SHORE –semantic hypertext object repository
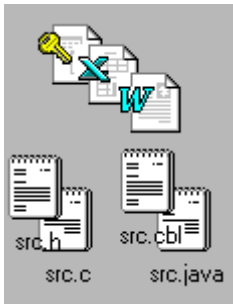
Overview and demonstration

Stuttgart, 10.6.2003
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Agenda

- What is SHORE and how does it work?

- Demo

- For what SHORE is good for

- Technical Details

What shall be solved?

Software systems include many, many documents: Requirements, specifications, descriptions, handbooks, sources.

How their information is related is hardly recorded.

All documents have different patterns of structuring.

Humans are aquiring knowledge by

○ First finding an overview

○ Then trying to understand things

○ and finally going into details

SHORE offers a way to the knowledge stored in structured documents

What is SHORE?

- SHORE is a **web-based repository** that stores information extracted from **structured documents**
  e.g., XML-ified source code, requirement specifications

- Has a **flexible „meta model"** for coping with different kinds of textual structures

- Answers **complex queries** by **using Prolog**.

- Is delivered with a **language independent meta model** plus specializations for e.g. Java and COBOL models

- Contains some **programming language parsers** and easy to use **leight weight pattern matching framework**

- Demo

Agenda

- What is SHORE and how does it work?

- Demo

➡ - For what SHORE is good for

- Technical Details

For software development SHORE solves…

- … how a team keeps the **overview**

- … to see how the results of **project phases fit** together

- … to get a better **view of future changes**

- … to find hidden **dependencies** (e.g. cyclic dependencies)

- … to see „**open ends**"

SHORE is used at sd&m for…

- …navigating and analyzing **programming sources**

- … browsing and producing **specification and construction documents** (MS Office)

- … browsing and editing **descriptive texts** linked to external information like module documentation

- … navigating **databases**:

  - test cases

  - change requests

  - module descriptions

SHORE can also be used for…

- … analyze transformation steps
- … navigate texts of the law (and accompanying commentaries)
- … display schedules and related data

- and all other structured texts…

Navigational highlights:

- Backward resp. „use" references

- Display of usage by point & click

- Run queries by point & click

- Get call hierarchies over all involved interfaces

- Usage with any web browser

- one consistent view on all imported documents

- no need to use „interpreted attributes" as in other tools

SHORE offers more than navigating

- Display numbers of documents, objects etc. („**Mengengerüst**")

- Display of open ends (**undefined objects**)

- Handling of **complex queries** possible (even recursive)

