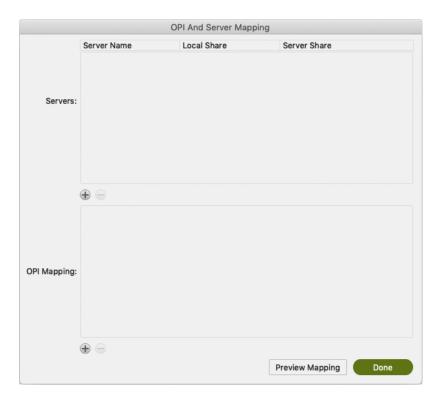
- **3.** Choose where to copy the linked images:
 - Choose Copy Images Next To Output File to copy them next to the folder in which you will save
 the Normalized PDF (so other applications like ArtPro or PackEdge can still open them when the
 links are broken).
 - Choose **Use Links And Apply Server Mapping** to keep the images where they are but update the links (for example if the images are in a shared folder located on a different machine).
- **4.** When choosing **Use Links And Apply Server Mapping**, fill in a Server Mapping if the share names on the client machine and on the other server do not match.
 - a) When checked, Copy Links If Not On File Servers verifies if linked images are already on file servers and if they are not, copies them along with the exported Normalized PDF file. Choosing this option also enables the File Servers... button where you add the machines that store linked images so that Esko workflow servers can find them.

For more information, see OPI and Server Mapping on page 37



OPI and Server Mapping

When you click the **OPI and Server Mapping Settings** button, either in the **PDF Export Settings** or in the **PDF Export Preferences**, the **OPI and Server Mapping** dialog appears:





Note:

This dialog is available only when you have chosen to Save Links in exported Normalized PDF files. When you export a Normalized PDF, OPI Mapping is applied first and then Server Mapping.

Servers

The top pane of the dialog configures **Server Mappings**. You need to use Server Mappings when the Normalized PDF you output:

- has linked images that are located on a different machine (file server),
- will be used on another machine (not your local machine or the file server).

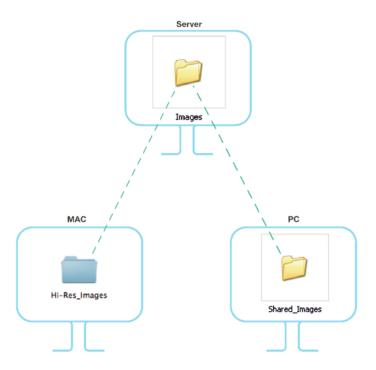
Server Mappings allow you to map the image links from one share name to another automatically on output. This ensures that the links are not broken when the Normalized PDF is used on another machine.

For example:

- the linked images are saved on a file server called "Server", in a shared folder called "Images",
- your copy of Illustrator with PDF Export is on a Mac, and the shared folder containing the images is mounted as "Hi-Res Images".



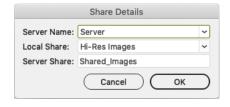
• the Normalized PDF you export will be used on a PC, where the shared folder containing the images is mounted as "Shared Images".



The link to an image called "My_Image.psd" is "Server/Hi-Res_Images/My_Image.psd" on the Mac, and should be "\\Server\Shared Images\My Image.psd" on the PC.

When adding the Server Mapping in the **OPI And Server Mapping** dialog, you should enter the **Share Details** as follows by:

- name of the file server in Server Name,
- name of the shared folder containing the images as seen from your local Mac in Local Share,
- name of the shared folder containing the images as seen from the other PC in Server Share.







Note:

You can use subfolders in a Server Mapping.



 You can also use Server Mappings to replace images (for example to swap low-resolution for high-resolution images when the low-resolution and high-resolution images have identical separations).



To add the Server Mapping, do the following:

- 1. In the **OPI And Server Mapping** dialog, click the plus sign button to the lower left of the Servers pane. This opens the **Share Details** dialog.
- 2. Enter or choose the name of the file server containing your linked images in Server Name.
- **3.** Enter or choose the name of the file server's share containing your linked images **as it appears on your local machine** in **Local Share**.
- 4. Enter the name of the file server's share containing your linked images as it appears on the other machine that will use your Normalized PDF in Server Share.



5. If you want to add another Server Mapping (to use your Normalized PDF on yet another machine), repeat steps 1 to 4.

To edit a Server Mapping, double-click it. To remove a Server Mapping, select it and click the minus button to the lower left of the Servers pane.



OPI Mapping

The lower half of the **OPI And Server Mapping** dialog configures **OPI Mapping**, which defines the rules for image substitution when exporting a Normalized PDF in a more specific way than Server Mapping. OPI stands for Open Press Interface.

To add an OPI mapping, do the following:

1. Click the plus sign to the lower left of the list pane. This opens the **OPI Rule Editor** dialog.



- 2. After the word **If**, decide how many conditions that must be true for this mapping rule to take effect: **All**, **Any**, or **None**.
- **3.** For the condition In the top pane of the dialog, choose the element of the image file's path to examine in the first field. Image paths are in URI (Uniform Resource Identifier) format, such as file://mymac/MacHD/images/lowres/tests/Spacebar_CMYK.eps. As you select elements, further controls appear on the same line to refine the condition. For example, if you choose Full Path Is, you can click ... to browse for a folder, or click **x** to revert to the previous folder. To add a condition, click +; to remove a condition, click -.
- 4. Once you have defined the conditions, define the changes to the path in the lower pane of the window. Use the same process to define the changes as you did to define the conditions: choose the change, then set its options on the same line. To add a change, click +; to remove a change, click -.
- **5.** Click **OK** to finish defining the rule.
- 6. To add another rule, click +; to remove a rule, click -.

Consider again this example URI file name: file://ImageServer/LOWRES/images/lowres/tests/Spacebar_CMYK.eps.

- The condition **Extension**, **Is Equal To**, EPS will match.
- Folder Name, Starts With, lowres/ will match. You can specify the text ending with / to state that it must be the entire Folder name and to make sure that directories starting with (for example) lowres plus/ will not match.
- Server Name, Is Equal To, imageserver will also match as the case is not compared.



When you use more than one condition in a rule, the **Replace 1st Matching Part Of Path** and **Replace 2nd Part Of Matching Path** changes become effective.

Consider this file: //Serv/SharedImg/LORESIMAGES/ANIMALS/LOWRES/myimage.eps

- with conditions of Folder Name, Contains, LORESIMAGES, and Folder Name, Contains, LOWRES.
- and changes of Replace 1st Matching Part Of Path, HIGHRESIMAGES, and Replace 2nd Part Of Matching Path, HIGHRES.

The first change will replace LOWRESIMAGES with HIGHRESIMAGES (since it was first), and the second change will replace LOWRES with HIGHRES.

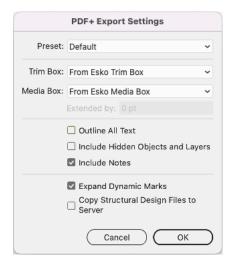
Notes and Restrictions

To copy the OPI settings between computers so they all are the same, copy AE10-OPISettings.prefs. In Windows, that file can be at C:\Documents and Settings\username \AppData\Roaming\Adobe\Adobe Illustrator CSx Settings, but its exact location depends on the type of login (local or domain) and Illustrator version (CSx where x is a number). On the Mac, this file is normally in Users/username/Library/Preferences/Adobe illustrator CSx Settings/. Copy the file to the same location on the target machines.

There are a few restrictions when using OPI Mapping:

- The high-resolution images must be accessible from the client workstation.
- Ink Manager will not show extra inks that are present in the high-resolution images.
- When exporting the file using Shuttle, only the inks from lnk Manager are shown, not any extra ones present in the high-resolution images.
- PDF Export, PowerTrapper Client and PowerTrapper Standalone will use the high-resolution images and will know about any extra inks.

PDF Export: PDF+



1. Set the **Trim Box** to be used:

- From Esko Trim Box: the Trim Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Artboard will be used instead.
- **Current Artboard**: the Trim Box will have the same size and position as the Artboard.





• **Artwork Bounding Box**: the Trim Box will be as big as the bounding box of all currently selectable objects in the document.



Note: If any of the options is not defined, it will disabled in the dropdown.

2. Set the **Media Box** to be used:

- From Esko Media Box: the Media Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Trim Box will be used instead.
- Current Artboard: the Media Box will have the same size and position as the Artboard.
- **Artwork Bounding Box**: the Media Box will be as big as the bounding box of all currently selectable objects in the document.
- From Document Bleed: Bleed settings defined in Adobe Illustrator will be used as Media Box.
- **Custom Margins**: the Media Box will have the size of the Trim Box, **Extended by** the distance you enter.



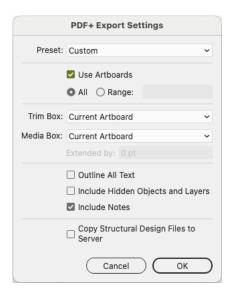
Note: If any of the options is not defined, it will disabled in the dropdown.

- 3. Enable Outline All Text to convert all text to outlines.
- 4. Enable Include Hidden Objects and Layers to include hidden objects when the PDF file is exported.
- **5.** Enable **Include Notes** to include annotations in the PDF. This option is only available in combination with the PDF Import plug-in.
- **6.** When **Expand Dynamic Marks** is enabled, all Dynamic Marks as defined in the Dynamic Marks plugin will be expanded, i.e. replaced by regular static items. If you disable this, Dynamic Marks will be kept live in the exported PDF+, so they can be edited and used in e.g. ArtPro+. See *PDF Export and Dynamic Marks* on page 43
- 7. If the **Copy Structural Design files to Server** option is enabled, when you export your PDF+ to an Automation Engine server, the Structural Design files used in your document will be exported next to your PDF+ file.

Export multipage PDF

When in PDF+ mode, if your Adobe Illustrator contains multiple artboards, you will have the option to export the document as a multipage PDF document.





- 1. Enable Use Artboards
- 2. Select All to export all Artboards as different pages, or enter a Range
- 3. Set the Trim box and Media Box

Only the option **Current Artboard** is available for the Trim Box. For Media Box, you can choose **Current Artboard**, **From Document bleed** or **Custom Margins**

The exported PDF will have one page for every selected Artboard

- Objects whose bounding box overlaps or touches the defined Media Box will be included in the page.
- If one object of a group is on the page, the complete group will be taken along.
- If an object or group overlaps or touches multiple Artboards, it will be duplicated on every page.
- Every page will have all the inks and the complete layer structure of the document
- The page order will be taken from the Artboard order in Adobe Illustrator

PDF Export and Dynamic Marks

Dynamic Marks as defined in the Dynamic Marks Plugin will be expanded when exporting to Normalized PDF, but when exporting to PDF+ with the **Expand Dynamic Marks** disabled, Dynamic Marks will be kept live in the exported PDF+, so they can be edited and used in e.g. ArtPro+.

Limitations

- If the Dynamic Mark contains a setting that is not supported in PDF+, e.g. "White Underprint" or specific text formatting, the Dynamic Mark will be expanded.
- If the Dynamic Mark contains a text variable that is not supported in PDF+, e.g. "Color Mode" or "Author Title", the variable will be expanded (replaced by static text), but if possible, the Dynamic Mark is kept live.
- A Dynamic Mark that is attached to another mark that will be expanded, will also be expanded.
- When exporting multiple artboards as Multipage PDF, all Dynamic Marks will be expanded.



In any of these cases, a **Message** will be shown in the **Message Center**, indicating what Dynamic Mark was expanded and why.

3.2.2. PDF Export Preferences

You can open the PDF Export Preferences by choosing **Illustrator** > **Preferences** > **Esko** > **PDF Export Preferences**



The main part of the Preferences contain the same settings as the PDF Export Settings: the **General** tab contains settings used for Normalized PDF and PDF+, the **Normalized PDF** tab contains settings



only used when exporting Normalized PDF, and the **PDF+** tab contains settings only used when exporting PDF+.

The settings in the Preferences will be used if the "Default" preset is selected. See <u>PDF Export Settings</u> on page 34

The **PDF Export Preset Settings Folder** defines the location where the Presets are saved: either the Default Preference Folder, or a custom folder you can select by clicking the **Browse...** button. See also *Preset* on page 34

3.2.3. Linked ArtiosCAD Graphics for Normalized PDF export

When you export a document with linked ArtiosCAD graphics to Normalized PDF, the graphics are treated slightly differently:

When choosing "Embed Images" in the Preferences:

- The ArtiosCAD graphics are embedded in your Normalized PDF.
- The original link information is **saved** in your Normalized PDF.

When choosing "Save Links" in the Preferences:

- The ArtiosCAD graphics are **embedded** in your Normalized PDF.
- They are also copied to the location you define: Next To Output File or on another server (according
 to a Server Mapping if defined).
- The link to the copied graphics is saved in your Normalized PDF.

3.3. Export Esko PDF for Sharing

The **Export Esko PDF for Sharing** function offers you the option to export a PDF without Esko metadata, and to apply some other automatic modificiations to the exported PDF, while keeping the original document as it is.

- 1. Go to File > Export... > Export As...
- 2. In the dialog that opens, choose your file's name and location, and choose the **Esko PDF for Sharing** (pdf) format.
- 3. Click Export.
- **4.** In the **Esko PDF for Sharing Settings**, you can load and save settings as a **Preset**. See *Preset* on page 46
- 5. Choose the **Export Flavor** you want.
 - For Press: this will export a PDF for printing.
 - For Press (PDF 1.3): this will export a PDF that is PDF 1.3 compliant: transparencies are resolved (i.e. flattened), layers are removed, etc.
 - **For Viewing**: this will export a PDF for viewing, meaning that overprints and opaque inks will be resolved. Such a file will give the same preview in e.g. Adobe Acrobat as it does in Adobe Illustrator, even if "Use Overprint Preview" is disabled. It is however not suited for printing.

Based on the flavor you choose, some options will be enabled or disabled, and can't be changed.



- **6.** Decide if you want to include **Processing Steps** and **Hidden Objects and Layers** in your exported PDF.
- **7.** Enable **Downsample Images to** to downsample all images to the specified resolution. Bitmap images are excluded and will not be downsampled.
- **8.** If **Crop images to clip mask** is enabled, only the parts of the image within the clip mask are included in the PDF file.
- **9.** Set the **Image Compression**: Lossless, Low, Medium or High.
- **10.** Set the **Trim Box** to be used:
 - From Esko Trim Box: the Trim Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Artboard will be used instead.
 - **Current Artboard**: the Trim Box will have the same size and position as the Artboard.
 - **Artwork Bounding Box**: the Trim Box will be as big as the bounding box of all currently selectable objects in the document.



Note: If any of the options is not defined, it will be disabled in the dropdown.

