# Tiff Junction
## Reference Guide Version 1.10h

# CONTENTS

## 1    INTRODUCTION

Tiff Junction provides the ability to split and merge TIFF files (from single page to multi-page and vice versa), and to convert TIFF files to PDF (Portable Document Format).

The product may be used as command line tool (for manual use or inclusion in scripts) - in addition, a windows interface and WSH scripts are provided that enable interfaces via drag and drop and context menus and provide a basis for using the product from other environments such as ASP.

## 2    SYSTEM REQUIREMENTS AND SUPPORTED FILE FORMATS

### 2.1    System Requirements

- Windows NT 4.0, Windows 2000, Windows XP.
- To use the WSH Scripts WSH 5.6 or later is recommended.  This can be downloaded from http://msdn.microsoft.com/scripting if necessary.

### 2.2    Supported TIFF File Formats

- CCITT Group 3 (1-D), Group 3 (2-D)
- CCITT Group 4
- CCITT RLE
- JPEG (Type 6 Compression)
- Uncompressed (Bitonal)
- LZW compression is not supported due to Unisys licensing restrictions

## 3    INSTALLATION AND LICENSING

### 3.1    Installation
Once you have the source media, extract the installable executable from the supplied zip file.  The installation script will guide you through the process of setting up TIFF Junction.  As part of this process, when requested, enter the licence key that you have received by email.

### 3.2    Tiff Junction System Directories
Using the install wizard, the following subdirectories are created within this new root folder:

| Directory | Contents |
|---|---|
| tiffjunction \bin | Tiff Junction Command Line Executable (tiffjunction.exe) |
| | Tiff Junction GUI Exectuable (tj.exe) |
| | Licence Key File (key.txt) |
| tiffjunction \docs | Reference Guide, Licence file |
| tiffjunction\wsh | WSH Scripts for drag & drop,context menu and directory processing. |

### 3.3    Temporary Files
The product creates temporary files where necessary in converting from one TIFF format to another – sometimes necessary when generating PDFs to ensure that the TIFF format is compatible with that accepted by PDF.

These files (named TMP999.tif where 999 is the process ID) will be created in the current directory. They will be destroyed upon completion of the process.

**3.4    Licencing**

The sofware requires the user of a licence key file (key.txt in the aquatiff\bin directory).  The licence file is used to determine whether the software has an expiry date (for trial versions) and which version of the sofware has been licenced (all versions). Note that when the product is used with a temporary license key, it watermarks generated PDF documents with "www.aquaforest.com".
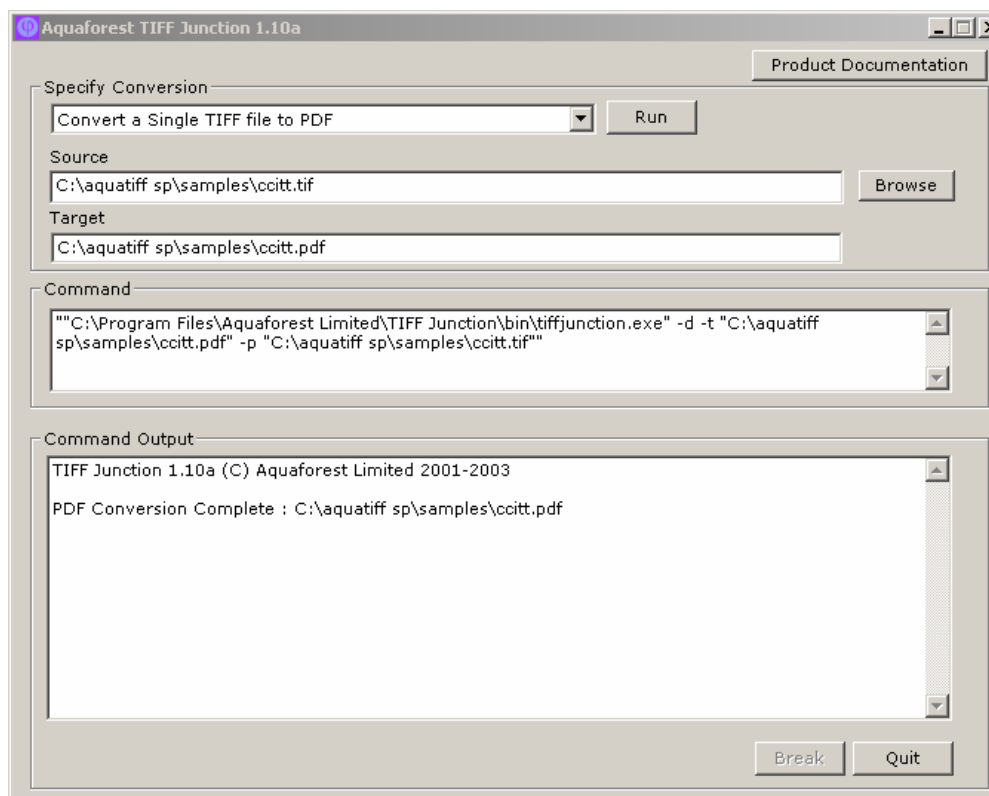
If the licence key is invalid, has expired, is missing or is for the wrong version, the product will not function.

