

Trial Guide



SignLab Version 9 | Integrated Design
and Production Solutions

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After using this guide to configure your shop equipment, you should have a good impression of how the tools can be used to improve your shop efficiency. However, if you have questions about the SignLab Trial, then please contact either your assigned dealer, or CADlink directly.

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INTRODUCTION TO SIGNLAB

SignLab is Computer Aided Design (CAD) software for signmakers, which provides leading edge technologies as an all-in-one package for efficient sign shop operation. Development for SignLab is an ongoing process, where new technologies and tools are incorporated into SignLab to support modern sign shop needs. Despite the pressure to add new features, radical changes to the user interfaces and workflows are avoided, so that signmakers are not inconvenienced when upgrading to the latest SignLab.

SignLab tools are simple and versatile for designing with text, line art, and images (i.e., bitmaps). SignLab also provides significant support for other design applications, so that unfinished or archived designs can be brought into SignLab for pre-production work.

Visual Production Manager

Included with SignLab Print and Cut is the Visual Production Manager (VPM), which is a production management tool that serves as a repository for all of your volume production printing and/or cutting activities. Sorting and accumulating jobs is accomplished by creating one-or-more queues for each of your machines, thereby providing a simple means for designers to output their designs.

From a designer perspective, a queue in Visual Production Manager appears as a print destination (i.e., in the application **Print** dialog), and designers are otherwise insulated from the technical aspects of production. However, for the operator that oversees production, they are presented with a clean interface that allows them to preview jobs at a glance, and intuitive controls that can be set behind-the-scenes.

Send to VPM Plug-ins

As a means of avoiding the **Print** dialog configuration steps within your PhotoShop, Illustrator and/or CorelDraw packages, special plug-ins are provided that allow a design to be sent directly to SignLab or VPM. In this manner, you have increased freedom to choose the workflow that best suits your production requirements.

INSTALLING SIGNLAB

Though not required for this Trial, the full SignLab package is provided with an orange USB security dongle to prevent unauthorized use or pirating of the software. This dongle is a flash drive that plugs into a standard USB port of the computer, and it is transparent to other applications. Only SignLab is aware of the device.



For the full SignLab package, connect your orange dongle **BEFORE** installing your SignLab software!

Policy On Lost Or Stolen Dongles

- The USB dongle provided with SignLab is your proof of purchase. If the dongle is lost or stolen, then that is equivalent to losing the entire software package, and a new package of SignLab must be purchased.
- In the event of a damaged dongle that must be replaced, there is a nominal fee for EXCHANGING a new dongle for the older dongle, where the older dongle must be reclaimed by CADlink.
This fee is waived where product is still under warranty.
- Regardless, it is recommended that you ensure that your dongle is covered under your business insurance policy.

Temporary License Files

- License files are included with your USB dongle, which are used to confirm the features within your CADlink products.
- If a replacement dongle is being shipped to you, then you will typically be issued “temporary” license files that will enable you to continue using your CADlink products.
- Temporary license files will cease working after a set criteria, though the expectation is that your replacement dongle will arrive prior to expiry.
- Please note that the replacement dongle will be provided with new “permanent” license files that will replace the temporary license files.

Storing Your License Files

- In the event of lost license files, there is a nominal administrative fee for issuing replacement license files.
The fee is waived if the Free Support period is still active. Otherwise, replacement license file issues are treated like Tech Support requests.
- When CADlink sends you new license files, it is important that you create backups of the license files, so they can be easily located when re-installing your CADlink products on new equipment.
- In the case of the orange USB flash drive dongle, your license files can be stored on the dongle itself. When re-installing your CADlink products, license files upon the dongle will be automatically used.

PART 1 - PROGRAM INSTALLATION

The following steps are an overview of installing the SignLab Trial, and further information is provided within each stage of the install wizard.

1. Insert the SignLab Trial CD into your CD-ROM drive. The install wizard should “auto start”.

If the install wizard fails to auto start, then start the installation process manually:

- a) From the **Start** menu, choose **Run** to open the **Run** dialog.
- b) Click **Browse** and locate the setup.exe file that is on the CD in the CD-ROM drive.
- c) Click **Open** to choose the setup.exe file, and click **OK** to close the **Run** dialog.

2. Proceed with each stage of the install wizard. Instructions are provided at each stage.
3. When the install wizard is complete, proceed to *Part 2- Printer Installation*.

PART 2 - PRINTER INSTALLATION

Now that SignLab has been installed, you are ready to install the printer support files. However, if you using this Trial to evaluate either SignLab Vinyl or SignLab Vinyl Pro, then you can skip ahead to *Part 5 - Launching SignLab*.

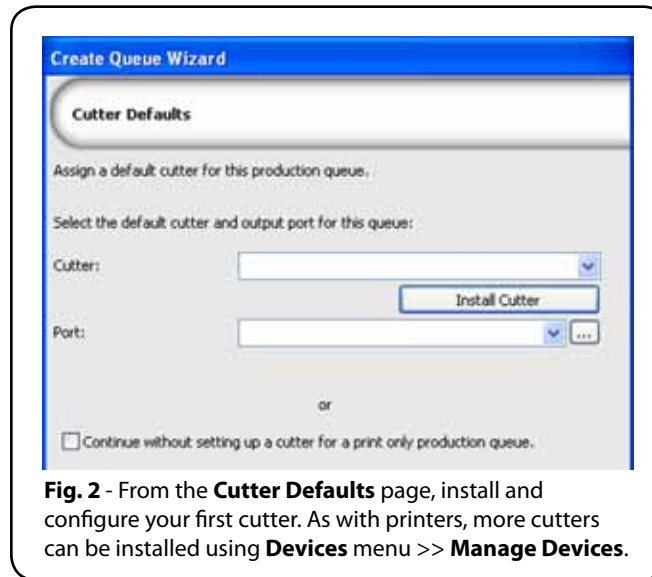
1. Before proceeding, make certain that your Internet connection is active, such that printer support files can be downloaded from CADlink.
2. From the Windows **Start** menu, choose **All Programs >> SignLab >> Visual Production Manager**.
3. The **First Time Setup** dialog will prompt for your default layout settings.
4. The **Create Queue Wizard** will launch (**Introduction** page), which will be used to install support files for your printer and/or cutter.
At this time, it is recommended that you install the support files for your primary production equipment. Later, it will be possible to install support files for additional machines.
5. From the **Introduction** page, click **Next**.
6. From the **Printer Defaults** page (Fig. 1):
 - a) Click the **Install Printer** button, and follow the steps for choosing the printer model and installing its printer support files.
 - b) Once the support files have been installed, click the **Port** drop-list and indicate the computer port that the printer is connected to.
 - c) To the right of the **Print Mode** drop-list, click the ellipsis button.
 - d) From the **Print Mode Selection** dialog, use the drop-lists to refine the selection of print modes (i.e., media profiles), such that you can choose the most appropriate print mode for the loaded inks and media.
 - e) From the **Printer Defaults** page, click **Next** to proceed.



Fig. 1 - From the **Printer Defaults** page, install and configure your first printer. Later, more printers can be installed using **Devices** menu >> **Manage Devices**.

PART 3 - CUTTER INSTALLATION

1. From the **Cutter Defaults** page (Fig. 2), click the **Install Cutter** button and follow the steps for choosing the cutter model and installing the cutter driver.
For hybrid printers that can perform their own cutting, the printer name will be available as a **Cutter** drop-list option.
2. Once the cutter driver has been installed, click the **Port** drop-list and indicate the computer port that the cutter is connected to.
3. From the **Cutter Defaults** page, click **Next**.



PART 4 - QUEUE CREATION

Click **Next** to proceed through each remaining step of the wizard.

Note: For CorelDraw, Illustrator and PhotoShop, installation of the *SignLab Garment Decorating Module* automatically installs special shortcuts that pre-configure your designs for garment printing.

1. The **Name Your Production Queue** page asks you to provide a meaningful name that this queue will be referred to.
 - For garment printing, set the name as “White T-Shirts”, and later we will create a queue for black shirts.
2. The **Media Setup** page asks you to define the size and margins of the printer that this queue will be sending jobs to.
 - For garment printing, you will want to use **Fixed Sheet** or **Templates**. If unsure, then choose **Fixed Sheet** and indicate the total print area.
 - Roll is used for roll-feed printers, where you have a continuous roll of media and want to print continuously. Garment printers are not roll-feed machines.
 - Fixed Sheet is used to select a fixed size that will always be used as the target print area for the production queue. For example, this allows for repositioning of the image to accommodate the desired location on a garment (e.g., position the graphic in the upper-corner of the Visual Print Manager for a breast-pocket location, or centered for a chest graphic).
 - Templates are defined by you to provide specific control over positioning, such as setting custom board sizes and positions for both single and multiple jobs.
3. The **Registration Marks** page asks for the alignment system that will be used. Refer to your cutter operation manual for an explanation of the available choices. See also the *Choosing Registration Marks and Alignment Systems* section, which is within the *Sending Jobs from SignLab* chapter.

If print&cut jobs will be completed by a hybrid printer that can perform its own cut operations, then the printer will manage its own cut alignment. However, if the cut-portion is to be completed by a stand-alone cutter, then registration marks are printed to provide cut alignment.

4. The **Layout Mode** page asks you to choose how jobs will be nested on the media.
 - **Manual** - Add jobs to the Preview Pane without attempting to conserve media.
 - **Auto Nest** - Do not use this option for garment printing. This option will reposition newly received jobs to conserve media.
 - **Auto Page** - Use this option when garment printing. Append a page break to each job as it is received.
5. The **Output Options** page is used to choose how jobs are held when received by Visual Production Manager.
 - For garment printing, choose either **Hold** (i.e., do nothing), or **RIP Now, Print later** (i.e., spend time creating a spool file, but don't send to the printer yet).
6. When ready, click **Finish** to conclude the wizard, and **Visual Production Manager** will launch.

