.ptv file structure

The file is a container for many jpeg files: the optional preview and the image tiles. The file starts with a signature to identify it as a valid one, followed by a version number that will be increased in future versions.

The file is logically divided in three parts:
- a header,
- a directory of the contained partial images
- the jpeg files stored sequentially

File structure

Offset	***Size***	***Description***
0	2	Signature
2	2	Version number (the current value is = 1)
4	4	Width of panoramic image
8	4	Height of panoramic image
12	4	Size of the directory header
16	4	Size of a directory entry
20	4	Offset of the first byte of the directory
24	4	Bit flags, reserved for future use, for example type of encryption
		Unused bytes, variable length
		Directory
		First partial image
		Second partial image
		...
		Last partial image

Structure of the directory, the values in the Offset column are relative to the start of the directory. The tiles entries are sorted by row (most significant) and column.

Offset	***Size***	***Description***
0	2	Number of rows
2	2	Number of columns
4	2	Preview image: 0 = no, 1 = yes. If present, the preview is described in the first directory entry
		First directory entry
		Second directory entry
		...
		Last directory entry

Structure of a directory entry, the values in the Offset column are relative to the start of the directory entry.

Offset	***Size***	***Description***
0	2	Row number
2	2	Column number
4	4	Width
8	4	Height
12	4	X-position of the top left corner in the panoramic image
16	4	Y-position of the top left corner in the panoramic image
20	4	Offset of the first byte of this image in the file
24	4	Size of this image

.ptvref file structure

.ptvref (ptviewer reference) files are text files containing the information about the different jpeg tiles to be loaded; each tile is a separate file. Since ptvref files are created by a custom program I have decided to use a rigid syntax in order to easily read them.

The following table shows the file structure. For each text line it shows the content of the line and the corresponding PTViewer parameter as a reference.

Line	***Content***	***Parameter***
1	Low resolution preview image. Leave blank if there is no preview	file
2	Width of the panoramic image	pwidth
3	Height of the panoramic image	pheight
4	Number of tiles	
5	First image tile data	roi0
6	Second image tile data	roi1
7	And so on...	

The image tile data use the syntax of the <roi> parameter, so an example file looks like:

chaberton1_GS.jpg
4000
647
10
i'Chaberton1_01.jpg' x0 y0 w400 h647
i'Chaberton1_02.jpg' x400 y0 w400 h647
i'Chaberton1_03.jpg' x800 y0 w400 h647
i'Chaberton1_04.jpg' x1200 y0 w400 h647
i'Chaberton1_05.jpg' x1600 y0 w400 h647
i'Chaberton1_06.jpg' x2000 y0 w400 h647
i'Chaberton1_07.jpg' x2400 y0 w400 h647
i'Chaberton1_08.jpg' x2800 y0 w400 h647
i'Chaberton1_09.jpg' x3200 y0 w400 h647
i'Chaberton1_10.jpg' x3600 y0 w400 h647