

Cryptek Secure Communications

Image Server

Operation Manual

Version 1.0



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Contents

Introduction.....	1
Overview	2
Components of the system.....	2
Image Server Application.....	2
Printer Driver.....	2
Language Monitor	2
Setup and Uninstall	2
Supported Environments	3
Disk and Memory Requirements	3
Installation.....	4
Setup Diskette.....	4
Starting the installation.....	4
Setting Communications Options.....	7
Windows95 Settings.....	9
Windows NT Settings.....	10
Manual Procedures	11
Uninstalling the Image Server	11
Cryptek Operations	13
Opening the Image Server	13
File Menu Function	13
Settings Menu Function	14
View Menu Function.....	14
About Menu Function	15
Accessing the Cryptek Transcript.....	15
File Menu Additional Functions	16
View Menu (Additional Functions)	17
Windows Menu Functions	18
Working with Multiple Images.....	18
Manipulating Image Windows.....	21
Printing to other Printers.....	22
Clipboard Operations	24
Saving Images to the Clipboard.....	24
Loading Images from the Clipboard.....	24
File saving and Loading.....	26
Opening Existing Image Files	26
Saving new Image files.....	27
Important Note about BMP Files	28
Automatic File Saving.....	29
System Printer.....	31
Using the Image Server as a System Printer.....	31
Forcing Image Format from the Image Server.....	32
Selecting Print Options at Print Initiation	33

Error (%d) on write to file %s	49
Error (%d) reading from tiff file	49
Error (%d) seeking within tiff file	49
Error Creating link for %s	49
Error from AddMonitor: %s	49
Error from AddPrinter: %s	49
Error from AddPrinterDriver: %s	49
Error from DeleteMonitor - %s	49
Error from DeletePrinter - %s	50
Error from DeletePrinterDriver - %s	50
Error from GetPrinterDriverDirectory: %s	50
Error from OpenPrinter - %s	50
Error from PrinterProperties: %s	50
Error from SetPrinter - %s	50
Error reading from tiff file - %d	50
Error return %d from CreateDirectory for "%s"	50
Error return %d from CreatePalette	50
Error return %d from RegCreateKeyEx	51
Error return (%X) from WriteFile on Com Port	51
Error return (%d) from Creating monitor thread	51
Error return (%d) from Creating read thread	51
Error return (%d) from Creating status thread	51
Error return (%d) from Creating trace File	51
Error return (%d) from Creating write thread	51
Error return (%d) from LocalLock on indata	51
Error return (%d) from ReadFile on Com Port	52
Error return (%d) from RegQueryValueEx trying to access "%s"	52
Error return (%d) from RegSetValueEx trying to access "%s"	52
Error return (%d) from SetCommState on COM%d	52
Error return (%d) from opening COM%d	52
Error return (%s) from Create directory on "%s"	52
Error return from SHGetSpecialFolderLocation: %x	53
FALSE return from SHGetPathFromIDList	53
Failed to get Acknowledge at end of transmission	53
File %s appears to be too short to be image file	53
File %s is not in a recognized format	53
Image ignored because newsubfile type (%d) is unsupported	53
Image ignored because subfiletype (%d) is unsupported	53
Internal Error - Monitor Start. Already active	54
Internal error: Bad state (%x) in Writeport	54
Invalid BMP file - missing data	54
Invalid BMP file, No BM identifier	54
Invalid BMP file, missing Headers	54
Invalid Page Setup from Cryptek	54
Invalid Wake up call from Cryptek	54

WARNING, This screen display is operating with only %d colors.....61

WARNING: "%s" is a directory - no filename mask has been specified.....62

WARNING: "%s" is on an invalid drive Scanned images may not be able to stored
there.62

Write error (%d) on %s62

Write error (%d) on write to %s62

Write error on Ack End of Page62

Wrong length (%d) returned from read (%d) on tif file62

Introduction

The Cryptek Image Server is a complete system for handling graphical and other images under Windows95 or Windows NT using any Cryptek Transcript device as both a scanner and a printer. The software has been designed to integrate seamlessly with normal desktop operations and provides the following important functions:

- Direct transfer of scanned images to and from the Cryptek Transcript through any available communications port on the host PC
- Use of the Cryptek Transcript as a system printer, allowing the output of text and graphical data from existing Windows applications such as Microsoft Word, Paintshop Pro, Corel Draw and virtually any other standard PC application.
- Automatic processing of standard bitmap files such as TIFF and BMP, which can be stored from scanned images or loaded from other applications.
- Optional automatic saving of scanned files in a user defined directory. The file names used can be user specified with system generated serial numbers included anywhere in the name.
- System clipboard functions to allow images to be easily cut and pasted between the Image Server and other Windows applications.
- Automatic synchronization of access to the Cryptek Transcript between system printer functions and direct access to the device from the Image Server application.

The software includes fully automated install and uninstall procedures and uses the new Windows95 user interface standards to ensure intuitive ease of use and consistency with other Windows applications.

Supported Environments

The Image Server is a standard Windows application which utilizes the new Windows95 desktop features to present a look and feel which matches existing state of the art applications running under Windows95 or Windows NT. Because of the advanced nature of the user interface, the software is not supported under older version of Windows, such as Windows 3.1, Windows for Workgroups 3.11 or Windows NT 3.51 or earlier.

The minimum and recommended environments for the Image Server are as follows:

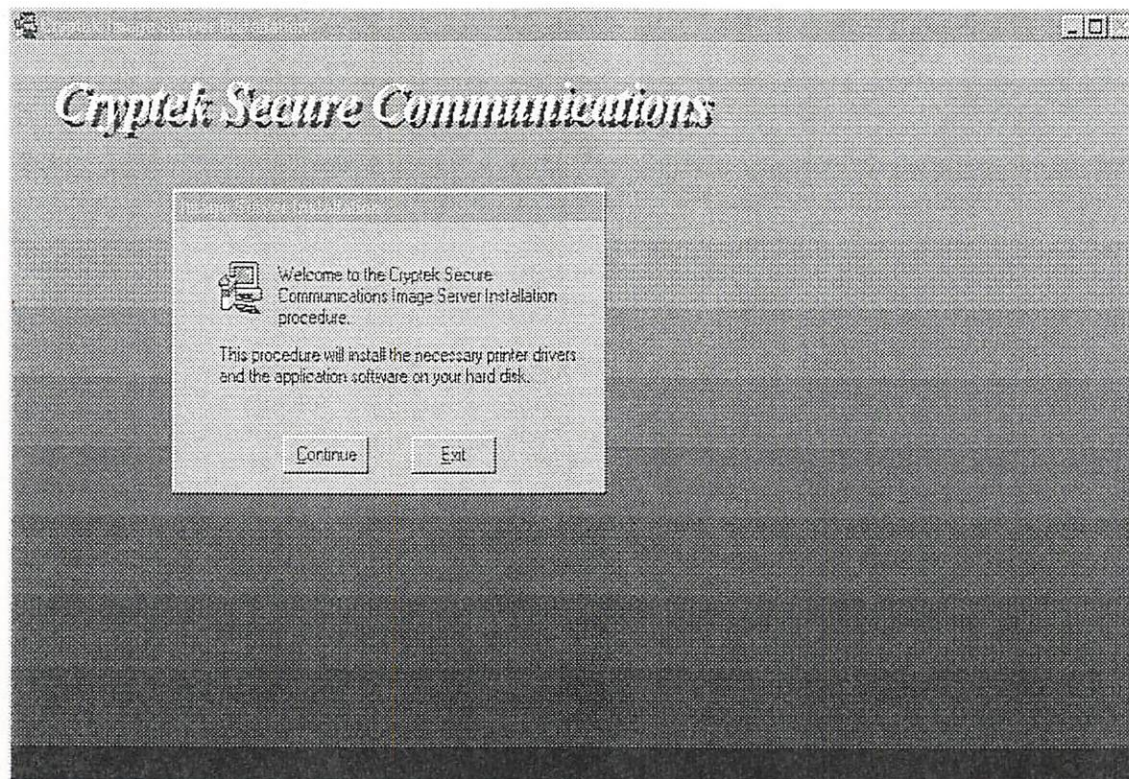
Standard PC with 486/66Mhz or Pentium processor
Windows95 or Windows98 or
Windows NT, server or Workstation, version 4 or higher
16 Mb of RAM
50 Mb of available disk space
1 standard Communications port
VGA display configured with 256 colors or more
Standard PS/2 or serial mouse

