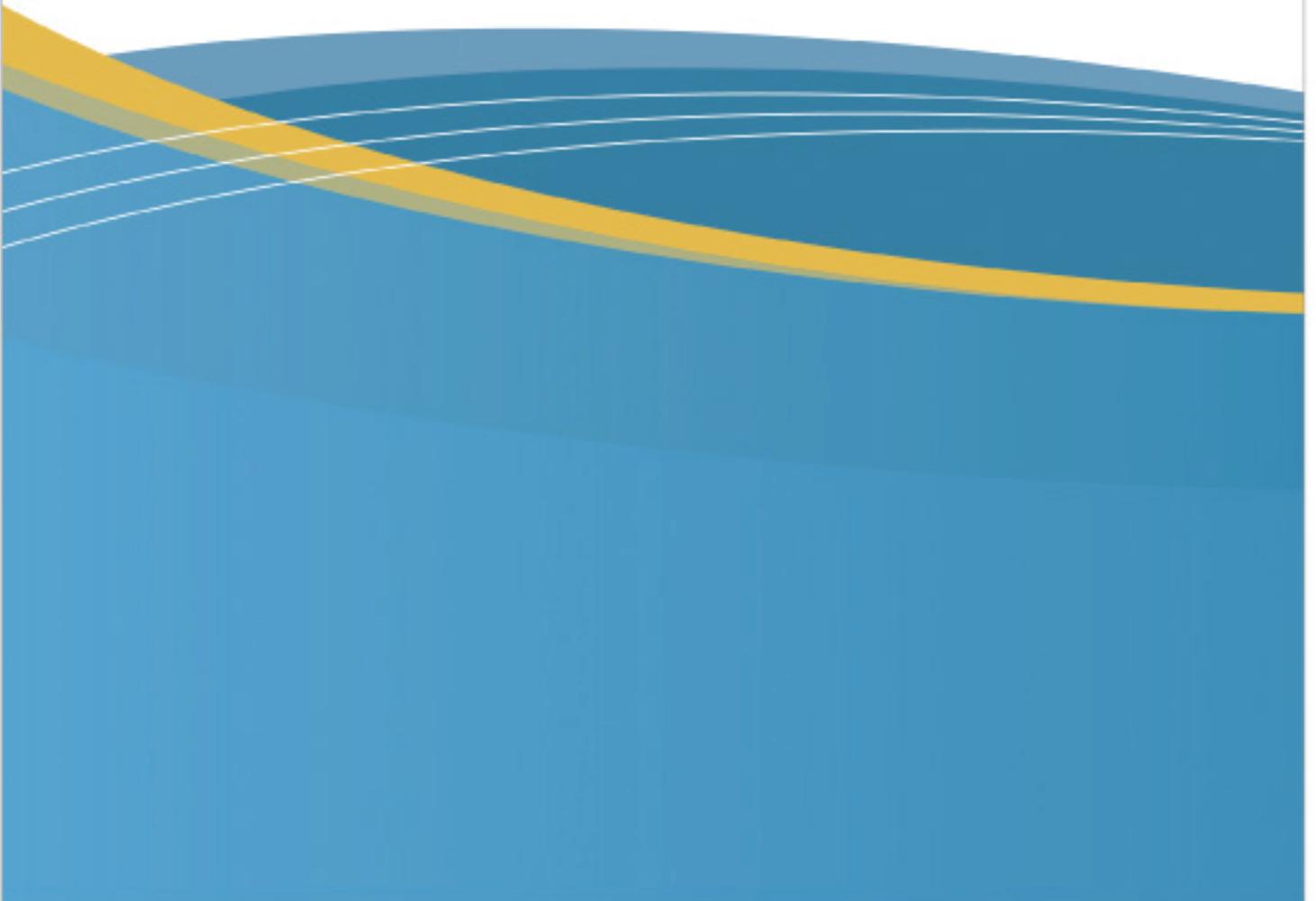


SPICER

The Open Text
Content Viewer Solutions Group

- **Product Profile**
Imagination



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Introduction

Imagination is a powerful tool for accessing, sharing and distributing your company's information. Its ability to handle the majority of document viewing requirements—from native file viewing, 3D CAD model viewing, to direct scanning and cleanup of paper documents, to document markup and revision—makes Imagination one of the most frequently selected viewing tools on the market. For custom Web or desktop viewing and markup applications, Spicer's Image a•X OEM Toolkit combines the flexibility of Microsoft's ActiveX™ technology and the proven view-markup-print-edit capability of Imagination.

Common Applications

Universal Viewer for ECM	Use a single application to access unlimited formats stored in your ECM (Enterprise Content Management) system.
Engineering Viewer	Gather information and incorporate document changes throughout a project cycle using a common interface for technical and design document review with partners and clients.
View-Markup for ECM and PLM	Equip everyone in the enterprise with instant access to the same, up-to-date ECM or PLM system content for real-time design and document reviews.
Format Conversion	Identify, preview and convert hundreds of business and technical file types for emailing, printing, publishing and archiving.
PDF Viewing and Markup	Simplify PDF document workflows with solutions for rapid viewing, integrated markup, online collaboration and format conversion.
Spicer SMF Viewing and Markup	Keep your intellectual property secure and private during shared viewing, annotation and markup.
Scan, Print and Plot	Scan using built-in drivers. Clean up and print large format documents.
Printing and Plotting	Streamline plotting workflows and save costs on multiple drawing packages and third party viewers with a single application for printing from the desktop, or through a server.
Scan to File	Use a single application to scan, preview, clean up color, grayscale and bilevel documents, and save to a standard format for archival storage.
Raster Cleanup	Simplify the cleanup and update of archived drawings using a single application to open unlimited engineering and office formats.

Industries

- Manufacturing
- Architecture / Engineering / Construction (AEC)
- Geographic Information Systems (GIS)
- Records Information Management (RIM)
- Government
- Utilities
- Financial & Insurance
- Legal
- Reprographics

Native File Viewing

What is native file viewing?

Native file viewing is the fastest, most versatile method for getting access to the information stored in your documents. By displaying documents from numerous programs without having the program installed, Imagenation lets you share information with more people, in less time, for less money. And, with Imagenation's inherent security features, companies can confidently protect sensitive data from being viewed or altered by unauthorized users. Imagenation supports over 200 native file formats, including CAD, 3D CAD, Raster, Vector Graphics, Text and Print/Plot. See page 30 for a partial list of supported file formats.

Navigation and Display

When working with complex documents, Imagenation's navigation and display tools make finding information simple.

Improve Display

Negative, mirrored, rotated or dense images make on-screen viewing difficult. Use Imagenation's View options to improve their display. For vectors, simplify images with commands such as Invert, Hairlines, Wireframes and Monochrome. Redraw images with the Refresh command to update display changes.

Use the Format options to customize how different formats, such as IGES, ME10, Gerber, Adobe PDF / PS, COLD, Calcomp / HPGL, Auto-trol DG, CADRA, CGM, MicroStation DGN, Word, Raster Formats and AutoCAD are displayed.

Text Search

Locate text strings in virtually any file—including CAD drawings, plot files and office documents. Search options include Match Case and Whole Words Only. Configure the color and blink setting for the result highlight.

Zoom, Scale and Rotate

Zoom to a defined area using the cursor. Set images to Fit to the window, 1:1 view or Actual Size. Magnify and reduce the image. Rotate the view of your document.

Reference Window

Get a bird's-eye view of the active document with the Reference window. A crossed box shows the displayed area; simply move the box to change the view. Excellent for navigating CAD drawings and large-format scanned images.

Detail Window

Use the Detail window as a magnifying glass to see a close-up view of any area on an image. Read data, such as small text or figures, without zooming the entire document in and out.

Navigate Multipage Documents

Imagenation contains standard page navigation commands, such as Go To page, Next or Previous page and Last page. It also contains a Multipage Contents dialog box, which allows you to choose a page by title.