- 11. Set the Media Box to be used:
 - From Esko Media Box: the Media Box size and position will be taken from the Trim Box & Media Box plugin. When not specified in the plugin, the size of the Trim Box will be used instead.
 - Current Artboard: the Media Box will have the same size and position as the Artboard.
 - **Artwork Bounding Box**: the Media Box will be as big as the bounding box of all currently selectable objects in the document.
 - From Document Bleed: Bleed settings defined in Adobe Illustrator will be used as Media Box.
 - Custom Margins: the Media Box will have the size of the Trim Box, Extended by the distance you
 enter.



Note: If any of the options is not defined, it will disabled in the dropdown.

- 12. Outline text will convert all text to outlines in the exported PDF.
- **13.** If **Apply distortion** is enabled, any distortion factor set in the Document Setup of your document will be applied to the exported PDF.
- **14.** If **Include Document Profile** is enabled, the used Document Profile will be embedded in the exported PDF. Otherwise, the document profile will no longer be present in the PDF. Note that this can result in a different representation of the colors.
- **15.** If **Add single color page per separation** is enabled, the exported PDF will not only contain the document itself, but a single color page is added for every separation.

3.3.1. Preset

Using **Presets** you can store and reuse the settings for the PDF Export dialog.

You can save the current settings as a Preset by selecting **Save...** and entering a name. The location for the Presets is defined in the PDF for Sharing Export Preferences. See *PDF for Sharing Export Preferences* on page 47

You can load a Preset by selecting it in the dropdown.

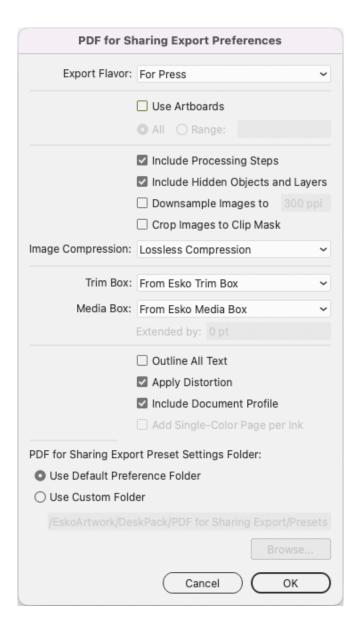


If you set the Preset to **Default**, the parameters as set in the **PDF for Sharing Export Preferences** will be used. See *PDF for Sharing Export Preferences* on page 47

If the current settings are not saved as a setting, the **Preset** dropdown will show "Custom".

3.3.2. PDF for Sharing Export Preferences

You can open the PDF for Sharing Export Preferences by choosing **Illustrator > Preferences > Esko > PDF for Sharing Export Preferences**



The main part of the Preferences contain the same settings as the PDF for Sharing Export Settings. The settings in the Preferences will be used if the "Default" preset is selected. See <u>PDF Export Settings</u> on page 34





The **PDF for Sharing Export Preset Settings Folder** defines the location where the Presets are saved: either the Default Preference Folder, or a custom folder you can select by clicking the **Browse...** button. See also *Preset* on page 46



4. The Ink Manager Plug-in

The lnk Manager palette is a powerful pre-press color editing and proofing tool. You can easily identify where Pantone colors are used within a document or where custom spot colors can be found, then convert these colors to a custom spot color or to process colors.

The lnk Manager palette also allows you to specify crucial ink parameters such as the ink type, angle and lineature. Once defined, these parameters are saved inside the Illustrator document.

4.1. Normalized PDF or PDF+

In the Ink Manager, you can switch between working in Normalized PDF or PDF+ mode. This mode determines what type of PDF file you want to export your document to.

If you open a document that contains Technical Inks or Varnish Inks, the mode will be set to Normalized PDF.

If you open a document that contains Processing Steps, the mode will be set to PDF+

If you open any other document or create a new one, the mode will be set according to the default setting in the Ink Manager Preferences. See *Ink Manager Preferences* on page 55 The mode is saved in the Adobe Illustrator file, so that the next time you reopen the document, it will be opened in the same mode.

You can switch freely between Normalized PDF and PDF+ mode. However, if you switch, specific functionality might get lost. If you for example switch from PDF+ to Normalized PDF, all Processing Step information will get lost, and switching back to PDF+ will not bring it back.

What is the difference between PDF+, and Normalized PDF

Both PDF+ and Normalized PDF are to a large extent regular PDF files that you can open and edit in any other PDF editor or reader. However, PDF+ and Normalized PDF files also contain additional information, available to any Normalized PDF or PDF+ compatible editor. When choosing Normalized PDF or PDF+ mode in the lnk Manager, the specific limitations and specifications of the chosen PDF format need to be considered.

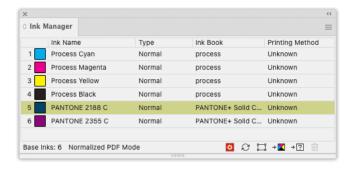
What	PDF+	Normalized PDF
Ink order stored in file	✓	1
Non-printing data (Cut, Die,) and special processing steps (varnish,)	Processing Step Layers	Technical Inks & Varnish
Ink Types	Normal, Opaque	Normal, Opaque, Technical, Varnish
Document Profile as output intent	Obligated. If none is present, the default profile will automatically be added when saving.	



What	PDF+	Normalized PDF
Screening	Optional Screen Sets based screening	Every object has screening. Optional object based screening
Group and Barcode metadata	1	1
Marks	PDF+ Marks can be applied in ArtPro+	X ArtPro+ does not support SmartMarks
Images	 Embedded Linked & Embedded. If a PDF + file contains image links, a full resolution embedded version of the image will still be saved in the file. 	Images can be • Embedded • Linked
Placed Art (PDF)	1	X
Structural Design	1	Limited to one Structural Design file, and always using the default Profile

4.2. Using the Ink Manager palette

To use the lnk Manager palette, choose **Window** > **Esko** > **Ink Manager**. The lnk Manager palette appears.



The **Ink Manager** lists all inks used in the document. For every ink you see a color patch, its name, and additional information about the ink. You can define what columns you want to see in the Ink Manager fly-out menu. See *The Ink Manager fly-out menu* on page 52

You can double-click an Ink to open the Ink Options. See Ink Options on page 52

Mode



In the bottom left corner, you can see if you are working in PDF+ mode or Normalized PDF mode. See *Normalized PDF or PDF+* on page 49

Properties from Job Setup Status Icon

When connected to an Automation Engine, Ink Properties can be retrieved from the Job Setup. This icon indicates the status of the connection. See *Job Setup* on page 55

⊘ Refresh

To update the list of inks used within your document, click the Refresh button. After modifying a document, click the refresh button to update the list of used inks.

Show Processing Steps Palette

Only available when working in PDF+ mode. This opens the Processing Steps palette. See *Processing Steps* on page 60

→ Move to Processing Step

Only available when working in PDF+ mode. This moves the objects using a specific ink into a Processing Step. See *Processing Steps* on page 60

☐ Select

To identify objects containing specific inks within your document, select the ink you wish to search for and click the **Select** button. It is possible to select more than one ink at a time.

→ Convert to CMYK

To convert a selected Spot Color from your document Ink list to a Process Color Mix, CMYK, click **Convert to CMYK**. More than one ink can be selected at a time.



Note: Convert to CMYK is only available if you have a license for boostX, Channel Mapping, DeskPack Essentials or DeskPack Advanced.

→ ? Convert to Other

To convert a selected ink from your document lnk list to another ink, click 'Convert to other'. More than one ink can be selected at a time.



Note: Convert to Other is only available if you have a license for boostX, Channel Mapping, DeskPack Essentials or DeskPack Essentials.



Note: Converting an ink will affect only line art. However, if you have DeskPack Advanced or the Channel Mapping plug-in installed and licensed, converting an ink will also result in the corresponding channel mapping for all images. See the Channel Mapping documentation for more information.

Delete Ink Variant

When working in Normalized PDF mode, you can use Screening for Adobe Illustrator to create exceptions to the screening settings for an ink. These exceptions appear in the Ink Manager list as "Variants". To delete such an Ink Variant, select the ink variant which needs to be removed and click the 'Delete Ink Variant' button. The objects will get the ink settings of the parent ink. See Screening in Normalized PDF mode on page 57



4.2.1. Ink Options

Double-click an Ink from the list to open the Ink Options dialog.

If you have multiple inks selected, you can change the properties of all the inks at the same time. The dialog will show "≠" for settings that have different values.

If you are working in PDF+ mode and have one single ink selected, you can set the **Printing Unit**. See Working with Printing Units on page 64

The **Ink Book** dropdown contains all Ink Books that have the current ink defined. By default the last used ink book is shown.

When working in PDF+ mode, the available **Ink Types** are Normal and Opaque. When working in Normalized PDF mode, also Varnish and Technical are available.

- The ink type for process inks cannot be changed. The ink type is always normal.
- The following Pantone inks are always opaque inks: Pantone 8003 C, Pantone 8021 C, Pantone 8062 C, Pantone 8100 C, Pantone 8201 C, Pantone 8281 C, Pantone 8321 C, Pantone 871 C, Pantone 872 C, Pantone 873 C, Pantone 874 C, Pantone 875 C, Pantone 876 C, Pantone 877 C. The ink type of these inks cannot be changed.



Note: If you change an Ink to **Technical** or **Opaque**, the ink will be moved to the bottom of the Ink list. If you change the ink order afterwards, this new order will be respected.

When working in Normalized PDF mode, you can set the screening (Ruling, Angle, Dot Shape, DGC Curve) for the ink. See Screening in Normalized PDF mode on page 57

For every ink, you can set the **Printing Method**.

If you are connected to an Automation Engine server, the dropdown will show the server Printing Methods. If you are not connected to an Automation Engine server, you will see the default Printing Methods and the local printing methods, saved locally in the Adobe Illustrator Preferences.

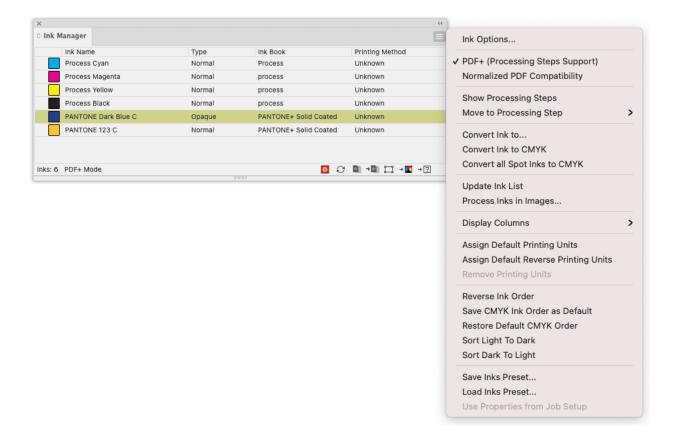
You can select a Printing Method in the dropdown, or you can type in a name to create a new Printing Method. If **Save printing method to presets** is enabled, the newly created Printing Method will be stored as a new preset, either on Automation Engine or in the local Printing Methods.



Note: All these Ink options are stored in the Illustrator document and are used by other DeskPack plug-ins like PowerTrapper Client, PowerLayout Client, etc. For example, PowerTrapper Client will ignore varnish and technical inks and will take the opaqueness of inks in account when determining trap directions.

4.2.2. The lnk Manager fly-out menu





- Ink Options... opens the ink options dialog.
- Using PDF+ (Processing Steps Support) or Normalized PDF Compatibility you can switch the mode for the current document. See Normalized PDF or PDF+ on page 49
- Show Processing Steps and Move to Processing Step: Only when working in PDF+ mode. See Processing Steps on page 60
- Convert lnk to... has the same functionality as the 'Convert to Other' button
- * Convert Ink to CMYK has the same functionality as the 'Convert to CMYK' button → ■
- . Convert all Spot Inks to CMYK converts all the spot inks in the document to their CMYK equivalent.



Note:

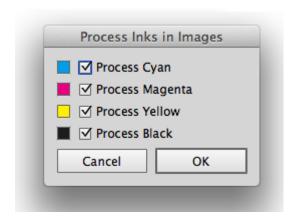
Keep in mind that this function will also convert white objects created by the White Underprint plugin, using a special spot ink.

- Update Ink list refreshes the ink list.
- **Process Inks In Images...** The plug-in uses Illustrator to determine which inks are used in images. Illustrator has some limitations:
 - With linked EPS images it is not possible to detect whether CMYK was used in the linked image.
 Ink Manager will assume that CMYK is present in the linked EPS images, unless the user has specified otherwise.
 - TIFF images with spot channels always have CMYK channels, even if those channels are empty.
 - Some effects create embedded images with all four CMYK channels, even if some are empty.

Esko Data Exchange for Adobe Illustrator



So the plug-in doesn't really know whether CMYK is used in images. "Process Inks in Images" offers a manual solution. If you click this option, the "Process Inks in Images" dialog box appears:



By default all toggles are switched on, which means that the plug-in will assume that external images contain Cyan, Magenta, Yellow and Black.

If you know that there is no Cyan in the externally placed images or you want to avoid an empty process plate introduced only by an effect, you can switch Process Cyan off. Click 'Apply' and at the bottom of the Ink Manager the indication "Disabled in Images: C" will appear.

The plug-in will assume that only Magenta, Yellow and Black were used in the externally placed images. If Cyan is used in other objects of the document, it will be listed in ink manager.



Note: Other plugins such as PDF Export and PowerTrapper will also take this setting into account.

- Using **Display Columns** you can set what columns of the Ink Manager should be shown:
 - the lnk Type
 - the Ink Book
 - the Screening Details (ruling, Angle and dotshape). Only when working in Normalized PDF mode.
 See Screening in Normalized PDF mode on page 57
 - the DGC Curve. Only when working in Normalized PDF mode. See DGC Curve on page 58),
 - · The Printing Method
 - The Job Setup (see Job Setup on page 55)
- Reverse Ink Order will turn the order of the inks upside down.
- By default, the process colors are in Cyan Magenta Yellow Black order. If you change this order
 and apply Save CMYK Ink Order as Default, the changed order will be used as default order. By
 selecting Restore Default CMYK order, the original default order is restored.
- By using **Sort Light To Dark** or **Sort Dark To Light**, you can rearrange the order of inks based on the luminocity. Note that Opaque and Technical inks are placed at the bottom of the list, but also sorted light to dark or dark to light.
- When working in Normalized PDF mode, if you have to reuse the same lnk Parameters frequently, you can use **Save lnk Preset** ... to save all ink parameters, including lnk Name, Type, lnk Book, Ruling, Angle, Dotshape, DGC and Printing Method. You can **Load lnk Preset**... to overwrite all ink



parameters in the current document with the parameters you saved earlier. You can set the location for the saved lnk Presets in the Preferences. See *lnk Manager Preferences* on page 55

• By enabling **Use Properties from Job Setup**, the inks and ink parameters defined in the Job Setup will be enforced. See *Job Setup* on page 55

4.2.3. Job Setup

When a document is opened from an Automation Engine Job, for example using **File > Job Folder** > **Open from Job Folder ...**, you can force lnk Manager to use the ink parameters defined in the Job Setup, overwriting the current lnk Parameters, by enabling **Use Properties from Job Setup**, either

from the fly-out menu or by clicking the button in the lnk Manager palette

The **Job** column will appear automatically. You can change its visibility under **Display Columns** in the fly-out menu.

