LithoTel

DynaLinx™

Remote Color Approval System

Operation Manual

Version 1.0

December 2008

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Introduction

Welcome

Welcome to DynaLinx™, LithoTel's revolutionary Remote Press Approval system.

DynaLinx™ extends the functionality of LithoTel's KeySet and ColorLinx systems to your customer's desktop. It allows print buyers to remotely view and compare a digital soft proof versus a soft press sheet on the same monitor in real time.

Once logged in, the client receives a color managed soft proof of the final imposition on the upper half of their monitor. Approximately 10 seconds after the printer makes a 'pull for color' and scans the press sheet, a color-managed image of the printed sheet is displayed on the lower half of the monitor. Customer and printer can then use either VOIP or a landline to discuss additional instructions for color matching.

There are numerous tools at the customers disposal that allow them to accurately compare the images, and make qualified suggestions for matching the proof. When the customer is satisfied, they can sign off remotely. An automated notification is then sent to the printers ColorLinx system indicating that the client has approved the color.

When the press run is over, scan data can be emailed to the customer documenting the stability of the print run.

System Requirements

The following are the Recommended System requirements for DynaLinx:

Computer:

- Computer Model — Dell Precision Workstation T3400, Mini Tower
- Processor — Intel Core2 Duo 2.66 GHz, 4MB Cache
- Power Supply — 525W
- Memory — 4 GB
- Graphics Card — NVIDIA Quadro FX1700, 512 MB, 2 DVI
- Hard Drive — 80 GB
- Operating System — Windows XP
- Optical Drive — CD-RW / DVD Combo
- Keyboard — USB English Keyboard
- Mouse — USB Optical Mouse
- USB Ports — 6 USB Ports
- Network Adapter — 1 Gigabit Network Adapter
- Serial Port — 1 RS232 Serial Port
- Service and Support — 3 Years Next Business Day On-Site Support

Monitor:

- Monitor (Recommended) Eizo ColorEdge 30" Graphics Monitor (CG301W)
- Monitor (Alternative) Eizo ColorEdge 24" Graphics Monitor (CG241W)

Warranty

DynaLinx© Version 1.0
User's Reference Manual
Issued: 2008

Changes are made periodically to the information contained in this manual. These changes will be incorporated into new editions of this publication, or issued as addendums.

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Installing the Software

Starting the Installer

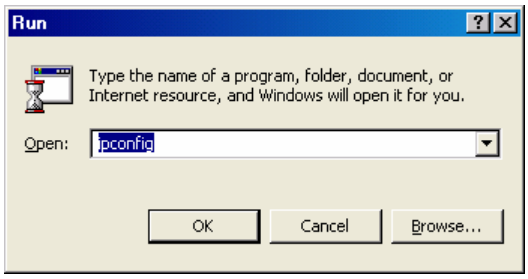
For new DynaLinx installations, or in the event that you need to re-install the software, follow these steps:

Insert the DynaLinx Installation CD into the computer. If the Windows AutoRun feature is enabled, the computer should start the installer program immediately. If it does, proceed to Installing DynaLinx, otherwise manually start the installer by:

Pressing the 

button that is located on the Windows toolbar.

Select **Run**. The Run dialog box will then appear.



Press the **Browse** button.

Using the directory tree, navigate to your CD-Rom drive.

Select the **setup.exe** file, which should be located in the 'DynaLinx Installer' folder.