To see information relating to the product version and licence file run **`tiffjunction.exe -v`** (see the section on using TIFF Junction from the command line, below).

**4    USING THE TIFF JUNCTION WINDOWS INTERFACE**

For convenience,  TIFF Junction provides a windows front-end to the command-line tool.  A sample screen is show below, along with key points

| Field | Allowable Values / Description |
|---|---|
| Specify Conversion | Convert a Single TIFF File to PDF |
| | Merge a Directory of Files to a Single PDF |
| | Convert a Directory Tree of TIFF Files to PDF (1 TIFF file=1 PDF file) |
| | Split a multi-page TIFF file into one file per page |
| | Merge a Directory of Files to a Single PDF |
| | Provide Detailed Information about a TIFF File |
| | About TIFF Junction (Version & License Information) |
| Source | The source file or directory for the conversion. |
| Target | Target file specification.  For a split operation this is a file prefix which will have added to it a lexically ordered suffix in the range [aa-zz] followed by .tif. |
| Command | This is the command-line TIFF Junction that will be run.  It can be edited if required prior to running. |
| Command Output | TIFF Junction informational output. |

## 5   USING TIFF JUNCTION FROM THE COMMAND LINE

The command line usage is shown below

---

**tiffjunction.exe  option  [-t target]  [input file …]**

---

| Parameter | Notes |
|---|---|
| -m | Merge.  The set of input files will be merged to form one new Tiff file with the name and location specified by the target parameter. |
| -s | Split.  The input file will be split into *n* single page per file Tiff files where n is the number of pages in the input file.<br><br>The resultant "split" files will be named using the target parameter as the prefix Eg d:\images\policy.  For each file the prefix will have added to it a lexically ordered suffix in the range [aa-zz] followed by .tif. |
| -p | Convert one or more Tiff files into a pdf file with the name and location specified by the target parameter.  If more than one input file is specified, the input file set is first merged into a temporary file and the merged file is converted to pdf. |
| -i | Provide internal Tiff format information about each page of each input file. |
| -v | Provide tiffjunction product version and licence key information. |
| -w | Display Tiff Warnings.  This flag should be used when required to enable display of Tiff library warnings and messages. |
| -f | Force pass-through of image formats even when Tiff Junction would  normally make a conversion to ensure PDF compatability. |
| -r *resolution* | Force the resolution (dpi) to be passed through as *resolution* instead of the figure held within the file. |
| -d | Force creation of any directories that may be required by the –t parameter. |
| -c | Force conversion of images to single strip CCITT Group 4 compression, even for images where Tiff Junction would not ordinarily make the conversion. |
| -t target | Target file specification. |
| -n | Stamp Name (See Section 9) |
| -x | Stamp Value (See Section 9) |
| input file | One or more input file specifications which may include wildcards.  Input files are processed in the order that they appear on the command line. |

## 5.1    Examples of Merging Tiff Files

Merge all the tiff files in d:\aquaforest\tiff\orbera into a file called ace3.tif in the current directory

```
tiffjunction.exe -m -t ace3.tif d:\aquaforest\tiff\orbera\*.tif
```

Merge all the tiff files with a name beginning with "s" in  the current directory into a single file called ace2.tif in ..\test

```
tiffjunction.exe -m -t ..\test\ace2.tif s*
```

