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Welcome to FLIGHTCHECK®



“What you check is what you get!”

The term ***“flightcheck”*** can be simply defined as the process of checking a document prior to printing in hopes of catching any potential problems. All elements of the document must be precisely examined in order to prevent an unwanted printout. Needless to say, failing to properly and thoroughly “flightcheck” a document could necessitate having to return to the document’s application in order to make the appropriate corrections and to then reprint the document all over again. For some large jobs this could add up to a tremendous amount of wasted paper or film, lost time and consequently added expenses.

To fully understand the action of performing a proper “flightcheck” you need only consider the comparison of what it takes to get an airplane ready for takeoff. The service engineers walk around the plane with clipboards in hand inspecting each part for its proper working condition and when each item on their checklists have been checked off and given a successful “pass”, then and only then can the plane be officially approved as being “ready to fly”.

Of course, checking out an airplane is a far more serious activity than the mere printing of a document because people’s lives will be at stake if something goes wrong with the plane. On the other hand, there will no doubt come a day when you will be asked to print an extremely important document where your job may certainly be at risk if you don’t get it right.

But, relax and do not worry! Such an event will never occur, that is now that you have **FLIGHTCHECK®** to come to the rescue and help save the day!

LIFE BEFORE FLIGHTCHECK®

Before FLIGHTCHECK®, the most common way to check a document was known as the “trial and error” approach. This is where you would print the document, cheerfully skip over to your printer, pick up the paper, then abruptly burst into tears after spotting something wrong. You would then have to go back into the document, make the corrections and try printing again, this time with fingers crossed.

As users started getting wiser, the “eyeball method” next became the checking process of choice. This is where you would bring up your document and simply stare at the computer screen long enough until you happened to notice a potential problem. An experienced checker, of course, would know more about what to look for, but even still they would be forced to “hunt” for possible problems by closely examining each element of the document page by page, box by box, character by character, and while this tended to be very time-consuming, there was also no guarantee they could do a complete and thorough job every time. If they were to miss just one single problem, the document would need to be reprinted.

In today’s modern computerized world we now have FLIGHTCHECK® where the document file can be examined electronically with high precision and speed. FLIGHTCHECK® will scan all of the intricate details of a document, digging into each individual element as deep as needed, and report to you its findings. In many cases, FLIGHTCHECK® can uncover potential printing problems that a mere human eye could not possibly ever catch. Once all corrections have been made and FLIGHTCHECK® issues an approving “pass”, the document can then be graduated into the final printing process with confidence.

Some of the advantages of using FLIGHTCHECK® are rather obvious. For example, a customer walks into a print shop and plops down a floppy on the front desk. The receptionist simply inserts the disk into a computer, drags the document icon onto FLIGHTCHECK® and it will perform its magical duties by scanning the document and giving you an instant visual report allowing the job to be immediately quoted and accepted (or rejected) right on the spot. And because FLIGHTCHECK® is an intelligent stand-alone application you can use to examine a document even without having to have the application that created it active at the time.

But, the real advantage to using FLIGHTCHECK® becomes clearly evident when you consider what might happen if you blindly and bravely attempt to print your document without even bothering to first check it.

Therefore, before you go to press, you should always remind yourself of this very important motto: **“What you check is what you get!”**



THE WORKFLOW

Before you begin learning about FLIGHTCHECK®, it is important that you fully understand a concept known as the “**workflow**” (also known as the “assembly line” in the manufacturing industry). Consider, if you will, the process of building an airplane. We start with sketches, plans, blueprints and schematics, then mold the parts, solder them together, slap on the wings and throw in an engine, then put the craft through vigorous test flights, going back to the drawing board as many times as needed until each and every part of the plane passes all the tests.

The **workflow** of making and printing a document is very similar and will consist of 3 general categories or stages:

- 1) Designing the Document
- 2) Creating the Document
- 3) Printing the Document

Designing the Document

The first step of the **workflow** involves the planning and design of the envisioned final document. You may not realize the entirety of the importance of these initial beginnings of the document, but the planning and design stages play an extremely critical role in determining the outcome quality of the job, not to mention the actual viability. Simply stated, if a document is well-designed, then it can be easily created and eventually printed with little or no mistakes. Afterall, the purpose of FLIGHTCHECK® is to ensure the printout you get is really what you expect. In other words, the printout needs to closely or exactly match the original design. Therefore, you could almost conclude that a well-designed document, created flawlessly to the original specs, may not even need to be “flightchecked”. A well-prepared, well-oiled workflow will almost guarantee no surprises when it comes time for the final printing.

Let us take a look at the similarities and differences amongst three example jobs: a wedding invitation, an ad and a book. Even if your job is a simple wedding invitation you should always treat your document design as a formal production comparable to the undertaking of printing a large book. You would think getting out a wedding invitation would be a piece of cake (no pun intended) where you simply pull up a new “Untitled” document, type in an address and date and you’re done, but you should always approach your project through the role playing activity of pretending to be a professional book publisher, and then you can’t go wrong. For example, you will probably want to choose some high quality paper stock. You may even want the type to be raised on the card and you will no doubt want to use some real nice gold ink. In other words, you will want the final invitations to be high quality, attractive and impressive, and equal to the grand event they describe, just as if the Queen herself was inviting you to the castle ball. The point is we envision the final product in our minds and by working backwards we can figure out the details of the design. This way the “workflow” will magically unfold into standard, yet spectacular results.



For some large advertising firms the design process can be rather involved. Artists busily sketch a rough drawing of an ad, often based on the results of previous data gathering activities such as surveys or marketing tests, and eventually an agreement is made as to what the final document will hopefully look like. At this time it may be decided exactly which colors will be used throughout the document, which specific fonts will be used, what the final output resolution will be which in turn should dictate specific resolutions for the images or scanned photos. In most cases, the ad will consist of a single page document, but the risk of possible printing trouble begins to rise when the document is designed to contain multiple colors, various types of fonts and differing image types. New problems could emerge with the final ad which were unforeseen at design time, and this is where FLIGHTCHECK® can enter the scene to ensure all is well to prevent you from prematurely going to press. As you employ FLIGHTCHECK® to catch and report the possible problems, you will then be able to design and create your next document with confidence by avoiding the same mistakes. Therefore, FLIGHTCHECK® can literally serve as a “teacher” in helping you create flawless documents by nursing you away from repeated “goofs”.

When you think about what it would take to publish a book, you can clearly understand why the design stage is so critical. It is very important to look ahead for the simple reason that clear prediction alone will cause any activity to result in solid production, whereas a lack of insight will undoubtedly end up with disasters. When you consider the making of a book, one would need to decide right from the start the kind of press that will be used to print the document, the type of paper stock, its quality and thickness, as well as the types of inks to be used. There might also be an overall projected cost estimate or a strict budget to adhere to which will be calculated and based upon factoring in the additional costs of color separations, binding, shipping out the final product, and so forth. In the case of a novel, which will consist mostly of plain text, a cost-effective strategy can be to use a leaner font style consisting of thinner strokes, thus reducing the quantity of ink required for mass reproduction. A newspaper can cut corners and lower its overall cost by printing on low quality paper, but in the case of an encyclopedia which will contain images and diagrams, the overall project cost, not to mention creation difficulties of bringing all of the alphabetically ordered entries perfectly together, begins to become dramatically compounded. Throw in the cost of the book's hard cover, and you can envision the persons in charge straining over the budget, working feverishly to maintain the product's viability. Introduce the advertising costs into the equation and one may have no choice but to raise the cost of the product and push some of the expenses onto the consumer. But one thing still remains very clear: expenses can always be kept to the minimum allocated by the original design budget if one simply employs the services of FLIGHTCHECK® as an “insurance policy” for preventing unwanted mistakes and costly reprints.



In conclusion, even when designing and creating something as simple as a wedding invitation, always keep in mind the fact that the final product is a direct result of and essentially equal to the quality of the initial planning stages. If we assume the end result will be an exact match of what we originally envision, needless to say a poor design right from the start will no doubt turn into a poor result. Simply stated, there should be no difference between the initial concept and the final printed pages. Therefore, the true purpose of FLIGHTCHECK® is to warn you whenever it believes you have gone off track or have strayed from what you think you are going to get, and to let you know you are going down the wrong road.

Creating the Document

The second stage is the actual creation and production of the document. The computer operators begin using their desktop publishing applications by creating pages and laying down the boxes that will contain the text or images. The writers begin typing the text while the scanner operators begin cranking out the images and eventually these stories and pictures are all brought together and placed into the document at their designated positions. If the document is fully designed up front, creating the document becomes a mere formality of duplicating the original specs. However, when you have too many people working on the same document, new problems arise in the workflow leading to the conclusion that document revisions will need to be controlled and maintained especially when various people are making frequent changes. If an operator decides to change a font because they claim the document will “look better”, then be warned that any deviation from the original specs move you down a road towards failure. As your workflow develops, a decision or agreement should be made as to which fonts should be used and which ones should be avoided and this is commonly based upon experience and more often learned from a poor printout.

One reason why it is so important to understand the creation stage of the workflow process is that certain potential printing problems can actually be prevented at this time! If you think about it long enough, it might just be true that one should always strive towards NOT using FLIGHTCHECK® for if a document is perfectly created per the design specs you could almost skip having to precheck it. By knowing, for example, what particular types of fonts you should use for the text and what particular types of images can be acceptably printed, the need to perform extensive flightchecking later on will diminish. In other words, by studying your own particular workflow, improving it wherever possible and becoming an expert, documents can be created with a high degree of confidence, thereby naturally preventing printing disasters.

To deviate from the original ideas when creating the document means the final output may likewise deviate from the originally conceived quality. However, it may be one thing to design a document in hopes of having no printing problems and quite another to create a flawless document based on those plans. For example, as you begin to place objects that overlap, new prob-



lems are introduced such as the consequences of printing overlapping colors during color separations and aligning the registrations. Furthermore, the document design may not have been detailed enough to account for a host of other unforeseen printing problems that FLIGHTCHECK® will fortunately be able to pick up, such as hairlines, incorrect color usage, improper mixtures of fonts, rotated or skewed boxes, transparent fills, bitmap frames, stylized text, images with contrasts applied, and so forth.

Therefore, in most workflows the document design is merely the basic layout, or in other words the “suggested” positions of the main objects, and the actual document creation is where these areas are filled in, either by inserting text or placing an image, and as the document is being formed, new problems arise when coloring the objects, stylizing the text, or altering the images by using features of the application such as coloring an image, scaling an image, framing an image, adding a text runaround to an image object and so forth.

As you use FLIGHTCHECK® you will begin to learn how to more correctly build a document, what to use, what to avoid, and as your skills improve you will begin to see FLIGHTCHECK® approving of and passing a larger number of your documents, thus improving the production speed and quantity of your particular workflow.

Printing the Document

The third stage is the actual printing of the document. Whenever there are problems with the final printout, the document may need to be sent back to the computer operators to be corrected. The problems that caused the rejection of the final printout may be due to any number of reasons such as the wrong font or image was used, or a font or image file was missing, or perhaps a particular color was incorrect, or some box was not positioned correctly, etc. However, in many cases the actual overlooked problems are the result of complex inner structures of the document’s elements that are virtually impossible to detect with the naked eye, such as the resolution of a particular image, incorrect trapping values and other difficult to discover factors. This is the exact point where your electronic servant FLIGHTCHECK® enters the picture!

It is rather interesting to consider a whole new definition for a document and that is a “set of printer instructions”. Each object on the page is sent as a “request” to the printer to draw or “paint” the object. In some cases it is a mere “recommendation” of what to draw because the printer can sometimes override, recalculate, or otherwise redetermine how to draw the object. For example, if an object is defined using an RGB color model, the printer may use built-in algorithms in order to convert the color to CMYK, in which case the eventual output may not be entirely what you had hoped. There are other factors which come into play at print time such as a calculation known as “flatness” where the printer is asked to draw a curve depending on a value given to it which represents the desired deviation from a straight line. The “flatness” to a curve is therefore the number of iterations of tiny straight lines to draw in order to form the curve. A very large number will cause an incredibly smooth curve, and a very low number will cause the line segments to be noticeably poorly



printed. There may also be a problem with available memory when accounting for a large number of points comprising a drawing, in which case the printer might crank away for several hours only to come to a grinding halt and issue some sort of offending command, such as a calculation overflow due to the lack of memory to accommodate a massive quantity of points (there is a limit of 1500 points for a Level I device). Therefore, while all efforts can be made to design the document with precision, and great care should be taken while creating the document, there still could remain a host of possible printing problems that will not surface until the actual printing process has begun. Unfortunately, the current version of FLIGHTCHECK® does not account for these types of problems with the actual printing device itself, nor can it be used to check advanced trapping and imposition, as these functions are best left to other available software. Therefore, it behooves you to always stay on your toes because despite all efforts to check a document ahead of time, there could still be a rocky road ahead, complete with uninvited paper jams and other unforeseen “workflow stoppers”.

As you can now see, inserting FLIGHTCHECK® into your workflow will tend to smooth the transitional flow of the document from the creation stages on through to the final printing stages, and will naturally tend towards cutting down the number of rejects that cause the dreaded backwards flow.