PART 5 - LAUNCHING SIGNLAB

At this point, you are ready to launch SignLab and output a print and/or cut job. This will confirm that your software and hardware are communicating as expected.

1. From the Windows **Start** menu, launch **SignLab**.
2. Since this is a SignLab Trial, a dialog will prompt you to choose the type of SignLab package that is of interest (e.g., SignLab Vinyl Pro as opposed to SignLab Print and Cut).
3. When SignLab is launched, a configuration wizard will automatically open. If you accidentally close this wizard, then it can be reopened from the **File** menu.
4. Proceed with each stage of the wizard configuration. Once the wizard is complete, the SignLab workspace will be configured for output to your printer and/or cutter.

To test that SignLab is communicating correctly with your shop equipment, refer to the *Sending Jobs from SignLab* section and choose the workflow that corresponds to your shop configuration.

Note: For the *SignLab Professional Vehicle Graphics Module*, please refer to the documentation that is provided within that package.

SENDING JOBS FROM SIGNLAB

Note: Due to space limitations, the following workflows are provided in the *SignLab 9 Setup Guide* PDF, which can be opened via **Start** menu >> **Programs** >> **SignLab** >> **Help Files** >> **SignLab Setup Procedures**.

Once you have completed the SignLab installation, choose from the following workflows to confirm that print and/or cut jobs are being received and processed as expected. By completing the workflow that best corresponds to your shop configuration, you will develop a greater understand about the SignLab interface.

- **Deciding when to Cut, Print, Print&Cut, etc.** - When in doubt, review these pointers to help you choose the workflow that best suits your needs.
- **Choosing Registration Marks and Alignment Systems** - This section provides additional comments about aligning cut operations to print jobs.
- **Print and/or Cut from SignLab** - Use this workflow for *SignLab Print & Cut* packages, where jobs will be processed by Visual Production Manager (VPM) and output to a printer and/or cutter.
- **Contour Cut-only from SignLab** - Use this workflow for *SignLab Vinyl, Vinyl Pro, and CutPro* packages, where jobs are output from SignLab to the cutter.
- **Garment Printing from SignLab** - Use this workflow with the *Garment Decorating Module* to print to both white and black garment material. See also the *Sending Jobs from PhotoShop/Illustrator/CorelDraw* sections.
- **Cutting Rhinestone Patterns from SignLab** - Use this workflow with the *Garment Decorating Module* to place rhinestones and then output the cut pattern to the cutter.
- **Rotary Engraving from SignLab** - Use this workflow with the *Engraving Module* to configure machine settings within SignLab and output a tool path to the engraver.
- **Laser Engraving from SignLab** - Use this workflow to configure SignLab for **File** menu >> **Print** output to your laser engraver.
- **Routing from SignLab** - Use this workflow with the *Sign Routing Module* to configure SignLab with material definitions, cutting tools, and cut templates for output to a router.
- **Print and/or Cut to Roland VersaWorks** - Use this workflow with the *SignLab for VersaWorks™ Edition* to configure SignLab for sending output to Roland VersaWorks.
- **Print and/or Cut to Mimaki RasterLink** - Use this workflow with the *SignLab for Mimaki™ Edition* to configure SignLab for sending output to Mimaki RasterLink.

For workflows that involve sending jobs from third-party design applications to VPM, see *Sending Jobs to Visual Production Manager (VPM)*

DECIDING WHEN TO CUT, PRINT, PRINT&CUT, ETC.

Due to the variety of supported workflows in SignLab, the following differences should be noted about how jobs are output from SignLab:

Printing versus Print&Cut

- Both “print only” and “print and cut” jobs can be processed through the **Print and Cut** command.
- A “print and cut” job is like a regular print job, except that contour cut paths are applied after the print portion of the job. For example, stickers are commonly created through a “print and cut” process.
- Though the **File** menu >> **Print** command is available in SignLab, it is typically used for printing simple drafts or customer proofs to a desktop printer, whereas large format printing should be performed through the **Print and Cut** command.

Contour Cutting versus Print&Cut

- When using the **Print and Cut** command, all workspace shapes are considered to be print-only objects, except contour cut paths that represent cut-only objects.
- Cut paths are created using the **Cut** menu tools, such as **Contour Cut**, **Contour Cut On/Off**, or **Die Cut**.
- The **Print and Cut** command is not available with *SignLab Vinyl*, *Vinyl Pro*, or *CutPro* packages. Instead, cut jobs are sent via **Cut** menu >> **Plot**.
- When using **Cut** menu >> **Plot**, all workspace shapes are treated as cut-only objects.

Contour Cutting versus Routing or Engraving

- For both the *SignLab Sign Routing Module*, and the *SignLab Engraving Module*, the **Tool Path Tools** are first used to create tool paths, and then jobs are sent via **Cut** menu >> **Plot**.
- If contour cut paths are output to a router or engraver, the cut paths will be of zero depth (i.e., the cut path will score the material).
- Since laser engravers use a Windows printer driver, such jobs are sent from SignLab using **File** menu >> **Print**.

Visual Production Manager, VersaWorks, and RasterLink

- Print and cut jobs sent from SignLab will be received and processed through the Visual Print Manager, unless either the *SignLab for VersaWorks* or *SignLab for Mimaki* Editions have been purchased.
- For the SignLab for VersaWorks Edition, the **Print to Roland VersaWorks** command will process jobs through your VersaWorks RIP software (either queue A or B).
- For the SignLab for Mimaki Edition, the **Print to RasterLink** command will cause jobs to be processed through your Rasterlink RIP software.
- Regardless of the choice of RIP, the software should be launched prior to sending the job from SignLab, rather than rely upon Windows to launch the RIP software automatically.

CHOOSING REGISTRATION MARKS AND ALIGNMENT SYSTEMS

SignLab provides support for an extensive variety of printers and cutters, both in terms of manufacturers and machine models. However, the technology used for printer-cutter alignment varies, such as the following:

- Hybrid printers that automatically align cut operations after completing the print job.
- Printers that automatically print registration marks that will be used for cut alignment.
- For print-laminate-cut jobs, where the printed job will be laminated and loaded back into the hybrid printer for cutting, the printer will typically print the registration marks that it needs for cut alignment.
- Cutters that have optical eye systems (i.e., a laser) that can automatically align to specific types of registration marks.
- Cutters that do not have optical eye systems, which require that the operator visually position the cutting tool according to the registration marks. In such cases, it is recommended that **Three point automatic** registration marks be created (if available).
- For cut vinyl applications, cutting registration marks that are used to visually align multiple layers of color vinyl.

When configuring your printer and/or cutter, it is important to consider both the job application, and the choices of printer/cutter alignment that are detailed within the Operator Manuals of the given machines.

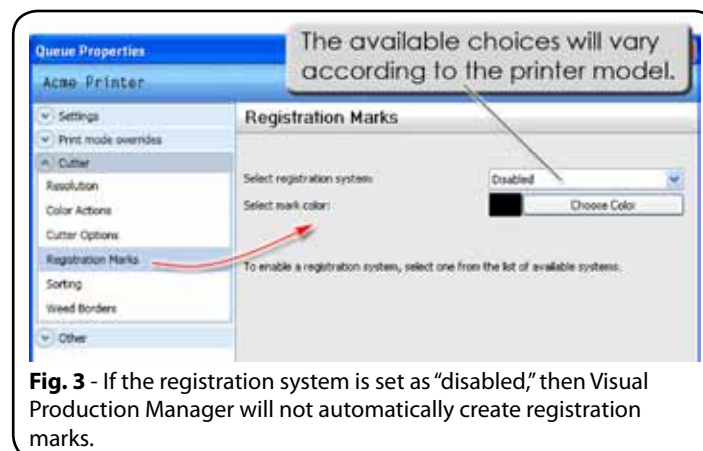
Depending upon the type of work being performed, it may be necessary to manually add registration marks within SignLab, or to automatically add registration marks within Visual Production Manager.

Registration Marks in SignLab

- In SignLab, choose **Shapes Tools >> Registration Mark** to manually place individual registration marks.
- Likewise, choose **Shapes Tools >> Multi-Registration Mark** to place sets of registration marks.
- The Multi-Registration Mark tool is also available in Cut Preview mode (i.e., for cut-only jobs).
- These tools are typically used for cut vinyl applications, though they can be equally applicable for print&cut applications, provided that the marks are placed according to the Operator Manual guidelines.

Registration Marks in Visual Production Manager

- Visual Production Manager can automatically add registration marks when jobs are received.
- Depending upon how the queue is configured, marks can be added for individual jobs, or for sets of jobs that have been nested upon the media.
- Automatic registration marks can be set as follows:
 1. Choose **Queue** menu >> **Properties**.
 2. Click the **Registration Marks** tab.
 3. From the **Select registration system** drop-list, choose the type of registration marks (Fig. 3).



SENDING JOBS TO VISUAL PRODUCTION MANAGER (VPM)

Note: Due to space limitations, the following workflows are provided in the *SignLab 9 Setup Guide* PDF, which can be opened via **Start** menu >> **Programs** >> **SignLab** >> **Help Files** >> **SignLab Setup Procedures**.

There are a variety of means that jobs can be sent directly to Visual Production Manager, as opposed to importing or linking the design into SignLab first.

For the PhotoShop, Illustrator and CorelDraw workflows, a special **Send to VPM** plug-in that is used instead of **File** menu >> **Print**. For garment printing, there is also a **Send to VPM with Underbase** plug-in that will automatically create a white ink underbase for the design.