- **Export** of model, meta model, query results, … **in text format**

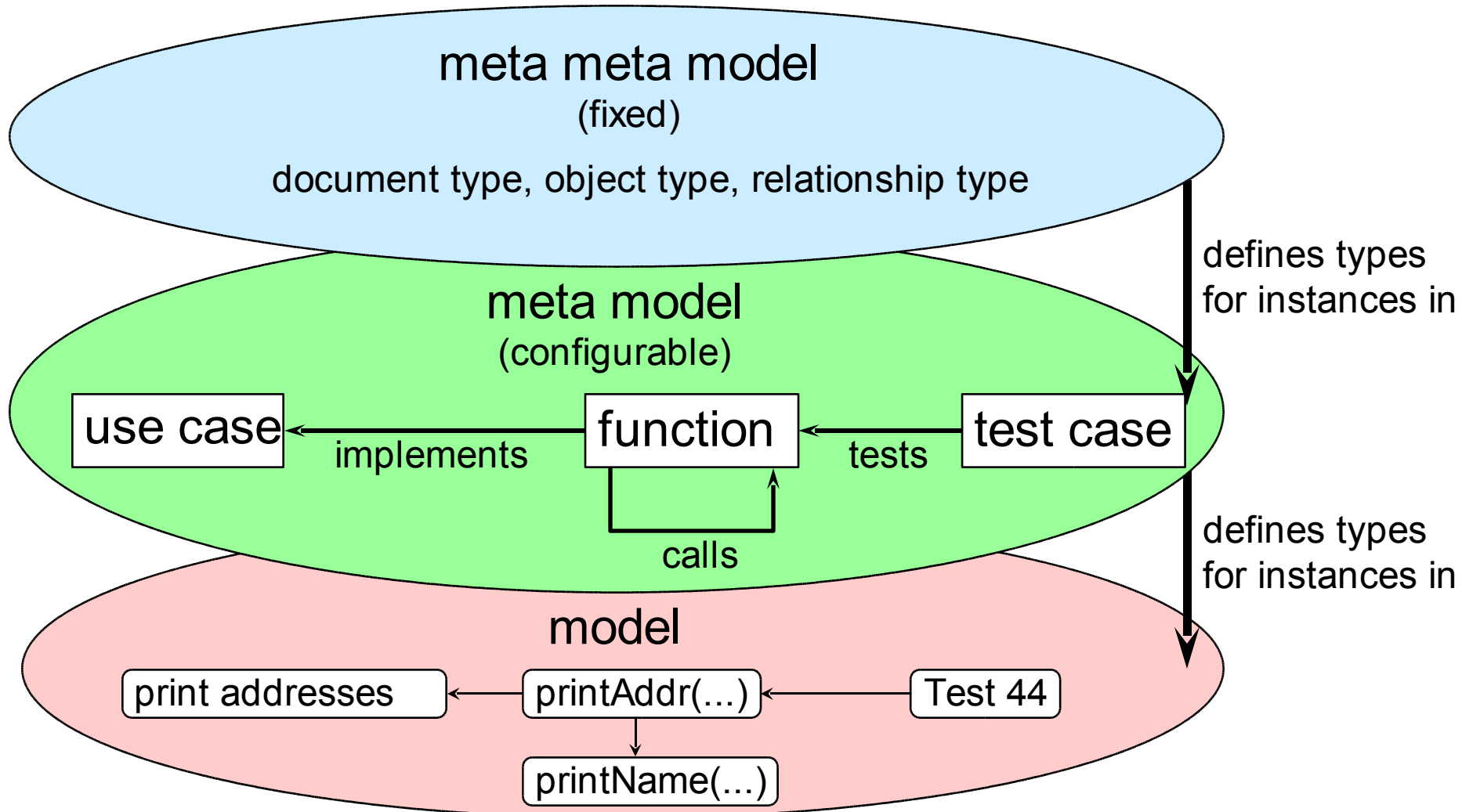- Generating of documents (Reports – with an external Perl framework)

Agenda

- What is SHORE and how does it work?

