

# Beyond Abeans

Igor Kriznar, Jaka Bobnar (Cosylab, Ljubljana), Matthias R. Clausen, Philip Duval, Wu Hong Gong (DESY, Hamburg), Guenther Froehlich (GSI, Darmstadt)

## ABEANS

Abeans is an application framework for building accelerator applications in Java. CosyBeans are visual components of the Abeans framework.

Abeans are being used in production environment on several sites, sometimes from the beginning:

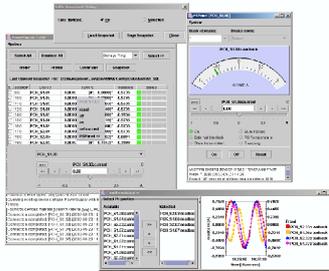
- ANKA (Germany)
- Diamond (UK)
- UVSOR (Japan)
- ASP (Australia)
- Spring-8/JASRI (Japan)

We have accumulated plenty of experience of using Abeans, both good and bad.

### THE GOOD

- Building applications is very effective with professionally designed GUI components
- Reuse of components, design patterns and more: experiences and best practices gained by Cosylab.
- Collaboration with and contributions from many sites: ANKA, ESO, SNS, DESY, RIKEN.

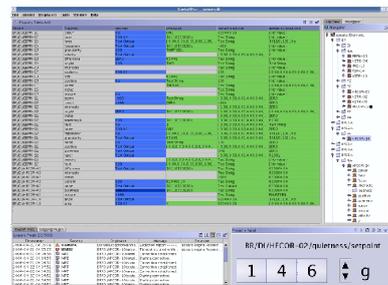
The conclusion: On the basis of accumulated experience, we have decided to do a major upgrade to learn from the "the bad" and make "the good" event better.



Complete ANKA control system applications are built and maintained with Abeans.

### THE BAD

- Constrains: building has to be done in a certain way.
- Complexity: maintaining a complex framework is expensive.



ControlDesk application at Diamond is using Abeans application framework to model devices from EPICS channels. It is a high performance application, able to simultaneously display a thousand channels.

## BEYOND ABEANS

### Why move beyond?

- Following Java technology development.
- Improve flexibility in less framework style.

### What's next?

- CosyBeans became an independent set of libraries.
- DAL (Data Access Layer) library from CSS (Control System Studio) became the next focus of multi-control-system interfacing.

### What happens to Abeans?

- Abeans stay at current development level, doing their nice job of serving the operators and application developers.

### CosyBeans

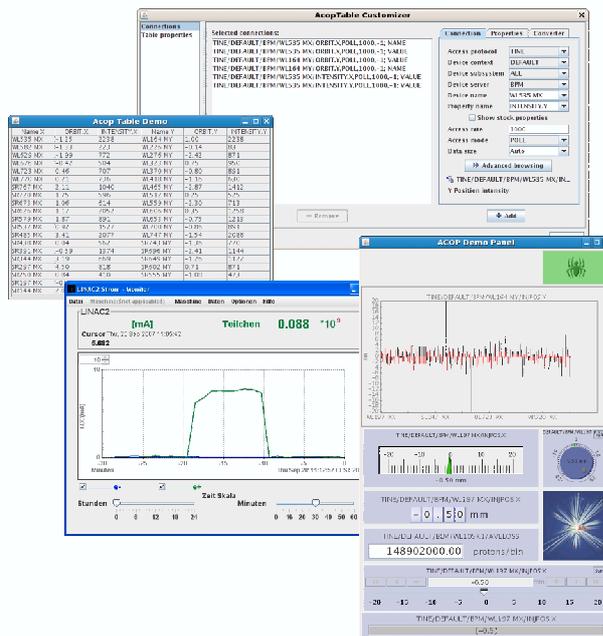
- <http://cosybeans.cosylab.com>
- Set of open source Java libraries, mostly GUI Java Beans.
- No framework, like in supermarket: if you like bananas you don't have to take the whole fruit section.
- Blends perfect with other Java Beans, like Acop (<http://adweb.desy.de/mst/acop/>) from DESY.

### DAL

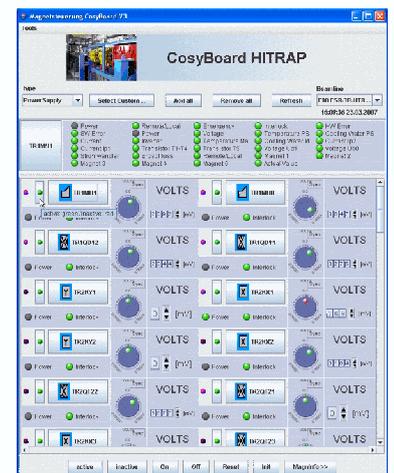
- DAL is a non-visual library, part of CSS (<http://css.desy.de>) project being developed at DESY with the latest Eclipse technologies.
- Easy to access different control systems using the same API.
- Fast and easy control system integration. Only a couple of days is needed to provide basic access through DAL.

### Key labs leading the way beyond

- DESY with TINE and CSS
- GSI



Family of ACOP Java beans at DESY has many nice features for building Java applications in visual editors, such as NetBeans, and connecting them directly to TINE communication library. Some of the ACOP components has benefited from CosyBeans libraries.



Magnet table from GSI is put together with standard Java Swing components and CosyBeans widgets. It connects to GSI device oriented control system through DAL device interface.



There is no picture of DAL but Tux likes it anyway. All this Java stuff is friendly to his kind.