User Guide

English

oXYgen DOT

399Z51895D

www.creo.com/scanners

oXYgen DOT

User Guide

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4456924	5247352	5412737	5600448	5802034	5996499	6136509
4500919	5249067	5420702	5608822	5813346	5998067	6147789
4558302	5283140	5420722	5615282	5818498	6003442	6158345
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5049901	5313278	5481379	5649220	5861992	6031932	6180325
5079721	5323248	5488906	5650076	5864651	6043865	6181362
5103407	5325217	5497252	5652804	5875288	6060208	6181439
5111308	5331439	5508828	5691823	5894342	6063528	6186068
5113249	5333064	5509561	5691828	5900981	6063546	6189452
5122871	5339176	5517359	5696393	5934196	6072518	6191882
5124547	5343059	5519852	5699174	5942137	6090529	6204874
5132723	5355446	5526143	5699740	5946426	6096461	6208369
5150225	5359451	5532728	5708736	5947028	6098544	6252522
5153769	5359458	5561691	5713287	5958647	6107011	6260482
5155782	5367360	5568595	5739819	5966504	6112663	
5157516	5367388	5576754	5742743	5969872	6115056	
5208818	5384648	5579115	5764381	5973801	6121996	
5208888	5384899	5592309	5771794	5986819	6130702	
5247174	5412491	5594556	5785309	5995475	6134393	

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Contents

Using This Guide

Who Should Use This Guide

The oXYgen DOT User Guide is intended to be used by general Creo customers. High-level users such as System Administrators and Service Engineers can also benefit from the basic user-orientated procedures described in this guide.

This is a complete guide to installation and use of the oXYgen DOT application. The oXYgen DOT application provides three workflows, two for oXYgen DOT (oXYgen DOT, and Scanning for oXYgen DOT Toolkit), and one for Digital Descreening. oXYgen DOT operates with the oXYgen Scan application software.

oXYgen DOT is an optional upgrade for the EverSmart Supreme, EverSmart Select and iQsmart^3 scanners. After installing the software access key included in your oXYgen DOT kit, the oXYgen DOT options are enabled in the oXYgen Scan application.

For details on using the EverSmart Supreme, EverSmart Select and iQsmart^3 scanners refer to the *oXYgen Scanning Application User Guide (399Z1P555C)*.

Note: Throughout this document, the file and folder names in the screen captures appear according to the scanner specified during the installation of the oXYgen DOT application.

What's in This Guide?

The guide includes the following chapters:

Chapter 1, Introduction, provides general overview of the oXYgen DOT application.

Chapter 2, Installation, explains how to install the oXYgen DOT application software and the software access key.

Chapter 3, oXYgen DOT Workflow, explains how to calibrate oXYgen DOT before use; describes the CopyDOT interface and tools, basic scanning process; explains how to prepare films for scanning and how to scan them with CopyDOT, provides an overview and examples of how you can integrate images scanned with CopyDOT into different workflows.

Chapter 4, Scanning for oXYgen DOT Toolkit, describes the CopyDOT interface and tools, basic scanning process, explains how to prepare films for scanning and scan them with CopyDOT, explains how to perform quick scanning and workflows.

Chapter 5, Calibrating Digital Descreening, explains how to calibrate Digital Descreening before use; describes the interface and tools; describes the basic scanning process, explains how to prepare your films for scanning, and how to scan them for Digital Descreening; describes how to manipulate the final scans.

Appendix A, oXYgen DOT Tips, provides tips on how to best use oXYgen DOT.

Appendix B - Specifications, lists the oXYgen DOT specifications.

Appendix C - Catalog Numbers, lists the catalog numbers of the components in the oXYgen DOT kits .

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Conventions Used in This Manual

This section describes the fonts, terminology, and symbols used in this manual.

Fonts

Frutiger bold is used to refer to buttons and other items in a dialog box, file names, folders, menu names, and menu commands.

Minion Italic is used to refer to other chapters in the manual, book titles, and titles of other manuals.

Frutiger is used for figure and table captions.

`Letter Gothic` is used for messages on your computer screen and for information that you must type.

SMALL CAPS is used for a key or key combination on your keyboard.

Terminology

Clear	Place the mouse pointer over the check box for the specified option, and click the left mouse button so that the X or check mark is removed from the check box.
Click	Place the mouse pointer over the specified option or button and press and release the left mouse button.
Double-click	Place the mouse pointer over the specified option or button and quickly press and release the left mouse button twice.
Drag	Hold down the left mouse button while moving the mouse and release the button.
Enter	Type the information and press the ENTER or RETURN key.
Point	Position the mouse pointer over a submenu or menu command. For example, point to the **File** menu.
Press	Press the specified key or key combination on your keyboard, for example, press CTRL+ALT+DEL.
Right-click	Place the mouse pointer over an area of the application dialog box, and then press and release the right mouse button to display the shortcut menu. For more information about using shortcut menus, see your Windows documentation.
Select	Place the mouse pointer over the check box for the specified option, then click the left mouse button so that an X or check mark displays in the check box. Or: Place the mouse pointer over the specified box or button, and then click the left mouse button.
Type	Type the information. Do not press the ENTER or RETURN key.

Symbols

This section describes the symbols used in this guide.

Important: This symbol indicates things that may cause process delays or reduce functionality, reliability, or quality.

Note: A note provides additional information that you may need to consider.

Tip: This symbol draws attention to information that can help you perform a task more quickly or easily.

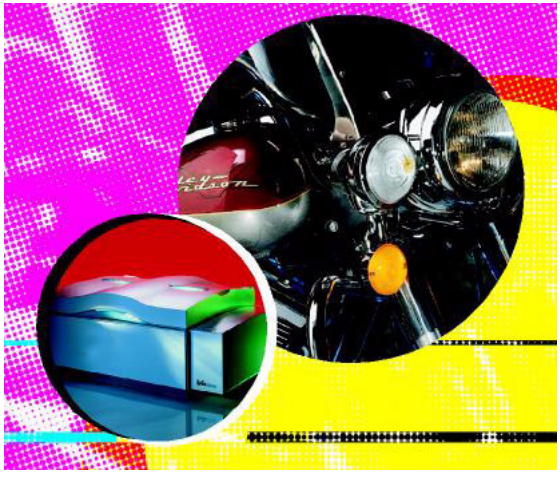
The reference symbol tells you that related information on the topic is available in another Creo document.

PDF Document

This manual is also provided in PDF (Portable Document Format).

The PDF document can be used for online viewing and printing using Adobe Acrobat Reader. When printing the manual, please print the entire manual, including the copyright and disclaimer statements.

1 Introduction



oXYgen DOT Overview

The oXYgen DOT kit provides you with all the necessary materials and information for working with the oXYgen DOT application.

Your oXYgen DOT kit includes the following items:

- Positioning template
- Punched mounting sheets and strips
- oXYgen Scan Software CD-ROM
- Software access key for USB port
- oXYgen DOT User Guide
- oXYgen DOT Geometric Correction slide
- oXYgen DOT tutorial package

You need the following software to run oXYgen DOT:

- oXYgen Scan application software

oXYgen DOT is designed for scanning rasterized films and incorporating the scanned files into a digital workflow. It eliminates the need for manual stripping.

The three oXYgen DOT workflows, oXYgen DOT, Scanning for oXYgen DOT Toolkit and Digital Descreening, scan screened images to reproduce high-quality text and images. They are also used to generate and edit continuous tone files.

In the **oXYgen DOT** workflow, you scan original films, dot-for-dot, with accurate dot percent capture. The high line-art resolution over the entire scanning bed assures the accuracy of dot reproduction. The high-resolution files generated by the CopyDOT scan preserve the text and line-art quality, especially when superimposed on an image.

CopyDOT scans screened films up to 305 x 432 mm /12 x 17 in.
It scans at an optical resolution of 2540 dpi over the entire format. The output resolution range is 1016 dpi - 3810 dpi. The application can scan up to 16 separations, using the TIFF, PSImage, EPSF DCS2 and Scitex NLW file formats.

Note: The PSImage format is not supported in the current version.

On-the-fly compression uses the CCITT group 4 format. The application also generates a low-resolution color file for fast display and positioning during page assembly. CopyDOT supports Scitex and PostScript file formats, enabling you to incorporate the scanned files into page layouts and use them on Creo or other vendor output devices.

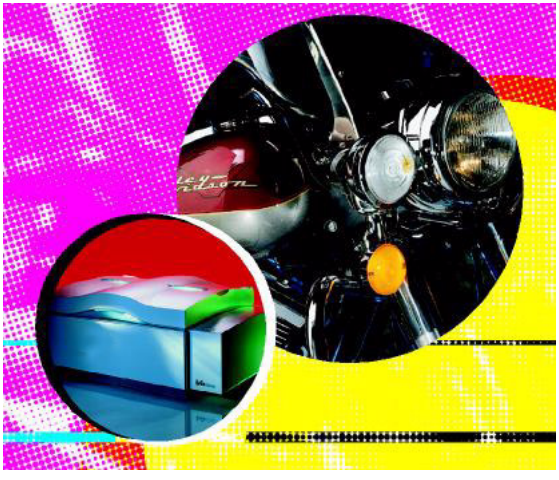
In the **Scanning for oXYgen DOT Toolkit** workflow, you scan a single scan (set of halftone film separations) to be output with the oXYgen DOT toolkit to multiple copydot or descreened file sets with the right format, resolution and tonal calibration to match any workflow or device.

The **Digital Descreening** workflow creates high quality CT files from scanned original films (one or four separations). The files can be manipulated as required, and can be exposed in any screen ruling and proofed.

The three oXYgen DOT workflows enable you to archive your files for reuse.

2

Installation



To install the application software, you need the following items included in your oXYgen DOT kit:

- oXYgen Scan Software CD-ROM
- Software access key

See the following sections for detailed instructions to guide you through the installation process.

Minimum System Requirements

- Apple Power Macintosh G4
- Apple Macintosh system software version 9.0.0 or higher
- 175 MB of available memory (RAM) for the scanning application (not including memory for system software)
- CD drive (required for software installation)
- 1 GB internal hard disk is recommended. Its capacity depends on your needs, such as, on image size
- 17 inch color monitor
- 24-bit color display

Installing the Software

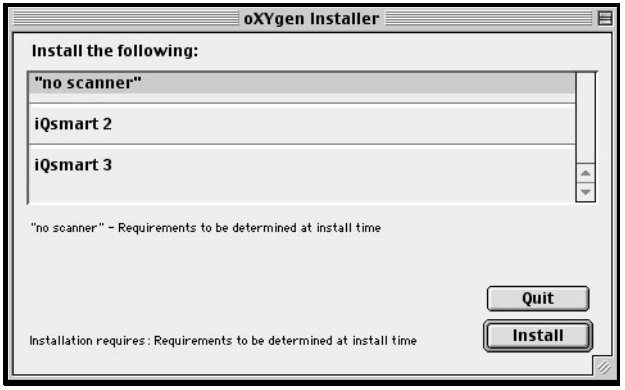
This section describes how to install the oXYgen Scan application software provided with your oXYgen DOT kit.

To install the software:

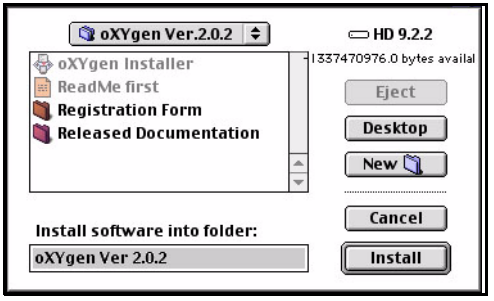
1. Insert the oXYgen Scan Software CD-ROM into the CD-ROM drive. The following window appears:

2. Double-click the **oXYgen ScanInstaller** icon. The oXYgen Installer splash screen appears:

3. Click **Continue**. The oXYgen Scan Installer dialog box opens:

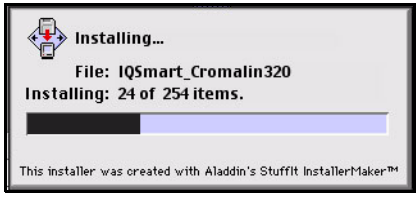


4. From the scroll-down list, select the scanner you want to install and click **Install**. The following dialog box appears:

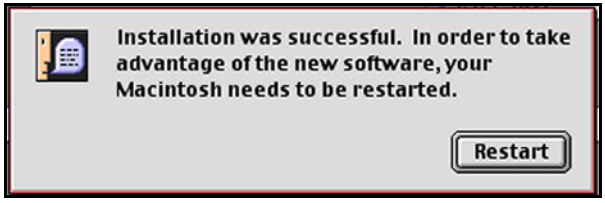


5. Select a folder into which you want to install the software and click **Install**.

6. The installation program continues automatically from this stage on. The counter shows the number of items that have been installed.



7. When the message appears informing you that the installation is complete, click **Restart**.



oXYgen Scan V.1.5.0 Folder Contents

The oXYgen Scan folder on your Macintosh computer contains the following items:

Item	Function
oXYgen Scan	Used to launch the oXYgen Scan application.
Calibration	Used by Creo Service engineers to calibrate the scanners.
Install&Utils	Used to install the software and set all parameters necessary to operate the scanner.
SCSI information	Used to view all devices connected to a SCSI bus (internal and external) and to find free ID to connect the scanner to the Macintosh computer.
iQsmart Tables	Contains Creo supplied tables.
MatchBuilder V1.0.0 f	Used to create transformation tables that simulate proof or final print colors on the monitor.
BGCAR	This folder contains the scanner driver. The utility is automatically launched by the application.

Item	Function
EverSmart Diag	Used to test and display the status of all scanner hardware functions.
Calibration Slide.eps	Used to expose calibration slide films that are used to calibrate oXYgen CopyDOT and Digital Descreening.
Data Files	This folder contains data files with geometric profiles and other types of data.
Plug-ins for Photoshop	Creo file format plug-ins that must be copied to Photoshop Plug-ins folder.
CreoScan_LogFolder	This folder contains Creo Scan log files.
Scan_DataFolder	This folder contains Scan data folders.

Installing the Software Access Key

The software access key is a protection device that the oXYgen DOT application software requires to run. Your oXYgen DOT kit provides one software access key for the USB port.

To install the software access key:

1. Depending on the model of your computer, you can plug the software access key into one of the following USB port locations:
   - the keyboard port
   - the port in the back of the computer
   - the USB port in the monitor

For hardware installation, refer to the *EverSmart Scanners Installation and Maintenance (399Z50703E)* and *iQsmart Scanners Installation and Maintenance Guide* (*399Z1R946A*).

3

oXYgen DOT Workflow

Overview

The oXYgen DOT workflow includes an advanced, automatic algorithm, which assures superb image quality. An innovative calibration feature compensates for changes in DOT percentage that may appear on the output device.

The diagram in Figure 1 illustrates oXYgen DOT workflow.

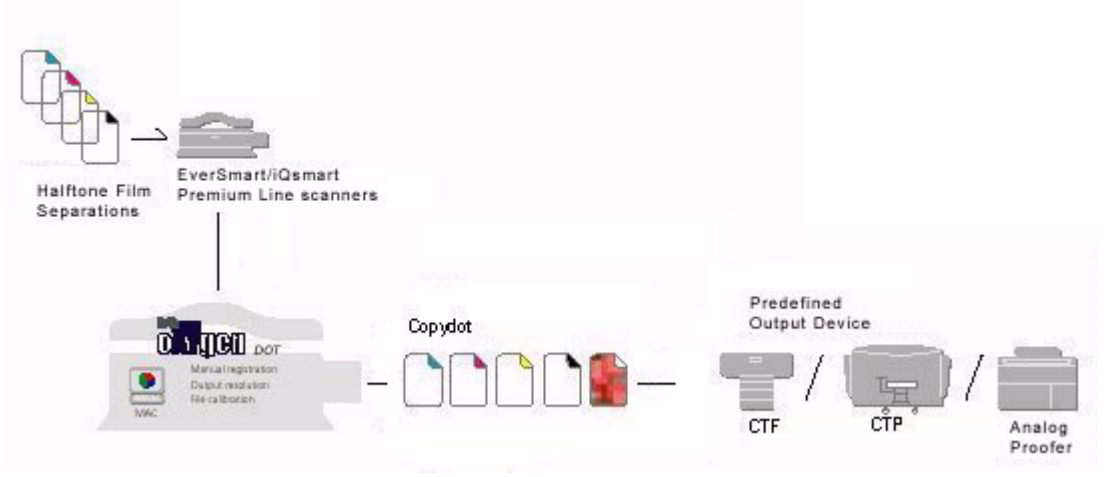


Figure 1: oXYgen DOT Workflow

Sample Workflow

This section describes a sample oXYgen DOT workflow in the oXYgen DOT application.

- Prior to scanning, do the following:
  - Prepare the original films off-line
  - Mount one separation at a time on the scanner
- Scan the film separations one at a time following these steps:
  - Define the scan mode
  - Define the preview
  - Crop the preview
  - Perform the final scan

Geometric Correction

Note: Geometric correction should be performed at regular intervals. Perform geometric correction twice a month if you scan on regular basis, or always before scanning if you do not scan frequently.

To perform the oXYgen DOT geometric correction, do the following:

1. Turn the scanner on at least half an hour before performing the geometric correction.
2. From the **Setup** menu, select **CopyDOT Geo Correction** to display the CopyDOT Geo Correction window.

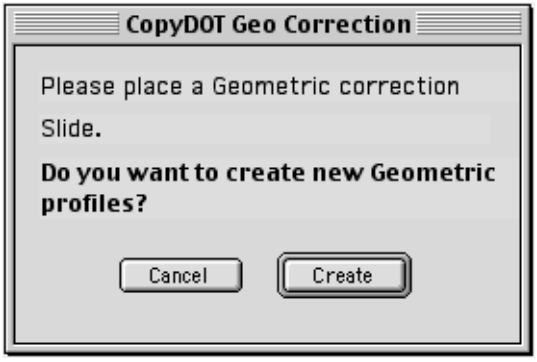


Figure 2: CopyDOT Geo Correction Window

3. Mount the oXYgen DOT Geometric Correction slide on the scanner and insert the registration holes into the registration pins on the scanner.
4. Close the scanner top cover.
5. Click **OK** to create a new Geometric correction.

CopyDOT Calibrations

CopyDOT copies each dot on an original file to the reproduction file. Therefore, dot shape, screen ruling, angle and resolution remain intact. CopyDOT can scan screened films up to A3 in size at an optical resolution of 2540 dpi. Scanned films are saved in separate high resolution files, while low resolution files are generated on-the-fly for previewing and data positioning. In addition, CopyDOT has a CCITT Group 4 compression option and Scitex Output Compensation for offsetting dot percentage changes that can be caused by the output device. The oXYgen DOT application can scan up to 16 separations in one job.

Calibration is essential to the proper functioning of your oXYgen DOT application. Proper calibration ensures accurate reproduction of scanned images on film.

CopyDOT calibrations are performed only when necessary. The *Determining Whether Calibration is Necessary* on page 20 explains how to determine whether output calibration is necessary, and if so, how to calibrate.

For best output results, you should also calibrate your output devices according to the vendors' instructions.

Output Compensation calibration ensures the correct reproduction of dot percentage values at output. You should calibrate, when necessary, each set of scanning parameters (screen ruling, resolution, and media) you intend to use.

Each calibration generates a correction table. These tables appear in a popup menu in the Setup dialog box. Before initiating a scan, select the table that is generated based on the scanning parameters currently in use. If you do not calibrate CopyDOT, use the default table.

Halftone Dots

Halftone dots are constructed within halftone cells by turning “on” pixels in a certain dot shape. Larger dots are created with more “on” pixels and smaller dots with fewer pixels. Larger dots are used where darker tones are required in the image, and smaller dots are used where lighter tones are required.

A useful way to describe the degree of tonality or tone value of halftone dots is to talk about dot percentages. The percentage area of the cell covered by the “on” pixels can be referred to as the physical dot area or PDA. For example, if half of the pixels in a halftone cell are “on”, then we can say this dot has a 50% PDA.

Dot Gain

Often when halftone films, including copydot, are processed through the downstream workflow and eventually printed on press, the final resulting halftone tone values have increased. For example, a 50% dot scanned by the scanner may become a 64% dot on the press sheet.

This phenomenon is referred to as dot gain. The original scanned dot’s physical dot area (or PDA) is compared to the output dot’s effective dot area (or EDA), and the difference is the dot gain. Such measurements are typically performed with a device called a densitometer.

The sources of dot gain can be broken into two types: Physical Dot Gain (PDA) and Optical Dot Gain (ODG).

Effects that physically increase the size of the halftone dot throughout the digital workflow are categorized as sources of Physical Dot Gain:

- Light leakage during plate exposure (in a digital film to plate workflow process only)
- Different media (plate and film) responses
- Physical pressure from press (rollers, blanket, etc.) cause the ink on the dots to spread
- Diffusion of the ink through varying paper stock
- Ink tack and viscosity

Optical Dot Gain is an effect where light is absorbed into the substrate of the paper making the dots appear larger than their physical size. Together, both Physical and Optical Dot Gain increase the effective dot area of the halftone dot.

