

As hinted in the title, we look up what is the secret programming language, and we easily find out it's an esoteric programming language, because the program is a picture. We try to submit the initial picture to a piet interpreter, (I used <https://piet.bubbler.one/>) but it doesn't accept it. Since the chall is steganography and not OSINT, there's probably something hidden in the image.

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	JPEG image data, EXIF standard
12	0xC	TIFF image data, big-endian, offset of first image
678	0x2A6	Copyright string: "Copyright (c) 1998 Hewlett-Packard Company"
11115	0x2B6B	Copyright string: "Copyright (c) 1998 Hewlett-Packard Company"
22957	0x59AD	Copyright string: "Copyright (c) 1998 Hewlett-Packard Company"
345743	0x5468F	PNG image, 820 x 820, 8-bit colormap, non-interlaced
346832	0x54AD0	Zlib compressed data, best compression
1020129	0xF90E1	PNG image, 860 x 860, 8-bit colormap, non-interlaced
1021218	0xF9522	Zlib compressed data, best compression
1761760	0x1AE1E0	PNG image, 880 x 880, 8-bit colormap, non-interlaced
1762849	0x1AE621	Zlib compressed data, best compression

Turns out there's 3 pictures hidden inside. However, for me binwalk –e didn't extract them, so I used dd. After getting the images and opening them, it becomes apparent they are piet programs. We interpret each of them, and see each one prints one part of the flag again and again. We simply extract all of the unique parts and we got the flag.

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