In conclusion, the sole goal of FLIGHTCHECK® is to assist the workflow process by detecting and revealing any potential printing problems, thus allowing the net result of saved time, film and money to be converted into higher and more efficient production and consequently increased profits.

A Word About Postscript

Many people ask if it is possible for FLIGHTCHECK® to examine postscript files. The answer is FLIGHTCHECK® will most certainly examine a postscript file, but this will most likely always be to a very limited degree. The problem is even if FLIGHTCHECK® could detect problems with the postscript drawing commands, it could become extremely difficult to fix the problems, thus causing one instead to have to return to the application which created the postscript file in order to make the required corrections and to output a whole new postscript file. Therefore, checking a postscript file is much too late on the workflow chain.

FLIGHTCHECK® excels in examining the native document, long before going to press, as it can detect flaws and potential problems that could never be discovered within the postscript file. FLIGHTCHECK® can examine each object on the page with precision and it can also know its relationship to other objects. On the other hand, in the postscript world there is literally no difference between drawing four straight lines and a drawing which is really a rectangle. It is likewise next to impossible to determine if drawn text is part of a story or not because characters are often drawn one by one at unique positions (meaning there is no concept of a “story”) and it would clearly be a major feat to go backwards and gather up the characters to reform the original story.

The point is that the purpose of FLIGHTCHECK® is to guarantee that the



resulting postscript file will be free of problems, and so it does not make sense for FLIGHTCHECK® to worry itself over the final postscript file. It may very well be that the printing world would like to have FLIGHTCHECK® work better with raw postscript files, but the truth is the printing world also needs to learn that preparing excellent documents and checking them ahead of time is the correct process order and that FLIGHTCHECK® itself should not be used to examine postscript, but instead should be considered a tool that can assist in creating better postscript files. In turn, other software can be employed for imposition, trapping, and so on, and these work ideally with postscript files, but FLIGHTCHECK® should always be used on the original native document because keeping FLIGHTCHECK® in its natural position earlier in the workflow allows one to take advantage of its superior document checking features.

WHAT IS “FLIGHTCHECKING”?

FlightChecking is a process which begins right after the document creation stage, but just prior to the final printing stage, and can be summarized into 3 distinctive steps:

- 1) Examination
- 2) Verification
- 3) Attestation

Examination is the process of scanning the document and inspecting all of its elements. When done by hand, the user must go into the application and look at each object on the screen, page by page, box by box, character by character, perhaps going deeper inside an object to examine its internal characteristics, parameters or attributes. For a very large document this can be quite an involved and tedious process with an obvious possibility of error due to oversight or the inadvertent skipping of a particular object. On the other hand, FLIGHTCHECK® will perform its obedient service by examining each and every printable object without fail.

Verification is the process of testing a particular object in a document by comparing it to a predefined set of rules (which we call “Ground Controls”) in order to determine whether or not the object satisfies specific criteria or requirements. If any object fails the tests, the document will need to be returned back to the production unit to make the necessary corrections before the examination and verification processes can be continued.

Attestation is the final process whereby after all elements have been examined and verified, FLIGHTCHECK® can then give its “stamp of approval”. In NASA space rocket terms, all is considered to be “A-OK” and “ready for blastoff”, or in terms for us mere computer workers, this means the document is now ready to be printed.

INSTALLING FLIGHTCHECK®

To install FLIGHTCHECK® you should first create a new folder on your hard drive for the station you intend to eventually use your FLIGHTCHECK®. Double-click the FLIGHTCHECK® self-extracting icon on your master diskette and “unstuff” it into your new folder.

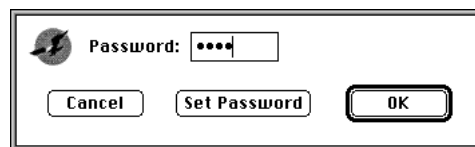
Upon running FLIGHTCHECK® for the very first time you will be asked to enter your serial number. At this time a folder will be created within your System->Preferences folder called “FLIGHTCHECK® Prefs *f*” and in this folder will reside the “FLIGHTCHECK® Preferences” file as well as the “Fonts Database” file (which will be explained later). The FLIGHTCHECK® Preferences file will save your various setup parameters, such as the positions of various windows, your current sets of Ground Controls (also explained later), and so forth. If you want you may trash the FLIGHTCHECK® Preferences file or the Fonts Database file at any time prior to running FLIGHTCHECK® and a new Preferences file or Fonts Database file will be automatically created.

MEMORY

To increase the memory allocated to FLIGHTCHECK®, which can improve the speed of checking very large files containing numerous elements, click once on the FLIGHTCHECK® application icon, then select “Get Info...” from the Finder’s File menu and enter a new value for the Preferred size. For smaller documents you will only need 1 to 2 MB for FLIGHTCHECK® to work correctly, but for larger documents, or if you are using a large Fonts Database, then you will need to increase this value for FLIGHTCHECK® to function properly and efficiently. Normally, 4 to 6 MBs is plenty to run FLIGHTCHECK®, but in extreme cases you may need to allocate even more memory.

SETTING A PASSWORD

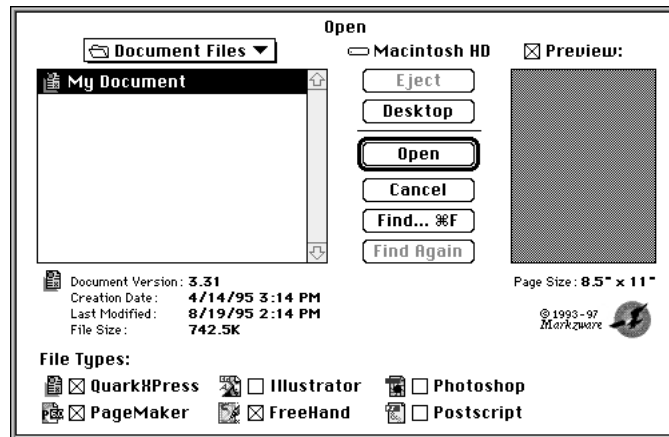
FLIGHTCHECK® allows you to set your own password in order to prevent others from running your FLIGHTCHECK®, effectively stopping them from changing your particular setup or preferences settings. Having a password can also serve as a security measure that will prevent others from viewing the contents of certain documents. You can set a password by selecting “Set Password...” from the Edit menu:



Enter your password (up to 8 characters) and click on the Set Password button. You will be asked to retype your password in order to verify it. To change an existing password, you will first need to enter the correct password before clicking the Set Password button.

SELECTING A DOCUMENT

To select a document to examine you can either drag and drop its file icon onto the FLIGHTCHECK® application icon or you can first launch FLIGHTCHECK® and then select “Open Document...” from the File menu, in which case the following Open dialog will appear:



File Types

You can choose which file types you wish to view by selecting the desired checkboxes.

The Open dialog allows you to locate the desired document (you can use the Find... button as needed) and detailed information about the selected file will be displayed, such as its type and version, creation and modified dates and file size. The document's page size will be presented on the right side of the window, as well as a preview of the document, if it exists. When ready, click the OK button or double-click the document's title in the list, and FLIGHTCHECK® will then begin its task of checking the document.

FlightChecking Multiple Files

To flightcheck multiple files go to the Finder level, select their icons (or the folder they reside in) and drag and drop the group onto the FLIGHTCHECK® application icon. When you are finished checking a document and you close its main window, the next document file in line will be checked. If you want, you may also drag a folder icon (or even a diskette) onto the FLIGHTCHECK® application icon.

Note: If “drag & drop” does not function properly, you may need to rebuild your desktop by rebooting while holding down the command and option keys.



Scanning a Document

When a document has been selected and opened, FLIGHTCHECK® will then begin scanning the file by examining its elements and building various lists of data, such as the colors, fonts and images the document is using. While this is occurring, a dialog will appear informing you of the progress. You can abort the entire process by pressing command-period at any time.

Examining a Document

FLIGHTCHECK® will perform an extensive examination of the document file and its elements. It will look at each page of the document and examine all of the boxes and objects. While doing so, FLIGHTCHECK® will record various attributes and parameters regarding each box, such as its position on the page, its background fill color, its frame color and thickness, and so forth. FLIGHTCHECK® will also scan the text characters of each story and record their font and style usage, then determine the locations of the font suitcases and printer font files and further scan these files to obtain additional detailed information about each font. FLIGHTCHECK® will likewise investigate each of the source image files by locating their links, opening the image files and scanning through their internal data to obtain more information about each image, such as its resolution, color mode, and so on. Additionally, FLIGHTCHECK® will begin gathering other important information about the document such as its printer settings, trapping defaults, style sheets and typographical preferences, etc. FLIGHTCHECK® will even conduct further research if it detects and determines the document has related, possibly even required files, such as XTensions, Preferences, Libraries, Dictionaries, PDFs or PPDs, etc.

Verifying a Document

Once the document has been fully examined the verification process will begin. The gathered data is then compared to a set of user definable rules (known as “Ground Controls”) which allows you to instruct FLIGHTCHECK® to determine what actually constitutes a passing or failing grade. Finally, when all of the tests have been completed, FLIGHTCHECK® will display its main screen and present to you a comprehensive and detailed report of the results.

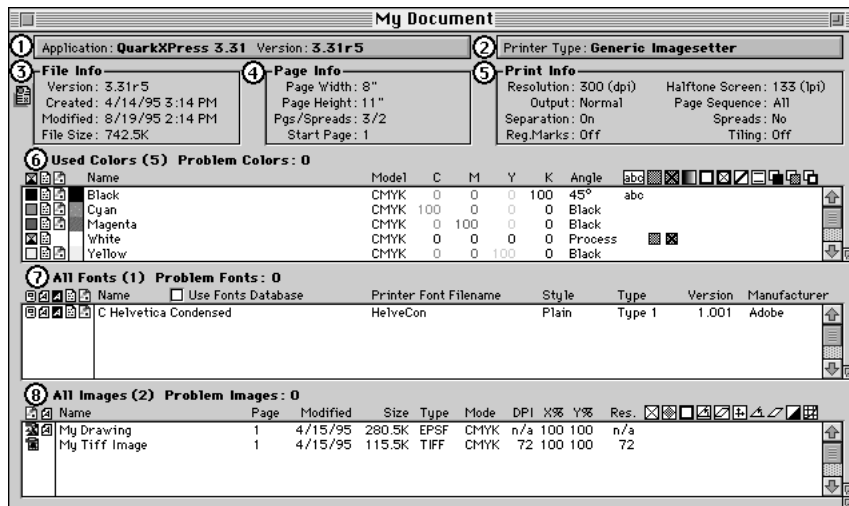
Sound Alert

When checking is complete and FLIGHTCHECK® has detected any type of “error”, an “eagle cry” alert may sound and this can be turned off if you want by unchecking the Sound Alert item under the FLIGHTCHECK® menu.



THE FLIGHTCHECK® MAIN SCREEN

When a document has been opened for checking the FLIGHTCHECK® main screen will appear:



The main screen consists of 8 basic categories (shown circled in the above illustration):

- (1) Application Info
- (2) Printer Type
- (3) File Info
- (4) Page Info
- (5) Print Info
- (6) Colors List
- (7) Fonts List
- (8) Images List

(1) APPLICATION INFO

① Application: QuarkXPress 3.31 Version: 3.31r5

The Application box will display the name and version number of the application that created the document. This application, of course, should be the same one you intend to use to print the document. When the application's source location is known, FLIGHTCHECK® will then be able to conduct further examinations regarding the document and its related files. For example, if you used QuarkXPress to create your document, then once its location becomes known FLIGHTCHECK® can find and examine specific files such as the "XPress Prefs", which may contain additional vital data, or the PDF folder, which should contain the Printer Description File chosen for the document, or the XTension folder, which could contain certain XTensions that may need to be available or even required in order to open and print the document.



Locating the Application

If the application location is unknown, as evidenced by the Application box data being displayed in red, FLIGHTCHECK® will be unable to employ certain advanced functions and may in fact assert this lack of information to be an “error”.

To locate the application, click on the **Application box**, or select “Locate Application...” from the FLIGHTCHECK® menu, and the following dialog will appear:



Note that in some cases you may need to rebuild your desktop (by rebooting while pressing the command and option keys) to ensure the correct applications can be correctly located. Also, in order to prevent lengthy network Server volume searches you can hold down the **command key** while clicking the Application box.

FLIGHTCHECK® will display a list of all possible applications that could have created the document. Select the appropriate application version by clicking once on its name to highlight it, then click the “Select” button or hit the return key. FLIGHTCHECK® will then update the display of the Application box as well as other related areas such as the Printer Type and Print Info boxes on the main screen.

As you work with various types of documents, FLIGHTCHECK® will remember the locations of your major applications such as QuarkXPress®, PageMaker®, Illustrator®, FreeHand® and Photoshop®, and will automatically select them for you whenever you open a document created by one of them. It is important to keep in mind that the application version you used to create a document should be the same as the one you intend to use to print the document. For this reason, if you are going to a Service Bureau it is always advised you own a copy of the same application they will be using, otherwise the output may not be quite what you expect. However, it is sometimes perfectly ok to use a different minor revision number of an application (generally recognized as the second digit). For example, a version 1.02 of an application might be equivalent with regards to printing output as a 1.03 version, whereas a 1.0 and a 1.1 (their first digits differ) might be totally different with respect to the way text is flowed, and the varying preferences could also affect printing.