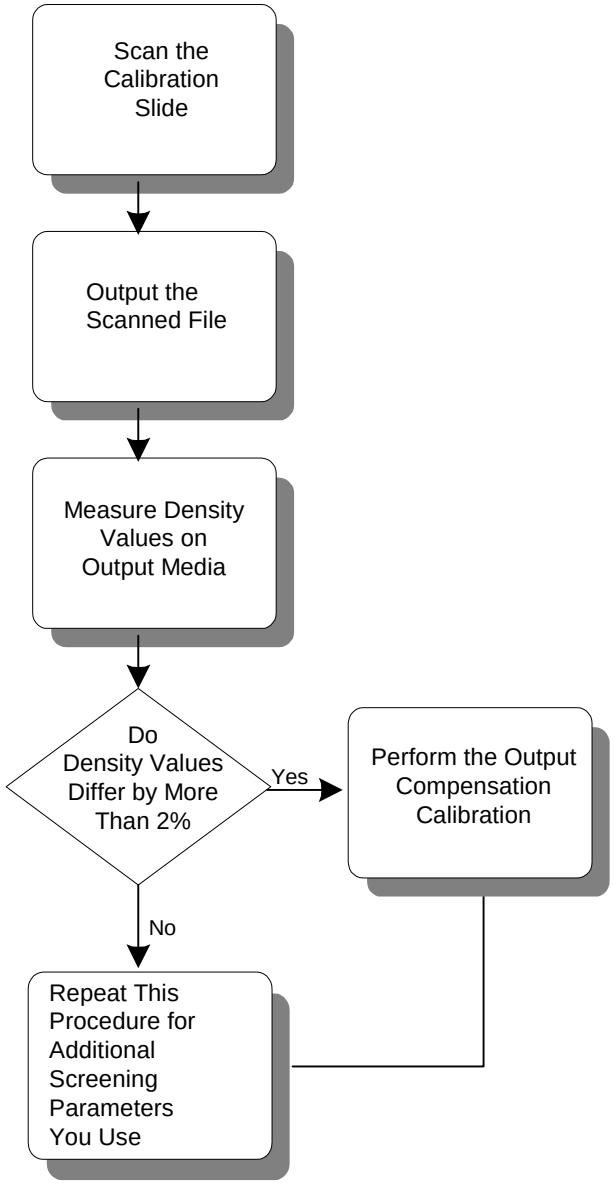


Figure 3: CopyDOT calibration workflow

Determining Whether Calibration is Necessary

Immediately following the installation, and when you define your imagesetter or output devices settings, it is recommended that you check whether the CopyDOT calibration is necessary.

To determine whether calibration is necessary:

1. If the application is not already open, double-click the **oXYgen Scan** icon; the Setup dialog box opens.

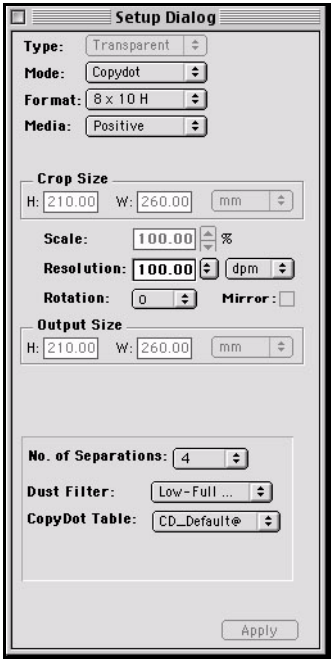
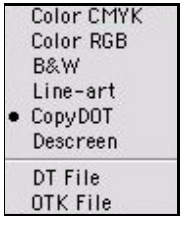


Figure 4: Setup dialog box

2. In the Setup dialog box, set the following:



- From the Mode list, select **CopyDOT**.
- From the Media list, select **Positive** or **Negative** depending on your originals.
- Select the unit of measurement for the Crop size.
- In the Crop box, set the height and width of the crop.
- Select the Mirror option to create a mirror image of the scanned original.

- Select the unit of measurement for the Output size.
- In the Output Size box, set the height and width of the output.
- Select **DPM** (dots per millimeter) or **DPI** (dots per inch) as the resolution unit of measurement.
- In the Resolution box, set the resolution.
- From the No of Separations list, select **1**.
- **Low-Full Dot range** is the default dust filter option. If the film is dirty or scratched, select **High Reduced Dot Range** from the Dust Filter list.
- From the CopyDOT Table list, select **CD_Default@**.

3. Mount the oXYgen DOT Calibration slide on the scanner bed with the emulsion side down.

Note: One calibration slide is supplied in the oXYgen DOT kit.

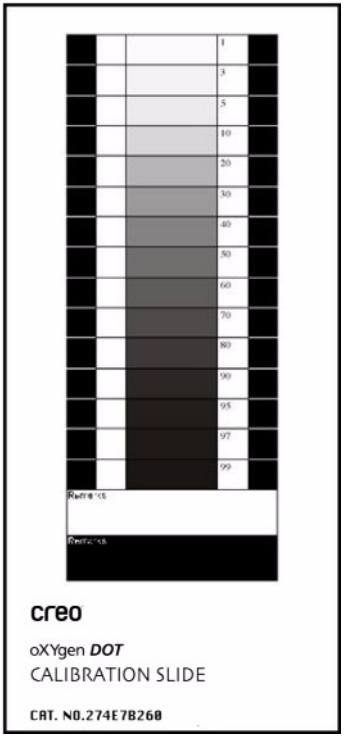
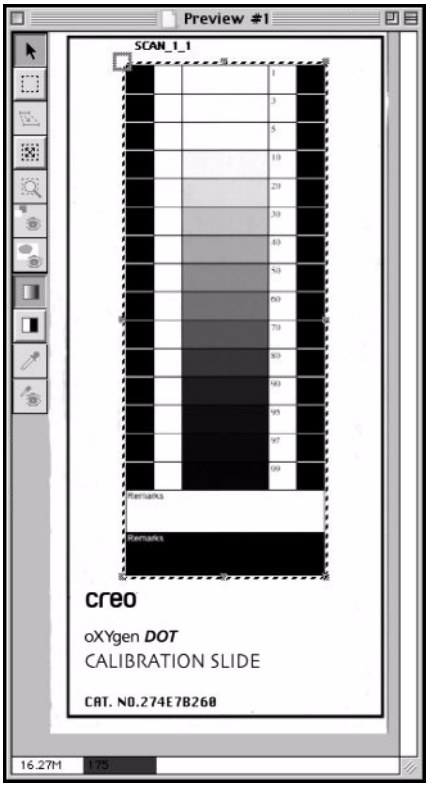


Figure 5: Calibration slide

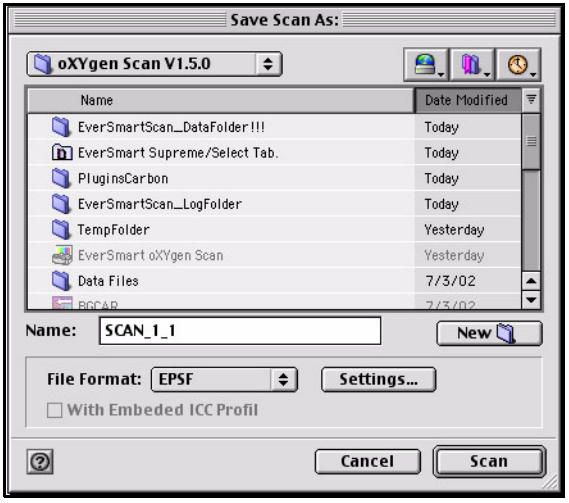
4. In the Scan palette, click the **Preview** icon. The Scanner Queue dialog box appears followed by the Preview window.

5. Click the **Cropping** tool on the Preview window toolbar, and define a crop on the displayed preview that includes the calibration slide test strips.



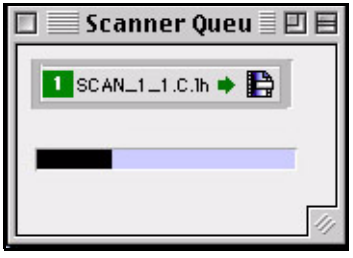
6. In the Scan palette, click one of the Scan icons.

7. From the File Format list on the dialog box that appears, select a file format supported by your output system.



8. Click **OK**.

   The scanner scans the selected crop. You can monitor the scan progress in the Queue window that displays the name of the scanned separation and a progress indicator.



9. When the scan is complete, expose the scanned file on the output device.

10. Use a densitometer to measure the dot percentage values of the output test strip.

    If the measured values differ by more than 2% from the value of the original calibration slide that you scanned, calibrate Output Compensation according to the instructions below.

Note: If you work with different combinations of setup parameters, repeat this procedure for each combination.

Calibrating Output Compensation

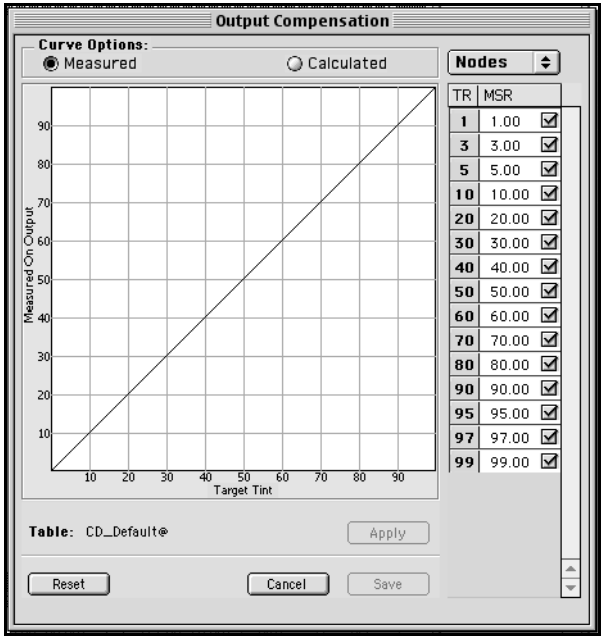
Output Compensation calibration ensures the correct reproduction of dot percentage values at output.

Calibrate Output Compensation only when the measured values differ by more than 2% from the value of the original calibration slide that you scanned.

To calibrate output compensation:

1. Write down the dot percentage values of the output test strip (plate, film, print).
2. In the oXYgen DOT application, from the Setup menu, select **CopyDOT Calibration**; the Output Compensation window appears.

Note: Selecting the Calculated option displays a calculated graph with a new curve that was created after entering the values (calculated correction table).

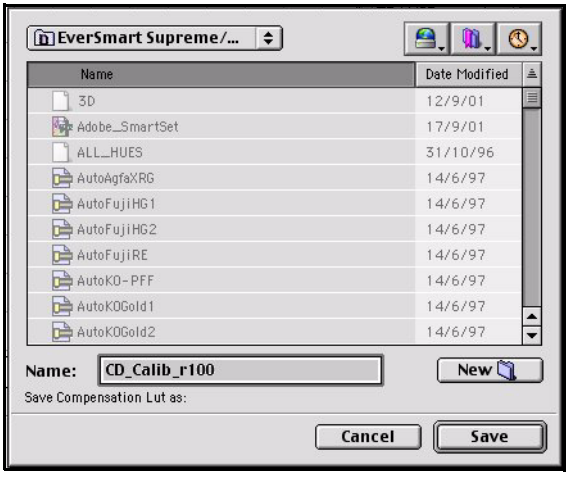


Note: If you are not using the calibration slide supplied in the kit, select **Curve** from the drop-down box at the upper right corner of the Output Compensation window. Then mark the dot percentage values you measured on the calibration slide by selecting the boxes next to the relevant values. After you finish entering the values, select **Nodes** from the drop-down box.

3. In the MSR column, enter the values you measured on your output test strip.

Note: If you make a mistake when entering the measured values, click **Reset** and re-enter the values.

4. Click **Apply**; the curve changes according to the values you entered.
5. If you entered the values correctly, click **Save**.
6. If one of the values entered is illegal, a message appears prompting you that the value is illegal.
7. Click **OK**.
8. Correct the value, click **Apply**, and then click **Save**; the following window is displayed.



9. In the Name field, type the name for the new calibration table, and click **Save**; the new calibration table you created is added to the CopyDOT Table list.

Tip: Create calibration tables for each set of parameters you use.

Determining Whether the Calibrations are Correct

1. Rescan the original calibration slide with the calibration table you have created, and output the scanned calibration slide.
2. Use a densitometer to measure the dot percentage values on the output test strip (plate, film, print). Compare them with the values on the original calibration slide.

Note: When you save, the application prompts you to replace the existing table. Click **Replace**.

If the values do not vary by more than 2%, the calibrations are correct; if they do vary by more than 2%, go back to Output Compensation window and modify the measured values of the new calibration table you saved.

oXYgen DOT Tools, Palettes and Windows

oXYgen DOT has the same interface as the oXYgen Scan application software with some modifications.This section contains a description of the tools, palettes and windows used in the oXYgen DOT application. If you have not used the oXYgen Scan application, we recommend reading the *oXYgen Scanning Application User Guide* (399Z1P555C).

The application tools and palettes are:

- Scan palette
- Preview Browser
- Queue window
- Image display window

The Preview Browser, Scan palette and Queue window let you monitor the foreground and background operations of the application and provide you with the tools to control the process. The Image display window and its tools let you view the image you intend to scan and modify its scan parameters.

Scan Palette

The Scan palette is used to perform preview, crop prescan and final scan, and restart the application. The echo line, at the bottom of the palette, describes the icon at the pointer's position. The active icons depend on the current mode of operation.

Figure 6: Scan palette

➢ To select a function, click its icon. When an image is displayed in the Image display window, the selected function is performed on the image; when an image is not displayed, the function is performed on selected preview thumbnails in the Preview Browser.

The Scan palette includes:

Preview icon - click to perform preview.

Prescan icon - click to prescan a crop defined on the displayed preview. To prescan all crops on the Preview, press the <**Option**> key and click the Multi-prescan icon that appears.

Scan icon - the number of scan icons in the Scan palette depends on the number of separations defined in the Scan dialog box. For the four separations, the icons are colored with the respective color: cyan, magenta, yellow and black. For each additional separation, a scan icon appears with the separation number.

- To scan the separation on the displayed preview, click its icon.
- To scan all crops of the separation on the Preview, press the <Option> key and click the Multi-Scan separation icon that appears. A check mark (✓) appears on the icon of a separation you have scanned.

Photoshop icon - click to launch Photoshop. The icon is unavailable in the oXYgen DOT and Scanning for oXYgen DOT Toolkit workflows.

Restart icon - click to restart the application.

Preview Browser

The Preview Browser controls the operational stage of the previews. It also shows the status of each original in the scanner.

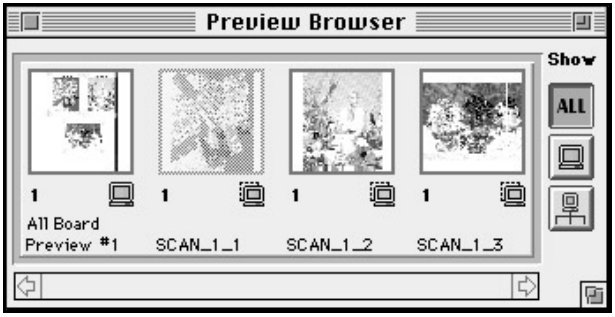


Figure 7: Preview Browser window - Show All

Each window in the Preview Browser represents an image. An empty gray window indicates that the image has not been previewed. After Preview, or Crop Prescan, an image thumbnail appears in the window.

Scans should be made of one original only. However, if you scan an original and one or more crops from that original, you can scan more than one item at a time.

Use the Preview Browser to control the following operations:

- To display an image in the Image display window, double click its thumbnail.
- To select images into the Queue window for preview or final scan. For preview, click the empty gray window. For scan, click the image thumbnail (this is possible only if the Image display window is closed).

Note: To select more than one image, click each image while pressing Shift. Alternatively, encompass the required images with a rectangle while holding down Shift and dragging the mouse button. To deselect an image, click it while pressing Shift.

The Preview Browser provides the following status information:

- Format and number of originals in the scanner, and the file names of scanned images.
- Specific icons indicate if preview, crop prescan, or final scan were performed. Blue icons mean that the image was interactively modified.
- An arrow appears below the thumbnails of images currently in the queue, waiting to be scanned.
- The thumbnail of an image currently displayed in the Image display window is dimmed.

The three display options of the Preview Browser:

Click the relevant icon to choose the display option.

Show All - show all thumbnails (all previews and crop prescans).

Show Previews - show only Previews (one thumbnail per preview).

Show Preview family - show one Preview and its crop prescans.

Queue Window

Note: After Restart, or when you enter the application, the queue is empty.

Images selected from the Preview Browser for preview or scan appear in the Queue window. Crop prescan requests also enter the queue. The item is scanned when it reaches the top of the queue, and a Progress indicator appears below this item. You can edit the queue, as explained below.

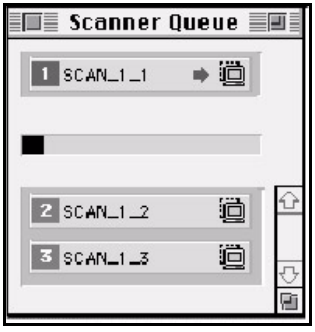


Figure 8: Queue window with three prescan crops

The queue order is according to a fixed priority. The priority order is (from high to low): preview, crop prescan, and final scan. Within each priority group, items are arranged according to the order in which they entered the queue.

Each queue item has the following:

- Serial number indicating the item's position in the queue. The item currently being scanned is number 1 with an arrow, and is colored green. Grouped items appear with the same serial number. Serial numbers are constantly updated, as items enter or leave the queue and when you edit the queue.
- Image file name.
- An icon indicating that the item is waiting in the queue for preview, crop prescan, or final scan.

Editing the queue

- To rearrange the queue, select and drag the item to its new position. All other items are automatically rearranged. In Prescan All or Scan All items belonging to the same Preview are grouped together. You cannot divide the group or move a group item.
- To delete an item or a group waiting in the queue, select it and press **Delete**. You cannot delete items within the group.
- To delete an item currently being scanned (the topmost item), select it and press **Delete**. The system prompts for one of two options:
  - delete the item from the queue, or
  - re-enter the item into the queue. The item enters the queue according to its priority. For example, the preview is re-entered as the last item in the preview group.

Image Display Window

The Image display window is used for interactive work with the image. The window includes the display area, and various tools and display options that are arranged along the left and bottom sides of the display area.

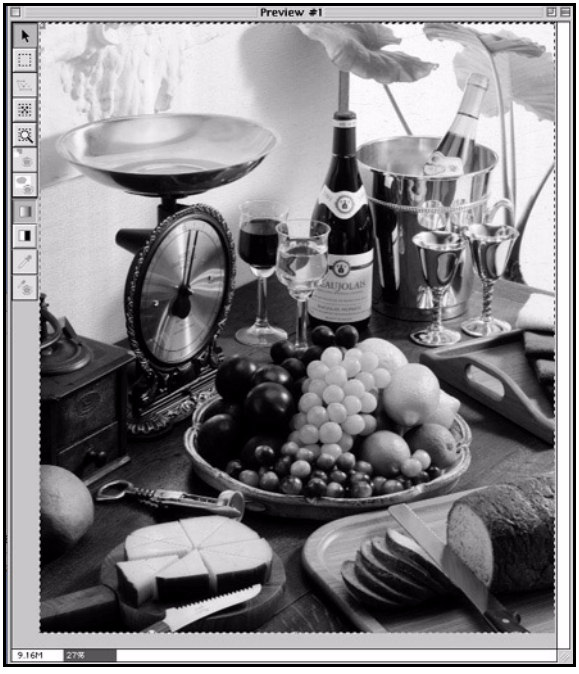


Figure 9: Image display window

After Preview, the first Preview image is automatically displayed in the display area. To display a prescanned image, double-click its image thumbnail in the Preview Browser.

Tools and Display Options

When the preview is first displayed in the Image display window, a crop frame encloses the image. This is the Full image crop, set according to the selected format. The area enclosed by the crop frame is the final scan area. Using the cropping tools, you can change the crop size and position. Using the Line-art and B/W tools, you can change the display options.

The following tools that appear along the left side of the display area are available in CopyDOT mode.

Pointer - change the position and size of the active crop frame.

Cropping - define and draw a new crop.

Reset Crop - set the crop to the Full image crop.

Line-art - display the active preview as black and white pixels only.

B/W - display the active preview with more color detail (as black, grays and white).

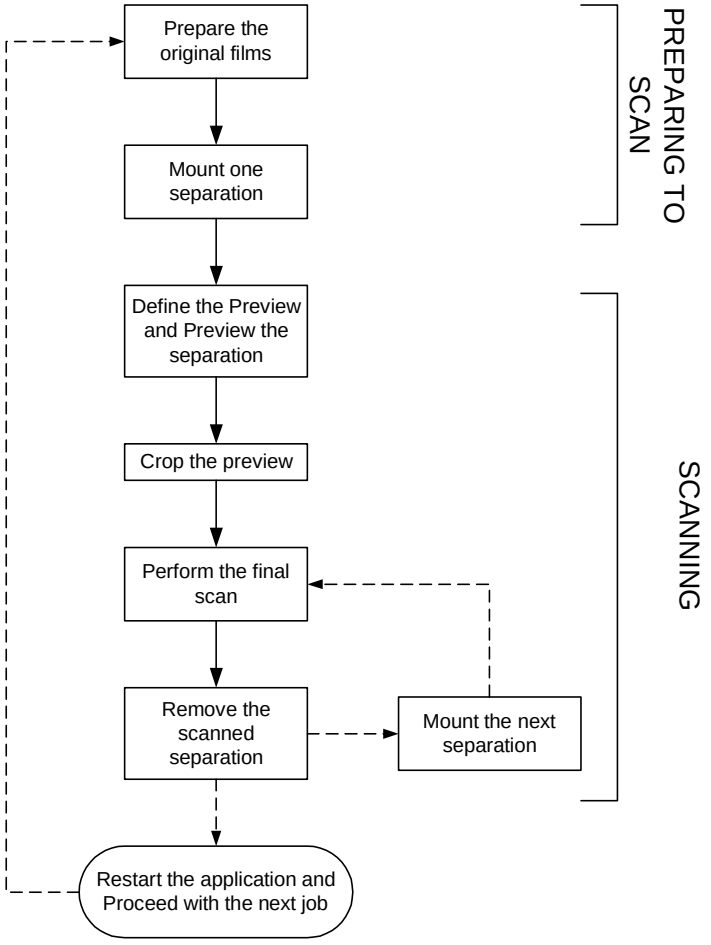
Note: Use the B/W tool when defining crops for ease and precision.