- **Sending Jobs from PhotoShop** - In PhotoShop, the Send to VPM plug-ins are available through the **File** menu >> **Automate** flyout.
- **Sending Jobs from Illustrator** - In Illustrator, the Send to VPM plug-ins are available under the **File** menu.
- **Sending Jobs from CorelDraw** - In CorelDraw, the Send to VPM plug-ins are available as buttons on the Standard toolbar.

- **Sending Jobs from Other Design Applications** - Where the **Send to VPM** plug-ins are not available, this workflow describes how to configure **File** menu >> **Print** to send jobs from your third-party graphic design application to VPM.

- **Importing Designs Directly into VPM** - If a saved design file is available, it can be imported directly into VPM.

- **Sending Jobs Across a Network** - This workflow uses Windows remote printer sharing to send jobs from one Windows system to another Windows system.
- **Sending Jobs from Non-Windows Computers** - This workflow uses a specially designated **Hot Folder** for VPM to receive jobs from non-Windows systems.
- **Sending Jobs from Mac OSX to VPM** - This workflow uses Windows remote printer sharing in combination with Samba (SMB) networking protocol, such that Mac OSX applications can **File** menu >> **Print** directly to VPM.

For workflows that involve preparing and sending jobs from within SignLab, see *Sending Jobs from SignLab*

HIGHLIGHTS FOR SIGNLAB

The following sections highlight key features and functionality that have been added as of SignLab 9:

- Total Solution Modules
- SignLab for VersaWorks™ Edition
- SignLab for Mimaki™ Edition
- Streamlined Steps for Print and Cut Jobs
- Image and Color Support
- Transparency (Opacity) Support
- Send to SignLab Plug-ins
- Contour Path Plug-in for CorelDraw
- Import/Export Files
- Power Tools
- General Feature Improvements
- Highlights for Visual Production Manager

TOTAL SOLUTION MODULES

The following add-on modules (Fig. 4) are now available with SignLab, though it may be necessary to confirm (through either CADlink or your dealer) that the chosen module is available for your SignLab package.

- ❑ **SignLab Professional Vehicle Graphics Module** - This 3-dimensional modeling module is used for visually presenting your vehicle graphic and wrap designs. Either a 3D rendering or short video-clip can be provided to the customer in order to help you sell your work.

The module package includes documentation and tutorials.

- ❑ **SignLab Garment Decorating Module** - This module contains tools for both direct-to-garment T-shirt printing, and rhinestone garment decoration. For garment printing, specialized tools provide an easy means of preparing designs for printing on white, black or color material. For rhinestone decoration, a variety of techniques are available for automatically distributing rhinestones across vector and bitmap designs.
- ❑ **SignLab Sign Routing Module** - Create simulated 3D text and graphics quickly and easily using powerful 3D chisel algorithms and v-carve technology. A broad variety of substrates are supported, and the tool pathing algorithms are (as much as) twice the speed of competing software.
- ❑ **SignLab Engraving Module** - This module contains engraver-specific production tools, fill routines, and machine support that includes both the latest engravers and legacy equipment. Produce engraved signage, plaques, labels, etc. quickly and easily. Tools include optimized sort routines, sorting and sequencing of jobs according to color, and instant tool path previewing.

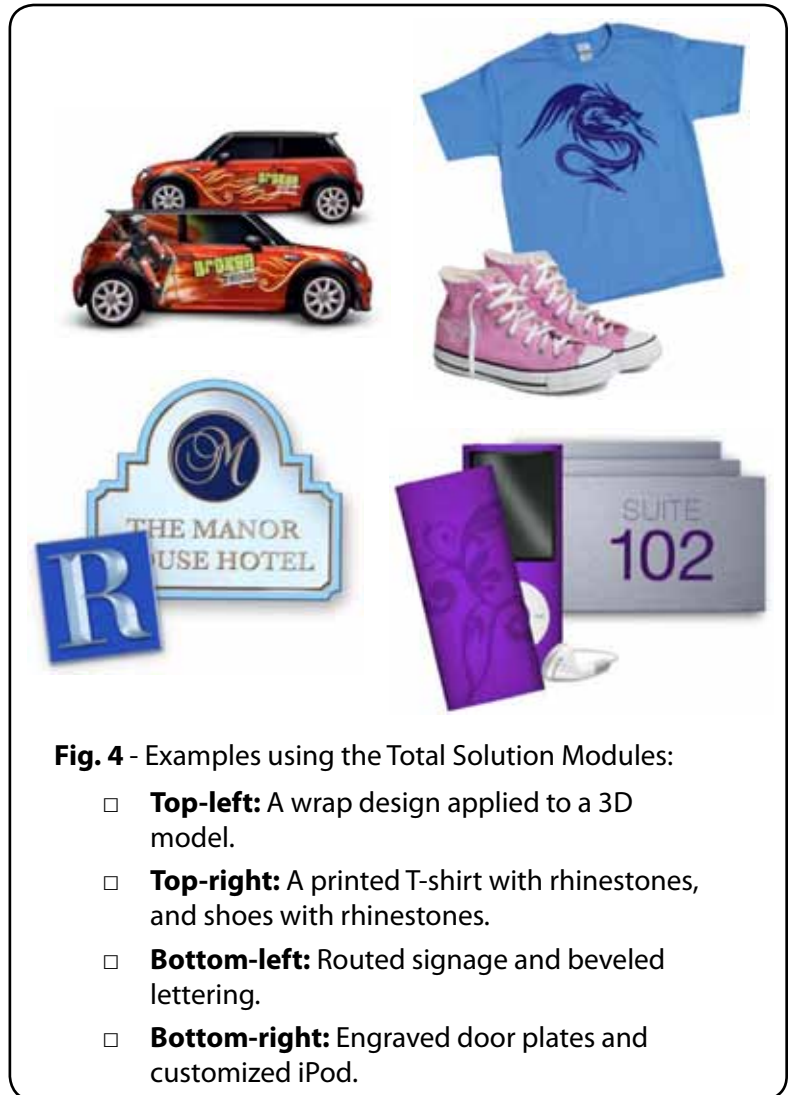


Fig. 4 - Examples using the Total Solution Modules:

- ❑ **Top-left:** A wrap design applied to a 3D model.
- ❑ **Top-right:** A printed T-shirt with rhinestones, and shoes with rhinestones.
- ❑ **Bottom-left:** Routed signage and beveled lettering.
- ❑ **Bottom-right:** Engraved door plates and customized iPod.

SIGNLAB FOR VERSAWORKS™ EDITION

This is a specially configured version of SignLab that sends designs directly to your VersaWorks™ queues and your Roland™ printer. Print quickly and easily to either queue 'A' or 'B' directly from SignLab using **File** menu >> **Print to Roland VersaWorks**. Includes the VersaWorks™ color palette for easy color matching with the VersaWorks™ swatch.

SIGNLAB FOR MIMAKI™ EDITION

This is a specially configured version of SignLab that sends designs directly to your RasterLink™ RIP software using an easy **File** menu >> **Print to RasterLink** workflow, so that you can benefit from reduced design and production time using tools that are specifically applicable to wide-format, digitally printed signage.

STREAMLINED STEPS FOR PRINT AND CUT JOBS

- The Print and Cut preview state has been removed.
- In previous versions of SignLab, the Print and Cut preview state would preview job layout upon the media, and then the job could be output from SignLab. This preview state is no longer used, and instead the job layout can be inspected within Visual Production Manager (Fig. 5).
- Layout activities such as copies, tiling and nesting of jobs upon the media can now be performed in Visual Production Manager (VPM).
- All registration marks and the cutter driver are now configured within Visual Production Manager, so jobs can be reassigned to alternative queues (i.e., cut using a different machine).

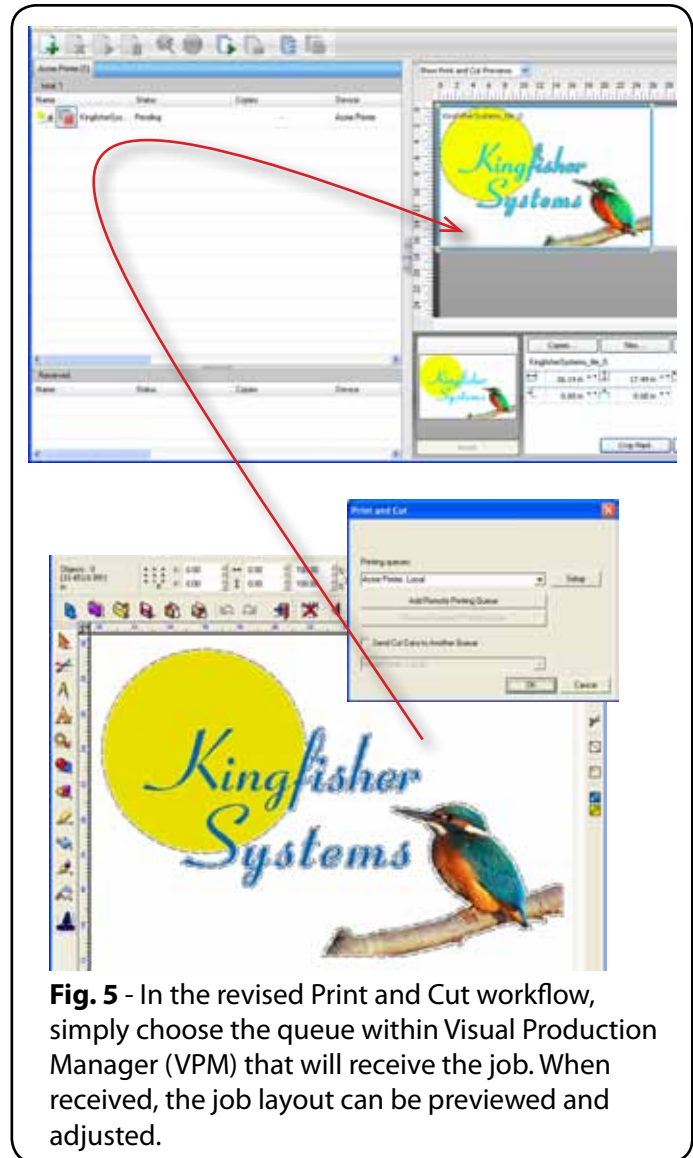


Fig. 5 - In the revised Print and Cut workflow, simply choose the queue within Visual Production Manager (VPM) that will receive the job. When received, the job layout can be previewed and adjusted.