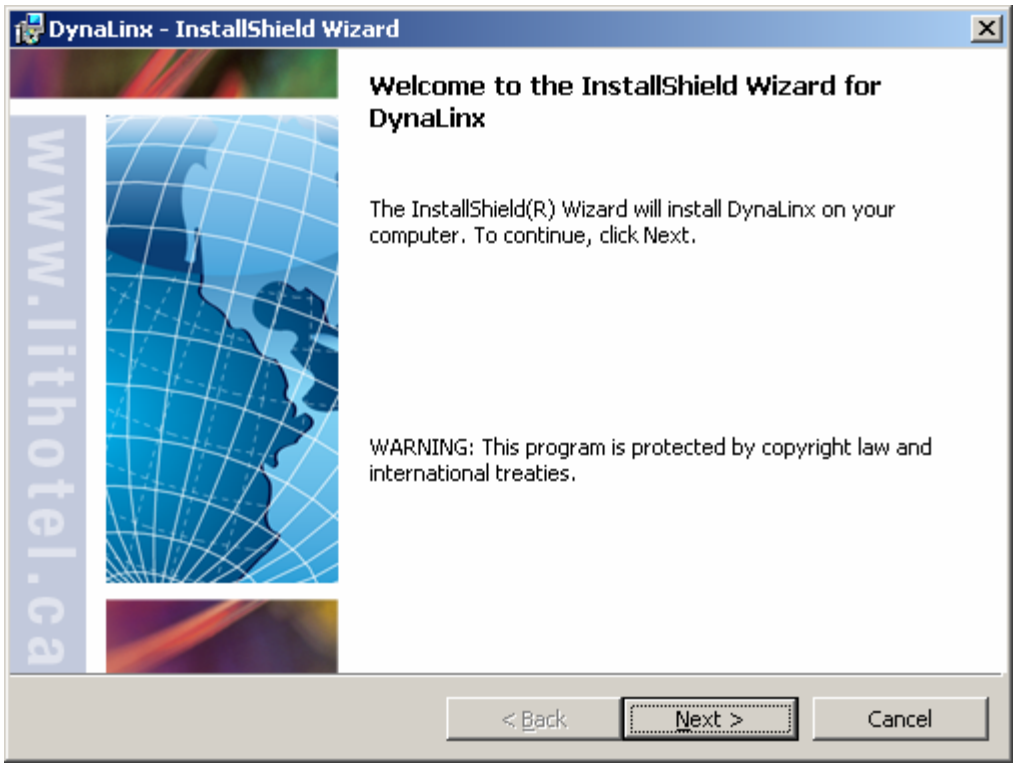
Press the **Open** button. You will be returned to the Run dialog box.

Press the **OK** button.

The DynaLinx installation will commence.

Installing DynaLinx

Once the DynaLinx Installer has been initiated, the following window will appear:



To install the DynaLinx software, follow the installation wizard directions. When complete, press the **Exit** button and restart the computer. After the computer reboots, insert the HASP security device into a free USB port on the computer, and then run the software as described in Starting the Software.

Starting the Software

After installing the software and rebooting the computer there are two methods that can be used to start DynaLinx.

1. Double click on the **'Launch DynaLinx'** shortcut, which is located on the desktop.

2. Press the Start button and select **Programs** > **LithoTel Software** > **DynaLinx** > **Launch DynaLinx**.

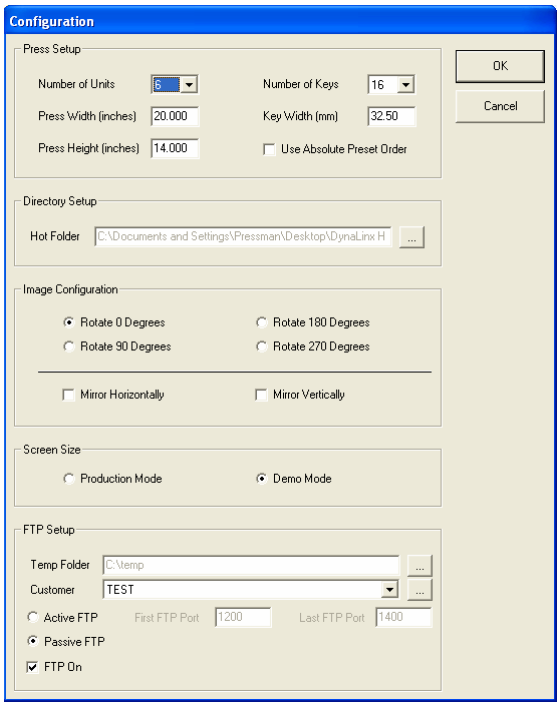
Once the application starts, it needs to be configured; proceed to Configuring DynaLinx.

Configuring DynaLinx

Entering the Configuration Window

In order for DynaLinx to be able to retrieve and display soft proof and press sheet information from a remote ColorLinx system, the software needs to be properly configured. All of DynaLinx's configuration options are conveniently located on one form. To access the Configuration window press the **Configuration** button.