Preparing and Scanning oXYgen DOT Originals

The oXYgen DOT basic scan includes the following main stages:

- preparing to scan
- scanning film separations

The following chart shows the oXYgen DOT basic scan workflow.



Preparing to Scan

Preparing to scan involves two stages:

- off-line preparation of the original films
- mounting each separation on the scanner

You mount and scan one separation at a time.

Preparing Original Films

Your oXYgen DOT kit contains a positioning template and a set of punched mounting sheets and strips for manual off-line preparation of the original film separations. Mounting the separations on the scanner is done one at a time. oXYgen DOT can scan up to 16 separations in Copy DOT.

The mounting frame of the positioning template has the same dimensions as the scanner base glass and the same pin registration as the scanner.

Note: Use the supplied mounting strips for mounting the original films; use the big mounting sheet only if you want to place small size films. When you use a mounting strip, tape one edge of the original film on top of the mounting strip; when you use a mounting sheet, mount the original film on top of it.

To prepare original films:

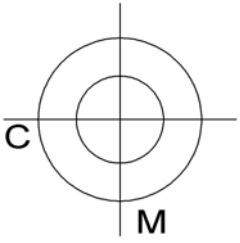
1. Place the positioning template on a light table and mount one of the supplied mounting sheets/strips onto the registration pins of the positioning template.
2. Tape the separation that contains the most information to the mounting sheet with the emulsion side up and the top edge to the left side of the positioning template (marked with the words TOP EDGE and an arrow showing the correct position of the image). Make sure the separation is taped on straight, using the printed grid lines as guidelines. The film surface must lay flat on the mounting sheet and there should be no contaminants between the film and the mounting sheet.

Tip: If your original does not have registration marks, use a detail from the image for registration.

The first separation is the base separation. Use it as a guide when you tape the other separations.

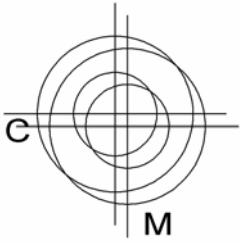
3. Put a second mounting sheet on the positioning template on top of the first one and place the second film separation on it (after taping the separation with the most information, the order of the others is unimportant).
4. Align the registration marks of the second film separation so that they overlap completely with the registration marks of the first separation.

Tip: Use a magnifying glass for precise positioning.



Correct

Perfect registration: cyan and magenta separations overlap completely.



Not correct

Misregistration: cyan and magenta separations do not overlap.

5. Tape the second film separation to the second mounting sheet.
6. Remove the second separation. Let the first separation remain on the positioning template and use it as a guide to align the other separations before you tape them.
7. Repeat the steps 3 through 6 for the remaining separations.

Important: Your originals must have perfect registration. Make sure that the registration marks of all separations of an image overlap completely when you place them on top of each other on the positioning template.

After you have prepared your originals as described above, you can mount them on the scanner.

Mounting One Separation

Before mounting the separation film on the scanner, make sure that the scanner base glass is clean.

To mount the film separation on the scanner:

1. Mount the first film separation you intend to scan in the scanner with the emulsion side down.
2. Insert the holes of the mounting sheet/strip, to which the separation film is taped, into the registration pins of the scanner. Make sure the mounting sheet/strips is properly inserted in the pins.
3. Close the scanner top cover. You are ready to scan the first separation.

Scanning the Film Separations

You should scan the film separations one at a time. Setup options and cropping are defined before scanning the first separation, and then used for other separations.

Scanning the film separations includes the following stages:

- defining the preview
- cropping the preview
- performing the final scan

Defining the Preview

Defining the preview involves defining the parameters for the preview and previewing the originals. The result of the process is a low-resolution image of the original, which is displayed in the Image display window.

Before you proceed with the scan, make sure the oXYgen Scan application software and the CopyDOT software access key are installed.

To define the preview

1. In the oXYgen Scan folder, click the **oXYgen Scan** icon to start the application. The oXYgen Scan splash screen appears for a few seconds followed by the Setup dialog box, the Menu bar and the Scan palette.
2. In the Setup dialog box, set the following:
   - From the Mode list, select **CopyDOT**; the Setup dialog box and the Scan palette are modified.

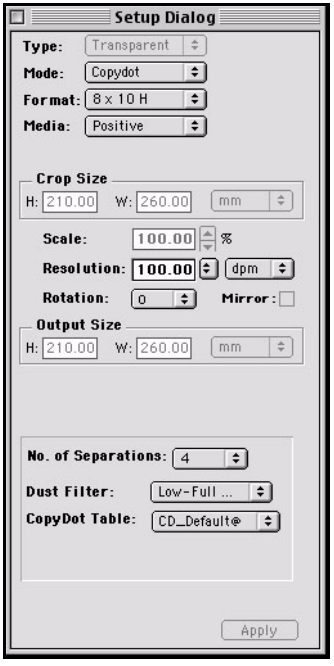


Figure 10: Setup dialog box

Note: End Points, Gradation, Sharpness and Color Table fields do not appear. Instead, the No. of Separations, Dust Filter and CopyDOT Table fields appear.

Figure 11: Scan palette

- From the Media list, select **Positive** or **Negative** depending on your originals.
- Select the unit of measurement for the Crop size.
- In the Crop box, set the height and width of the crop.

Note: You can define the crop also in the Layout window.

- Select the Mirror option to create a mirror image of the scanned original.
- Select the unit of measurement for the Output size.
- Select **DPM** (dots per millimeter) or **DPI** (dots per inch) as the resolution unit of measurement.
- In the Resolution box, set the resolution.
- From the No of Separations list, select **4**.
- **Low-Full Dot Range** is the default dust filter option. If the film is dirty or scratched, select **High Reduced Dot Range** from the Dust Filter list.
- From the CopyDOT Table list, select a CopyDOT table that matches the parameters of your output device.

3. From the Setup menu select **CopyDOT Setup**; the CopyDOT Setup dialog box opens.

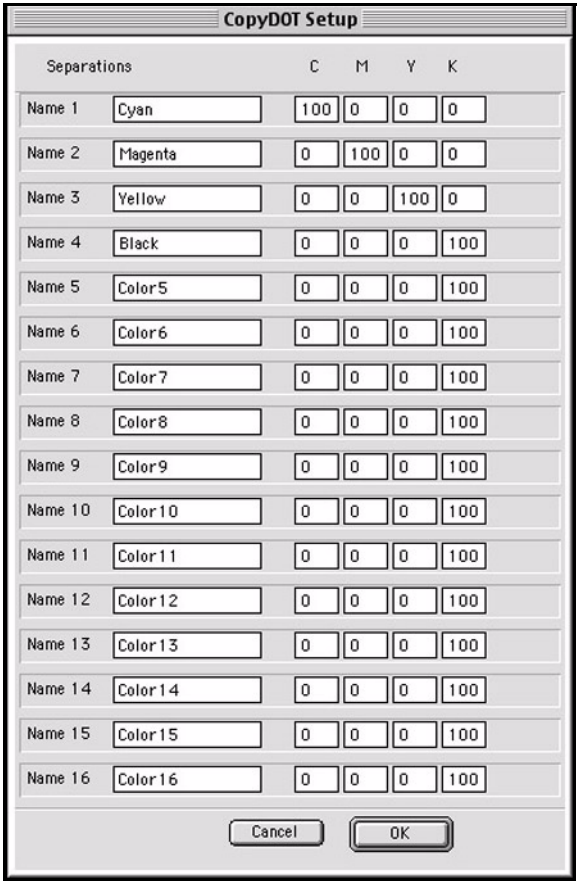


Figure 12: Copy DOT Setup dialog box

In the CopyDOT Setup dialog box, when you have more than four separations, you can assign new names to the spot color separations by typing the names in the Name fields. These names will appear later in a page layout application you will use. You can also type the equivalent CMYK values for spot colors in the C, M, Y, and K numeric input fields for preview and proofing purposes. Use Adobe Photoshop to identify the equivalent CMYK values.

Note: If the Setup dialog box is active instead of the Image display window and you use the Delete key, the value in the active text field in the Setup dialog box is deleted.

4. Click **OK** to confirm the settings in the CopyDOT Setup dialog box.

5. Click the **Preview** icon in the Scan palette, or choose **Preview** from the Scan menu in the Menu bar.

   All originals in the scanner are sent to the queue for Preview. In the Preview Browser, a Preview icon with an arrow indicates that the item is in the queue. A Progress indicator is displayed during the preview process while a low-resolution scan of the image is being created. When the process is complete, the preview of the first separation appears in the Image display window (see Figure 13 on page 44). The Preview mode is active.

Cropping the Preview

This section describes how to crop the preview for the final scan, including:

- defining and modifying crops
- crop prescan

Cropping the preview is the third stage of the scanning process. It involves defining one or multiple crops for the final scan. Although you can skip this stage and perform a final scan on the Full image crop, cropping the preview allows you to define the final scan crops with greater precision and avoid the need to rescan the originals.

Defining and Modifying Crops

When the preview is first displayed, the Full image crop is defined, enclosing the entire image. The system assigns a default name Scan_X_1 to this crop where X is the preview number. You can modify the size and position of the Full image crop and create additional crops.

Note: You cannot revert to the original size and position of the Full image crop after you have modified it.

Define the crop only for the first separation. The values you define for the first separation are applied to all separations.

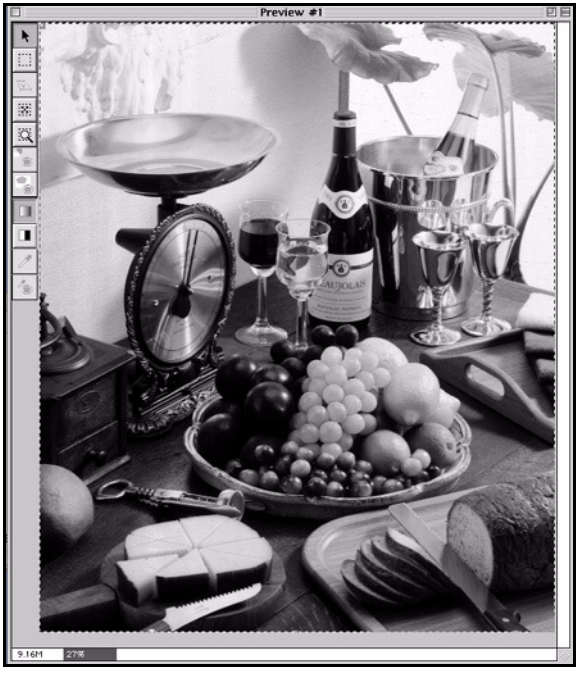


Figure 13: Image display window

To define a crop:

1. Select the **Cropping** tool, and click a point in the image to mark the top left corner of the crop.
2. Press and drag the mouse button over the area you want to crop. Release the mouse to set the crop.
3. To move or change the crop size, use the pointer tool.

To move the crop:

1. Select the **Pointer** tool and place your cursor inside the crop.
2. When you press the mouse button, the pointer changes to a hand. Drag the hand to move the frame, and release the mouse to set the new position.

To change the crop size:

1. Move the pointer to a frame corner or to a side handle. The pointer changes to a set of arrows, pointing in the directions in which you can move the frame.
2. Press the mouse button and drag the frame corner or the side handle and release the mouse to set the frame size.

Note: To reset the crop to the Full image crop, click the **Cropping** icon, or the **Reset Crop** tool.

To define a second crop, repeat the procedure used for the first crop. You can also use the Duplicate Crop option in the Edit menu, or the keyboard shortcut <⌘D>. You can define as many crops as you need on the same preview.

To delete a crop:

1. Make sure the Image display window is active.
2. Click to activate the crop you want to delete.
3. From the Edit menu, choose **Delete Crop**, or press the <**Delete**> key.

Note: If the Setup dialog box is active instead of the Image display window and you use the **Delete** key, the value in the active text field in the Setup dialog box is deleted.

If the crop you want to delete is currently in the queue, a message is displayed and the crop is not deleted. If you have performed a crop prescan, a message is displayed and the crop is deleted only after you click **OK** to confirm the delete command.

After you delete the crop, the next crop becomes active. If there are no other crops, the Full image crop becomes active.

Crop Parameters

You can change some crop parameters for specific crops while others must be identical for all the preview crops. When you define a new crop, it inherits the parameters of the active crop, with the exception of the Crop Height/Width and Scan Height/Width. When you use the Duplicate Crop command, the new crop also inherits Crop Height/Width and Scan Height/Width.

You can change the following crop parameters of the same preview:

- Resolution
- Crop Height/Width
- Scan Height/Width

You can also change file format of the final scan. You can edit the crop parameters by changing the settings of the active crop in the Setup dialog box.

➢ To edit the crop parameters, click inside the crop to make it active and adjust the settings you want to modify in the Setup dialog box.

Note: After modifying the crop parameters, you must save the final scan parameters. To save the scan parameters, click **File** in the Menu bar and select **Save Params for Scan**.

The Warning icon appears in the Setup dialog box if the scan cannot be performed according to the settings because they exceed the scanner limitations. For example:

- if the crop extends beyond the display area boundaries, the extended area is scanned in black.
- if the resolution is less than 2 dpm.

Crop Prescan

Crop Prescan is recommended when the crop size is smaller than one third (1/3) the size of the preview. Using Crop Prescan, a more accurate image analysis is obtained for the crop. A low-resolution crop image is displayed in the Crop Prescan window, showing more details.

To perform Crop Prescan:

1. Click to activate the crop for which you want to use **Crop Prescan**.
2. Click the **Prescan** icon in the Scan palette. Press the **Option** key while clicking the icon to send all the preview crops to the Queue window for Prescan.

   After Crop Prescan, an image thumbnail of each crop prescan appears in the Preview Browser with its file name and the Prescan icon.

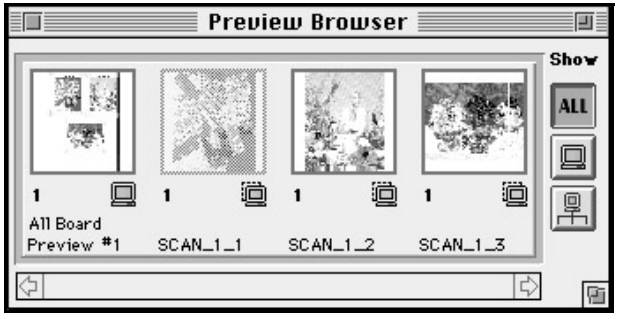


Figure 14: Preview Browser window - Show All

3. To display the Crop Prescan image, double-click its image thumbnail.

   The Crop Prescan image is displayed and the Setup dialog box displays the relevant parameters.

Note: You can edit the crop, but you cannot change its size after crop prescan.

To scan the crop prescan, the crop prescan image must be displayed in the Image display window. The scan process is the same as for previews.

Performing Final Scan

The result of the scan depends on the file format settings. Select the final scan file format before you proceed with the final scan. When you choose the format, make sure it matches your post-scan workflow needs and is supported by the application in which you intend to use the scanned file. For example, if you are scanning a partial page that you intend to combine with other page elements, you must select a file format that supports a preview - either PSImage or EPSF format. If you intend to incorporate the scanned file in an OPI workflow, you must use EPSF format.

The following file formats are available in oXYgen DOT:

See section Post-Scan Workflows for details about selecting the right file format for your workflow needs.

- **EPS** (Encapsulated PostScript). PostScript format which enables OPI workflows. PICT and TIFF previews are available. There are three types of output files: high-resolution EPS file, DCS2 single file, and DCS2 multiple file. This file format output is up to 16 separations. Compression is available.
- **TIFF** - A high-resolution TIFF file. Compression is available.
- **PSImage** - PostScript format for integration with Creo output devices, enables APR and OPI workflows in Creo environment. Output is up to 4 separations. TIFF and PICT previews are available. Proofing file can be created. High-resolution data can be set to EPS or NLW. Compression is available.

Note: The PSImage format is not supported in the current version.

- **LW Handshake** - LW output is up to 4 separations; 256 colors; no previews are available.
- **NLW** - NLW (New Linework) output is up to 16 separations; 64K colors; no previews are available.

Use the following table to select a file format. Refer to the section Post-Scan Workflows for additional details on the workflows.

File Format	EPS - DCS2	TIFF	PSImage	LW Handshake	NLW
Number of Separations	up to 16	up to 16	up to 4	up to 4	up to 16
Compression	yes	yes	yes	no	no
Low-resolution file	yes	yes	yes	no	no
Need RIP	yes	yes	yes	no	no
Target Output	Full Page Partial Page	Full Page Partial Page	Full Page Partial Page	Full Page	Full Page
Target Workflow	OPI	OPI	APR/OPI	no RIP	no RIP
Supported Output Equipment	Creo Other	Creo Other	Creo	Creo	Creo

Specifying the File Format Settings

You can specify the file format settings by accessing the format settings either through the Setup menu before preview, or through the Scan dialog box after preview.

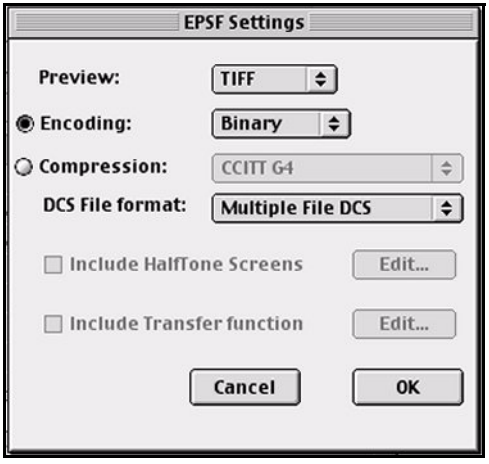
Note: The following sections describe specifying the file format settings through the Setup menu.

EPS Settings

To specify the settings for the EPS format:

1. From the Setup menu, choose **EPS Setup** under File Format Setup; the EPS Settings dialog box appears.

Note: You can open the EPS Settings window also by clicking the **Settings** button in the Scan dialog box.



Note: The options that appear dimmed in the EPSF Settings dialog box are unavailable.

2. In the EPS Settings dialog box, select the settings best suited to your output job needs.

   Preview

   - The default preview is **TIFF**. When TIFF is selected, a low-resolution color composite file will be created in addition to the black and white bitmap high-resolution files during the scan process.
   - Select this option when you scan partial pages. The low-resolution file can be used for positioning and editing. It displays quickly giving immediate feedback. During the final output in the OPI workflow, the high-resolution files replace it.
   - PICT - select **PICT** preview for files for Macintosh environment.
   - Choose **None** when you do not need a low-resolution color composite file.

   Encoding

   - From the Encoding list, choose **Binary** or **ASCII** to specify how the data is stored in the file.

   Compression

   - Select one of the compression options if compression is needed. Compression saves storage space and transfer time when copying files on the network. Compressed files are approximately four times smaller. Compression does not result in a loss of quality. Do not use the compression option if you want to display the file in image editing applications like Adobe PhotoShop. They cannot be displayed.

   DCS File Format

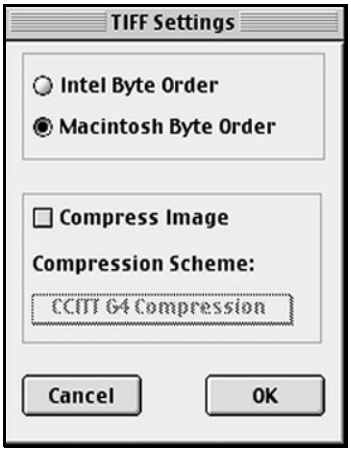
   - **Multiple file DCS2** (default) - this DCS file format results in a master file and multiple high-resolution files.
   - **Single File DCS2** - this DCS file format results in a single file that contains the data of high-resolution files.
   - **None** - select this option when you want a high-resolution EPS file.

3. To save, click **OK**.

TIFF Settings

To specify the settings for the TIFF format:

1. From the Setup menu, select **TIFF** under File Format Setup; the TIFF Settings dialog box is displayed.



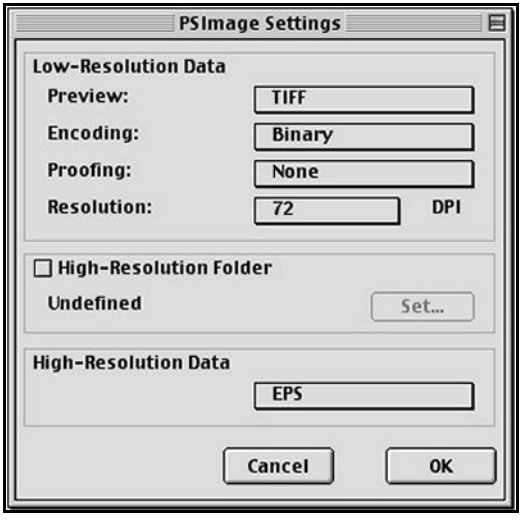
2. In the TIFF Settings dialog box, specify the TIFF format settings according to your output job need as follows:
   - Select **Intel Byte Order** for PC and **Macintosh Byte Order** for Macintosh computers.
   - **Compress Image** - select this option if you want to compress the image. After selecting this option, select the type of compression from the Compression Scheme list.

PSImage Settings

Note: The PSImage format is not supported in the current version.