IMAGE AND COLOR SUPPORT

- ❑ **CMYK Color Management** - Expanded on-screen color management now includes the display of imported CMYK images, which avoids the potential for color shifts between RGB and CMYK color spaces.
- ❑ **CMYK Color Mode** - Likewise, images created within SignLab can be set as CMYK color mode, which expands upon the previous RGB, Grayscale, Indexed Color and Monochrome modes.
- ❑ **CMYK Gradient Fills** - In addition to previous gradient fill tools, new gradient fills have been introduced for specific use with CMYK colors.
- ❑ **Optimized Memory Handling** - Though not an explicit feature, the underlying code within SignLab has been significantly optimized with respect to previous versions, such that manipulation of large images should be noticeably improved.
- ❑ **Publish PDF with Color Matching** - When publishing your design as a PDF proof, you can now specify whether the PDF is for on-screen display, or for a printed proof. This will ensure that the customer sees the expected design colors.



Fig. 6 - In this transparency example, a black rectangle is applied with linear transparency, with the handles adjusted to create a dark band at the left. When combined with an image, this creates a black sidebar where text can remain visible against the background.

TRANSPARENCY (OPACITY) SUPPORT

- ❑ **Transparency Support** - For imported design files that contain an alpha channel (i.e., a transparency layer), SignLab can preserve the transparency.
- ❑ **Transparency Gradient Fills** - These fills create gradient effects that allow the underlying objects to “show through” (Fig. 6).
- ❑ **Extended Transparency Tools** - These tools are provided for easy transparency adjustments, such as “make lighter,” “make darker,” or automatically knocking out a white background.
- ❑ **Primer and Highlight Conversion** - Alternatively, if an imported file contains an alpha channel, then SignLab can convert it into primer and highlight settings (as used with spot white color printing).
- ❑ **Improved Fluid Mask Support** - With the introduction of transparency support in SignLab, this enables you to make full use of the Fluid Mask Blend tool when working with difficult foreground subjects, like hair. Resulting images can be positioned with new backgrounds, and the hair regions will blend naturally (Fig. 7).

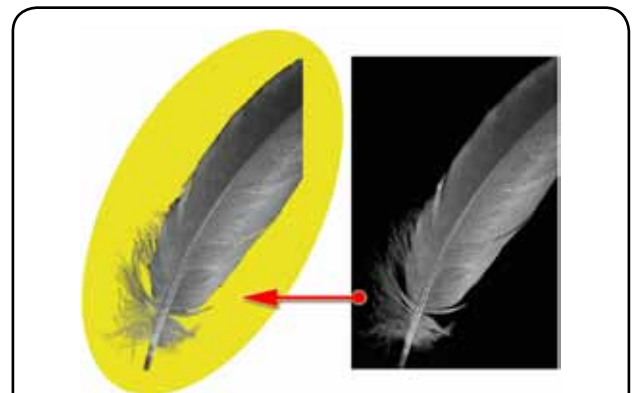


Fig. 7 - On the right is a stock photo of a feather against a black background. On the left, FluidMask has knocked out the black background, and the resulting image has been placed above a yellow oval shape. Notice how the Blend tool works in conjunction with transparency in SignLab to retain the ruffled details of the feather (particularly at the bottom left).

SEND TO SIGNLAB PLUG-IN (CORELDRAW)

For CorelDraw X3 and later, the **Send to SignLab** button (Fig. 8) provides an easy means of transferring your CorelDraw design to SignLab, which can be further modified (e.g., contour cut, specialty colors, transparency work, etc.) before output for production.

There are three types of image data that can be used when sending a design to SignLab. The choice of image data is situational, per the design parameters.

- **PDF** - This is often the best choice for maintaining colors as shown in the original CorelDraw design.
- **EPS** - This is the best choice for designs that contain transparency data, such as shadow effects. In SignLab, the **EPS Options** dialog (Fig. 9) will provide further options.
- **PSD** - This option will effectively convert the design to bitmap data, which can be a useful alternative if there are issues with using PDF or EPS.

SEND TO SIGNLAB PLUG-IN (ILLUSTRATOR)

For Illustrator CS and later, the **File** menu >> **Send to SignLab** command is available (Fig. 10), and a palette can be accessed via **Windows** menu >> **Send to SignLab**.

There are three types of image data that can be used when sending a design to SignLab. The choice of image data is situational, per the design parameters.

- **PDF** - This is often the best choice for maintaining colors as shown in the original Illustrator design.
- **EPS** - This is the best choice for designs that contain transparency data, such as shadow effects. In SignLab, the **EPS Options** dialog will provide further options.
- **PSD** - This option will effectively convert the design to bitmap data, which can be a useful alternative if there are issues with using PDF or EPS.

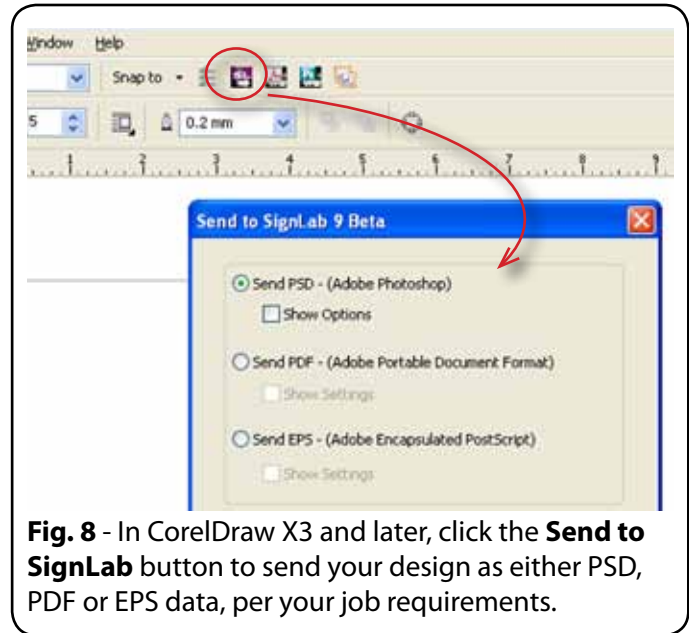


Fig. 8 - In CorelDraw X3 and later, click the **Send to SignLab** button to send your design as either PSD, PDF or EPS data, per your job requirements.

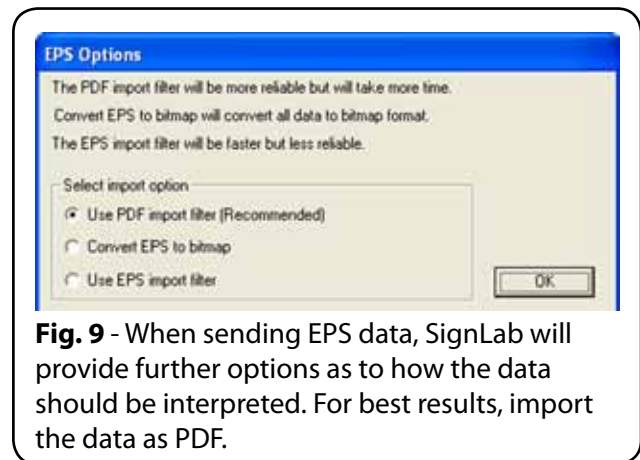


Fig. 9 - When sending EPS data, SignLab will provide further options as to how the data should be interpreted. For best results, import the data as PDF.

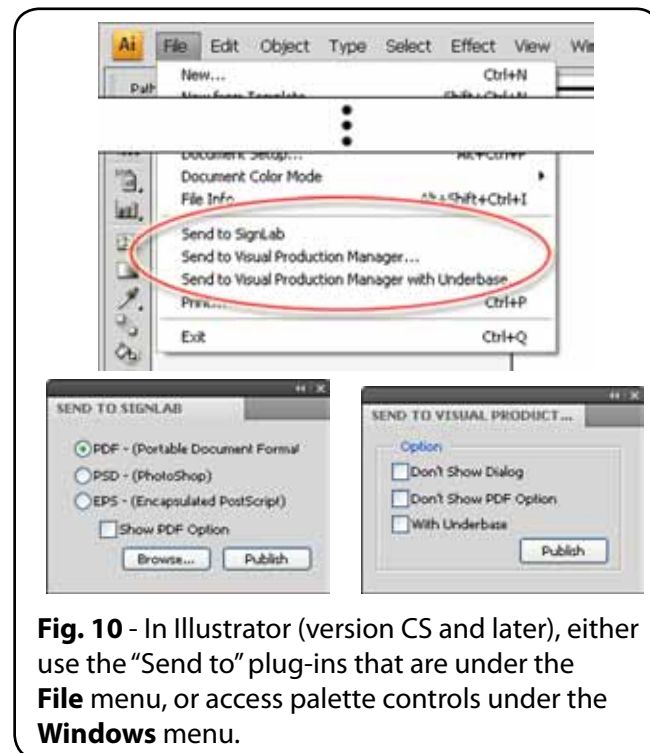


Fig. 10 - In Illustrator (version CS and later), either use the "Send to" plug-ins that are under the **File** menu, or access palette controls under the **Windows** menu.