Disk and Memory Requirements

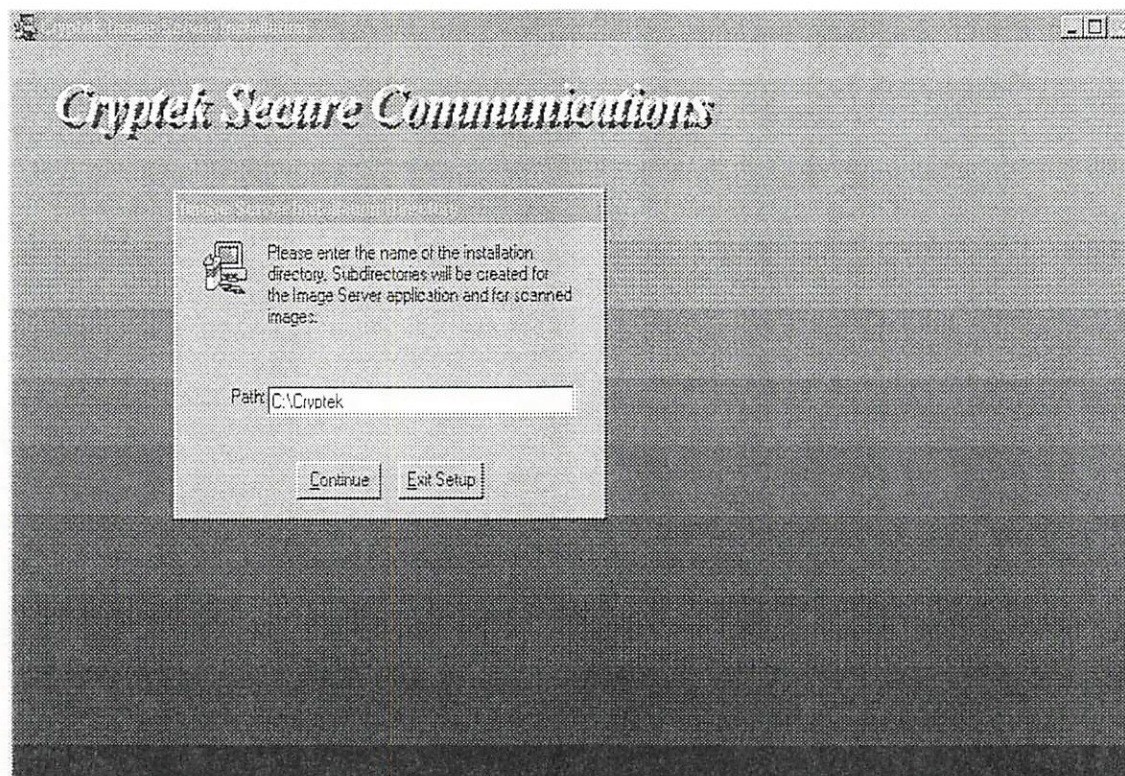
The Image Server uses system memory to store open image files (images which are currently displayed in the application window) and these will normally be paged to disk by the operating system. It is important therefore that the system be configured with adequate virtual memory and this can be controlled from the system setting menus as appropriate. In general, leaving the system to select a default size for the paging space (virtual memory) will give satisfactory results.

The system will operate with 16Mb of RAM but we recommend a minimum of 32Mb for optimum performance and more if many large images are to be open at the same time.

Disk space required to install the software is 2Mb but this does not take into account the amount of space required for saved images. A typical 16 color scanned image, held in TIFF format, will occupy about 750Kb so the recommended minimum available disk space of 50Mb will hold approximately 64 TIFF images. The amount of space actually needed will obviously vary with the number and size of images to be stored.



Click on Continue to proceed with the installation or click Exit to stop. The next display is the User License Agreement. You must accept this agreement in order to proceed with the installation process.

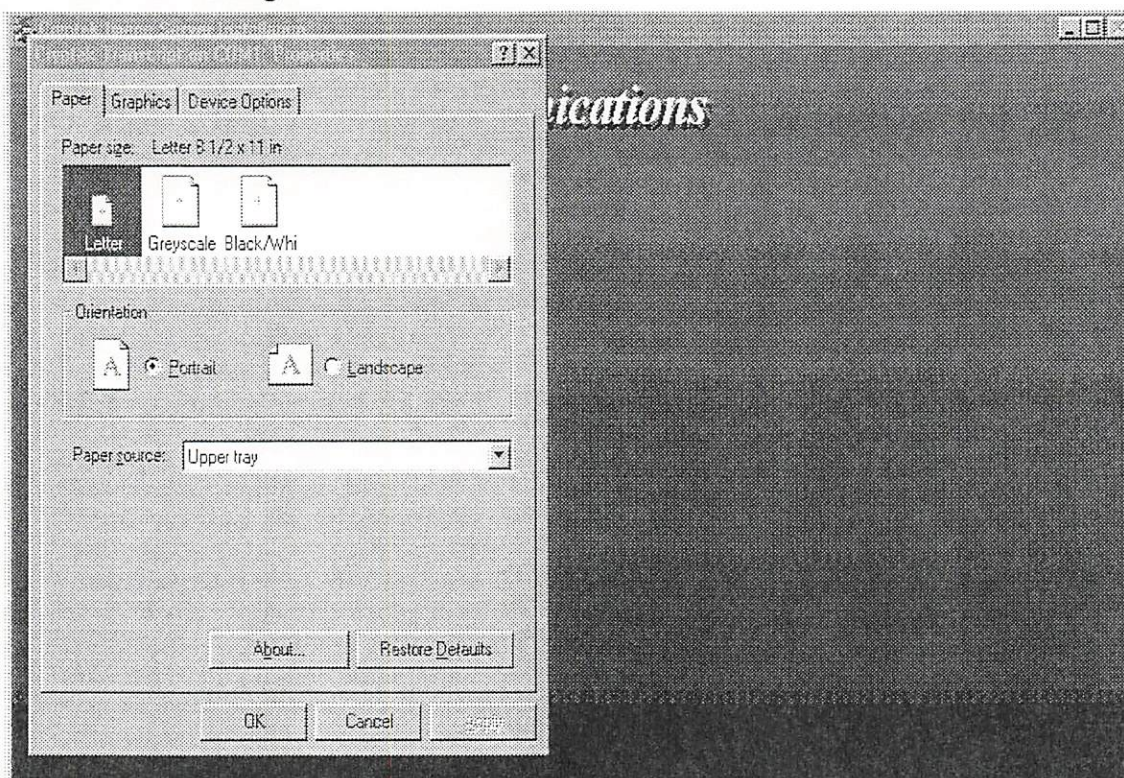


Note that two subdirectories will be created in the target directory and these will be named "ImageServer" and "ImageFiles". The Imageserver directory will contain the application programs. The ImageFiles directory will be set as the default destination for storing scanned images and this setting can be changed later if required through the Settings dialog of the Image Server application.

Setting Communications Options

Once the program files have been copied to the chosen installation directory, the system will prompt for details of the communications port on which the Cryptek Transcript is attached and will display the following menu:

Windows95 Settings



This dialog allows you to select the normal system printer option (Letter) or chose between Grayscale and Black & White. Grayscale sets the default output from the system printer to always be 16-color grayscale, while Black and White sets the default to be always 2 color Black and White. This can be overridden when a document is selected for printing within any Windows application, including the Image Server itself.

If left at the default setting (Letter), the system printer will automatically determine whether the output document contains grayscale information or not and will adjust the Cryptek Transcript settings accordingly. This is the recommended option.

In a similar way, the Graphics tab can be selected to allow the default dot pitch to be set to either 100 or 200 dots per inch. This setting affects only the vertical dot pitch of the output - the horizontal pitch is always 200 dots per inch.

The device options tab is not meaningful for the Cryptek Transcript.

Click OK when all options have been set as desired.



Manual Procedures

The installation procedure will automatically store the application programs in the target directory chosen in the directory selection menu described above under the subdirectory called "ImageServer". An entry will also be placed for the Cryptek Image Server on the "Programs" line of the Start Menu.

As an alternative, the Image server can be started from the command line by changing to the installation directory and entering the following command - "cryptek". This will launch the application in exactly the same way as launching it from the Start Menu.

Note that the Image Server will not allow two copies of the application to execute simultaneously. If there is already a copy of the program in execution, then launching another will simply switch the system to the existing instance of the application and expand it if it had been minimized.