To specify the settings for the PSImage format:

1. From the Setup menu, choose **PS Image Setup** under File Format Setup; the PSImage Settings dialog box appears.



2. In the PSImage Settings dialog box specify the **PSImage** format settings according to your output job needs as follows:

   Low-Resolution Data

   - Preview - select **TIFF**, **PICT**, or **None**.
   - From the Encoding list, select **Binary** or **ASCII** to specify how the data is stored in the file.
   - Proofing - select **Bitmap**, **Gray scale**, **Indexed Color**, or **CMYK** if you want to create a proofing file, or **None** not to create a proofing file.
   - Resolution - select the resolution for the proofing file.

High-Resolution Folder

- Select the **High-Resolution Folder** option and click **Set** to set the folder of the high resolution file. In the dialog box that appears, set the folder location.
- If this option is not selected, the file is saved in the same folder as the low resolution file.

High-Resolution Data

- To define the format of the final high resolution file.
- Click the box to the right of High Resolution Data, and choose the requested format (EPS or NLW).

Note: If you select EPS, when you click OK, the EPS Settings dialog box is displayed. Specify the settings for the EPS format. Refer to section *EPS Settings* on page 50.

3. Click **OK**.

Performing Final Scan

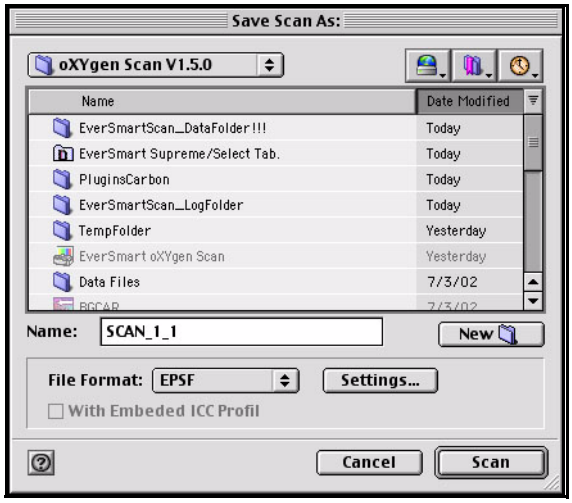
You must scan all separations of an image during the same scanning session. If the scanning session is interrupted and you have to quit oXYgen DOT, you must start from the beginning when you resume scanning, re-scanning the separations scanned during the first session and repeating all stages of the process (setup, preview, crop and final scan).

Note: After editing the crop, you can select **Save Params for Scan** from the File menu to define the final scan parameters.

To perform final scan:

1. In the Scan palette, click the Scan icon of the separation mounted on the scanner.

The following dialog box opens:



2. In the dialog box, define the following parameters for the final scan output file:
   - Name - type in the name in the Save Scan as box.
   - File Format - select one of the available file formats.
   - The file format you select must match your workflow needs and it must be supported by the application in which you intend to use the scanned file.
   - Destination - select the folder where you want to save the file.
3. Click **Settings** to specify the file format settings, if you have not specified them previously.

See *Specifying the File Format Settings* on page 49 for details.

4. Click **OK** to save your selection.

   The scanner scans the mounted separation. In the Preview Browser, a Scan icon with an arrow appears below the image thumbnail of the preview (the arrow disappears after the scan is completed). You can monitor the progress of the scan in the Queue window that displays the name of the scanned separation and the progress indicator under it.

   If the Beep option in Operation Modes Preferences, under General Preferences in the Setup menu, is selected, the scanner beeps three times after each scan is completed.

   If you scan an image with more than one separation, after the first scan, the scanner automatically resets to load position and a window opens prompting you to replace the current separation with the next one.

5. Remove the first separation and mount the second, then close the top cover.
6. Click **OK** to close the window.
7. In the Scan palette, click the icon that represents the new mounted separation. The second separation is scanned according to the format settings defined for the first one.
8. Repeat steps 1 - 3 for all prepared separations.

Post-Scan oXYgen DOT Workflows

Overview

oXYgen DOT provides several post-scan workflow solutions. It allows you to incorporate pre-separated analog films into a fully digital workflow up to the final film. The outcome of the oXYgen DOT scan depends on the selected file format. For example, a low-resolution color preview file is generated only for EPS and PSImage formats.

Note: The PSImage format is not supported in the current version.

You should select the file format according to the post-scan workflow needs. For example, you must select PSImage when you want to incorporate the scanned file in a Automatic Picture Replacement (APR) workflow. This section provides an overview of the post-scan workflows so you can select the right file format.

The basic scanning procedure is the same for all workflows. The difference is only in the final scan file format you select. Depending on the selected, there are two main post-scan workflows: Non-PostScript (LW Handshake and NLW workflows) and PostScript (EPS and PSImage workflows).

In the non-PostScript workflows, the pre-separated films are scanned directly into Scitex formats. Only high-resolution files are generated. These scanned image files can be output on Creo equipment without any RIPping or file conversion. LW files, which can not be compressed, are typically smaller than uncompressed PS files.

In the PostScript workflows, the scan generates a low-resolution file (for preview) in addition to the high-resolution EPS files. The high-resolution files can be compressed to save storage space and transfer time. This post-scan workflow includes the additional steps of positioning the low-resolution file in a page layout application, generating a PostScript file, and RIPping the file. The low-resolution file is replaced by the high-resolution files in the final output (APR and OPI workflows).

You can scan full or partial pages in Copy DOT. When you scan partial pages, you can combine the scanned image with other page elements (text, drawings, or other images) in a page layout application. Scanning partial pages is only possible in the PostScript workflow when the outcome of the oXYgen DOT scan includes a low-resolution file.

Scanning a partial page in a PostScript workflow requires an extra step of formatting the page and adding the other page elements. When you scan full pages, you only have to position the low-resolution file in the page layout application and generate a PostScript file.

Selecting the final scan file format depends on the number of separations of your original, target (full or partial page), post-scan workflow (PostScript or non-PostScript) and equipment. CopyDOT supports the following file formats:

- LW Handshake and NLW
- PSImage

Note: The PSImage format is not supported in the current version.

- EPS
- TIFF

The following diagram illustrates Copy DOT formats supported by the post-scan workflow.

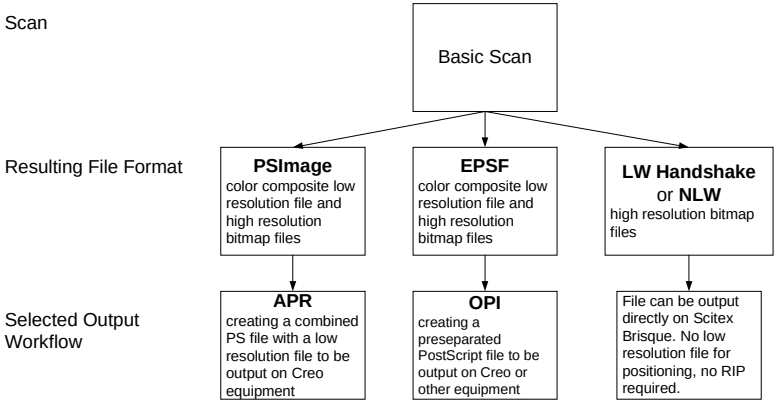


Figure 15: Post-scan oXYgen DOT workflows

You can output the scanned files to a Creo equipment (in PSImage, EPS DCS2, LW Handshake and NLW formats) or on non-Creo equipment (in EPS DCS2 format) and incorporate them into an Imposition job. You can use the Imposition job for digital proofing, improofing, and exposing to film or plate.

Linework Format Workflow

The LW Handshake and NLW formats are best suited for post-scan processing on Creo devices. They can be incorporated into the LW workflow that offers several advantages: shorter processing time since no RIPping is required; sending files directly to Imposition without the need for conversion; editing files in the Creo Remake application; scanning up to 16 separations in the NLW format.

In the LW workflow, you scan files directly into a Hot Folder on a Brisque. Brisque translates the files. The result is a Creo job that can be incorporated into all Creo workflows like impositioning using ICF files, digital proofing, imposition proofing, and exposing to film or plate.

The LW Handshake and NLW do not support compression options and are larger than files scanned to PSImage compressed format. You can use these formats only for full page scanning since they are not supported by page layout applications.

The LW Handshake supports 256 colors and up to 4 separations. The NLW supports 64K colors and up to 16 separations.

Note: You need the *Creo Presstouch* application to view and edit the high-resolution LW files.

The following procedure outlines the basic steps for processing a full page in the LW format.

You need the following:

- Brisque Impose version 3.0 or later.

For details on using the resulting Brisque Job in an Imposition Job, see Brisque Impose Tutorial.

To scan in LW format:

1. Scan up to 4 color separations in the LW Handshake format or up to 16 color separations in the NLW format.
2. In the Brisque and Brisque Impose create a Hot Folder sensitive to the LW Handshake/NLW. Create a template that includes the Translate function.
3. Transfer the LW files to the Hot Folder on the Brisque Impose.

   The Brisque Impose translates the files. The result is one Brisque job containing one page with four LW Handshake/ Scitex NLW separation files.

You can incorporate the Brisque page in all Creo workflows, including:

- Imposition
- Digital proofing
- Digital imposition proofing
- Exposing to an imagesetter
- Exposing to a plate setter

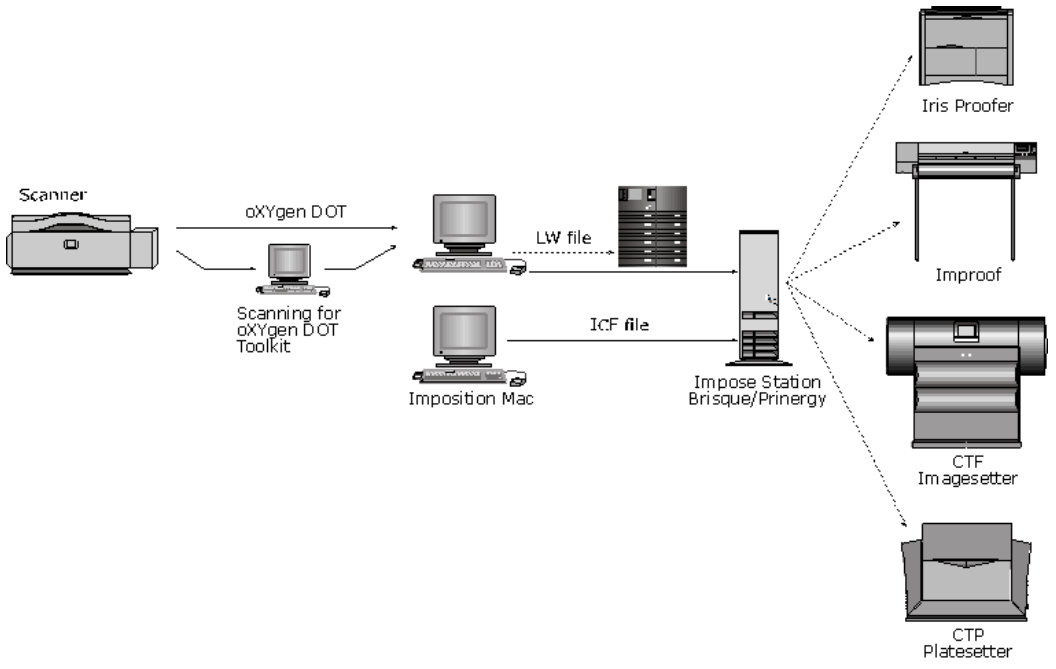


Figure 16: LW Handshake/Scitex NLW workflow

Note: LW Handshake workflow describes films scanned in the LW Handshake format and output on the Brisque Impose. A solid arrow indicates an obligatory process; a dotted arrow indicates an optional process.

PSImage Format Workflow

Note: The PSImage format is not supported in the current version.

Scan to the PSImage format when you intend to incorporate the result of the scan in a APR (automatic picture replacement) workflow and process the files on Creo devices. You can scan both full and partial pages using the PSImage format. Unlike the LW workflow, the PSImage workflow requires RIPping. However, PSImage format supports compression.

During the DOT scan, each pre-separated film is scanned at high-resolution to produce a high-resolution EPS bitmap file. In addition to high-resolution EPS files, the scanner produces a low-resolution color composite display file (PSImage). The low-resolution file contains pointers

to the high-resolution files. The low-resolution file is used for positioning and is replaced by four high-resolution files during the APR in the final output.

The four high-resolution files can be transferred directly to the appropriate folder on the Brisque. The low-resolution PSImage is transferred to the Macintosh computer for page makeup in a page layout application like QuarkXPress.

If you scan a full page, position the PSImage file inside the boundaries of the page and print the page to PostScript file. If you scan a partial page, after positioning the PSImage file, you must add the other page elements before printing the page to PostScript file.

The PostScript file is then transferred to the Brisque for RIPping during which the low-resolution master file is replaced with the high-resolution separations.

The resulting files can then be incorporated into an Imposition Job that is created when translating the Imposition Control File (ICF) file that includes the appropriate pointers to these files.

The following procedure outlines the basic steps for scanning a full or partial page in PSImage format.

You need the following:

- Brisque Impose version 3.0 or higher and an updated CopyDOT patch.
- A page layout application.

See *Brisque Impose Tutorial* for details on the procedure.

To scan in PSImage Compressed format:

1. Scan one or four-color separations in the PSImage format. The results are one or four high-resolution files and one low-resolution file.
2. On the Brisque, create a Hot folder sensitive to PostScript. Create a template that includes the RIP function. Set the high-resolution handling path.
3. On the Macintosh computer, position the low-resolution file in QuarkXPress (or any other page layout application). When working on a partial page, add the other page elements.
4. Print the final page to PostScript on the Macintosh computer.
5. Set to print only the separations you are using. Copy the PostScript file to the Hot folder on the Brisque.

   The Brisque Impose RIPs the files using the APR workflow. The result is one Brisque job containing one page with four NLW files.

To use the resulting Brisque job in an Imposition job, see *Brisque Impose Tutorial*, *Chapter 10*.

You can incorporate the Brisque page in all Creo workflows, including:

- Imposition
- Digital proofing
- Digital imposition proofing
- Exposing to an imagesetter
- Exposing to a plate setter

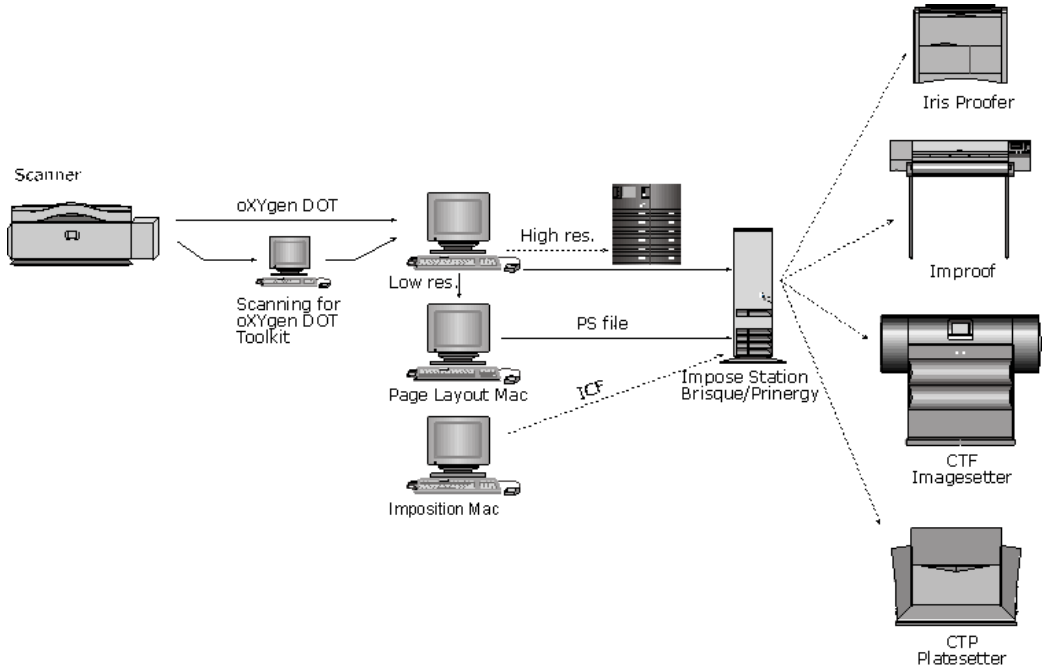


Figure 17: PSImage workflow

Note: The PSImage workflow describes films scanned in the PSImage format and output on the Brisque Impose. A solid arrow indicates an obligatory process; a dotted arrow indicates an optional process.

EPS Format Workflow

The EPS workflow is similar to the PSImage workflow. The files require RIPping and the scanning process generates a color composite low-resolution display file (Desktop Color Separation [DCS] master) in addition to the high EPS resolution files. This makes the format suitable for scanning both full and partial pages. The main differences are that files scanned to the EPS format must be incorporated into an OPI workflow and can be output on non-Creo equipment as well as on Creo equipment.

The main steps of the EPS workflow are the same as those of the PSImage:

- placing the low-resolution DCS file in a page layout application, such as QuarkXPress
- adding the other page elements to the document in the page layout application for partial page workflows
- generating a PostScript file from the document
- RIPping the file in an OPI environment

The low-resolution DCS master file is replaced by the high-resolution files in the process of generating a PostScript file on the OPI server.

The following procedure outlines the basic steps for scanning a full or partial page in the EPS format.

Note: Files scanned in EPS DCS 2 formats can also be processed on a Brisque DFE.

You need the following equipment:

- Non-Creo RIP system
- Macintosh computer with QuarkXPress or other page layout application
- OPI server (recommended)

To scan in EPS format:

1. Scan up to 16 separations in EPS - DCS2 format.
2. Send high- and low-resolution files to the OPI server.
3. Get low-resolution file back from the OPI server.
4. Position the low-resolution file in a page layout application, such as QuarkXPress. When working with a partial page, add the other page elements.
5. Print the file in the page layout application to PostScript and send it to the RIP. Make sure that the Separation option in the page layout application's Print window is on.

   The OPI server replaces the low-resolution file with the high-resolution files and sends one PostScript file to the RIPping system.
6. If you are not using an OPI server, omit steps 2, 3, 5 and 6.

Note: This workflow is a general procedure and may vary depending on the configuration of your system. You RIP a file with the target output and equipment in mind so that the result of the RIP can be used for its intended purpose.

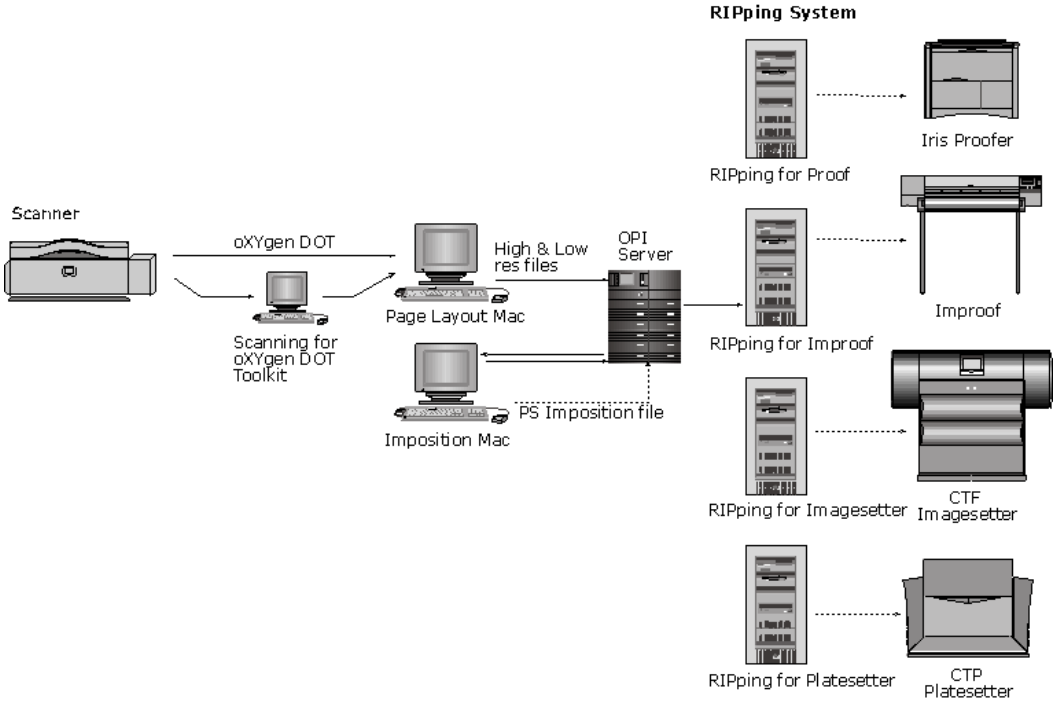


Figure 18: EPS workflow

Note: The EPS workflow describes films scanned in EPS format and output on non-Creo equipment. A solid arrow indicates an obligatory process; a dotted arrow indicates an optional process.

4

Scanning for oXYgen DOT Toolkit

Overview

The new Scanning for oXYgen DOT Toolkit workflow enables you to scan a single scan (set of halftone film separations) to be output to multiple copydot or descreened file sets with the right format, resolution and tonal calibration to match any workflow or device. This gives you complete control of your copydot workflow, and results in a copydot solution with high quality and functionality on a professional color scanning platform.

The diagram in Figure 19 illustrates Scanning for oXYgen DOT Toolkit workflow.

