



How to Communicate the iDempiere Architecture

Presentation at iDempiere World Conference Lyon, Oct. 31st. 2019

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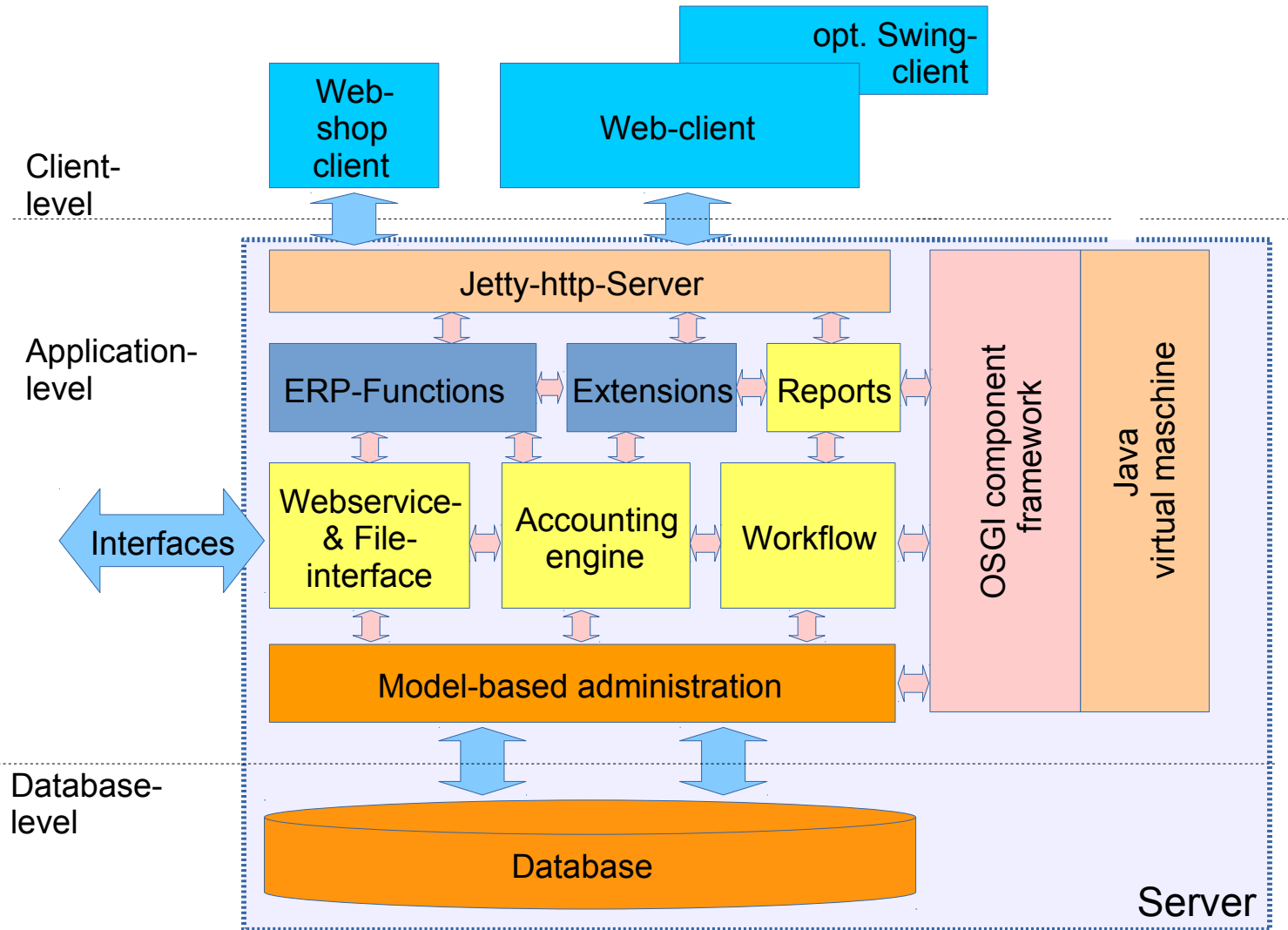
Initial observation: iDempiere is based on many components and elements

- Various people interested
 - diverse interconnected business functionality
 - various options for adaptation to specific companies needs