SEND TO SIGNLAB PLUG-IN (PHOTOSHOP)

For PhotoShop CS and later, the **File** menu >> **Automate** >> **Send to SignLab** command is available (Fig. 11). The PhotoShop design will be sent to SignLab as bitmap data, which can then be further modified (e.g., contour cut) before output for production.

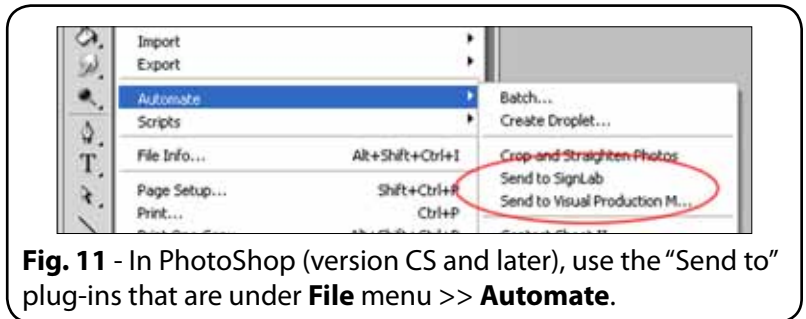


Fig. 11 - In PhotoShop (version CS and later), use the “Send to” plug-ins that are under **File** menu >> **Automate**.

CONTOUR PATH PLUG-IN FOR CORELDRAW

The **CADlink Contour Path** (Fig. 12) button is an aid for CorelDraw users that need a convenient means of defining a contour path that encloses the given design. When the design is brought into either SignLab or VPM, the contour path can be converted into a cut path, which will then be processed as part of a print&cut job.

There are two aspects to the Contour Path plug-in:

- Using the **Add contour path** option, create contour paths based upon the current selection. Paths can be created for both the inner and outer contours of objects.
- After two-or-more contour paths have been created, use the **Perform basic weld** option to combine them. Overlapping paths will be welded to form contiguous paths.

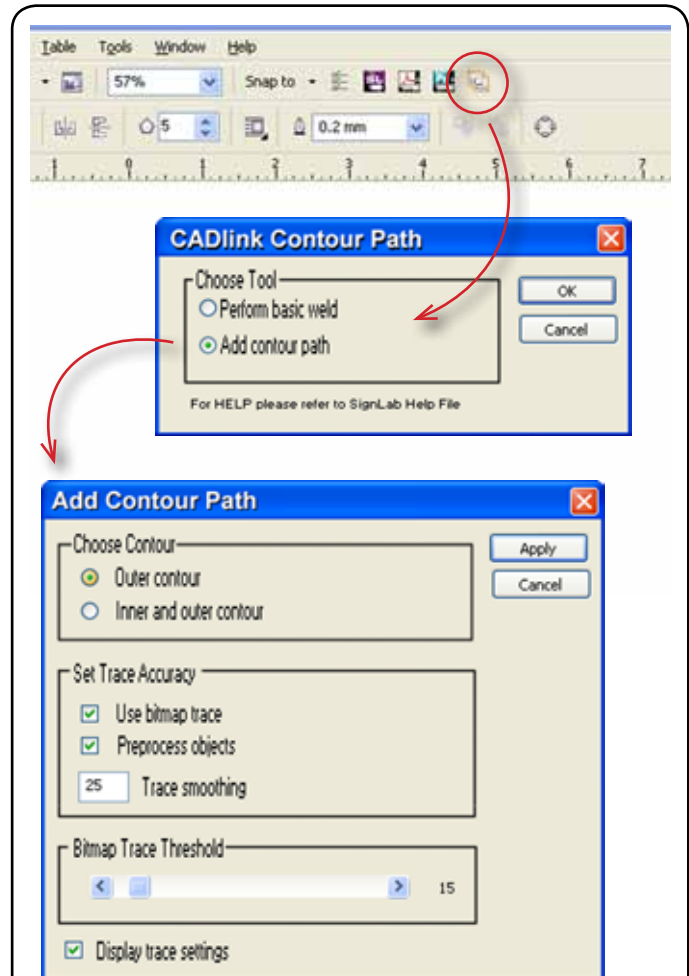


Fig. 12 - The CADlink Contour Path plug-in provides two functions: 1) create contour paths for your design elements, and 2) weld two-or-more contour paths into a combined path.

IMPORT/EXPORT FILES

- **Import and Export Filters** - Ongoing improvement of import and export filters now includes import of PhotoShop (PSD) files.
- **Contour Cut Paths in Linked EPS and PDF Files** - When linking either an EPS or PDF file into a SignLab design, CMYK or RGB colors can be automatically converted into contour cut or halfcut paths.

POWER TOOLS

- **Easy Menu Board Creation** - As part of the new Text Compose interface, interactive tools have been introduced for constructing menu boards, where individual menu sections (Fig. 13) can be placed and resized with ease.
- **Spiral Shape Tool** - In addition to the existing collection of basic shape tools, spiral shapes can now be created. Like other parametric objects, on-screen handles can be used to customize the spiral appearance.
- **Total Area Calculation Tool** - For costing car wraps, select one-or-more objects that represent the physical area that will be wrapped (e.g., car doors, hood, etc. from a vehicle template), and then perform the area calculation.

GENERAL FEATURE IMPROVEMENTS

- **Text Toolbox in Text Compose** - The Text Compose interface has been improved by grouping features into tabs of the Text Toolbox (Fig. 13).
- **Character Picker** - For unusual characters that are difficult to reproduce with a standard keyboard arrangement, use the character picker in Text Compose mode to display and select a desired character.
- **Custom Sign Blank** - As opposed to a simple rectangular sign blank, set a custom sign blank (Fig. 14) that has unusual shapes or contours, such as garments, novelty items, bus windows, or non-rectangular can shapes (e.g., McDonald's 'M').
- **Lasso Select** - As opposed to making selections with a rectangular selection marquee, you can freehand draw an irregular region that will select all of the enclosed objects.
- **Optimized Contour Cut and Vectorization** - The underlying algorithms for generating contour paths and vectorization of images have been optimized, such that previously large jobs can now be completed in a fraction of the time.
- **Job Notes Lookup** - A new search feature has been introduced for browsing and inspecting customer information and job history.

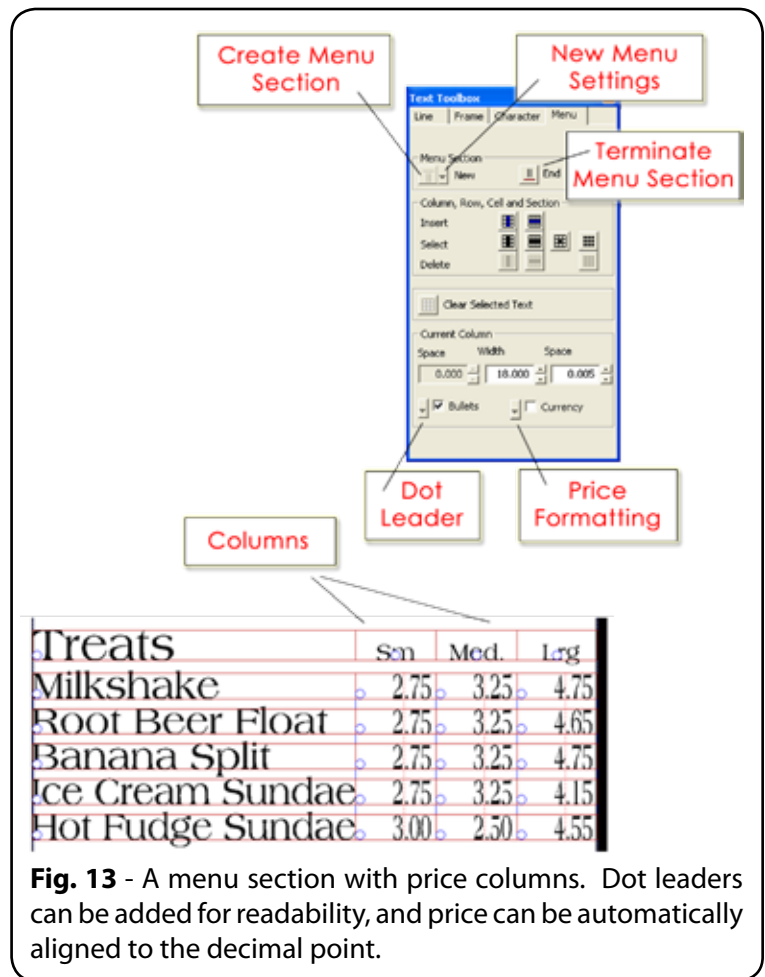


Fig. 13 - A menu section with price columns. Dot leaders can be added for readability, and price can be automatically aligned to the decimal point.

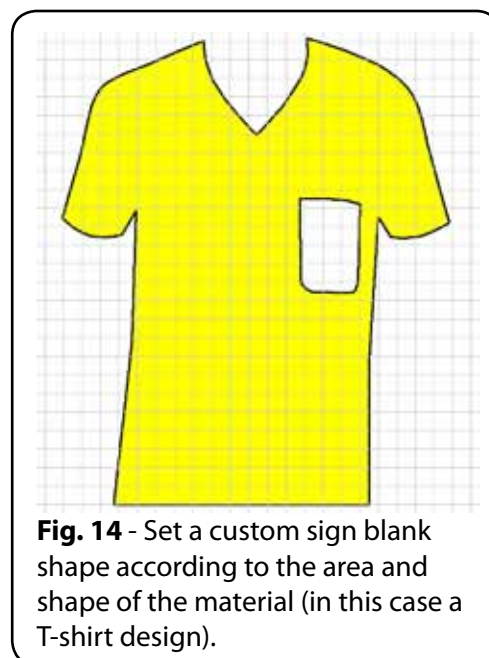
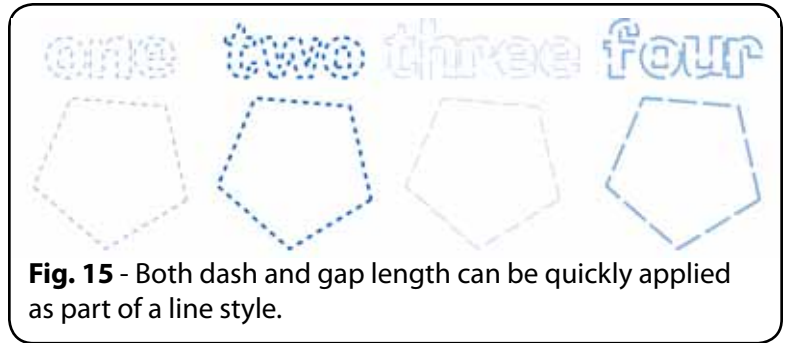


Fig. 14 - Set a custom sign blank shape according to the area and shape of the material (in this case a T-shirt design).

