

## **Project Overview**

# >> Content Management System (CMS) <<</pre>

Matthias Löbe Workshop Onto-Med Research Group 07.08.2003

imise





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What does Content Management mean?

Content Management is the process of creating, publicating and maintaining information in a semi-structured data store

Why do we employ a CMS?

Quality management of information, data and operation while serving different classes of users



#### Structure of an object



- An object consists of:
  - Content (text or binary)
  - Template defining the layout
  - Attributes called metadata
  - References
  - Rights

- ...

➢This partitioning is the central idea behind content management systems



#### **Object lifecyle**

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- Every object traverses a so called "life cycle"
- The life cycle pictures (simplifying) all stages an object can be at
- Traditional web publishing does not support archiving and quality assurance



#### Basic Advantages

Easy to learn

- windows-like GUI with directory tree
- separation of content, layout and metadata
- integrated wysiwyg editor

Easy to use

- operations similar to file system
- to-do lists
- convenient "my objects"

Easy to manage

- 3 different views (edit, qa, prod)
- actions permitted based on user roles
- granular access rights

Easy to maintain

- link checking
- activity log for every
- versioning and restore



#### Menu, Navigation an Property Panel





#### Impact of layout templates

• Presentation is derived from design templates: the same web object with and without a template



### Traditional approach without using a cms



#### View transisitions using a content management system



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#### User management

- All user information is stored in a Idap directory service
- User are divided into groups (organisationally) and roles (functionally)
- Rights are assigned to groups, functional areas to roles



User management in an I&C portal

#### Modular system archtitecture

- Highly adaptable
  - variarity of APIs
- Highly scalable
  - proxy servers with replicated data
- Highly extensible
  - additional modules for DMS, CRM, Workflow
- Highly distributable
  - building integrated i&c portals



#### Architecture of the CMS Gauss VIP 8



#### Schema of an i&c portal

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#### Extending basic object types

#### Using metadata

- Creating own object types
- Defining categories
- Adding metadata and attribute sets
- Personalizing views
- Securing communication and internal data

General data Properties Attr	ibutes Object responsibilities Info
Address:	
Contact:	American Society of Hematology (ASH)
Date:	0509.12.2003
Date (Sorting):	12/05/2003 00:00 AM
	🔲 Dont show in Teaserbox.
E-mail:	
Fax.:	
Homepage:	
	Event for patients and relatives
	$\checkmark$ Event for physicians and scientists
Location:	San Diego, California, United States
Homepage of location:	
tm_targetgroup:	
Title for teaser:	
Tel.:	
URL:	http://www.hematology.org/index.cfm

[Example: Managing Appointments]



#### **Current Limitations**

- flat metadata
  - only one category per object
  - no inheritence or hierarchy
  - only simple data types
- no semantical foundation for metadata ("modified by")
- no well founded relations between objects
- metadata are separated from the content and get lost outside the cms



A Vision for the Semantic Web

