

“Linux User Space Internals Workshop on Beagle”

+ **Session 1: Linux Application Space Overview**

- Programming Tools: gcc & friends
- Debugging Tools: gdb & friends
- Libraries & System Calls

+ **Session 2: Processes in Linux**

- Process Overview
- Process Management & Schedulers
- Process Creation, Operations & Usages

+ **Session 3: Inter Process Communication**

- IPC Overview
- Pipe & Fifo
- Shared Memory & Semaphore

+ **Session 4: Threads in Linux**

- Threads Overview
- POSIX Threads & their Internals
- Threads Creation, Operations & Usages

+ **Session 5: Synchronization in Linux**

- Synchronization Overview
- Synchronization Mechanisms

+ **Session 6: Linux Network Management**

- Network Management Overview
- Introduction to Sockets
- Basic Socket Programming

+ **Session 7: Wrap Up**

- Do it yourself
- What Next?

Caution: All sessions are highly interactive & hands-on with Beagle Board
NB All sessions are still undergoing revision & are liable to change.

Hands-On Details

+ **Linux Application Space**

- Playing with gcc & friends
- Game of Bugs

+ **Processes & IPCs**

- Processes all Around
- Relations drive Communications

+ **Multi-threading & Synchronization**

- Hands-on with pthreads

+ **Socket Programming**

- Various Client-Server implementations
- Understanding select() & friends

+ **Do It Yourself**

- Left for Guessing