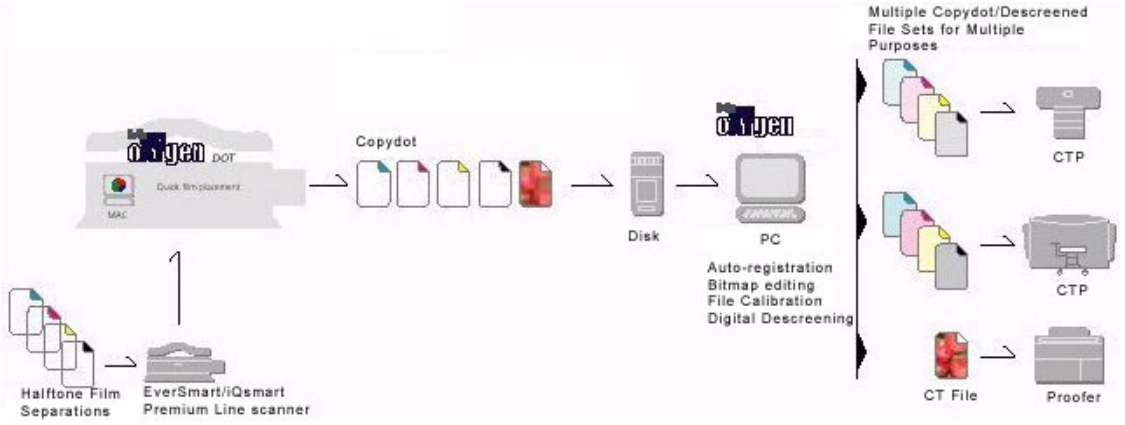


Figure 19: Scanning for oXYgen DOT Toolkit workflow

Sample Workflow

This section describes a sample workflow in the oXYgen DOT application.

At the scanner station, perform the following:

- In the Setup dialog box, set the following:
  - Select the **OTK File** mode.
  - Set the cell and trim size, and place the film so that it is inside the Cell window.

Note: Cell size indicates the size of the crop. The trim size, at this stage of the workflow, has only for informational value.

- Define the number of separations and dust filter level.
- The **Copy DOT table** box (CD_default@) is unavailable. In this workflow, the output scan is always linear (50%-50%) and calibration is not needed.
- Scan the film in the .eps format (contains the trim information).

At the oXYgen DOT Toolkit NT station, the .eps file is opened for further processing, including:

- Autoregistration of the scanned file (via Hotfolder)
- Bitmap editing
- File calibration (using Harmony curves)
- One-bit digital descreening
- Resampling
- Reformatting

For a detailed explanation of the different file processing stages at the oXYgen DOT Toolkit - NT station, refer to *oXYgen DOT Toolkit 1.0 User Guide*.

Geometric Correction

Note: Geometric correction should be performed at regular intervals. Perform geometric correction twice a month, if you scan on regular basis, or always before scanning, if you do not scan frequently.

To perform the oXYgen DOT geometric correction, do the following:

Note: Turn on the scanner at least half an hour before performing the geometric correction.

1. From the **Setup** menu, select **CopyDOT Geo Correction** to display the CopyDOT Geo Correction window.

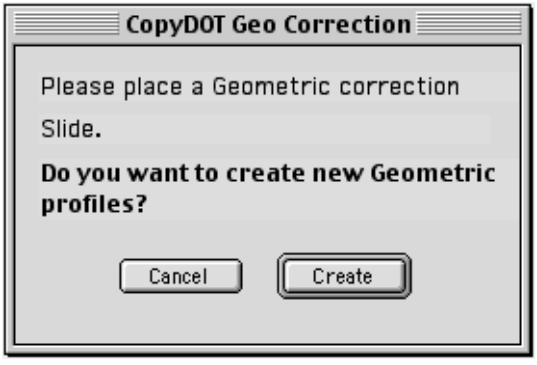


Figure 20: CopyDOT Geo Correction Window

2. Mount the oXYgen DOT Geometric Correction slide on the scanner and insert the registration holes into the registration pins on the scanner.
3. Close the scanner top cover.
4. Click **OK** to create a new Geometric correction.

oXYgen DOT Tools, Palettes and Windows

oXYgen DOT has the same interface as the oXYgen Scan application software with some modifications.This section contains a description of the tools, palettes and windows used in the oXYgen DOT application. If you have not used the oXYgen Scan application, we recommend reading the *oXYgen Scanning Application User Guide* (399Z1P555C).

The application tools and palettes are:

- Scan palette
- Preview Browser
- Queue window
- Image display window

The Preview Browser, Scan palette and Queue window let you monitor the foreground and background operations of the application and provide you with the tools to control the process. The Image display window and its tools let you view the image you intend to scan and modify its scan parameters.

Scan Palette

The Scan palette is used to perform preview, crop prescan and final scan, and restart the application. The echo line, at the bottom of the palette, describes the icon at the pointer's position. The active icons depend on the current mode of operation.

Figure 21: Scan palette

➢ To select a function, click its icon. When an image is displayed in the Image display window, the selected function is performed on the image; when an image is not displayed, the function is performed on selected preview thumbnails in the Preview Browser.

The Scan palette includes:

Preview icon - click to perform preview.

Prescan icon - click to prescan a crop defined on the displayed preview. To prescan all crops on the Preview, press the Option key and click the Multi-prescan icon that appears.

Scan icon - the number of scan icons in the Scan palette depends on the number of separations defined in the Scan dialog box. For the four separations, the icons are colored with the respective color: cyan, magenta, yellow and black. For each additional separation, a scan icon appears with the separation number.

- To scan the separation on the displayed preview, click its icon.
- To scan all crops of the separation on the Preview, press the Option key and click the Multi-Scan separation icon that appears. A check mark (✓) appears on the icon of a separation you have scanned.

Photoshop icon, click to launch Photoshop. The icon is unavailable in the oXYgen DOT and Scanning for oXYgen DOT Toolkit workflows.

Restart icon - click to restart the application.

Preview Browser

The Preview Browser controls the operational stage of the previews. It also gives the status of each original in the scanner.

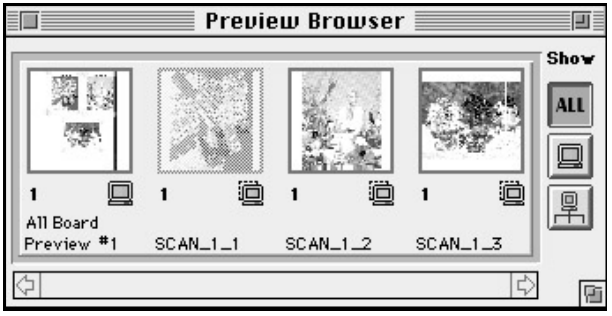


Figure 22: Preview Browser window - Show All

Each window in the Preview Browser represents an image. An empty gray window indicates that the image has not been previewed. After Preview, or Crop Prescan, an image thumbnail appears in the window.

Scans should be made of one original only. However, if you scan an original and one or more crops from that original, you can scan more than one item at a time.

Use the Preview Browser to control the following operations:

- To display an image in the Image display window, double click its thumbnail.
- To select images into the Queue window for preview or final scan. For preview, click the empty gray window. For scan, click the image thumbnail (this is possible only if the Image display window is closed).

Note: To select more than one image, click each image while pressing **Shift**. Alternatively, encompass the required images with a rectangle while pressing **Shift** and dragging the mouse button. To cancel, click the selected image while pressing **Shift**.

The Preview Browser provides the following status information:

- Format and number of originals in the scanner, and the file names of scanned images.
- Specific icons indicate if preview, crop prescan, or final scan were performed. Blue icons mean that the image was interactively modified.
- An arrow appears below the thumbnails of images currently in the queue, waiting to be scanned.
- The thumbnail of an image currently displayed in the Image display window is dimmed.

The three display options of the Preview Browser:

Click the relevant icon to choose the display option.

Show All - show all thumbnails (all previews and crop prescans).

Show Previews - show only Previews (one thumbnail per preview).

Show Preview family - show one Preview and its crop prescans.

Queue Window

Note: After **Restart**, or when you enter the application, the queue is empty.

Images selected from the Preview Browser for preview or scan appear in the Queue window. Crop prescan requests also enter the queue. The item is scanned when it reaches the top of the queue, and a Progress indicator appears below this item. You can edit the queue, as explained below.

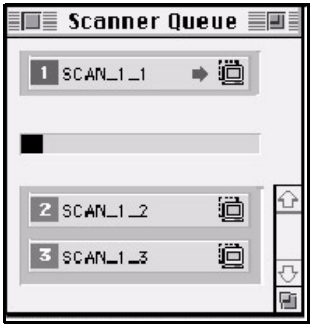


Figure 23: Queue window with three prescan crops

The queue order is according to a fixed priority. The priority order is (from high to low): preview, crop prescan, and final scan. Within each priority group, items are arranged according to the order in which they entered the queue.

Each queue item has the following:

- Serial number indicating the item's position in the queue. The item currently being scanned is number 1 with an arrow, and is colored green. Grouped items appear with the same serial number. Serial numbers are constantly updated, as items enter or leave the queue and when you edit the queue.
- Image file name.
- An icon indicating that the item is waiting in the queue for preview, crop prescan, or final scan.

Editing the queue

- To rearrange the queue, select and drag the item to its new position. All other items are automatically rearranged. In Prescan All or Scan All items belonging to the same Preview are grouped together. You cannot divide the group or move a group item.
- To delete an item or a group waiting in the queue, select it and press the **Delete** key. You cannot delete items within the group.
- To delete an item currently being scanned (the topmost item), select it and press **Delete**. The system prompts for one of the two options:
  - Delete the item from the queue, **or**
  - Re-enter the item into the queue. The item enters the queue according to its priority. For example, the preview is re-entered as the last item in the preview group.

Image Display Window

The Image display window is used for interactive work with the image. The window includes the display area, and various tools and display options that are arranged along the left and bottom sides of the display area.

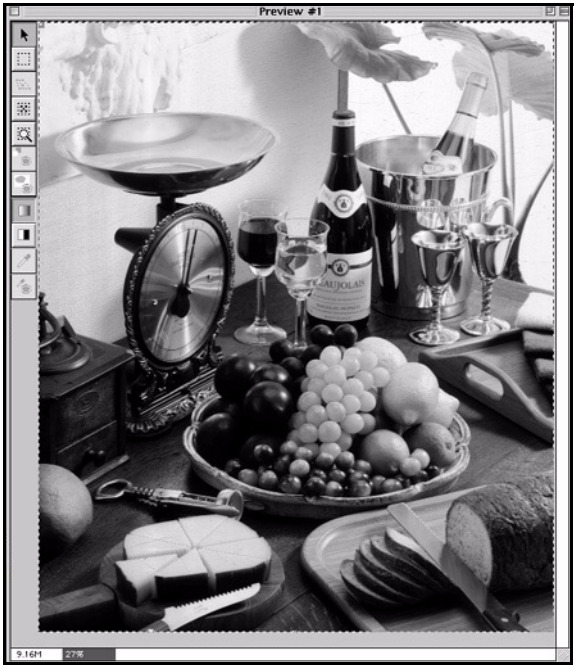


Figure 24: Image display window

After Preview, the first Preview image is automatically displayed in the display area. To display a prescanned image, double-click its image thumbnail in the Preview Browser.

Tools and Display Options

When the preview is first displayed in the Image display window, a crop frame encloses the image. This is the Full image crop, set according to the selected format. The area enclosed by the crop frame is the final scan area. Using the cropping tools, you can change the crop size and position. Using the Line-art and B/W tools, you can change the display options.

The following tools that appear along the left side of the display area are available in oXYgen DOT mode.

Pointer - change the position and size of the active crop frame.

Cropping - define and draw a new crop.

Reset Crop - set the crop to the Full image crop.

Line-art - display the active preview as black and white pixels only.

B/W - display the active preview with more color detail (as black, grays and white).

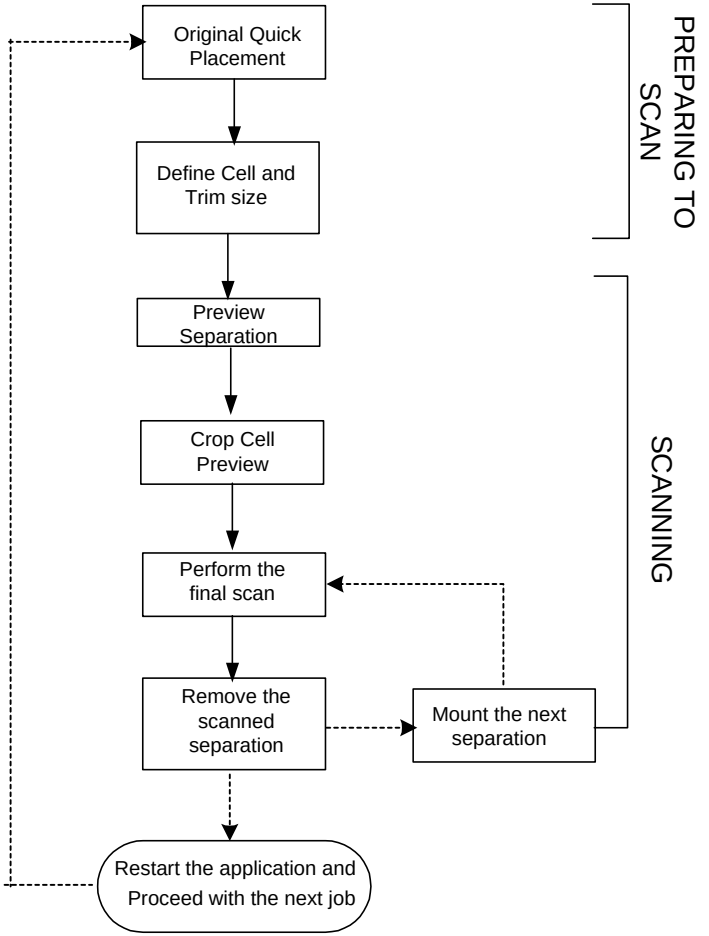
Note: Use the B/W tool when defining crops for ease and precision.

Preparing and Scanning oXYgen DOT Originals

The oXYgen DOT basic scan for the OTK includes the following two stages:

- preparing to scan
- scanning the film separations

The following chart shows the oXYgen DOT basic scan for the oXYgen DOT Toolkit.



Preparing to Scan

Preparing to scan involves two stages:

- Original quick placement
- Defining cell and trim size

Original Quick Placement

In the Scanning for oXYgen DOT Toolkit, there is no need for special preparation. Before you start, make sure all the films are approximately the same size. Also, prior to mounting the film on the scanner, make sure that the film and scanner base glass are clean. Place the films at the top right corner (0, 0) of the base glass.

Defining Cell and Trim Size

Cell size is defined as the film area that includes the crop and registration marks. It is recommended you set the cell size to be slightly outside the registration marks.

Trim size is defined as the area of the final page size, without the registration marks.

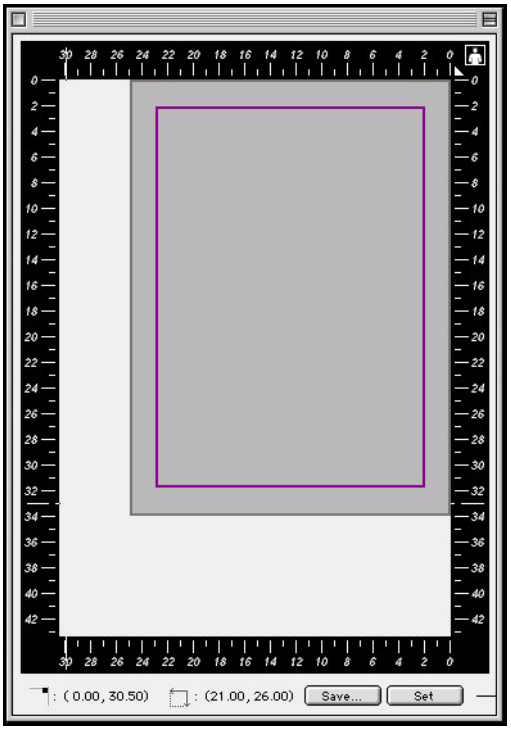


Figure 25: oXYgen DOT Toolkit File Layout

Scanning the Film Separations

You should scan the film separations one at a time. The Setup options and cropping that you define before scanning the first separation are then used for other separations.

Scanning the film separations includes the following stages:

- Previewing the separation
- Cropping the cell preview (if needed)
- Performing the final scan

Previewing the Separation

Previewing the separation involves defining the parameters for the separation and previewing it. The result of the process is a low-resolution image of the original, which is displayed in the Image Display window.

Before you proceed with the scan, make sure that the oXYgen Scan application software and the CopyDOT software access key are installed.

To preview the separation, perform the following at the scanner station:

1. In the oXYgen Scan folder, double-click the **oXYgen Scan** icon to start the application. The oXYgen Scan splash screen appears for a few seconds followed by the Setup dialog box, the Menu bar, and the Scan palette.
2. In the Setup dialog box, set the following:

Note: The No. of Separations, Dust Filter and the CopyDOT Table fields appear instead of the End Points, Gradation, Sharpness and ColorTable fields.

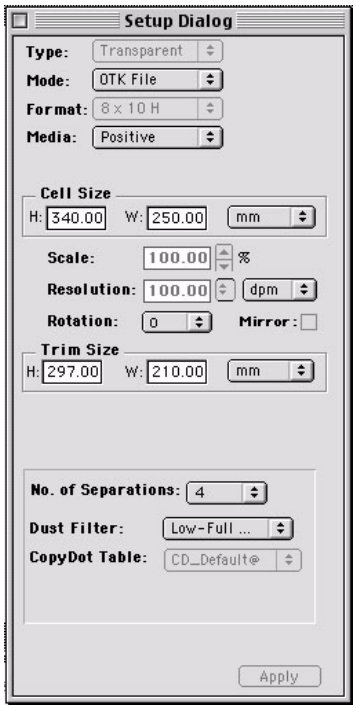
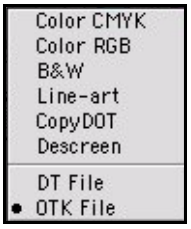


Figure 26: Setup dialog box



- From the Mode list, select **OTK File**; the Setup dialog box and the Scan palette are modified.
- From the Media list, select **Positive** or **Negative** depending on your originals.
- Select the unit of measurement for the Cell and Trim size.
- In the Cell Size box, set the height and width of the cell.
- In the Trim Size box, set the height and width of the trim.

Note: Cell size indicates the size of the crop. The trim size, at this stage of the workflow, has only for informational value.

- Select **DPM** (dots per millimeter) or **DPI** (dots per inch) as the resolution unit of measurement.

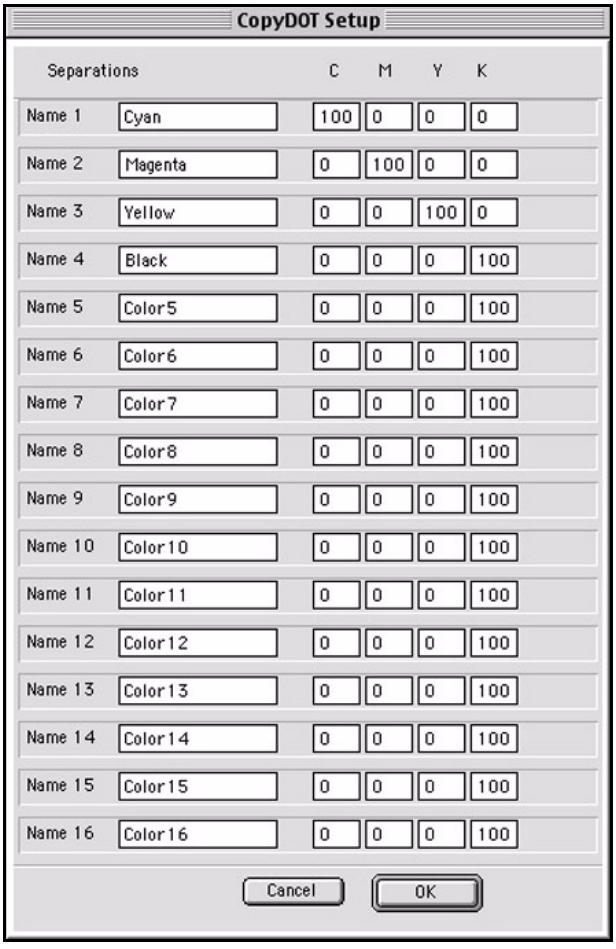
Note: The output resolution in the Scanning for oXYgen DOT Toolkit workflow is selected only later on in the oXYgen DOT Toolkit.

- Select the Mirror option if you want to create a mirror image of the scanned original.
- From the No of Separations list, select the number of separations of your originals. You can scan up to 16 separations with CopyDOT.

Note: The Scan icons in the Scan palette reflect the number of separations you have defined.

- **Low-Full Dot range** is the default dust filter. If the film is dirty or scratched, select the **High-Reduced Dot Range** dust filter from the Dust Filter list.
- The **Copy DOT Table** list is unavailable. In this workflow, the output scan is always linear (50%-50%). Calibration is one of the processing stages in the oXYgen DOT Toolkit.

3. From the Setup menu, select **Copy DOT Setup**. The CopyDOT Setup dialog box is displayed.



In the CopyDOT Setup dialog box, when you have more than four separations, you can assign new names to the spot color separations by typing the names in the Name fields. These names will appear later in a page layout application you will use. You can also type the equivalent CMYK values for spot colors in the C, M, Y, and K numeric input fields for preview and proofing purposes. Use Adobe Photoshop to identify the equivalent CMYK values.

Note: If the Setup dialog box is active instead of the Image Display window and you press the Delete key, the value in the active text field in the Setup dialog box is deleted.

4. Click **OK** to confirm the settings in the CopyDOT Setup dialog box.
5. Click the **Preview** icon in the Scan palette, or choose **Preview** from the Scan menu in the Menu bar.