Thumbnails Window

Visually locate the page you are looking for. Click a thumbnail image to view that page.

Model and Paper Space Layouts

Simultaneously view the two primary spaces that AutoCAD objects reside in, paper space—the area used to create a finished layout for printing or plotting—and model space—the area where the majority of drafting and design is completed. Imagenation also supports the viewing of multi-layout drawings.

Raster Detail Viewing

Quickly view the contents of highly compressed JPEG2000 or MrSID files with advanced raster detail viewing. For large files, Imagenation initially loads a lower resolution preview image and then allows the user to increase or decrease the details level as required, through right-click context menu commands. Users can also zoom in on a portion of the image and increase or decrease the detail level of that portion only.

Stamps and Banners

Provide document control and tracking through stamps and banners. Pre-defined system variables, such as Data, File name and User ID, or any user-defined text can be placed on printed, faxed or rasterized images. System administrators can create custom variables and can also define banners and stamps that appear on all documents.

Browser Plug-ins

View and print any Imagenation-supported file format directly from your Web browser. Plug-ins are available for several popular Web browsers, including Netscape, Internet Explorer and Firefox. The easy-to-install plug-ins allows users to drag and drop documents from Windows Explorer into the browser, where the plug-in automatically loads and displays the document.

Among the many available 2D view options are: invert, rotate, mirror, magnify and reduce. With 3D images you can rotate, zoom and pan. If additional functionality is required, Imagenation can be launched from the plug-in interface and will automatically load the active document.

Document Revision

Communicate document revisions using Imagenation's customizable markup tools. Commonly referred to as redlining, revisions are often used to indicate engineering change orders (ECO), to record comments or to highlight specific data.

Preserving Originals

By placing a transparent layer on top of the document, users can make revisions without altering the original drawing. Imagenation can place thousands of these transparent layers over a document, making it possible to save the revisions from different users on multiple layers, differentiated color, type and so on. Markup layers are treated as separate objects. You can remove them, attach attributes to them or link them to the originals in a database system. If you wish, you can permanently burn your markup layers into a raster image using the Rasterize command.

Markup Tools

Imagination's markup tools range from standard geometric shapes to custom symbols, such as a logo or an AutoCAD shape (.shp) file. Users can set default colors, line widths, fills and fonts for each layer, or for each markup tool.

Markups can be grouped and object attributes can be altered for single markups or groups of objects. Define any markup object as a hotspot.

Make markups a permanent part of the image by rasterizing the document. This requires the VME or SVME editions of Imagination.

Drawing Tools

Add geometric shapes, lines and arrows to your documents. Using Tool Preferences settings, all drawing tools can be customized either individually or globally. For example, line color, line width, fill style and fill color can all be changed.

Hotspots

Create and configure hotspot links to open associated files, launch applications or copy objects.

Text, Annotations and Highlights

Document reviewers can provide information to other users or can draw attention to specific parts of a document. Text markups display directly on the image, while Annotations can be displayed as icons or as text. The Highlight and Highlight Area tools allow users to quickly mark important details: either a single line or a larger area of a specified shape, such as a box, circle, ellipse or polygon.

Dimensions

Draw internal and external dimension lines on an image and enter dimension values.

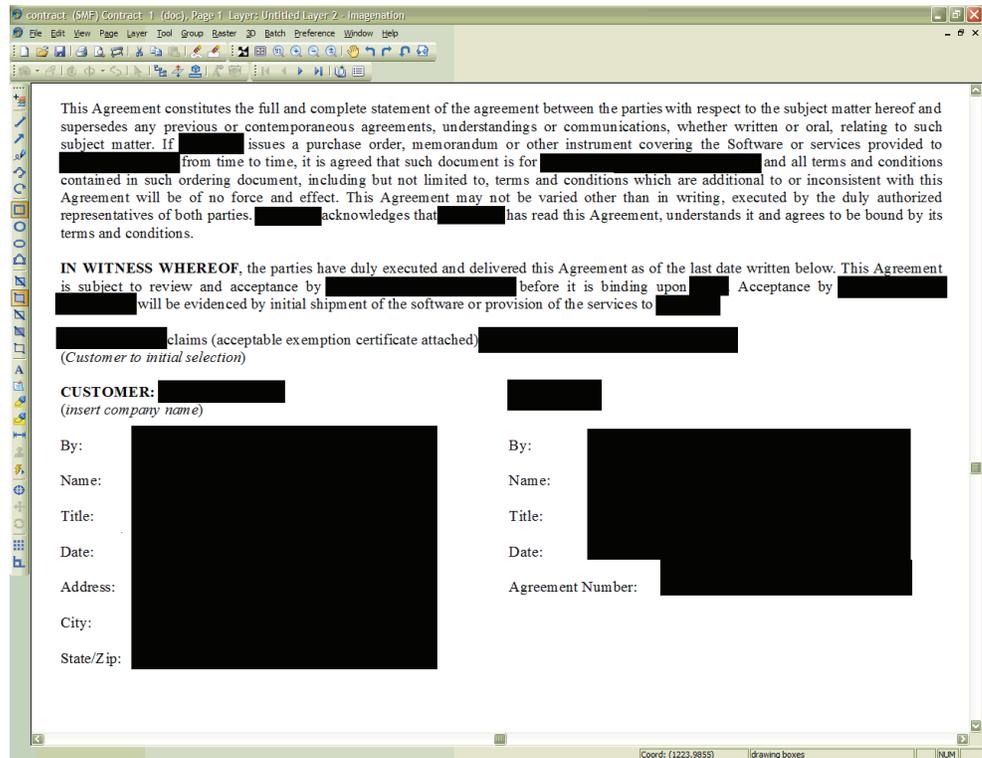
Symbols

Create custom symbols from grouped vector objects saved as an individual file. Users can select symbols in the Symbols Palette and place them on an active edit layer using the Symbol tool.

Redaction

Protect confidential information and prevent identity theft with Imagination's redaction tools. Portions of a document can be blacked out to hide sensitive data. Imagination can be configured with permission-based layers to prevent users from copying the base document or any markup objects. Redacted data is secure from unauthorized access.

Figure 1
Redaction blocks out confidential information



Complex Documents

Create complex documents that mix different file formats, such as AutoCAD DWG, faxes and MS Word, and different document types, such as layers, single pages and multipages. Maintain all of these formats within one, easily opened file.

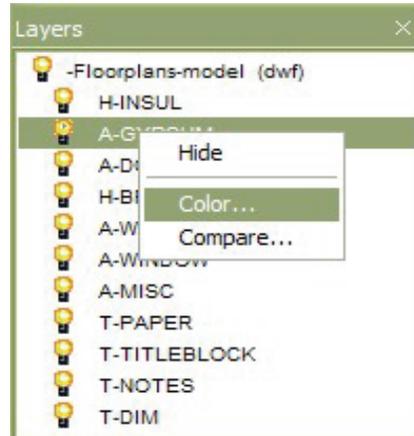
Layer Management

Add edit layers, import or export layers, and create complex, multilayer pages. Consolidate two or more edit layers, including subordinate layers, into one edit layer.

Hide or show layers, change their display color, or move them for more clarity onscreen. Use layers to preserve originals when marking up documents.

Layers Window

With a click of the mouse, manage all layers in a document using the Layers window. This floating window displays raster layers, CAD layers, plot pens and Imagination edit layers.



Page Management

Create and view complex multipage documents by adding, removing, reordering, replacing, importing and exporting pages.

View Multiple Documents as a Single Document

Open separate files as a multipage document with the Open as Multipage feature. Save them as a multipage document. Or save them as a group of linked files that can be opened separately, or into a single document window.

