Subject: Re: Gryphon 68030
Posted by Andrew B on Sat, 11 Feb 2017 21:31:52 GMT
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Teensy 3.5 runs at 120 Mhz, has 62 I/O pins (42 of which are breadboard friendly) and is 5V tolerant with 3.3V output voltage (which should read as 'high' for most 5V TTL logic, allowing for bidirectional hookup directly to 5V stuff)

I've been thinking of doing an S-100 board that does exactly this. Hold the bust in WAIT at reset and load the ROM code into RAM, then turns into an I/O device offering an I/O port interface to SD card storage, USB->Serial, UARTs, I2C, and SPI. The SD card support is very fast - up to 20 MB/s via beta FAT card drivers - link. The functions of several boards, the RAM+ROM, Serial I/O, and IDE storage could all be combined into 1 board and the need for an EEPROM programmers & IDE->CD card adapters eliminated.

I also think it may be possible to use Teensy 3.5 to playback XVF files to program CPLDs, which would make for a nice 'bootstrapping' process for a board in general - program any CPLDs and then pop the Teensy into the board itself to act as the 'ROM loader'.