Launching the Application

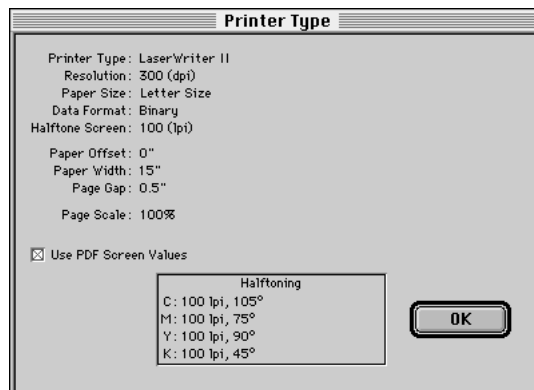
At this time you may elect to use the “Launch” button to run the selected application (provided your station supports AppleScript). Checking the “Launch Document” box will also send a request to the application to in turn open the document. Note that you can also select “Launch Document...” from the FLIGHTCHECK® menu at any time to activate the application and have it open the document you are checking.

Once your application is active you may work on your document as desired. However, note that any changes you make to the “live” document will only be in memory and therefore FLIGHTCHECK® will be incapable of recognizing your changes to the document. But, once you save the document and return back to FLIGHTCHECK®, the document file will be rescanned in order to update all data to the document’s current state.

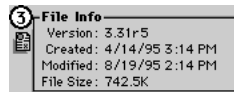
(2) PRINTER TYPE

The Printer Type box will display the name of the printer that had been selected to print the document. This name will usually be based upon the PDF or PPD originally chosen from the application’s Page Setup dialog. A printer name which is displayed in red usually means either the PDF or PPD file cannot be located, or the application itself cannot be located (which would naturally prevent FLIGHTCHECK® from finding the PDF or PPD file).

To obtain more detailed information about the Printer Type you can simply click on the box. A dialog will appear giving you additional data regarding the printer that you might not find elsewhere within FLIGHTCHECK® such as the Paper Size (which may be dictated by the PPF or PPD), if a Paper Width has been set (which may cause FLIGHTCHECK® to report a problem with the page dimensions), or if the printout has been set for an enlargement or reduction. Additionally, information about the various halftone screen angles will be given in this dialog:



(3) FILE INFO



The File Info box will display the version number of the application that created the document, along with the file's creation date, last modified date and its file size on the disk.

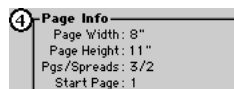
Version

For obvious reasons, the document's version number should always match the selected application's version number whenever possible. If the document's version number is different, FLIGHTCHECK® will display the number in red. As explained earlier, FLIGHTCHECK® will ignore the second minor revision digit.

Language

A letter displayed after the document's version number will indicate the country or language of the document. For example, a version number "1.0G" will represent a German document. The letter "M" will mean the document was created using multiple languages. The document's language is useful to know for it could be a forewarning of a possible text flow problem if the currently selected application bases its hyphenation and justification rules on some other language.

4) PAGE INFO



The Page Info box will display the page width and height, the number of pages and spreads contained in the document, and the starting page number.

Page Width and Height

The page width or height will be displayed using the units selected under the Edit->Measurements menu. Note that you can conveniently access the Measurements popup menu by clicking on the words "Page Info" on the main window.

If either page dimension appears in red then this means FLIGHTCHECK® is warning you that the dimension is not within the boundaries of the paper size according to the document's print record. Sometimes an overriding value entered into a PDF or PPD, usually through the application's Page Setup dialog, may cause a conflict where the document's page size cannot be printed to the selected paper size and will in fact cause each printed page to be "clipped".



There are several factors to consider when comparing the document page size to the selected paper size. For example, you might be able to print a Letter Size (8.5 inches x 11 inches) document to a LaserWriter, although the LaserWriter has a small border (roughly 1/8 inch) where it physically cannot print, and you certainly won't be able to additionally print registration marks or targets outside this border, so you would not want to create objects on a page near the borders. However, if you choose Landscape printing, then the dimensions of the requested printout would become 11 inches by 8.5 inches and therefore FLIGHTCHECK® may post an error. An interesting situation could occur where the document's page size may not fully fit on Letter Size paper, and so you could elect to reduce the printout. This is commonly done on a home or office LaserWriter in order to print some sort of proof with the idea that the final output will definitely be to a wider imagesetter at a print shop. However, while FLIGHTCHECK® will not say there is an error with the page size, you still will be able to ask FLIGHTCHECK® to let you know when a print reduction has been set because you might accidentally forget about this when sending the file along to the Service Bureau.

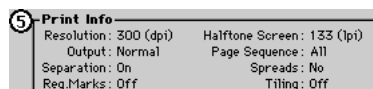
Pages/Spreads

The number of pages and spreads for the document will be displayed. The number of spreads will be based upon a calculation that will tally the number of spreads which contain at least 2 pages. In other words, spreads that have only one page will be ignored in this total.

Starting Page

The actual page number of the first page in the document will be given. If the starting page is using a special format, for example you started page numbering at 100, then an "*" **asterisk** will be displayed informing you of this fact.

5) PRINT INFO



The Print Info box will display some of the document's print parameters based on the settings originally chosen in the application's Page Setup dialog including the print resolution (in dots per inch), halftone screening (in lines per inch), the output quality, page sequence selection and whether or not separations, spreads, registration marks and tiling have been turned on or off.

If any of the Print Info items appear in red, then FLIGHTCHECK® has determined there is some sort of problem based on your Ground Controls settings, as explained later.



Resolution

The output resolution (displayed in dots per inch) will be obtained from the document's print record. In some cases you may consider the resolution value to be a mere "recommendation" to the final output device, as it may not be determined if the device is capable of outputting at the requested resolution, but more importantly, the output resolution can often be manually changed at print time. Therefore, FLIGHTCHECK® will usually ignore the value and will post no error regarding the resolution (unless the value is unknown).

Halftone Screen

The halftone line screen will be displayed in lines per inch. This value is obtained from the document's print record and can be overridden by the PDF or PPD. The halftone line screen is extremely important and is in fact a vital key used in FLIGHTCHECK®'s determination of possible output problems regarding images.

The line screen, also known as screen ruling or screen frequency, refers to the number of rows or lines of dots used to render an image on film or paper. The relationship between the output resolution (dpi) and the screen ruling (lpi) determines how fine or coarse a bitmap image appears on the printed output. The screen ruling to employ depends on the resolution of the image-setter, the paper stock and the type of press used to print the publication. A newspaper, for example, is commonly printed using a low screen ruling of about 85 lpi because of paper stock's high absorbency of ink and the high speed of the press. A higher screen ruling would saturate the newsprint with ink and make the images look muddy. On the other hand, a four-color magazine printed on coated paper might use a screen ruling of 133 lpi. A lower screen ruling would make images coarse and less detailed.

When examining the images used within the document, FLIGHTCHECK® will compare the resolution of each image to the halftone line screen value in order to determine if the image can be acceptably printed or not. Because the line screen in some cases could be adjusted manually or automatically by a RIP at print time, FLIGHTCHECK® offers a feature of allowing you to change the line screen value for checking purposes. This will be explained later in the "Ground Controls" section.

Output

The output resolution type chosen for the document will be displayed and this will be either Normal, Low Resolution or Rough. Sometimes there is a need to print a low quality or quick proof version of a document, and some applications even allow printing images as gray boxes in order to save time. In this case should you forget to change the Output setting back to Normal FLIGHTCHECK® can be used to inform you of this potential problem. This is accomplished through the Ground Controls settings, as explained later.



Page Sequence

The page sequence set for the document will be displayed and this will be All, Odd or Even. If you want to be alerted for certain types of page sequences you can select them on the Ground Controls.

Separation

The separation setting for printing the document, which will be either On or Off, will be displayed. If you want to be alerted for either type you may do so by setting the Ground Controls.

Spreads

The Yes or No status of whether or not the document has been set for printing spreads will be given. You can set the Ground Controls accordingly should you want to be alerted for either status.

Registration Marks

If print registration marks has been turned on for the document, the words “Centered” or “Off Center” will be displayed, followed by the offset value (if known), otherwise the word “Off” will be displayed. To be warned if a particular setting is undesirable you can set the appropriate Ground Controls. Keep in mind that if you’re printing registration marks, FLIGHTCHECK® will need to add the offset value to the page dimensions in order to correctly determine if the total area can be printed to the currently selected paper size.

Note that if you are checking a QuarkXPress document that has registration marks turned on, the actual offset value will be obtained from the “XPress Prefs” file located in the selected application’s source folder, provided of course the application can be found. Also, on a technical note, QuarkXPress does not update the offset value contained in this file until you quit, so if you change the live value while inside QuarkXPress you can return to FLIGHTCHECK® and simply click on the Reg.Marks section of the main window and FLIGHTCHECK® will attempt to ask (via an AppleScript) the active QuarkXPress for the current live value.

Tiling

If tiling has been selected for the document, the words “Automatic” or “Manual” will be displayed, otherwise the word “Off” will be displayed. To be warned if a particular type of tiling is selected, or if tiling is unwantedly turned on, you can set the desired preferences using the Ground Controls.



(6) COLORS LIST

Name	Model	C	M	Y	K	Angle	abc
Black	CMYK	0	0	0	100	45°	abc
Cyan	CMYK	100	0	0	0	Black	
Magenta	CMYK	0	100	0	0	Black	
White	CMYK	0	0	0	0	Process	X
Yellow	CMYK	0	0	100	0	Black	

The Colors area will display a list of the colors used in the document. FLIGHTCHECK® will build this list by examining the colors which have been applied to the fills and frames of boxes, the colors used for text characters, the colors used for lines and rules, and the colors used within placed images.

The icons on the right portion of the Colors list will represent the “usage” of the colors within the document, including whether or not a color has been used in text, a box fill or frame, a line or rule, or if a color has been set for various types of trapping. Icons which appear in red mean FLIGHTCHECK® has determined some sort of problem exists with the color usage based upon the related Ground Controls settings.

(7) FONTS LIST

Name	Use Fonts Database	Printer Font Filename	Style	Type	Version	Manufacturer
C Helvetica Condensed		HelveCon	Plain	Type 1	1.001	Adobe

The Fonts area will display a list of the fonts used in the document. FLIGHTCHECK® will form this list by examining the text characters used in each story, and scanning all EPSF images for their references to fonts.

If any items on the Fonts list are displayed in red, then FLIGHTCHECK® has determined some sort of problem exists based on the Grounds Controls settings.


(8) IMAGES LIST

Name	Page	Modified	Size	Type	Mode	DPI	X%	Y%	Res.
My Drawing	1	4/15/95	280.5K	EPSF	CMYK	n/a	100	100	n/a
My Tiff Image	1	4/15/95	115.5K	TIFF	CMYK	72	100	100	72

The Images area will display a list of the images used in the document. FLIGHTCHECK® will locate each image file on the disk and scan its internal data or characteristics to obtain the detailed information displayed on the list.

The icons on the right portion of the Images list will represent the “usage” of the images within the document, including whether or not an image has been scaled, skewed or rotated, or if the box it resides in has been scaled, skewed or rotated, or if some “style” or colorization has been applied to the image. Icons which appear in red mean FLIGHTCHECK® has determined some sort of problem exists with the image usage based upon the related Ground Controls settings.

RESIZING THE LISTS

A list can be resized by dragging the area's grow box  at the right side of the window. The entire window can be resized by dragging the grow box at the window's bottom right corner, or by clicking the zoom box at the upper right corner, in which case all three lists will be automatically adjusted in size.

FLIGHTCHECK® HELP

To obtain help from FLIGHTCHECK® press command-? (or select FLIGHTCHECK® Help... from the Apple menu) and a special help cursor will appear. You may then continue to move the help cursor and as it hovers over an item a Help message window for that item will be displayed to explain the item. To abort the Help function, simply click the mouse button.

Or, you can simply click on the desired item on the main screen, hold down the mouse button and the Help message window will appear. If you keep the mouse button depressed you may continue moving over any item in order to obtain the item's Help message. To abort the Help function, simply release the mouse button.

FLIGHTCHECK® TIME


To obtain the amount of time spent checking the current document click on the main window's title bar while holding down the shift key. A small window will appear which will display the elapsed session time from when the document file was first scanned.







FLIGHTCHECKING COLORS


The Colors list area offers you detail regarding the colors used somewhere in the document. There are 3 icons at the top left of the list which can be used at a glance to obtain instant information and are defined as follows:

Color Kind Icon


The first column icon  informs you of the color's basic type of which there are 4 kinds:

-  represents one of the 4 Process colors: Cyan, Magenta, Yellow or Black, and will be recognizably displayed using the respective color.
-  represents a Process color. This means that during the printing, the color's CMYK values will be used and no separation plates can be obtained based on this specific color.
-  (green colored icon) represents a Spot color. This means when printing separations you can use this specific color for an additional plate.
-  represents a Registration color which is most often used to print registration marks and targets that will appear on each plate.