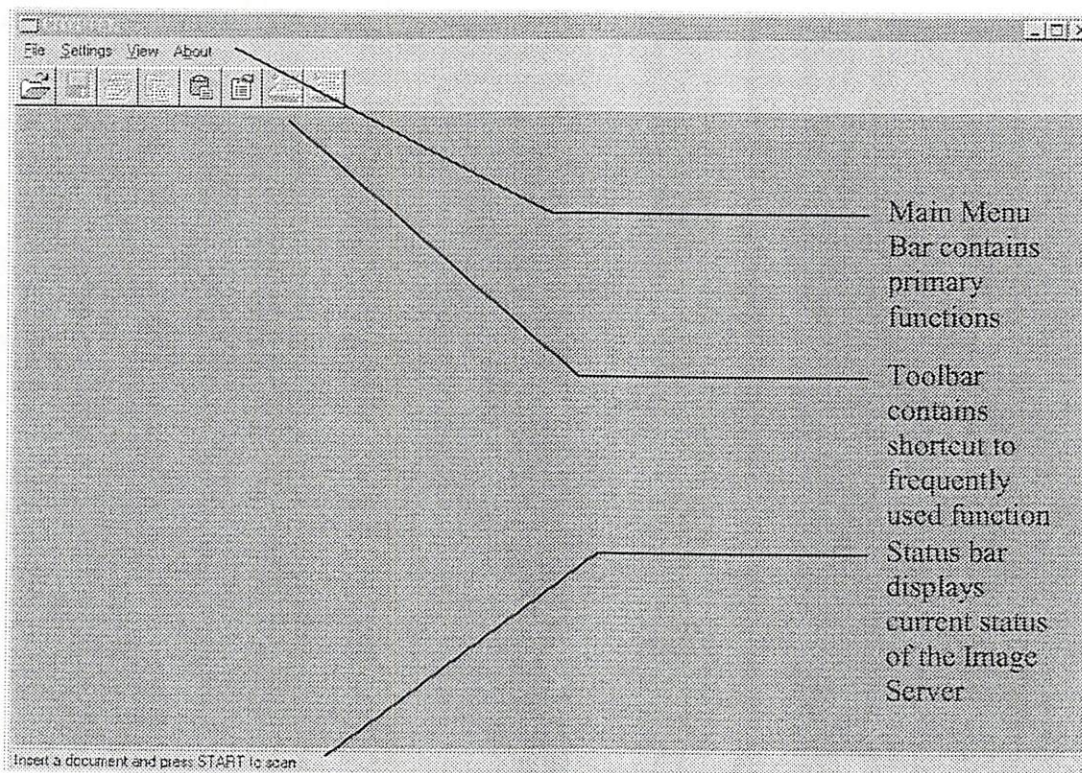
Uninstalling the Image Server

As well as an icon to launch the image server, the installation adds an icon to the start menu to uninstall the Image Server. From the start menu, select the Cryptek Image Server and then select the uninstall icon. The following dialog will be displayed:

Cryptek Operations

Opening the Image Server

Select the Image Server icon from the Cryptek Image Server program group in the Start Menu Programs folder to launch the application. On initial startup, the Image Server main Window will appear as follows:



The main windows is a standard Windows95/WindowsNT display and contains three important areas as shown.

The Menu bar contains four major functions which can be selected by clicking with the left mouse button on the desired option. Two of these options will then display sub menus, each with a choice of further functions which can also be selected with the mouse in the normal way.

File Menu Function

This option will display a sub menu of further options which will vary with the circumstances. For example, when an image has been scanned into the Image Server, then additional options will be available on the File sub menu and some of these will be

valuable information about the state of the Image Server and the Cryptek Transcript. In general, it is recommended that the status bar is left displayed.

About Menu Function

This function will display the Cryptek Secure Communications copyright notice and will also display the exact version of Image Server which is installed and the version of Windows it is running under.

Accessing the Cryptek Transcript

The status bar at the bottom of the main window will show the status of the Cryptek Transcript and will contain an error message if there is a problem with the port or its settings. If the device is ready for processing, then the status bar will read "Insert a document and press START to scan". This indicates that the system is ready to receive one or more scanned images from the Cryptek Transcript.

Note that one of the options in the settings dialog is to have the application test for the presence of a Cryptek Transcript whenever the Image Server is launched or the Com settings are changed. This is a process which takes approximately 20 seconds and the results are displayed in the status bar at the bottom of the main window. If the test for a Cryptek Transcript fails, then the Image server will not allow any images to be sent to the com port. If this test is not active (the default situation) then the application will only test that the com port is available and correctly set before sending images to it. If the Cryptek Transcript is not, in fact, properly connected, or the com setting are incorrect, then an error will be reported and the transfer will be aborted.

To scan one or more pages into the Image Server, simply load the document or documents into the Cryptek Transcript and press the START button which appears on the command console of the device. As soon as the Cryptek Transcript starts to scan the first document, a new document window will open within the Image Server main window and will start to display the data as it is scanned. If there are multiple pages, then a new document windows is opened for each page.

The example below show the screen after a single page has been scanned from the Cryptek Transcript.

written. Other than the change of name, this function is the same as "Save" above. Note that this function is equivalent to the second icon on the toolbar

Close - This function will close the display window and delete the image it contains. If there are multiple documents displayed within the main application window, then only the currently highlighted window is closed. See the section below on multiple documents for more details of handling more than one image within the main application window.

Send to Cryptek - This function will prepare the image for transmission to the Cryptek Transcript and will then send the entire image through the com port to the device. The attributes of the image, as displayed in the title heading of the display window will be preserved and the device will print the image in the designated format and resolution. Note that this menu function is equivalent to the seventh icon on the toolbar.

Print - This menu function allows the currently highlighted image to be sent to any standard Windows system printer, including the Cryptek Transcript system printer. This allows a recently scanned image to be printed out immediately to any other printer on the system, for example a laser printer or inkjet. This menu function is equivalent to the third icon on the toolbar.

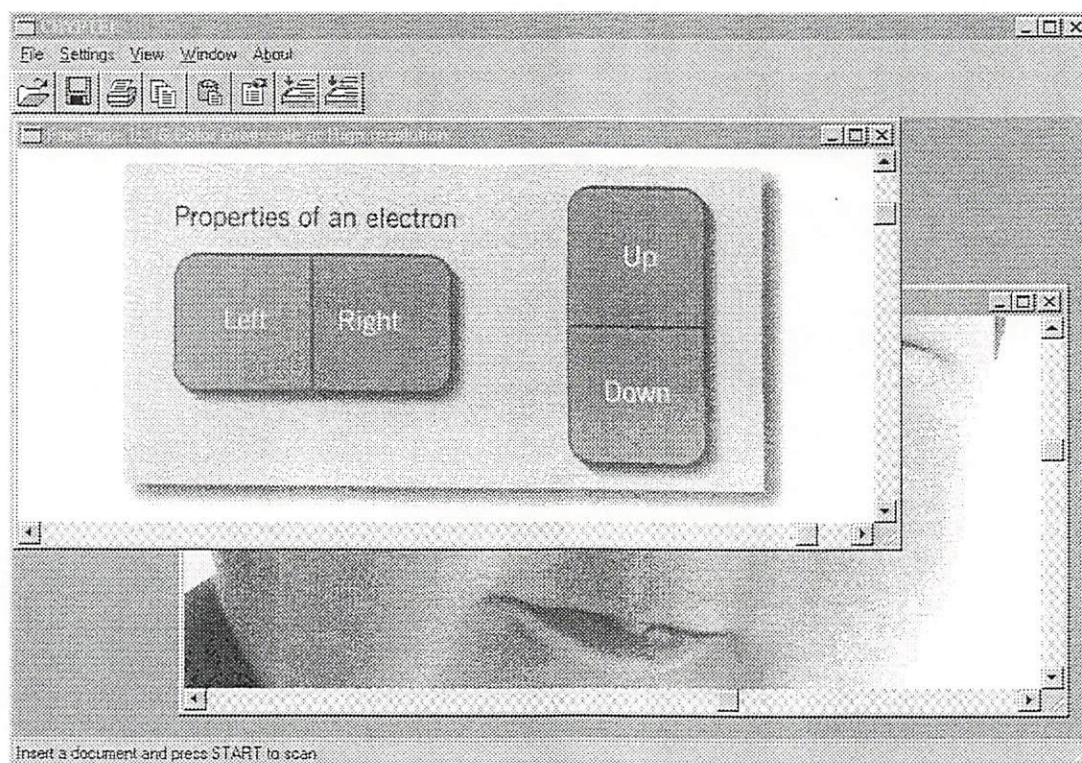
When this function is selected, a standard windows printer selection menu is displayed to allow the destination printer device to be chosen in the normal way. Once the printer is selected and any required printer options are set, then choose OK to return to the Image Server which will then format and print the selected image to the printer. The selected printer may be a local or remote printer, but must support raster images.

Copy to Clipboard - This menu function copies the selected image to the system clipboard, which allows other applications, such as word processors, graphics packages or OCR products to retrieve and process the image in the normal way. See the section on using the clipboard below for more details of this. Note that this menu function is equivalent to the fourth icon on the toolbar.

View Menu (Additional Functions)

The view menu always contains sub menu functions to control the display of the toolbar and status bar. If an image has been either scanned into the Image Server or loaded from the hard drive, then the View menu will also contain an additional sub menu function called "Fit to Window".