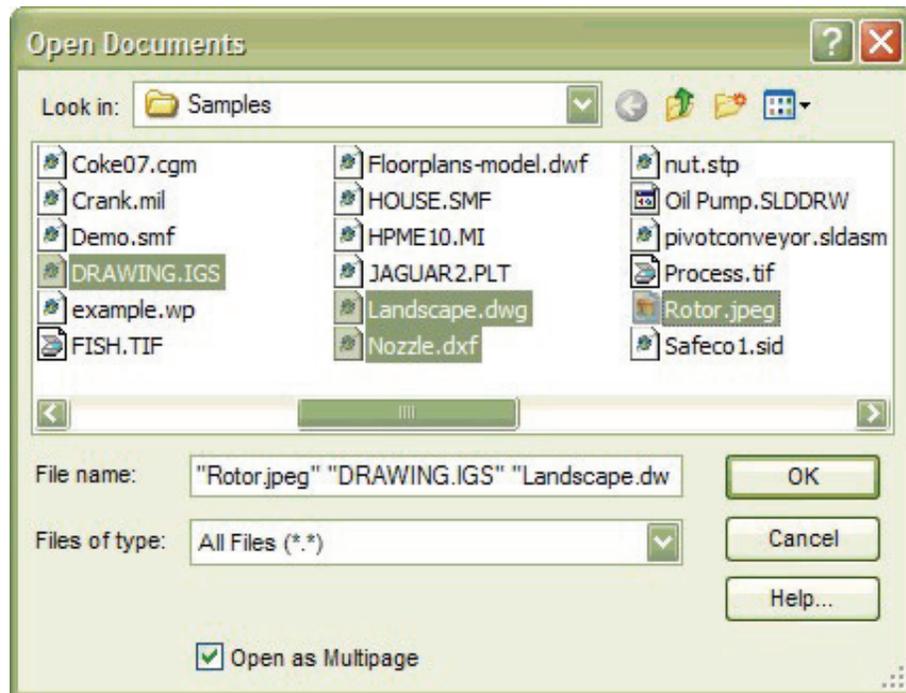


Figure 2
 "Open as Multipage" opens separate documents as one multipage document

Vector and Raster Hybrid CAD files

Many CAD formats, such as HP ME10 and MicroStation DGN, can display raster images with their CAD data. Other applications, such as GTX Raster CAD, add this functionality to CAD applications. Imagination can view all of these files.

Document Information

Information alone is not valuable unless you can analyze and use it—turning your data into meaningful knowledge. Imagination's robust measure, compare and document properties features allow you to do just that.

Comparing Layers

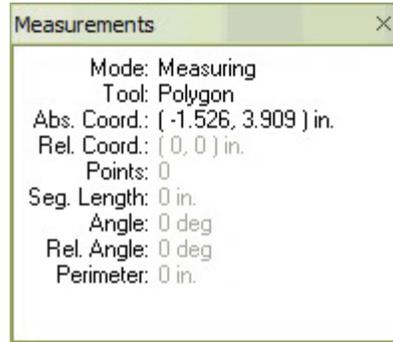
Imagination can place different documents on layers and compare them. This is ideal for determining changes made between versions of documents. You can compare differences or similarities between layers, or compare only the parts that are the same on each displayed layer.

Measuring Images

Imagination features a sophisticated Measure tool that allows you to configure the tool with which you measure, the decimal accuracy, the unit values and the measurements displayed in the Measurements window. You can also calibrate distances in an image.

Measure length, perimeter, area, angle and relative angle using the following tools:

- Line
- Sketch
- Polyline
- Arc
- Box
- Circle
- Ellipse
- Polygon



The Measurements window tracks all measurements. Right click in the window to get a menu in which to select the unit for measuring and the tool to measure with, or to calibrate the image. Copy measurement data and paste it into other applications, such as a database or spreadsheet.

The Snap to Object feature allows you to precisely measure between defined “snap” points.

Choose what type of points you want to highlight: endpoint or midpoint of lines, centers of circles and ellipses, insertion point for text objects and more. Configure the Snap to markers to the desired color and size, and define how close the cursor must be to a snap point before markers appear.

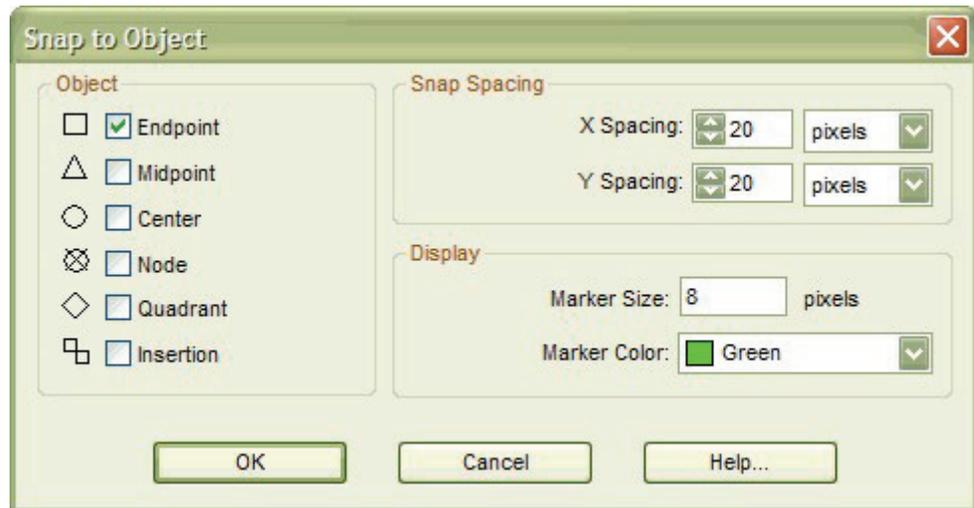


Figure 3
The Snap to Object Feature

Getting Document Information

With the Properties command, view information about the selected layer, page or multipage document, including file name size and format. You can also receive information specifically about layers:

- For raster layers, find out header information such as mirror, rotations, color settings, comments and tiling.
- For vector layers, determine the number of entities on a layer.
- For all layers, determine their permissions and their dimensions, and change their labels.

Printing, Faxing and Mailing

Printing

Imagination can print to any device that has a print driver. Typical print options, such as numbers of copies and page range, are supported. In addition, advanced print options include density control, dither control, tiling, scaling, orientation, banners and stamps. Other options include print as displayed and print with or without markups.

Imagination incorporates a true Pen Mapping architecture. Vector pen data from HPGL, Calcomp, AutoCAD and Intergraph files is attached to each and every object. Pen tables may be applied through the Imagination API to modify the color, weight and pattern (bitmap) to be applied on a pen-by-pen basis.

The Bilevel CAD print profile lets you choose whether specific types of entities should be rendered solid, patterned or dithered during printing. This feature provides an enhanced printing option for CAD documents such as AutoCAD and HPGL.