The following window will appear:

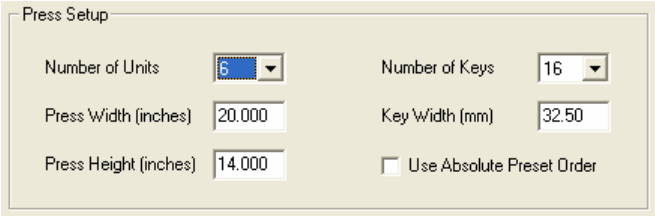


Using the data fields on this form, the Press Dimensions, Directories, Image Layout, Screen Size and FTP Connections can be configured. When complete, press the **OK** button to exit.

Press Setup

All of the DynaLinx configuration options are important for the proper operation of the system. Having the Press parameters set correctly is critical for the print buyer to be able to communicate accurate information to the press operator.

The Press Setup frame is contained in the upper portion of Configuration window.



The following press parameters need to be set:

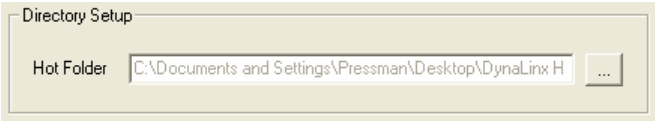
1. Number of Units
2. Press Width
3. Press Height
4. Number of Keys
5. Ink Key Width

These values need to be configured to match the press that is being remotely connected to.

A sixth option is also available, Use Absolute Preset Order. This item is very important for the proper processing of jobs that include special colors. It is imperative that this option matches the setting in the printers KeySet software otherwise the special color mappings may be incorrect.

Directory Setup

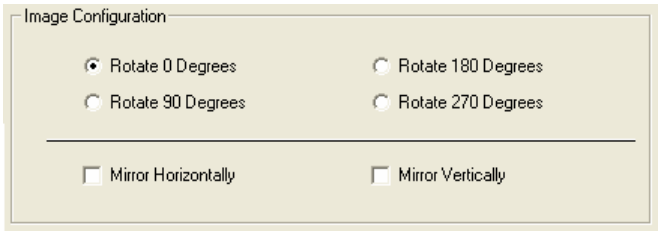
Although DynaLinx uses FTP file transfers to communicate with the press side ColorLinx system, all of the image processing occurs on files that are stored locally. The local folder where these files are processed can be selected using the Hot Folder field in the Configuration window.



To change the Hot Folder, press the **Directory Selection** ... button and then create and/or navigate to the desired directory. Once the directory has been selected, press the **OK** button to return to the Configuration window. The Hot Folder path should show the newly selected directory.

Image Configuration

The images that DynaLinx displays are created from printer supplied CIP3/4 (PPF) files. When the RIP outputs these files, there are numerous combinations of image rotation and mirroring that can be applied. In order for DynaLinx to display the files in the correct orientation, there are options for rotating/mirroring the images built into the software. The Image Configuration frame in the Configuration window allows these settings to be made.



There are four Rotation options - 0, 90, 180 and 270 degrees, and two mirroring options – Horizontal and Vertical. Select the correct combination so the soft proof and soft press sheet appear correctly in DynaLinx.

Note: These options should be setup identical to the printers KeySet software

Screen Size

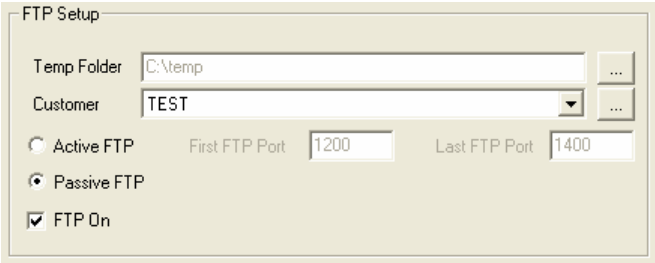
DynaLinx has been designed to run on a wide screen monitor oriented in Portrait mode with a minimum screen resolution of 1200W X 1920H; ideally at 1600W X 2560H. In this configuration, DynaLinx maximizes its utilization of the monitor's image area. However, there are circumstances when a smaller monitor may be used for demonstration purposes. In this case, the toolbar buttons may no longer fit properly when run at a lower screen resolution. This situation can be addressed by selecting the appropriate screen size option, which is located in the Configuration window.

