LabVIEW Interface of MADOCA II with Key-Value Stores in Messages

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Introduction

• **MADOCA II**
  - Message oriented Control framework

  Used ØMQ and MessagePack

  → Applied to SPring-8 and SACLA DAQ in 2013
  - Multi-platform (include Windows)
  - Large data can be attached in a message
  - Distributed controls over ~500 hosts

• **LabVIEW Interface**
  - Redesigned for easy-to-use
  - Key-Value Stores for Data transfer
Client application with MADOCA II LabVIEW

Init

Build Message

Send/Receive

Fetch Reply

Key

Value

Send VOC="put/camera/init"

Receive C="OK"
Camera Image Viewer with MADOCA II LabVIEW

Easily programmed with simply decomposed VIs

Application with MADOCA II LabVIEW

Message Server

Client PC

Camera Server

Hamamatsu ORCA-Flash 4.0

4 M pixel size

Poster-ID WEM305