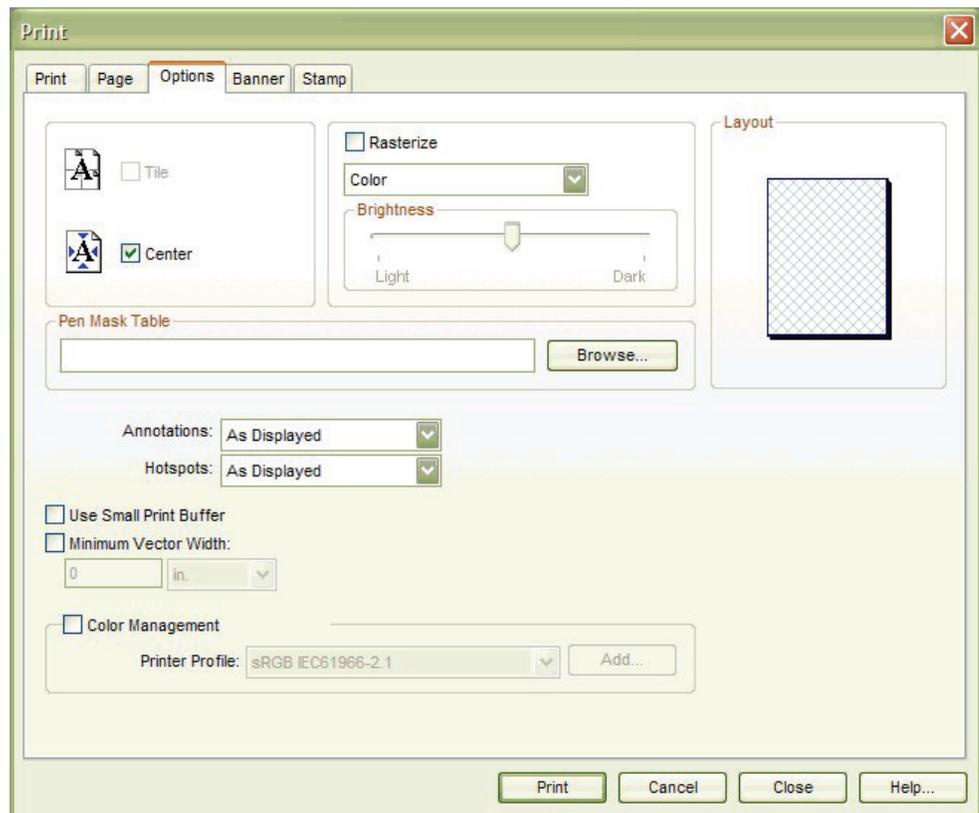


Figure 4
Options tab within Print
dialog box

Batch Printing

Quickly print a large group of documents. Using the Batch Print command, you can add documents to the print list and arrange them in the desired print order.

Advanced Tiling

Large documents may print on several pages and need to be pieced together. With Imagenation's advanced tiling feature, you have more control over the overlap of tiled pages.

Stamps and Banners

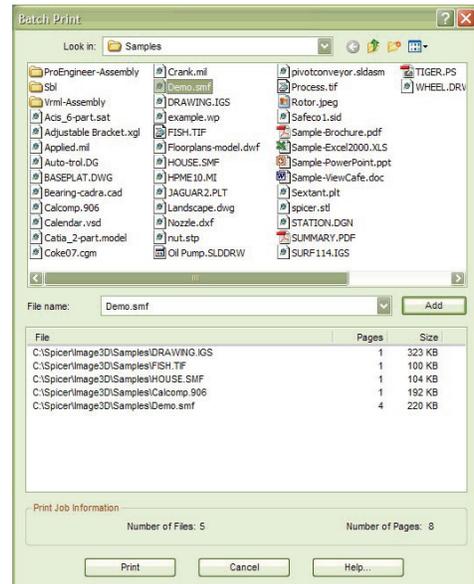
Mark documents with information as they are printed, such as the document name, its location on a drive, the date, the time, a user ID or even a user-defined text string. Banner places the information along the edge of a drawing, while a Stamp appears within the image boundaries.

Faxing

You can fax either from a local fax modem or from a remote, dedicated fax server. Imagenation can send faxes in either normal or fine mode. Options include tiling, banners, stamps, page range, scaling and orientation.

Emailing

Imagenation can connect with MAPI-compliant email programs, such as Microsoft Mail, Exchange, Messaging or Outlook, to email documents as an attachment, either internally or via the Internet. Depending on the edition of Imagenation and the format of the original document, files are sent in the original format or converted to a selected format, such as Spicer Document (.smf), PDF or Multipage TIFF format, before sending. The original file is not overwritten.



Batch Processing

Batch editions of Imagination allow you to clean up many images at once, for example, changing all files to a different format or creating thumbnails for a series of images. Batches automate repetitive tasks by applying a series of actions to a group of files in a directory. The Batch Manager defines and controls these automated tasks. You can process batches automatically or select individual batches to process; you can even process multipage files in batches.

Image Improvement Capabilities

Define a series of image improvement and file option commands to be carried out on each image in a batch. Commands can be defined individually for each image or globally for all images in a particular batch. All of the standard Imagination raster operations can be carried out in a batch.

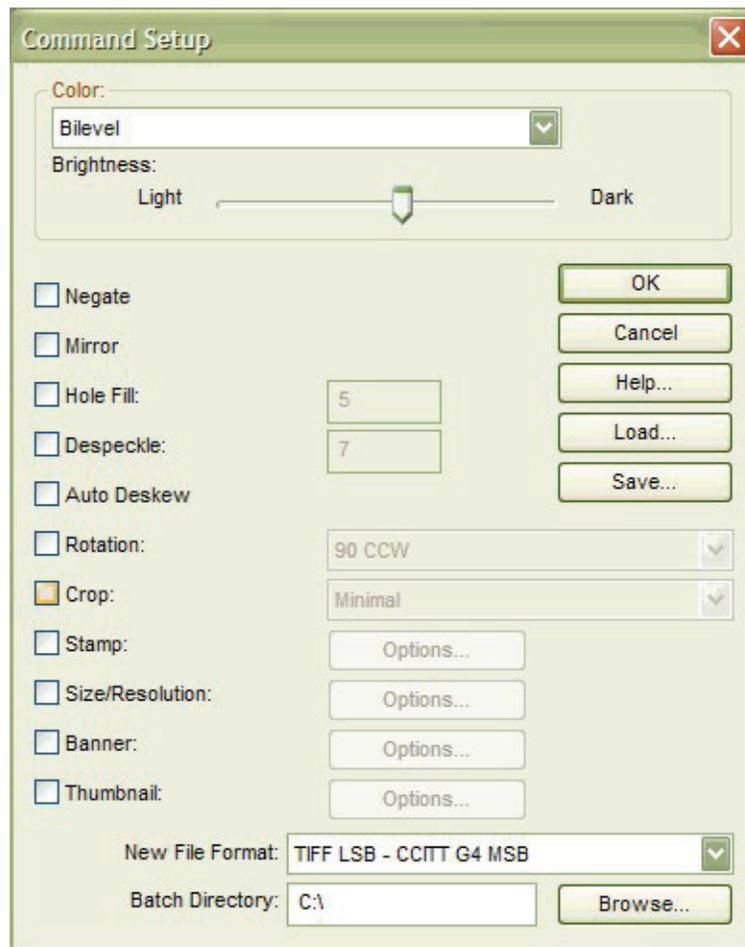


Figure 5
Improving images

- **Rasterize** defines the color level of the new raster images.
- **Brightness** defines how light or dark the image will be.
- **Negate** reverses the pixels in a bilevel raster image. It is typically used to turn a negative raster image into a positive one.
- **Mirror** flips the image around, so that it is reversed.
- **Hole Fill** fills in white holes of the specified size (in pixels).
- **Despeckle** removes black dots of the specified size (in pixels).
- **Auto Deskew** automatically straightens crooked images as long as the skew angle is 10 degrees or less.
- **Rotation** specifies a rotation of 90 CW, 90 CCW or 180 degrees, or Landscape or Portrait.
- **Crop** clips the raster image either to a size with minimal white space around the image, or to the smallest standard size without loss of significant data.
- **Size/Resolution** changes the size and resolution of a raster image.
- **Stamp** combines the image with a defined stamp (within image boundaries).
- **Banner** combines the image with a defined banner (outside image boundaries).
- **Thumbnail** saves a thumbnail version of the image.
- **New File Format** selects a file format for the new image.

Save and Load Batch Option Files

Save a group of commands to an options file, which you can then load at a later date when you want to reuse the same set of commands.

Batch Directory Control

Quickly specify the destination directory for your batch images. The Batch Directory option in the Command Setup dialog box allows you to set the location where images submitted for processing will be sent.

Managing Batches

The Imagenation Batch Manager allows you to control the processing of batches, create new batches and edit or delete existing batches.

