ATCAPI Application Development

Mike Gallagher, Intelight Inc.
Just One Approach to using the ATC API for Application Development

- Common PC platform
- Freely available software tools
Windows Host OS/Linux virtual Guest OS

- Virtual Box, VMware, or other Virtualization platform for Windows (e.g. virtualbox.org)
- Linux guest OS image (e.g. lubuntu.net)
Linux Guest OS

- 10 GB virtual hard drive space
- Install available packages for development (e.g. `apt-get install build-essential`)
- Install available Editors or IDE (e.g. `geany` or `Eclipse`)
ATC Vendor Tools

- ATC version 6 Standard requires vendors to make available all necessary build tools
- Cross-compiler targeting vendor hardware type (e.g. powerpc)
- Board Support Package includes necessary libraries
- Including ATCAPI libraries (e.g. libfio.so, libfpui.so)
Example Application

- Basic test of API facilities, apiiri-test.c
- Register with FIO manager to reserve next available FIO output
- Register with FPUUI to obtain display window for UI
- Display date/time/timezone from tod_get() API function
- Display current state of FIO output
- Display state of corresponding FIO input
- Toggle output and refresh display every 500ms
Build Example

- Install vendor toolchain
- Install vendor BSP
- Obtain application source from APIRI github repo
- Set environment variables for PATH
- Set environment variables for cross-compiler name
- Create or modify makefile
- Build application executable.
- Copy to USB drive for ATC testing
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