Used in Document Icon

 The second column "document" icon informs you whether or not the color is being used in the document. When this icon appears in this column, it tells you that the specific color is used somewhere in the document: in a text story, as a background fill, in a blend or gradient, or for a frame or line or paragraph rule.

Used in Image Icon

 The third column "paint" icon informs you whether or not the color is being used in an image. Note that you can click and hold down the button on this icon to view a list of the images. In EPSF images, the color usually pertains to a painted or stroked object making up the drawing, and is sometimes listed as a spot color. A detailed TIFF image, which can have millions of colors, is most often determined to consist of mixtures of the 4 process colors Cyan, Magenta, Yellow and Black.

Color Name and Sample

 **Cyan** To the left of each color's name is a sample display of the color. Note that an underlined name indicates the color is a spot color, an *italicized* name indicates the spot color is unused and an outline name indicates a mismatch.



Color Model and CMYK Values













To the right of the color's name is a column giving you the color model and its actual CMYK values:

Name	Model	C	M	Y	K
Black	CMYK	0	0	0	100

Values displayed in their respective CMYK colors indicate the color is a Process color while values displayed in a green color indicate the color is a Spot color. A red value means the color is involved in some sort of “mismatch”.

Usage Icons

The icons at the right side of the list represent how the color is being used in the document. A black icon will indicate the color has been applied to an object defined by the column header. A red icon will mean FLIGHTCHECK® has determined the color usage to be some sort of “error”.

-  The “text” icon means the color is being used in a text story.
-  The “text box fill” icon means the color is being used as the background for a text box.
-  The “picture box fill” icon means the color is being used as the background for a picture box.
-  The “blend” icon means the color is involved in a blend.
-  The “gradient” icon means the color is used in a gradient or pattern.
-  The “text box frame” icon means the color is being used for a text box frame or border.
-  The “picture box frame” icon means the color is being used for a picture box frame or border.
-  The “line” icon means the color is used in a line. A thin line will denote a hairline.
-  The “rule” icon means the color is being used for a paragraph rule. A centered line will denote a hairline rule.
-  The “default trap” icon means the color has been set for a default trapping value.
-  The “fill trap” icon means the color has a trapping value set for colors used in background fills.
-  The “frame trap” icon means the color has a trapping value set for colors used in frames.

COLOR INFO WINDOW


You can double-click a color name on the list to view additional information regarding that particular color. Note that when the Color Info dialog is on the screen you can simply single-click another color on the list to view its info.





FLIGHTCHECKING FONTS


The Fonts list area offers you detail regarding the fonts used in the document. There are 5 icons at the top left of the list which can be used at a glance to obtain instant information and are defined as follows:


Font Status Icons


 The “System” icon informs you that the font is currently active. Note that an underlined font name will also indicate that the font is active.

 The “suitcase” icon means the font is not currently active, but can at least be found in the Fonts Database.

 The “font file” icon means the suitcase file in which the font resides can be located. A red icon will indicate the suitcase file cannot be found.

 The “printer font file” icon means the font’s printer file is locatable and will appear in red if the file is missing. A “-” dash character indicates the printer font will not be required for printing (for TrueType® fonts).

 The “document” icon informs you that the font is being used somewhere in a text story within the document.

 The “image” icon informs you that the font is referenced in an EPSF image. Click and hold down the button on this icon to view a list of the images.

Font Name

This column will display the name of the font. If a name is displayed in red then this indicates FLIGHTCHECK® has detected some sort of problem.

Printer Font Filename

This column will display the printer font filename. A red name means the file cannot be located. Printing a document when a printer font file is missing will usually result in a completely unwanted or unexpected printout as the font will most likely be substituted (commonly with “Courier”).

Font Style

The Style column will inform you if a style has been applied to the font. Some fonts have built-in styled versions, which usually print ok, but in other cases where the font has no equivalent style, FLIGHTCHECK® may consider a “menu-styled” font to be an “error”.

Font Type/Version/Manufacturer

These columns will inform you of the font’s Type, such as Type 1, TrueType®, Multiple Masters (“MM”), etc., as well as the font’s version number (if known) and the name of the manufacturer of the font (if known).

FONT INFO WINDOW

You can double-click a font name on the list to view additional information regarding that particular font. Note that when the Font Info dialog is on the screen you can simply single-click another font on the list to view its info.



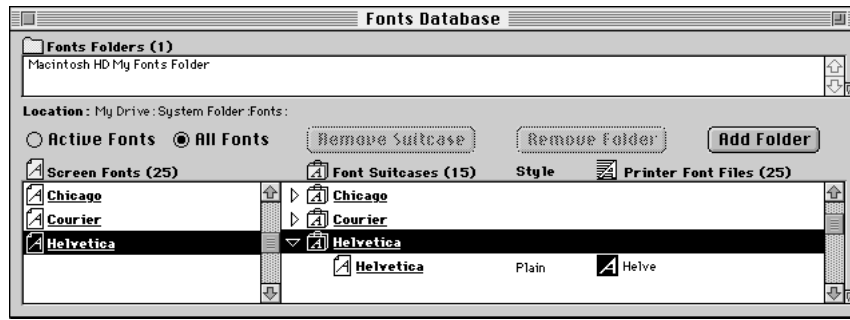
USE FONTS DATABASE

Use Fonts Database The “Use Fonts Database” checkbox instructs FLIGHTCHECK® to look into the Fonts Database for a font whenever it appears to be missing or is not currently active at the time of the examination.

FONTS DATABASE

In order to be able to examine and verify various fonts, as well as being able to later collect them, and considering the fact that not every font referenced by the document may be active in the System at the time, FLIGHTCHECK® offers a valuable feature called the “**Fonts Database**”.

Select “Fonts Database” from the FLIGHTCHECK® menu, or press command-D, and the Fonts Database dialog will appear:



Fonts Folders

The Fonts Database works by allowing you to inform FLIGHTCHECK® of the locations of the various folders containing your font files. A **Fonts Folder** can be added to the list by clicking the “**Add Folder**” button and a dialog will appear asking you to select the desired folder. At this time you may also elect to ask FLIGHTCHECK® to include all nested folders contained within the chosen parent folder.

To remove a folder, select it on the list and click on the **Remove Folder** button.

Active Fonts

The Active Fonts radio button allows you to display a list of the fonts which are currently active in your System. This list will be comprised of those fonts which reside either in the Fonts folder of the System folder, or have been activated via other utilities such as SuitCase® or Master Juggler®.

All Fonts

The All Fonts radio button can be selected to alternatively view the list of all fonts contained in your Fonts Database.



Screen Fonts

On the left portion of the Fonts Database window will be the list of screen fonts which consists of the names of fonts as you would see them if you were inside your application working on the document. An underlined name indicates the font is currently active.

When you click on a screen font name, its associated Font Suitcase on the right portion of the screen will likewise become highlighted. Note that you may type in a partial name for a font in order to find and select it on the list.

Font Suitcases

On the right portion of the Fonts Database window will be a list of the Font Suitcase files in which the fonts reside on the disk. Click on the arrow to the left of a suitcase name to “open” the suitcase and reveal the fonts contained within, along with the names of their respective printer font files.

To remove a suitcase (provided it contains no active fonts), select it on the list and click on the **Remove Suitcase** button.

Style

This column will display the respective style for the given font.

Printer Font Files


When a font suitcase item is “open” and its contents are revealed, the font’s printer file name will also be displayed. A red icon indicates the file cannot be found, while a “-” dash will mean the printer font file will not be required for printing (for TrueType® fonts).



FLIGHTCHECKING IMAGES

The Image list area offers you details regarding the images used in the document. There are 2 icons at the top left of the list which can be used at a glance to obtain instant information and are defined as follows:

Image Status Icons

 The “image” column will display an icon based on the known application which created the image. Click and hold down the mouse button on this icon in order to view a list of the image’s colors.


 The “font” column will display an icon if the EPSF images is referencing fonts. A red icon will indicate that FLIGHTCHECK® has also detected something wrong with at least one of the fonts involved. Click and hold down the mouse button on this icon in order to view a list of the image’s fonts.

Image Name

Click on the word “Name” at the top of the Images list to toggle and display the list of images using their full pathnames, in which case you may want to resize the window to obtain a wider view.

Page

The Page column will display the page number on which the image can be found. To view the page numbers in a Section format, simply click the column header word “Page” (an “*” asterisk will appear). A “‡” character preceding the page number indicates the image is positioned entirely off the page. For PageMaker documents, the page number “‡PB” will signify the image is on the pasteboard area of the document. In either case you should take note that any errors involved with this image have no true merit since the image will obviously not even appear on the printed page (but can affect the print job due to the needless increase of transmitted data).

Status

The Status column will display a message signifying the status of the image file. The word “OK” will mean that the image appears to be okay, in other words, the image has no apparent problems and can also be located and collected. The following is a list of other status messages which may appear, along with their meanings:

<u>Status</u>	<u>Meaning</u>
Missing	Image file cannot be found.
Modified	Image file has been changed.
Off Page	Image is outside the printable area.
Non-Print	Image is suppressed from printing.
Stored	Image is embedded in the document file.
Nested	Image is within another image.



Size

The Size column will display the image's physical file size (which can also be used later on to estimate the disk space required to Collect the image files). Note that an underlined value means the image has been compressed.

Type

The Type column will display one of the following image types:

<u>Type</u>	<u>Description</u>
PICT	72 dpi Macintosh picture
TIFF	Tagged Image File Format
EPSF	Encapsulated Postscript File (vector drawing)
EPS	Encapsulated Postscript (pixel based image)
CT	Scitex Continuous Tone
LINE	Scitex Line Work
JPEG	Joint Photographic Experts Group (compressed)

Mode

The Mode column will display the image mode using one of the following:

<u>Type</u>	<u>Description</u>
1-BIT	Black and white
MONO	Monotone
DUO	Duotone
TRI	Tritone
QUAD	Quadtone
GRAY	Grayscale
INDEX	Indexed (1 byte RGB)
RGB	3 byte Red, Green, Blue
CMYK	4 byte Cyan, Magenta, Yellow, Black

A number following a mode will indicate the image contains additional channels, although most applications will usually ignore this data.

DPI

The DPI column will display the resolution of the image in terms of dots per inch. Note that you can click on the "DPI" column header to toggle viewing image resolutions by DPC (dots per centimeter). An EPSF (vector-based) image will show "n/a" (not applicable) for its DPI because by nature an EPSF is comprised of postscript drawing commands which can be acceptably printed within any spatial area or output resolution.

X%/Y%

The X%/Y% columns will display the horizontal and vertical scaling factors that have been applied to the image. If an image is scaled too high, it will print in "chunky" or "block" shapes. If scaled too low, then no additional quality is obtained beyond the threshold resolution of the output device.


Effective Resolution


The Res. column will display the effective resolution of the image. This is the result of multiplying the image DPI times the Y% scale factor. The vertical scale factor is used in the equation because this value can later be compared to the output lines per inch screening value.





IMAGE ATTRIBUTES ICONS


The icons at the right side of the images list represent the attributes that have been applied to the picture box. A black icon will signify the attribute defined by the column header has been applied to the picture or the picture box. A red icon will signify FLIGHTCHECK® has detected some sort of “error” regarding the attribute.


 The “None” background icon signifies that the picture background has been set to the special transparency color called “None”. Several problems can arise when an image is printed containing white around its edges. When the pixels are transferred to the printed page the white pixels will literally paint over and essentially erase the destination area. The application must therefore create a special “clip area” when drawing the image to prevent the erasure. Unfortunately, the calculations to perform this clipping can be of such low quality that the edges of the image will appear to be “jagged” when printed.


 The “clipping path” icon will represent the fact that the image contains postscript commands that will clip the image causing only certain portions of the image to be printable. Note that if the background of the picture box has been set to “None”, for a transparent effect, a clipping path is usually required for a pixel based image, otherwise the edges will print “jagged”. If the needed clipping path is missing, the icon will be displayed in red.


 The “picture box frame” icon will indicate that the picture box contains a frame or border. If the frame is a custom border, then FLIGHTCHECK® will usually flag this as an “error” because such frames are usually “bitmap” (they should be postscript drawings instead) and will not print very well.

 The “picture box rotation and skew” icons will indicate that the picture box itself has been rotated or skewed.

 The “contents flip” icons will indicate that the contents of the picture box has been flipped horizontally or vertically.

 The “image rotation” icon indicates that the picture inside the picture box has been rotated. It is usually considered a better practice to always rotate an image within the application that created it, mostly to save processing time, allowing you to place the image on the document page straight up.

 The “image skew” icon indicates that a skew has been applied to the picture inside the picture box.

 The “Style or Image Control” icon indicates that a Style or Contrast has been applied to the image. FLIGHTCHECK® usually considers any Style to be an “error” because some printers cannot handle the stylization commands, or literally throw out the information when substituting with a hi-res image.