Normally, the image display window within the main application window displays only the top left corner of the image it contains. Scroll bars on the right and bottom edges of the window allow this view to be scrolled up or down the image or to the left and right. Additional control of the position of the display can be obtain by "dragging" the scroll bar cursors with the left mouse button, which will cause the view of the image to move in the corresponding direction. release the mouse button when the desired position within



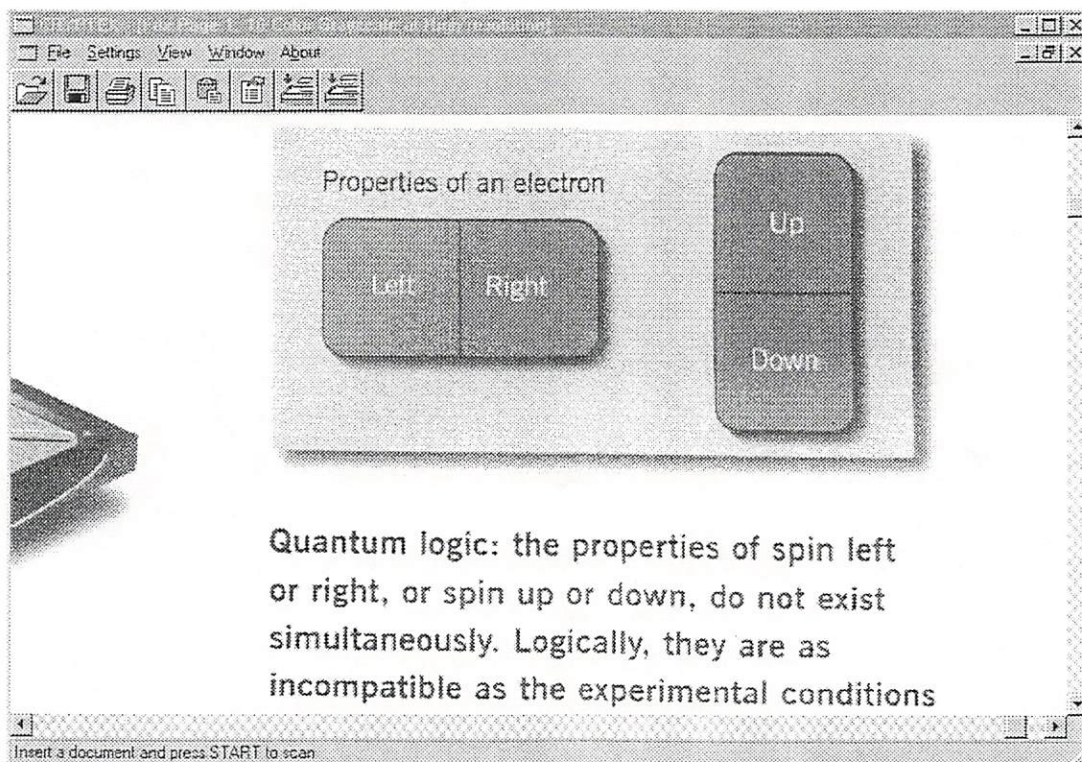
By default, these image windows are cascaded as shown and the Fit to Window menu function described earlier will apply to all windows which are not minimized. If any of the images is maximized, then all the remaining image windows will be hidden from view behind it.

When the main application window contains multiple image windows, additional menu functions are available in the File Menu on the main menu bar. These additional functions are:

Close All - This menu function causes all the image windows within the main application window to be closed. If the images have not been saved to the hard drive, the Image Server will request confirmation that the images are to be discarded.

Send All to Cryptek - This menu function causes all the images to be sent together to the Cryptek Transcript as a single document. Each page will retain its resolution and type (Grayscale or Black & White) as it is transmitted. Note that this function is equivalent to the eighth icon on the toolbar.

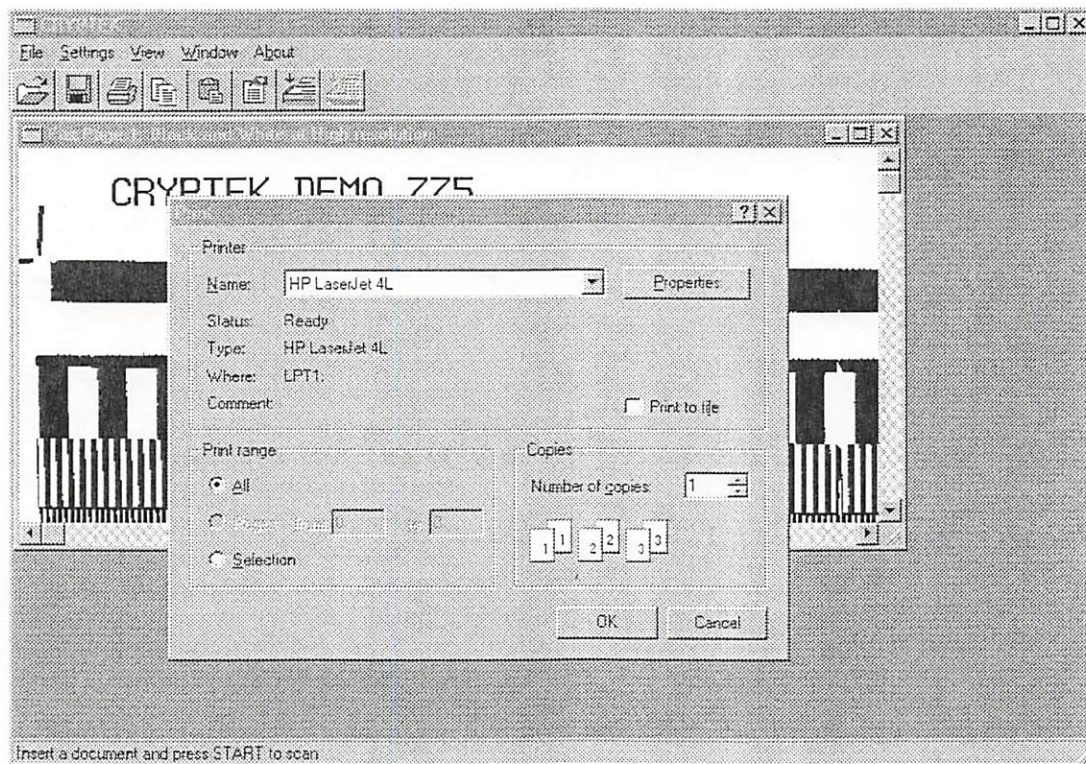
The following diagram shows two images after the Windows menu function and the Tile sub menu function have been selected. Note that each image retains independent scrolling.



Manipulating Image Windows

The individual Image windows can be manipulated in the standard way for size and location by "dragging" the edges or corners in the desired direction. The whole image can be moved anywhere within the main application window by clicking with the left mouse button on the title line at the top of the image window and keeping the left mouse button pressed while the image is moved to the desired location. The image window cannot be dragged outside the main application window, although this can be maximized to the full size of the screen.

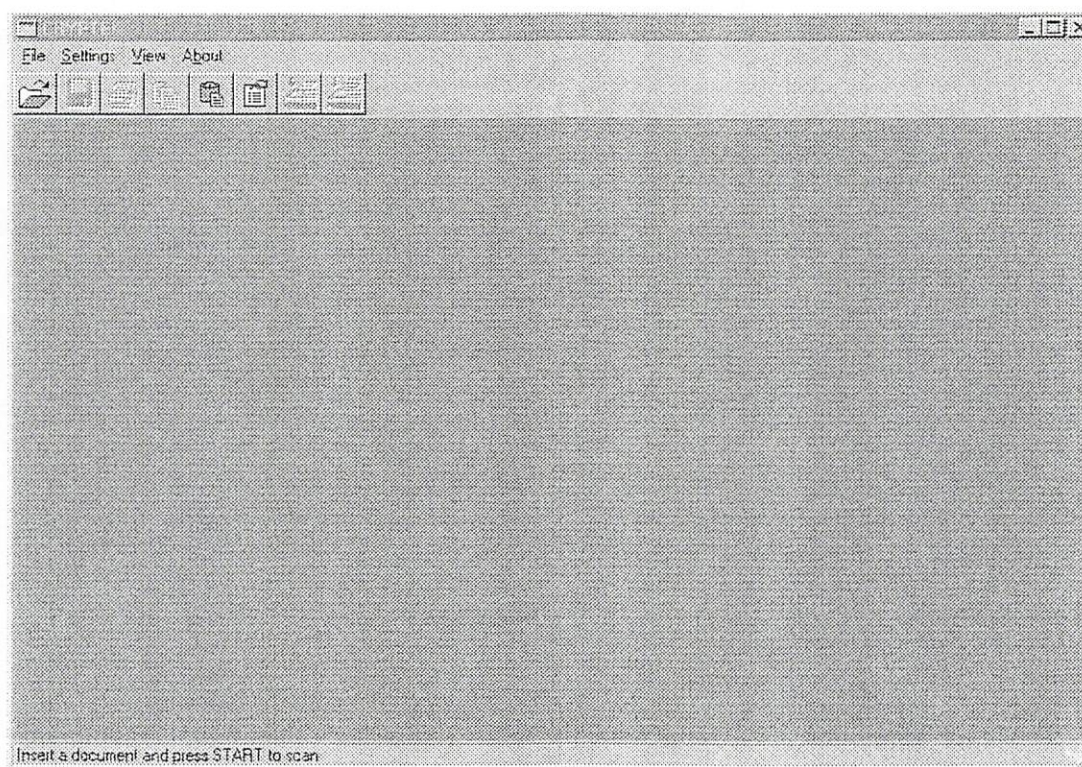
The example below shows a scanned image which has been resized to be proportional to a letter sized page and for which the Fit to Window menu function has been selected. Note that the scroll bars have disappeared.