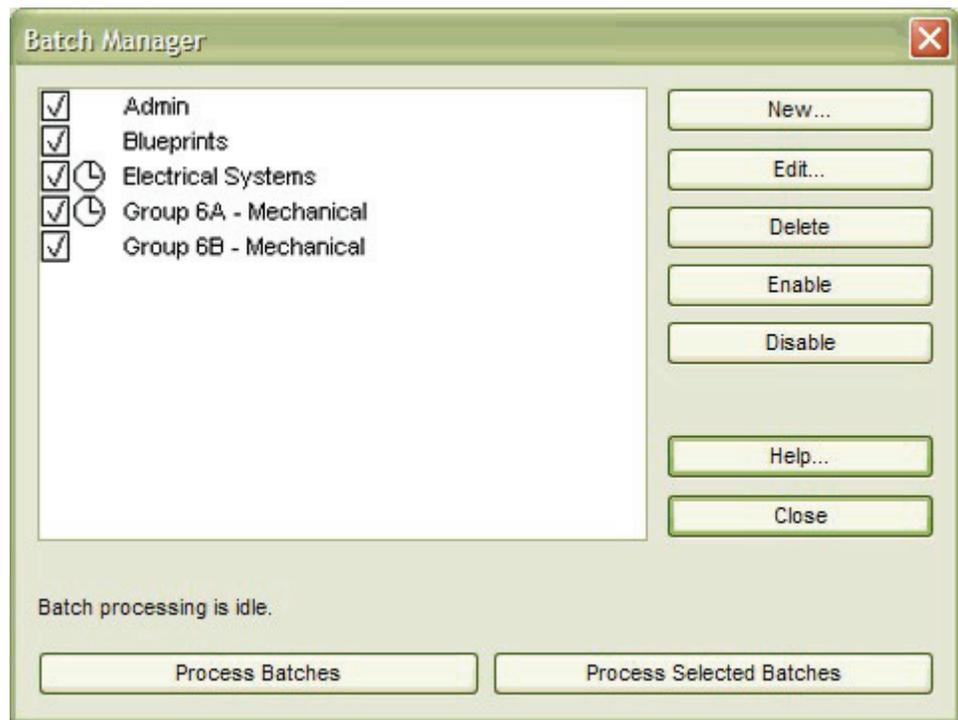


Figure 6
Batch Manager

When you create batches through the Batch Setup dialog box, the batches appear in the Batch Manager. A check mark indicates that the batch is enabled and can be processed. A clock icon indicates that the batch has been assigned a time frame during which it will be processed. This time frame is set in the Batch Setup dialog box.

Enabled batches can be processed immediately, unless they have an assigned processing time, or selected batches can be processed on demand, regardless of the time frame assigned to them.

Scanning

Convert paper documents into electronic images using Imagination, and simultaneously give several users immediate access to information. Reduce time spent searching through filing cabinets or drawers for documents that could easily be damaged, lost or in use by another person.

Through Imagination, scan originals into single or multipage documents. Save scanned images to industry-standard file formats such as TIFF, CALS and so on.

Large Document Scanner Support

Directly control large document scanners. Use “on-the-fly” scan cleanup features, batch scanning and cleanup, and the exclusive “rocker” mode for interactive cleanup with Contex, Vidar, KIP, Calcomp scanners, Océ scanners, Widacom and Xerox. For more information on scanner support, see page 31.

*Figure 7
Select the scanner you
require in Imagination’s
Scan Setup dialog box*



Small Document Scanner Support

Control desktop scanners directly using Imagination. Use “on-the-fly” scan cleanup features, batch scanning and cleanup.

Pixel Translation ISIS Drivers

Using industry-standard ISIS drivers, Imagination supports color, grayscale and black-and-white scanning with over 125 different scanner models from more than 30 manufacturers, including HP, Microtek, UMAX, Ricoh, AGFA, Bell & Howell, Epson, Kodak, Canon, Xerox, Panasonic, Sharp and Fujitsu. ISIS drivers are often sold with the scanner, but are also available separately.

Image Cleanup and Raster Editing

Dust, scratches, fingerprints, staple holes and other physical wear and tear on paper documents appear on the resulting scanned image. Imagenation’s intelligent raster editing tools enhance the quality of the images, resulting in a higher level of accuracy.

Despeckle

Despeckle a document. Remove stray dots and fill holes that interfere with image quality. Images will compress better, resulting in smaller files.

Deskew

By analyzing the image, Imagenation determines if the scanner fed the document askew, even slightly. The Deskew tool straightens the image to its proper orientation.

Crop

Isolate an area of an image to eliminate blank white space that contains no useful data, but increases the file size. Manually define a crop region, or select a predefined size.

Rasterize

Turn any document that Imagenation displays into a raster image using the Rasterize tool. Rasterize is particularly useful for permanently merging, or “burning” markups into a base raster image. The Bilevel Enhanced rasterization profile intelligently decides whether specific types of entities should be rendered solid, patterned or dithered during rasterizing.

Imagenation includes the Bilevel CAD rasterization profile which is optimized for CAD documents such as HPGL and AutoCAD. See the table below for the capabilities of the Bilevel CAD profile:

Feature	Operation
Objects	<ul style="list-style-type: none"> • Opaque vectors will be rasterized to solid black—no transparency. • Translucent vectors will be rasterized to a transparent pattern. • Opaque-filled areas will be rasterized to a pattern—no transparency. • Translucent-filled areas will be rasterized to a transparent pattern. • Hatch-filled areas will be rasterized to a solid black—no transparency.

	<ul style="list-style-type: none"> • Solid-filled hatching will be rasterized to a transparent pattern.
Text	<ul style="list-style-type: none"> • Opaque system fonts will be rasterized to solid black—no transparency. • Translucent system fonts will be rasterized to a pattern. • Opaque stroked fonts will be rasterized to solid black—no transparency. • Translucent stroked fonts will be rasterized to a pattern.
Raster Images	<ul style="list-style-type: none"> • Opaque color raster images will be dithered—no transparency. • Translucent color raster images will be dithered and transparent.

Pen Mapping

Use Pen Mapping to re-map lines and areas base on their color, weight and pattern prior to rasterizing.

Mirror, Negate, Rotate and Resize

With the Mirror tool, flip the drawing either vertically or horizontally. Use Negate to make negative images positive and vice versa. Rotate images that were fed into the scanner at odd orientations. Alter the resolution and dimensions of raster images with the Resize tool.

Document Marking

Permanently mark documents with useful information such as the document name, its location on a drive, the date, the time, a user ID or even a user-defined text string. This is often required for ISO or other standards. Banner places the information along the edge of a drawing, while Stamp appears as a watermark. Note: this is similar to the print functions of the same names; however, these are permanently burned into the raster image.

3D CAD Model Viewing

Imagination provides 3D CAD model viewing capabilities for many native and neutral 3D formats, including CATIA, Pro/E, SAT, SolidWorks, STEP, VDA-FS, VRML, STL and IGES. Give everyone in the design process the ability to load, review, measure and mark up documents quickly.

3D Navigation Controls and Tools

Imagination's intuitive 3D navigation controls and 3D tools let users explore 3D CAD models with ease. The 3D toolbar contains 3D view, rotate and select commands and specialized 3D tools like Cross Section, Model Explorer and 3D markups.

View CAD Models in 3D and 2D Mode

Imagination can be configured to open a 3D file, in either 3D Model mode or 2D projection mode.

View models in 3D mode to rotate, measure, transform, cross-section and apply 3D markups to CAD models.

View 3D CAD models as 2D drawings in a unique four-way display. Imagination's 2D markup tools can be applied and saved when a model is displayed in 2D mode.

Imagination can also rasterize 3D models to 2D formats for rapid distribution when the native CAD model is not required.

Select from Smooth Shading, Flat Shading, Wireframes and Points display styles. Users can select to apply different display styles for the Still and Interactive modes.

Simultaneously View 2D/3D Files

Load and simultaneously display 2D and 3D files. Imagination's multiple document interface lets users open as many 2D and 3D files as needed.