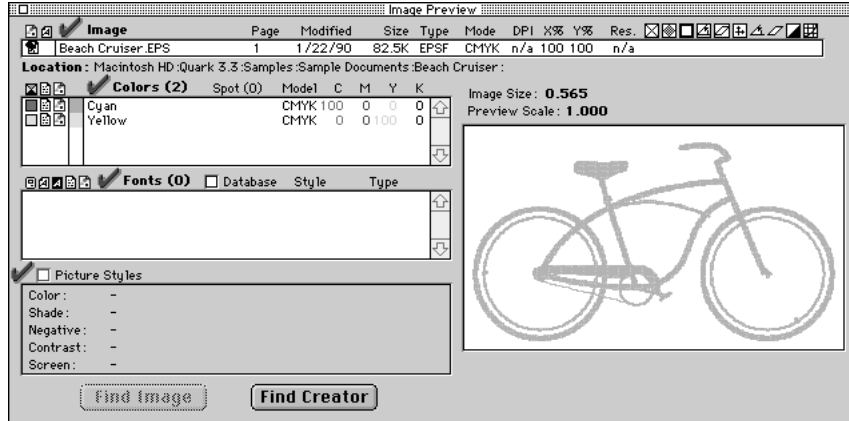
   These icons indicate that the image contains a “Halftone Screen” or a “Transfer Function”, or both.



IMAGE PREVIEW WINDOW

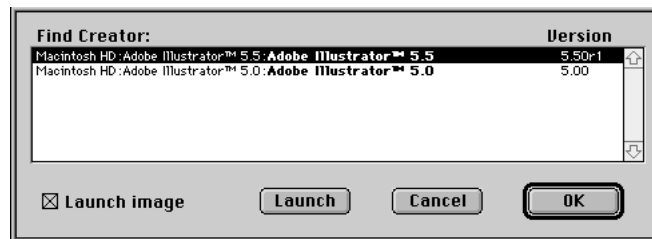
You can double-click an image name on the list at any time and the Image Preview window will appear. Note that when the Image Preview dialog is on the screen you can simply single-click another image on the list to view its info:



The Image Preview dialog will show you the colors and fonts used by the image, as well as any Styles or Contrasts that may have been applied to the image.

Find Creator

Click the Find Creator button to locate and launch the application which created the image:



Hold down the **command key** while clicking the Find Creator button in order to prevent lengthy network Server volume searches.

FLIGHTCHECK® will display a list of possible applications that could have created the image. Select the desired application and click the “Launch” button to activate it. If you would also like to have the application open the image, check the “Launch image” box just prior to clicking OK.

Find Image

If the image is missing you can attempt to locate it by clicking the Find Image button. At this time you may also elect to automatically update other images that reside in the same location as the newly found image.



FLIGHTCHECK® VIEWS

FLIGHTCHECK® allows you to view the data lists on the main window several different ways. This is offered to you via the **Views** palette which can be activated by selecting “Show Views Palette” from the Views menu, or by pressing command-H:



The Views palette allows you to pick and choose how you would like to view the lists of colors, fonts and images. By clicking on the desired “problem” buttons, you can selectively obtain lists of the offending elements.

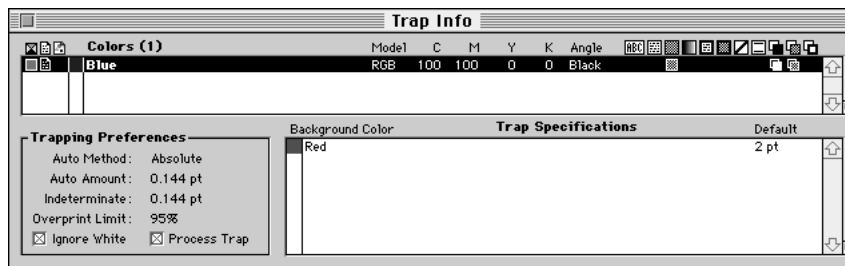
For example, to instantly see which fonts are currently active in your system, click the “Active Fonts” button within the Fonts area of the palette. The main screen will then redisplay the fonts list showing only those fonts which are active.

You can use the “Problems” buttons at the bottom of each area to get the entire lists of the problem elements.

TRAP INFO WINDOW

Trapping is a printing term used to describe the solution to a specific printing problem. This occurs when two or more colored objects overlap and cause misregistration due to the physical problem of lining up of separate plates, not to mention the ink absorption rate of the type of paper used. The solution is to expand or shrink a particular object (also known as “spreading” or “choking”) to compensate for the physical inaccuracies.

To view the default trapping values of the document’s colors select “Show Trap Info” from the Views menu, or press command-T:



The Trap Info dialog (shown above for QuarkXPress) will display a list of those colors which have trapping values defined. Click to select a color and the trap specifications for its defined background colors will be listed.

STYLE SHEETS AND H&JS

The document's Style Sheets and H&Js can be viewed by selecting "Show Styles/H&Js..." from the Views menu. This will display a dialog showing the lists of Style Sheets as well as a list of H&Js. At this time you may double-click any item on either list to view more detail.

UNUSED STYLE SHEETS

Style Sheets marked with an "*" asterisk will signify they are not being used in the document and will be displayed in red if they reference a font which is missing. This is important to know because an unused Style Sheet should not really be considered an "error" simply because it will not affect printing. On the other hand, if you were to open such a document, its application would be forced to alert you that the font is missing. In this case, you might want to return to the application and delete the unused Style Sheets. Or, if you want to collect the entire job, or intend on editing the job at a later date, then you will need to locate and include the missing font for that Style Sheet.

Note that the Views menu item "Show Styles/H&Js..." will conveniently show a red "*" asterisk mark if any unused Style Sheet references a font which is not currently active.

TYPOGRAPHIC PREFERENCES

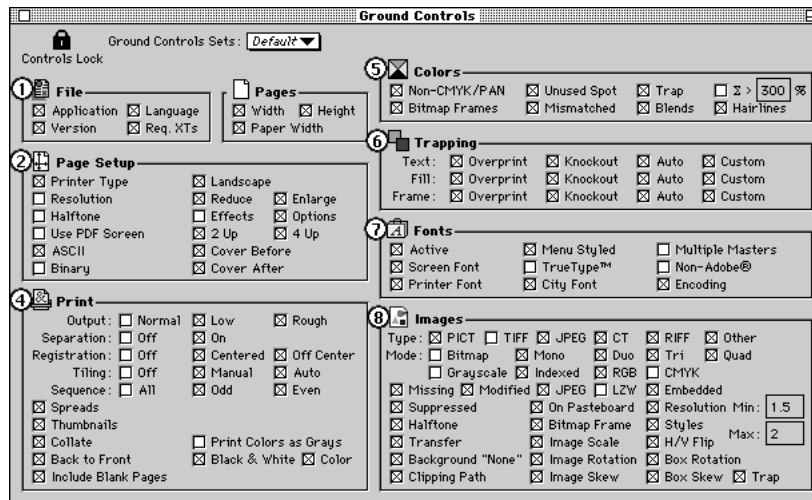
To view the Typographic preferences for a QuarkXPress document, select "Show Typographic Prefs..." from the Views menu. A dialog will appear and display the various parameters that have been applied to the document such as the values for Superscript, Subscript, Automatic Leading, and so on.



GROUND CONTROLS


The very heart of FLIGHTCHECK® is based upon a powerful feature called the “**Ground Controls**” which are basically custom preferences that you can define that instruct FLIGHTCHECK® to check specific items and essentially dictate which violations you would like to be deemed as “errors”.

Select “Ground Controls” from the FLIGHTCHECK® menu, or press command-G, and the Ground Controls window will appear:



Click the zoom box at the upper right to display the right half only.

Controls Lock

At the upper left corner is the Controls Lock: . When the lock icon is displayed, it means you cannot change any of the settings. To unlock or relock the Controls, simply click on the icon.

Ground Controls Sets

You can create your own customized sets of Ground Controls by selecting “New Set...” from the popup menu and entering a name:



To activate a particular set simply select it from the menu.

To undo any changes you have made to the current set, simply reselect the set from the menu.

The Ground Controls sets are saved within the FLIGHTCHECK® Preferences file and this file can be deleted at any time prior to running FLIGHTCHECK® and a new Preferences file will be automatically created.



Rename Set

Select this item in order to change the name of the current Ground Controls set.

Delete Set

Select this item in order to remove the current set. If you are deleting the “Default” set, FLIGHTCHECK® will revert to its standard default settings.

Load Ground Controls

Select this item to locate and load a previously saved Ground Controls file.

Save Ground Controls as

Select this item to save the current group of Ground Controls sets to a file which can then be reloaded at any time in the future, or sent along with the job to the Print Shop so they too can use the same Ground Controls settings that you used when first checking your document.

Ground Controls Password

Select this item to set or change the password for the currently loaded group of Ground Controls sets. One purpose for using a password is so that you can lock your Ground Controls thereby preventing anyone else from changing your settings. In this case, whenever someone else tries to rename or delete a set, or attempts to unlock the set, he or she will be asked to enter the password in order to continue. Note that a single password will always apply to each and every set of the Ground Controls and not just the one that is currently selected.

Enter your password (up to 8 characters) and click on the “Set Password button”. You will be asked to retype your password in order to verify it. To change an existing password, you will first need to enter the correct password before clicking the Set Password button.

Printing Ground Controls

Simply select “Print Ground Controls...” from the FLIGHTCHECK® menu.



GROUND CONTROLS ITEMS

The Ground Controls consists of 8 categories that serve as the rules for how FLIGHTCHECK® should conduct its examination of your document and what exactly constitutes an “error”. You can pick and choose exactly which items you would like FLIGHTCHECK® to report regarding any conflicts it detects, thus allowing you to expand your document checking possibilities as you desire.

Selecting a Control

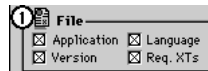
An unchecked box means you want FLIGHTCHECK® to ignore this item.

A checked box means you want FLIGHTCHECK® to use this item during its investigations.

A black framed unchecked box means the item was found to be used by the document and could therefore be a possible item you might want FLIGHTCHECK® to eventually verify. Simply check the box to do so.

A red framed checked box will signify FLIGHTCHECK® has determined this item has some sort of problem. Needless to say, if you were to uncheck this box, FLIGHTCHECK® will no longer assume the item is causing an “error”.

(1) FILE



The File area offers you a way to ensure that the versions of your application and document do not conflict:

Application

Check this box to ask FLIGHTCHECK® to alert you when the source location of the document’s application cannot be found.

Version

Check this box to ask FLIGHTCHECK® to compare the version of the document to the selected application’s version (ignoring the second digit minor revision) and to alert you when there is a difference.

Language

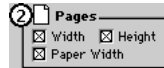
Check this box to ask FLIGHTCHECK® to alert you when the language or country of the document does not match that of the selected application. A foreign document usually was created with differing hyphenation rules and consequently the text may be reflowed.



Required XTs

Check this box to be alerted when the document was created with a QuarkXPress XTension that may required to be active when you later open the document for printing.

(2) PAGES



The Pages area allows you to ensure that the document's page size is printable according to the paper boundaries defined in the document's print record:

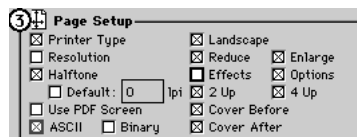
Width/Height

Check either box to ask FLIGHTCHECK® to alert you when the page dimensions are not within the printable area of the chosen printer type (PDF or PPD). Note that the actual output dimensions can sometimes be overridden or adjusted at the RIP (in which case you may want to either ignore the alert FLIGHTCHECK® may give, or simply uncheck these boxes).

Paper Width

Check this box to be alerted when the paper width (a user-defined value specified in an application's Page Setup dialog) is greater than the print record's page width.

(3) PAGE SETUP



The Page Setup area offers you a way to ensure that your document's Page Setup parameters are desirable:

Printer Type

Check this box to ask FLIGHTCHECK® to alert you when the PDF or PPD file that defines the printer type for the document cannot be located or has been found to contain some sort of problem.

Resolution

Check this box to ask FLIGHTCHECK® to alert you when the output resolution cannot be determined.



Halftone

Check this box to ask FLIGHTCHECK® to alert you when the halftone line screen setting for printing the document cannot be determined.

Default Halftone

You can select this checkbox and enter a custom “overriding” Halftone Screen value for FLIGHTCHECK® to use when examining image effective resolutions. In other words, you can enter a different value in order to obtain “test” results and to tell if the new value would be acceptable with respect to the document’s images. Keep in mind that by doing so FLIGHTCHECK® will then be forced to alert you that the Halftone Screen value as contained in the document does not now match the new custom value. Note that entering a value of “zero” will default to the document’s original Halftone Screen value. (See also the Ground Controls function “Effective Resolution”).

Use PDF Screen

For QuarkXPress documents, check this box to ask FLIGHTCHECK® to alert you when the document has been set to use the line screen values obtained from its designated PDF.

ASCII/Binary

Check the desired box to ask FLIGHTCHECK® to alert you when the output data format has been set for either ASCII or for Binary. Some printing devices are not capable of printing binary data and in this case the ASCII box should be selected.