Screen Size Options:

- Production Mode – Select when using a monitor configured to a minimum screen resolution of 1200W X 1920H
- Demo Mode – Select this option when using any monitor that is not capable of a 1200W X 1920H resolution

FTP Setup

DynaLinx uses FTP file transfers to communicate with a remote press side ColorLinx workstation. Utilizing the FTP Setup options contained in the Configuration window, the FTP permissions and settings that are needed for this connection can be configured.



- Temp Folder – DynaLinx cannot process files directly stored on a FTP site. Prior to utilizing them, they must be copied and unzipped on the local computer. The folder that is used for this purpose can be set using the Temp Folder option. To select a new Temp Folder, press the Directory Selection ... button and select the desired folder.

- Customer – It is possible to configure DynaLinx to connect to multiple print locations provided they are each running a LithoTel ColorLinx system. To select the plant you would like to connect to use the Customer combo box and choose the desired remote location. To add new connections, press the Add Customer ... button and enter the appropriate FTP connection information.

- Active FTP / Passive FTP – FTP connections and transfers can be conducted using one of two modes – Active or Passive. The correct mode to select depends on many factors including FTP Server Setup and Client Side Firewall configuration. DynaLinx supports both modes, but in the majority of cases, DynaLinx should be setup in as Passive FTP. If you have any concerns, please contact your Network Administrator for further assistance.

- FTP On – DynaLinx offers incredible flexibility allowing it to run internally at a Printing Plant (press side or in a customer viewing lounge) or remotely at a Print Buyers office. When running locally at a Prints, the connection between ColorLinx and DynaLinx does not need to be conducted using FTP, but can be carried out over the internal LAN. For remote DynaLinx installations, the FTP protocol needs to be used. To use the selected FTP Server check the FTP On box, for LAN or WAN connections keep the FTP On box un-checked.

Running the Software

The Main Screen

The entire DynaLinx user interface has been contained to one screen. This was done in an effort to make the software very easy to understand and operate. A few of the important areas and items to be aware of have been highlighted and are described below.

A) The Toolbar.

B) The Color Selection controls.

C) When comparing to the Soft Proof the caption will be Proof, when versus an OK sheet the caption will change to Reference.

D) The upper image is the Standard – either the Soft Proof or a Soft Press Sheet.

E) The numerics bubble.

F) The current Soft Press sheet.

G) Date and Time of the most recent soft press sheet.

H) Current Scan Number.

Activating the Automation

DynaLinx receives its image updates by monitoring a FTP connection and/or a Hot Folder directory. The DynaLinx user has complete control on when to activate the monitoring of these directories.

Press the Activate Automation  button to start the monitoring of the FTP and Hot Folder Directories.

After DynaLinx has been Automated, the image of Activate Automation button will change  and it will have the appearance of being pressed. This indicates that the software is currently polling the appropriate connections looking for new updates from the press side ColorLinx system. Once it detects a new set of files, the soft proof and/or the soft press sheet images will update accordingly.

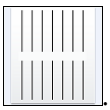
To turn off the Automation, press the De-Activate Automation  button.

Note: if the Configuration window is entered while the Automation is active, the software will De-Activate the Automation automatically. To re-initiate the Automation, simply press the Automation button again.

Toggling the Key Lines

DynaLinx has numerous features that aid the print buyer in identifying and communicating their desired changes to the press operator. One of the simplest, but most important, is the ability to superimpose ink key lines on top of the soft proof and soft press sheet images. These lines are valuable when changes only need to be made to specific areas of the sheet. By locating the deficient areas and determining what keys are affected, the print buyer can relay relevant information for the pressman to act upon.

The Key Line button will change its appearance in accordance with whether or not the key lines are displayed.

When the Key Lines are activated, the button will reflect that the lines are turned on  . Pressing the Key Line button will subsequently de-activate the key lines.

When the Key Lines are de-activated, the button will also indicate this  . To activate the Key Lines, click the button.

Zooming and Panning

In order to utilize the maximum possible display area of the monitor LithoTel recommends using a Wide Screen Display in Portrait mode. By doing this, we are able to reduce the amount of empty space on the screen, while maximizing the size of the soft proof and soft press sheet.

