

# Cross-platform data structures for qualitatively high-grade software engineering



*„A just one time defined data structure applicable on all platforms“*

## More and more cross-platform applications in times of internet

Today more and more applications will be crossed-platform developed and implemented by means of client/server/mainframe. The communication between these systems will be normally made by defined data structures in format of XML or plain data structure (= simple data definition).

Unfortunately this systems use - history-related – very different development environments and tools for data defining. In addition in every company exist different systems for central data defining (for example: SD-technique, Predict, etc.). The consequential problems for software development are obvious:

- Data definitions have to be created in each platform.
- The conversion between the different formats of data have to be always programmed (for example different formats of date).
- Mainframe: The conversion of XML has to be always programmed.
- The error rate during construction phase will be considerably increased by variant ( faulty ) data definitions.
- The time for error analysis during development is enormously.
- Changes of pre-existing applications have to be explicitly made in each platform.

This indicates that the development costs of such applications to a vast extent depend on the quality of data definitions.

## How are you able to solve this problem?

„One time data defining and crossed-platform providing of the data definition“

Data will be defined just one time and then distributed to all involved platforms. At this it's irrelevant in which format the data are stored ( or will be stored ) in the whole company.

Then the data definitions will automatically made available for each platform according to it's usual format.

Conversion of data as well as the conversion of XML will be allocated by automatically generated applications (so called Userexits ).

If there is a change in pre-existing applications, this will be centrally performed. All components will be newly constituted and rebound to the corresponding applications. That's all!

**There is a one time defined central data definition usable for all platforms.**

## Which functionality such a system has to provide?

Our tool for data defining, which is in use at several customers in different peculiarities performs the following:

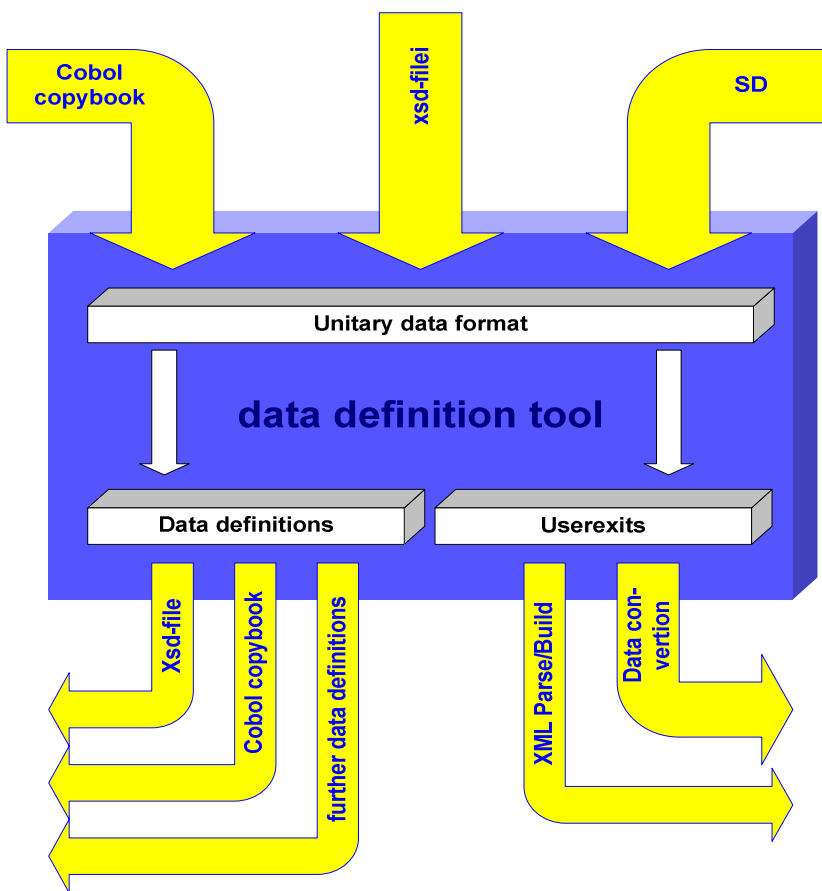
- Central data gathering in an arbitrary format (Cobol-copybook, xsd-file, SD-definition, ...). You can use your existing system or our tool for gathering.
- Machine-aided transfer of data definitions in an internal format.
- Generation of data description for many different platforms. These can be rebound to the corresponding applications at the respective platform.
- Mainframe: Generation of the respective Userexits for Parsing/Building of XML-data.
- Generation of modules for data conversion.

**All applications work with the same data structures.**

# Cross-platform data structures for qualitatively high-grade software engineering

*„A just one time defined data structure applicable on all platforms“*

## data definition tool



### The advantage of this solution

The advantages of this solution are evident:

- Unitary and central data description
- The use of the same and unitary data structures by all platforms
- Minimization of software development times
- Minimization of errors by automatically generated code
- Changes are simple and will be consistent in all platforms
- Unproblematic integration of new data formats