Landscape

Check this box to ask FLIGHTCHECK® to alert you when the orientation for printing has been set for Landscape (sideways).

Reduce/Enlarge

Check the desired box to ask FLIGHTCHECK® to alert you when a printing scale factor of Enlargement or Reduction has been set. This function becomes quite useful if you often “print to fit” a large page size onto Letter Size paper (for a quick in-house LaserWriter proof), but then forget to change the setting back to a 100% scale for final printing to an imagesetter.

Effects

Check this box to ask FLIGHTCHECK® to alert you when any Printer Effect has been chosen including Font Substitution, Text Smoothing, Graphics Smoothing or Faster Bitmap Printing. It is commonly advised that one should always avoid these special printing Effects.

Options

Check this box to ask FLIGHTCHECK® to alert you when any additional Printer Option has been chosen. This includes Flip Horizontal or Vertical, Invert Image, Precision Bitmap Alignment (4% reduction), Larger Print Area and Unlimited Downloadable Fonts. Again, it is widely agreed that all of the special printing Options should be avoided.



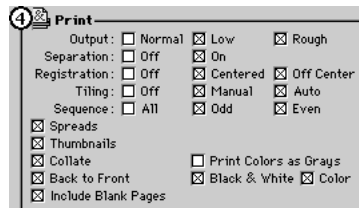
2 Up/4 Up

Check this box to be alerted when 2 Up or 4 Up has been set.

Cover Before/Cover After

Check this box to ask FLIGHTCHECK® to alert you when either a Cover Page Before or a Cover Page After has been selected.

(4) PRINT



The Print area offers you additional ways to ensure that your document's Print parameters are desirable:

Output

Check the desired box or boxes to ask FLIGHTCHECK® to alert you when an item has been selected. For example, if you desire the Output to always be Normal, then check both the Low and Rough output boxes.

Separation

Check either box to be alerted when Separations have been set or not. All too often one might turn off separations when printing a quick grayscale in-house LaserWriter proof, but forget to turn Separations On when going for a final print.

Registration

Check the desired box or boxes to ask FLIGHTCHECK® to alert you when an item has been selected. For example, if you intend to print registration marks then you will want to only check the Off box and leave the other two boxes unchecked. If you aren't going to print registration marks then you should check both Center and Off Center.

Tiling

Check the desired box or boxes to ask FLIGHTCHECK® to alert you when an item has been selected. For example, if you do not intend to print Tiling, then you should check both Manual and Auto. There are times where one might print a document with a very wide page size by tiling on a LaserWriter, but then forget to turn this off when sending the document for a final print to an imagesetter capable of handling the larger size.



Sequence

Check the desired box or boxes to be alerted when an item has been selected. For example, if you intend to print All pages of the document then you should check both Odd and Even.

Spreads

Check this box to be alerted when Spreads has been set. If you intend to print spreads during final output, but have turned them off in order to print each page individually on a LaserWriter, then you can check this box to instruct FLIGHTCHECK® to catch this for you.

Thumbnails

Check this box to be alerted when Thumbnails has been set. For example, if you have printed the document using thumbnails, select this checkbox to prevent the document from going out for final printing in this state.

Collate

Check this box to be alerted when Collate has been set.

Back to Front

Check this box to be alerted when Back to Front has been set.

Include Blank Pages

Check this box to be alerted when Include Blank Pages has been set. There are times where you might turn this off in your application while printing “test runs” in order to save paper, but should you be printing a “book” (in other words you will be printing on both sides of each sheet of paper), then you will want to check this box in order to prevent the unwanted state.

Print Colors as Grays

Check this box to be alerted when Print Colors as Grays has been set. If you have chosen to print colors as gray to obtain a quick proof from a grayscale device such as a LaserWriter, you will want to check this box, and especially if you really intend the final output to be in color.

Black & White

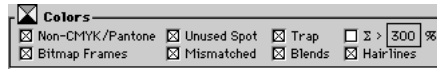
Check this box to be alerted when Black & White printing has been set. Again, if your final output is going to be in color you will always want to keep this box checked.

Color

Check this box to be alerted when Color printing has been set.



(5) COLORS



The Colors area offers you additional ways to ensure that the colors used in your documents and its placed images are desirable:

Non-CMYK/Pantone

Check this box to ask FLIGHTCHECK® to alert you when the color model for any color is neither CMYK nor a Pantone. In other words, you will probably want to avoid colors which have been defined using some other model, such as RGB, or colors which do not have corresponding inks available.

During color printing, RGB colors are converted by the output device to CMYK. Converting RGB to CMY is relatively easy. CMY colors are called “subtractive primaries” so that if the color was defined as 20% Red, 30% Green and 40% Blue, the CMY conversion would result in using 80% Cyan, 70% Magenta and 60% Yellow. However, it is not always known how the device will calculate the Black (“K”) channel. A crude calculation could be to reduce the amounts of CMY in order to obtain the Black by simply taking the smallest value and subtracting this number from each. This formula would result in using 20% Cyan, 10% Magenta, 0% Yellow and 60% Black. The problem is this formula will not always work across the boards for varying CMY values as it could result in lighter or darker colors than what is expected. For this reason, colors defined using an RGB model should be avoided. Furthermore, images which are defined as RGB should likewise be avoided, and for two reasons: 1) There is no telling what the quality will be of the final color output when the Black is created and 2) an image defined as CMYK can be separated a lot faster than an RGB.

To drive this point home even further, you can think of Pantone colors as being simply an “agreement”. There are published lists of Pantone colors and their respective CMYK values meaning if you select a Pantone color to draw objects on your computer screen, then when it comes time to print the document the print shop can purchase the correct bucket of ink right off the shelf and you will be guaranteed to achieve the output you expect. Therefore, with all of this in mind, it is advised to check the Non-CMYK/Pantone checkbox.

Unused Colors

Check this box to be alerted when there are unused spot colors referenced in the document. This is important to know, otherwise you could end up overestimating the cost of the job, or worse yet printing extra unwanted plates.



Trap

Check this box to ask FLIGHTCHECK® to alert you when any color has a user-defined default trapping value. Most Service Bureaus will strongly recommend that one should avoid setting any custom trapping values, as they instead would rather maintain control by being allowed to do this themselves.

Sum Greater Than nnn%

Check this box to be alerted for the special condition when the sum of the CMYK color values exceeds the entered percentage value. For example, if you created a color defined as 100% Cyan, 100% Magenta, 100% Yellow and 100% Black, then the total sum would be 400% and printing this color would undoubtedly result in a muddy brown due to the excessive amount of inks required, whereas it would be far better to create the color simply defined as 100% Black with the CMY values all 0%. Note that FLIGHTCHECK® will ignore the colors named “Black” and “Registration” for this function.

Bitmap Frames

Check this box to be alerted when any box is using a custom Bitmap Frame or Border. Bitmap frames and borders usually print at low quality and should instead be created using actual postscript commands or by using an EPSF image.

Mismatched

Check this box to be alerted when the CMYK values of a color referenced in an EPSF image do not match the CMYK values of a similarly named color specified within the document’s color palette. Such a condition might cause an unwanted printout which is quite noticeable to the eye, especially if you are using the color in question for a fill or frame for an object on the page situated nearby the placed image. In some cases, when printing additional spot plates, despite using the same ink for the object and image, the variance in shades could be obviously distinguishable. Note that if FLIGHTCHECK® has detected a mismatch between two colors of the same name, it will display the offending CMYK color value in red on the Colors list of the main window.

Blends/Gradients

Check either box to ask FLIGHTCHECK® to alert you when any color is being used in a blend or a gradient. FLIGHTCHECK® usually considers a blend or gradient, and sometimes patterns, to be an “error”, especially when the colors change from one spot color to another, or from one color model to another. It may also be of interest to point out at this time that when the color changes of blend is calculated through a spatial distance, “banding” may occur due to the fact that the decimal precision of a particular color value may not be high enough, and a noticeable “step” will occur in the printout due to the round-off problem. For this reason, some professionals would instead prefer converting blends into high-resolution dithered images (called “vignettes”), thereby eliminating “banding” and increasing the quality of the printout.

Hairlines

Check this box to be alerted when hairlines (frames, lines and paragraph rules) are being used in the document. FLIGHTCHECK® defines a hairline as a linewidth less than .25 of one point. A hairline is usually defined by an application to have a zero linewidth which is the smallest size “dot” the output device can possibly make. For example, a 300 dpi LaserWriter can print a dot 1/300th of an inch in size, but printing a hairline on a 1200 dpi printer could easily result in a line so incredibly thin that it will appear to be “broken”. Therefore, hairlines should always be avoided if you intend the document to be printed by a high resolution output device.

(6) TRAPPING



The Trapping area offers you a way to ensure that your document’s trapping values are desirable:

Text

Check any of the Text trapping boxes to ask FLIGHTCHECK® to alert you when the document has been set for trapping text characters.

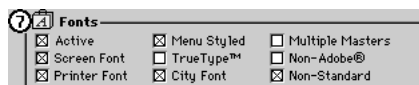
Fill

Check any of the Fill trapping boxes to ask FLIGHTCHECK® to alert you when an object on the document page has been set for background trapping.

Frame

Check any of the Frame trapping boxes to ask FLIGHTCHECK® to alert you when an object’s frame or border has been set for trapping.

(7) FONTS



The Fonts area offers you a way to ensure that the fonts used in your document are desirable:

Active

Check this box to ask FLIGHTCHECK® to alert you when any font the document is using is not currently active in your System.

Screen Font

Check this box to be alerted when any Screen Font the document is using cannot be located, meaning the font is neither active in the System nor can FLIGHTCHECK® find the named font in the Fonts Database.



Printer Font

Check this box to ask FLIGHTCHECK® to alert you when any Printer Font file cannot be located. A missing printer font file will always force the printer to substitute the font with some default font (usually *Courier*). Note that not all fonts require a companion printer font file and some fonts (such as TrueType®) have built-in printer instructions on how to draw the characters.

Menu Styled

Check this box to ask FLIGHTCHECK® to alert you when any font has been stylized via the application's Style menu and the font contains no equivalent built-in style. This problem exists rather frequently. For example, if you select some text and choose "Bold" from the Style menu, but the font itself is incapable of printing in boldface, then the printer will attempt to calculate a way to reproduce the type as best it can. A crude method would be to "double-strike" the character which means the character is first printed, then printed again ever so slightly offset from the original position, giving the illusion of "bold". However, in most cases the printer will outright fail to provide any type of support for bold, and you will instead most likely end up with plain text.

If the font is capable of printing the style in question, as evidenced by the proper printer font file being available, then you should always remember that should a font by nature already be, for example, a boldface type, and if you also select "Bold" from the Style menu, the printer will NOT "double-bold" the characters, but instead will use the natural built-in bold typeface of the font. For this reason, it is also always advised to use true screen-rendering software such as ATM which will prevent an application from drawing a "double-bold" on the screen, but this is not necessarily what you would get when you print. Keep in mind that FLIGHTCHECK® will ignore text that has been "menu-styled" if the appropriate postscript font can be located and upon satisfying this criteria, FLIGHTCHECK® will not post an error.

TrueType®

Check this box to ask FLIGHTCHECK® to alert you when any font is of the type TrueType®. Some output devices are incapable of handling TrueType® fonts, and furthermore it is a generally accepted fact that mixing fonts on a page (using Type 1 and TrueType®) can cause some unexpected output problems.

City Font

Check this box to ask FLIGHTCHECK® to alert you when any font has a name that is associated with a city, such as Chicago, Geneva, Monaco, etc. The reason for this is that most "city" fonts are simply bitmap fonts and always print at a fairly low quality, thus they should be avoided.

Multiple Masters

Check this box to ask FLIGHTCHECK® to alert you when any font is of



the type Multiple Masters. One possible reason for wanting to check this box is that Multiple Masters technology allows for fonts to be “created on the fly”, especially if they are missing. In this case, when it is time to print, there may not be any guarantee that the exact same font that was used to create the document at home or in the office will be used at the print shop.

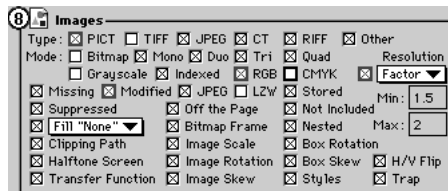
Non-Adobe®

Check this box to be alerted when any font is not an official Adobe font. With all due respect for other font manufacturers, many of whom create very high quality and fine-looking fonts, it is sometimes decided by certain designers to commit to all Adobe fonts to ensure output compatibility. It is a known fact that mixing different types of fonts on a page can lead to unwanted output problems. These kinds of issues can be avoided if a policy is set for the workflow that a document should always be created using only known versions of Adobe fonts (or for that matter, any one manufacturer's fonts) which per the licensing agreement the Service Bureau will likewise own and therefore the expected output will be predictably safe.

Non-Standard

Check this box to ask FLIGHTCHECK® to alert you when any font uses a Non-Standard Encoding. Not all printing devices are capable of printing all characters in a set and therefore certain characters may need to be “remapped”. This is normally based upon a standard encoding scheme, which could vary on different platforms, but this checkbox can be used to point out possible output conflicts.