- **New Plug-ins** - The collection of SignLab plug-ins have been expanded with more CADlink and third-party plug-ins.
- **Dotted Line for Strokes** - Create dashed (and dotted) lines that have a specific dash length and space between dashes (Fig. 15).
- **Multiple Stroke Colors** - As opposed to having a solid stroke color, strokes can be composed of a blend between two distinct colors.



HIGHLIGHTS FOR VISUAL PRODUCTION MANAGER

The following sections highlight key features that are new in Visual Production Manager as of the SignLab 9 release:

- Printing
- Print and Cut
- Send to VPM Plug-ins
- Job Management
- Layout Controls
- Media Support

PRINTING

- **RIP Engine** – Visual Production Manager is a high quality Raster Image Processor (RIP) solution that provides PostScript Level 3 compatible printing for Large Format Printers (LFP) and Desktop Printers (DTP).
- **Direct Printing From Your Design Application** – Visual Production Manager is a seamless interface that can be configured to run in the background and serve as a File menu >> Print destination for your designers.
- **Remote Printing Across Networks** – For designers on a Windows network, or even using other operating systems like Mac OSX or Linux, extra optional functionality using Hot Folders can be used to print despite network or hardware limitations (Fig. 16).

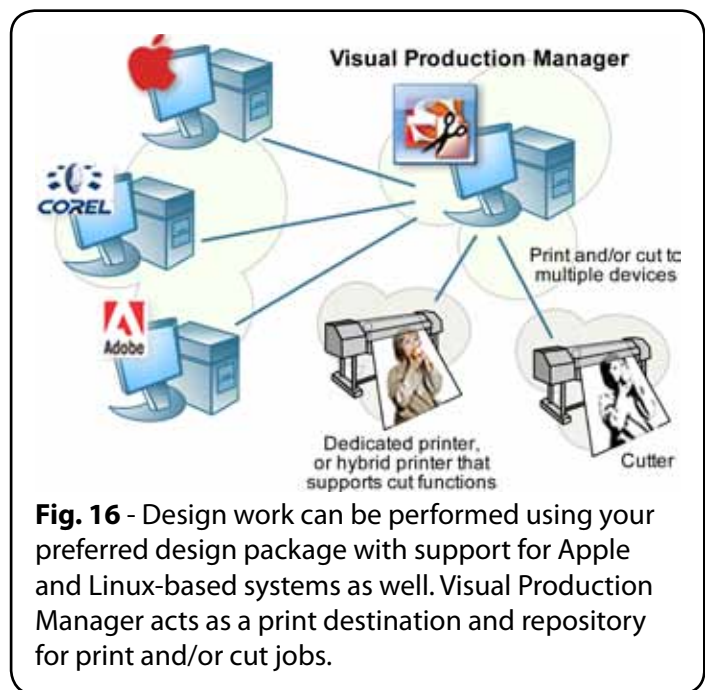


Fig. 16 - Design work can be performed using your preferred design package with support for Apple and Linux-based systems as well. Visual Production Manager acts as a print destination and repository for print and/or cut jobs.

PRINT AND CUT

- **Print and Cut Support** – For design applications that support vectors, you can create vectors of a specific color, which can be interpreted as cut paths by Visual Production Manager.
- **Custom Cut Actions** – In addition to cutting vectors of a specific color, alternative actions and machine settings can be set. The machine model determines the available choices, such as: tool velocity, multiple cuts for thick media, trailing blade correction, pounce, half cut, tool number, etc.
- **Stand-Alone Cutter Support** – Queues in Visual Production Manager can be configured to use either a hybrid printer that performs its own cut operations, or a printer with stand-alone cutter.
- **Manual Cutter Calibration** – For heavily-used cutters that are demonstrating a need for replacement parts, Visual Production Manager provides an interim software solution (Fig. 17) that compensates for gradual shifts in cutter calibration.
- **Automatic Registration Marks for Cut Alignment** – If print&cut jobs will be completed by a hybrid printer that can perform its own cut operations, then the printer will manage its own cut alignment. However, if the cut-portion is to be completed by a stand-alone cutter, then registration marks can be automatically printed to provide cut alignment.
- **Spot White Background for Registration Marks** – For off-white and clear transparent media, print a spot white background for registration marks (Fig. 18), thereby enabling cutters with optical eye systems to automatically align to the marks. This feature requires a printer that is capable of printing spot white.
- **Printed Barcodes to Locate Cut Jobs** – Visual Production Manager supports hybrid printers that can read barcodes to locate the cut portion of print&cut jobs. Alternatively, Visual Production Manager provides a manual method of either scanning the barcode with a handheld reader, or typing the printed identification number.
- **Sort Cut Jobs** – Reduce cutting time by specifying the most efficient order in which cut paths should be performed.
- **Weed Borders** – A weed border is an additional rectangular cut around the primary shape (i.e., small script lettering), which is used to avoid stretched media when separating shapes from their adhesive backing.
- **Cut from End of Roll** – For print&cut jobs that use a stand-alone cutter, designate that the entire roll will be printed, and that the printed roll will then be fed into the cutter without rewinding the roll (Fig. 19). Visual Production Manager will process the cut jobs in reverse order, thereby avoiding the need to rewind the roll.

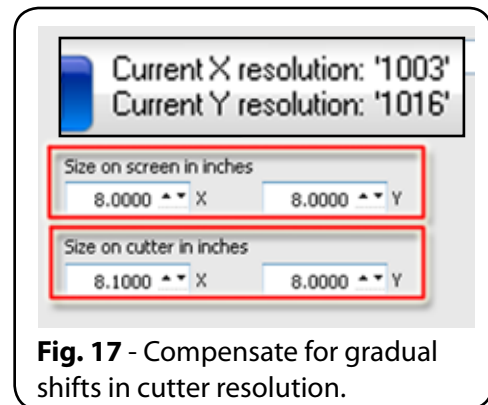


Fig. 17 - Compensate for gradual shifts in cutter resolution.

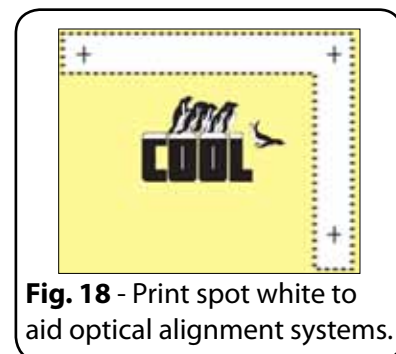


Fig. 18 - Print spot white to aid optical alignment systems.

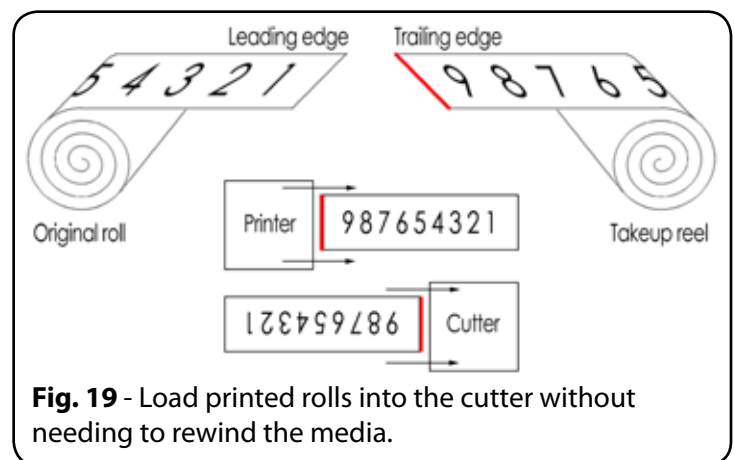


Fig. 19 - Load printed rolls into the cutter without needing to rewind the media.

SEND TO VPM PLUG-IN (CORELDRAW)

For CorelDraw X3 and later, there are two “Send to VPM” buttons (Fig. 20) that provide an easy means to transfer your CorelDraw design to Visual Production Manager.

- **Send to Visual Production Manager** - This plug-in uses PDF data, and it is used to send both image and vector data. As such, this plug-in should be used to send jobs that are ready for printing and cutting.
- **Send to Visual Production Manager with Underbase** - This plug-in uses PSD data, and it is only used with printers that support white ink printing. When the design is sent, a white underbase layer is automatically generated that will be appropriate for printing on a black or color substrate.

