

ECE Grad Seminar Talk

Apple II Demo Programming – Retro-computing and the Demoscene

ECE Assoc. Professor Vince Weaver

Friday 26 October 2018 – 2pm – Hill Auditorium (165 Barrows Hall)

The Demoscene involves groups from around the world who compete to make elaborate computer demos that push the limits of computing hardware. The goal is to create the most stunning combination of graphics, music, and visuals while keeping the size of the programs as small as possible (often 64k or less). The resulting demos are exhibited at gatherings called Demoparties (primarily in Europe).

The Demoscene got its start in the 8-bit computing world, pushing the limits of Commodore 64, ZX Spectrum, Atari, and Amiga machines. Even today competitions are still open for these old retro-computing machines, and amazing products are created on them.

In this talk I will first show off some modern demos. Then I will describe my work writing demos for the Apple II platform. The Apple II, introduced in 1977, was the first major machine produced by Apple. It has an amazingly efficient design created by Steve Wozniak, but by modern standards is extremely limited (1MHz 8-bit 6502 processor, 48k RAM, 140k disk, maximum graphics 6-color 280x192). Despite these limitations, with careful coding some relatively impressive displays can be made. I will also display some other projects of mine, including a Raspberry Pi powered AY-3-8910 chiptune player.

