What is XBin ?

Introduction.

Out of a crying need from several ANSi artists, a new type of file was born, ready to take the Art scene by storm.

This new format is known as e**X**tended **BIN**, or XBin for short.

XBin is exactly what it's name dictates, it's an extention to the normal raw-image BIN files which have become very popular among the art scene lately.

The use of the XBin format is more or less the same as for the BIN format. However, XBin offers a far better way to handle the raw images.

BIN vs XBin

The BIN format was introduced into the art-scene out of a need to overcome the limits of ANSi files. Apparantly, the 80 columns wide screen was too constraining for some artists. the BIN format was adopted to resolve this problem.

Being very simple by nature, BIN was quickly supported by several art groups in their native ANSi/RIP/GIF/etc. viewer. Consequently, our very own SAUCE standard went in for a quick facelift and immediately dealt with one of the main problems imposed by the BIN format.

Being nothing more than a raw memory copy of the textmode video memory, BIN offers no insight to the size/width of the image. Having nothing more than a BIN file, there is no way to determine whether it's a 80 column wide or a 160 column wide image. SAUCE took care of this by taking the BIN format into it's specifications. Out of the SAUCE attached to the BIN, one was able to determine the correct dimensions of the BIN.

XBIN solves this little matter all by itself, and takes matters even further. Anything BIN can do, XBIN does better.

XBin features.

- XBin allows for binary images up to 65536 columns wide, and 65536 lines high.
- You can have an alternate set of palette colors either in blink or in non-blink mode.
- You can have different textmode fonts from 1 to 32 scanlines high, consisting of either 256 or 512 different characters.
- And finally, XBin offers smaller files due to a simple, yet very efficient compression system.

Goal.

XBin was designed with certain rules in mind. These were:

- The format may not have a group-specific name. It should be as anonymous as possible.
- The format must be simple to implement, yet offer as much functionality as possible.
- The format must be universally adoptable, a prerequisite for this is the complete availability of the format specifications.
- Availability of direct plug-in code, tools to read/write/convert the format and the immediate support in practical applications.

The above simple four rules were similarly used when designing the specifications of SAUCE. These basic principles helped get the acceptance of SAUCE as a standard by the majority of art groups worldwide. The premise of SAUCE's success was reason alone to re-use this set of rules while designing XBin.

More specifically to the practical use of XBin, following constraints and ideas needed to be addressed :

- Provide an unambiguous system for how the file should be displayed.
- Be as complete as possible to avoid having to make changes to the specifications. Since XBin has a very specific use (textmode 'graphics') it should not be too difficult to provide for all/most of what textmode has to offer. In short XBin should provide for any possible feature possible for textmode graphics, but no more. In addition, XBin is designed for VGA. Several of the features XBin offers can only be used on a VGA system.

To sum things up, XBin was required to handle :

- Any reasonable sized image.
- Alternate color sets (palettes).
- Alternate fonts of any size (due to limitations of the VGA hardware this means sizes of 1 up to 32 pixels), for practical reasons, only 8 pixel wide fonts are supported, even though the VGA hardware has other capabilities.
- Blink and non-blink mode.
- 256 and 512 characters.

In addition to the set requirements, XBin also offers a simple compression scheme which does remarkably well seen it's simplicity.

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