## 5.2    Example of Splitting Tiff Files

Create a set of single page per file Tiff files.  One file will be created for each page in c:\test\1c00.tif. The output files will be placed in the d:\test directory and named splitaa.tif, splitab.tif etc.

```
tiffjunction.exe -s -t d:\test\split c:\test\1c00.tif
```

## 5.3    Examples of Converting Tiff Files to PDF

Convert d:\aquaforest\tiff\709245.tif to a PDF file called ace4.pdf in the current directory :

```
tiffjunction.exe -p -t ace4.pdf d:\aquaforest\tiff\709245.tif
```

Merge all the tiff files with a name beginning with "s" in  the current directory into a single PDF file called ace9.pdf in ..\test

```
tiffjunction.exe -p -t ..\test\ace9.tif s*
```

## 6    CONVERTING A DIRECTORY TREE OF FILES FROM TIFF TO PDF

A WSH script is provided which can convert a directory tree of files from TIFF to PDF.  The script (called tiffscript.js) is located in the tiffjunction\wsh directory.

The script may be invoked from the command line using either the windows host or the command line host according to your requirements.

```
wscript.exe tiff2pdf.js d:\tiffiles

or

cscript.exe tiff2pdf.js d:\tiffiles
```
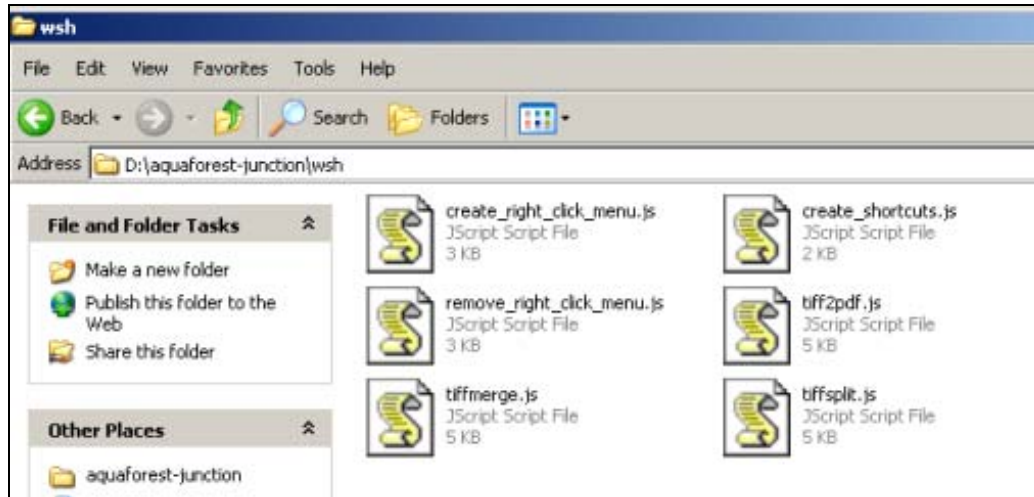
The script also has a **drag and drop interface** which allows users to drop a directory onto the script for processing.  This is described in more detail in the next section.

## 7 USING THE DRAG AND DROP INTERFACES

The drag and drop interfaces can be used as an alternative to the command line interface for converting TIFF files to PDF, merging and splitting TIFF files. These require use of the WSH script and you are recommended to have WSH version 5.6 installed (see http://msdn.microsoft.com/scripting if necessary).
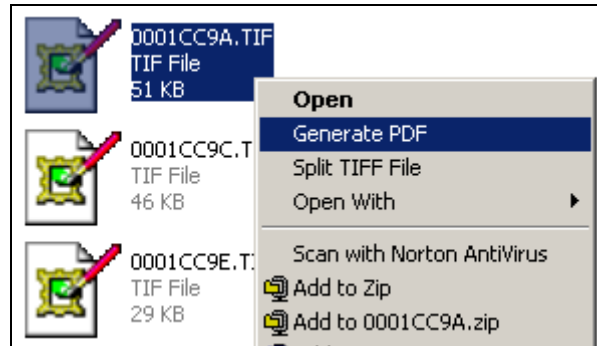


The script files are in the tiffjunction\wsh directory. You can automatically generate desktop shortcuts for these scripts by running create_shortcusts.js (either by double clicking on the file or by running the script at the command prompt with wscript or cscript)