- Demo

- Examples for what SHORE is good for
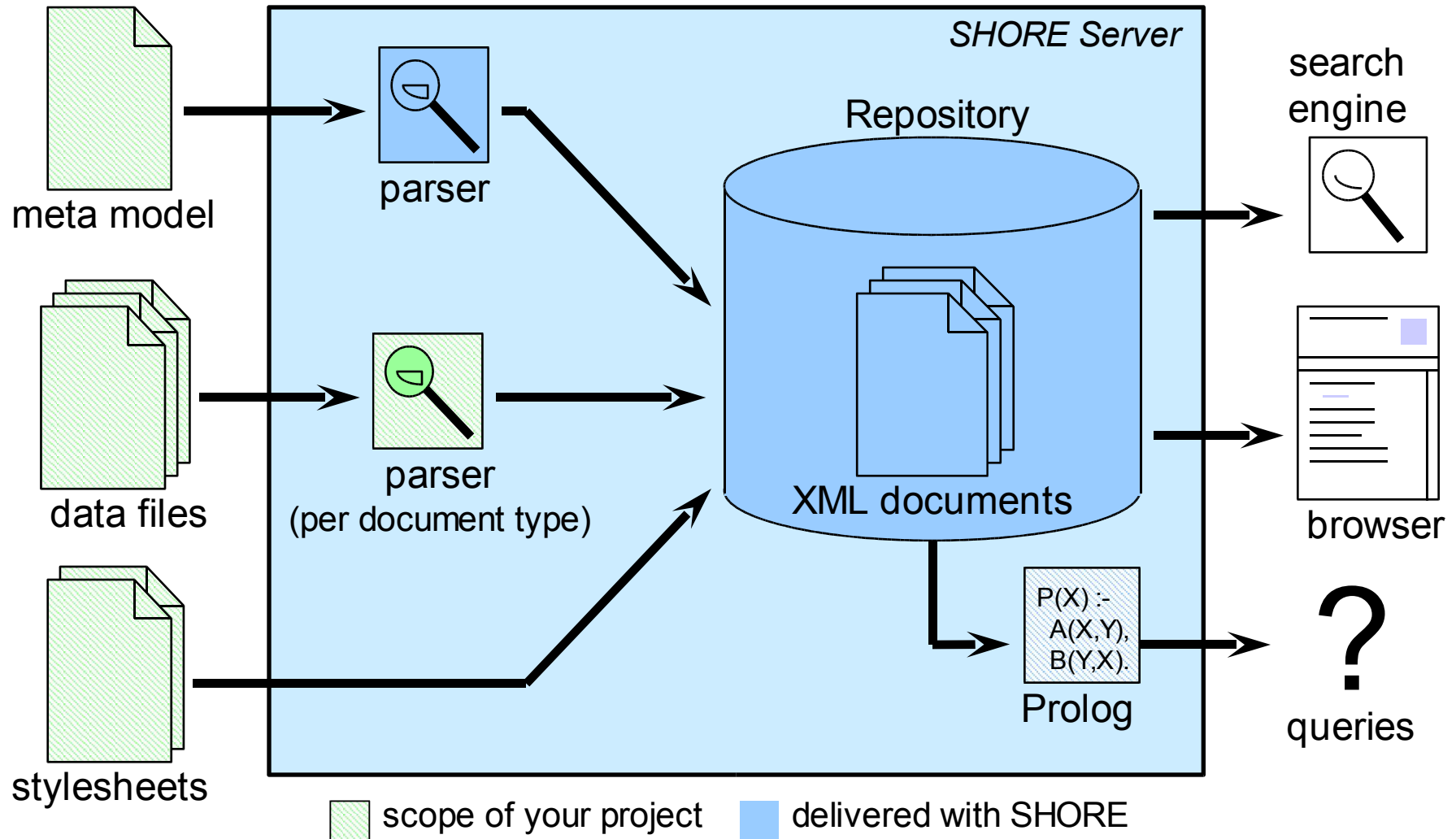
➡ - Technical Details