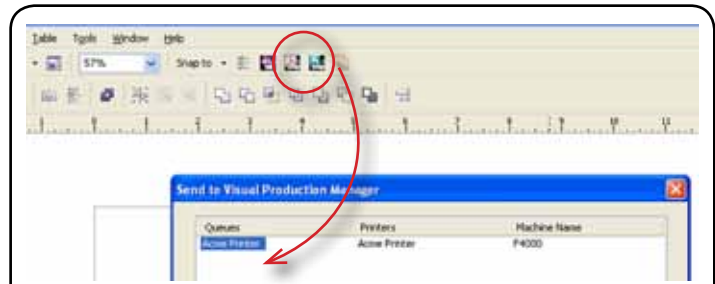


Fig. 20 - For CorelDraw X3 and later, there are two “Send to VPM” plug-ins that are used to process jobs directly out of CorelDraw. This eliminates the need for using **File** menu >> **Print**, and instead you merely choose the queue that should receive the job in Visual Production Manager.

SEND TO VPM PLUG-IN (ILLUSTRATOR)

For Illustrator CS and later, there are two File menu “Send to VPM” commands (Fig. 21) that are used to transfer your Illustrator design to Visual Production Manager.

- **Send to Visual Production Manager** - This plug-in uses PDF data, and it is used to send both image and vector data. As such, this plug-in should be used to send jobs that are ready for printing and cutting.
- **Send to Visual Production Manager with Underbase** - This plug-in uses PSD data, and it is only used with printers that support white ink printing. When the design is sent, a white underbase layer is automatically generated that will be appropriate for printing on a black or color substrate.

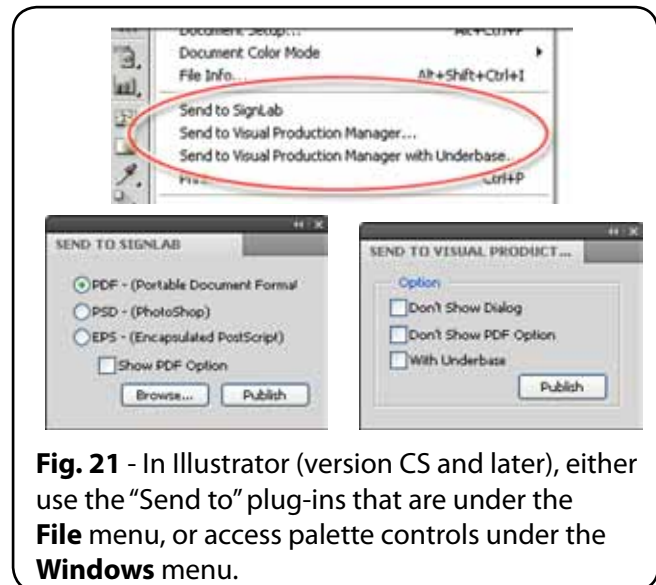


Fig. 21 - In Illustrator (version CS and later), either use the “Send to” plug-ins that are under the **File** menu, or access palette controls under the **Windows** menu.

SEND TO VPM PLUG-IN (PHOTOSHOP)

For PhotoShop CS and later, the **File** menu >> **Automate** >> **Send to VPM** command (Fig. 22) will transfer your PhotoShop design to Visual Production Manager.

- This plug-in always uses PSD data, and it can be used for both print-only, and print&cut jobs.
- For print&cut jobs, you need to create a path in the PhotoShop design that will represent the cut line.
- For printers that support white printing, it is necessary to first delete the default “Background” layer, and then create a layer with transparency info. The transparency will represent the white underbase that allows the design to blend seamlessly into the printed substrate.
- There are three additional plug-ins (Fig. 23) to help you prepare images for printing to black or color garment material. They are accessed through the **Filter** menu >> **CADlink** flyout, and are used as follows:

- A) **KnockMeBlackOut** - For printing on black garment material, reduce the amount of black ink that is required. In effect, black is removed from the image, with the expectation that the black garment will suffice instead of ink.
- B) **KnockMeColorOut** - For printing on color garment material, reduce the amount of color ink that matches the garment color, with the expectation that the garment color will suffice instead of ink.
- C) **Transparency Opacity** - Adjust the relative strength of the transparency layer, thereby adjusting the amount of white underbase that will be printed.

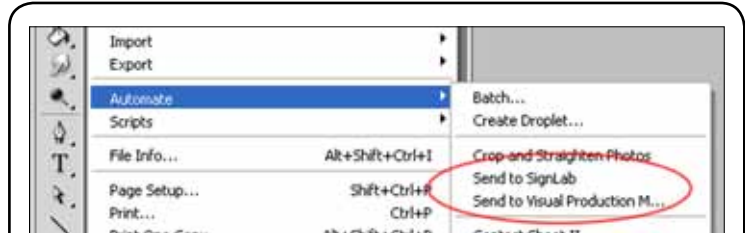


Fig. 22 - In PhotoShop (version CS and later), use the “Send to” plug-ins that are under **File** menu >> **Automate**.

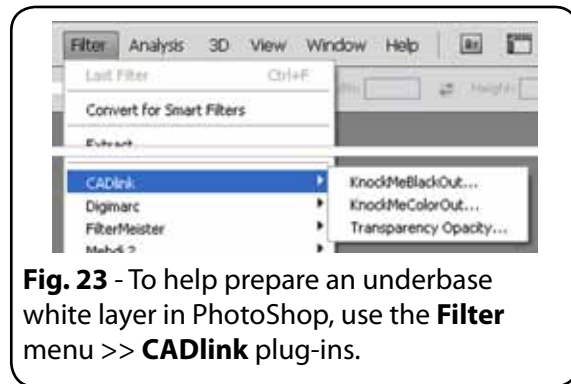


Fig. 23 - To help prepare an underbase white layer in PhotoShop, use the **Filter** menu >> **CADlink** plug-ins.

JOB MANAGEMENT

- **Queue Organization** – One-or-more queues can organize your jobs for each machine and for different types of media (Fig. 24). By accumulating jobs in each queue, they can be held until the required media and inks are loaded into the machine.
- **At-a-Glance Queue Switching** – Each queue is organized as a tab for convenient switching (Fig. 25). Merely click to see the jobs that have been accumulated, or double-click to check the properties of the given queue.
- **File Import** – Design files can be imported directly into Visual Production Manager, where they will become a job in the currently active queue. Importing a previously completed design file avoids the need to pre-load the file in the original design application.
- **Inherited Queue Properties** – When jobs are received in a given queue, they inherit the properties of that queue, thereby removing concern from the designer about what settings need to be used for the given media and inks.
- **Job Scheduling** – Choose how jobs should proceed based upon the type of job. For example, if print jobs are being held, then rasterize the job while waiting. Or for print-laminate-cut jobs, hold the cut portion until after the printed media has been laminated.
- **Job Archiving** – After a job has been completed, the job file can be saved for sending the job additional times without needing to re-send the file from the design application. Likewise, if the spool file has been archived, then the job can be resent without spending time rasterizing the job.
- **Job Costing** – Ink usage data can be collected to predict the production costs associated with the completing similar print runs. As more data is collected, an average trend in ink usage should be apparent, thereby providing greater ability to predict anticipated material needs for upcoming jobs.
- **Crop Mark Annotations** – In addition to marking the bounds of the print job, crop marks can now include job details, such as job name, cutter name, job size, etc.

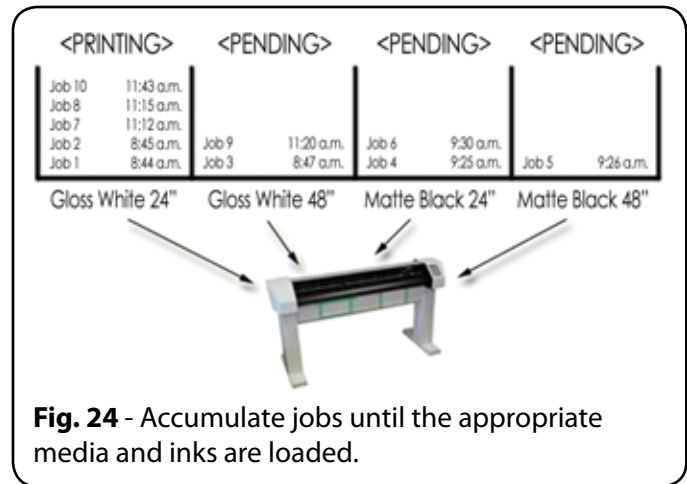


Fig. 24 - Accumulate jobs until the appropriate media and inks are loaded.

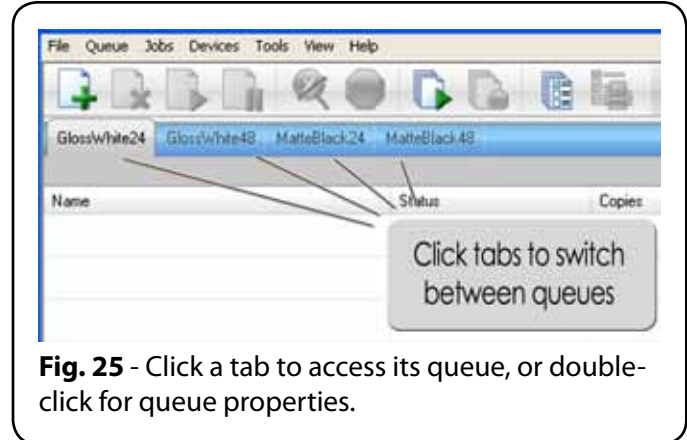


Fig. 25 - Click a tab to access its queue, or double-click for queue properties.

LAYOUT CONTROLS

- **Visual Print Manager** – The Visual Print Manager (Fig. 26) previews jobs as they will appear on the media. Use this functionality to confirm spacing between jobs, positioning of jobs, usage of media, etc., with easy scrolling and zooming to inspect the media.
- **Tiling and Cropping** – Visually divide (Fig. 27) a large job into tiles by either specifying tile dimensions or dragging tile lines for careful positioning. Overlap and margin amounts are automatically taken into account.
- **Template Media Layouts** – Create custom page layouts that will automatically place jobs at specific positions upon the media (Fig. 28). Templates can automatically scale, rotate, and create copies. Copies can be scaled and rotated on an individual copy basis.

