

EtherShare OPI 2.0

The Next Generation of OPI – Questions and Answers

OPI is now well established in the prepress and printing industry; many vendors offer OPI products. However, Helios EtherShare OPI 2.0 introduces two radically new concepts to the world of OPI. It includes by default integrated color matching methods.

And it provides a sophisticated extension architecture called “OpenImage”.

The integrated color matching allows you to separate images on the server during the actual printout and also to use high resolution images from various color spaces.

With OpenImage Plug-Ins, other parties can easily add functionality to Helios’ OPI server. This is similar to enhancing desktop applications with XTensions, Plug-Ins, or Xtras.

Helios – Smart Ideas for Better Networking

General Questions and Answers

Q: What’s new in EtherShare OPI 2.0?

A: Here are the top items:

- Support of a wide range of image formats – TIFF, EPSF, DCS, DCS2, ICS, Scitex-CT, JPEG, PICT, PhotoShop native, etc. – in all relevant color spaces – CIE Lab, RGB, CMYK.
- Two integrated, ICC-compliant color matching methods CMMs, 100% compatible with Apple/Linotype-Hell ColorSync 2 or Agfa ColorTune
- Many more improvements, e.g. compliance with Adobe OPI 1.3 and 2.0 specifications, automatic resolution adaption, vastly improved clipping, support for tinting, further enhanced resolving, etc.
- A powerful Helios “OpenImage” extension architecture for plug-ins from other vendors

Q: What’s the main benefit for the customer?

A: The productivity gains of OPI together with a new level of color quality. You not only boost overall throughput, but you also get:

- Unbelievable quality in color separation and
- Convenient digital proof matching.

Q: How complex is it to use?

A: EtherShare OPI 2.0 makes your life a lot easier!

• It supports images in nearly all formats. Therefore you no longer have to worry whether a certain image can be handled by the OPI server.

• It supports images in CMYK, RGB and CIE Lab. So you can even ignore which color spaces images came from. The Helios OPI server automatically generates CMYK lo-res images that you can use and print in your standard layout application. During printout it will separate the hi-res originals properly.

• Several high quality ICC profiles – e.g. for SWOP, Euroscale, Japan CMYK, Apple Color LaserWriter, typical newspaper – are included in the product. Even with these default profiles you will get much better color results than what you are used to.

• Helios paid special attention to guarantee that the new functions fit into a typical prepress and printing workflow. E.g. profiles are shared in a centrally administered profile repository on the server, profile tagging by reference saves disk space, and resolution adaption minimizes the amount of data sent to the RIP and reduces the RIP’s workload.

Q: How do I set up and configure Helios OPI?

A: The server installation is done from CD-ROM.

Then you switch to your Macintosh and add users, define print queues, or specify color characteristics. If you are not interested in special features just go with default settings. If you are more experienced you can overwrite the default behaviour. You may do so either generally for the whole server or selectively per server directory and print queue.

Q: Do the new functions cost a lot of overhead?

A: As usual, new features require more hardware. However, Helios does not expect any performance penalty if you just use the EtherShare OPI 1.2 functionality and don’t use the new color matching and separation features.

- Color matching makes heavy use of integer arithmetic. E.g. Helios measured 3 to 4.5 MByte per second matching performance on Apple Network Server. Of course, actual throughput varies and depends on server type, model, configuration, etc.
- EtherShare OPI 2.0 automatically utilizes a multi processor server configuration. Adding CPUs to your Helios server will pay back immediately.
- Helios now recommends 2 MB RAM instead of 1 MB per output queue.

File Formats

Q: The list of supported file formats is impressive. What are the restrictions?

A: Indeed, there is no other OPI server which supports so many file formats. And there are hardly any restrictions. Thanks to the built-in color matching method even high quality CIE Lab originals, e.g. TIFF, EPSF or PhotoShop native images, can now be used with EtherShare OPI.

Q: What’s the advantage that EtherShare OPI 2.0 supports PhotoShop’s native file format?

A: EtherShare OPI 2.0 can read PhotoShop files. It automatically generates lo-res layout files for them as TIFF CMYK incl. clipping paths, and later substitutes the layouts properly during the OPI resolution process. Please note that PhotoShop files can contain images in CIE Lab, RGB, and CMYK.

The big advantage is that you no longer have to convert your PhotoShop images into EPSF before you

can use them with OPI. Leave them in their native format and preserve all special PhotoShop information like e.g. layer information.

