

Project “HALOS” Proposal

Date Created: 10/26/2001

For the Capstone project I am proposing to write an Operating System for the Intel IA-32 architecture.

The intent of the project is not to produce another windows or Linux. To keep the scope at a reasonable level this was required. The operating system will be statically linked with the application at development time mimicking the design of uC/OS II. This favors the embedded system developer. The system will not be real-time. The system will not run more then one application, but it will support multiple threads inside the one processes address space. This should allow the flexibility that is needed for the target developer. It will support video support only in text mode, and will support terminals, but neither is required for the system to run. The target hardware is the x 86 platforms, specifically no higher then the Pentium ISA. The system will be utilizing the IA-32 protected mode facility, to handle task switching, and virtual memory.

Embedded Operating System Proposal Summary:

- Application is statically linked with OS, and the application is then booted
- Support for multi-threaded application, but only one application.
- Terminal Support, and well as text mode consoles (This includes keyboard and mouse on console).
- Hard drive support for simple storage by application (scale back option).
- Virtual Memory support (scale back option).

© Copyright 2001 by Christopher DeGuise. All rights reserved.