Click with the left mouse button on the down arrow to the right of the Name field drop down list to choose any other printer in the system and then click on OK. This will cause the currently selected image to be formatted for the chosen printer and sent to the system spooler. While this happens, the status bar will display a message to indicate that printing is in progress.

If there is an image available, this can be loaded into the Image Server by simply clicking on the Paste toolbar icon (the fifth icon) or selecting the Paste from Clipboard function from the File Menu. A new image window will be opened and the data loaded and displayed within it. As already noted, color images will be converted to grayscale as they are loaded. Once an image is loaded from the clipboard in this way, it can be processed in exactly the same way as an image scanned from the Cryptek. Note however that the new image will not be automatically saved if this option is in effect.

The following example shows the main application window when there is data available on the system clipboard. Note that the Paste toolbar icon is not grayed.



To open this dialog, simply click on the File Open toolbar icon (the first icon) or select Open from the file menu. The Image Server automatically remembers the last file which was read in and positions the dialog at the same point in the directory structure.

The drop down list at the bottom of this dialog allows files to be pre-selected which end in either .tif or .bmp - that is TIFF or BMP format files respectively. Alternately, files of all extensions (*.*) can be selected from this drop down list and then opened in the normal way. The Image Server will automatically check the selected file for a valid format and will load the appropriate type according to what it finds. Invalid image files will be rejected and an error message issued.

BMP format files can only contain one image, but multiple files can be selected from the File Open dialog by pressing and holding down the Control key on the keyboard while clicking with the left mouse button on each file to be opened. A separate image window will be opened for each file read and these can then be processed (for example, sent to the Cryptek Transcript) as a single document. Note also that saving a multi-page document in BMP format will cause multiple files to be created with individual page number extensions to the file name. See the section on file saving below for more details of this.

To select a range of files to be opened simultaneously, select the first then press and hold the Shift key while selecting the last. This will highlight both the first selection and the last selection as well as all the files shown between the two. All these files will then be loaded as a single document.

TIFF format files can hold a virtually limitless number of images and each image within such a TIFF file will be loaded to a separate image window as the file is read.

Saving new Image files

The Image Server will by default save all scanned images in a defined directory with a predetermined filename. See the section below and the Settings Reference section for more details of this. In addition images can be saved in any desired location as a document with a user specified file name.

There are two main options on the File Menu for saving files - "Save" and "Save As." The second of these ("Save As") is equivalent to the second icon on the toolbar. The difference between them is that Save will use the name and format of the last file loaded from the hard drive as the name to use when saving the selected image, whereas Save As will prompt for a name and format to use, as in the example below:

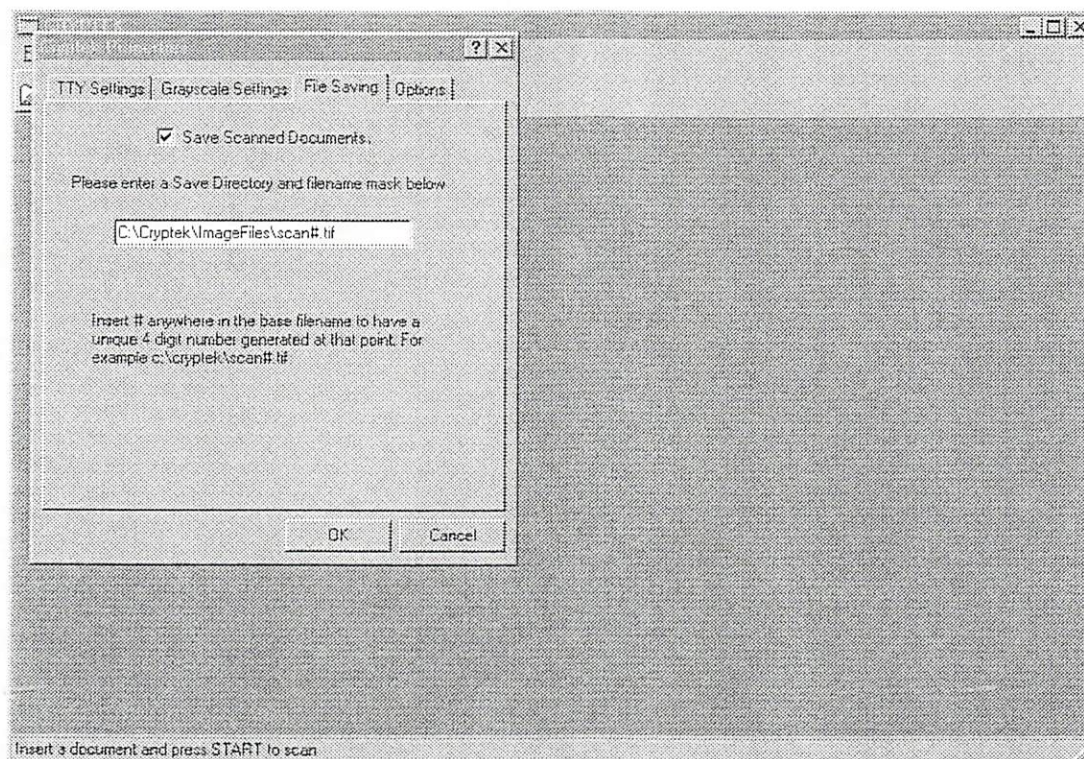
by selecting them both from the File Open dialog using the Control key as described under "Opening Existing Image Files" above.

Automatic File Saving

In order to ensure that no scanned images are lost, the Image Server can optionally save a copy of each image as it is read from the Cryptek Transcript. This operation involves two pieces of information which have to be provided by the user.

- 1 The name of the directory to contain the scanned images. This defaults to C:\Cryptek\ImageFiles but can be changed to be any directory name desired.
- 2 A File Name Mask. This represents the name of the file which will be created automatically in the directory named above for each image which is scanned. To distinguish one file from another, each is given a unique serial number which is assigned and maintained by the Image Server. (The latest value is stored in the system registry). This serial number will be placed anywhere in the File Name Mask where the hash symbol (#) appears. So, if a File Name mask of "File#name.bmp" is given, for example, then scanned images will be named "File0001name.bmp", "File0002name.bmp", etc. The default File Name Mask is "File#.tif", which means that scanned images will be saved as TIFF format files with names "File0001.tif", "File0002.tif", and so on. Multiple hash symbols can be included.

The selection of automatic file saving and the specification of the two items above is accomplished via the settings dialog as shown below.



System Printer

Using the Image Server as a System Printer

The Cryptek Transcript will operate as a printer in exactly the same way as any standard device such as a LaserJet or an InkJet and is available via the same menus and dialogs as these devices. Thus it is possible to create a document in Microsoft Word, for example, and print it to the Cryptek Transcript exactly as if the Cryptek was a laser printer. This is true for any standard windows application which supports graphic mode printers.

There are two aspects to its handling of output which must be considered when printing to the Cryptek Transcript.

Image Format - The Cryptek Transcript supports two types of images - Black & White and Grayscale. The grayscale output is always 16 shades of gray.

Resolution - The Cryptek Transcript always prints at 200 dots per inch horizontally, but can print at either 100 dots per inch or 200 dots per inch vertically.

The Image format can be controlled in 4 different ways as follows:

- 1 The system printer can be left to choose dynamically between the formats for each page according to the actual data on that page. If the image uses only two colors, it will be printed as a Black & White image, otherwise the color information will be converted to grayscale and the image will be printed grayscale.
- 2 The system printer can be set during installation to default to Black & White or Grayscale for all images, regardless of content. See the installation procedures above for more details of this.
- 3 The user can select to force the printer to use either Black & White or Grayscale from the printer options dialog when the print is initiated from the windows application. This is discussed further below.
- 4 The system printer can be forced to print always in Black & White or always in Grayscale via the Settings dialog of the Image Server. This is discussed further below.