   All originals in the scanner are sent to the queue for Preview. In the Preview Browser, a **Preview** icon with an arrow indicates that the item is in the queue. A progress indicator is displayed during the preview process while a low-resolution scan of the image is being created. When the process is complete, the preview of the first separation appears in the Image Display window (see Figure 27 below). The Preview mode is active.

Cropping Cell Preview

This section describes how to crop the cell preview (when needed) for the final scan.

Note: Define the crop only for the first separation. The values you define for the first separation are applied to all separations.

Figure 27: Cell Preview in Image Display Window

To crop cell preview:

1. Select the **Cropping** tool, and click a point in the image to mark the top left corner of the crop.
2. Press and drag the mouse button over the area you want to crop. Release the mouse button to set the crop.
3. To move or change the cell size, use the Pointer tool.

To move the crop:

1. Select the **Pointer** tool and place your cursor inside the cell.
2. When you press the mouse button, the Pointer tool changes to a hand. Drag the hand to move the frame, and release the mouse to set the new position.

Note: The Trim size cannot be changed. To set a new trim size, you need to restart.

To change the cell size:

1. Move the pointer to a frame corner or to a side handle. The pointer changes to a set of arrows, pointing in the directions in which you can move the frame.
2. Press the mouse button and drag the frame corner or the side handle and release the mouse to set the frame size.

Note: To reset the crop to the Full image crop, click the **Cropping** icon, or the **Reset Crop** tool.

To delete a crop:

1. Make sure the Image Display window is active.
2. From the Edit menu, choose **Delete Crop**, or press the **Delete** key.

Note: If the Setup dialog box is active instead of the Image Display window and you press the Delete key, the value in the active text field in the Setup dialog box is deleted.

Performing Final Scan

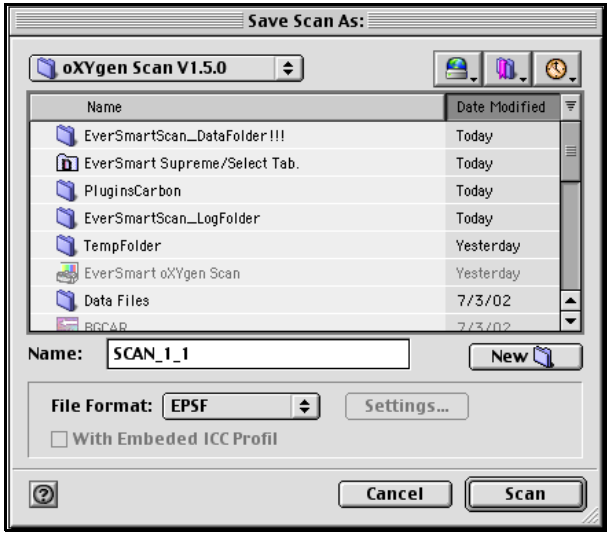
oXYgen DOT has one file format, **.**eps (Encapsulated PostScript) for the Scanning for the oXYgen DOT Toolkit workflow. In this workflow, you can scan up to 16 separations for one job. The output is a single file containing the high-resolution data together with the trim size parameters. Compression is available. The output file can be opened and processed only in the oXYgen DOT Toolkit station.

You must scan all separations of an image during the same scanning session. If the scanning session is interrupted and you have to quit oXYgen DOT, you must start from the beginning when you resume scanning, re-scanning the separations scanned during the first session and repeating all stages of the process (setup, preview, crop and final scan).

To perform final scan:

1. In the Scan palette, click the Scan icon of the separation mounted on the scanner.

The Save Scan As dialog box opens:



2. In the Save Scan As dialog box, define the following parameters for the final scan output file:

   - Name - type in the name in the Name box.
   - File Format - there is only one file format available: EPS (with DCS2 multiple, G4 compression).
   - Destination - select the folder where you want to save the file.
   - Settings - the Settings button is disabled.

   The scanner scans the mounted separation. In the Preview Browser, a Scan icon with an arrow appears below the image thumbnail of the preview (the arrow disappears after the scan is completed). You can monitor the progress of the scan in the Queue window that displays the name of the scanned separation and the progress indicator under it.

   If the Beep option in Operation Modes Preferences, under General Preferences in the Setup menu, is selected, the scanner beeps three times after each scan is completed.

If you scan an image with more than one separation, after the first scan, the scanner automatically resets to load position and a window opens prompting you to replace the current separation with the next one:

3. Remove the first separation and mount the second one inside the cell size you defined for the first separation. Then close the top cover.
4. Click **OK** to close the window.
5. In the Scan palette, click the icon that represents the new mounted separation. The second separation is scanned according to the format settings defined for the first one.
6. Repeat steps 1 - 3 for all prepared separations.

   After all the separations are scanned, the output of the scan consists of a single file that contains the trim data for opening and registering the file in the oXYgen DOT Toolkit.

5

Digital Descreening Workflow

Overview

Digital Descreening workflow eliminates the screen, producing a high-quality continuous tone (CT) file with the original film detail. It enables digital proofing, size changes, ad image editing.

The diagram in Figure 28 illustrates Digital Descreening workflow.

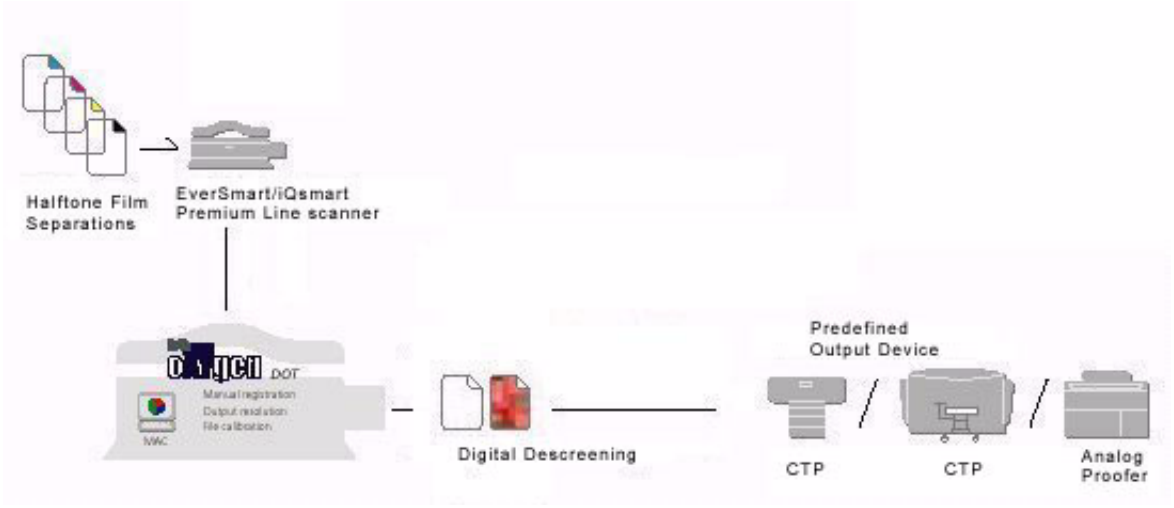


Figure 28: oXYgen DOT - Digital Descreening Workflow

Digital Descreening Calibration

Calibration can be useful for the proper functioning of your Digital Descreening operation. Proper calibration ensures that the digital file matches the original. Digital Descreening calibrations are performed only when necessary. This chapter explains how to determine whether calibration is necessary, and if so, how to perform it.

Digital Descreening calibration ensures the correct reproduction of the dot percentage values in the digital file.

Perform calibrations, when necessary, for each set of the scanning parameters (screen ruling and media) that you intend to use. We suggest you check whether Digital Descreening calibration is necessary at installation.

Each calibration generates a correction table. These tables appear in a popup menu in the Setup dialog box. Before initiating a scan, select the table that is generated based on the scanning parameters currently in use. If Digital Descreening calibration is not performed, use the default table.

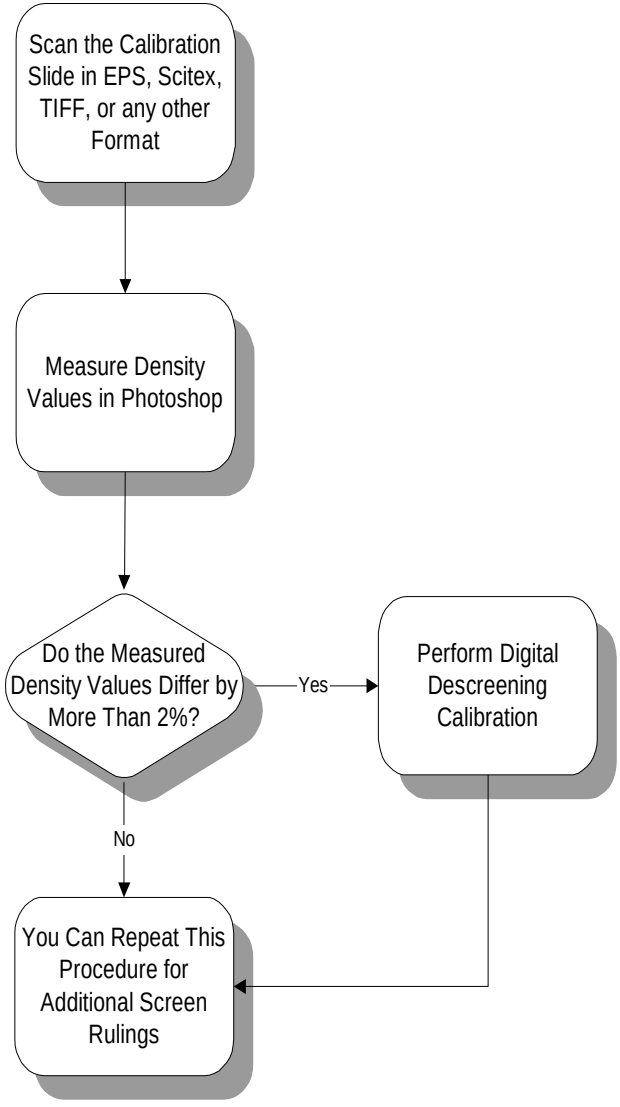


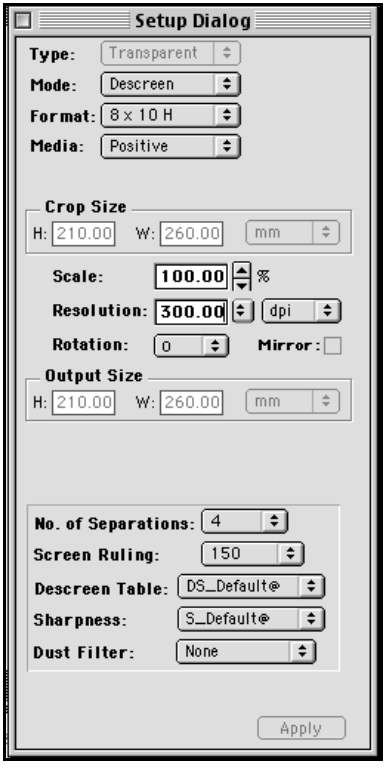
Figure 29: Digital Descreening calibration workflow

Determining Whether Calibration is Necessary

Immediately following the installation, and when you define imagesetter or output devices settings, it is recommended that you check whether calibration is necessary.

To determine whether calibration is necessary:

1. If the application is not already open, double click the **oXYgen Scan** icon; the Setup dialog box opens.



2. From the Mode list, select **Descreen**.
3. From the Media list, select **Positive** or **Negative** depending on your originals.
4. In the Resolution box, set the resolution.
5. From the No of Separations list, select **1**.
6. In the Screen Ruling list, define the screen ruling.

Note: The defined screen ruling must correspond to the screen ruling on one of the oXYgen DOT Calibration Slides.

7. From the Descreen Table list, select **DS_Default@**.
8. **None** is the default dust filter option. If the film is dirty or scratched, select **DF-High** from the Dust Filter list.
9. Mount the oXYgen DOT calibration slide on the scanner bed with the emulsion side down.

   One calibration slide is required per screen ruling. Make sure that the defined screen ruling in the Setup dialog box matches the screen ruling on the selected slide. If your media selection is Negative, expose a negative calibration slide.

Note: The original Calibration slide is supplied in the oXYgen DOT kit. If you want additional calibration slides, you can expose to film the Calibration Slide.eps file located in the oXYgen Scan folder.

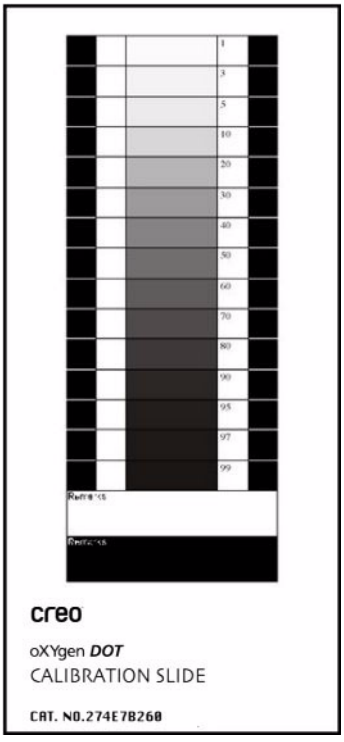
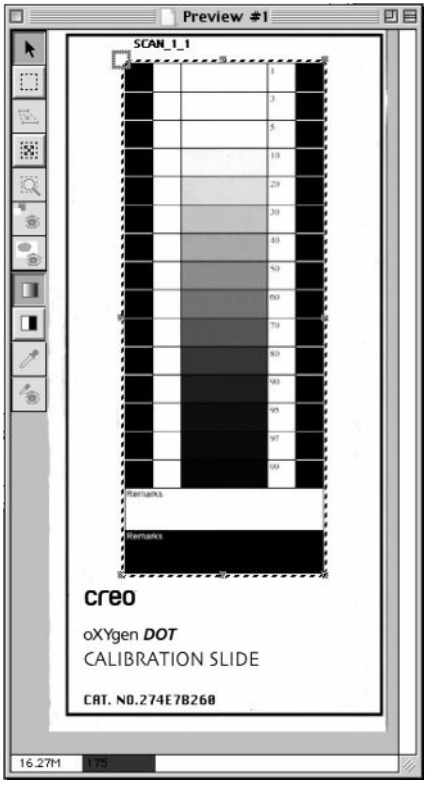


Figure 30: Calibration silde

10. In the Scan palette, click the **Preview** icon; the Scanner Queue dialog box appears followed by the Preview window.
11. From the Setup menu, select **Line Art** under Sharp Setup; the Line-Art Sharp window appears.
12. From the Intensity list, select **No Sharp**, then click **Save**; a browser appears.
13. In the browser, save the table as No Sharp Table, and click **Save**. Click **OK**; the Preview window is active.

14. In the toolbar in the Preview window, click the **Cropping** tool and define a crop on the displayed preview that includes the calibration slide test strips.



15. In the Scan palette, click one of the Scan icons.

16. From the File Format list on the dialog box that appears, choose a file format supported by the application you use (for example, Photoshop).

17. Click **OK**; the Original's Film Base dialog box appears.

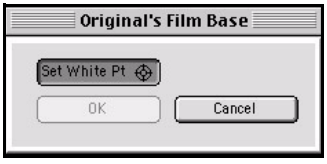
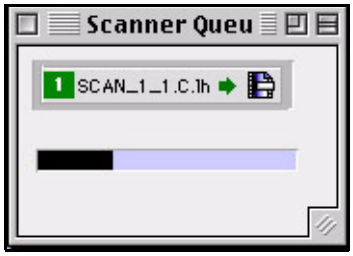


Figure 31: Original's Film Base - positive

Figure 32: Original's Film Base - negative

18. Click on the transparent area of the film in the Image display window to mark a white point. If your mode selection is Negative, click the dark area of the film in the image display window to mark a dark point.

    The scanner scans the selected crop. You can monitor the progress of the scan in the Queue window that displays the name of the scanned separation and a progress indicator.



19. When the scan is complete, open the scanned calibration slide in Photoshop and measure its dot percentage values.

    If the measured values differ by more than 2% from the values on the original calibration slide that you scanned, calibrate Digital Descreening, according to the instructions below.

Note: If you work with different combinations of setup parameters, (screen ruling and media) repeat this procedure for each combination.

Calibrating Digital Descreening

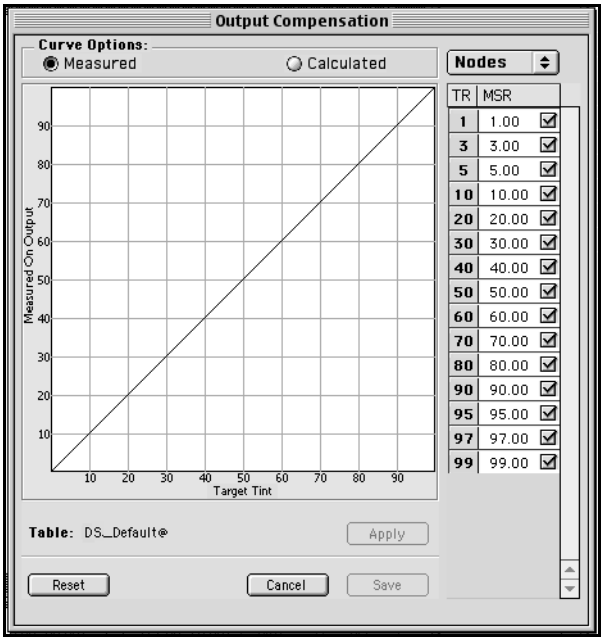
Digital Descreening calibration ensures the correct reproduction of dot percentage values at output.

Calibrate Digital Descreening only when the measured values differ by more than 2% from the values on the original calibration slide that you scanned. See *Determining Whether Calibration is Necessary* on page *94* for details.

To calibrate digital descreening:

1. Write down the dot percentage values of the scanned calibration slide that you measured in Photoshop. In the oXYgen DOT application, from the Setup menu, select **Descreen Calibration**; the Output Compensation window appears.

Note: If you are not using the calibration slide supplied in the kit, select **Curve** from the drop-down box at the upper right corner of the Output Compensation window. Then mark the dot percentage values you measured on the calibration slide by selecting the boxes next to the relevant values. After you finish entering the values, select **Nodes** from the drop-down box.

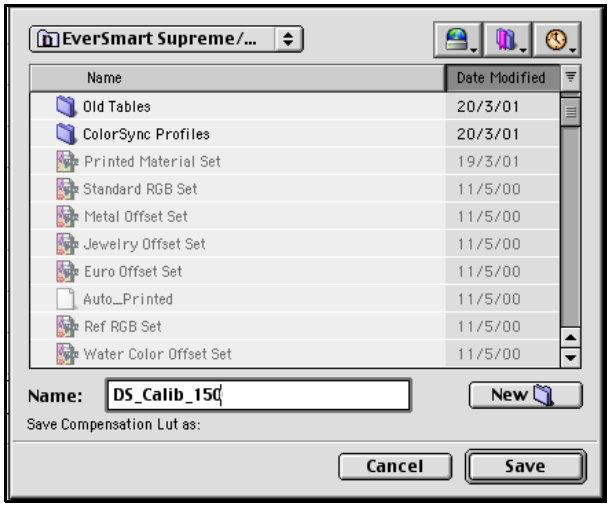


2. In the MSR column, enter the values you measured in Photoshop.

Note: If you make a mistake in entering the measured values, click **Reset** and start entering the values from the beginning.

Note: Selecting Calculated in the Curve options field displays a calculated graph that shows the new curve that was created after you entered the values (calculated correction table).

3. Click **Apply**; the curve changes according to the values you entered.
4. If you entered the values correctly, click **Save**.
5. If one of the values entered is illegal, a message appears prompting you that the value is illegal.
6. Click **OK**.
7. Correct the value, click **Apply**, and then click **Save**; the following window is displayed.



8. In the Name field, type the name for the new calibration table, and click **Save**. The new calibration table you created is added to the Descreen Table list.

Tip: Create calibration tables for each set of parameters you use.

Determining Whether the Calibrations are Correct

1. Rescan the original calibration slide with the calibration table you have created.
2. Open the scanned file in Photoshop and compare its dot percentage values with the values on the original calibration slide.

   If the values do not vary by more than 2%, the calibrations are correct; if they do vary by more than 2%, go back to Output Compensation window and modify the measured values of the new calibration table you saved.

Note: When you save, the application prompts you to replace the existing table. Click **Replace**.

Digital Descreening Tools, Palettes and Windows

Digital Descreening has the same interface as the oXYgen Scan application software with some modifications. This section contains a description of the tools, palettes and windows used in the oXYgen DOT application. If you have not used the oXYgen Scan application, we recommend reading the *oXYgen DOT Scanning Solutions User Guide* (399Z1P555A).

The following tools, palettes, and windows are described:

- Scan palette
- Preview Browser
- Queue window
- Image display window and tools

The Scan palette, the Preview Browser and the Queue window let you monitor the foreground and background operations of the application and provide you with the tools to control the process. The Image display window and its tools let you view the image you intend to scan and modify its scan parameters.

Scan Palette

The Scan palette is used to perform preview, crop prescan and final scan, and restart the application. The echo line, at the bottom of the palette describes the icon at the pointer's position. The active icons depend on the current mode of operation.

Figure 33: Scan palette

- To select a function, click its icon. When an image is displayed in the Image display window, the selected function is performed on the image; when an image is not displayed, the function is performed on selected preview thumbnails in the Preview Browser.

The Scan palette includes:

Preview icon - click to perform preview.

Prescan icon - click to prescan a crop defined on the displayed preview. To prescan all crops on the preview, press the **Option** key and click the **Multi-prescan** icon that appears.

Scan icon - the number of scan icons in the Scan palette depends on the number of separations defined in the Scan dialog box. For the four separations, the icons are colored with the respective color: cyan, magenta, yellow and black. For each additional separation, a scan icon appears with the separation number.

