STARS on Android

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Abstract

STARS (Simple Transmission and Retrieval System) [1][2] is a message transferring software for small-scale control systems with a TCP/IP socket, and it works on various types of operating systems. STARS is used as a beamline control system for controlling the optical devices (mirrors, monochrometers, etc.) for beamlines at the Photon Factory.

Overview of STARS

- Simple
- TCP/IP socket
- Server and client architecture (Each client has its own unique node name)
- Text-based message transfer
- Server is written in Perl => Runs on various OS

STARS has simple certification procedure at the connection time.

STARS Java Interface

```java
stars.connect();
stars.send("System hello");
stars.startCallbackHandler(Cbh);
```

Motor Control with Android GUI

We ported the STARS Java interface to Android, which was demonstrated to work satisfactorily. We then developed a Motor Control Panel for smart phones. The development of a GUI for an Android tablet is also possible using a similar method. The STARS Java interface for Android and the GUI for smart phones or tablets will be useful tools on STARS-based control systems.

References