The column will give a status icon for every ink:

- the ink is defined in the Job Setup. The parameters defined in the Job Setup will be used.
- the ink is not in the Job Setup but is used in the document
- the ink is defined in the Job Setup but not used in the document. The line will be greyed out, and have no number.

If **Use Properties from Job Setup** is enabled, the lnk Options dialog for inks defined in the Job Setup will show status icons for every parameter:

- the parameter is taken from the Job Setup, so it can't be modified.
- the parameter is not defined in the Job Setup, so it can be set freely.

If the Job Setup defines multiple variants of the same ink, all variants are listed in the lnk Manager.



Note: Next to the settings for every ink, you can also choose to retrieve the **Ink Order** from the Job Setup, by enabling the option in the Ink Manager Preferences. See *Ink Manager Preferences* on page 55

4.3. Ink Manager Preferences

The Ink Manager Preferences can be opened from **Illustrator** > **Preferences** > **Esko** > **Ink Manager Preferences...** (Mac) or **Edit** > **Preferences** > **Esko** > **Ink Manager Preferences...** (Windows).





With the **Default Document Mode** you can define if you want to use Normalized PDF mode or PDF+ mode when opening a document created by Esko plug-ins older than version 20, created without Esko plugins or importing as Adobe PDF. See *Normalized PDF or PDF+* on page 49

In the rest of the Ink Manager Preferences, you can set the **Default Values** (angle and ruling) for CMYK inks.

You can also set the default angle and ruling to be used for new Spot inks. However, these defaults can be overruled when using a Spot ink that was used before, with a different Angle and Ruling value. The Angle and Ruling for all used spot inks are saved in the Preferences file.

You can also define if inks that are only used in non-printable layers or hidden layers should be shown in the lnk Manager by setting the **Show Inks of Non-printable Layers** and **Show Inks of Hidden Layers** option.



Note:

The Remap Ink functionallity also takes the **Show Inks of Non-printable Layers** and **Show Inks of Hidden Layers** option into account: When switched off, inks on non-printable or hidden layers will not be remapped.

Enable **Use ClassicColors Ink Book** to use the ClassicColors Ink Book. When using a ClassicColors Ink Book for your HP device, you can enable the Use ClassicColors Ink Book option, to avoid conflicts for inks using generic names, such as "White".



The **Preferred Ink Book** is the Ink book shown by default when opening the **Add Ink from Ink Book** dialog. It is also used as the preferred ink book when determining the ink book of spot inks manually added to the document.

You can set the location to store **Ink Manager Preset Settings**: either in the default presets folder, or in a custom folder you choose.

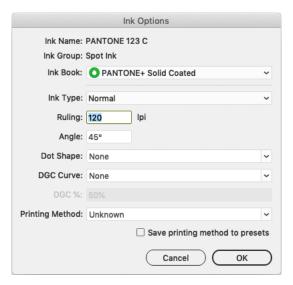
In **Job Setup Support** you can define if you want to use the **Ink Order** as defined in the Job Setup. See **Job Setup** on page 55

4.4. Screening in Normalized PDF mode

When working in Normalized PDF mode, you can set the screening parameters in the Ink Options.



Note: The other options are explained in *Ink Options* on page 52



You can set the **Ruling** and **Angle** for the ink.

Dotshape shows a list of all dotshapes available for the FlexRip. However, it is possible to enter any dot that is available on your rip instead of the proposed dotshapes. Only use a dotshape that is installed on the rip that will be used to expose the document.



Note: Entering a dotshape is not compatible with Nexus RIP.

You can define a **DGC Curve** and a **DGC percentage**. See **DGC Curve** on page 58

The screening settings are applied to all objects in your document.



If you have a **Screening for Adobe Illustrator** license, you can use the **Screening for Adobe Illustrator** plugin to make exceptions to these inks parameters for specific objects. See https://www.esko.com/en/support/product?id=Screening%20for%20Adobe%20Illustrator

4.4.1. DGC Curve

You can set the **Dot Gain Compensation (DGC) Curve** for every ink.

By default, the DGC Curve column is hidden. By selecting **Show DGC Curve** in the fly-out menu you can make it visible.

You can select one of the predefined Dot Gain Curves, or type in the name to use a custom DGC. When selecting a PressSync curve, you can enter the percentage for the curve in the **DGC** % field.



Note: DGC is not a part of the Job Setup. This means using **Use Properties from Job Setup** will not change the DGC, nor does changing the DGC influences the status of the job.

4.5. Screening in PDF+ mode

In PDF+ mode, screening is defined using **Screen Sets** in the lnk Manager. See *Manage Screen Sets* on page 59



Note: You need a **Screening for Adobe Illustrator** license to assign a Screen Set to an object. Without the license, you can view the defined Screen Sets and you can change their screening parameters, but you can't add new Screen Sets, delete Screen Sets or assign a Screen Sets to objects. You can also **Reset to Default Screening** or **Remove Screening** without a license. See *The Screen Sets Fly-out menu* on page 59

Your document can contain a number of **Screen Sets**, each containing specific ruling, angle, dot shape and DGC information for each of the defined separations. By assigning a Screen Set to an object, you can set up object based screening.

Choose Window > Esko > Screen Sets or use its shortcut Cmd+Option+Shift+N (Mac) or Ctrl+Alt +Shift+N to open the Screen Sets palette.



The Screen Sets palette shows all Screen Sets defined in the document.

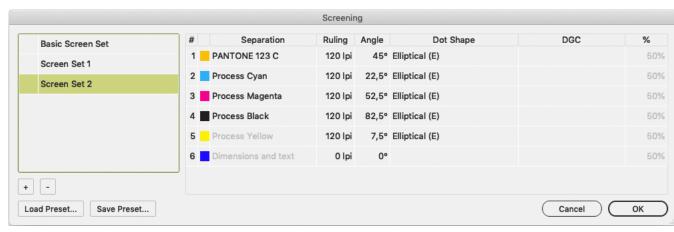
The Screen Sets used in the current selection will be highlighted.



- Click the Screen Set you want to assign to the current selection.
- Click the Select Art Using Screen Set button ☐ to select all objects using that specific Screen Set.
- Click the Manage Screen Sets button or choose Manage Screen Sets from the fly-out menu to create, remove or edit your Screen Sets. See Manage Screen Sets on page 59

4.5.1. Manage Screen Sets

In the Manage Screen Sets dialog you can add, remove and edit Screen Sets.



- In the list on the left, select a Screen Set to see and edit its settings.
 - You can set the Ruling and Angle for each ink.
 - **Dotshape** shows a list of all dotshapes available for the FlexRip. However, it is possible to enter any dot that is available on your rip instead of the proposed dotshapes. Only use a dotshape that is installed on the rip that will be used to expose the document.
 - You can define a DGC Curve and a DGC percentage. See DGC Curve on page 58
- Click + to create a new Screen Set.

The newly created Screen Set is created using the same settings as the currently selected Screen Set. If no Screen Set is available, a Screen Set with default screening information is created.

- Click to remove the selected Screen Set.
- · Double-click a Screen Set to rename it.
- Click in front of a Screen Set Name to make it the **Default Screen Set**, indicated by a star.

 The Default Screen Set is applied to newly created objects. It is also used in some other specific situations, e.g. if you remove a Screen Set, or for Mask objects when releasing an Opacity Mask.
- Click Save Preset to save all Screen Sets in a Screen Preset, e.g. to reuse in another document.
- Click Load Preset to load all Screen Sets saved in a Screen Preset. The Screen Sets from the Preset
 will be merged with the current Screen Sets. If a Screen Set with the exact same settings already
 exists, that Screen Set will not be added.

4.5.2. The Screen Sets Fly-out menu

The Fly-out menu of the Screen Sets palette contains the following functions:



Reset to Default Screening

This removes all Screen Sets, and adds a new one called "Screen Set 1". The screening information for this Screen Set is taken from the settings defined in the Ink Manager preferences. See *Ink Manager Preferences* on page 55

Remove Screening

This removes all Screen Sets applied to objects in the current document. The Screen Sets palette will only contain the "None" Screen Set.



Note: Both functions are available without the Screening plugin installed, and without a license.

4.6. Processing Steps

Ever since PDF became the preferred file format in the graphic industry, PDF files were used not only to store the artwork to be printed, but also as a container for information related to the production process: cutting lines, dimensions, etc.

How the information was stored in the PDF file, depends on the application that was used to generate the PDF, and the preferences of the user. For example the die cut lines can be in a separation called "Die", or in a layer named "Cut". Obviously, this leads to a multiple of ad hoc methods, which leads to interoperability problems, and a complex and error-prone situation.

ISO 19593 defines a new mechanism to store objects and metadata corresponding to such processing steps in a PDF file in a standardized way.

Based on this ISO norm, the use of Processing Steps was introduced in DeskPack as Processing Steps.

Keep in mind however that these Processing Step Layers are only available when working in PDF+ mode. Normalized PDF mode uses Technical Inks instead. See Normalized PDF or PDF+ on page 49

Objects in Processing Step Layers

Processing Step Layers contain objects in your PDF file (a path, a text object, ...) that are associated with a specific Processing Step.

The type of Processing Step Layer can influence the properties of the PDF objects. For example, a PDF object in a Structural Processing Step Layer has to be colored in a spot color (to visualize in viewing and proofing applications). Because the objects in these Processing Step Layers should not have any influence on the final printed version (and on the plate making), this spot color should not be used for "normal" PDF objects, nor should the objects knock out other objects, or participate in transparency blending with other "normal" artwork objects.

Types of Processing Step Layers

- **Structural Data**: a collection of contours that describe how the printed product will be finished to produce a 3D end product from a flat substrate, such as cutting lines, crease lines, etc.
- Braille: braille characters that are applied after printing, e.g. by a die cutter or inkjet device.
- **Legend**: job related data outside the boundaries of the actual printed products.
- **Dimensions**: indications of the physical sizes
- **Positions**: objects that indicate intended, allowed or forbidden positions for certain types of elements, e.g. allowed positions for content on a flap of a carton.
- White: white ink to be printed on a transparent or metallic substrate.



• Varnish: indicating the application of varnish after printing.

4.6.1. The Processing Steps palette

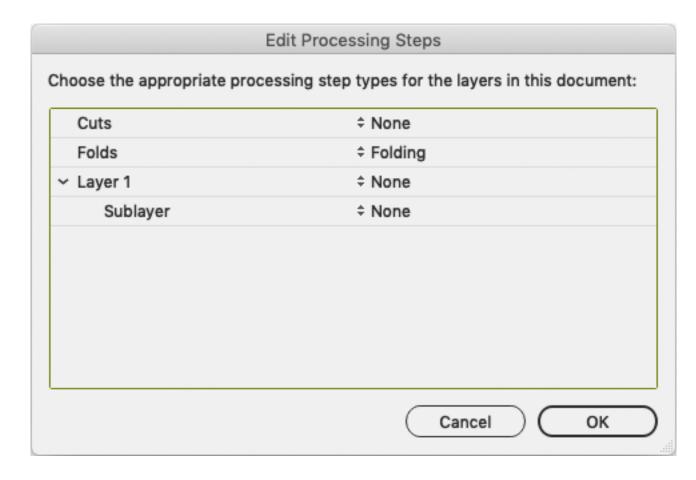
You can open the **Processing Steps palette** by clicking the Show Processing Steps button or select **Show Processing Steps** in the fly-out menu of the lnk Manager palette.



All the **Processing Steps** appear in the list, grouped per type, along with an "Artwork" entry. You can use the eye icon to make a processing step visible or invisible.

You can change any layer into a Processing Step Layer, or change the type of a Processing Step Layer by clicking the Edit Processing Steps button, by selecting **Edit Processing Steps...** in the fly-out menu, or by double-clicking an entry in the list.





You can change any layer into a Processing Step Layer, or change the type of a Processing Step Layer by selecting a Processing Step type from the dropdown.

You can change a Processing Step Layer into a normal layer by selecting **None**.

Unlike normal Artwork layers, Processing Step Layers come with a set of restrictions. If one of these restrictions is not met, a warning is shown in the Processing Steps palette.

You can select the paths causing the warnings in the list. If the **Select** option is enabled, clicking on one of the entries will select the corresponding object in the job. If the **Zoom** option is enabled, clicking an entry displays the selected object as big as possible in the active window. If the **Highlight** option is enabled, the selected objects will be highlighted.



Note: The list of ISO Standard Violations is not updated automatically. Use the **refresh** button to update the list.

You can prevent a number of these issues by using the **Move to Processing Step** function to create Processing Step Layers. See *Move to Processing Step* on page 63

4.6.2. Colorants for Processings

Inks that are only used in Processing Steps are considered "Colorants": they can be used to color objects in the Processing Step Layers, but are not considered printing inks, as they should not appear on plates or on the final printed result.



Colorants for Processing Step Layers are represented in the Ink Manager using a round color patch.



Note: If an ink is used in at least one "normal" artwork object in an artwork layer, the separation is shown as a normal printing separation, with a square color patch. Since the use of a separation both as ink and as colorant usually presents a conflict, it is very likely that a message will appear in the Messages Side Drawer for any Processing Step Layer using such a colorant.

4.6.3. Move to Processing Step

Using the **Move to Processing Step** function, you can move the objects using a specific ink into a Processing Step.

- 1. Select a spot color ink in the lnk Manager.
- 2. Select **Move to Processing Step** from the fly-out menu or click the **Move to Processing Step** button
- **3.** Select the **Processing Step Layer** you want to use.
- **4.** All objects using the selected ink will be moved to the selected Processing Step Layer.
 - Objects in a flat color, only using the selected separation, will be placed in a Processing Step Layer, with the same name as the original artwork layer they were in (when available).
 - Other objects (e.g. objects in a mixed color, images, ...) will not be moved nor changed.
 - If the lnk is only used in the Processing Step Layers, it will become a Colorant. See *Colorants for Processings* on page 62

4.6.4. Plate ID Objects

If you are using DeskPack and/or ArtPro+ in combination with Esko's Imaging Engine within the flexographic printing industry, you can use **Plate ID** objects to identify Flexo Plates, e.g. for reprint after being archived, or to be reused in a similar jobs.

Plate ID objects will be exposed by the RIP at "half height". This means the objects are permanently visible, yet they do not show up on the printed result.

For more information we refer to the chapter on Working with Plate ID in the Automation Engine documentation *here*

1. Select the objects you want to create a Plate ID object of.



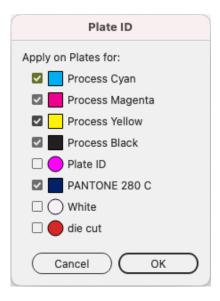
Note: Foreign art, mesh, raster, linked image, repeat art and clipping paths are not supported. Unsupported objects in the selection will be excluded.

