

### Why TANGO?

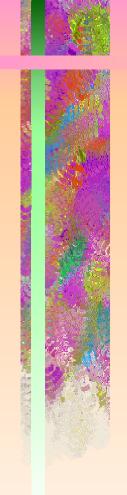
That is a very good question!

We have very good answers



## First ask yourself this question:

 If you were building a new control system today and you had to choose between RPC and CORBA which one would you choose?



#### In the beginning ...

- There was M.Baudot who invented the serial line (1894!)
- Then there was M.Klotz who invented the home made parallel network (mid 1970)
- Then there was Ethernet (late 1970)
- Then there were Berkeley sockets (early 1980)
- Then there were remote procedure calls (late 1980)
- Then there was CORBA (mid 1990)



### Everytime we adapt ... and improve ...

- EPICS is based on sockets
- TACO is based on RPC
- TANGO is based on CORBA

· Unfortunately M.Baudot is still with us!



#### TACO has reached maturity

- It offers the minimum number of features an object oriented control system should have, it is fast, simple and easy to use
- BUT TACO is not perfect ...
- Mistakes were made, certain things are not as simple as we would like them, some features are missing, we have new better ideas



#### The motivation for TANGO

- The motivation for TANGO is to use the experience of TACO to build a better control system using a modern protocol
- TANGO will be fully compatible with TACO in order to profit from the big code base of TACO
- We have a running system therefore we have time to develop (in theory)



#### Why CORBA

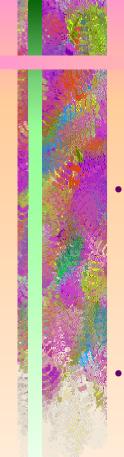
- CORBA is the obvious choice today
  - It is object oriented
  - It is widely implemented
  - It is efficient + free
  - It has been standardised
  - It is language independent
  - It has bindings for C++, Java, C, Python,
  - Control systems using it are ACS, ICCS, GNOME Windowing system ...



- · The WEB
  - Access from web browser
  - SOAP to CORBA gateway
- · C++
  - Use patterns
  - Provide an object oriented api
- · Java support



- Automatic data caching
- Better thread support
- · System generated events
- · Self-describing data types
- · Easy system administration
- · Automated startup procedure
- Full support for Windows



# The Big Debate ... Generic vs. Specific

- Generic
  - is a minimum requirement
  - allows writing simple generic clients
  - supports hooking and checking
- Specific
  - general case of generic
  - allows compile time checking
  - is more object oriented
  - is a source of long discussions
- TANGO proposes to implement specific interfaces on the client side