- To scan the separation on the displayed preview, click its icon.
- To scan all crops on the preview, press the Option key and click the **Multi-scan separation** icon that appears. A check mark (✓) appears on the icon of a separation you have scanned.

Photoshop icon - click to launch Photoshop.

Restart icon - click to restart the application.

Preview Browser

The Preview Browser controls the operational stage of the previews. It also gives the status of each original in the scanner.

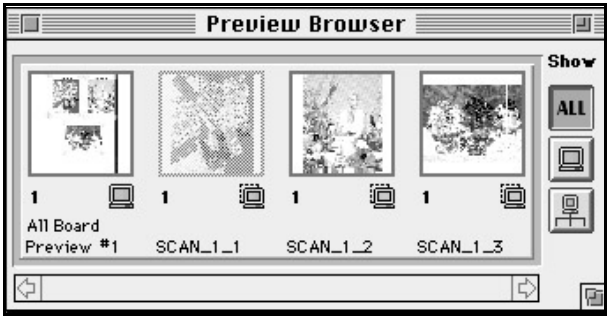


Figure 34: Preview Browser window - Show All

Each window in the Preview Browser represents an image. An empty, gray window indicates that the image has not been previewed. After Preview or Crop Prescan, an image thumbnail appears in the window.

Scans should be made of one original only. However, if you scan an original and one or more crops from that original, you can scan more than one item at a time.

Use the Preview Browser to control the following operations:

- To display an image in the Image display window, double click its thumbnail.
- To select images to the Queue window for preview or final scan. For preview, click the empty, gray window. For scan, click the image thumbnail (this is possible only if the Image display window is closed).

Tip: To select more than one image, draw a box enclosing the images, or click each image while pressing **Shift**. To deselect a selected image, click it while pressing **Shift**.

The Preview Browser provides the following status information:

- Format and number of originals in the scanner, and the file names of scanned images.
- Specific icons indicate if preview, crop prescan or final scan were performed. Blue icons show that the image was interactively modified.
- An arrow appears below the thumbnails of images currently in the queue, waiting to be scanned.
- The thumbnail of an image currently displayed in the Image display window is dimmed.

The three display options of the Preview Browser:

Click the relevant icon to choose the display option.

Show All icon - display all thumbnails (all previews and crop prescans).

Show Previews icon - show only previews (one thumbnail per preview).

Show Preview family icon - display one preview and its crop prescans.

Queue Window

Images selected from the Preview Browser for preview or scan, enter the Queue window. Crop prescan requests also enter the queue. The item is scanned when it reaches the top of the queue, and a Progress indicator appears below this item. You can edit the queue, as explained below.

Note: After **Restart**, or when you enter the application, the queue is empty.

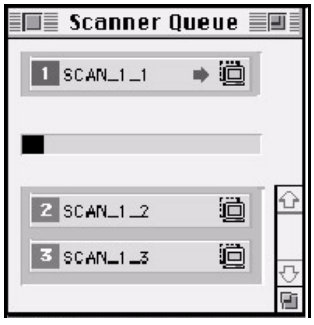


Figure 35: Queue window with three prescan crops

The queue order is set according to a fixed priority. The priority order is (from high to low): preview, crop prescan, and final scan. Within each priority group, items are arranged in the order in which they enter the queue.

Each queue item has the following:

- Serial number, indicating position in the queue. The item currently being scanned is number 1 with an arrow, and colored green. Grouped items appear with the same serial number. Serial numbers are constantly updated, as items enter or leave the queue and when you edit the queue.
- Image file name.
- An icon indicating if the item is waiting in the queue for preview, crop prescan, or final scan.

Editing the queue

- To rearrange the queue, select and drag the item to its new position. All other items are automatically rearranged. In Prescan All or Scan All items belonging to the same preview are grouped together (enclosed by a box). You cannot divide the group or move a group item.
- To delete an item or a group waiting in the queue, select it and press **Delete**. You cannot delete items within the group.
- To delete an item currently being scanned (the topmost item), select it and press **Delete**. The system prompts for one of the two options:
  - Delete the item from the queue.
  - Re-enter the item into the queue. The item enters the queue according to its priority. For example, the preview is re-entered as the last item in the preview group.

Image Display Window

The Image display window is used for interactive work with the image. The window includes the display area and various tools and display options that are arranged along the left and bottom sides of the display area.

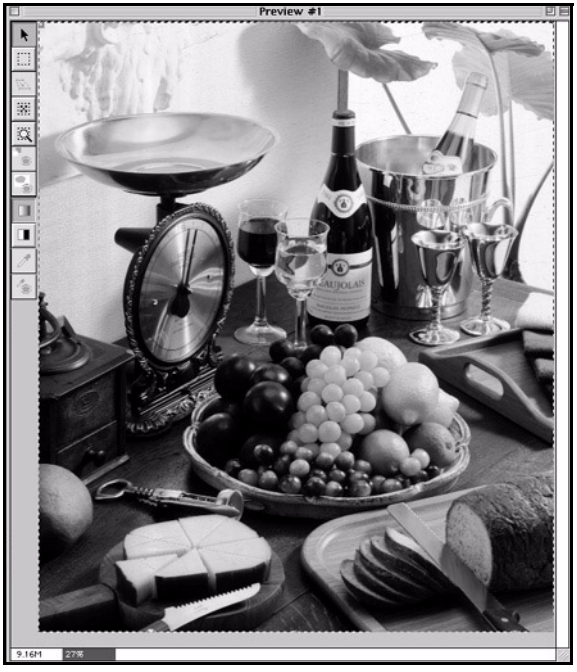


Figure 36: Image display window

After performing Preview, the first preview image is automatically displayed in the display area. To display a prescanned image, double- click its image thumbnail in the Preview Browser.

Tools and Display Options

When the preview is first displayed in the Image display window, a crop frame encloses the image. This is the Full image crop, set according to the selected format. The area enclosed by the crop frame is the final scan area. Using the cropping tools, you can change the crop size and position. You can use the following tools in the Image display window in Digital Descreening mode.

The following tools that appear along the left side of the display area are available in Digital Descreening mode.

Pointer tool - change the position and the size of the active crop frame.

Reset Crop tool - set the crop to the Full image crop.

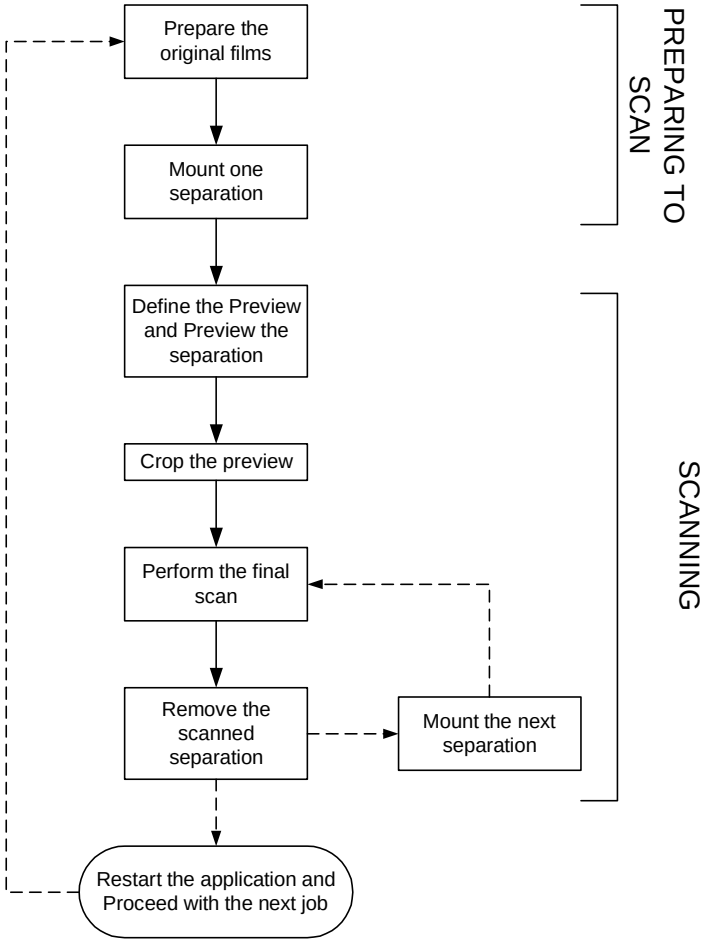
Cropping tool - define and draw a new crop.

Preparing and Scanning Digital Descreening Originals

The Digital Descreening basic scan includes the following main stages:

- preparing to scan
- scanning the film separations

The following chart shows the Digital Descreening basic scan workflow.



Preparing to Scan

Preparing to scan involves two stages:

- off-line preparation of the original films
- mounting each separation on the scanner

You mount and scan one separation at a time.

Preparing Original Films

Your oXYgen DOT kit contains a positioning template and a set of punched mounting sheets and strips for manual off-line preparation of the original film separations. Mounting the separations on the scanner is done one at a time. oXYgen DOT can scan one or four separations in Digital Descreening.

The mounting frame of the positioning template has the same dimensions as the scanner base glass and same pin registration as the scanner.

Note: Use the supplied mounting strips for mounting the original films; use the big mounting sheet only if you want to place small size films. When you use a mounting sheet, mount the original film on top of it; when you use a mounting strip, tape one edge of the original film on top of the mounting strip.

To prepare original films:

1. Place the positioning template on a light table and mount one of the supplied mounting sheet/strips onto the registration pins of the positioning template.

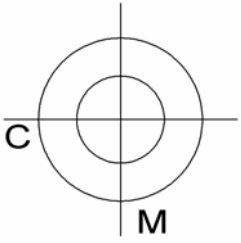
Tip: If your original does not have registration marks, use a detail from the image for registration.

2. Tape the separation that contains the most information to the mounting sheet with the emulsion side up (towards you) and the top edge to the left side of the positioning template (marked with the words TOP EDGE and an arrow showing the correct position of the image). Make sure the separation is taped on straight, using the

printed grid lines as guidelines. The film surface must lay flat on the mounting sheet and there should be nothing (dust particles, or other objects) between it and the mounting sheet.

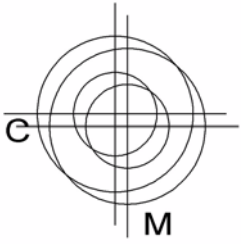
The first separation is the base separation. Use it as a guide when you tape the other separations.

3. Place a second mounting sheet on the positioning template on top of the first one and place the second film separation on it (taping the separation with the most information, the order of the others is unimportant).
4. Align the registration marks of the second film separation that they overlap completely with the registration marks of the first separation.



Correct

Perfect registration: cyan and magenta separations overlap completely.



Not correct

Misregistration: cyan and magenta separations do not overlap.

Tip: Use a magnifying glass for precise positioning.

5. Tape the second film separation to the second mounting sheet/strip.
6. Remove the second separation. Let the first separation remain on the positioning template and use it as a guide to align the other separations before you tape them.
7. Repeat steps 3 through 6 for the remaining separations.

Important: Your originals must have perfect registration. Make sure that the registration marks of all separations of an image overlap completely when you place them on top of each other on the positioning template.

After you have prepared your originals as described above, you can mount them on the scanner.

Mounting One Separation

Before mounting the separation film on the scanner, make sure that the scanner Base glass is clean.

To mount the film separation on the scanner

1. Mount the first film separation you intend to scan in the scanner with the emulsion side down.
2. Insert the holes of the mounting sheet/strip to which the separation film is taped into the registration pins of the scanner. Make sure the mounting sheet is properly inserted in the pins.
3. Close the scanner top cover. You are ready to scan the first separation.

Scanning Film Separations

You should scan the film separations one at a time. Setup options and cropping are defined before scanning the first separation and then used for the others.

Scanning the film separations includes the following stages:

- Defining the preview
- Cropping the preview
- Performing the final scan

Defining Preview

Defining the preview is the first stage of the scanning process. It involves defining the parameters for the preview and previewing the originals. The result of the process is a low resolution prescan of the original displayed in the Image display window.

Before you proceed with the scan, make sure that the oXYgen DOT application software and software access key are installed.

To define the preview:

1. In the oXYgen DOT Scan folder, double-click the **oXYgen Scan** icon to start the application. The oXYgen Installer splash screen appears for a few seconds, followed by the Setup dialog box, the Menu bar and the Scan Palette.

2. In the Setup dialog box, set the following:
   - From the Mode list, select **Descreen**; the Setup dialog boxand the Scan palette are modified.

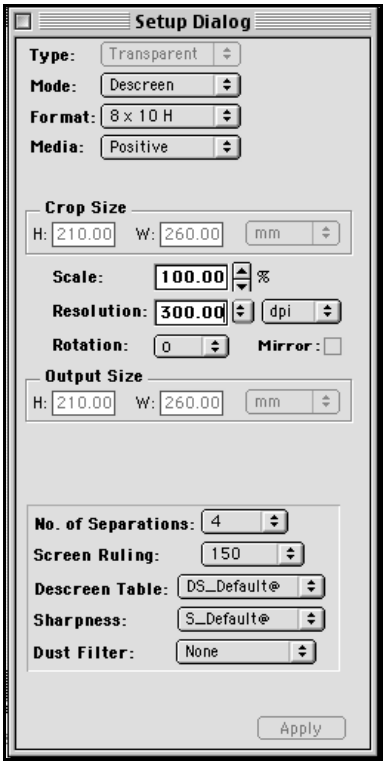
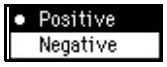


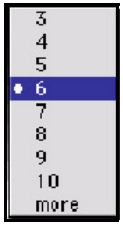
Figure 37: Setup dialog box

Note: End Points, Gradation and Color Table do not appear; instead No. of Separations, Sharpness and Screen Ruling appear.

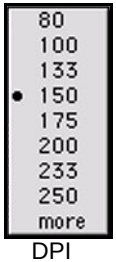
Figure 38: Scan palette



- From the Media list, select **Positive** or **Negative** depending on your originals.
- In Scale, either type in or scroll to the enlargement value you require. The optimum range is 50 to 200.
- Check the Mirror option if you want to create a mirror image of the scanned original.
- Select or type the resolution value you want to use in the Resolution box.
- From the No. of Separations list, select the number of separations of your originals. You can scan one or four separations with Descreen.



Note: The Scan icons in the Scan palette reflect the number of separations you have defined.

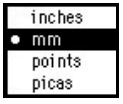


DPI

- From the Screen Ruling list, select the screen ruling of your originals. Setting the correct screen ruling is essential to the quality of your scan. Use a mesh meter if you do not know the exact value.

Mesh	Approximate screen ruling in lpi
4	100 lpi
5	133 lpi
6	150 lpi
7	175 lpi

Note: If none of the options matches the value of the original films, choose the closest value. For example, if your originals have screen ruling of 120 lpi, choose 133 from the list.



- Choose **inches**, **millimeters**, **points,** or **picas** as the unit of measurement for the Crop Height/Width and Scan Height /Width according to your preferences.
- Choose **DPM** (dots per millimeter) or **DPI** (dots per inch) as the resolution unit of measurement.
- From the Descreen Table list, select the table created for the current scan parameters (screen ruling and media).

  If, during the Digital Descreening calibration, you determine that calibration is not necessary for this group of scan parameters, select **DS_Default@**. (See *Calibrating Digital Descreening on page 99* for details.)
- **DF-Low** is the default dust filter option. If the film is dirty or scratched, select **DF-High** from the Dust Filter list.

Note: Dust Filter is effective only when the selected scanning resolution is 2.5 times the selected screen ruling.

3. Click the Preview icon in the Scan palette, or choose **Preview** from the Scan menu in the menu bar.

   All originals in the scanner are sent to the queue for preview. In the Preview Browser, a Preview icon with an arrow indicates that the item is in the queue. A Progress indicator is displayed during the preview process while a low resolution scan of the image is being created. When

the process is complete, the preview of the first separation appears in the Image display window (shown on page 118). You are now in Preview mode.

Note: After Preview, you can edit the intensity of the Sharpness by clicking the Sharpness icon. To change the Sharpness before preview, from the Setup menu, point to Sharp Setup and then select Line Art.

Cropping Preview

This section describes how to crop the preview for the final scan, including:

- defining and modifying crops
- multi-Crop
- crop prescan

Cropping the preview is the second stage of the scanning process. It involves defining one, or multiple crops for the final scan. Although you can skip this stage and perform a final scan on the Full image crop, cropping the preview allows you to define the final scan crops with greater precision and avoid the need to rescan the originals.

Defining and Modifying Crops

When the preview is first displayed, the Full image crop is defined, enclosing the entire image. The system assigns a default name Scan_X_1 to this crop where X is the preview number. You can modify the size and position of the Full image crop and create additional crops.

Note: You cannot revert to the original size and position of the Full image crop after you have modified it.

Define a crop only for the first separation. The values you define for the first separation are applied to all separations.

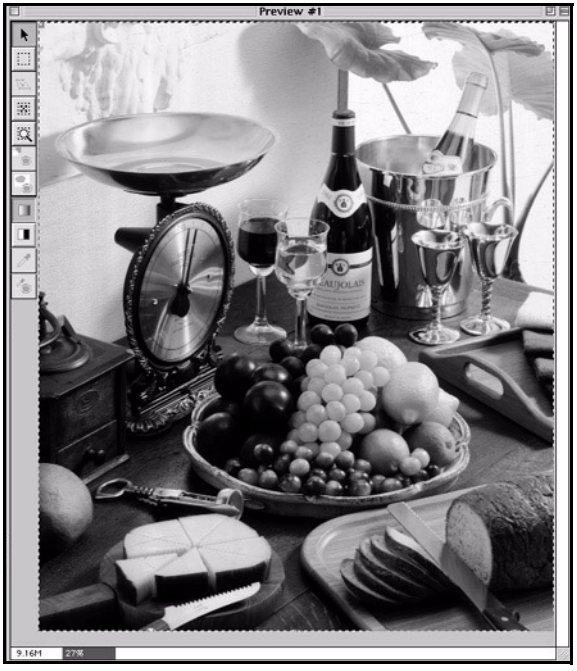


Figure 39: Image display window

To define a crop:

1. Select the Cropping tool and click a point in the image to mark the top left corner of the crop.
2. Press and drag the mouse button over the area you want to crop.
3. Release the mouse button to set the crop.

   You can use the pointer tool to move, resize or delete the crop.

To move the crop:

1. Select the **Pointer** tool and place your cursor inside the crop.
2. Press the mouse button, the pointer changes to a hand. Drag the hand to move the frame, and release the mouse to set the new position.

To change the crop size

1. Move the pointer to a frame corner or side handle. The pointer changes to a set of arrows, pointing in the directions that you can move the frame.
2. Press the mouse button and drag the frame corner or the side handle, release the mouse button to set the frame size.

Note: To reset the crop to the Full image crop, double click the **Cropping** icon, or click the **Reset Crop** tool.

3. To define a second crop, repeat the procedure used for the first crop. You can also use the Duplicate Crop option in the Edit menu, or the keyboard shortcut <⌘ **D**>. You may define as many crops as you need on the same preview.

To delete a crop:

1. Make sure the Image display window is active.
2. Click to activate the crop you want to delete.
3. From the Edit menu, choose **Delete Crop**, or press the **Delete** key.

Note: If the Setup dialog box is active instead of the Image display window, and you use the **Delete** key, the value in the active text field in the Setup dialog box is deleted.

If the crop you want to delete is currently in the queue, a message is displayed and the crop is not deleted. If you have performed a crop prescan, a message is displayed and the crop is deleted only after you click **OK** to confirm the delete command.

After you delete the crop, the next crop becomes active. If there are no other crops, the Full image crop becomes active.

Crop Parameters

You can change some crop parameters for specific crops while others must be identical for all the preview crops. When you define a new crop, it inherits the parameters of the active crop with the exception of Crop Height/Width and Scan Height/Width. When you use the Duplicate Crop command, the new crop also inherits Crop Height/Width and Scan Height/Width.

You can change the following parameters of crops of the same preview:

- Resolution
- Crop Height/Width
- Scan Height/Width

You can also change File format of the final scan. You can edit the crop parameters by changing the settings of the active crop in the Setup dialog box.

➢ To edit the crop parameters, click inside the crop to make it active and adjust the settings you want to modify in the Setup dialog box.

Note: After modifying the crop parameters, you must save the final scan parameters. To save the scan parameters, click **File** in the Menu bar and select **Save Params for Scan**.

A Warning icon appears in the Setup dialog box if the scan cannot be performed according to the settings because they exceed the scanner limitations. For example:

- if the crop extends beyond the display area boundaries, the extended area is scanned in black.
- the resolution is less than 2 dpm.

Multi-Crop

You can define and scan several crops on a single preview. You can use this feature when you scan small originals on the same job sheet. You must scan one separation at a time. Therefore, make sure the films you tape on one mounting sheet are of the same separation.

Note: Use the supplied mounting sheet if you have several small originals.

For example, if you have two originals with four separations each, tape the cyan separation of both originals on the first mounting sheet/strip. Then, tape the magenta separation on the second, the black on the third, and the yellow on the forth sheet/strip.

Multi-Crop Features

- Each crop has a complete set of parameters as if it were a single crop.
- To edit or change a crop, it must be active. To activate a crop, use the **Tab** key to move between the crops, until the desired crop is active, or click inside the crop area.
- Only one crop can be active at a given time. An active crop has the following features:
  - The crop parameters are shown in the Setup dialog box.
  - In the Preview window, the crop name, crop handles and Top left indicator appear; the crop frame flashes.
- You can edit the following crop parameters:

  For each crop:
  - Scale
  - Sharpness
  - Output resolution
  - Size
  - Media
  - Dust Filter

  For all crops:
  - Screen ruling
  - Number of separations
  - Descreening calibration tables

Note: If a crop is enclosed by a larger crop and you want to activate the smaller crop, press the **Tab** key until the smaller crop is active. If two crops overlap, click inside the area that does not overlap.

