

# JAXFront @Swisscom

*"Building a JavaSwing Client based on the XML Rendering Engine JAXFront".*

## overview

Swisscom has built a generic *Order Management System* (OMS) to process any kind of orders concerning *Swisscom Fixnet*. Every type of order (business transaction) requires its own user interface and has own dependencies/restrictions between input fields (cross field rules).

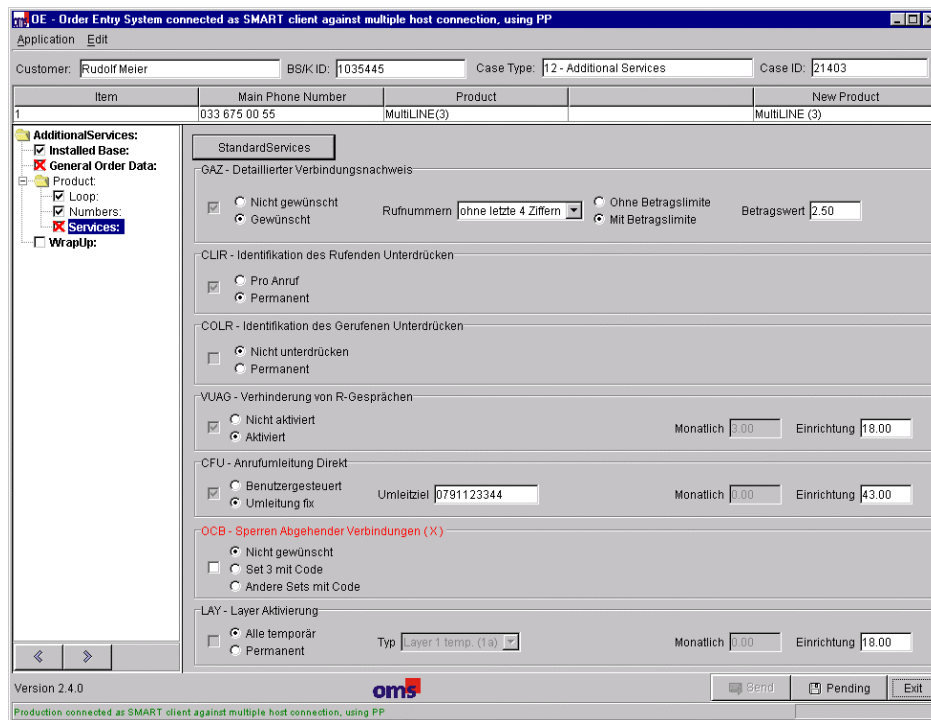
By the generation of these graphical front ends with JAXFront, the introduction of new type of orders (Fixnet products) becomes easy and needs no further deployment of the whole application.

## technical details

An asynchronous order management system called OMS has been build by Swisscom to handle all kind of different orders for Swisscom Fixnet on the basis of XML. The contract between any kind of client and the server is an XML Schema. The server is able to process any XML streams following the constraints of the XML Schema.

Swisscom together with *xcentric technology & consulting* defined an XML Schema for every type of business transaction which describes an abstract order. The graphical user interface for such an order is generated dynamically on-the-fly on the basis of an XML Schema, a XUI Template and predefined JavaBeans.

The graphical JavaSwing frontends generated with JAXFront have been integrated with the existing Swisscom client side framework.



The navigation tree on the left together with the detail view (right hand side) were generated according an underlying XMLSchema and an XML Instance. The validation of the different input masks happens automatically based on the XML Schema data types, cardinalities, default values, etc. at client side. Specific layout requirements (label colors, positions etc.) are described in the XUI document.

## technologies

Technology	Usage
XML	<ul style="list-style-type: none"> <li>Describing instances of orders sent to the server.</li> <li>Defining behaviour &amp; UI look &amp; feel (XUI).</li> </ul>
XMLSchema	<ul style="list-style-type: none"> <li>Meta Modelling language for a business transaction.</li> </ul>
Java JDK 1.2	<ul style="list-style-type: none"> <li>Implementation Language.</li> </ul>
JAXFront 1.0	<ul style="list-style-type: none"> <li>XML Rendering Engine producing Java Swing GUI's.</li> </ul>
JDOM	<ul style="list-style-type: none"> <li>W3C DOM Implementation for Java for traversing/manipulating an XML data tree.</li> </ul>
RMI	<ul style="list-style-type: none"> <li>Middleware component.</li> </ul>

Online Demo of JAXFront XML Rendering Engine: [www.jaxfront.com](http://www.jaxfront.com)

## project benefits

- Rendering the XML orders means less *deployment* if a new type of a swisscom FixNet product is needed and provides a *common look and feel* (even on different UI channels like JavaSwing/HTML).
- The rendering engine will assure that only *valid XML streams* will be sent to the server. This results in a better data quality for all orders sent to the server and *reduces traffic/bandwidth*.
- The dependency on the IT team became less. The IT team could focus on really IT requests like infrastructure, system integration, interfaces, etc. instead of struggling around with “GUI” issues.
- The whole development cycle for creating a new Fixnet product could be reduced by 30 to 50%.

## contact information

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