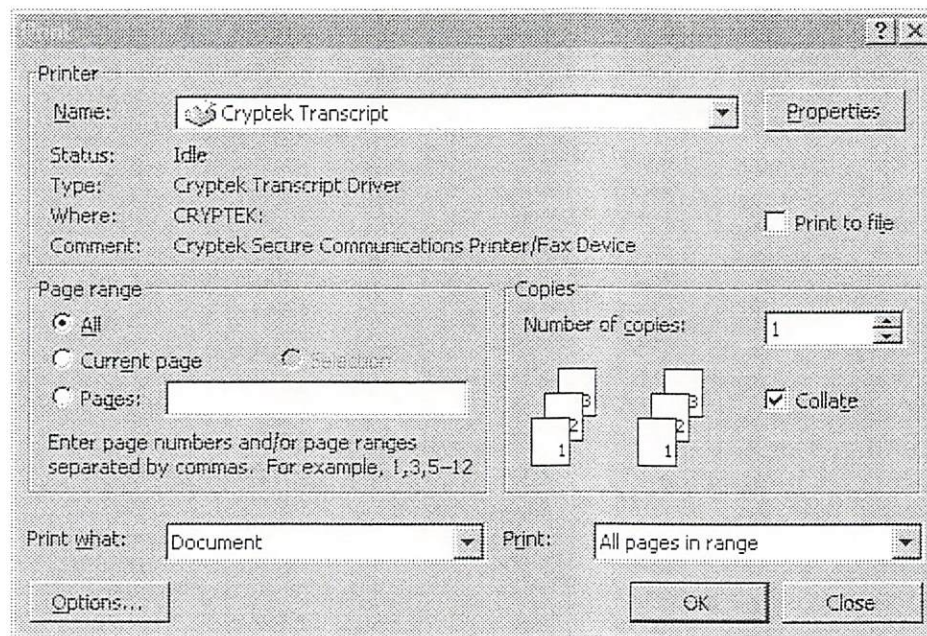
Note that if the system printer is forced into Black & White mode for a color image, then much of the detail of the image will be lost. The advantage however is that the image will print noticeably faster and this is sometimes useful for printing draft copies of complex images.

The resolution can be controlled in 2 different ways as follows:

These latter two options will completely override any other specification made by the user.

Selecting Print Options at Print Initiation

When the Print function is selected from any standard windows application, a dialog box similar to the following will be displayed:



If the name of the Cryptek Transcript printer does not appear next to the field identified as "Name", click with the left mouse button on the down arrow to the right of the field and select the Cryptek Transcript in the list of available printers which will appear. If the default settings are correct, simply click on the "OK" button to start the printing, otherwise click on the button identified as "Properties". This will open a standard windows printer properties dialog which will vary according to the version of Windows in use and this is discussed below.

Selecting Print Options

The example below is for Windows NT and differs slightly from the same dialog in Windows95, although the fields controlled are similar.

If the Cryptek Transcript is accessed remotely from another system and a user of that system sends a print job to the system printer, then the status bar will also change to show that the device is busy as described above, even though the system printer on the local machine is idle. As before, when the print job is finished, the Image Server will regain access to the device.

Keeping the remaining button pressed, move the cursor to the opposite (diagonally) corner of the rectangle to be captured and then release the other mouse button. The image will be captured to the clipboard and the Image Server main application window will be restored. The Image Server will then load and display the captured data from the clipboard.

NOTE: This operation will destroy any previous contents of the clipboard.

Once the screen image is capture it can be processed in exactly the same way as any other image. The screen colors will have been converted to grayscale when the data was loaded from the clipboard.

Settings Dialog Reference

The Settings dialog can be activated from the toolbar (sixth icon) or directly from the main Menu bar. In either case a standard windows dialog will be opened which features "tabs" to select between four pages of control information as follows:

Com Port Settings - This page controls the details of the com port and the line settings used by both the Image Server and the system printer to access the Cryptek Transcript

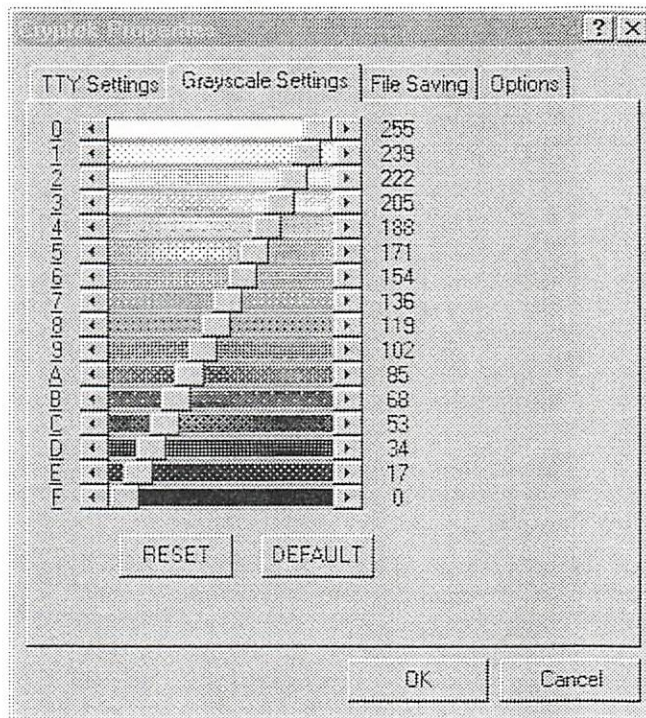
Grayscale Settings - This page allows the exact level of each of the 16 grayscale shades to be manipulated or reset to the default values. Changing these values is generally not recommended except for images where contrast is a problem and improvements to it can be achieved by altering the separation between adjacent shades.

File Saving - This page controls the automatic saving of scanned images and is discussed in the section of File Saving above.

Options - This page has several option fields of which some are purely diagnostic in purpose and should not generally be altered in normal operation.

The individual pages are detailed below. An example of each page is given and the fields are then explained individually along with any general remarks about the page itself.

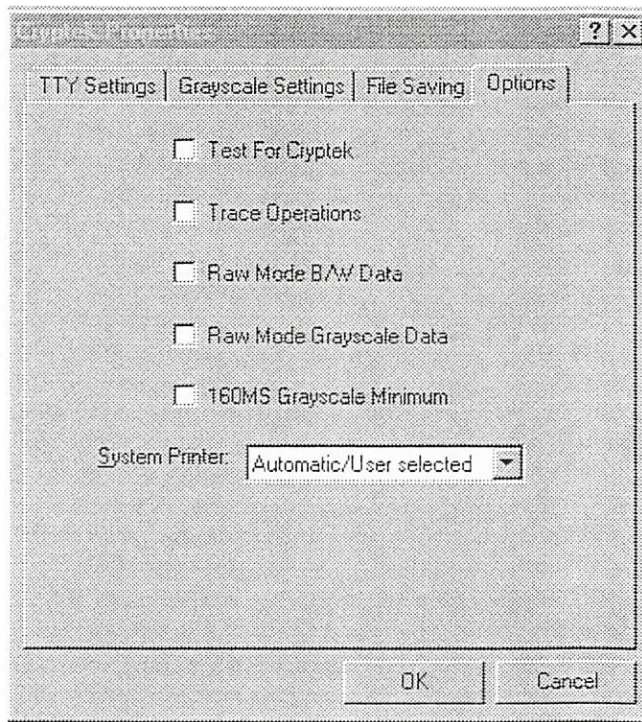
Grayscale Settings



Each horizontal scroll bar on this page represents one of the 16 possible shades of gray from white at the top to black at the bottom. The number to the right are the actual luminosity values on a scale from 0 to 255. Slide the cursor within any of the scrollbars to alter the relevant shade of gray, which will also adjust the number to the right.

As the shades are adjusted, any images displayed in the main application window will automatically be updated so that the effect of each change can be seen immediately.

Click on the Reset button to restore the settings to the way they were when the dialog was opened. Click on the Default button to restore the settings to the standard values.



Test for Cryptek - If this box is checked then the Image Server will perform a complete link test with the Cryptek Transcript whenever the application is launched or the com settings are changed. The link test takes about 20 seconds and confirms whether the link is functioning correctly and the device is operational. Setting this option can be useful for troubleshooting the com settings if the Cryptek Transcript does not appear to be functioning correctly.