3D Tools such as Model Explorer, Cross-Sectioning, Transformations and Markups incorporate "sticky" settings, eliminating the need for users to reapply settings upon returning to an open file.

Cross-Sectioning

Imagination's easy-to-use Cross-Sectioning Tool positions a predefined or custom clipping plane that slices through the model to reveal the interior.

Users can define the location of the cross-sectioning plane—XY, YZ or XZ plane—or define a custom plane by clicking the Options button in the Cross-Section window.

The Cross-Sectioning Tool also lets users reverse the direction of the plane or show only the edge of the model along both sides of the plane.

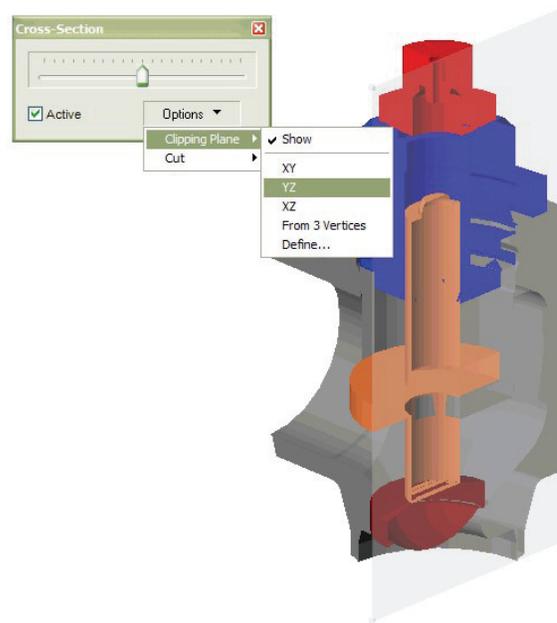
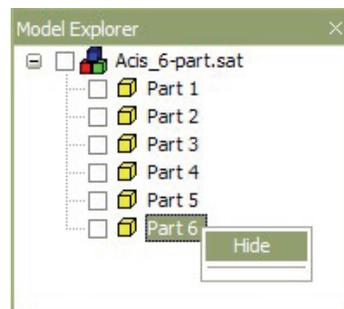


Figure 8
Cross-Sectioning

3D Model Explorer



The Model Explorer displays a tree view of a CAD model's parts.

Use the Model Explorer to select components of the model for measurements and transformations.

Users can show and hide parts of the model by clicking the check box next to a part in the Model Explorer. Hidden parts are indicated with an 'X' in the check box next to the component's name.

Select Tool

The 3D Select Tool lets users select parts of the 3D model by clicking directly on the model. Selecting parts is easy and accurate. No need to guess at unintuitive part labels. Simply click on the desired part to highlight it on the model and in the Model Explorer window, ready for transformations, measurements or other manipulation.

When the Select tool is active, right-click context menus provide rapid access to the Show and Hide parts commands.

Measurement Tool

Closely examine 3D models and obtain useful measurement information, such as:

- Distance
- Edge Length
- Vertex Coordinates
- Arc
- Angle
- Minimum Distance
- Face Surface

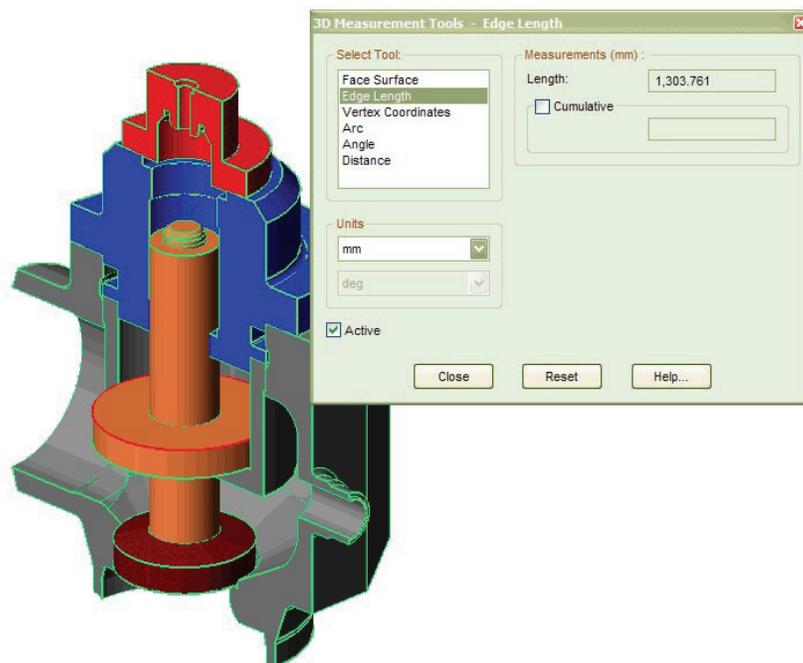
All measurement functions are accessible from a single dialog box. Simple select the Measurement Tool from the 3D menu and choose the desired measurement from the dialog box.

The intuitive and easy-to-use Measurement Tool returns measurements in the units selected by the user—inches, feet, centimeters, millimeters or meters.

Perform cumulative measurements for Face Surface or Edge Length. Find the total surface area or the total length of edges for several parts.

The Measurement Tool can also be used in conjunction with Imagination’s Cross-Sectioning Tool to obtain measurements of a 3D CAD model’s internal components.

Figure 9
Measurement Tools



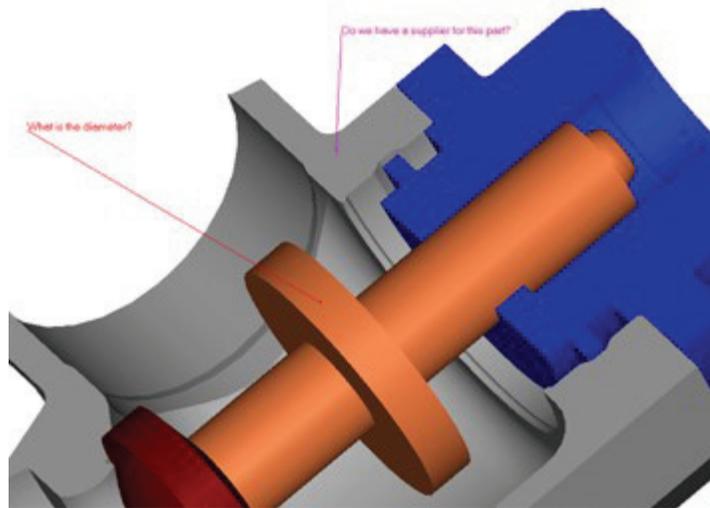
3D Text Markup Tool

Mark up 3D CAD models without requiring a CAD system. Imagination's 3D Text Tool lets users place text markups right on a CAD model and save those markups for others to review. Markups are anchored to a point on the model so other reviewers can rotate or scale the model without affecting the location of markups previously created.

The Text Tool can be used in combination with Imagination's powerful Markup Explorer. This enables users to hide, move and scale the 3D model, or parts of the model, to clearly communicate message to other members of the review team.

Users can select or edit the text color.

Figure 10
3D Text Markup Tool



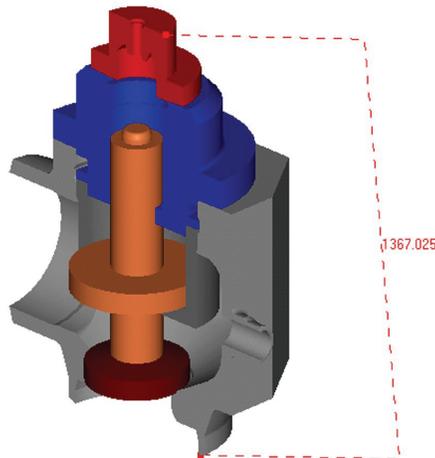
Dimension Tool

Imagination's 3D Dimension Tool allows users to add dimension lines and values to a 3D model or part. The dimensions remain anchored to the model while users rotate, resize or reposition it and can be saved with the model for others to review.

