



# TIFF InteropAnalyzer

## TIFF Interoperability Test Tool

A revolutionary test tool designed to verify interoperability with TIFF files

Test with a full spectrum of real-world TIFF files

Installed Base Test Suite of over 3,200 files covers a wide diversity of TIFF file characteristics

Recommended Subset Test Suite provides thorough testing in the minimum amount of time

Current Release Test Suite covers the latest TIFF creation and editing software

Targeted Test Files exercise important key characteristics of TIFF that may not be addressed by commercial applications

Database of Key Characteristics for each TIFF file in the test suites

Powerful SQL Query Builder to identify specific Test Sets with the characteristics you choose

TIFF is a mature and widely adopted image file format. Typical usage for this format includes archiving, scanning, prepress, and faxing documents. Like Direct PDF printing, many printers and multi-function peripheral devices are beginning to implement Direct TIFF printing, making TIFF the obvious choice for QualityLogic's next InteropAnalyzer product.

Like QualityLogic's PDF InteropAnalyzer, the TIFF InteropAnalyzer has two distinct test suites. The **Installed Base Test Suite** is a statistical sampling of TIFF files from the Internet, representing the installed base of TIFF files your customers will most likely use with your products. The **Current Release Test Suite** consists of custom-developed test pages using the latest creation and editing software for TIFF. The combination of the Installed Base and Current Release Test Suites provide RIP developers a powerful tool to ensure the interoperability of their solutions.

### Installed Base Test Suite

This suite was created by sampling approximately 1,000 web sites that contain downloadable TIFF files. From these sites, we downloaded and analyzed 3,200 representative TIFF files using a parser developed by QualityLogic, which can identify approximately 300 Key Characteristics of the TIFF file.

A sampling of these characteristics is shown below.

BYTE_ORDER	HAS_GRAY_RESP_TAGS	ORIENTATION
DOCUMENT_NAME	HAS_HALFTONE_HINTS	STRIPS_PER_IMAGE
FILE_SIZE	PHOTOMETRIC	TILES_PER_IMAGE
FILL_ORDER	RESOLUTION_UNIT	
IMAGE_DESCRIPTION	SAMPLES_PER_PIXEL	HAS_ANY_ADOBE
MAKE	THRESHOLDING	HAS_CLIP_PATH
MODEL	XRESOLUTION	HAS_INDEXED
NEW_SUBFILE_TYPE	YRESOLUTION	HAS_OPI_PROXY
NO_OF_IFDS		HAS_JCC_PROFILE
NUMBER_OF_PAGES	COMPRESSION	HAS_IMAGE_ID
SOFTWARE	HAS_CLASS_Y_TAGS	HAS_PHOTOSHOP
SUB_FILE_TYPE	HAS_JPEG_FIELDS_TAGS	HAS_XCLIP_PATH_UNITS
	HAS_JPEG_TABLES	HAS_YCLIP_PATH_UNITS
	HAS_SAMPLE_FORMAT_TAGS	
BITS_PER_SAMPLE	HAS_SEPARATED_IMAGE_TAGS	HAS_FRAME_COUNT
BITS_PER_SAMPLE_UNIQUE	HAS_T4OPTIONS	
CELL_LENGTH	HAS_T6OPTIONS	HAS_JBIG_OPTIONS
CELL_WIDTH	HAS_XML_PACKET	
EXTRA_SAMPLES	PLANAR_CONFIGURATION	HAS_IMAGE_DEPTH
HAS_COLOR_MAP	PREDICTOR	HAS_TILE_DEPTH
HAS_COLOR_RESP_TAGS	IMAGE_LENGTH	HAS_S_TO_NITS
HAS_COLOR_RESP_TAGS	IMAGE_WIDTH	
HAS_COLORIMETRY_TAGS		

### Recommended Subset

A recommended subset of approximately 300 TIFF files is selected based upon their Key Characteristics. Links to these files are placed in a database, along with each TIFF file's Key Characteristics.

### Current Release Test Suite

Although TIFF is a mature file format, new releases of creation and editing software for TIFF create the potential for interoperability problems. Our approach to this testing requirement is to build a custom suite of TIFF test files based on newest releases of software/hardware tools that allow you to create or edit TIFF files. We refer to this type of test as the **Current Release Suite**.

# TIFF InteropAnalyzer

The Current Release Suite is created by identifying a small set of source documents and file formats from which the TIFF files will be created. These documents are transformed into TIFF files using a selection of TIFF creation tools using a variety of configuration settings. The resulting TIFF files are further modified using several TIFF editing tools. The files are analyzed using the QualityLogic TIFF Parser to validate the range of Key Characteristics in the test files created for this suite. The following creation methods are used:

- ▶ **Export/Save to TIFF** - The application has a menu option that allows the user to create an original image and then transform its internal representation of the document into a TIFF file. Adobe Photoshop and CorelDraw are good examples of embedded TIFF creators.
- ▶ **Printer Driver to TIFF** - A printer driver that transforms the operating system's device independent representation of the page into a TIFF file. Third party products like Informatic's Image Driver are typical of this type of solution, which translates GDI to TIFF.
- ▶ **Scan to TIFF** - Numerous scanners support the creation of TIFF files as native format for a scanned image.
- ▶ **File to TIFF** - There are countless utilities whose primary purpose is to transform one image type to another. A good example is Informatics TIFFMaker, which will transform simple text files to a TIFF image.

## Targeted Test Files

Some important TIFF Key Characteristics may not be exercised adequately by commercial applications. To the extent this is the case, we have created a set of Targeted Test Files that are mechanical in nature and exercise specific subsets of TIFF functionality.

## Query Builder

The TIFF InteropAnalyzer provides you with an SQL database containing the key characteristics for the Installed Base, Current Release, and Targeted Test File Test Suites. The Query Builder provides a non-programmatic way to query this database for files with specific characteristics.

You can create your own Test Sets with the click of a button. You just specify the characteristics you want the files to contain (or omit) and the Query builder will identify the specific files that meet that criteria. Once a Test Set is identified, you can do the following:

- ▶ Generate an analysis report
- ▶ Run a smallest set analysis
- ▶ Download any needed files from the Internet
- ▶ Copy the test files to a designated directory
- ▶ Generate a file list for batch or automation processes

## Deliverables

- ▶ Database and Test Files for Current Release Targeted Test Files Test Suite
- ▶ Database of statistics and URLs for Installed Base Test Suite
- ▶ Free Installed Base download service
- ▶ User's Guide
- ▶ Test Specification



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