

WARNING! THIS DESCRIPTION IS INCOMPLETE, AND DOES NOT DESCRIBE THE FINAL FORM OF THE CLASS

# PICTFile

INHERITS FROM	File
DECLARED IN	PICTFile.h

## CLASS DESCRIPTION

The PICTFile class is a simple subclass of the File class. It provides an intermediate way to access Macintosh PICT files (read-only, at present). Specifically, it allows one to read in PICT data structures (opcodes, rects, points, region components, etc) atomically. I say `intermediate', because a more `advanced' pict file would doubtlessly read in opcodes and all their arguments and return them in specialized objects to the caller. That behavior is beyond the scope of this class, however.

When the class is issued an order to open a file, it does three things immediately: First, it caches the 512byte header of the pict file, it then stores its bounding rect, and finally it records the version number of the PICT file. Note that it ignores the file size (as this doesn't seem to be a 100% reliable number anymore). It does all this, for this class assumes that it is working with a read-only stream of bytes that it can read only once. This assumption is being made because I know this situation will occur when the RTF converter program gets written [turns out that this won't be the case with the initial RTF converter after all]. It is, however, not a very nice assumption to make in general, and yet another indication that after all the converters get written, I should take what I've learned and redesign some aspects of these things. in any case, at this point, the object leaves the current file position just after the version opcode and its arguments, and returns.

The caller, at this point, is free to read the data as suits their whim. The PICTFile will, however, cease returning anything except errors after it has read and returned the FF

terminating opcode. Therebye, hopefully keeping some programs, running amuck, from getting too carried away.

Aside from these features, the PICTFile provides all the features (including the brain-dead 'is the file there' method) that the File class supports.

INSTANCE VARIABLES

<i>Inherited from File</i>	<<various (this is not a 'final' class)>>	
<i>Declared in PICTFile</i>	BinaryString	PICTHeader;
	MacRect	boundingRect;
	Integer	PICTVersion;
	Boolean	foundEnd;
PICTHeader	The 512 byte header to the pict file	
boundingRect	The rectangle bounding the picture	
PICTVersion	The version of the pict file	
foundEnd	Set to YES when the [00]FF opcode is found	

METHOD TYPES

Opening the file	- initAndUse
	- initAndUseTemporary
	- OpenWithAccess
Retrieving info about file	- GetVersion
	- GetHeader
	- GetBounds
Reading PICT data types	- GetOpcode
	- GetRect
	- GetPoint
	- GetByte
	- GetPString
	- ????

## CLASS METHODS

None

## INSTANCE METHODS

### **initAndUse**

- (id) **initAndUse:** (ConstCString) *filename*

This is a simple subclass-ed method from the File class. We subclass it because we need to initialize our instance variables.

### **initAndUseTemporary**

- (id) **initAndUseTemporary**

This is a simple subclass-ed method from the File class. This method essentially implies doing write access to a file, which we don't presently support, so we just return an error.

### **OpenWithAccess:**

- (id) **OpenWithAccess:** (AccessType) *operation*

This is a simple subclass-ed method from the File class. This simply traps to make sure that the *operation* is not one that involves file writing, as this is not supported at present by the PICTFile class. If it is an operation involving writing, an error is set, and this returns self.

### **GetVersion**

- (Integer) **GetVersion**

Returns the version number of the PICT file to the caller. This will be the number 1 for a version 1 pict file, 2 for a version two one, 0 for unknown, and 9999 for anything else (read: errors).

### **GetHeader**

- (ConstByteString) **GetHeader**

Returns a pointer to the 512 byte header of the PICT file. The 512 bytes are not terminated in

any way, and it is assumed the caller is aware of this.

### **GetBounds**

- (PICTRect) **GetBounds**

Returns a rectangle struct to the caller containing the boundary rectangle of the PICT image in this PICT file. The caller is responsible for disposing of the rectangle.

### **GetOpcode:**

- (PICTopcode) **GetOpcode**

Reads the next opcode from the PICT file and returns it. This reads either a one or two byte opcode, depending on whether it's version 1 or 2 (or above). If the version is 2 or above, it will also automatically move to the next even word boundary to read the next opcode.

### **GetRect**

- (MacRect) **GetRect**

Reads an 8 byte PICT rectangle from the PICT file, and returns this copy to the caller.

### **GetPoint**

- (PICTRect) **GetPoint**

Reads a 4 byte point from the PICT file and returns a copy to the caller.

### **GetByte**

- (Byte) **GetByte**

This is just like ReadByte in the File class. It reads a byte and returns it to the caller. This is provided for naming consistency with the other methods here.

### **GetPSstring**

- (CString) **GetPString**

This reads in a Pascal style string from the PICT file, and returns the copy as a CString structure to the caller.

## **BUGS AND PROBLEMS**

As noted above, the read-only aspect of this class is not ideal. Moreover, the awkward method of dealing with it potentially being a one-pass stream is very icky. Need a more general way for dealing with this transparently to the class.  
We are not subclassing the various Create... methods, and thus do not prevent someone from nuking a file we were only supposed to be able to read..

## ENHANCEMENT IDEAS

See above.

## CONSTANTS AND DEFINED TYPES

## MODIFICATION HISTORY

\$Log: PICTFile.rtf,v \$Revision 1.7 93/04/04 23:29:49 deathSun Apr 4 23:29:49 PDT 1993Revision 1.6 93/01/09 21:07:06 deathSat Jan 9 21:07:06 PST 1993Revision 1.5 93/01/01 11:51:14 deathFri Jan 1 11:51:14 PST 1993Revision 1.4 92/12/31 15:34:03 deathThu Dec 31 15:34:03 PST 1992Revision 1.3 92/12/05 23:06:59 deathSat Dec 5 23:06:59 PST 1992Revision 1.2 92/12/03 18:01:18 deathThu Dec 3 18:01:17 PST 1992Revision 1.1 92/11/27 19:37:29 deathFri Nov 27 19:37:28 PST 1992