(8) IMAGES



The Images area offers you a way to ensure that the images placed in your document are desirable and can be acceptably printed:

Type

Check the desired picture type boxes to ask FLIGHTCHECK® to alert you when any image is of that type. For example, if you do not want any JPEG compressed images to be used (and especially if your output device cannot support JPEG images), then you should check the JPEG box. The item “Other” represents any other image type which is not listed.

Mode

Check the desired picture mode boxes to ask FLIGHTCHECK® to alert you when any image is of that mode. For example, if you do not want any RGB images, then you should check the RGB box. (Please see the previous section regarding Ground Controls Colors and Non-CMYK/Pantone for more information about using RGB models).

Missing

Check this box to ask FLIGHTCHECK® to alert you when any image file is missing. This obvious problem often results in the application sending the low-resolution preview of the image to the printer if the original source file containing the high-resolution data cannot be located.

Modified

Check this box to ask FLIGHTCHECK® to alert you when any image file's last modified date does not match the date of the link data saved within the document. If the image on disk does not match the same modified date as the one recorded inside the document, there is a chance that the image is not the same one and possibly will not print as one would hope. For example, if the original image contained white areas and you set the application to create an automatic text runaround on the boundaries of the non-white area, it is possible that the new image could have different non-white areas and so the text might naturally flow differently than with the original image, in which case you wouldn't want to blindly open the document and print without first updating the links to the current images.

JPEG/LZW

Check these boxes if you want to be alerted if any image has been compressed as JPEG or LZW. While most output devices can support LZW compression, some cannot support JPEG.

Suppressed

Check this box to be alerted when any image or picture box has been suppressed from printing. If you think about it, any object that will not be printed can be completely ignored if it also contains other problems, such as an unwanted RGB image or a text box containing characters referencing a missing font, unless of course you actually meant to have it printable, in which case FLIGHTCHECK® will bring you a sigh of relief when it discovers this fact.

Off the Page

Check this box to be alerted when any image is outside the printable area of the page, or is "on the pasteboard". While this by itself does not constitute a true preflight error, such an image can add needlessly to precious disk space, but more importantly it can affect the transmission time for sending files as well as adding time to print the job.



Stored

Check this box to ask FLIGHTCHECK® to alert you when an image is embedded within your document file. In the case of a PageMaker document or an EPSF image which contains an image, the embedded image clearly aids in guaranteeing the document can be printed, seeing how the image cannot possibly be considered “missing”. However, new problems could arise if for some reason the Service Bureau needs to edit the image, they may have a difficult time extracting the image out of the document file.

Not Included

Check this box in order to have FLIGHTCHECK® alert you when an EPSF file contains only a pathname reference to another image. For example, while inside an application such as Illustrator you can place an image and when saving the document as an EPSF you can elect to “not include” the placed image. This is ok for Illustrator, but if you then place the EPSF on a QuarkXPress document page, you need to realize that when printing the document the print device will not be able to find the “not included” image file because the device may have no concept of a file system capable of locating such an image. Therefore, for checking Illustrator files this would not be an error and you could leave this box unchecked, but for other applications you would most definitely want to keep this checkbox selected.

Nested

Check this box to ask FLIGHTCHECK® to alert you when an EPSF image contains another image. Similar to the “stored” function, this is not always considered a real problem, other than it is sometimes impossible to be able to extract and edit the embedded image, but the potential problems do in fact exist and are compounded by the fact that when an image within an image gets into multiple layers (called “plys”), processing time increases, and in extreme cases can cause the output device to bog down or run out of memory (similar to problems encountered when “grouping” too many objects).

Effective Resolution

Check this box to be alerted when the effective resolution for any image is not within the specified range (as entered into the Minimum and Maximum edit boxes). This is a very critical and extremely important function of FLIGHTCHECK®. Once FLIGHTCHECK® scans an image, it then compares the image resolution to the output line screen and will post an error if the image resolution is not compatible. (Please see the previous “Default Halftone” under the Page Setup section of Ground Controls). It is commonly accepted that the image dpi (dots per inch) should be between 1.5 to 2.0 times the line screen in order for the output to be acceptable. Lower resolutions cause an undesirable printout due to the fact that a lesser amount of pixel data will need to be “stretched” into a larger spatial area. Higher resolutions do not gain in quality, but in fact may lower the output quality as some of the pixel data will be literally discarded in order to fit the higher quantity of image data into a lesser spa-



tial area on the page. Therefore, you can instruct FLIGHTCHECK® to warn you when an image resolution does not quite fall into the allowable range.

For example, if the halftone screen is 150 lpi and you enter a maximum effective resolution value of 2.0, then any image which has a dpi greater than 300 (in other words 2.0 times 150) would be an “error”. Keep in mind that the effective resolution calculation will always take into account any scaling that has been applied to the image within the application.

Note that FLIGHTCHECK® currently ignores 1-Bit images from this function.

Factor/DPI

The Factor/DPI pop-up menu allows you to choose between specifying the effective resolution range in terms of a factor, such as 1.5 to 2.0, or an actual DPI. For example, if the line screen is 150 lpi, and you still want the range to be 1.5 to 2.0, you can enter DPI values of 225 to 300 (1.5 times 150 and 2.0 times 150) into the Minimum and Maximum edit boxes to achieve the same effect as you would by selecting Factor.

Fill “None” Pop-up Menu

You can use the Fill “None” pop-up menu to select which specific images you want checked by FLIGHTCHECK® that reside in picture boxes containing a background fill of the special transparent color “None”. Note that you can conveniently select either “All Images” or “No Images” for either EPS (pixel-based EPSF images) or TIFF image types. (Please see the previous section “Image Attributes Icons” under FlightChecking Images for a discussion of the color “None”).

Clipping Path

Check this box to be alerted when any pixel-based image resides in a picture box having a background set to “None” and therefore may require a clipping path to achieve optimum output. Needless to say, vector-based EPSF images will always be excluded from this determination.

Halftone Screen/Transfer Function

Check these boxes to be alerted when any image contains either a Halftone Screen or a Transfer Function. The reason why you would want to know about these special functions is because these built-in routines are essentially postscript commands that will alter the pixel data as it is being sent to the printer, with the end result possibly being a printout you do not expect.

Bitmap Frame

Check this box to ask FLIGHTCHECK® to alert you when any image resides in a picture box which has a custom Bitmap Frame or Border. Most custom bitmaps print at an unacceptably low quality.



Image Scale/Rotation/Skew

Check any of these boxes if you want to be alerted when any image has been scaled, rotated or skewed. Scaling is by far the more serious picture attribute to contend with. Rotation and skew can alter the way an image “looks”, and the only real drawback is added processing time, but scaling becomes an extremely critical factor in determining the output quality of an image. A too low or too high resolution could, of course, be scaled up or down to force it to be within the acceptable effective resolution range when compared to the output line screen, but these raw numbers alone may not prevent an undesirable printout. It is therefore far better to return the image back to the application which created it and change its resolution or to modify the image in such a way so that it can be placed on the document page at 100% scale with no further rotation or skew applied.

Box Rotation/Skew

Check these boxes to be alerted when a picture box has been rotated or skewed. Again, altering a picture box can indeed distort its contents to an unwanted degree, not to mention adding processing time, so it is advisable to avoid rotating or skewing a box and to instead correctly edit the source image to achieve the same effect.

Image Styles

Check this box to be alerted when any image has had a Style or Contrast applied to it. Sometimes when a 1-Bit image which has been “colorized”, or has had some sort of contrast applied, is sent to certain printers, the color information might be ignored or possibly even discarded, especially if OPI (hi-res image substitution) is employed. In this case, it is better to return to the application which created the image and to apply the desired color to the source image.

H/V Flip

Check this box to be alerted when the contents of a picture box has been flipped horizontally or vertically. Flipping by itself may not constitute a real error, other than adding processing time, unless of course the box has its contents flipped by mistake, in which you will be happy to have FLIGHTCHECK® point this out.

Picture Trap

Check this box to be alerted when a picture trap has been set.

FLIGHTCHECK® RESULTS

The results of flightchecking your document can be obtained by selecting “FLIGHTCHECK® Document” from the FLIGHTCHECK® menu, or by pressing command-F. If you have checked the menu item “Display Results of FLIGHTCHECK®”, then FLIGHTCHECK® will post the results in a special window each time you perform either an explicit FLIGHTCHECK® or change a Ground Control, or when you switch to the Finder and return. In the latter case, FLIGHTCHECK® may detect a change to a font or image file (for example, you may have activated fonts via Suitcase® or Master Juggler®, or you may have mounted a volume containing missing images) and so it will automatically reexamine the data.

When a FLIGHTCHECK® has been performed, the results dialog will appear:



The top of the FLIGHTCHECK® results dialog will show a green checkmark by the categories that appear to be ok and will show a red “X” for items which did not pass the tests. The examination, verification and these final attestations, of course, are based upon the current Ground Controls settings.

Problems

On the bottom left side of the window will be a list of problem items. Clicking on an arrow icon will open that item and reveal more detailed information about the error. Click the “Show All Specific Items” to open all entries.

Possible Remedies

To the right of each item on the list a possible remedy will be given for the error. In the above example you can observe that at least one font has been determined to be missing. In this case, the recommended solution to this problem is given: simply install the missing font.

Print/Save Results

The Print button allows you to print a copy of the FLIGHTCHECK® results, while the Save button allows you to save the results to a text file.

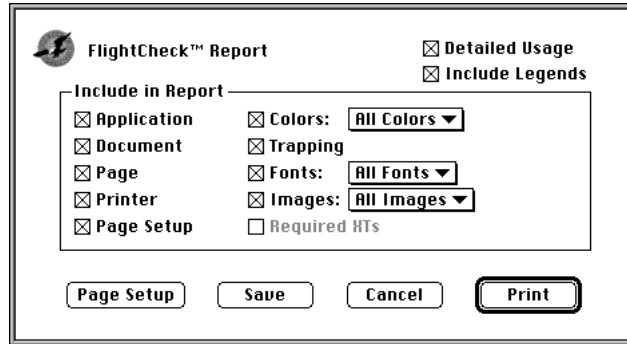
Sound Alert

Select the Sound Alert item under the FLIGHTCHECK® menu to turn the FLIGHTCHECK® results “eagle cry” warning sound on or off.



PRINT/SAVE FLIGHTCHECK® REPORT

After a document has been scanned you can select “Print Report...” from the File menu and the FLIGHTCHECK® Report dialog will appear:



You can select which elements you would like to include in your report by checking the appropriate boxes.

For colors, fonts and images you can also select which particular “View” you would like to use for the report.

Detailed Usage

Check the Detailed Usage box to print or save the attribute icons for colors and images.

Include Legends

Check the Include Legends box to include in the printout the attribute icons legends for colors and images.

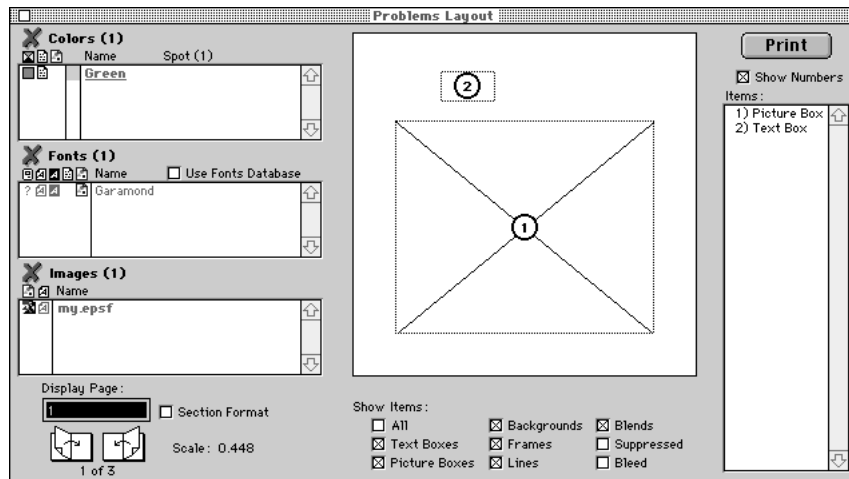
Save Report

Click the Save button to write the report to a text file. This file can then be opened and viewed by various word processors or spread sheets (although you will probably need to manually adjust the various tab settings or columns).



SHOW PROBLEMS LAYOUT

FLIGHTCHECK® offers a powerful feature whereby you can view the layout of the document's pages in order to discover the locations of offending objects. Select "Show Problems Layout..." from the Views menu, or type command-L:



The list of problem colors, fonts and images for the selected page will appear on the left side of the window. At the bottom left you can either enter a specific page number to view, or you can click the "page" icons to thumb through the document. Checking the "Section Format" box enables you to enter page numbers based on their format.

Show Items

In the center of the window will be a miniature display of the offending objects on the chosen page and will depend on which Show Items have been selected at the bottom of the window. Note that you can accumulatively check multiple boxes, or you can check a single box and disable all other items by holding down the command key when clicking the item.