Trace Operations - If this box is checked then a formatted dump of all traffic between the Image Server and the Cryptek Transcript will be written to a file called "trace.txt" in the desktop folder. This is useful for diagnostic purposes when the link may be malfunctioning. Note that setting this option on will both slow the operation of the Image Server and may also generate very large files of data on the hard drive.

Raw mode B/W - If this box is checked, the Image server does not encode Black & White data transmitted to the Cryptek Transcript. It is used for testing only and should not be set.

Raw mode Grayscale - If this box is checked, the Image server does not encode Grayscale data transmitted to the Cryptek Transcript. It is used for testing only and should not be set.

160MS Grayscale Minimum - If this box is checked, the Image Server will ensure that each line of grayscale data transmitted to the Cryptek Transcript contains at least enough data to take a minimum of 160 Milliseconds to transmit. This option supports slow printing devices but is not required for the Cryptek Transcript. It should be off.

Troubleshooting

The following are hints and tips about problems which may occur installing and using the product and some ideas on what to do.

Installation Problems

OmniPage Pro

There is a known conflict between OmniPage Pro (Version 8.0) and any product which attempts to install a Language Monitor for bi-directional communication with a printer device. The "ocraware" feature of Omnipage interferes with the normal system handling of such installation requests and prevents the Image Server from completing the setup of the system printer. This problem is usually manifest through the error message "Error from AddMonitor - INVALID PARAMETER" during the installation process. Verify the following and then restart the installation:

- 1 Edit win.ini and ensure that "ocraware.exe" is not being started by the run= keyword
- 2 Open the OmniPage application, click Tools, then Options. Select the ocraware tab in the ensuing dialog and make sure the ocraware checkbox is NOT checked.

After these changes, the installation should complete normally.

Problems Accessing the Cryptek Transcript Directly

If the Cryptek Transcript does not appear to be responding, try setting the "Test for Cryptek" option in the Options page of the Settings dialog and then relaunching the application. This will produce further diagnostic messages if the Image Server cannot access the device.

Problems with System Printer

Windows NT

Windows NT does not unload certain library files when a printer is deleted and this may cause an internal error during uninstall. The software will recover from this but there are two side effects:

- 1 The system must be rebooted to complete the deletion of the files which were not unloaded. In particular, the system must be rebooted if the Image Server is to be reloaded or a new version is to be applied.

Error Messages

The following error messages can be issued by the Image Server system. Each is followed with an explanation of the meaning of the message and, where appropriate, further diagnostic or remedial information.

Note that many of these messages will contain variable information when they are issued by the system. This is indicated in the following list as %d, for a number, %s for a name and %x for a hexadecimal value. Other than this, the list of error messages is in alphabetic order.

When the error message includes a system error code, the code listed is the system's reason for signalling the error condition and can be decoded by reference to the Windows95 or Windows NT resource kit. Alternatively, the meaning of the code can be found from the winerror.h file in the Windows SDK.

When the error message includes a standard File I/O error code, then this code is one of the UNIX/DOS/Windows I/O error codes defined in errno.h of the SDK or any DOS or windows reference.

"%s" is not a valid directory, would you like to create it now?

When assigning a default directory for automatically storing scanned images, the system will check to see if the named directory actually exists. If not, this message will be issued to ask your permission to create it. If this is the wrong directory, or you do not wish to create it, reply No.

4 color CMYK images not supported

The Image Server supports all RGB images. That is, all images which define colors as a set of three values - one for each of Red, Green and Blue. CMYK images use a reversed color system (Cyan, Magenta, Yellow and Black) which is not supported by the image server. Try loading the image into a graphics package, such as Paintshop Pro, and saving it again in an RGB color format.

A transfer is in progress please allow this to finish before changing settings

Direct access is being made to the Cryptek Transcript and an image is being either read or written. Changing the port settings while this occurs is not possible and would disrupt the transfer operation. Wait until the transfer is complete before altering the port settings.

Are you sure you want to delete Page %d?

This message will be issued if the Image Server recognizes that no hard copy of the current image exists on disk. If you respond Yes to this message, the image will be lost. Note that pages which have already been saved, or which were read from disk originally do not cause this message to be issued when they are deleted.

Closing window will cancel the current data Transfer operation. Do you wish this?

Either the current window is being closed or the Image Server itself is being closed but there is an active data transfer of an image between the Image Server and the Cryptek Transcript. Reply yes to this message to interrupt the transfer and exit the window or the application. Any scanned image being read will be lost.

Could not acquire memory for palette (read_colortab)

During the processing of TIFF images in RGB (Red, Green, Blue) format, there may be a table of required color values associated with the image. this message indicates that there is not enough available memory to hold this table. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

Could not get a PVT for tiff page

The PVT (Page Vector Table) is a data area (or "object") which holds the details for each page of an image and is acquired on an as-needed basis as pages are scanned from the Cryptek Transcript or loaded from the clipboard or hard disk. This message indicates that there is not enough memory available to allocate a new PVT. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

Could not open file %s, errno=%d

The file named in the message was to be opened by the Image Server for either reading or writing but the system was not able to satisfy the request. The number given is a standard File I/O errno.

Cryptek Status is being tested please allow this to finish before changing settings

If the "Test for Cryptek" option is checked in the settings dialog, then the Image Server will ensure that the Cryptek Transcript is on-line and available every time it is launched. This process takes approximately 20 seconds, during which time the device is unavailable for sending or receiving images and will not allow the settings to be changed. Wait for the operation to be complete before making any changes. The status bar at the bottom of the Image Server screen will indicate the results of the testing.

Cryptek operation in progress, cannot copy to clipboard

While a copy of an image is being transmitted directly to the Cryptek Transcript, or a scanned image is being read in, the Image Server relies on the buffer memory associated with each open window to hold this data. Performing a clipboard operation would disturb this memory and may cause the system to crash. Wait for the transfer operation to complete before continuing.

Cryptek operation in progress, cannot load other data

While a copy of an image is being transmitted directly to the Cryptek Transcript, or a scanned image is being read in, the Image Server relies on the buffer memory associated

Error (%d) on write to %s

The file named in the message encountered an I/O error for some reason. The number given is a standard File I/O errno.

Error (%d) on write to file %s

The file named in the message encountered an I/O error for some reason. The number given is a standard File I/O errno.

Error (%d) reading from tiff file

The current TIFF image file being read encountered an I/O error for some reason. The number given is a standard File I/O errno.

Error (%d) seeking within tiff file

While processing TIFF files, the Image Server will read different parts of the file according to where the image information has been stored. Seek is the operation of moving from one part of a file to another and this operation has encountered an error. The cause of this is most likely to be a corrupt or truncated file. The number given is a standard File I/O errno.

Error Creating link for %s

The setup installation procedure will create symbolic links on the Start Menu for the Image Server Application and the Uninstall program. This operation has failed and no further details are available. Note that this error does not prevent operation of the software, which will still have been installed in the chosen target directory during install. This link can be created manually using the normal procedure for creating a shortcut within the Start Menu Folder.

Error from AddMonitor: %s

This is a system function called by setup during the installation of the System Printer driver and it has encountered an error. The string is the actual system error. See also the important information about a conflict with OmniPage Pro in the Troubleshooting section above.

Error from AddPrinter: %s

This is a system function called by setup during the installation of the System Printer driver and it has encountered an error. The string is the actual system error.

Error from AddPrinterDriver: %s

This is a system function called by setup during the installation of the System Printer driver and it has encountered an error. The string is the actual system error.

Error from DeleteMonitor - %s

This is a system function called by the uninstall program during de-installation of the System Printer driver and it has encountered an error. The string is the actual system error.

Error return %d from RegCreateKeyEx

Important information about user settings, file names and internal Status of the Image Server is stored in the system registry under `\HKEY_LOCAL_MACHINE\Software\Cryptek`. This system function has encountered an error attempting to create this registry entry either during setup or when the Image Server is first executed. The number given is the system return code.

Error return (%X) from WriteFile on Com Port

The Image Server is attempting to write scan data to the Cryptek Transcript but has encountered an I/O error. The number given is the system return code in hexadecimal.

Error return (%d) from Creating monitor thread

The Image Server will permanently monitor the Cryptek Transcript for new documents which are to be scanned. A separate thread is created to do this and is stopped for the duration of each send or receive of an image to or from the device or when the System Printer is accessing the device. This message indicates that there was an error starting this thread. The number given is the system return code

Error return (%d) from Creating read thread

For each new image which is to be scanned from the Cryptek Transcript, the Image Server will create a separate thread to manage the operation and control the windows display associated with it. This message indicates that a new read operation could not be started because a new thread could not be created. The number given is the system return code.

Error return (%d) from Creating status thread

When the Image Server application is started, or the port settings are changed, a new thread is created to interrogate the Cryptek Transcript and determine the status of the device and the communications link. This message indicates that this thread could not be created because of a system error. The number given is the system return code.