- ! Big challenge to learn and acquire knowledge about the complex system

- ▶ Architectural overviews may ease orientation
 - but must take care of
 - different stakeholders and their
 - respective viewpoints

A General Overview on iDempiere



Overview on talk:

- Introduction ✓
- Questions
- Interested stakeholders
- Some architectural drafts
- Comparison APQC process framework to iDempiere
- Next steps

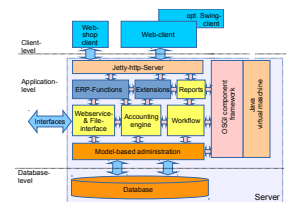
Questions:

- Which stakeholders are interested in knowledge of iDempiere on:
 - functionality,
 - technical infrastructure and
 - development environment?

- Which information is required by them?

- Which good practice for architecture models is adequate?

- How should iDempiere architecture models be designed?



Potential models for an iDempiere architecture documentation:

- Current models
 - from diverse sources in varying formats
 - mostly with focus on business processes
- Other ERP-system architectures
 - different designs
 - often focussed on functional or technical components
- Typical options for capturing architecture information
 - individual design of symbols and relationships
 - using a standard, e.g.
 - UML
 - Archimate

First prototype models revealed an intricate set of notions:

■ Business objects

- master data
- documents

■ Configuration data

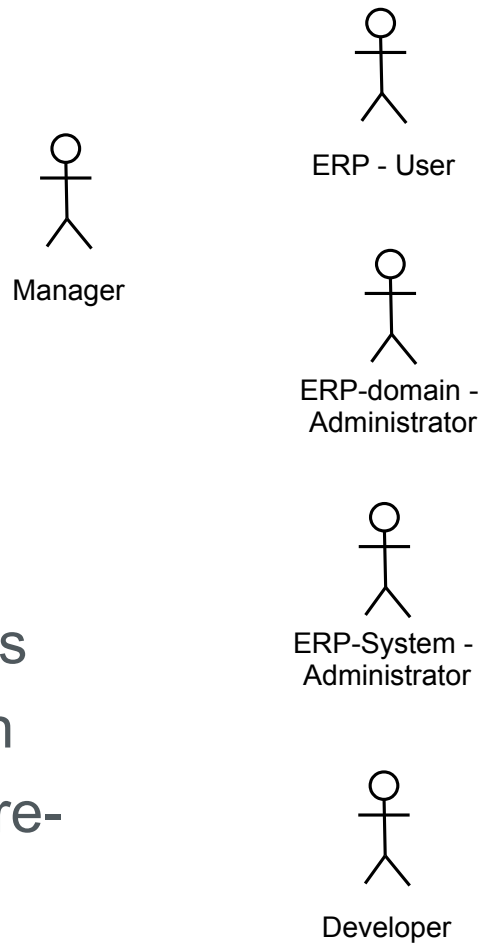
- iDempiere technical base configuration
- ERP-company configuration