Items

The Items box on the right side of the window will display a list of the problem boxes. Clicking an item will highlight the respective object. Double-clicking an item will bring up a window that will display more information about the box and its specific problems. Note that you can also click an image name on the Images list over on the left side of the window to highlight its object, or you can simply double-click the image name to display the box info.

Print Layout

Click the Print button to print out the diagram and/or a listing of the page's problems. This printout can then be used as a reference when you return the document to its application to correct the problems.



CUSTOM FORMS

FLIGHTCHECK® offers you a valuable feature of allowing you to create custom forms. Many Service Bureaus require a form to be filled out that describes the job and FLIGHTCHECK® makes doing this work a lot easier for you. To create a custom form select “New Form...” from the Forms menu, or press command-N, and a Form window will appear. (Note that you can bring the Form window in front of all other windows by pressing command-R).

Form Template

After your Form is complete and you select “Save Form...” from the File menu, you can check the Template box and the Form will be saved as a Template (all fields will be cleared when later opening this Form).


Place EPSF


FLIGHTCHECK® allows you to place a preview of an existing EPSF image on the window thereby allowing you to set your typing fields in the appropriate positions. Select “Place EPSF...” from the Forms menu, or type command-E, and locate the desired file. Note that you can move a placed EPSF by holding down the option and command keys, then clicking on and dragging the picture to the desired location. Select “Undo Move” from the Edit menu if you change your mind.


When printing a form, you will be offered a checkbox where you can elect to omit the placed EPSF from printing which will allow you to use your preprinted forms.


Tools Palette

The Tools palette offers you several items you can use to edit your Form:

 The arrow tool can be used to select specific fields. You can hold down the shift key to select multiple fields, or click and drag the arrow cursor to surround a group of fields to select them. Once a field has become selected, as evidenced by it being highlighted on the screen, you can then perform various operations on the field, such as Cut, Align, and so forth.

 The ASCII or text tool can be used to create new editing fields. You click and drag to create a new field, its height depending on the currently selected font and point size.

 The variable field tool can also be used to create new editing fields. You click and drag to make a new field of any size. Note that you can obtain this tool at any time by holding down the option key.

 The hand tool can be used to move fields.

Creating a New Field

Select either the ASCII or variable field tool, then simply click and drag to size the new field.



Resizing a Field

Select either the ASCII or variable field tool and when the cursor hovers over the bottom right corner of the rectangle, click and drag the corner to resize the field.

Deleting a Field

Select the arrow tool, click on the desired field to highlight it, then either hit the delete key, or select “Cut” from the Edit menu. If you change your mind you can select “Undo Delete Field” or, in the case of a Cut, you should select “Paste” from the Edit menu.

Align Fields

Select the arrow tool, click on the desired field, or hold down the shift key to click and select multiple fields, or click and drag to surround and select a group of fields, then choose the desired Align type on the Forms menu. If you change your mind, you can select “Undo Align Fields” from the Edit menu.

Text Font, Point Size, Style and Alignment

Using the ASCII tool, select the text characters you wish to edit, then choose the desired parameters from the Forms menu to change the font, point size, style or text alignment. Note that if no field is active at the time, the text attributes selected will become the default parameters to be applied to newly created fields.

Insert List

Using the ASCII tool, click within the field in which you would like to insert a list, then choose the desired list item from the Insert List popup menu. The data for the selected list item will be inserted into the current field at the blinking cursor position using the current font and point size.

Checking the “Tab Delimited” menu item will cause the inserted data to be separated by tabs instead of carriage returns.

Custom Form Templates

When creating a custom form template you can use “Insert Field” to create a special “magic field” so that whenever you check a document, and then open the template form, the designated fields will be automatically updated. For example, if you create a field and select “Fonts” from the Insert Field pop-up menu and save the custom form as a template, then in the future when you check a document you can find and open your custom template form and the field will be automatically filled in for you with the list of the document’s fonts.

Insert Page, Move to Page and Remove Page

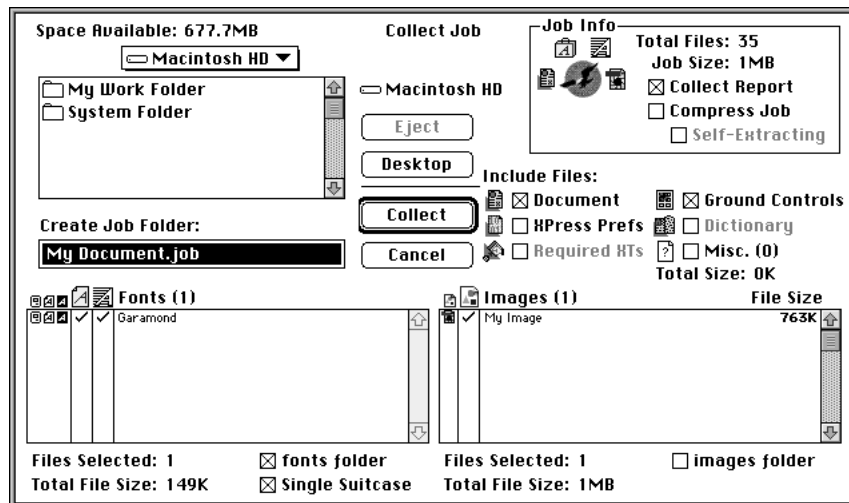
You can insert a page into your Form, move to a specific page, or remove the current page from the Form by selecting the appropriate item on the Forms menu.



COLLECT JOB

“Collecting” means to gather up all of the files related to a particular job, including the font files, images and the document file itself, and copying these files into a single job folder. If you plan on printing the document, then you will obviously need the fonts and images. But, if your goal is to create an exact duplicate copy of the job for archives purposes, or if you think you might edit the job some day in the future, then you will no doubt need to include every single file related to the job, including any Preferences files, XTensions, Libraries, Dictionaries, and so forth. In this case, even an unused Style Sheet which references a font not being used in any text, or an image which is positioned off the page (or on a Master Page), or has been suppressed from print-out, would also need to be included. In other words, certain fonts or image files may not actually be required or necessary to print the document, but these files would definitely need to be collected if you wanted to have a full and complete copy of the job.

Select “Collect Job...” from the Collect menu, or press command-J, and the Collect Job dialog will appear:



Collect Fonts

The fonts list at the bottom left side of the window will show the status of each font (which will be the same as the icons displayed on the main window). To set a font to be collected, click in the screen font column and a checkmark will denote the font has been chosen. To select the printer font file, click in the printer font column. To select or deselect all items, click on the icon column headers themselves.

Note that a red font name will indicate the font file is missing.




Fonts folder

If you wish to collect the fonts into a separate fonts folder, check the “fonts folder” box.

Single Suitcase

If you wish to merge all fonts into a single suitcase file, check the Single Suitcase box. The resulting suitcase file will be called “documentname.fonts”.

Collect Images

The images list at the bottom right side of the window will show the status of each image (which will be the same as the icons displayed on the main window). To set an image to be collected, click in the  image column and a checkmark will denote the image has been chosen. To select or deselect all items, click on the image icon column header itself.

Note that a red image name indicates the file is missing.

Images folder

If you wish to collect the images into a separate images folder, check the “images folder” box. However, you should be warned that when you later open the document within its application then the “links” to the images will have become broken, in which case you will need to “update” their locations.

Full Image Pathnames

Click on the Images column header “Name” in order to display the list of images using their full pathnames.

Selecting Images

As you know, you can select or deselect all fonts or images by simply clicking on their icon headers. However, if you hold down the mouse button on the image icon, you will be presented with a pop-up menu (similar to the new Fill “None” pop-up menu on the Ground Controls which will allow you to conveniently choose the specific types of images you would like to collect.

Collecting Ground Controls

Select the Ground Controls checkbox in order to include the current Ground Controls file with your job. Note that the resulting file will have its password removed, and each set will be conveniently locked (although needless to say, the sets can be easily un-locked). The reason for this is so that you can safely pass along your Ground Controls file to a print shop or Service Bureau without having to give them your secret password.

Include Files

You may want to include additional files related to your document by checking the desired items in the Include Files area of the Collect dialog: You should, of course, select at least the Document checkbox to include the actual document file in the collected job. For QuarkXPress documents, you may want to check the XPress Prefs, Required XTensions box (when enabled) and Dictionary boxes to include them in your collected job.

Misc. Files

Check the Misc. Files box in order to collect any additional files you would like to include. A dialog allowing you to locate and create a list of extra files will then be offered when the collection process begins.



Job Info

At the top right on the Collect dialog will be a display of the Job Info, including the total number of files selected and the estimated accumulated file size of the job (before compression) which you can then compare to the Space Available value over at the top left side of the dialog (a red value will indicate insufficient disk space).

Compress Job

Check the Compress Job and Self-Extracting boxes as desired in order to compress all of the files of the job into a single compacted file.

Creating a Job Folder

When all of the selections for your job have been made, type in a name for the job folder, locate the desired destination on your drive, then click the OK button, or hit the return key.

Collecting the Job

As the fonts, images and related files are being collected a dialog will appear to display the progress of the process. To abort the collection at any time press command-“.” period. (Note that this will not “undo” or erase any files which had already been collected during the process).

The resulting job folder will then display a special FLIGHTCHECK® “pass or fail” seal of approval icon. (Note: If you do not see the folder’s special job status icon, you may need to rebuild your desktop by rebooting and holding down the command and option keys).



Collect Report

Select “Collect Report...” from the Collect menu to create a text file output of the items that could be collected. This file will contain data very similar to the standard Collect for Output form created by QuarkXPress.

Include in Report		
<input checked="" type="checkbox"/> Document Header	<input checked="" type="checkbox"/> Color Plates	
<input checked="" type="checkbox"/> Document Fonts	<input checked="" type="checkbox"/> Trapping	
<input checked="" type="checkbox"/> Graphics	<input checked="" type="checkbox"/> Style Sheets	<input checked="" type="checkbox"/> Brief
<input checked="" type="checkbox"/> Colors	<input checked="" type="checkbox"/> H&Js	<input checked="" type="checkbox"/> Brief

You can choose to include in your report information regarding specific categories of elements by checking the desired boxes.

Compress/Decompress Job

Select either menu item from the Collect menu in order to compress or decompress an existing job.



FLIGHTSCRIPT®

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FLIGHTCHECK® provides several scripting functions which you can access via AppleScript®. While the subject of scripting itself is beyond the scope of this manual, the examples given below can be used to build your scripts:

Obtaining a List

Executing the following script will return a list of colors

```
tell application "FLIGHTCHECK®"  
    activate  
    get colorlist  
end tell
```

Getting the Current View

Executing the following script will return the current view for fonts:

```
tell application "FLIGHTCHECK®"  
    activate  
    get font view  
end tell
```

Getting the Number of Problems

Executing the following script will return the number of problem images (using the currently selected view):

```
tell application "FLIGHTCHECK®"  
    activate  
    get image problems  
end tell
```

Conditional Scripts

Executing the following conditional script will return a list of colors only if the current view is "Spot Colors", set the current font view to All Fonts only if there are font problems, and will return a list of images only if there are image problems:

```
tell application "FLIGHTCHECK®"  
    activate  
    if (get color view) = ("Spot Colors") then get color list  
    if (get font problems) > 0 then set font view to All Fonts  
    if (get image problems) > 0 then get image list  
end tell
```



SCRIPTING FUNCTIONS

The list of possible scripting commands are as follows:

<u>COMMAND</u>	<u>RESULT</u>
get color list	returns a list of colors
get font list	returns a list of fonts
get image list	returns a list of images
get color view	returns the view for colors
get font view	returns the view for fonts
get image view	returns the view for images
set color view to ____	sets the view for colors
Used Colors	
All Colors	
Spot Colors	
Process Colors	
Trapped Colors	
Unused Colors	
Mismatched Colors	
Problem Colors	
set font view to ____	sets the view for fonts
All Fonts	
Active Fonts	
Database Fonts	
Missing Fonts	
Problem Fonts	
set image view to ____	sets the view for images
All Images	
Missing Images	
Modified Images	
Unused Images	
Stored Images	
Bad Resolution	
RGB Images	
Compressed	
Fill "None"	
Stylized Images	
Bitmap Frames	
Problem Images	
get flightcheck results	returns the list of results



SCRIPTING A WORKFLOW

You can use the following list of AppleScript commands which you can send to FLIGHTCHECK® in order to create a workflow that can automatically check documents and obtain the results.

Note that lines beginning with “--” dashes are simply commented out. Simply remove the dashes at your discretion before running the script:

```
tell application "FLIGHTCHECK®"
  --activate

  --flightcheck "my drive:my folder:my document"

  --GET A FILE VIA AN OPEN DIALOG:
  --set theFile to choose file
  --flightcheck theFile

  --load "my drive:my folder:my ground controls file"
  --select set "my set"

  --do full flightcheck
  --get flightcheck results
  --get flightcheck time

  --print report
  --save report
  --save report "my report"
  --collect report
  --collect report "my report"
  --collect job
  --collect job "my job"

  --get document title
  --get application info
  --get file info
  --get page info
  --get page setup info
  --get printer info
  --get trap info

--quit application "FLIGHTCHECK®" saving no
end tell
```