2. In the **Processing Steps** palette, click the **Convert to Plate ID Object** button

- If they don't exist yet, a Plate ID Layer and Plate ID ink are created.
- All (supported) objects in the selection are converted into one Plate ID Object. Marks in the selection will be expanded and thus no longer be dynamic.



- If the original object has no fill ('none'), the Plate ID Object will also have no fill. In all other cases, the object is colored in 100% of the Plate ID Processing Step colorant. Gradients and patterns are changed to 100% flat paint.
- The Plate ID Object is set to overprint, and transparency settings are set to "Normal" at 100% opacity.
- The Plate ID Object is moved to the **Plate ID** layer.
- 3. Using the Plate ID palette you can define on what plates the Plate ID Object has to be exposed.



- a) Select the Plate ID object you want to edit, and click the **Edit Plate ID Object Properties** button
- b) By default all artwork separations will be enabled, while Processing Step colorants and unused separations are disabled. You can however manually add or remove separations.
- c) Click **OK**

4.7. Working with Printing Units

Using **Printing Units** you can define a Printing Order without changing the viewing order in the lnk Manager. For more information on Printing Order vs Viewing Order, see *Viewing Order vs Printing Order* on page 65



Note: Printing Units are only available in PDF+. See Normalized PDF or PDF+ on page 49

By default, the ink order (i.e. the viewing order) is also used as printing order.

You can switch to using **Printing Units** by choosing **Assign Default Printing Units** or **Assign Default Reverse Printing Units** from the fly-out menu of the **Ink Manager**

• The **Printing Units** icon or is shown above the first column, and the arrow indicates the printing direction.



- When choosing **Assign Default Printing Units** Printing Units will be assigned to all separations except for Processing Step Separations in ascending order.
- When choosing Assign Default Reverse Printing Units Printing Units will be assigned to all separations except for Processing Step Separations in descending order.

After assigning the Printing Units, you can edit them by clicking the Printing Unit number's location, or by opening the **Ink Options**. See *Ink Options* on page 52. You can use this e.g. to assign a Printing Station to your Opaque White Processing Step Separation, or to leave an empty station.



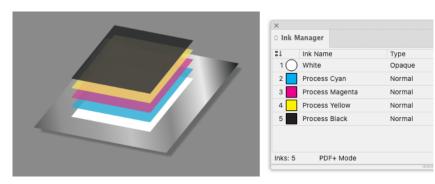
Note: When possible, Ink Manager will try to adjust the other Printing Units when changing one. E.g. when in a sequential order you change "4" to "5", the next Printing Units will be increased as well (5 becomes 6, 6 becomes 7 etc).

- When the Printing Units are no longer strictly ascending or descending after manually modifying the Printing Units or changing the separation order, the icon in the lnk Manager changes to this:
- You can correct this by manually modify the Printing Units, or by re-assigning the default Printing Units (see above).

If you want to remove Printing Units, you can choose **Remove Printing Units** from the fly-out menu of the **Ink Manager**.

4.7.1. Viewing Order vs Printing Order

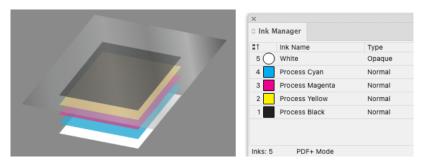
By default, the order of the separations in ArtPro+ defines both the viewing order and the printing order (what ink is printed first). In the example underneath, you see an example of a clear substrate, with an opaque white printed first, and CMYK on top.



However, in some cases, you would want to change the printing order, without changing the viewing order in ArtPro+. If you for example want to print on the **inside** of a clear substrate (so that the printed graphics are protected by the substrate), the opaque white ink would be the **last** ink you print (and end up on top of the others). You do not want to change the separation order in ArtPro+ to represent that, as the opaque white ink would block out all graphics underneath.

To avoid this, you can use **Printing Units** to reverse the printing order without changing the separation viewing order.





Underneath an example of a label printed on the back side of the clear substrate:



4.8. Known limitations

Re-mapping process inks to spot inks.

As it is impossible to simply change one of the process inks to the spot ink, the only solution is adding a new fill to the object with the new spot ink and use overprint to mix these fills together.

- Adding a brand new fill is not possible on text objects on the character level. Text objects using various inks on separate characters aren't mapped and an operator is warned.
- Re-mapping of process to spot inks on paths, using Effects on fill or stroke, will raise a warning, because adding a new fill could change the visual appearance.

Re-mapping inks in gradients

Re-mapping of the process ink to the spot ink generates a new fill due to the same reason as before.





- Let's have an example that the gradient already contains the target spot ink on one of its stops and another stop contains the process color being transformed. The re-mapping one of the process inks will add a new fill with the same gradient but with the target spot inks on the place of the process ink. In other cases the overprint will blend these two fills and produce expected visual appearance. In this particular case Illustrator will not blend these fills because both contain the same spot ink and Illustrator then ignores the overprint. An operator is informed about that.
- Similar issue comes when the object already contains two gradient fills. An operator is again warned.



5. The Structural Design Plug-in

5.1. Introduction

Introducing Structural Design

Structural Design enables the Adobe Illustrator users to read in an ArtiosCAD ARD or ACD file, and/or a Collada .dae or .zae file. This structural design can then be aligned to the graphics and this alignment will be maintained in the rest of the Esko workflow (e.g. ArtiosCAD, Visualizer, PackEdge, ArtPro, Plato, RIPs). On top of that, you can create a varnish plate from the bleed outline, from the Illustrator artboard or from the bounding box of the structure automatically excluding the coating free areas.

Structural Design Export allows an Adobe Illustrator user to export contours from Illustrator to native ArtiosCAD .ard format. It also allows adding and modifying cutout windows to a loaded ArtiosCAD file.

Structural Design files in Normalized PDF or PDF+

When exporting your document to PDF+, a live link is maintained to each of the placed printable parts.

However, if you export to Normalized PDF, only the printable part that is listed first in the layers palette will be kept live, other placed printable parts will be expanded. If you want to keep a live link to your printable parts while exporting to Normalized PDF, you should break up your multi-part design in different documents, so that each document contains one printable part, and the graphics for that printable part.

For more information on Normalized PDF and PDF+, see Normalized PDF or PDF+ on page 49



Note:

ArtiosCAD ACD files can't be handled by PackEdge, ArtPro, Plato and Esko RIPs, and can't be preserved in PDF+ or Normalized PDF export.

You can export the ACD file to separate ARD files by choosing **File > Structural Design > Export** and selecting the name of the ACD file. If you choose the option "ARD Files (One per part), each placed printable part of the ACD file will be replaced by a newly created ARD file. See <u>Structural Design Export</u> on page 77

5.2. Importing Structural Design files

5.2.1. General Principles

The Structural Design plug-in enables you to open or place Structural Design files inside Adobe Illustrator. The imported Structural Design files are linked to the Adobe Illustrator (.ai) files, but they are not embedded.



Structural Design Files and Printable parts

A Structural Design file describes a 3D scene, of which at least one part can be printed: the **Printable Part**. Different types of Structural Design files can be used:

- an **ARD** Structural Design file, created in ArtiosCAD or Studio Toolkit for Boxes, mainly used for boxes. For an ARD file, the entire box is one single printable part.
- an **ACD** Canvas file, created in ArtiosCAD, contains one or more printable parts.



Note: Copies of the 3D Shape in ArtiosCAD will share the same printable part. In order to apply different graphics on multiple shapes coming from the same ARD file, you should import this ARD file multiple times into the canvas file. That way, each shape will have its own printable part.

• Collada files, containing one or more 3D shapes with at least one printable part (.dae or .zae files). For Collada files, a printable part is an Esko extension. A collada file can contain one or more printable parts, such as a flexible bag, one or more labels on a bottle, a shrink sleeve, A Collada file can also contain non-printable parts, such as the glass bottle itself. Collada files with one or more printable parts can be created in ArtiosCAD or Studio Toolkit.



Note: More technical information on Printable Parts in Collada files can be found in the white paper you can find in the Studio documentation: https://www.esko.com/en/support/product? id=Studio

With the Structural Design Import plug-in, you can place printable part(s) of a Structural Design file in an Illustrator document.

Structural Design Layer

After opening or placing a structural design file, the file appears in the Adobe Illustrator layer palette. The Structural Design paths are special paths that cannot be modified accidentally. By default the Structural Design layer and its sublayers will be locked. You can unlock the Structural Design layers. This enables you to select individual Structural Design paths and use the illustrator alignment tools to align graphics to the Structural Design paths.

5.2.2. Open or Place an ARD, ACD, DAE, ZAE file

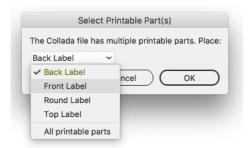
A dedicated **Place File** showing only Structural Design files is found in the **File** menu. Choose **File** > **Structural Design** > **Place File....**

In case a Collada file is placed, a check is performed to see if the Collada file has a printable part defined. See *General Principles* on page 68

If a Collada file or ACD file contains multiple printable parts, a dialog will ask you to choose one or to place all. Choose the part(s) of which you want to create the graphics in Adobe Illustrator.

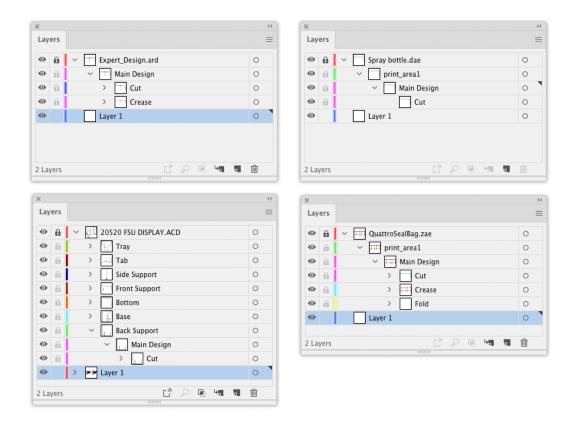






After opening a Structural Design file, the Structural Design objects are converted to special Illustrator objects.

The Structural Design layers are converted to locked Illustrator sublayers so they can't be changed accidentally. You can unlock these layers. They are grouped under a layer that gets the name of the Structural Design file.



The different Structural Design line styles (cuts, creases, bleed) are translated to hard-coded custom colors. All ArtiosCAD line styles are supported.



Generic special rule	Text & Dimensions
Nick	Cut
Print registration	Crease
Outside bleed	Second Height Crease
Inside bleed	Matrix Crease
Outside coating	Generic perforation
Inside coating	Partial Cut
Glue	Generic Cut and Crease
Print images	Generic Perf in Channel
Annotation	Glue assist
Annotation2	Reverse crease
Annotation3	Reverse partial cut
Annotation4	Partial cut and crease
Annotation5	Half crease
Other lines	Side bevel

Opening an Illustrator file with a placed Structural Design file

When an Illustrator file is opened that contains Structural Design data, two checks are performed.

- 1. First of all, the plug-in checks whether the Structural Design file still can be found in its original place. If that is not the case, the plug-in will look for the Structural Design file in the same directory where the Illustrator file is. If it finds the Structural Design file there, it will use this Structural Design file instead, otherwise, you will be asked to browse to the new location of the file.
- **2.** A second check is performed to see if the Structural Design file has been modified since it was originally embedded in this Illustrator file. If so, the Illustrator document will be updated.

See also Update the Structural Design File on page 72

Adding or replacing a Structural Design File

If a Structural Design file is already loaded and you place a new Structural Design file, the new Structural Design file will be placed next to the already loaded Structural Design file.

If you want to replace an already placed Structural Design file, choose **File** > **Structural Design** > **Replace**. See *Replace the Structural Design File* on page 72

Placing or opening

The difference between placing and opening a Structural Design file is that when opening a Structural Design file, the artboard will adopt the size of the bounding box of the structure. When placing a Structural Design file, the artboard will not be changed.

Large Canvas mode

In Adobe Illustrator versions before 24.2 (released june 2020), the maximum size of an Adobe Illustrator document was 5,779 by 5,779 meter or 227,52 by 227,52 inch ("standard size").

In Adobe Illustrator 24.2 and later, when creating an Adobe Illustrator document, you can use larger sizes. In that case, the document is in "Large Canvas Mode". The maximum size of an Adobe Illustrator document in Large Canvas mode is 10 times larger: 57,79 by 57,79 meter or 2270 by 2270 inch.



When opening a Structural Design file, the Adobe Illustrator document is created in regular mode. If the printable part you place doesn't fit the "standard size" canvas, you can choose to create a document in "Large Canvas Mode", and place the structural design file in the newly created large-sized Adobe Illustrator document.



Warning: When you save or export the artwork created on a large-sized canvas to a legacy Illustrator document (lower than Illustrator 2020), the artwork will appear ten times smaller. In this case, the Structural Design Import plug-in will expand all structural design artwork. This means that the artwork will no longer be tagged as Structural Design objects, and will become regular Illustrator art. The structural design data will no longer be live in such a legacy document.

5.2.3. Update the Structural Design File

If any of the Structural Design files has been modified while still editing the Illustrator file, an update of the Structural Design files can be forced. All Structural Design files placed in the current Illustrator document will be updated. Choose **File > Structural Design > Update All**

5.2.4. Replace the Structural Design File

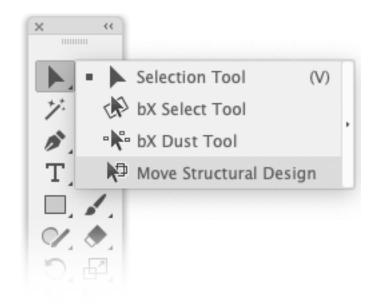
If you want to replace the placed printable parts of a Structural Design file while preserving the alignment between the technical drawing and the artwork, you can **replace** a Structural Design file.

Choose File > Structural Design > Replace and select the name of the file you want to replace

5.2.5. Align Structure and Graphics

Interactive Move Structural Design tool





The **Move Structural Design** tool has been added underneath the Illustrator select tool. Select this tool to move the Structural Design interactively without unlocking the Structural Design layers. Hold down the mouse button and drag to move the Structural Design.

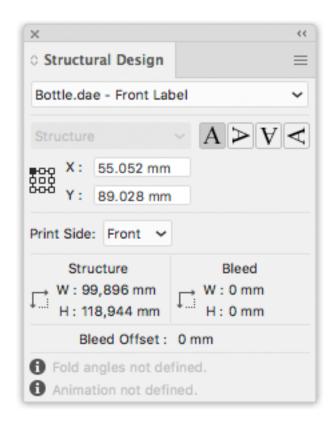


Tip:

If you choose **View > Smart Guides**, the Structural Design will snap to the graphics.

Structural Design window





The Structural Design palette provides information on the bleed and structure contours of the selected printable part. It allows you to rotate or numerically move the contours.

Open the palette by choosing Window > Esko > Structural Design > Show Structural Design Window.

If your document contains multiple printable parts, you can use the dropdown to select the printable part for which you want to see or change the information.