The drag and drop functionality that is available is as follows :

| Script | Drag & Drop File | Drag & Drop Multiple Files | Drag & Drop Directory |
|---|---|---|---|
| **tiff2pdf** | Generate PDF version in the same directory as the source TIFF file. The file will be named the same except it will have a .pdf extension. | Merge all and generate a single PDF file from the source TIFF files. The file will be named xxx_merge.pdf where xxx is the name of the first file passed in. | Generate a PDF filefor each TIFF file in the directory (and all subdirectories). |
| **tiffsplit** | Split. The input file will be split into *n* single page per file Tiff files where n is the number of pages in the input file.<br><br>The resultant "split" files will be named using the name of the input file a prefix. For each file the prefix will have added to it "_split_" and a lexically ordered suffix in the range [aa-zz] followed by .tif. | N/A | N/A |
| **tiffmerge** | N/A | Merge. The set of input files will be merged to form one new Tiff file with the name xxx_merge.tif where xxx is the name of the first file passed in. | N/A |

TIFF Junction also enables use of context menus (when right clicking on a TIFF file in Windows Explorer) for Generating PDF files and Splitting TIFF files.



## 8.1    Setting Up

To set up the context menus , run the **create_right_click_menu.js** file in  tiffjunction\wsh by double clicking on the file.  If you need to uninstall the context menu configuration run the remove_right_click_menu.js file in  tiffjunction\wsh.

## 8.2    Functionality

The functionality provided is as follows, when choosing each of the following options after right clicking on a  TIFF file.

**Generate PDF**

Generate PDF version in the same directory as the source TIFF file.  The file will be named the same except it will have a .pdf extension.
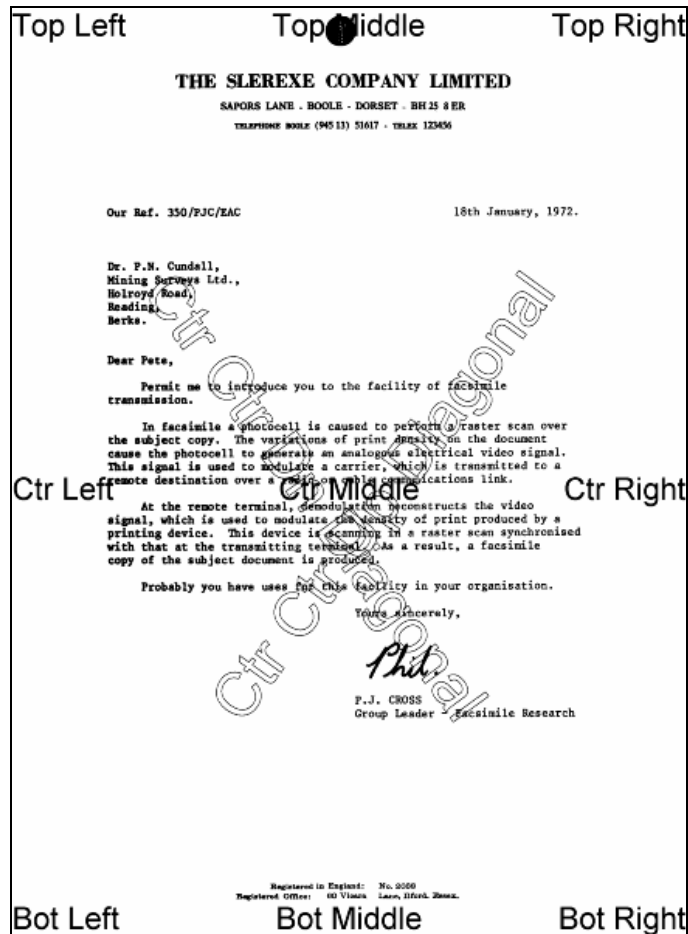
**Split TIFF File**

Split.  The input file will be split into *n* single page per file Tiff files where n is the number of pages in the input file.  The resultant "split" files will be named using the name of the input file a prefix.  For each file the prefix will have added to it "_split_" and a  lexically ordered suffix in the range [aa-zz] followed by .tif.

## 9 USING STAMPS

TIFF Junction allows dynamic and static textual stamps to be placed onto the PDF documents generated by the product by means of a stamps configuration file (stamps.txt in the bin directory) together with appropriate parameters.