Error return (%d) from Creating trace File

If the "Trace Operations" option is checked in the settings dialog, the Image Server will maintain a trace file of all data sent to or received from the Cryptek Transcript. This message indicates that the trace file, which is called "TRACE.TXT", could not be created or, if it already exists, could not be opened. The number given is the system return code.

Error return (%d) from Creating write thread

For each image which is to be sent to the Cryptek Transcript, the Image Server will create a separate thread to manage the operation and control the communications link associated with it. This message indicates that a new write operation could not be started because a new thread could not be created. The number given is the system return code.

Error return (%d) from LocalLock on indata

The System Printer will allocate memory for a page buffer, which is used to cache each page of print data before it is printed and thus determine whether the image is black and

message - could not be created. The string in parenthesis is the actual system error. Typical reasons are that the drive letter is invalid or that one or more of the higher level qualifiers of the directory name do not exist.

Error return from SHGetSpecialFolderLocation: %x

This is a failure of an internal Windows system call used to obtain the location of the program files directory. The code given is the system return code in hexadecimal and indicates the nature of the failure. This is purely a Windows failure and indicates that something is wrong with Windows itself.

FALSE return from SHGetPathFromIDList

This is a failure of an internal Windows system call used to obtain the location of the program files directory. This is purely a Windows failure and indicates that something is wrong with Windows itself.

Failed to get Acknowledge at end of transmission

When all data has been sent to the Cryptek Transcript, then the device is expected to return an acknowledgement that this data has been received. This message indicates that the Image Server or the System printer timed out waiting for this acknowledgement. The possible causes of this include disconnection of the serial cable, loss of power to the cryptek or hitting the stop button on the Cryptek Transcript console.

File %s appears to be too short to be image file

The Image Server is trying to load a stored file containing an image but finds that the length of the data in the file is less than is needed to contain required header information. This probably means that the file is corrupt and that the previous write of the file did not complete satisfactorily.

File %s is not in a recognized format

The Image Server is trying to load an image from a file and expects there to be header information in the file which identifies what type of file it is, for example BMP format or TIFF format. The Image Server did not find valid header information. Either the file is not a valid image file or it has been corrupted.

Image ignored because newsubfile type (%d) is unsupported

TIFF format files can contain multiple images, which are supported by the Image Server. Certain attributes of these images are non-standard and not supported however and this is one of them. Try recreating the file from its original source without specifying this unsupported attribute. The number given is the unsupported subfile type.

Image ignored because subfiletype (%d) is unsupported

TIFF format files can contain multiple images, which are supported by the Image Server. Certain attributes of these images are non-standard and not supported however and this is one of them. Try recreating the file from its original source without specifying this unsupported attribute. The number given is the unsupported subfile type.

Invalid number of planes (%d) in BMP file

An image file in BMP format may have 1, 4, 8, 16, 24 or 32 planes to contain bitmap data. The BMP file being loaded has a number of planes specified as other than one of these. This is not a valid BMP file.

Invalid printer control code (%x) received

The printer driver allows certain options, such as Black & White or Grayscale, Dots per Inch etc., to be specified when data is sent to the system printer. This information is passed to the printer driver as a printer control code. This message indicates that an unknown printer control code was received. Remove the Image Server and reinstall it before retrying the operation. If the problem persists, contact Cryptek for assistance.

Lempel Ziff Compression unsupported due to copyright issues

The Image Server is trying to load a TIFF format image file but the image has been compressed using the Lempel Ziff algorithm, which is subject to copyright restrictions. Please recreate this file from its original source without this compression option.

Missing Color palette for this image

The Image Server is trying to load a color image but cannot find the required palette of valid colors for this image. Most likely this image file is corrupt.

No confirmation received from Cryptek at end of page

As each page of image data is transmitted to the Cryptek Transcript by the Image Server application or the printer driver the device is expected to return an acknowledgment that the data has been received. This message indicates that the Image Server or the System printer timed out waiting for this acknowledgment. The possible causes of this include disconnection of the serial cable, loss of power to the Cryptek or hitting the stop button on the Cryptek Transcript console.

Overwrite Existing Data displayed?

The user has requested that an image file is loaded from disk, but the application contains a previously scanned image. Reply OK to this message to delete the scanned image and replace it with data read from disk.

Please Use the Image Server to change port settings for Cryptek ports

This message is issued by the NT printer driver if the system settings option is used to try to change the comm port settings for the Cryptek Transcript. All port settings under Windows NT are controlled by the Image Server. Please open the Image Server application and use the settings dialog to change the port settings. This will update both the application and the system printer.

Sorry, output file must be .bmp or .tif

The Image server does not support the image file type implied by the filename suffix you have specified. The current release supports BMP format and TIFF format.

Timeout requesting access to Cryptek Port

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a logic error between the Image Server and the printer driver and that one or the other has consequently been locked out from the Cryptek Transcript. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance.

Timeout requesting access to Cryptek Port semaphore

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a logic error between the Image Server and the printer driver and that one or the other has consequently been locked out from the Cryptek Transcript. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance.

Timeout trying to get hold semaphore

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a logic error between the Image Server and the printer driver and that one or the other has consequently been locked out from the Cryptek Transcript. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance.

Transparency format images not supported

TIFF format files can contain transparency images, which are not supported by the Image Server. Try recreating the file from its original source without specifying this unsupported attribute.

Unable to acquire bitmap memory for clipboard load

The Image Server must acquire memory to hold a copy of an image which is to be copied to the clipboard. This message indicates that there is not enough available memory to do this. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

handshake. The possible causes of this include disconnection of the serial cable, loss of power to the Cryptek or hitting the stop button on the Cryptek Transcript console.

Unable to create Semaphore (%d)

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a failure while trying to declare these semaphore fields to the system. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance. The number given is the system return code.

Unable to create holding Semaphore (%d)

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a failure while trying to declare these semaphore fields to the system. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance. The number given is the system return code.

Unable to create request Semaphore (%d)

The Image Server application and the printer driver must coordinate access to the communications port to which the Cryptek Transcript is connected. This is accomplished with the use of two “semaphores”. Semaphores are special flag fields provided by Windows which allow different system components to coordinate access to fixed resources. This message indicates that there has been a failure while trying to declare these semaphore fields to the system. Rebooting will normally correct this problem, which often follows a failure of the printer driver for some other reason. If the problem persists, please contact Cryptek for assistance. The number given is the system return code.

Unable to get %d bytes (write_gray2)

The image processing routine identified in parenthesis has attempted to acquire the number of bytes of memory specified. This message indicates that there is not enough available memory to do this. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

Unable to get %d bytes (write_huffman)

The image processing routine identified in parenthesis has attempted to acquire the number of bytes of memory specified. This message indicates that there is not enough

Unable to get buffer memory (rgbuncompressed)

Some image files contain data that has more than 16 colors. As these files are read into the Image Server, they are automatically condensed down to 16 color grayscale format. The routine identified in parenthesis attempted to acquire a buffer area to complete this operation but could not. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

Unable to initialize new bitmap in Reader

The Image Server is attempting to read a newly scanned image from the Cryptek Transcript but has been unable to acquire sufficient memory to create a bitmap storage area for it. Either the system is very heavily loaded or, more likely, there has been a corruption of memory areas and the system should be re-booted.

Unable to open COM%d, please select another port

During installation of the Image Server, a comm port for the Cryptek Transcript has been specified which cannot be successfully opened by the software. This may be because the port does not exist or because it is already in use by another application. Check that the port specified is the correct one and that no other application is already connected to it.

Unknown compression scheme - %d in tiff file

TIFF format image files can specify that data within them is compressed in one of a specified number of ways. This message indicates that an unknown type of compression was specified in the TIFF file and implies that the file may be corrupt. The value given is the compression code in error.

Unknown photometric field (%d)

TIFF format image files can specify that images within them have certain key characteristics, such as Black & White, Palette format color, etc. This message indicates that an unknown type of characteristic was specified in the TIFF file and implies that the file may be corrupt. The value given is the unknown characteristic.

WARNING, This screen display is operating with only %d colors.....

This message is issued when the Image Server is started on a system operating with only 16 colors. In this mode, there are not enough palette entries to support the full 16 color grayscale as well as the default colors needed for windows, so the display of images other than Black & White will appear "washed out" and generally unacceptable.

Additionally, this mode of processing does not support a graphics feature known as "StretchBitBlt", which is needed to properly support the display of scanned images in the Image Server window. The application will still work in this degraded mode, but performance will be very slow and, as noted already, the images will be incorrectly displayed.

Click the right mouse button on the background wallpaper to open the display properties and then select setting to see the current screen setup. Try to select a higher number of