- If you edit the crop and click Apply, the changes are applied to the entire Image display. However, in the final scan these changes only affect the specific crop.

To prepare several originals (Multi-Crop workflow)

1. In the preparation stage, follow the steps described in *Preparing Original Films* on page 111. Tape several originals on the same mounting sheet, instead of one.

Note: Make sure that the same separation of all originals is taped to the film.

2. Mount the originals on your scanner.

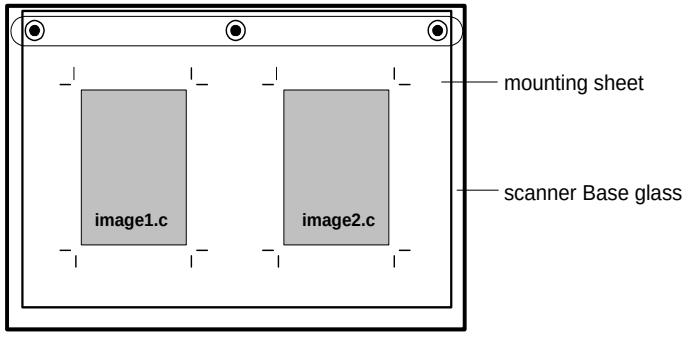


Figure 40: Mounting cyan separation of two originals

3. Define the Setup options as described in Defining the Setup previously. In the Setup dialog box, select **All Board** from the Format list.
4. Click the **Preview** icon and preview the originals.
5. Define the crops using the Cropping tool, or the Duplicate crop command.

6. Edit the crop setup parameters, if necessary. You can set different size, resolution, scale, sharpness and media for each crop. The No. of separations, Screen Ruling and Descreen calibration table settings must be the same for all crops.
   - Modify the size of the active crop by adjusting the crop frame with the Pointer tool.
   - Modify the resolution of the active crop by changing the Resolution value in the Setup dialog box.
   - Modify the Scale parameters to set the enlargement by which the scanner scans the original.
   - Apply sharpness to the image by using Sharpness tables.
   - From the Media list, select **Positive** or **Negative**.
   - From the Number of Separations list, select the number of separations of your originals. You can scan up to 4 separations with Digital Descreening.
   - From the Screen Ruling list, select the screen ruling of your originals.
   - From the Descreen Table list, select the correct calibration table.
7. If you have edited the crop, select **Save Params for Scan** from the File menu to set the final scan parameters. Then, click the Scan icon.
8. Scan the crops according to the procedure in *Performing Final Scan* on page 125.

Crop Prescan

Crop prescan is recommended when the crop size is smaller than one third (1/3) the size of the preview. Using Crop Prescan, a more accurate image analysis is obtained for the crop. A low resolution crop image is displayed in the Crop prescan window, showing more details.

To perform Crop Prescan

1. Click to activate the crop for which you want to use crop prescan.
2. 

Click the **Prescan** icon in the Scan palette. Press the **Option** key while clicking the icon to send all the preview crops to the Queue window for Prescan.

After Crop Prescan, an image thumbnail of each crop prescan appears in the Preview Browser, with its file name and the Prescan icon.

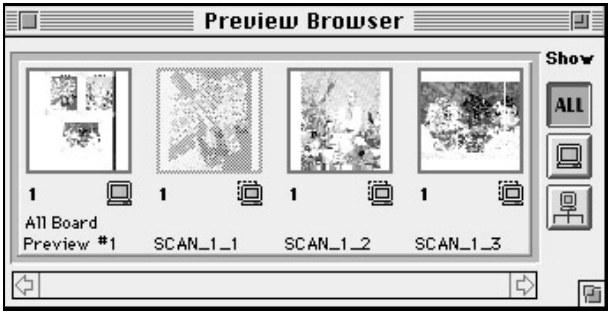


Figure 41: Preview Browser window - Show All

3. To display the crop prescan image, double click its image thumbnail. The crop prescan image is displayed and the Setup dialog box displays the relevant parameters.

   To scan the crop prescan, the crop prescan image must be displayed in the Image display window. The scan process is the same as for previews.

Note: You can edit the crop, but you cannot change its size after crop prescan.

Scale

The recommended range is from 50 to 200% of the original size.

Resolution

Resolution specifies the number of dots (pixels) per millimeter or inch of the final image, and is related to the halftone screen.

When setting the resolution, you should consider the screen. For higher or finer screens, the resolution value should be higher to capture the additional information.

The minimum output resolution is 6 DPM (150 DPI). Resolution and Scale are related, as explained above. Maximum resolution for all formats is 24 DPM (600 DPI).

A rule of thumb formula, commonly used to determine the average input resolution, is as follows:

Halftone screen per inch (or per mm) x 2.0 = resolution in dots per inch (DPI) or per mm (DPM).

For example, an image to be output as a 150 LPI halftone is calculated: 150 x 2.0 = 300 DPI.
Therefore, the resolution is set at 300 DPI.

- Choose **DPM** (dots per millimeter) or **DPI** (dots per inch) as the resolution unit of measurement, and enter the requested resolution value.

Sharpness

Sharpness can be selected either from the default setting, or a user defined table.

See *Chapter 5, Post Scan Digital Descreening Workflows* for details about selecting the right file format for your workflow needs.

Performing Final Scan

You can use the following file formats with Digital Descreening:

- Scitex CT (Continuous Tone) - this is a default format.
- EPS (Encapsulated PostScript). PostScript format which enables OPI workflows. PICT and TIFF previews are available. There are three types of output files: high-resolution EPS file, DCS2 single file, and DCS2 multiple file. This file format output is up to 16 separations. Compression is available.
- TIFF (Tagged Image file Format) - used for non-Creo applications.
- PSImage - PostScript format for integration with Creo output device, enables APR and OPI workflows in Creo environment. Output is one or four separations (CMYK pre-separated, high resolution, EPS or Scitex).

Note: The PSImage format is not supported in the current version.

- JPEG

Specifying the File Format Settings

You can specify the file format settings by accessing the format settings either through the Setup menu before preview or through the Scan dialog box after preview.

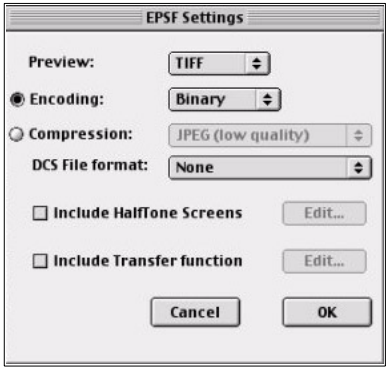
Note: The following sections describe specifying the file format settings through the Setup menu.

EPS Settings

To specify the settings for the EPS format:

1. From the Setup menu, choose **EPS Setup** under File Format Setup; the EPS Settings dialog box appears.

Note: You can open the EPS Settings window also by clicking the Settings button in the Scan dialog box.



2. In the EPS Settings dialog box, select the settings best suited to your output job needs. You have the following options:

   Preview

   - The default preview is **TIFF**. When TIFF is selected, a low-resolution color composite file will be created in addition to the black and white bitmap high-resolution files during the scan process.

     Select this option when you scan partial pages. The low-resolution file can be used for positioning and editing. It displays quickly giving immediate feedback. During the final output in the OPI workflow, the high-resolution files replace it.

- PICT - select **PICT** preview for files for Macintosh environment.
- Choose **None** when you do not need a low resolution color composite file.

Encoding

- From the Encoding list, select **Binary** or **ASCII** to specify the data format of the scanned files.

Compression

- Select one of the compression options if compression is needed. Compression saves storage space and transfer time when copying files on the network. Compressed files are approximately four times smaller. Compression does not result in a loss of quality. Do not use the compression option if you want to display the file in image editing applications like Adobe PhotoShop. They cannot be displayed.

DCS File Format

- **Multiple file DCS2** - this DCS file format results in a master file and multiple high-resolution files.
- **Single File DCS2** - this DCS file format results in a single file that contains the data of high-resolution files.
- **None** (default) - select this option when you want a high-resolution EPS file.

3. Click **OK** to save.

TIFF Settings

To specify the settings for the TIFF format:

1. From the Setup menu, select **TIFF** under File Format Setup; the TIFF Settings dialog box is displayed.

2. In the TIFF Settings dialog box, specify the TIFF format settings according to your output job need as follows:

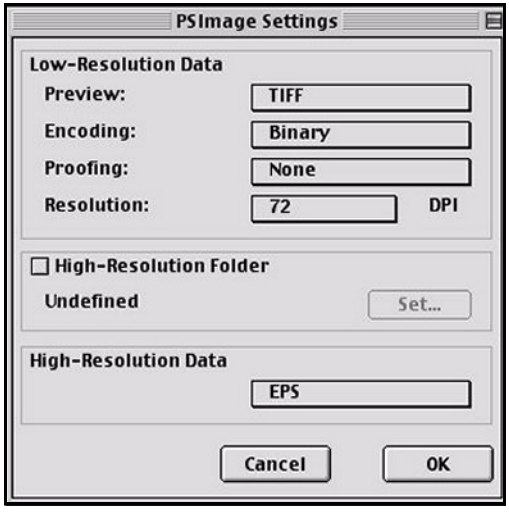
   - Select **Intel Byte Order** for PC and **Macintosh Byte Order** for Macintosh computers.
   - **Compress Image** - select this option if you want to compress the image. After selecting this option, select the type of compression from the Compression Scheme list.

PSImage Settings

Note: The PSImage format is not supported in the current version.

To specify the settings for the PSImage format:

1. From the Setup menu, choose **PS Image Setup** under File Format Setup; the PSImage Settings dialog box appears.



2. In the PSImage Settings dialog box specify the **PSImage** format settings according to your output job needs as follows:

   Low-Resolution Data

   - Preview - select **TIFF**, **PICT**, or **None**.
   - From the Encoding list, select **Binary** or **ASCII** to specify how the data is stored in the file.
   - Proofing - select **Bitmap**, **Gray scale**, **Indexed Color**, or **CMYK** if you want to create a proofing file, or **None** not to create a proofing file.
   - Resolution - select the resolution for the proofing file.

High-Resolution Folder

- Select the **High-Resolution Folder** option and click **Set** to set the folder of the high resolution file. In the dialog box that appears, set the folder location.
- If this option is not selected, the file is saved in the same folder as the low resolution file.

High-Resolution Data

- To define the format of the final high resolution file.
- Click the box to the right of High Resolution Data, and choose the requested format (EPS or Scitex CT).

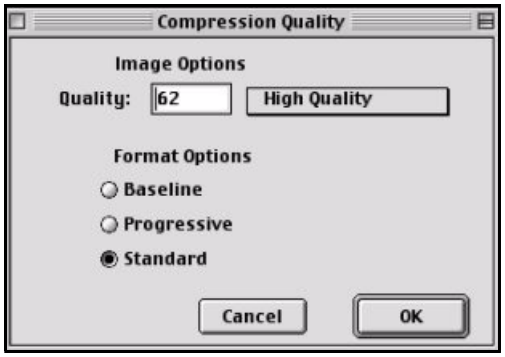
Note: If you select EPS, when you click **OK**, the EPS Settings dialog box is displayed. Specify the settings for the EPS format. Refer to section *Specifying the File Format Settings* on page 126.

3. Click **OK.**

JPEG Settings

To specify the settings for the JPEG format:

1. From the Setup menu, choose **JPEG Setup** under File Format Setup; the Compression Quality dialog box appears.



2. In the Compression Quality dialog box, specify the **JPEG** format settings according to your output job needs as follows:
   - In the Quality box under Image Options, specify the compression quality by either typing the value in the box, or selecting an option form the drop-down list to the right of the box.
   - Select one of the available Format options: Baseline, Progressive or Standard (default).
3. Click **OK**.

Performing the Final Scan

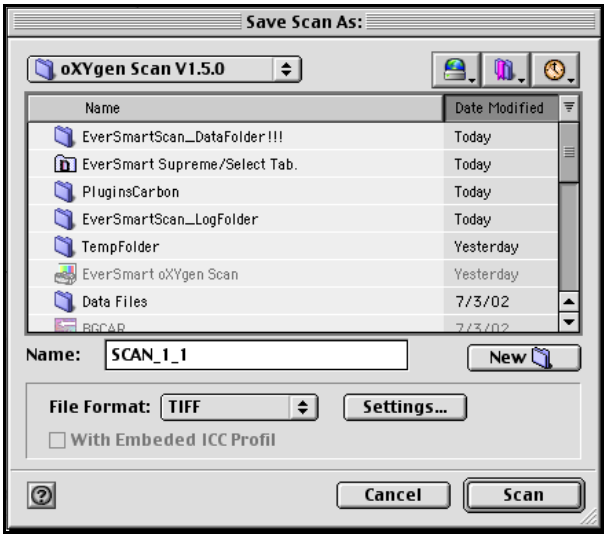
You must scan all image separations during a scanning session. If the session is interrupted and you have to quit Descreen, you must start from the beginning when you resume scanning, re-scanning the separations scanned during the first session, and repeating all stages of the process (setup, preview, crop and final scan).

Note: After editing the crop, you can select **Save Params for Scan** from the File menu to define the final scan parameters.

To perform the final scan:

1. In the Scan palette, click the **Scan** icon of the separation mounted on the scanner.

The following dialog box opens.



2. In the dialog box, define the following parameters for the final scan output file:
   - Name - type in the name in the Save Scan as box.
   - File Format - select from the available list: Scitex, EPSF, TIFF, PSImage or JPEG)

Note: The PSImage format is not supported in the current version.

The file format you select must match your workflow needs and must be supported by the application in which you intend to use the scanned file.

- Destination - select the folder where you want to save the file.

3. Click **Settings** to specify the file format settings of the format of your choice, if you have not specified them previously.

See *Specifying the File Format Settings* on page 126 for details.

4. In the Scan dialog box, click **OK** to save your selection; the Original's Film Base dialog box opens.

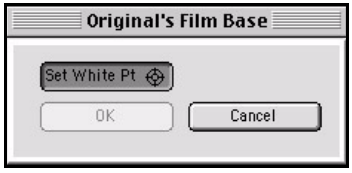


Figure 42: Original's Film Base - positive

Figure 43: Original's Film Base - negative

5. Click on the transparent area of the film in the Image display window to mark a white point. If your mode selection is Negative, click the dark area of the film in the image display window to mark a dark point.

6. Click **OK** in the Original's Film Base dialog box; the dialog box closes.

The scanner scans the mounted separation. In the Preview Browser, a Scan icon with an arrow appears below the image thumbnail of the preview (the arrow disappears after the scan is completed). You can

monitor the progress of the scan in the Queue window that displays the name of the scanned separation and the progress indicator under it.

If the Beep option in Operation Modes Preferences, under **Setup> General Preferences**, is selected, the scanner beeps three times after each scan is completed.

If you want to scan all crops, press and hold down the **Alt** key and click the Scan icon. In Multi-Crop, all crops enter the Queue window as a group, and the Image display window closes.

A check mark (✓) in the Scan palette marks the scanned separations.

If you scan an image with more than one separation, after the first scan, the scanner automatically resets to load position when the first separation scan is completed and a window opens prompting you to replace the current separation sheet/strip with the next one.

7. Remove the first separation. Mount the second, and close the top cover.
8. Click **OK** to close the window.
9. In the Scan palette, click the icon that represents the new mounted separation. The second separation is scanned according to the format settings defined for the first.

Note: Define and crop the preview, and Set White Point only for the first separation.

10. Repeat steps 1-3 for all prepared separations.

Post Scan Digital Descreening Workflows

The formats of the digital files can be changed as required. CT files are created in oXYgen DOT.

After performing descreen, a CT file is created. You can manipulate the file in any manner consistent with the capabilities of Photoshop or any other image or page layout application. For example, you can change the file size or retouch or blur the image.

A

oXYgen DOT Tips

Preparations

- Before you start scanning with CopyDOT mode, you need to:
  - ❒ check the scanner focus tables by running the Scanner Check test in the Install&Utils program. If the test fails, you must call your service engineer.

For more details, refer to the *EverSmart Scanners Installation and Maintenance Guide, Chapter 6 (399Z50703F) or iQsmart Scanners Installation and Maintenance Guide - Mac Platform, Chapter 6 (399Z1R946A)*.

  - ❒ If you haven't recently scanned in CopyDOT, perform the geometric correction to update the geometric profiles.
- Make sure that software calibration (output compensation) between the scanner and the output device is less than 2%. To achieve this, check that the output device is calibrated according to the manufacturer specifications. Also, check that the laser intensity is appropriate and the film density is approximately 4.0 (± 0.2).
- If you output your files to CTF, use a good quality film and appropriate chemistry. It is recommended to use hard dot (digital) film. Then the density can be up to 5.0.
- Expose a gray scale with no excurve to check that the shift in the MidTone area is less than 6% (EndPoints up to 2%). If the shift is more than 6% (for example: a 50% dot is measured as 43%), or if the software calibration is more than 2%, it is recommended you choose a more linear type of media (film or plate). If MidTone shift is less than 2%, do not make any changes.
- Prepare adequate storage and networking/transfer capabilities. CopyDot scans produce very large files: A four separation A4 page (8.5 in.x 11 in.) at the resolution of 2540 dpi may create a 300 MB file (or an 80 MB compressed file).
- To reduce scanning time, use a powerful Mac (such as, G4 450 MHz). If possible, disconnect your computer from the net during scanning and scan to the internal disk.
- Keep all scanner glass surfaces (base and cover glass) clean.

Analog Film Mounting and Cleaning

- Use the supplied mounting strips for mounting the analog films; use big mounting sheets only for placing small size films.
- Mount the analog film squarely using the mounting template. Do not rely solely on the registration marks, but check the image content.
- Use film cleaner to clean well each film just before you mount it on the scanner bed. For better results, clean the scanner bed and film with compressed air.
- If you scan in Digital Descreening, spray the analog films gently on both sides with an anti-Newton spray to eliminate Newton-rings.

Scanning

- Always scan the analog films at the resolution of your output device. For example, if you expose a film at the resolution of 2540 dpi, scan it at the resolution of 2540 dpi.
- If the original analog films contain only pictures with no fine text, consider scanning in Digital Descreening to save disk space and scanning time. If you are using Digital Descreening, always set the correct screen ruling in the scan dialog menu. If your film screen ruling does not appear in the list, use the nearest value.
- If the films are dirty and scratched and dirty use a high-level dust filter. This will eliminate the dust.

RIP and Expose

- Minimum system requirements:
  - Brisque version 3.0
  - Prinergy version 2.0
  - 256 MB RAM
- Make sure you have free disk space for the Creo jobs that are created after RIPping the PS files. You need 300 MB for each A4 full-page 4 separation file.
- The scanning and the RIPping resolutions must be equal. Do not change the resolution on the RIPping setup, because it can cause Moiré effects and unwanted interference patterns.
- Do not change the size of the scanned films. If necessary, you may enlarge or reduce the scanned film size up to 5% in which case it is recommended you check the scanning quality.
- Rotating the scanned files during RIPping takes long time, and if the file is big, it causes the RIP to fail.
- Do not use the Half-Resolution option on the Brisque Expose (for example: scanning and RIPping at 1270 dpi and exposing at 2540 dpi).

B

Specifications

oXYgen DOT Specifications

Productivity

Final scan time of:

- 7.5 min. per separation at 2540 dpi.

  Final scan time not compressed for 210 x 297 mm. (A4V) using Macintosh G4 500 MHz computer.

Scanning Format

- **For EverSmart Supreme or Select scanners**: 12 x17 in./305 x 432 mm. (up to A3 + bleeds)
- **For iQsmart^3 scanners**: 13 x18 in./330 x 457 mm. (up to A3 + bleeds)

Resolution

- **Maximum Optical Resolution**: 2540 dpi

  Over the entire scanning format for any size original.

- **Maximum Output Resolution**: 3810 dpi over the entire scanning format for any size original.

File formats

- LineWork Handshake
- New LineWork
- EPS/Scitex CT high resolution
- EPS DCS2
- TIFF

Registration

- Built-in registration pin system
- Manual registration on mounting template

Input mesh

- Recommended up to 175 lpi

Scanner Output Calibration

- Easy-to-use calibration procedure enables accurate output compensation.

Separations

- The number of separations per job is up to 16, with an option of naming each one.

C

Part Numbers

Part name			CSI Part Number	CSC Part Number
EverSmart Scanners				
oXYgen DOT Kit for EverSmart Scanners			510K1R333	
	oXYgen DOT User Guide		399Z51895D	
	oXYgen Scan software		501V3R042	
	USB Software Access Key (OSX ready)		501V1M862A	
	Pack Training Films, 5 colors		509D3E944	81-1137A
	oXYgen DOT Calibration Slide		509D4E324	
	oXYgen DOT Geometric Correction Slide		509D4E325	
	Pack Strip Clear Film		509D1L742	
	Pack Position Template		509D1L743	
	Pack Clear Film		509D4L065	

Part name			CSI Part Number	CSC Part Number
iQsmart Scanners				
oXYgen DOT Kit for iQsmart Scanners			510K3R106	
	oXYgen DOT User Guide		399Z51895D	
	oXYgen Scan software		501V3R042	
	USB Software Access Key (OSX ready)		501V1M862A	
	Pack Training Films, 5 colors		509D3E944	81-1137A
	oXYgen DOT Calibration Slide		509D4E324	
	oXYgen DOT Geometric Correction Slide		509D4E326	
	Pack Strip Clear Film iQsmart		509D4E125	
	Positioning Template iQsmart		509D4E124	
	Pack Clear Film - A3 iQsmart		509D4E127	

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