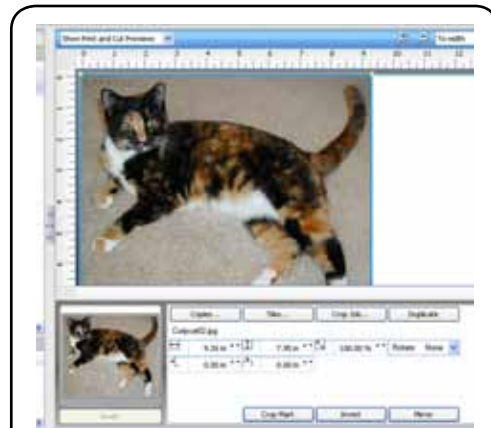


Fig. 26 - The Visual Print Manager previews jobs as they appear on the media.

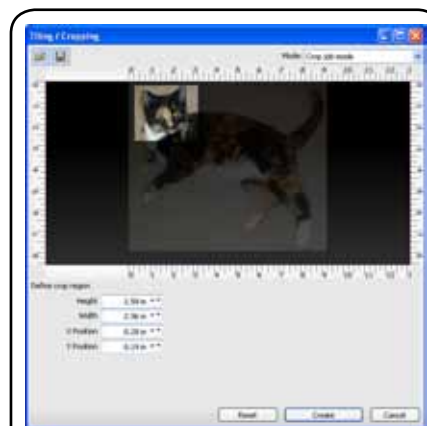


Fig. 27 - Tile a job when it exceeds the media bounds, or crop the design.

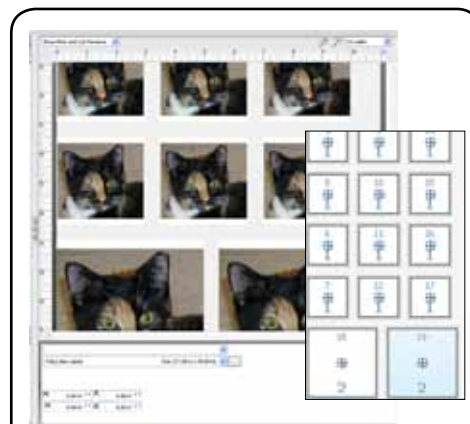


Fig. 28 - Template layouts will automatically create and position copies, including any scaling or rotating.

- **Automatic Nesting** – Collect and reposition jobs to conserve media (Fig. 29), and then begin printing when there are enough jobs to fill an entire sheet or roll. Alternatively, specify that printing should begin when a certain proportion of the media can be filled.
- **Copies** – When copies are created within Visual Production Manager, only the original design will be rasterized, and the job copies will reuse the rasterization data (Fig. 30). In comparison, if multiple copies of a job are sent from the design application, then all such copies will be rasterized individually (i.e., more processing time would be required).

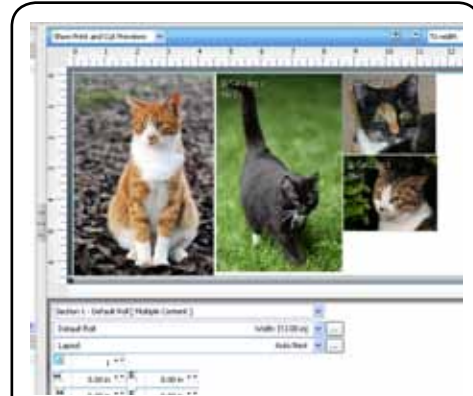


Fig. 29 - Automatic nesting will collect and reposition jobs to conserve media.

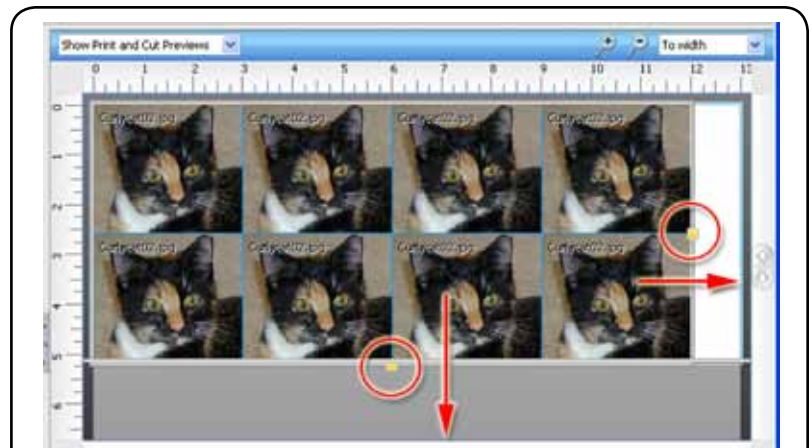


Fig. 30 - When making copies, print data will be calculated only for the original, rather than process the same data repeatedly.

MEDIA SUPPORT

- **Online Printer Support File Updates** – Visual Production Manager already comes equipped with a broad selection of media profiles, which are organized according to printer model, media, inks, print speed, and print quality. The latest support files can be quickly obtained through your Internet connection (Fig. 31).
- **Color and Image Adjustments** – These adjustments to the color and image settings can compensate for non-standard media and inks (Fig. 32), where the cost of producing a new media profile is otherwise prohibitive.
- **Ink Volume Control** – To improve the color saturation of your prints, use Max Ink adjustments (Fig. 33) to increase the volume of ink that is absorbed by the media. Like the color and image adjustments, the max ink settings can be used to compensate for slightly different absorbency of a substitute media.
- **Separation Curves** – For printers that combine inks to obtain a wider range of hues (e.g., cyan in combination with light cyan), the separation curves can be adjusted to maximize the possible range of hues.
- **Custom Halftone Settings** – Override the halftone settings to obtain the optimum frequency, angle and dot shape for high quality jobs.
- **Preview Raw Print Data** – Inspect print data on-screen prior to printing (Fig. 34), so that print data can be confirmed on a per color channel basis.

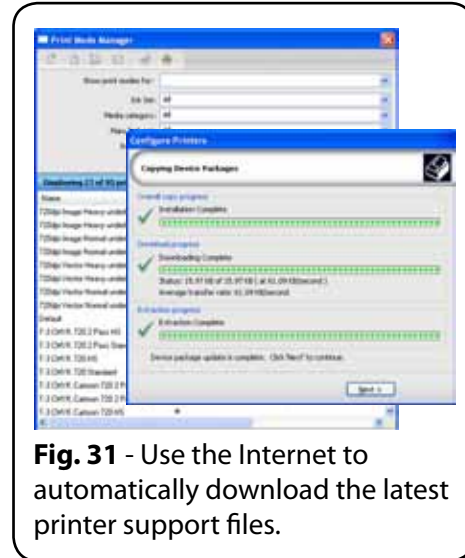


Fig. 31 - Use the Internet to automatically download the latest printer support files.

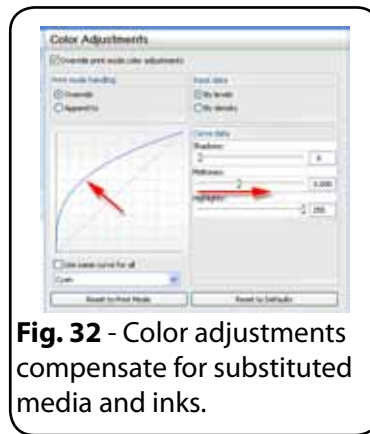


Fig. 32 - Color adjustments compensate for substituted media and inks.

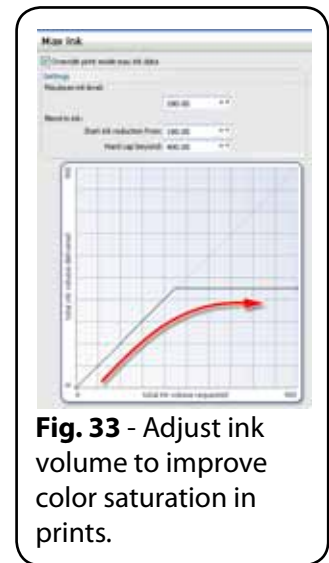


Fig. 33 - Adjust ink volume to improve color saturation in prints.

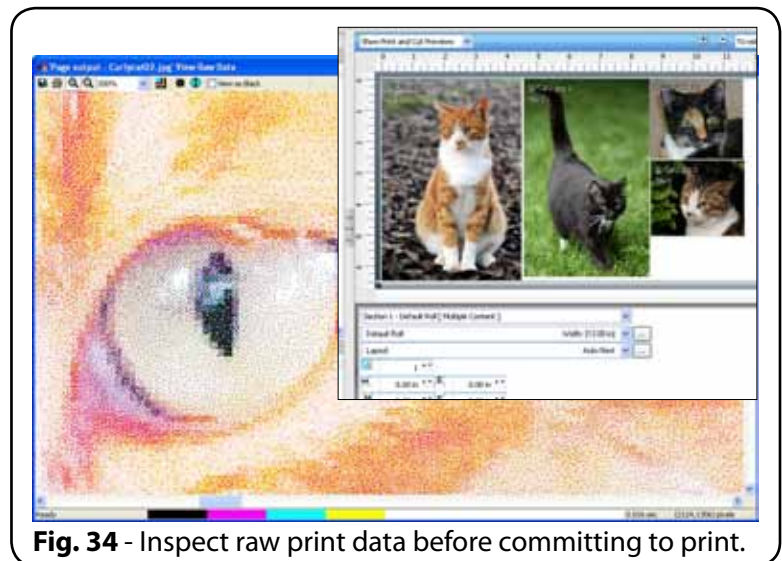


Fig. 34 - Inspect raw print data before committing to print.