If your selected printable part contains a bleed contour, you can use the dropdown to choose whether you want to see the position of the bleed or of the structure bounding box.

The upper part gives you the coordinates of the (left, top) point of the bounding box around the structure (cut and crease) or bleed contours. The coordinates are relative to the origin of the Illustrator file. You can choose to see the coordinates of nine points on the bounding box. You can also choose to see the position of the bounding box around the bleed contour.

By entering a new value in the X and Y entry fields, you move the selected point to the new position.

It is possible to flip the Structural Design so that you can add graphics to the back of the Structural Design. This feature is enabled for ArtiosCAD files and for Collada files with a placed printable part that can have graphics applied to the back side.

The lower part of the palette shows the width and height of the **Structure** and **Bleed** bounding boxes. **Bleed Offset** indicates the offset between the structure and the bleed contour.

The bottom part provides information whether or not fold angles and animation were defined in the structural design.



Click one of the **Rotation** icons to rotate the Structural Design contours. Rotation always happens around the center of the structure contour.

5.2.6. Create Varnish Plate

Choose Window > Esko > Structural Design > Create Varnish Plate....



- If you choose **Use Bleed Outline** then the contour will be created from the bleed outline minus the coating free areas (if any).
- If you choose **Use Artboard**, then the contour will be created from the Artboard minus the coating free areas.
- If you choose **Use Bounding Box of Structure**, then the contour will be created from the Bounding Box of the structure minus the coating free areas.



Note: When using **Use Bleed Outline** or **Use Bounding Box of Structure**, a varnish plate will be created for every printable part in the current Illustrator document.

When choosing **Use Artboard** or **Use Bounding Box of Structure**, you can specify a positive or negative offset. The resulting varnish plate will be enlarged or shrunk with the specified offset in relation to the artboard or the bounding box.

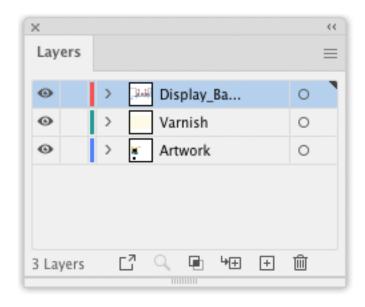
This tool outputs a contour filled with a light-yellow spot color. This contour will be put in a new layer named 'Varnish'. This layer will be inserted directly under the Structural Design layers.



Note:

Create Varnish Plate will automatically exclude the coating free zones in the Structural Design file, if any.





5.2.7. Expand Structural Design Layer

Choose Window > Esko > Structural Design > Expand Structural Design Layer....



Select the Structural Design layer that you want to expand into a new Illustrator layer. If there are multiple printable parts with a Structural Design layer with the same name, they will all be expanded.

All art on the Structural Design layer will be copied to the new Illustrator layer. The art on the new layer is no longer tagged as Structural Design objects.

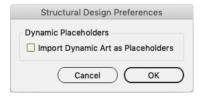
In Normalized PDF mode, the resulting objects are in the technical Structural Design inks. In PDF+ mode they will share the same processing step types of the corresponding layers in the Structural Design. See also *Normalized PDF or PDF+* on page 49 and *Processing Steps* on page 60.



One common use where you would use this tool is when you are interested in creating a clipping path from the bleed outline of the Structural Design file.

5.2.8. Structural Design Preferences

You can open the Structural Design Preferences by choosing **Illustrator** > **Preferences** > **Esko** > **Structural Design Preferences...** on MAC or **File** > **Preferences** > **Esko** > **Structural Design Preferences...** on PC.



ArtiosCAD files can contain Dynamic Art placeholders. Using these placeholders, a structural designer can for example tell the graphics designer where the barcode should be placed on the design. If the option **Import Dynamic Art as Placeholders** is enabled, and you have the **Dynamic Art** plugin installed, a live Dynamic Art placeholder object will be created for every ArtiosCAD Dynamic Art. These placeholders can then be filled automatically with their content. For more information, we refer to the Dynamic Content documentation. See https://www.esko.com/en/support/product?id=Dynamic %20Content%20Advanced

5.3. Exporting Structural Design files

5.3.1. Structural Design Export

The Structural Design Export saves a copy of the selected Structural Design file to a new location, The Illustrator file will link to the newly saved Structural Design file. Choose **File** > **Structural Design** > **Export** and select the Structural Design you want to export.

If you are exporting an Artios Canvas file (.acd) containing multiple printable parts, you can choose to export the ACD file as a single ACD file, or as multiple individual ARD files, one for each part.

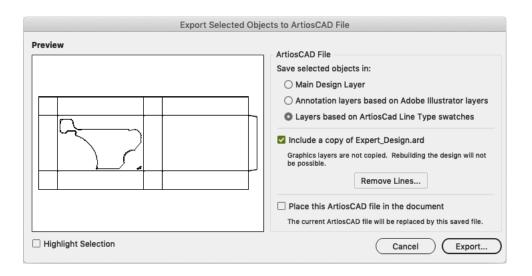
5.3.2. Export Selected Objects to ArtiosCAD File

ArtiosCAD Export adds the item **Export Selected Objects to ArtiosCAD File** to the **Structural Design** menu. Only ARD files can be included when exporting to a new ArtiosCAD file.

Select the contours to export to the ARD file and choose **File > Structural Design > Export Selected Objects to ArtiosCAD File**.

The Export Selected Objects to ArtiosCAD File dialog opens.





Save selected objects in

You can choose to save the selected objects in the Main Design Layer or in Annotation Layers. If you save them in Annotation Layers, an ARD file will be created with annotation layers with the same name as the illustrator layers.

Next to this, you can choose **Layers based on ArtiosCAD Line Type swatches**. If the selected objects are stroked with a swatch color with an ArtiosCAD line type name (e.g. cut, crease, bleed), then this option will create layers depending on the stroke color name:

- · Cut and crease lines will go to a Main Layer
- Outside Bleed lines will go to an Outside Bleed Layer
- Outside Coating lines will go to an Outside Coating Layer
- Dimensions and text will go to a Dimension Layer
- All other linetypes will go to an Annotation Layer

For convenience, a swatch library ArtiosCAD Line Types is included with the plug-in. You can display the swatch library by selecting **Window** > **Swatch Libraries** > **ArtiosCAD Line Types**. In this swatch library, all ArtiosCAD design line types have been predefined.

Include a copy of ****.ARD

You can choose to include a copy of the ARD file that was loaded in the Illustrator document that is closest to the selected objects. The resulting ARD file will contain the selected objects AND what is in the CAD layers in Illustrator.

Remove lines

It is possible to remove some lines of the original ArtiosCAD file. This is meant to modify cutout windows. Do not attempt to remove fold lines with this tool. If you do this, the original fold angles will be lost.

Place this ArtiosCAD file in the document

If you switch this option on, the resulting ARD file will be placed in the Illustrator document. It will replace the Structural Design file that was loaded originally.



Preview

In the preview window, you see a preview of what will be saved. You can highlight the selected contours by toggling on Highlight Selection. You then see the distinction between the contours that are newly added to the resulting ARD file and those contours that come from the original ARD file.

If you click **Export**, you can set the name and location for the file to be saved.

If you have an ArtiosCAD file loaded in your Illustrator document, the software suggests as file name the name of the loaded ArtiosCAD file followed by _copy.

We recommend you not to overwrite the original ARD file as some functionality of the ARD file will be lost: graphics layers are not copied and it will not be possible to rebuild the created ARD file and text will be contourized.



Note:

Placed EPS objects and/or pixel-based objects cannot be copied to an ARD file. The fill color of the selected contours is not maintained in ArtiosCAD. Rather, the stroke color of the contour determines the line type in ArtiosCAD. If the selected contour is in the Main Design layer, the pointage of the contour will be 2. In all other cases, the pointage will be 0.

5.3.3. ArtiosCAD - Copy to Clipboard



Note:

This function is only available on PC.

It can be found on the Edit menu:

ArtiosCAD - Copy to Clipboard copies the selected contours to the Windows Clipboard. They can directly be pasted into ArtiosCAD. If you have the same ArtiosCAD workspace open in ArtiosCAD and have not modified it since opening it in Illustrator, when you paste the contents of the clipboard into ArtiosCAD, they use the same placement as was used in Illustrator. This function is useful for ArtiosCAD users who need shapes from the graphics to be added to the box design.

Copy to Clipboard also offers you the possibility to add the ARD file that is currently loaded in the Illustrator document that is closest to the selected objects. Keep in mind that graphics layers are not copied. The resulting ARD file is also not rebuildable and text will be contourized.

ArtiosCAD - Copy to Clipboard	
☐ Include a copy of Pasta.ard	
Graphics layers are not copied. Rebuilding the design will not be possible.	
04	
OK	Cancel





Note:

Placed EPS objects and/or pixel-based objects cannot be copied to an ARD file. The fill color of the selected contours is not maintained in ArtiosCAD. The stroke color of the contour determines the line type in ArtiosCAD. If the selected contour is in the Main Design layer, the pointage of the contour will be 2. In all other cases, the pointage will be 0.

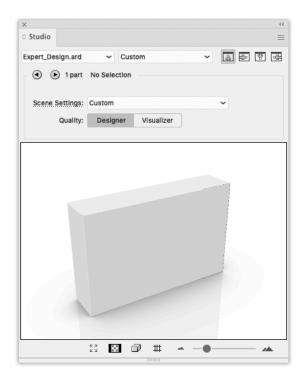
5.3.4. Relationship between stroke color in Illustrator and line type in ArtiosCAD

If the contours are stroked with a swatch color with an ArtiosCAD line type name (e.g. cut, crease), then the corresponding items in ArtiosCAD will have the corresponding line type. For example, if you give your contour a stroke color with as name 'Annotation', the contour will be in line type 'Annotation' in ArtiosCAD. If the name is not an ArtiosCAD line type name, the contour will be a cut line. For convenience, a swatch library ArtiosCAD Line Types is included with the plug-in. You can display the swatch library by selecting **Window** > **Swatch Libraries** > **ArtiosCAD Line Types**. In this swatch library, all ArtiosCAD design line types have been predefined.

5.3.5. How to add a cutout window to an existing ArtiosCAD file?

1. Open or place an ARD file.

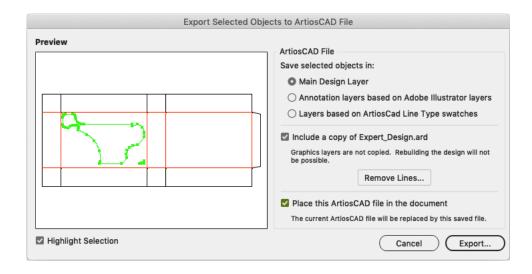
If you also have Studio Designer, you will see a 3D view of your folded box in the Studio window.





- 2. Create and select the cutout shape that you want to add to the ArtiosCAD file.
- 3. Choose File > Structural Design > Export Selected Objects to ArtiosCAD File.

The Export Selected Objects to ArtiosCAD File appears.



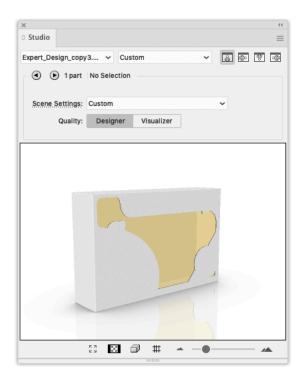
- **4.** Do one or more of the following:
 - Save the selected objects in the Main Design Layer.
 - Include a copy of the original ARD file.
 - Place this ArtiosCAD file in the document.

For more information on the different options, please refer to Export Selected Objects to ArtiosCAD File on page 77.

5. Click Export.

The selected objects are saved in the **Main Design Layer**. They get the cut line type (which is the default if you did not specify a swatch with as name an ArtiosCAD line type). Apart from the selected objects, the original ARD file is copied in the resulting ARD file and the resulting ARD file is immediately placed in the Illustrator document. If you have **Studio Designer**, you will automatically see the ARD file with the cutout folded in 3D:

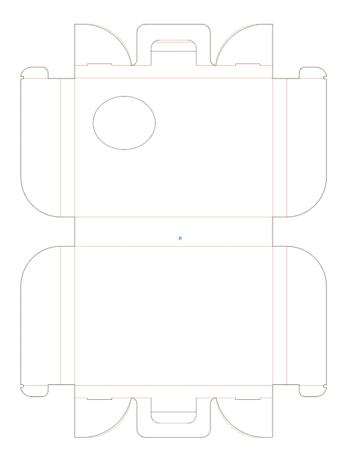




5.3.6. How to modify a cutout window in an ArtiosCAD file?

1. Open or Place an ARD file that already contains a cut-out window.



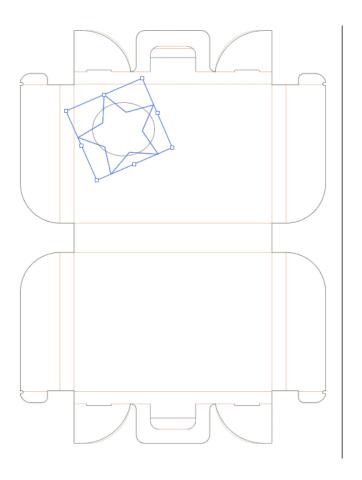


If you also have **Studio Designer**, you will see a 3D view of your folded box in the Studio window.



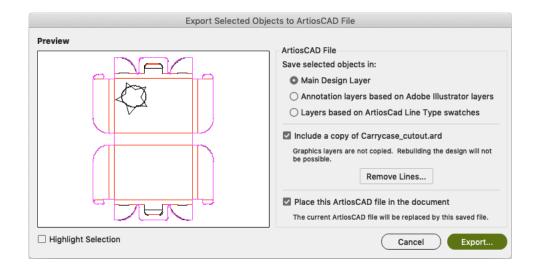


2. Create and select the new cutout shape that you want to add to the ARD file.



3. Choose File > Structural Design > Export Selected Objects to ArtiosCAD File.

The **Export Selected Objects to ArtiosCAD** File appears.

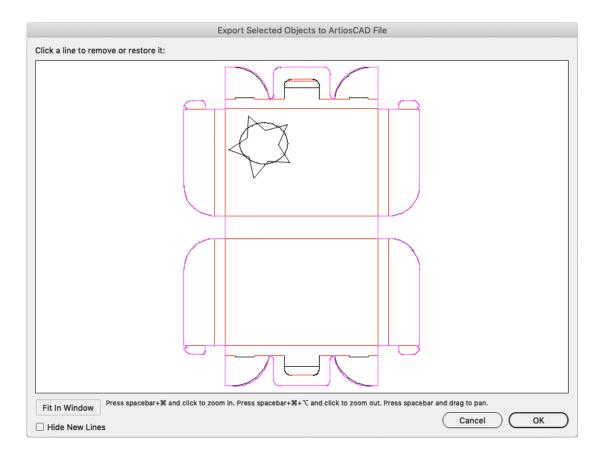




In the preview window you notice that you do not get the desired result. We need to remove the original cutout window.