■ iDempiere components

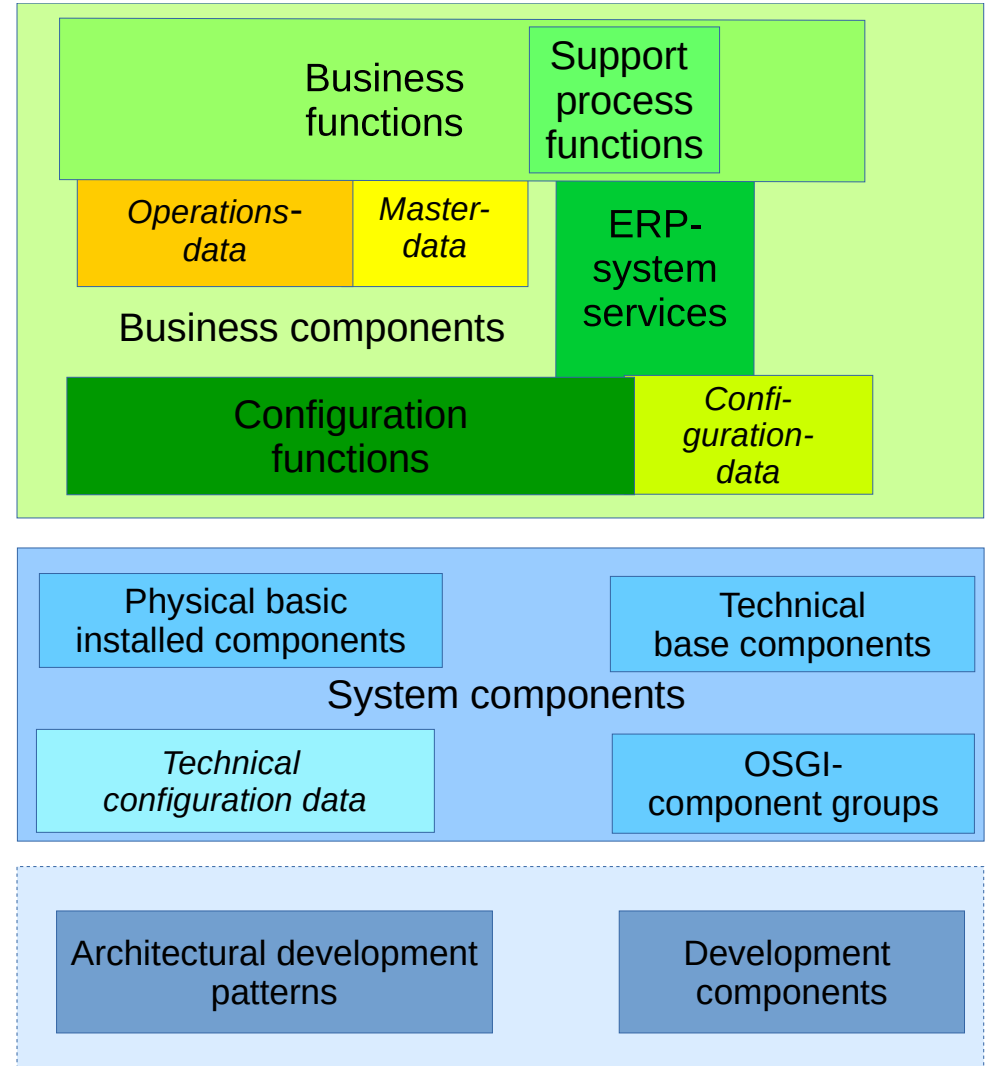
- installation requirements
- OSGI-components
- development environment (single and project)

■ iDempiere patterns

- application dictionary
- model concepts



Typical stakeholders interested in an iDempiere-system



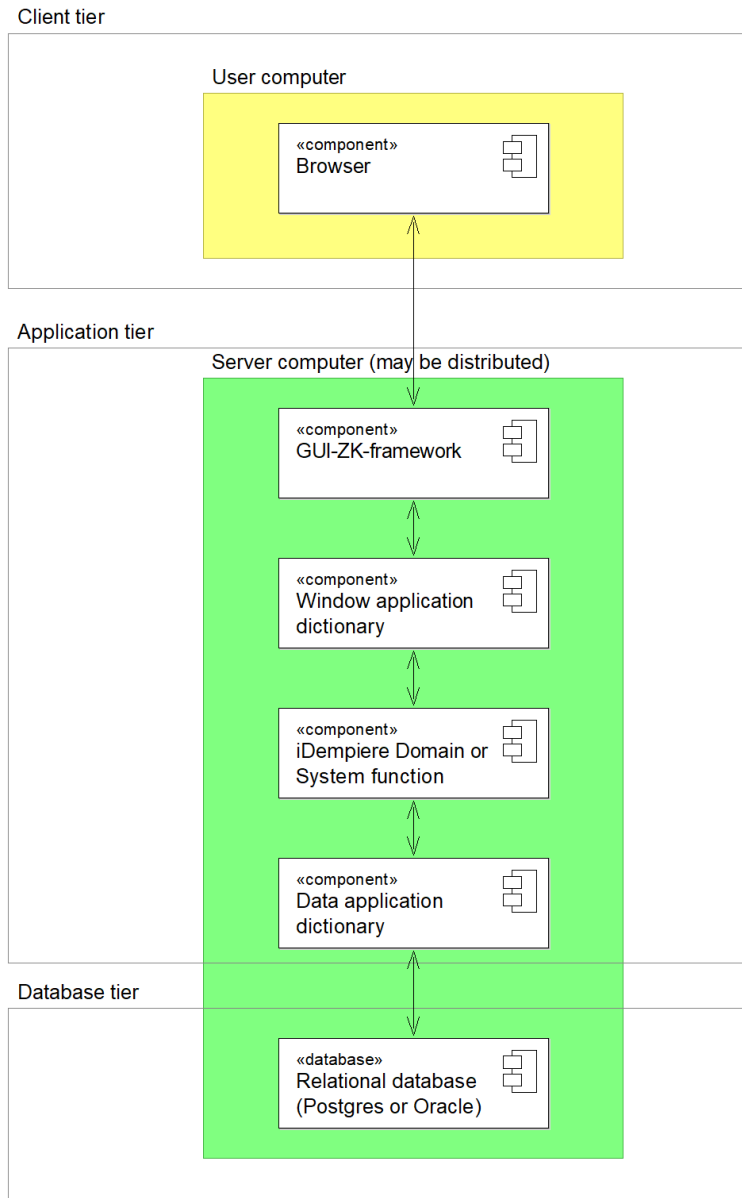
Some models designed in preparation of the workshop:

- Standard components and application communication overview
- Master data of iDempiere
- Documents flow
- Components of domain functions
 - comparison with the APQC process model
- Development environment
- Customizing layers of iDempiere

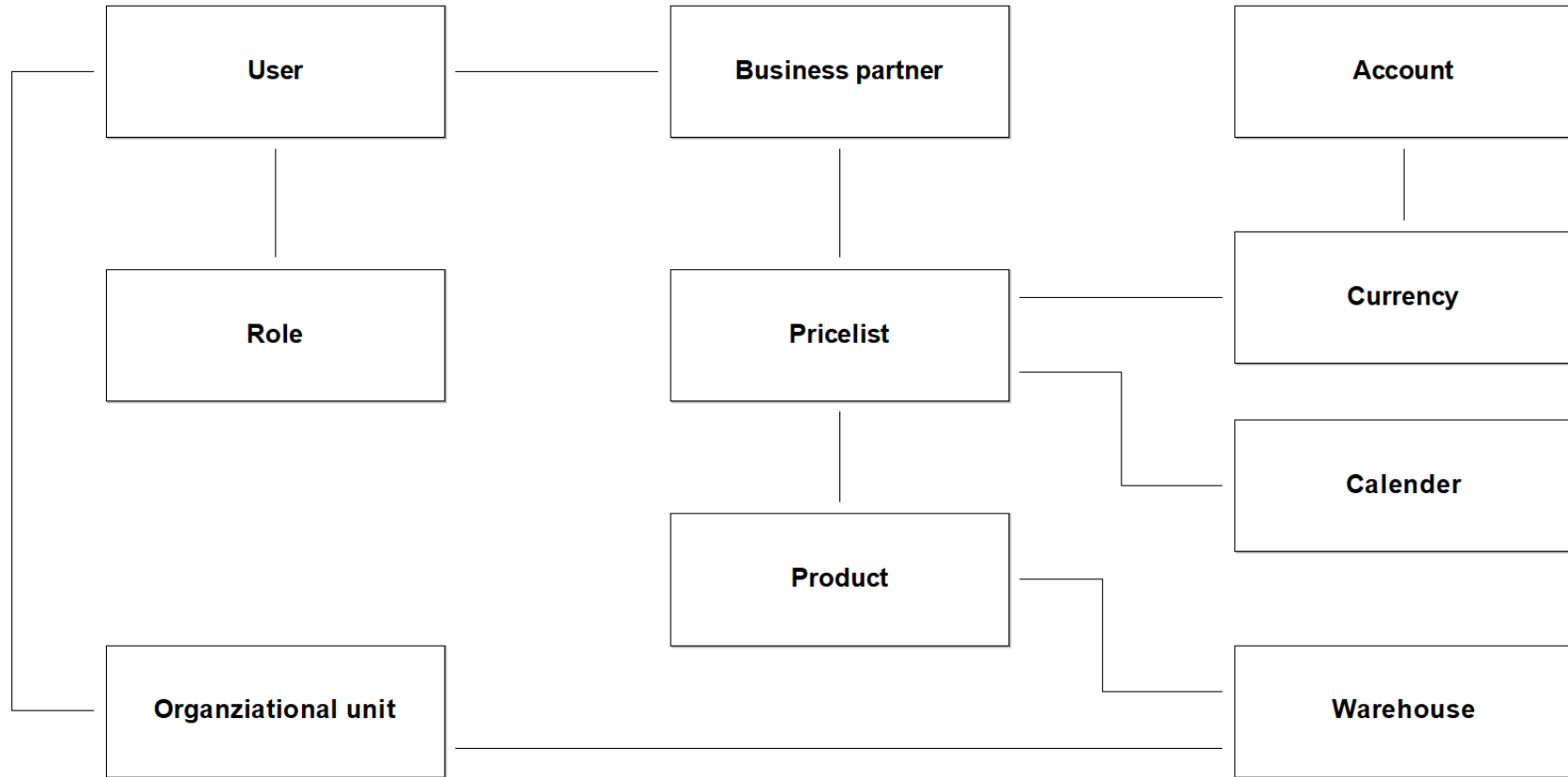
Further model candidates for helping to understand iDempiere:

- Structure of Classes for business objects (PO, X_, M_, I_)
- OSGI – modules in relation to general components and functionalities
- ...

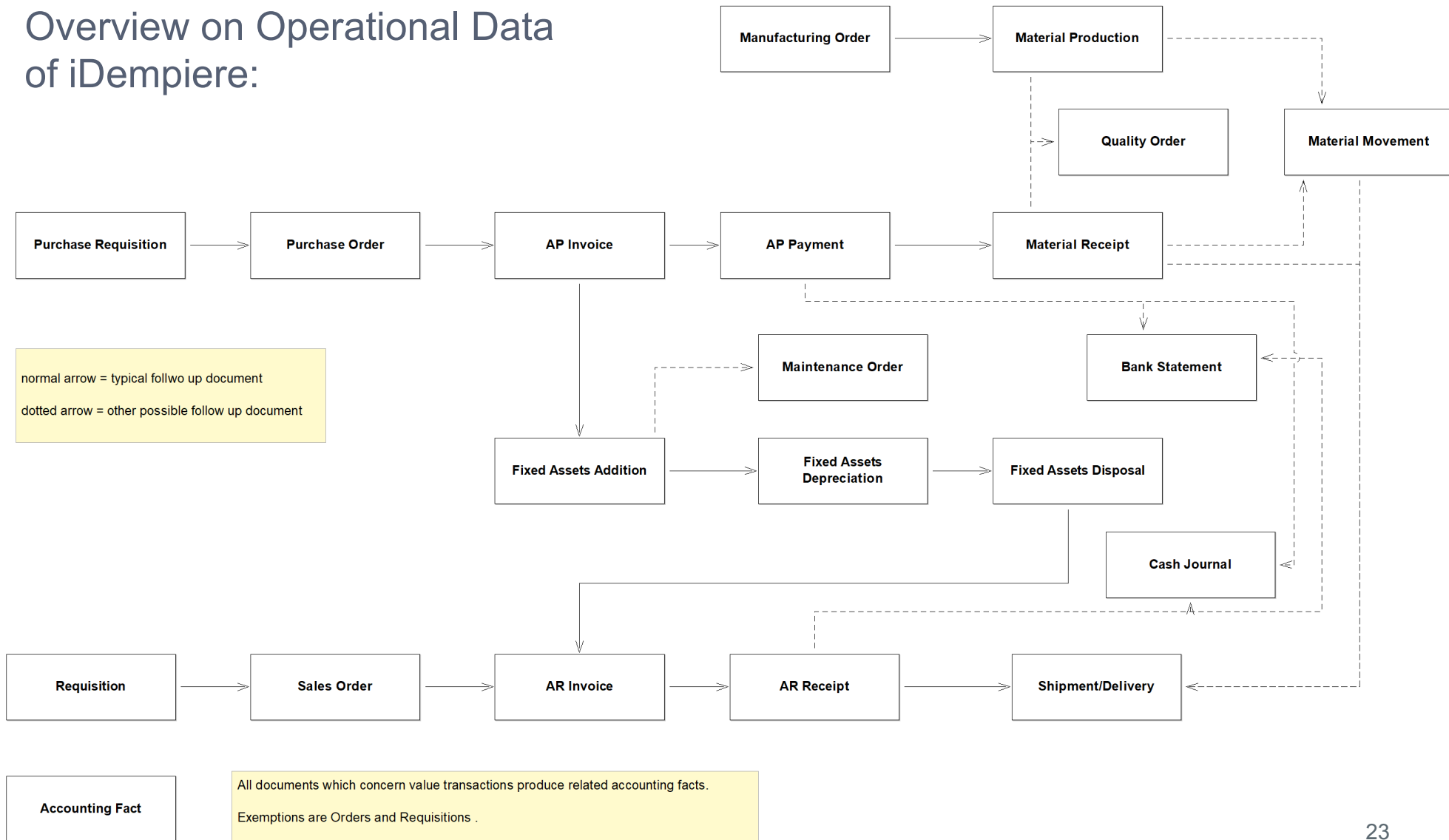
Standard components and application communication overview:



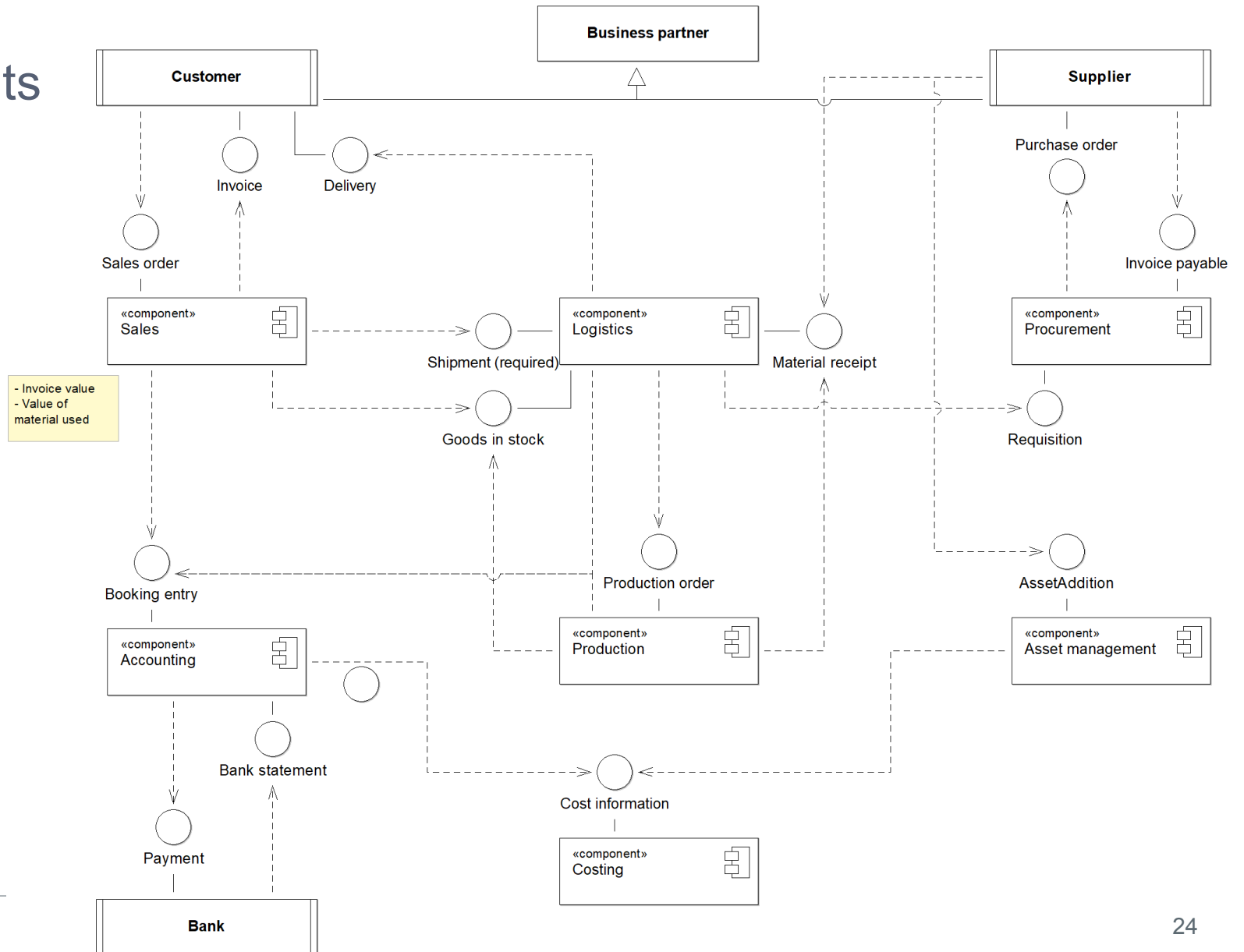
Overview on Domain Master Data of iDempiere:



Overview on Operational Data of iDempiere:



Components of Domain functions and data exchange:



Observations from comparison of APQC with iDempiere processes:

- Different wording in both lists
 - APQC standard more common terms
- Focus of processes
 - APQC - all company processes, encompassing operational and including numerous management processes
 - iDempiere – operational and financial processes
- Valuation quite subjective – depending on base, e.g.
 - usage in practice
 - including reports and other elements
 - incorporating customization

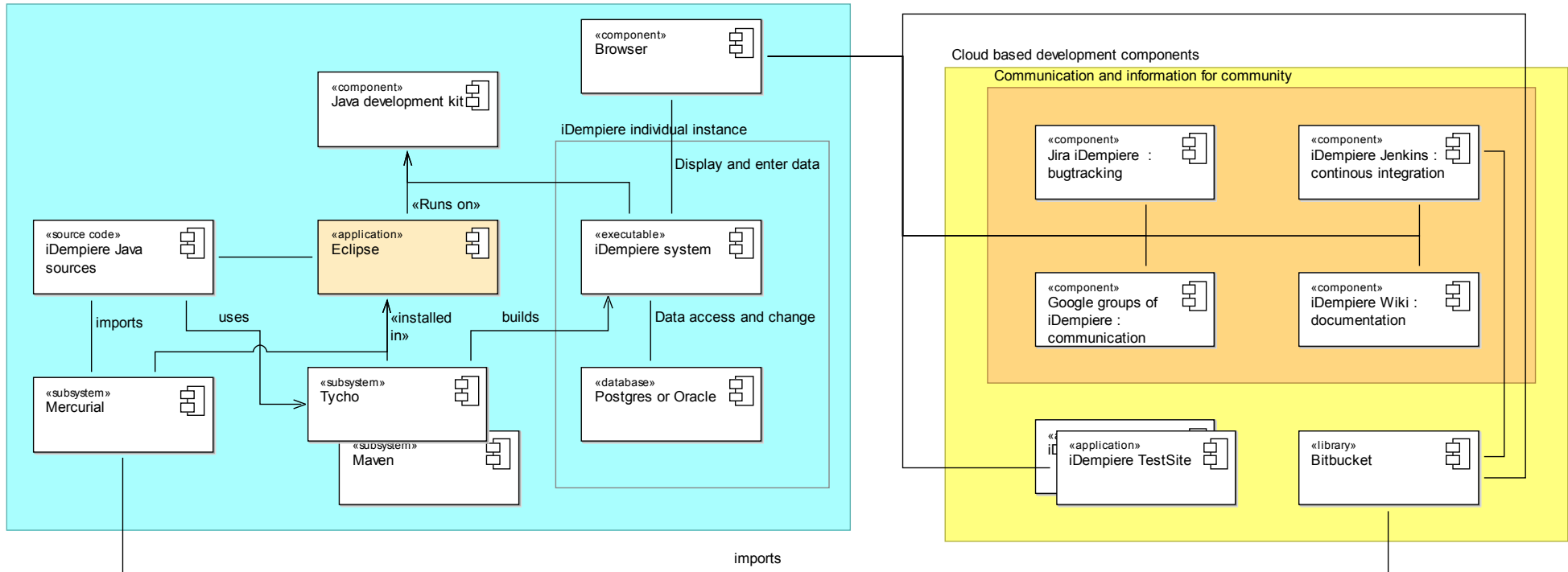
(this overview follows the first two viewpoints listed above - customization was excluded)

Partially Weighted Comparison of Standard APQC Processes with iDempiere functions:

APQC-No	APQC-Category	iDempiere functions	Coverage	Comment
1-2	Strategic and product management		○	
3	Market and Sell Products and Services	Quote to invoice	◐	
4	Deliver Physical Products	Material management, Requisition to invoice	◐	
5	Deliver Services	Project management	◑	
6	Manage Customer Service	Returns	◑	
7	Develop and Manage Human Capital		○	Plugin-available ◐
8	Manage Information Technology (IT)	System admin	◑	for ERP-itself
9	Manage Financial Resources	Performance analysis	◑	
10	Acquire, Construct, and Manage Assets	Assets	◐	
11-13	Risk, external Partner and Capabilities management		○	

