

## MetaMorph® STK and TIFF file formats

### Abstract

Meta Imaging Series® applications use the TIFF format as their basic image storage type. These applications conform to the TIFF 6.0 standard, extended by approved tags that are for information specific to Meta Imaging Series® applications. Single plane images can be saved in either the MetaMorph® TIFF format (all versions of MetaMorph® software) or the Meta Imaging Series® TIFF format (used by MetaMorph® 7.5 software and later). For multi-plane file images, MetaMorph® software can save images into the Meta Imaging Series® TIFF format (used by MetaMorph® 7.5 software and later) or in a proprietary image format called the stack (STK) format (all versions of MetaMorph® software). The STK format is a modified TIFF 6.0 file that is designed to hold multiple planes and the header data for these planes.

### Overview

#### TIFF 6.0 Standard

The TIFF 6.0 Standard is maintained by Adobe Corporation. A link to a PDF file containing the TIFF 6.0 Standard can be found at:

<http://partners.adobe.com/public/developer/en/tiff/TIFF6.pdf>

The TIFF resources page can be found at:

<http://partners.adobe.com/public/developer/tiff/index.html>

We also recommend the book *Encyclopedia of Graphics File Formats* 2nd Edition from [O'Reilly and Associates](#). A thorough understanding of the TIFF 6.0 format is required before pursuing the extensions to this format that are specific to MetaMorph® software.

#### MetaMorph® TIFF and STK Formats

The following Microsoft Word document describes the extensions used by MetaMorph® software for saving both original MetaMorph® TIFF and STK files:

<ftp://ftp.meta.moleculardevices.com/support/stack/STK.doc>

#### Meta Imaging Series® TIFF Format

The following Microsoft Word document describes the extensions used by MetaMorph® software for saving in the new Meta Imaging Series® TIFF format, which is supported in MetaMorph® 7.5 software and later.

<ftp://ftp.meta.moleculardevices.com/support/stack/Meta Series TIFF Format.doc>

### Support

At the present time, MDS Analytical Technologies cannot devote any resources to assisting you in understanding or writing your own code for reading or writing MetaMorph® STK or TIFF files, or Meta Imaging Series® TIFF files. The documentation and samples herein are to be considered "as is".

#### Sample Data for MetaMorph® TIFF and STK formats

If you are writing your own code to read MetaMorph® STK or TIFF files, the following may be of some use. We have put together several sample images with known parameters, so that you can verify your file reading code. The following file describes the sample files:

<ftp://ftp.meta.moleculardevices.com/support/stack/readme.doc>

Below are links to the sample files:

<ftp://ftp.meta.moleculardevices.com/support/stack/10xcalib.stk>

<ftp://ftp.meta.moleculardevices.com/support/stack/bigstk.zip>

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**PRODUCTS**  
MetaMorph®  
MetaFluor®  
MetaVue™

**CREATED**  
10-Sep-2001

**LAST UPDATED**  
29-Apr-2009



<ftp://ftp.meta.moleculardevices.com/support/stack/calstk.zip>  
<ftp://ftp.meta.moleculardevices.com/support/stack/smstk.zip>

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