The Dimension Tool can be used in combination with the Model Explorer to give dimension values for individual parts or for the entire model.

Users can change the color of the dimension text and anchor lines.

Figure 11
Dimension Tool



Multi-Language Support

Use the language you want, when you want it, without restarting Imagination or rebooting the computer. Switch languages on-the-fly and see both the user interface and the online help in the language you require.

Imagination is available in 23 languages:

- Cantonese*
- Chinese (Traditional)*
- Danish
- English (UK)
- Finnish
- German
- Italian
- Korean*
- Polish*
- Portuguese (Brazilian)
- Spanish
- Swedish
- Chinese (Simplified)*
- Czech*
- Dutch
- English (US)
- French
- Hungarian*
- Japanese
- Norwegian
- Portuguese
- Russian
- Spanish (Latin American)

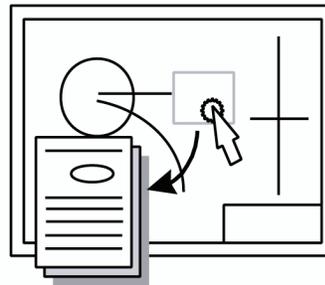
* User interface only

Breaking the language barrier enables you to work faster and smarter in your own language. Each license comes with all available languages—simply install the ones you require.

Hotspots

In many document solutions, companies want to add intelligence to their documents. For example, a CAD drawing of a machine has a part that, when selected, opens a related document that offers more detail. With hotspots—areas or objects on a document that trigger actions when selected—you can “drill down” through data in this way. You can use hotspots to create hyperlinks, execute other programs, run database queries, annotate using video and access AutoCAD Extended Entity Data (EED).

Figure 12
Hotspots



Define any **area** or **object** as an Imagination Hotspot

Hotspots and EED

Use Imagination hotspots to recognize EED information in AutoCAD files. Hotspots give you the power to link programs that accept EED data, such as MS Excel, to Imagination.

Hotspots and the Imagination API

Hotspots allow you to call any of Imagination’s hundreds of Application Programming Interface (API) commands. Create an intelligent document that performs complex tasks based on API commands at the click of a hotspot icon.

Hotspot Interface

Hotspots are easily identifiable by the lightning bolt icon that appears when the pointer passes over them. For touch screen programs, configure Imagination to activate hotspots when single-clicked.

Integrating Imagenation

Imagenation's universal viewing capabilities are often integrated with document/data management, workflow or Intranet systems to provide complete document solutions.

Custom integrations allow different products to share information. For example, integrate Imagenation with a database to open documents from the database, add markups and check them back in to be opened by other users.

Using Imagenation's robust Application Programming Interface, or API, integrators can control hundreds of functions, attributes, preferences and permissions to build functional solutions.

Common Imagenation API operations include:

- Change the appearance of the Imagenation user interface to suit your application and your environment.
- Define permissions and user attributes for documents.
- Display, duplicate, or activate the Imagenation window, document windows, floating windows and external windows.
- Make the Imagenation option and preference dialog boxes show up where required.
- Open, close and unload documents, and work with Internet files.
- Set characteristics of files that you want to open.
- Find out the ID, number and other information about loaded documents.
- Add, remove, reorder, and further change documents, pages and layers.
- Request and set file information.
- Save and export documents.
- Simplify and change the display of images.
- Share documents through printing, faxing, scanning, and email.
- Work with markup tools and edit vector objects.
- Clean up raster images.

C API

The C API is a method of controlling Imagenation remotely, sending commands to it behind the scenes instead of through the graphical user interface. Whether you want to run a small batch program on a group of images, use Imagenation as the image viewer for your scanner, create your own fax server, or develop a full-scale document management system, the C API provides the command interface that allows you to access all of Imagenation's functionality.

DDE API

Using the DDE API, you can develop an application that calls on Imagenation to perform functions for it. Whether you want to run a small batch program on a group of images, use Imagenation as the image viewer for your scanner, create your own fax server, or develop a full-scale document management system, the DDE API provides the command interface for gaining access to Imagenation's functionality.

The Imagenation DDE API uses DDEML, which handles a lot of the overhead work.

You can use any programming language to develop your image-enabled applications, as long as it is compatible with DDE. If you use the C programming language, you can also use Imagenation's C API interface, described in a separate help file. You can also use these DDE command through OLE Automation.

Steps to an Integration

1. The first step in an integration is to establish a conversation between the client application and the server, Imagenation. Your client application and Imagenation must be conversing before any meaningful exchange of functions can take place.
2. Next, you can control Imagenation using the applicable functions, notifications and queries. All C API functions are synchronous. Each function consists of a name and parameters. You must always include any parameters that are defined for a function in the stated order.
3. Finally, you must end the conversation when you are closing a client application and want Imagenation to stop accepting calls from that client.

Spicer Image a•X OEM Toolkit

The Spicer Image a•X Toolkit represents a new flexibility for integrating Imagination’s functionality into your document solutions—whether they are traditional networked database solutions or Intranet/Web solutions.

Image a•X is a specific implementation of the Microsoft Component Object Model (COM). The controls are contained in Microsoft cabinet (CAB) files. CAB files are an efficient way to quickly distribute and install large amounts of software. Users can download CAB files from a Web site or from a network and then install the software on their machines.

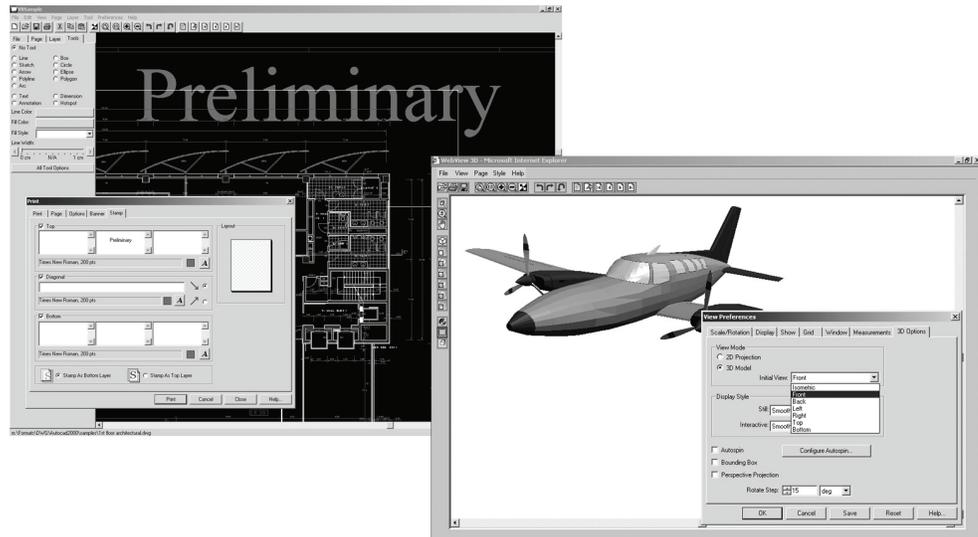
Use the Image a•X Toolkit to create client or server applications that use Imagination’s powerful viewing abilities, without running Imagination. Or embed the controls in HTML pages to use Imagination’s features in a Web environment. Automate the controls using common scripting languages, such as JavaScript or VB Script, or programming languages such as Java.

Image a•X technology currently operates in Microsoft Windows 32-bit environments. Spicer Image a•X Toolkit controls are compatible with the Microsoft .NET environment. You can create Image a•X applications using C#, as well as C, C++, Visual Basic and many other languages.

Custom Document Viewing

The Image a•X Toolkit offers secure, customized interface design, allowing integrators the freedom to configure the user interface to be exactly as desired, implementing only those features that each user requires.

