



X36LOS – 8. seminar

CORBA

(Common Object Request Broker Architecture)



CORBA

- **OMG – Object Management Group**
 - organization behind CORBA specification
- **How it works**
 - Object publish service
 - Service is specified by interface
 - Interface is defined by Interface Definition Language



CORBA

- ORB (Object Request Broker)
 - distributed service
 - programming language independent
 - independent on client or server locality
 - implements remote calling of object
 - finds object
 - delivers the request
 - waits for response
 - deliver response to client



CORBA – IDL

- IDL – Interface Definition Language
 - programming language independent
 - standards pro C, C++, Java, Smalltalk, Lisp, Ada, COBOL
 - defines:
 - methods and attributes supported by object
 - exception throwed by object
 - data type of return value
 - supports:
 - basic types (long, float, string, ...), compound types (union, enum, ...), reference to object, typ `any`, ...



CORBA – IDL - example

```
module StockObjects {

    struct Quote {
        string symbol;
        long at_time;
        double price;
        long volume;
    };

    exception Unknown{};

    interface Stock {
        Quote get_quote() raises (Unknown);
        void set_quote(in Quote stock_quote);
        readonly attribute string description;
    };

    interface StockFactory {
        Stock create_stock(
            in string symbol,
            in string description
        );
    };
};
```



CORBA - usage

- Creation of IDL
- Code generation
 - with `idlj` (included in JDK), ORB Studio, ...
- Business logic implementation



Sources

- <http://java.sun.com/developer/onlineTraining/corba/>