**To STOP stamps being generated**, either delete or rename the stamps.txt file (by default in C:\Program Files\Aquaforest\TIFF Junction\bin) or edit the file to remove or rename any stamps that have afsName=STAMP (which tells TIFF Junction to always produce that stamp).

### 9.1 Stamp Placement



The image above indicates the possible placement for stamps. These are determined according to the parameters in the stamps.txt configuration file. The product comes with a sample set of stamps.

### 9.2 Stamp Specifications

For example, the stamp that reads "Ctr Ctr Up Diagonal" would be produced by the following lines in the file :

```
BEGINSTAMP
afsName=STAMP
afsText=Ctr Ctr Up Diagonal
afsFontSize=63
afsFont=HELVETICA
afsTextMode=1
afsVpos=CENTER
afsHpos=CENTER
afsDiag=UP
ENDSTAMP
```

Here is a description of each of the parameters *which are case sensitive :*

| Parameter | Description |
|---|---|
| BEGINSTAMP | Required to mark the beginning of a stamp specification. |
| ENDSTAMP | Required to mark the end of a stamp specification. |
| afsName | Stamp name. If the stamp name is "STAMP" then the stamp will always be applied. Any other name is used as an identifier and the stamp will only be applied when the –n parameters match the name. |
| afsText | Stamp text. This may be a fixed piece of text, or may include %p (which will be replaced by the page number) or %s which will be replaced by the value of the -x parameter. |
| afsFontSize | Point size for the stamp text. |
| afsFont | Font to be used. The following are supported : TIMES-ROMAN  HELVETICA  COURIER |
| afsTextMode | 1=Outlined Text<br>2=Sold Text |
| afsVpos | Vertical Position of the stamp, which may be one of the following : TOP  CENTER  BOTTOM |
| afsHpos | Horizontal Position of the stamp, which may be one of the following : LEFT  CENTER  RIGHT |
| afsDiag | Diagonal orientation of the stamp, which may be one of the following : NONE  UP  DOWN |
| afsWeight | Font Weight : 0 (default) – 5 (most bold) |
| afsStartPage | First page of the document to which stamps should be applied (default 1) |
| afsEndPage | Last page of the document to which stamps should be applied (default 0 which means there is not a limit) |
| afsPageIncrement | Determines whether stamps should only be applied every *n*th page where n is afsPageIncrement. Default is 0 which means stamps will be applied to all pages (subject to start/end page specifications). |

### 9.3    Example of Using Stamps

Convert 709245.tif to a PDF file called 709245.pdf in the current directory using stamp PRODCODE with a value of **"XR19 Rev1" :**

```
tiffjunction.exe -p –n PRODCODE –x "XR19 Rev1" 709245.tif
```

## 10    PRODUCT VERSION HISTORY

### 10.1    Version 1.10

| Reference | Change |
| --- | --- |
| 110h01 | Added support for stamps on generated PDF files |
| 110a01 | Added Windows Front-End to command line operations |
| 110a02 | Added Installshield install wrapper |

### 10.2    Version 1.02

| Reference | Change |
| --- | --- |
| 102h01 | Added WSH Scripts to enable support of drag & drop, context menu and directory processing. |
| 102f01 | Added the flag : -d (create target directory if none exists) |
| 102e01 | Added the flag: -r (force resolution dpi) |
| 102c01 | Changed location of temporary files, for CGI use.  Files will be placed in $TMP if defined otherwise $TMPDIR, or finally in tiffjunction\bin. |
| 10201 | Added the flag : -w (Display Tiff Warnings).  This flag should be used when required to enable display of Tiff library warnings and messages. |
| 10202 | Added the flag : -f  (Force Pass-Through).  This can be used to avoid image conversion even when the product would ordinarily convert the image. |
| 10203 | Added the flag : -c  (Force Conversion).  Force conversion to single strip Group 4 TIFF, even when not strictly required. |
| 10204 | Corrected a conversion problem where the product wasn't adjusting the image height and width correctly when the ppi varied from the default of 200 ppi. |
| 10205 | The product now gives appropriate messages when trying to process images with unsupported compression types such as LZW |

### 10.3    Version 1.01

| Reference | Change |
| --- | --- |
| 101 | First Public Release |

## 11    SUPPORT

Any problems running this application should give evident error messages, but if you are unable to resolve a problem please contact support@aquaforest.com