

Supporting Information
The yaq Project:
Standardized Software Enabling Flexible Instrumentation

*Kyle F. Sunden, Daniel D. Kohler, Kent A. Meyer, Peter L. Cruz Parrilla,
John C. Wright, and Blaise J. Thompson**

Department of Chemistry, University of Wisconsin–Madison
1101 University Ave., Madison, Wisconsin 53706

*Corresponding Author
email: blaise.thompson@wisc.edu
phone: (608) 263-2573

Contents

1 Package size analysis

S2

Each message call over the yaq interface returns rapidly, ensuring that client applications are not blocked. Some messages initiate long-running operations, e.g. motor motion and sensor measurement. Separate messages are provided to retrieve results from e.g. sensor measurement. In order to know how long to wait, all yaq daemons provide a message called "is_busy", which returns "true" while the long running action is not complete, and "false" once it is finished. Additionally, multiple clients can communicate with the same daemon simultaneously. A complex instrument may involve multiple operators watching sensor data in real time, while one program is orchestrating the hardware and recording the data.

1 Package size analysis