Even though we try to display the images to the largest size possible, the print buyer may have the need to zoom in or out for closer inspection of a certain area of the image.

To zoom in on the image, press the Zoom In  button.

To zoom out, press the Zoom Out  button.

When zoomed in, DynaLinx also allows the user to pan the image to zero in on specific location for closer inspection. To activate Panning, while on the soft proof or soft press sheet window click and hold the left mouse button. After a 1 second delay, the mouse Cross Hair icon will change to a 4 Arrow panning icon. With the mouse button still held down, move the mouse in the direction you wish to move the image. When in the desired location, release the mouse button. Panning is only available for zoom levels greater then 100%.

Note: for more information on the monitors that LithoTel recommends for use with DynaLinx, see the System Recquirements section

Approving the Color

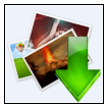
DynaLinx has been designed to allow the direct comparison of a soft proof versus and a soft press sheet on a single monitor. This eliminates the necessity and reliance for accurate monitor profiling and calibration, as both images are displayed on one screen. If the images and numbers match the soft proof has been matched - regardless of the absolute color that is displayed on the monitor.

Once satisfied that an acceptable match has been made, the print buyer should press the Set As OK  button. When this is done, an automated message is transmitted to the ColorLinx workstation notifying the pressman that the color has been accepted. From this point on, his mandate is to match the print parameters of this signed off sheet.

After an OK sheet has been set, the press side ColorLinx system starts to record the average print characteristics from each sheet that is subsequently scanned. At the end of the run, they have the ability to transmit a print production report to the print buyer that illustrates the consistency of the entire print run.

Switching the Target Image

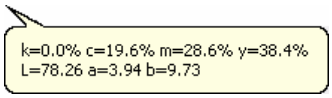
By default, when a new Job is detected and processed by DynaLinx, a Soft Proof is displayed in the upper window. After the job has been signed off by pressing the Set As OK button, the soft proof in the upper window is be replaced by the signed off soft press sheet.

At any time, if the DynaLinx operator would like to revert the upper image back to the Soft Proof, they can simply press the vs Soft Proof  button.

To change the upper image back to the signed off soft press sheet, press the vs OK  button.

Using the Eyedropper

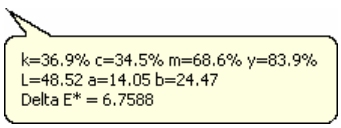
DynaLinx not only allows you to make accurate visual comparisons between the soft proof and soft press sheet, but it also provides the tools for quantifying the differences between the two images. In its simplest form, the DynaLinx eyedropper will display percent coverage and CIELab values for the location selected by the mouse pointer. This information is displayed in a bubble for both the soft proof and soft press sheet (example illustrated below).



When the mouse is moved across the image the dot gain and CIELab values update dynamically. If desired, the bubble can also be locked into position so that it remains static over a specific pixel. To lock the bubble, click on the Left mouse button. To release it and have it track your mouse moves, click on the Right mouse button.

An additional option is available that allows the Delta E values to be added to the bubble. The Delta value gives the user a very quick way to check the color differences between the two images, ensuring that the variation is within industry acceptable limits. To activate the Delta option, push and hold the Left mouse button. A popup window will then appear 

. Click on the Show Delta E popup to activate the Delta option. When this option is active, the bubble will include one additional line – the Delta E value.



Selecting Colors

When making a visual assessment between the soft proof and soft press sheet, subtle differences can be identified but it may be hard to quantify them. The DynaLinx eyedropper and Delta Mode help in this matter, but may only give the print buyer that confirmation that the press sheet is Redder or Greener then the proof. They know a change needs to be made, but does the Cyan, Magenta or Yellow need to be moved. To assist with dilemma, DynaLinx allows the user to selectively turn colors on and off. By doing this each color can be objectively assessed by itself, narrowing down the actual changes that need to be made in order to achieve a color match. The image below shows a job where only the Magenta is activated.

When colors are deactivated, the Eyedropper control will update so the CIELab and Delta E values only reflect the colors that are currently displayed. This allows the print buyer to examine each color in sequence to find out which one(s) is causing the color shift.