



# How to run EPICS on F3RP61

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# How to develop and execute

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- Needs cross compile
  - Development environment on host machine
    - Run a build tool chain included in the Board Support Package (BSP) of F3RP61
    - Red Hat-based Linux is recommended for the host
  - Target system on CF card
    - The other boot methods are also supported
      - Boot from a flash memory on board
      - Network boot
    - Can make custom embedded Linux system included in the BSP for your needs



# Our policy (so far)

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- Linux system goes onto the CF
  - Assuming not so frequent changes once established
  - Can boot-up as a stand-alone IOC
- EPICS (built for F3RP61) stays on the host machine
  - Assuming frequent changes in the application
  - Can manage version issues easily
- F3RP61 mounts host file system to start EPICS upon boot-up



# Custom Linux system (1/2)

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- We have developed custom Linux system based on the BSP of F3RP61
  - A work started by
    - A. Uchiyama (SAS)
      - SAS stands for "Sumiju Accelerator Service", not famous (infamous?) "Special Air Service"
  - Heavily extended by
    - S. Yamada (KEK)
      - A ready-to-practical-use embedded Linux system
  - Anyone licensed by YOKOGAWA can get them for nothing with NO WARRANTY condition



## Custom Linux system (2/2)

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- The latest version supports
  - DHCP
  - NTP
  - screen
  - Custom indicator for safe shutdown
  - Enriched terminal database
  - Emacs
- For more details, please contact
  - [shuei.yamada@gmail.com](mailto:shuei.yamada@gmail.com)