Figure 13



The Image a•X Toolkit includes the following ActiveX controls, which are suitable for all windows environments:

Document Control	Open, create and manipulate simple or complex documents.
View Control	View, print and fax documents from the Document Control.
3D View Control (Beta)	View, rotate and cross-section 3D CAD models.
Markup Control	Creates markups on documents.
Reference Control	Use the floating Reference window for a bird's eye view of documents.
Thumbnails Control	Display thumbnail views of multipage documents and navigate through the pages by clicking on a thumbnail.
Edit Control	Clean up images and edit rasters.
Detail Control	Use the floating Detail window for up-close views of documents.
Configuration Control	Configure dialog boxes, menus and functionality.
Layers Window Control	Display the names of all layers on the current page.
Measurement Control (Beta)	Calibrate and use the Measurement Tool to obtain accurate measurements from 2D documents.

Licensing

Imagenation offers a variety of licensing models to suit the needs of any organization. Each edition is available in three licensing models:

- Per seat License
- Concurrent License
- Site License

Server-based licensing is also available.

License Manager for Concurrent Licensing Installations

The License Manager is software that provides security by granting access to Imagenation on a TCP/IP network. The License Manager controls the number of seats and the editions of Imagenation client sessions that can run concurrently from a network or server installation.

A single License Manager is capable of monitoring Imagenation licenses for any size of installation. It simplifies network administration and enables all members of an organization to easily access Imagenation's powerful functions from a network.

Configurable Message Logging

Customize your License Manager and keep track of the messages that are important to you with configurable message logging.

How the License Manager Works

1. A user requests Imagenation from the network.
2. License Manager verifies that the requested edition of Imagenation is available.
3. License Manager instructs the Imagenation server to launch the requested edition of Imagenation to the client.
4. Once the client closes Imagenation, the license is released and is available immediately for any other Imagenation users.

License Monitoring

License Manager features a smart license release design that ensures optimum usage of licenses. This is accomplished in several ways:

- In the event of a client or server crash, License Manager allows time to re-establish the connection. If the connection cannot be re-established, License Manager releases the license.

- License Manager sends intermittent pings to all active clients. If a client is inactive, License Manager releases the license after a specified period of inactivity.
- License Manager may be locked to a dongle.

Supported File Formats

CAD

AutoCAD (DWG, DWF, DXF)
 AutoDESK Inventor
 CADRA
 CAD Overlay
 CoCreate ME10 MI
 Gerber (RS 274-D & RS 274-X)
 GTX RasterCAD
 Microstation DGN, DGN v8
 Softelec VPMMax
 Visio (*.vsd) preview
 Solidworks 2D drawings (*.slddrw)

3D CAD

AutoDESK Inventor
 CATIA
 Pro/E
 SAT
 STEP
 VDA-FS
 IGES
 STL
 VRML
 XGL/ZGL
 SolidWorks parts (*.sldprt) and assemblies (*.sldasm)
 UGS JT

Raster

AllIM Type II
 Auto-trol DX
 Brooktrout FAX
 CAD Overlay
 Calcomp CCRF
 CALS
 Compuserve GIF
 DCX Multipage
 DDIFF

Digital Negative (preview)
 EDMICS C4
 FileNET Banded
 FileNET Tiled
 Formtek
 GEM IMG
 Group IV
 GTX Group IV
 Hitachi Raster HRF
 IBM IOCA
 Image Machines TG4/IG4
 ImageCenter TG4
 Intergraph
 JEDMICS
 JFIF-JPEG
 JPEG 2000
 LaserData
 MicroDynamics MARS
 MrSID
 OS/2 BMP
 PCX
 Photomatrix Group 3 & 4
 PNG
 Progressive JFIF
 RLC, RLC 2, RCLX
 Skantek
 Sun Raster
 Targa Truevision
 TIFF (various)
 Versatec VDS
 Vidar
 Windows BMP
 WINFAX Pro
 WordPerfect WPG
 Xerox Docuplex
 Xionics Group 4
 XWD RAW
 Zsoft ZGF

Vector Graphics

AQU
 Auto-trol DG

Auto-trol TI
 CADD5
 CGM
 CIMAGE DWG
 Compressed MI
 Enhanced Metafile EMF
 Macintosh PICT
 MI
 Micrographx DRW
 SBD
 SVG
 Visio (*.vsd) preview
 Windows Metafile WMF
 XMS

Text

Adobe Acrobat PDF
 ASCII Binary & Text
 Microsoft Excel
 Microsoft Outlook MSG
 Microsoft PowerPoint
 Microsoft RTF
 Microsoft Word
 OMNEX Aqua II
 OTG COLD
 TeamWorks (TW) COLD
 WordPerfect
 ZIP

Print/Plot

Adobe Acrobat PDF
 PostScript
 EPS
 HPGL
 HPGL/2
 HP RTL
 Calcomp 906/907

Scanner Support

Directly control large document scanners. Use on-the-fly scan cleanup features, batch scanning and cleanup, as well as the exclusive rocker mode for interactive cleanup with:

- **Contex:** FSS 3000, FSS 5000, FSS 8000, FSS 10000
FSS 3200 DSP, FSS 5200 DSP, FSS 6200 DSP, FSS 8200 DSP, FSS 10200 DSP
FSS 4300 DSP, FSS 8300 DSP, FSS 12300 DSP, FSS 18300 DSP
ACS 4100 DSP, ACS 4200 DSP, TDS 8000 DSP, FSS 8300 DSP Copy, FSS 8300 DSP Plus, ICS 1340 DSP
FSC 3010 DSP, FSC 5000 DSP, FSC 5010 DSP, FSC 6010 DSP, FSC 8000 DSP, FSC 8010 DSP
FSC 5010 DSP Copy, FSC 8010 DSP Copy
FSC 3050 Magnum, FSC 6050 Magnum, FSC 8050 Magnum
FSC 3040 Chroma, FSC 6040 Chroma, FSC 8040 Chroma, FSS 2250 Panorama, FSS 2251 Panorama
Cougar 25, Cougar 36, Crystal 40, Chameleon 25, Chameleon 36
Crystal Tx, Chroma Tx
- **Vidar:** TruScan Flash/Flash Upgrade/Flash+, TruScan Select/Select Plus/Select Pro/Select Classic, ColorClassic, Titan, Titan Atlas (color), Designer, Latitude, TruScan 600/800*
- **KIP:** 2050, 2080, 2120 driven by TWAIN interface
- **Calcomp scanners:** ScanPlus III 300, ScanPlus III 500, ScanPlus III 600, ScanPlus III 800, ScanPlus III 1000, ScanPlus III 80, ScanPlus III 400-T, ScanPlus III 600-T, ScanPlus III 800-T, ScanPlus III 1200-T, ScanPlus III 1800-T, ScanPlus III 510 C, ScanPlus III 510 C Copy, ScanPlus III 810-C. ScanPlus III 810-C Copy, ScanPlus III 310-C, ScanPlus III 610-C, ScanPlus III 350C, ScanPlus III 650C, ScanPlus III 850C, ScanPlus III 340C, ScanPlus III 640C, ScanPlus III 840C, ScanPlus IV 625T, ScanPlus IV 825CE, ScanPlus IV 636T, ScanPlus IV 836CE, ScanPlus IV 625C, ScanPlus IV 825C, ScanPlus IV 636C, ScanPlus IV 836C, ScanPlus IV 440T
- **Océ scanners:** G6015, G6035, G6045, G6015-S, G6035-S, G6035-Sx, G6045-S, 4715, 4725, 4730, 4740, 4770, 4780, CS 4050, CS 4051, CS 4052, CS 4040, CS 4041, CS 4042, CS 4021, CS 4025, CS 4026, CS 4030, CS 4031, CS 4035, CS 4036
- **Widecom:** SLC 936 and SLC 836 Color (no batch scanning or rocker mode)
- **Xerox:** 6030/6050

* Supported in Imagenation Version 6.22 and earlier.

OPEN TEXT

The Content Experts™

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