DARUMA:
Data collection And control framework for X-Ray experimental stations Using MADOCA

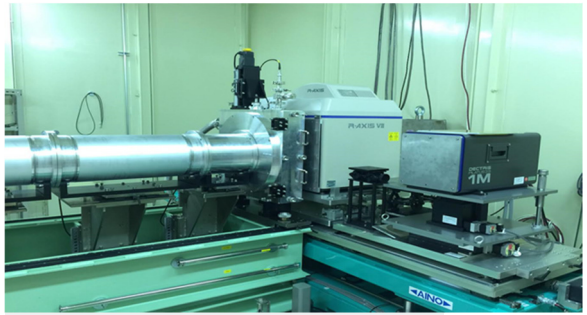
T.Matsumoto, T.Abe, T.Furukawa, T.Matsushita,
K.Nakada, H.Masunaga
Japan Synchrotron Radiation Research Institute (JASRI)

THMPL07

Introduction

- SPring-8 is large synchrotron radiation facility in Japan
- Experimental measurement at stations in 56 beamlines

- **Demands from staffs and users**
  - Easy reconfiguration to update setup
  - Rapid preparation of measurement software
  - Easy to reuse basic software tools such as image handling

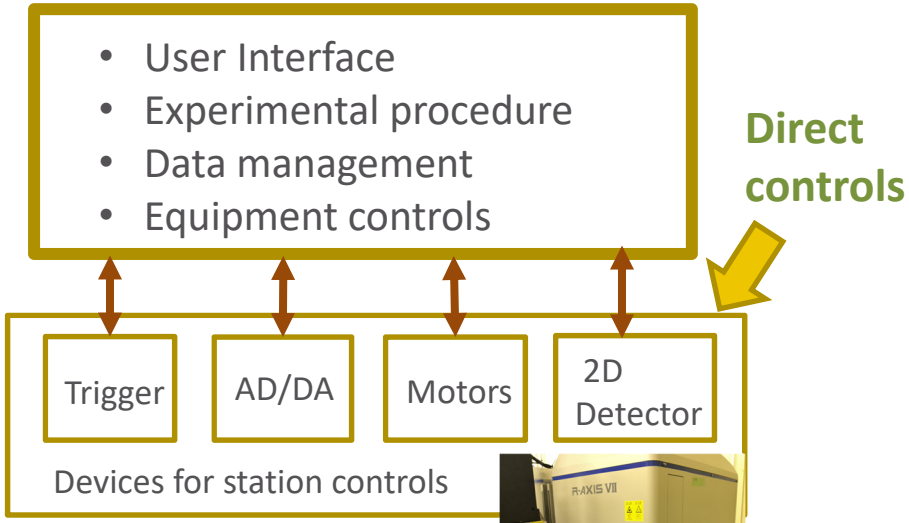


BL03XU at SPring-8
(soft material beamline)

Typical experimental station control

- All the functions are implemented into one application
- Difficulties in reconfiguration, reuse of the software

Monolithic application with LabVIEW, spec etc.



Developed **DARUMA** for controls and data collection of experimental stations

- Standardized messaging controls with **MADOCA**
  - Used in accelerator control for SPring-8
- Provide general software tools

Experimental station control with DARUMA

Poster–ID
THMPL07

SPring-8

- **Developed software components for each function**
  - Facilitate reconfiguration to update experimental setup
  - Easy to plugin general software tools
- Staffs and users can concentrate on experimental procedure with user Interface