Q: How does EtherShare OPI 2.0 handle clipping paths in PhotoShop native files? What are its general improvements in this area?

A: EtherShare OPI 2.0 correctly extracts clipping information from PhotoShop images and generates the layout files as EPSF with clipping paths or optionally as TIFF lo-res with Adobe clippath tag. The same applies for images in TIFF, EPSF, PICT, JPEG, etc. Multi segment clipping paths are now supported.

Q: Does EtherShare OPI 2.0 perform any color matching when it generates lo-res layout images?

A: Yes. By default you always get CMYK lo-res layouts according to either Euroscale or SWOP. This offers a convenient method to proof print with

correct colors. Optionally you may also choose to generate lo-res according to a certain RGB profile. The layout program of Helios’ OPI is very flexible.

Q: Can I continue to use my existing Helios layout files with the new OPI server?

A: Yes. EtherShare OPI 1.2 layouts are supported.

Q: Sorry, I’m dependent on a file format still not supported. Anything I can do about it?

A: Yes. First ask your Helios partner about it. The Helios OpenImage extension architecture is a convenient method for other parties to add more functionality, incl. additional file formats, to the Helios OPI server without the need to disclose any proprietary information to Helios. Maybe one of the OpenImage developers is already working on a plug-in for the format you are asking for. If not, Helios would like to be put in contact with the vendor who is using the special image format.

Helios OpenImage

Q: How do I learn more about the new Helios OpenImage Plug-Ins?

A: Helios invites all OpenImage developers to provide information about their Plug-Ins on the standard Helios distribution CD-ROM. Stay tuned.

Q: How can I get Helios OpenImage?

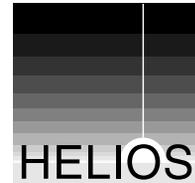
A: As a user you don’t need it as a separate product.

- Your Helios OPI server is ready to run any Helios OpenImage Plug-In. E.g. EtherShare OPI’s resolution adaption is also implemented as a Plug-In.

- As a vendor, system house, or maybe experienced customer with in-house software development, you may contact Helios, Hannover, Internet address marketing@helios.de, for the Helios OpenImage Software Developer Kit.

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Color Capabilities

Q: How good are EtherShare OPI's color results?
A: So good, most people would not believe it before they see it. The underlying color matching methods of Helios' OPI are the one used in Apple ColorSync 2, cross-licensed from Linotype-Hell as well as the original Agfa ColorTune one. It provides state-of-the-art separation. With good profiles you get terrific results. What gets people really excited is how easy and how close proof prints are, e.g. on a Scitex Iris printer, or even an Apple Color LaserWriter.
Q: What is the advantage of having two CMMs?
A: You can be sure to get absolutely identical color results to ColorSync 2 or ColorTune. You can make best use of the ICC profiling tools from Linotype-Hell and Agfa and will benefit from new developments of both vendors as e.g. Hexachrome support.
Q: Aren't PhotoShop, QuarkXPress, etc. doing a good enough / better job in separating images?
A: Threefold response:
• Color separation should ideally be the last step in your production cycle – just before the actual output as with Helios OPI. If you pre-separate images during the scan or in PhotoShop you are tied to a specific output device, you are losing quality and you cannot do color proofs without repositioning variants of the same image in your documents.
• EtherShare OPI 2.0 is based on industry standard color separation and produces ColorSync or ColorTune compatible results. On the contrary, only few applications – e.g. QuarkXPress with Helios ColorSync 2 XTension – are using Apple ColorSync or Agfa ColorTune for separations; most are using their

own proprietary, less than optimum methods.
• Use your Apple Macintosh for photo retouching and layout work. Don't tie them up with backend processing making your creative people wait.
Q: I already have a PostScript level 2 RIP. Why would I prefer color separation in an OPI server?
A: For several reasons:
• EtherShare OPI 2.0 supports any PostScript RIP, i.e. you get matching for existing Level 1 RIPs.
• EtherShare OPI 2.0 separates with software in the server and always produces identical results. RIP-based separation depends on the RIP's make or model.
• EtherShare OPI 2.0 separates CIE Lab, RGB, and CMYK images & colors. RIPs don't match CMYK.
• For print jobs with images from multiple sources the various "color dictionaries" need to be downloaded to the RIP. Currently this can't be done and RIPs are restricted to one color dictionary per job – it's impossible to use images from different sources.
• RIPs can't do a color proof.
• You get the same color results when printing with Helios OPI or locally on a Macintosh with a ColorSync-based application – e.g. the Helios XTension.
Q: Can I continue to use my CMYK images?
A: Yes. If source profiles are missing, assume it was SWOP or Euroscale CMYK and the OPI server will match to the CMYK of your proofer or press.
Q: Can I get color matching for EPSF files, too, or only for TIFF images?
A: Yes, EtherShare OPI 2.0 matches colors for all EPSF files containing scanned images. However, there are no standards yet, how to specify colors in