4. Click Remove Lines.

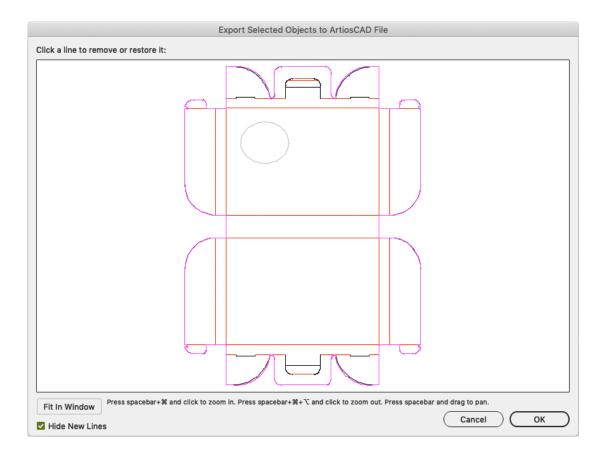
The Remove Lines dialog appears.



- **5.** In this dialog, you can select the lines you would like to remove. It will not be possible to select the new lines. You can choose to hide the new lines by enabling **Hide New Lines**.
- **6.** Click and drag a rectangle around the original cutout window.

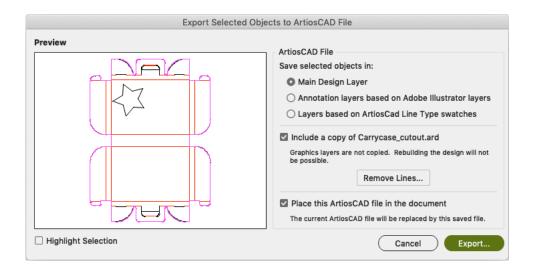
This window will be grayed out. This means that it will be removed in the final ARD file.





7. Click OK.

This bring you back to the **Export Selected Objects to ArtiosCAD File** dialog. In the preview window you notice that the original cutout has been removed.



- 8. Click Save As.
- 9. Specify a file name in the Save As dialog.

The software suggests the name of the loaded ArtiosCAD file followed by _copy.



10. Click Save.

If you have **Studio Designer**, you will automatically see the ARD file with the new cutout folded in 3D.





6. The Page Box Plug-in

6.1. Introduction

Page Boxes are used to define the outside borders and margins of your document, and it is used in the Esko Software Suite workflow environment.

Page Box definitions are saved as part of the Illustrator file used by the plug-ins Shuttle and PowerLayout Client.

Page Boxes are not taken into account when printing directly from Adobe Illustrator, nor are they exported when exporting to a non-native format via standard Adobe plug-ins. They do not appear as objects in the Layers palette.

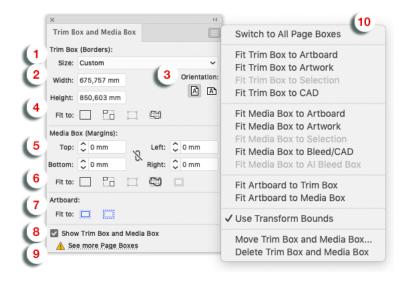
You can find the Page Box plug-in in Window > Esko > Trim Box and Media Box

The Page Box plugin can work in two modes:

- Trim Box and Media Box (defining only those two page boxes). See Trim Box and Media Box on page
 88
- All Page Boxes. See All Page Boxes on page 92

You can switch mode by selecting **Switch to [mode]** from the fly-out menu.

6.2. Trim Box and Media Box



- 1. **Trim Box Size**: Select the size from the dropdown list.
- 2. Trim Box Width/Length: Enter the Width/Length if you want a custom size.





Tip:

The units are defined in the Illustrator preferences.

3. Trim Box Orientation: Select the orientation: portrait/landscape.



Note:

When the Trim Box is being dragged or Width or Height editboxes edited, the radio buttons Portrait/Landscape flip automatically so that Landscape is active whenever Width > Height and Portrait whenever Width < Height.

4. Fit Trim Box to

- Fit Trim Box to Artboard
- Fit Trim Box to Artwork
- Fit Trim Box to Selection
- Fit Trim Box to CAD
- 5. Media Box (Margins) enter the top, bottom, left and right values.



Tip

The units are defined in the Illustrator preferences.

6. Fit Media Box to

- Fit Media Box to Artboard
- Fit Media Box to Artwork
- Fit Media Box to Selection
- Fit Media Box to Bleed / CAD (when no bleed was defined the cad will be taken as reference)

7. Fit Artboard to

- Fit Artboard to Trim Box
- Fit Artboard to Media Box
- 8. Show Trim Box and Media Box: To display or hide the trim Box and Media Box, use this toggle.
- **9. See more page boxes**: In case page boxes other than Trim and Media box are defined, this link will open the **All Page Boxes** version of the palette. See **All Page Boxes** on page 92

10. Trim Box and Media Box dropdown menu

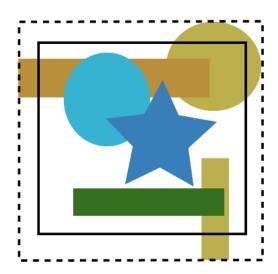
- Switch to All Page Boxes. see All Page Boxes on page 92
- Fit Trim Box to Artboard
- Fit Trim Box to Artwork

Esko Data Exchange for Adobe Illustrator



- Fit Trim Box to Selection
- Fit Trim Box to CAD
- Fit Trim Box to Crop Area
- Fit Media Box to ArtBoard
- Fit Media Box to Artwork
- · Fit Media Box to Selection
- Fit Media Box to Bleed / CAD (when no bleed was defined the CAD will be taken as reference)
- · Fit Media Box to Al Bleed Box
- Fit Artboard to Trim Box
- Fit Arthoard to Media Box
- Use Transform bounds: if this option is enabled, TrimBox/MediaBox will respect as they are defined in Adobe Illustrator. If disabled, TrimBox/MediaBox will respect visible bounds.
- Move Trim Box and Media Box ... open the 'Move Trim Box and Media Box' interface
- Delete Trim Box and Media Box

The figure below illustrates the Trim Box (borders) and Media Box (margins) of an output document as interpreted on an Esko system. The full black line represents the borders (corresponding to one of the above options) while the dotted black line indicates the margins of the document:



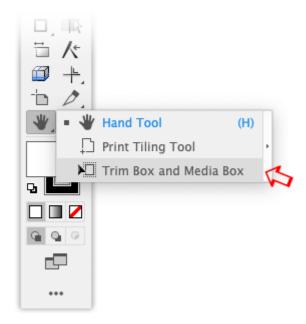
6.2.1. Moving and Scaling Trim Box and Media Box

To move or change the size of the Trim and Media Boxes, you can either

- Select the Trim and Media Box Tool from the Al tool palette.
 Use the Trim and Media Box to click and drag the Trim and Media Box.
- Select the Trim and Media Box Tool from the Al tool palette.
 - ALT +drag = scale from the center out
 - SHIFT + drag = constrained scaling



• ALT + SHIFT + drag = constrained scaling from the center out



OR

- Select a preset from the drop down menu. OR
- Use the numeric input field. The numeric input field appears when you select **Move Trim Box and Media Box** in the dropdown menu.





Tip:

Double-clicking Trim and Media Box tool in toolpalette opens the 'Move Trim Box and Media Box' dialog.

OR

· You could use one of the "fit to" options (to Artboard, artwork, selection, cad or crop area).



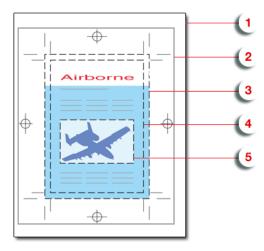
Tip:

The units are defined in the Illustrator preferences.



6.3. All Page Boxes

Using the **All Page Boxes** mode, you can set all 5 page boxes: Media Box, Crop Box, Bleed Box, Trim Box and Art Box

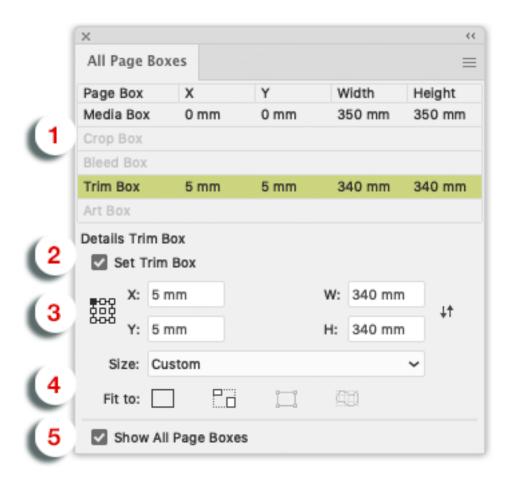


- 1. Media box: this is the page format
- 2. Crop box: includes the Bleed box and all marks.
- **3.** Bleed box: defines the trimmed page plus the bleed.
- 4. Trim box: this is the net document format.
- 5. Art box: the Art box can be used to specify any section of the page.

You can see the dimensions of all Page Boxes in the Page Box list. You can

- 1. Select a Page Box in the list. Its details will be shown in the bottom part of the dialog.
- 2. Enable (or disable) the specific page box by enabling the **Set [...] Box** option.
- **3.** Enter the offset, width and heigth. You can click the button to swap width and height. In the **Size** dropdown, you can select any of the preset sizes.
- **4.** Click one of the **Fit to** buttons to fit the selected page box respectively to the ArtBoard, Artwork, Selection or CAD.
- **5.** Use the **Show All Page Boxes** to show or hide all Page Boxes in your job.







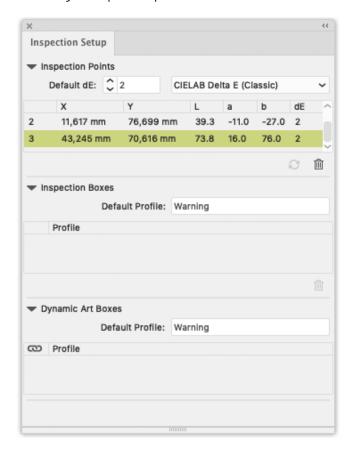
7. The Inspection Setup Plug-In

The Inspection Setup Plug-In allows you to define Inspection points or Inspection boxes in your job.

For each of these Inspection points, you will see the Lab value and DeltaE. For every Inspection box, you can set the Profile. Inspection points and boxes will be exported, e.g. to be used in an Inspection System in inline presses. This Inspection System will warn if the values measured at a specific position are more different from the entered Lab values than the allowed deltaE, or if the Inspection box or Dynamic Art box doesn't match the defined profile.

The plug-in consists of

- the **Inspection Setup tool** , under the Eyedropper tool in the toolbar
- the **Inspection Setup palette**, which can be opened by selecting the Inspection Setup tool, or by adding an Inspection point.



7.1. Adding and changing Inspection points

The **Inspection Setup palette** shows all the Inspection points, indicating the coordinates (distance from the top left corner of the trim box), Lab value and default deltaE value.



Select the **Inspection Setup tool** from the Illustrator toolbar and click in the job to insert a new Inspection point.

The Inspection point will be visible in the job, with its number next to it.

- Select an Inspection point in the palette to highlight the corresponding Inspection point on the Illustrator job. You can select multiple Inspection points
- Select one or more Inspection points and click the **delete** button to delete the Inspection points
- You can manually change the Lab and deltaE value for every Inspection Point.
- Click the **Refresh** button to update the Inspection Point list.
- You can move an Inspection point in two ways:
 - Click within the Inspection point, and drag it to the new location
 - In the Inspection Point list, change the coordinates for the Inspection point.

7.2. Adding and changing Inspection boxes

The **Inspection Setup palette** shows all the Inspection boxes.

• Select the **Inspection Setup tool** from the Illustrator toolbar and click and drag in the job to insert a new Inspection box.

The Inspection box will be visible in the job, with its number next to it. When creating a new Inspection box, the **Default Profile** is used

- Select an Inspection box in the palette to highlight the corresponding Inspection box on the Illustrator job. You can select multiple Inspection boxes.
- Select one or more Inspection boxes and click the **delete** button to delete the Inspection boxes
- You can manually change the Profile.
- You can move or change an Inspection box in different ways:
 - Click on the center point of the Inspection box, and drag it to move the Inspection box to a new location
 - Click one of the 8 handles on the Inspection box, and drag to modify the Inspection box

7.3. Dynamic Art Placeholders

The Dynamic Art section of the **Inspection Setup palette** shows all Dynamic Art placeholders defined in the job.

• Enable the checkbox in front of a Dynamic Art placeholder to use it as an Inspection box.

When adding a Dynamic Art placeholder, the **Default Profile** is used





- Select a Dynamic Art placeholder in the list to highlight the corresponding Dynamic Art placeholder on the Illustrator job. You can select multiple Dynamic Art placeholders
- You can manually change the **Profile**.
- Disable the checkbox in front of a Dynamic Art placeholder to stop using it as an Inspection box.

7.4. Import and Export

When exporting Normalized PDF, Inspection points and boxes added to a job are saved in the PDF file, and these Inspection points and boxes will be recognized by Packadge and Automation Engine.

Also, when opening a Normalized PDF from another Esko product (such as PackEdge), the Inspection points and boxes information stored in the PDF document will be shown in the Inspection Setup palette.



Note: Dynamic Art placeholders are not saved as such in Normalized PDF. The selected Dynamic Art placeholders will be exported as "Inspection Box". If you import the Normalized PDF in Adobe Illustrator again, or open the Normalized PDF file in e.g. Packedge, these Dynamic Art placeholders will be shown as Inspection Boxes



8. Messages

The **Messages** plug-in is included with all Esko DeskPack plug-ins.

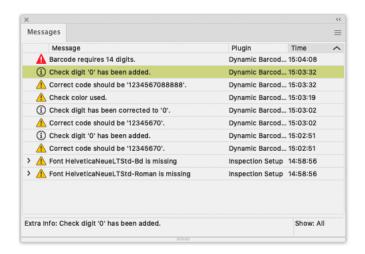
It displays the information, warnings and errors from all the other DeskPack plug-ins, and tells you which plug-in generated them.

You can filter the messages you see when the Messages palette is open, and clear or save all messages if you need to.

8.1. The Messages Palette

The **Messages** palette pops up automatically when another DeskPack plug-in generates a warning or an error.

You can also open it from Window > Esko > Messages.



This palette shows you:

- the message's severity (information, 🗥 warning or 🛕 error),
- the message's text in the Message column,
- · which Plugin generated the message,
- the **Time** the message was generated at.

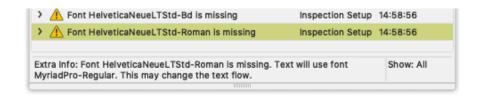


Tip: You can click the column headers to sort the messages, and drag the columns horizontally to adjust their widths.

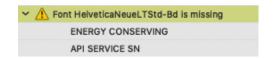
You can also use the palette to get extra information and / or select the objects that generated warnings or errors:

• click a message to display extra information at the bottom of the palette.





