## TIFF USAGE BY PROFILE

TAG	PROFILE	VALUE & DESCRIPTION
254		<i>NewSubfileType</i> Contains flag bits which define characteristics of the image;
	all	bit 1; Set if a single page of a multipage image. (1 for TIFF fax)
	М	bit 4; Set if Mixed Raster Content (MRC) mode.
256	all	<i>ImageWidth</i> Defines the width of the image in pixels.
257	all	ImageLength Defines the length of the image in scan lines.
258		BitsPerSample The number of bits per pixel.
	F, J, L, M	1 for black and white or binary RGB, CMY, CMYK.
	C, L, M	8 or 12 for grayscale or ITULAB color.
	М	variable for Palette type.
259		Compression Defines the type of compression used;
	М	1 = uncompressed. (image base color only)
	F, M	3 = MH or MR compression with EOLs.
	F, M	4 = MMR compression.
	С, М	7 = Lossy JPEG compression.
	J, M	9 = Lossless JBIG compression for black and white.
	L, M	10 = Lossless JBIG compression for color or grayscale.
262		<b>PhotometricInterpretation</b> Defines the photometric interpretation;
	F, J, M	0 = positive image ( a zero bit is imaged as white)
	F, J	1 = negative image (a zero bit is imaged as black)
	L, M	2 = RGB
	L, M	5 = CMYK
244	C, L, M	$10 = \Pi ULAB$
266	all	<b>FullOrder</b> Defines the bit order of the data; $I = MSB$ first; $2 = LSB$ first
269	all	<b>DocumentName</b> Contains the name of the document. (optional)
270	all	<b>ImageDescription</b> Contains a short description of the image. (optional)
273	all	StripOffsets Multiple entries to define the offset of each strip of the image from the
		beginning of the file.
274	all	Orientation Defines the orientation of the image on the page. (optional)
		I = 0 row is the visual top of image and 0 column is the visual left.
		$2 = 0^{\text{th}}$ row is the visual bottom of image and $0^{\text{th}}$ column is the visual right.
		$3 = 0^{\text{th}}$ row is the visual bottom of image and $0^{\text{th}}$ column is the visual left
		$5 - 0^{\text{th}}$ column is the visual top of image and $0^{\text{th}}$ row is the visual left
		$6 = 0^{\text{th}}$ column is the visual top of image and $0^{\text{th}}$ row is the visual right
		$7 = 0^{\text{th}}$ column is the visual bottom of image and $0^{\text{th}}$ row is the visual right
		$4 = 0^{\text{th}}$ column is the visual bottom of image and $0^{\text{th}}$ row is the visual left.
277		Samples PerPixel The number of samples per pixel.
	All	1 = Black and white, L* (grayscale lightness) or Palette color image.
	C, L, M	3 = RGB, LAB, or CMY.
	М	4 = CMYK.
278	all	<i>RowsPerStrip</i> Defines the number of rows in each strip.
279	all	StripByteCounts Contains multiple count values, each of which defines the number
		of bytes in the corresponding strip in the entry.
282	all	<b>XResolution</b> Defines the resolution in the X direction in pixels per <i>ResolutionUnit</i> .
283	all	<b>YResolution</b> Defines the resolution in the Y direction in pixels per <i>ResolutionUnit</i> .
286	М	<b>XPosition</b> Specifies the X offset of the left side of the image, in <i>ResolutionUnits</i> .
		(optional)
287	М	YPosition Specifies the Y offset of the top of the image, in ResolutionUnits.
		(optional)