illustrations like e.g. a typical company logo. The OPI server cannot match those files.
Q: How does the EtherShare OPI server know about a device's color characteristics?
A: The International Color Consortium specified so-called ICC profiles. They describe fully the color characteristics of devices like scanners, monitors, proof printers, presses, etc. You can create your own individual profiles for your devices by means of ICC profile generation tools offered by various vendors.
• The scanner profile for an image is specified either with the tagging tools provided by Helios, by the Helios XTension, or by embedded ICC tags.
• Usually, the profile for the output is set per spool queue in the OPI server. If you print from a Macintosh with QuarkXPress you can also specify the output profile by means of the Helios XTension.
Q: What do I need to fully exploit EtherShare OPI's color options?
A: If you are ready to take full advantage of the color capabilities of EtherShare OPI 2.0 you need:
• Color measurement device. You should check it from time to time to avoid aging errors.
• ICC profile generation tools. Helios partners can offer you ScanOpen, ViewOpen and PrintOpen, but any tool which generates ICC profiles will do. Be aware that the quality of the profiles, especially of printer profiles, significantly impacts output quality.
• PostScript color output devices.
• Commitment of people. E.g. whenever possible either leave images in their original color space – RGB with good profile – or switch to CIE Lab.

EtherShare OPI 2.0 and Helios ColorSync 2 XTension

Q: Do I need the Helios XTension to make use of the color management functions of OPI?
A: No. EtherShare OPI 2.0 and its color matching can be used by any application on Macintosh, PC, Unix, etc. which is OPI aware or handles EPSF files.
Q: Is there a reason to use Helios XTension together with EtherShare OPI 2.0?
A: Yes. Using the Helios XTension together with EtherShare OPI 2.0 gives you more functionality.

Q: What benefits offers the XTension with OPI?
A: Both products cooperate smoothly:
• The XTension displays colors correctly on screen.
• You can proof print files off site without OPI.
• You can work with CIE Lab colors. This is the easiest way to reproduce a color sample correctly: Just measure it and add the color to QuarkXPress.
• When you print a document with the help of the Helios XTension, elements defined with Quark-

XPress' CMYK, Pantone or CIE Lab colors and tinting colors will be separated correctly.
• You can specify output profiles per QuarkXPress print job and overwrite the OPI server's default.
Q: Do I need different profiles for the Helios XTension and for EtherShare OPI?
A: No. You use the same ICC profiles. Helios recommends that customers share these profiles in a workgroup and store them only once on the server.

Product availability, pricing, updates

Q: Is EtherShare OPI 2.0 shipping?
A: The final release is in June 1997 together with EtherShare 2.5. Please note that you need EtherShare 2.5 for the new OPI.
Q: On what platforms is Helios OPI available?
A: On the supported Helios platforms: Sun SPARC Solaris 1 and 2, IBM RS/6000 AIX, Digital Alpha Unix, Data General DG-UX, Hewlett-Packard HP-UX, Silicon Graphics IRIX, Apple Network Server, etc. Please note that Digital MIPS Ultrix and Motorola 88K SVR4 are no longer supported.

Q: Does it run under Windows NT?
A: Sorry, no.
Q: How do I upgrade my Helios OPI server?
A: An existing EtherShare OPI 1.2 server is updated with the installation script from the Helios distribution CD-ROM. Settings and data will be taken over automatically. The OPI server will be up and running without need for additional configuration. You fine tune your environment with the Macintosh administration frontend "EtherShare Admin". Please note that you have to request a new activation key.

Q: What does the product/the upgrade cost?
A: Despite its vastly improved functionality, pricing will not change. The Helios OPI server is one integral product without costly options. As usual, you need a valid EtherShare base license to use OPI. For detailed pricing please contact your Helios partner.
• Customers with software update service agreement – please ask your Helios partner – will receive the new OPI automatically and without further charges.
• Of course, Helios will also offer the update as retail product through its distribution and OEM partners.

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