

Alive

Seung Hee Nam*
Control Team
Rare Isotope Science Project
Institute for Basic Science
Daejeon, South Korea

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Abstract

Alive record is device support for simple network ping include variable information. This paper handling alive and using alive for monitoring dynamic IOC.

1 What is alive?

Alive record was made by Dohn Arms to monitoring dynamic IOC. Alive module is device support for a simple network ping, and that using custom heartbeat protocol and external heartbeat-watching program. Alive send UDP packet every 15 second to a specified address and port. This UDP packet contains heartbeat counter, current time and so on. The record also opens a TCP port that allows receiving static information about the IOC. On the remote server, the UDP packets are collected by a daemon into a database to monitor the IOCs. The IP address is gotten from the packet itself.

*namsh@ibs.re.kr

1.1 The structure of alive-1-0

```
|--  aliveApp
|  |--  Db
|  |  |--  alive.db
|  |  '--  Makefile
|  |--  Makefile
|  |--  op
|  |  |--  adl
|  |  |  '--  aliveRecord.adl
|  |  |--  opi
|  |  |  '--  aliveRecord.opi
|  |  '--  ui
|  |    '--  aliveRecord.ui
|  '--  src
|    |--  aliveExMain.cpp
|    |--  aliveRecord.c
|    |--  aliveRecord.dbd
|    |--  aliveSupport.dbd
|    '--  Makefile
|--  configure
|  |--  CONFIG
|  |--  CONFIG_SITE
|  |--  Makefile
|  |--  RELEASE
|  |--  RULES
|  |--  RULES_DIRS
|  |--  RULES.ioc
|  '--  RULES_TOP
|--  documentation
|  |--  aliveDoc.html
|  |--  aliveRecord.html
|  |--  aliveRecord.png
|  |--  aliveReleaseNotes.html
|  '--  aliveServer.html
|--  iocBoot
|  |--  iocaliveEx
|  |  |--  Makefile
|  |  |--  README
|  |  '--  st.cmd
|  '--  [namsh      121]  Makefile
|--  Makefile
'--  start_epics
```

1.2 Important alive module file

- EPICS Database
alive.db
- MEDM display file
aliveRecord.adl
- Record
aliveRecord.html, aliveServer.html

<http://www.aps.anl.gov/bcda/synApps/alive/aliveDoc.html>