Overview on iDempiere Development environment:

Development client (typical)



Customizing layers of individual iDempiere Development environment:

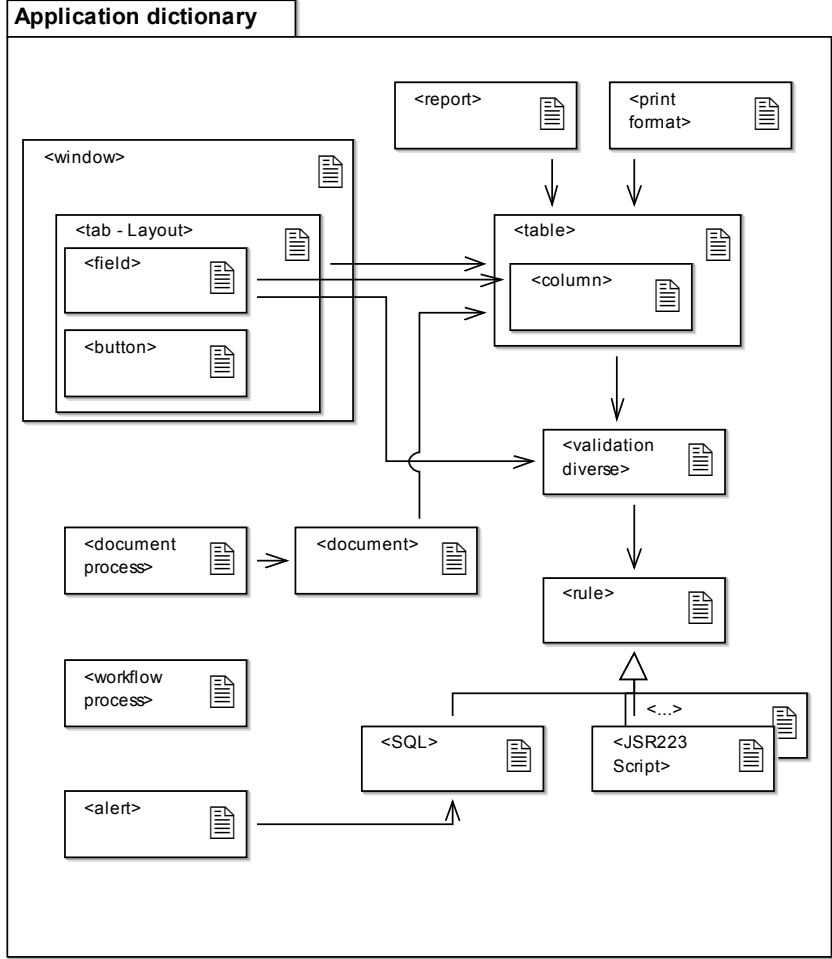
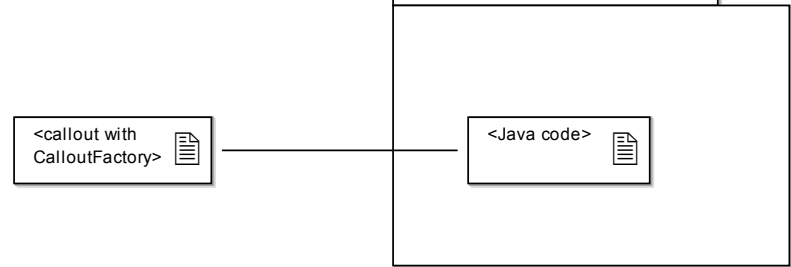


Table based, often in several levels. Some scripts for validation purposes in the AD, linked or attached to individual fields

Java Sources Model Classes



Feedback and ideas for further development required

- Experiences with usefulness of architecture overviews
 - refining stakeholder groups and their requirements
 - design of modeltypes
- Verification and collection of further information for models
 - necessary content
- Further steps
 - 1st version of architecture models for iDempiere wiki
 - continuing updates and improvements
- ...

Questions and comments?

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or on posters!!