HOWTO: Embed XMP Data Into a TIFF File

XMP annotation data can be embedded into a TIFF file rather than saving it as a separate file. This is done by saving the annotations into an XMP packet with the XmpFormatter and embedding the data into the XMP TIFF tag. Below is a code example:

C#

```
sing Atalasoft.Annotate; using Atalasoft.Annotate.UI; using Atalasoft.Annotate.Formatters;
using Atalasoft.Imaging; using Atalasoft.Imaging.Codec; using System.IO; //... private void
SaveXmpToTiff(Stream outputStream, AnnotateViewer viewer) { SaveXmpToTiff(outputStream,
viewer.Annotations, viewer.Image); } private void SaveXmpToTiff(Stream outputStream,
AnnotationController controller, AtalaImage image) { // Create an XmpFormatter and tell it to
create a packet. // Packets are required when embedding the data into an image. XmpFormatter
formatter = new XmpFormatter(); formatter.CreateXmpPacket = true; // Create a TiffEncoder and
set its Xmp property to the annotation data. TiffEncoder tif = new TiffEncoder(); tif.Xmp =
controller.Save(formatter); // Save the Tiff. tif.Save(outputStream, image, null); }
```

VB.NET

```
mports Atalasoft.Annotate Imports Atalasoft.Annotate.UI Imports Atalasoft.Annotate.Formatters
Imports Atalasoft.Imaging Imports Atalasoft.Imaging.Codec Imports System.IO '... Private Sub
SaveXmpToTiff(ByVal outputStream As Stream, ByVal viewer As AnnotateViewer)
SaveXmpToTiff(outputStream, viewer.Annotations, viewer.Image) End Sub Private Sub
SaveXmpToTiff(ByVal outputStream As Stream, ByVal controller As AnnotationController, ByVal
image As AtalaImage) ' Create an XmpFormatter and tell it to create a packet. ' Packets are
required when embedding the data into an image. Dim formatter As XmpFormatter = New
XmpFormatter() formatter.CreateXmpPacket = True ' Create a TiffEncoder and set its Xmp
property to the annotation data. Dim tif As TiffEncoder = New TiffEncoder() tif.Xmp =
controller.Save(formatter) ' Save the Tiff. tif.Save(outputStream, image, Nothing) End Sub
```

To read the XMP annotation back into DotAnnotate, you can either use the AnnotateViewer.Open method with the loadAnnotations argument set to true or you can manually extract the XMP TIFF tag data using the following code.

C#

```
sing Atalasoft.Annotate.UI; using Atalasoft.Annotate.Formatters;using
Atalasoft.Imaging.Metadata;using Atalasoft.Imaging.Codec;using System.IO; //... private void
LoadXmpFromTiff(Stream inputStream, AnnotateViewer viewer) { TiffTag tag =
TiffDecoder.GetTiffTag((int)TiffTagID.XmpData, inputStream, 0); if (tag != null)
viewer.Annotations.Load((byte[])tag.Data, new XmpFormatter()); }
```

HOWTO: Embed XMP Data Into a TIFF File

VB.NET

```
mports Atalasoft.Annotate.UI Imports Atalasoft.Annotate.Formatters Imports
Atalasoft.Imaging.Codec Imports Atalasoft.Imaging.Metadata Imports System.IO '... Private Sub
LoadXmpFromTiff(ByVal inputStream As Stream, ByVal viewer As AnnotateViewer) Dim tag As
TiffTag = TiffDecoder.GetTiffTag(CType(TiffTagID.XmpData, Integer), inputStream, 0) If Not
tag Is Nothing Then viewer.Annotations.Load(CType(tag.Data, Byte()), New XmpFormatter()) End
If End Sub
```

Original Article:

Q10220 - HOWTO: Embed XMP data into a TIFF file