• click the triangle in front of a message to see the list of objects it relates to.



- click one of the objects in the list to select it in the file.
- double-click that object to select it and zoom in on it in the file.
- double-click the message to select and zoom in on all objects it relates to in the file.

8.2. Filtering the Messages

You can show or hide certain types of messages using the palette's fly-out menu.

- To hide:
 - all informational messages, select **Hide Info Messages** in the fly-out menu,
 - · all warnings, select Hide Warning Messages,
 - all errors, select Hide Error Messages.
- To show them again, select either:
 - Show Info Messages,
 - Show Warning Messages,
 - Show Error Messages.
- To only show the last message, select **Show Last** in the fly-out menu.
- To show all messages again, select **Show All**.

When showing all messages, you can see **Show: All** at the bottom right of the palette.

When filtering messages (for example filtering out the warning messages, or showing only the last message), you can see **Show: Filtered** at the bottom right of the palette.

8.3. Saving the Messages

To save all messages in a text file:

- 1. Select Save Messages as... in the fly-out menu.
- 2. In the browser window that opens, choose the name and location to use for saving your file.



8.4. Clearing the Messages

• To remove all messages from the **Messages** palette, select **Clear** in the fly-out menu.



9. Esko Document Setup

By choosing File > Esko Document Setup you can open the Esko Document Setup dialog.

The settings made here are saved in the Esko XMP Document Information.

9.1. Distortion

The vertical and horizontal distortion value is saved with the document and used by Esko RIPs when generating the final output. It allows to compensate for distortions in certain printing methods, e.g. flexography. On mounting a flexo plate on the press, it is stretched out in one direction. By making the output slightly smaller than needed (e.g. 95%), we compensate for this distortion.

Values for vertical and horizontal distortion is limited to 90% - 110%.

9.2. Screen Registration

The Screen Registration parameter allows to choose

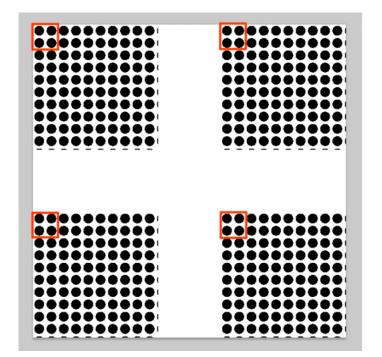
• if the RIP should reset the screening origin for every one-up

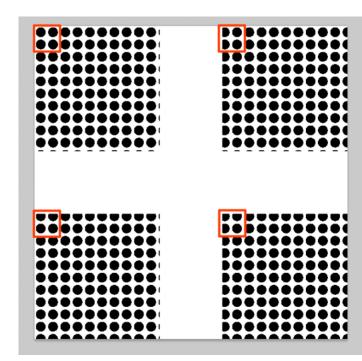
or keep the same screening origin for the complete document

Below a schematic representation of a Repetition with (left) and without (right) resetting the screen origin for every one-up.











10. Annotations

With the **Annotations** plugin, you can view .xfdf annotations generated by Global Vision and WebCenter.

Since version 16, Global Vision SDK has been integrated in Esko's Automation Engine, allowing several types of Global Vision Check tasks to be run.

The output of a Global Vision Check is an .xfdf file, highlighting the found errors and problems on the document.

The .xfdf file can be loaded (see *Loading XFDF files* on page 102) and the annotations are shown in the Annotations palette (see *The Annotations palette* on page 102).

10.1. Loading XFDF files

Whenever a file is opened in Adobe Illustrator, the Annotations plugin will try to find the corresponding XFDF file to open.

- For GlobalVision annotations, the supported file types are Adobe PDF, Normalized PDF and Adobe Illustrator file
- For WebCenter annotations, the supported file types are Adobe PDF, Normalized PDF, Adobe Illustrator file, Adobe Illustrator ZIP file and ARD.

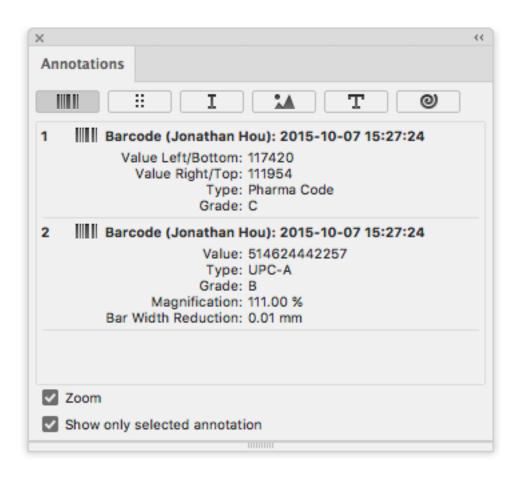
If for example a file "sample.pdf" is opened, the plugin will search for the corresponding .xfdf file in the following locations, in the specific order shown below.

- 1. .view/sample.pdf/*.xfdf
- 2. .view/sample*.xfdf
- 3. sample*.xfdf
- 4. ./sample wcr.xfdf for WebCenter annotations

10.2. The Annotations palette

The Annotation palette will show all Annotations found in the .xfdf file. You can open the palette by choosing **Window** > **Esko** > **Annotations**.





There are different types of annotations: Barcode, Braille, Spell Check, Artwork, Text Compare and WebCenter annotations.. You can browse to them by clicking the buttons on top of the palette.



Note: If the document only contains WebCenter annotations, you will not have any filtering options. If your document only contains Global Vision annotations, the "WebCenter" button will be hidden.

For every issue found, an entry in the list is shown. Some of these annotations have text content, while others can have an image preview, showing the difference between the actual artwork and how it should look.

If **Show only selected annotations** is enabled, only the annotations you select in the list will be highlighted in your job using a colored rectangle. Otherwise, all annotations in the job will be highlighted.

If Zoom is enabled, selecting an annotation in the list will automatically zoom in on the issue.

10.3. Multipage PDF files with Annotations

An XFDF file can contain annotations for a multipage PDF. Every annotation will have a reference to what page it belongs to.



If you import a multipage Normalized PDF, the plugin knows what page you imported, and only the Annotations for that specific page will be shown.

If you import a multipage PDF as Adobe PDF, the plugin can't know what page you imported. In that case, the Annotation palette will have a dropdown at the bottom of the palette, to decide for what page you want to load the annotations.



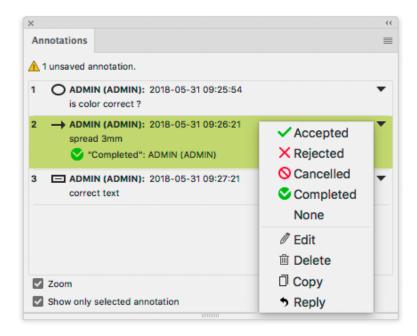
Note: Multi-page annotations is not supported for WebCenter annotations

10.4. Editing WebCenter annotations

You can edit existing WebCenter annotations or create new annotations, and save them back to WebCenter.

To create new annotations, you can use the Annotation Tool. See *Creating new annotations using the Annotation Tool* on page 105

For every annotation (or reply), you can use the dropdown menu to modify the annotation.

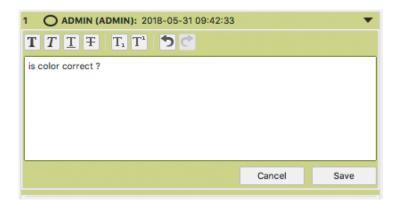


- Select Accepted. Rejected, Cancelled, Completed, or None to change the status of the annotation accordingly.
- Select **Edit** to change the text of an annotation, or to move or resize the annotation.

You can click and drag the annotation to move it, or you can click and drag any of the handles on the annotation to resize it.

The dialog will be extended, offering text editing options.







Note: Clicking the **Save** button will store your changes in the (local) annotation, but will NOT save the annotation back to WebCenter. The annotation will be an "unsaved annotation" until you use **Save Annotations** from the fly-out menu. See below.

- Select **Delete** to remove the annotation.
- Select Copy to copy the content of a comment or annotation. This will open the Copy to Clipboard dialog. Select the text you want to copy, and click Copy.
- Select Reply to add a reply to an annotation.



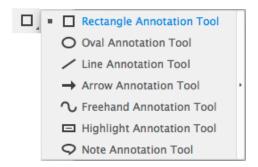
Note: You can only reply to an annotation, not to a reply.

If there are unsaved changes in the annotations, the Annotations palette will show a warning.
 Choose Save Annotations from the fly-out menu in the Annotations palette to save the new or modified annotations back to WebCenter. See Updating and Saving Annotations on page 106

10.5. Creating new annotations using the Annotation Tool

Using the **Annotation Tool** you can create new annotations.

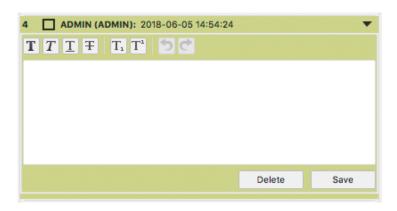
1. Click the **Annotation Tool** in Adobe Illustrator's tool box.



2. Select the type of annotation you want to create.



- 3. Click or drag where you want to create the annotation.
- 4. In the Annotations palette, enter the text for the annotation



- 5. Click the Save button to store your annotation text, or click Delete to remove the annotation.
- **6.** If necessary, repeat the previous steps to create additional annotations.
- 7. Choose **Save Annotations** from the fly-out menu in the Annotations palette to save the new annotations back to WebCenter. See *Updating and Saving Annotations* on page 106

10.6. Updating and Saving Annotations

Each annotation contains a time stamp of creation. In case the source file is modified and saved later than the annotation, a warning icon will be shown on top of the palette, indicating the annotations might be out of sync with the document.

Also when you edit Annotations (see *Editing WebCenter annotations* on page 104) or create new annotations (see *Creating new annotations using the Annotation Tool* on page 105), a warning icon is shown, indicating that these annotations are unsaved.

You can use Save Annotations from the fly-out menu to save all unsaved annotations to WebCenter.

You can use **Update Annotations** from the fly-out menu in the Annotations palette to get the latest annotations from WebCenter.

If you select **Update Annotations** while your document contains unsaved annotations, a warning will be shown, asking if you wish to save the annotations. You can select **Yes** to save the annotations to WebCenter, or click **No** to ignore the unsaved changes and get the latest annotations from WebCenter.



Note:

In case the annotations can not be loaded or saved (e.g. you are no longer logged in with WebCenter Connector, there are no annotations available for the document, or the document no longer exists) you will get a warning message indicating why loading or saving didn't work.

You can not save annotations, edit annotations or reply to an annotation if the Annotations plugin is older than version 16.1.2, or if the WebCenter Connector plugin or WebCenter server is not the latest version.



11. Share & Approve connection

The integration of DeskPack with Share & Approve allows you to

- Upload PDF files from within Adobe Illustrator to the Esko Cloud.
- Share these PDF files with other people, either working in the same company or not.
- Request users to annotate and/or approve (or reject) the document.
- Review the Annotations in Adobe Illustrator.
- Add Annotations on the document inside Adobe Illustrator.

For more information on Share & Approve, see:

- The Share & Approve Documentation
- The Share & Approve eLearning modules

11.1. Connecting to Share & Approve

The first time you select **Window** > **Esko** > **Share & Approve** you will be asked to Sign In.

- 1. Enter your Esko ID and Password.
- 2. If you want to keep the information stored, enable Remember Me
- 3. Click Sign In
- **4.** If your Esko ID is associated with multiple Esko Cloud Accounts and/or Workspaces, you will be able to choose the **Account** or **Workspace** you want to use from a dropdown.



Note: These dropdowns are only shown when you connect to Share & Approve for the very first time. Later, you can switch to another Account or Workspace by clicking the **Esko Cloud Account** link.

- **5.** If you don't have an Esko ID yet, or if no Share & Approve account is available for your Esko ID, you can click the **Register** button.
- **6.** In case you forgot your password, you can click the **Forgot Password** link to go through the password reset procedure.
- **7.** You can open a Knowledge Base article with more information on Share & Approve sign in by clicking the **Help** button.

11.2. Uploading the current document to Share & Approve

To upload the current document to Share & Approve:

- 1. If the Share & Approve palette isn't open yet, choose Window > Esko > Share & Approve
- 2. Click the **Upload** button.
- **3.** Enter the **Asset Name**. By default, the name of your document is used.



- **4.** Select the **Folder** on Share & Approve in which you want to upload the file. If necessary, you can create new subfolders by clicking **Create New Folder**
- **5.** If your document contains an ARD structural design, you can select **Upload Structural Design** to upload the Structural Design file along with the PDF. This will make 3D view in the Esko Cloud Viewer possible.



Note: In PDF+ mode, all Structural Design files will be uploaded. When working in Normalized mode, only the topmost Structural Design file will be uploaded.

6. Click Upload

The document, along with the topmost structural design file, is uploaded to Share & Approve, as a new **Asset**. Your local document will be **linked** to the Asset on Share & Approve.

If you don't want to create a new asset, you can click the **More** button and select **Upload to existing asset**. After selecting the Asset you want to add the current document to, you can choose:

- **Upload** will upload your current document as a new version for the selected asset, and the local document will be linked to the Asset.
- Link will not upload your current document, but will link the current document to the Asset.

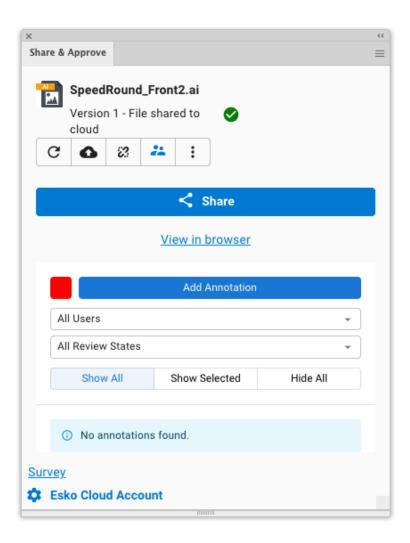


Note: Instead of uploading your document, you can click the **Share** button, to combine two actions: **uploading** the document as described here, and **sharing**. See *Sharing the document* on page 110

11.3. Working with an uploaded document

If the active document is uploaded to Share & Approve, the Share & Approve pane looks like this:





- Click the **Refresh** button to reload the information, e.g. newly added annotations.
- Click the **Upload** button to upload a new version of the document.
- Click the **Unlink** button to break the connection between the local file and the Asset in Share & Approve.
- Click the **Permissions** button to open a browser window and change the permissions for the current file.
- Click the **More** button and select **Upload to Existing Asset** to upload your document as a new version for an existing Asset.
- Click the **More** button and select **Download Report** to Download an Annotation and Approval Report for the current document. See *Download Annotation and Approval Report* on page 111
- Click the **Share** button to share the document to other people, either within or outside your own organisation. See *Sharing the document* on page 110



• In the **Annotations** section you can see and add annotations to the file. See *Annotations* on page

11.3.1. Sharing the document

By sharing a document you can have users inside or outside your organisation to view, check, annotate and accept or reject your document.