TAG	PROFILE	VALUE & DESCRIPTION
292	F, M	<i>T4Options</i> Contains flag bits defining T.4 options (required if <i>Compression</i> = 3);
		bit 0 (LSB); Set if 2-dimensional (MR) compression used. The bit is clear if
		1-dimensional (MH) compression is used.
		bit 2; Set if fill bits have been added to have EOLs byte aligned.
293	F, M	<i>T6Options</i> Contains flag bits defining T.6 options (required if <i>Compression</i> = 4);
		bit 0 (LSB); Clear if 2-dimensional (MMR) compression used. (Required)
296	all	<i>ResolutionUnit</i> Defines the units of resolution ; 2 = inches, 3 = centimeters.
297	all	PageNumber Specifies the page number of a multipage document. Two SHORT
		values are presented; the page number followed by the number of pages. The first
		page is page zero.
305	all	<i>Software</i> The name of the software package that created the image. (optional)
306	all	<b>DateTime</b> Defines the date and time the image was created using a 24 hour format
		YYYY:MM:DD HH:MM:SS. (optional)
330	Μ	<i>SubIFD</i> Used in the MRC mode to define the offset from the beginning of the file
		to a child IFD. An entry exists for each child IFD required.
346	L, M	<i>Indexed</i> When equal to 1, indicates that each sample value is an index into the
		array of color values (palette-color) presented in the ColorMap field. (The
		SamplesPerPixel value must also be 1 and the <i>PhotometricInterpretation</i> must be
a 1 <b>-</b>	~ ~ ~ ~	10.) When equal to zero, the sample values define the image (not palette-color).
347	С, М	<b>JPEGIables</b> Provides JPEG quantization and/or Huffman tables to be used
		whenever a strip data stream does not contain its own tables. Contains a valid JPEG
		abbreviated table specification datastream that begins with SOI and ends with
400	o11	EOI. The datastream may contain JPEO tables and miscentaneous markers.
400	all	applicable to the entire fax session that created this image data. The parameters in
		this IED may be later overridden by fields in an image IED. This should be the first
		IFD in the file
402	all	<i>FaxProfile</i> Defines the TIFF facsimile profile that applies to this file.
		0 = Does not conform to a facsimile profile.
		1 = Profile S
		2 = Profile F
		3 = Profile J
		4 = Profile C
		5 = Profile L
		6 = Profile M
		7 = Profile T
		255 = More than one profile or extension is used.
403	all	<b>CodingMethods</b> Contains a bit map that defines the coding methods used in this
		file. A bit value of 1 indicates the method, defined by the bit position, is used.
		bit 0 (LSB); Unspecified compression.
		bit 1; 1 dimensional Modified Huffman (MH).
		bit 3: 2 dimensional Modified Modified PEAD (MMP)
		bit 4. T 82 coding using T 85 (IRIG black and white)
		hit 5: T 81 (haseline IPEG)
		bit 6: T.82 encoding, using T.43 (JBIG color).
404	C. L. M	<i>VersionYear</i> Contains 4 BYTE values (ASCII characters) that define the vear of
	2, 2, 11	the version of the standard specified in the <i>FaxProfile</i> field for color TIFF profiles.
405	М	<i>ModeNumber</i> Defines the mode of the standard specified by the <i>FaxProfile</i> field
		for the Mixed Raster Content (MRC) profile. The value of zero indicates mode 1.0.

TAG	PROFILE	VALUE & DESCRIPTION
433	C, L, M	<b>Decode</b> minL, maxL, mina, maxa, minb, maxb: L*a*b* values.
434	М	ImageBaseColor Used in the MRC mode to define the default color when no
		image data is available. An entry exists for each of the SamplesPerPixel in the IFD.
		The value uses the same encoding as the image data and is interpreted using the
		PhotometricInterpretation, SamplesPerPixel, BitsPerSample, and Index fields. For
		the Foreground layer image, the default value is black. For all other cases,
		including the Background layer image, the default value is white.
435	J, M	<b>T82Options</b> Indicates the applicable profile of JBIG coding used. All bits set to
		zero indicates the T.85 profile of T.82. No other values are currently defined.
530	С, М	<b>ChromaSubSampling</b> Contains two SHORT values that specify the subsampling
		factors for the chroma components of a $L^*a^*b^*$ image. The first SHORT value,
		<b>ChromaSubsampleHoriz</b> , specifies the horizontal factor and the second,
		<b>ChromaSubsample vert</b> , specifies the vertical factor.
		I = Equal numbers of lightness and chroma samples.
531	М	2 = 1 Wice as many rightness samples as chroma samples.
551	111	relative to the lightness component 1 – chrominance samples are spatially offset
		and centered with respect to luminance samples
559	М	StrinRowCounts Used in the MRC mode, in place of RowsPerStrip, to define the
557	111	number of scan lines in each strip. An entry exists for each strip in the IFD. For
		strips with more than one layer, the maximum strip size is 256 scan lines.
34687	all	<b>TIFF-FXExtensions</b> Defines which TIFF-FX extensions apply to this device.
		This entry can only be present in the GlobalParametersIFD.
34688	all	MultiProfiles Used when extensions of two or more different profiles are present in
		the file. This entry can only be present in the GlobalParametersIFD. A bit value of
		1 indicates the presence of the corresponding profile or profile plus extensions.
		bit 0 (LSB) <b>Profile S</b> Lossless minimal black and white (MH).
		bit 1 <b>Profile F</b> Lossless extended black and white (MH, MR, MMR).
		bit 2 <b>Profile J</b> Lossless black and white (JBIG).
		bit 3 <b>Profile C</b> Lossy color and grayscale (JPEG).
		bit 4 <b>Profile L</b> Lossless color and grayscale (JBIG).
		bit 5 <b>Profile M</b> Mixed Kaster Content (MKC).
		bit 7 <b>Extension 1</b> Resolution and Image Width extensions
		bit & Extension 2. N-I aver Profile M extension
		bit 9 Extension 3 Shared Data extension
		bit 10 Extension 5 JBIG2 extension of Profile M
		bits 11 thru 31 reserved, must be zero.
34732	М	<i>ImageLayer</i> Used in the MRC mode to describe the layer to which the image
		belongs and the order in which it is to be imaged. Two values are provided, where
		the first value defines the layer:
		1 = The image is the Background layer.
		2 = The image is the Primary Mask layer.
		3 = The image is the Primary Foreground layer.
ĺ		4, 6,, $N$ ( $N$ is even) Additional Mask layers.
		5, 7,, $N$ ( $N$ is odd) Additional Foreground layers.
		The second value defines the image order, where 1 indicates the first.