SHORE has a flexible meta model

- standards and special cases can be handled

- meta model can also be changed later on

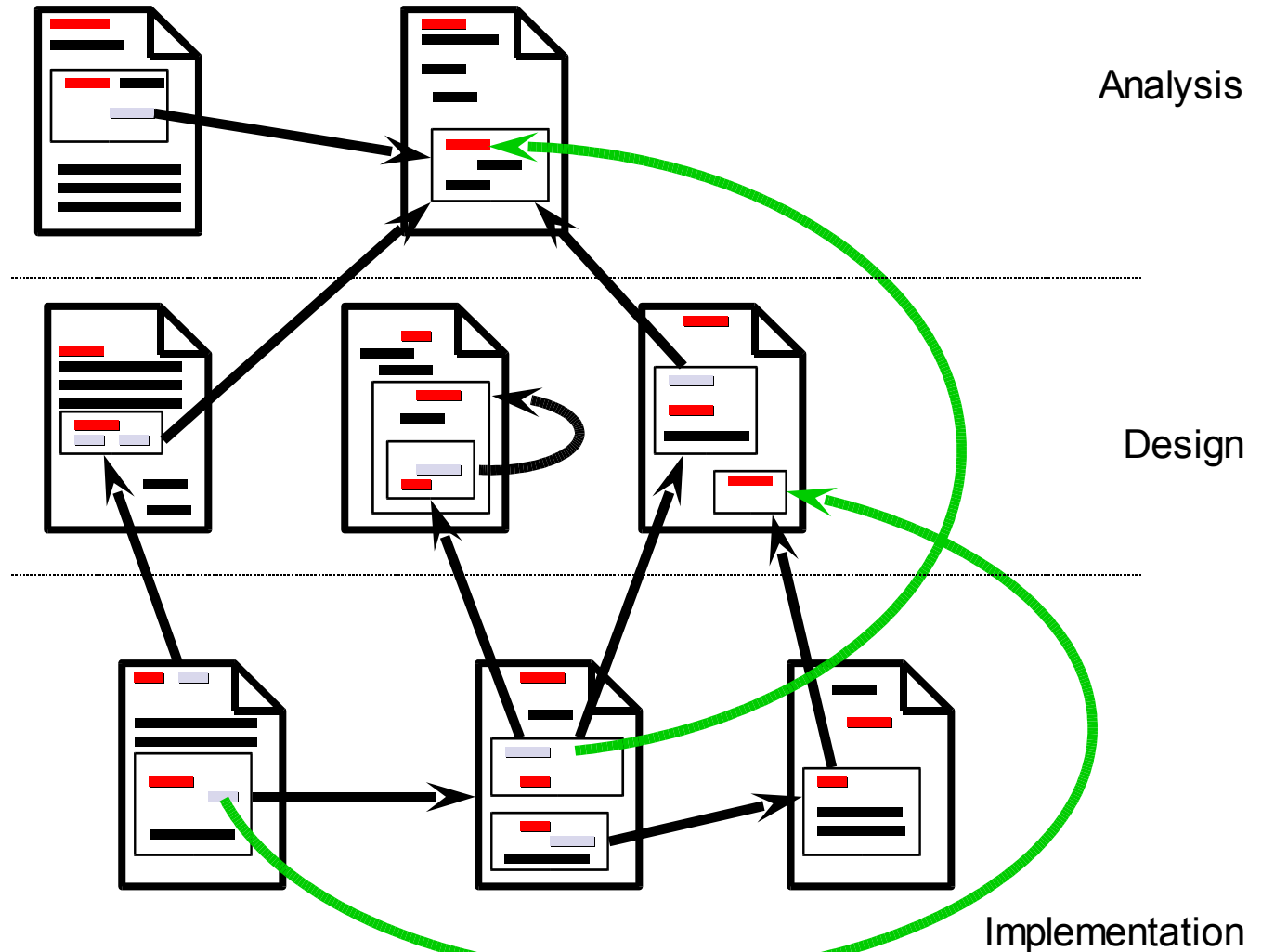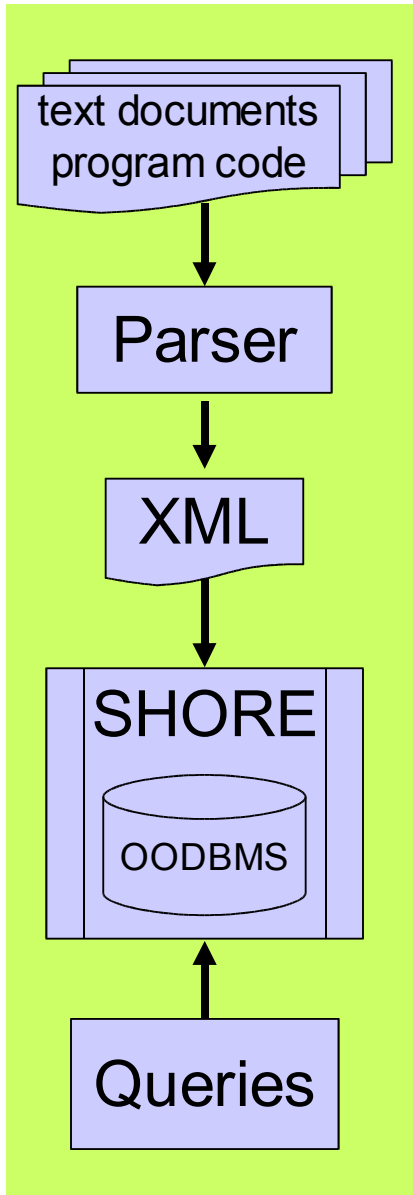- possibility to create a domain specific modelling language

Model Layers

meta meta model
(fixed)

document type, object type, relationship type

meta model
(configurable)

use case ← *implements* — function ← *tests* — test case

calls

defines types for instances in

model

print addresses ← printAddr(...) ← Test 44

printName(...)

defines types for instances in

Principle Of Function

Linking of documents

Analysis

Design

Implementation

History of SHORE

- in the 90s: HORA, the mother of SHORE was developed at sd&m
- 1997-2001: development of SHORE at sd&m
- 2002: SHORE is provided as Open Source by current and ex sd&m people as OpenSHORE

Links

- Homepage: http://www.openshore.org

- OpenSHORE sources and mail lists: http://sourceforge.net/projects/openshore/

- software design & management AG: http://www.sdm.de