- 1. In the Share & Approve palette, click the **Share** button.
- 2. Enter the e-mail address of the user you want to share the document with. Users that are registered to the account can be selected from the dropdown by clicking the triangle. You can also enter the name of a group, defined in Share & Approve.
- For unregistered users, you can use the **language selector** to specify the language used in the e-mail notification. For registered users, the language as defined in their profile will be used.
- **4.** Enable **Request Approval** if you want the users to approve or reject the document. In that case, you can add a **Due Date** for the approval.
- **5.** When sharing the document with unregistered users, these users will receive a link to access the file without password. The **Expiration date for the link** sets how long this link remains valid.
- 6. The Assets Details display the name and location of the document. This section is read only.
- 7. Click Share.

An email will be sent to all selected users, containing a link to open the document in the Viewer.

11.3.2. Annotations

Users with whom a document is shared can view the document in the Viewer, and can add comments, named "Annotations". In Adobe Illustrator you can see those annotations and add annotations yourself.

- The Share & Approve panel will show a list of all annotations, indicating the content and the user who added the annotation
 - Using the dropdowns, you can filter the list of annotations based on the user, or based on the review state of the annotation.
- By default, **Show All** is selected, so all annotations are shown in your document. Use **Show Selected** to only show the annotations selected in the list, or **Hide All** to hide all annotations.
- · For every annotation, you can:
 - · Enter a reply
 - Click the More button and set a State for the annotation: Accepted, Rejected, Cancelled, Completed or None.
 - Click the More button and Duplicate, Edit or Delete the annotation.





Note: Annotations added in the Viewer are not immediately visible in Adobe Illustrator. To load new annotations, click the **Refresh** button

11.3.3. Download Annotation and Approval Report

You can download an Annotation and Approval Report for the current document. The Report can be in PDF or in CSV format

- In the Share & Approve panel, click the More button and select Download Report
- **2.** Define the settings for the report.
 - **Language:** Select the language wanted from the drop-down list. The default language is the language of the user.
 - Report Type: you can select Annotation, Approval or both. You can also decide to include the original PDF
 - **Version:** Select the version wanted from the drop-down list. You can select a range of versions with lower and upper bound or can select last or all. The default version set is the last version.
 - **Zoom ins:** Selecting this option displays the clear (zoomed) image of the annotations made.
 - Orientation: Landscape or Portrait
 - State Filters:: You can choose the state of the annotation before downloading the report. Select the filter from the drop-down list. The list contains None, Must Contain and Must Not Contain. If the user chooses either Must Contain or Must Not Contain, a new drop-down list will be displayed where the user can choose the different states of annotation such as None, Accepted, Rejected, Cancelled, and Completed.
 - **Users Filter:** Selecting Users Filter from the drop-down list will display a new drop-down list where you can filter the annotation based on who made the annotations.
- 3. Click Download Report. Define the name and location for the Report, and click Save



12. Color Engine

The **Color Engine** plug-in allows to add or replace inks using the Color Engine Ink Books.

12.1. Adding an ink from lnk Book

To add an Ink from an Esko Ink Book:

 Open the Add Ink from Ink Book dialog, by selecting Window > Esko > Color Engine > Add Ink From Ink Book...



- 2. In the **Choose from** dropdown, select the lnk Book you want to select a color from.
- 3. Select the ink you want to add
 - · by clicking the ink patch in the dialog
 - by entering its name or part of its name in the **Search** field. By clicking the triangle button next to the search field, you can go to the next search result.
- **4.** Click the **Add** button or double-click the ink patch to add the selected ink to the Swatches.
- 5. Repeat step 2, 3 and 4 to add additional inks
- 6. Click Done to close the dialog.

The added inks will be in the Illustrator Swatches.



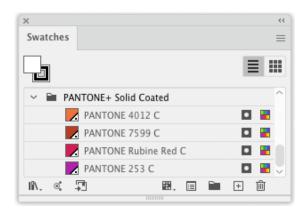
Spot colors added from an inkbook will follow the Illutrator Spot Color options, which can be found in the fly-out menu of the Swatches palette. So you define to use LAB or CMYK values BEFORE adding the ink.



Note:

If you add an Ink Book or add an Ink to an Ink Book in Color Engine, these will only be available after restarting Illustrator.

If the **Use Swatch Group** option in the Color Engine Plugin Preferences is enabled, an Ink added from an Ink book will be placed in a Group in the Illustrator Swatches. The Group will have the same name as the Ink book.





Note:

If you try to add an lnk that already exists in the Swatches, you will get the choice to update the lnk in the Swatch List using the parameters from the lnk Book, or leave the ink as is.



Note: To add an ink from an Ink Book, you need an active connection to Automation Engine, or a license to any Esko plug-in.

12.2. Insert Ink into Inkbook

If you are connected to a Color Engine server or an Automation Engine, you can insert inks into an Ink Book

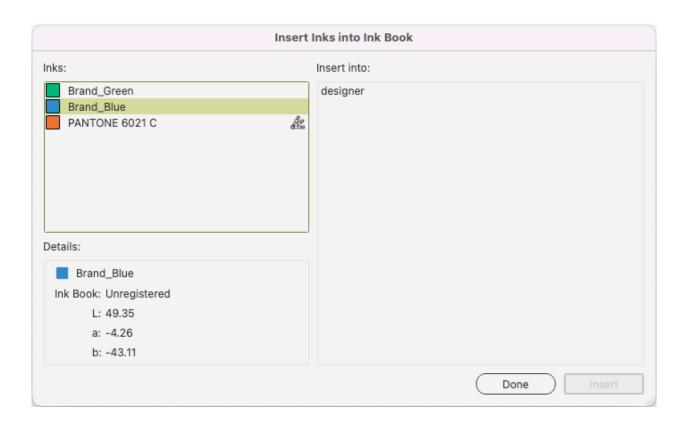


Note: You can only insert inks in ink books that allow read-write access. When you are connected to an Automation Engine SaaS server, you also need sufficient permissions.

 Select Window > Esko > Color Engine > Insert Ink into Ink Book... or in the Ink Manager, select Insert Ink into Ink Book from the fly-out menu.







The Insert Inks into Ink Book dialog opens.

• Inks shows all the spot color inks in your document, even if they are not actually used. Inks that are already in any ink book will have the Ink Book icon next to its name.



Note: If you have an ink selected in the Ink Manager when choosing **Insert Ink into Ink Book** from the fly-out menu, that ink will also be selected in the Insert Inks into Ink Book dialog.

- **Details** shows the information of the currently selected ink: the color patch, its name, the Lab values, and ink books the ink is in. When the ink is not in any ink book, it will be 'Unregistered'
- Insert into shows the list of all ink books with "Read-Write" settings. Ink books with read-only privileges are hidden. If the currently selected ink is in the ink book, the ink book will have the lnk Book icon next to its name.
- 2. Select the ink you want to add to an ink book.
- 3. Select the ink book you want to add the ink to.
- 4. Click Insert



Note: If the ink is already in the ink book, a message will be shown, and nothing is done. The ink in the ink book will **not** be updated.

5. Click **Done** to close the dialog.



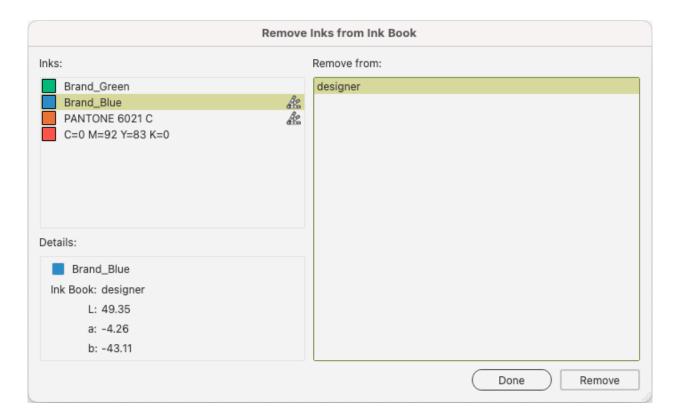
12.3. Remove Ink from Inkbook

If you are connected to a Color Engine server or an Automation Engine, you can remove inks from an Ink Book



Note: You can only remove inks from ink books that allow read-write access. When you are connected to an Automation Engine SaaS server, you also need sufficient permissions.

1. Select Window > Esko > Color Engine > Remove Ink from Ink Book... or in the Ink Manager, select Remove Ink from Ink Book from the fly-out menu.



The Remove Inks from Ink Book dialog opens.

• Inks shows all the spot color inks in your document, even if they are not actually used. Inks that are already in any ink book will have the Ink Book icon next to its name.



Note: If you have an ink selected in the Ink Manager when choosing **Remove Ink from Ink Book** from the fly-out menu, that ink will also be selected in the Remove Inks from Ink Book dialog.

• **Details** shows the information of the currently selected ink: the color patch, its name, the Lab values, and ink books the ink is in. When the ink is not in any ink book, it will be 'Unregistered'

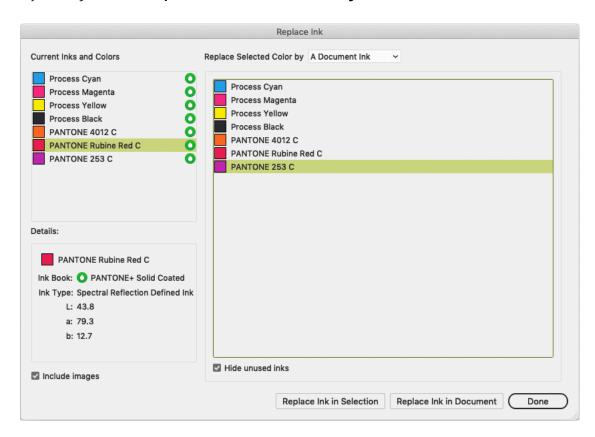


- **Remove from** shows the list of all ink books with "Read-Write" settings the current ink is in. Ink books with read-only privileges are hidden.
- 2. Select the ink you want to remove from an ink book.
- 3. Select the ink book you want to remove the ink from.
- 4. Click Remove
- 5. Click Done to close the dialog.

12.4. Replacing an Ink

To replace an Ink:

- 1. Open the Replace lnk by dialog
 - by selecting Window > Esko > Color Engine > Replace Ink ..., or
 - by clicking the Replace Ink button in the Ink Manager



2. In the Current Inks and Colors, select the Ink you want to replace.

Inks defined in an Ink book will have a droplet icon next to their name. Using the option, you can choose if you want to **Hide unused inks** from the list.

The **Details** window will show extra information on the selected ink.

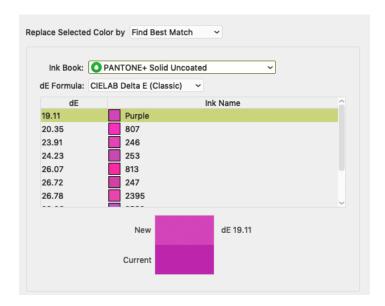
3. Define the Replace by type:



- Replace by A Document Ink allows to select an Ink from the document inks. By enabling Include
 Unused Inks, all spot color inks from the swatch list will be available, even the inks that aren't
 used in the job.
- **Replace by CMYK Color** allows to convert the selected ink into its CMYK equivalent. The CMYK values that will be used are shown underneath.



• **Find Best Match** will scan the selected Ink Book, and list the inks with the lowest dE compared to the ink you want to replace. At the bottom, the New and the Current ink are shown side by side.



Replace by Color from Ink Book allows to replace the ink by a new ink from an Ink book.
 Selecting the Ink is done in the same way as adding a new ink from Ink Book (see Adding an ink from Ink Book on page 112





- **4.** Define if you want to replace the ink for every object (including images) or if you want to exclude images from the replacing, by setting the **Include images** option. Obviously, if you exclude images, the replaced ink will remain in the list of used inks.
- 5. Click the **Replace Ink in Document** button to replace the ink in the complete document, or click **Replace Ink in Selection** to replace the Ink for the currently selected objects only.



Note:

If one or more objects can't be converted, a description of the problem will appear in the Messages dialog, and the converted ink will not disappear from the list of used inks in the Ink Manager.



Note: If an ink is replaced, the new ink will use default screening settings. The screening settings of the original ink are not preserved.

12.5. Color Engine Plugin Preferences

The Color Engine Plugin Preferences can be opened from **Illustrator** > **Preferences** > **Esko** > **Color Engine Preferences...**

If **Use Swatch Groups** is selected, an Ink added from an Ink book will be placed in a Group in the Illustrator Swatches. The Group will have the same name as the Ink book.



13. Esko Plug-ins Dashboard

On your Esko Plug-ins Dashboard, you can:

- · See which features you use, and how often,
- · Learn how many files are processed with your Esko plug-ins,
- · Get configurable reports for your company.
- Get personalised suggestions and complimentary training.

To build the dashboard, Esko needs to collect personal data about your plug-ins usage.

- 1. Open the Dashboard panel by choosing Help > Esko > Dashboard...
- 2. Click the Yes, I want a dashboard button.
- 3. Sign in with your Esko ID

More information about Esko ID can be found here



Note: If you already enabled Dashboard before, you can skip step 2 and 3.

4. Click the Go to my Esko Plug-ins Dashboard link to open the Dashboard

13.1. Opt Out

At any time, you can opt-out and stop the personal data collection.

- 1. Open the Dashboard panel by choosing Help > Dashboard...
- 2. Click the Opt Out button.
- **3.** If you click Opt Out, Esko stops collecting personal data, but still gathers anonymous usage data to help us improve the product.

13.2. More about the dashboard and data collection

Insights for you and your team

You will get a dashboard for DeskPack and/or for Studio where you can check that you are getting the most out of your software investment. You can filter on those features that are the most valuable to you, and keep track of how often they are used, how many files are handled, and by how many people across your company. If your colleagues also opt in, you can also combine the data in a single dashboard for your company.

What data is collected?

We automatically collect your Esko plug-in usage:

- Basic information about your computer (OS version, language, screen resolution, ...).
- Your version of Adobe Illustrator and which Esko plug-ins are installed.
- Which actions you perform on Esko plug-in, including some of their parameters.





If you opt in to the dashboard, then this usage data is tagged with your EskolD (name and email). If you do not opt in, then this usage data is anonymous.

Either way, We do not collect information that can be used to identify your client or the designs that you work on (such as text statements, barcodes, separation names or filenames).

Your data is protected

Your usage data will be available only to Esko and (if you opt-in) to you and to your colleagues (based on the company code of their Esko IDs). Learn more about Esko ID and check out our privacy policy.

Help us improve our products

Sharing your usage data with Esko allows us to learn about your configuration and your use of our products. This data enables us to focus on the features that matter the most to you.

Opt-out whenever you want

At any time, you can opt-out and stop sharing personal data. Just choose **Help** > **Esko** > **Dashboard** and click the **Opt Out** button.