

Terminology Services

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Use of Terminology Services at Glamorgan

- **STAR** (Semantic Technologies for Archaeological Resources)

- 3 year AHRC funded project
- English Heritage & RSLIS, Denmark



- **PERTAINS** (Personalised Tagging Information Services)

- 5 month JISC funded project
- MIMAS (COPAC, Intute)



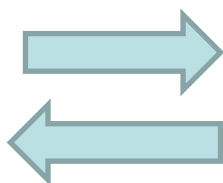
Users of Glamorgan Terminology Services

- **ArchaeoTools – Archaeology Data Service (ADS), York**
- **DELOS Digital Library Management System (DLMS)**
- **Glamorgan PhD, BSc projects**

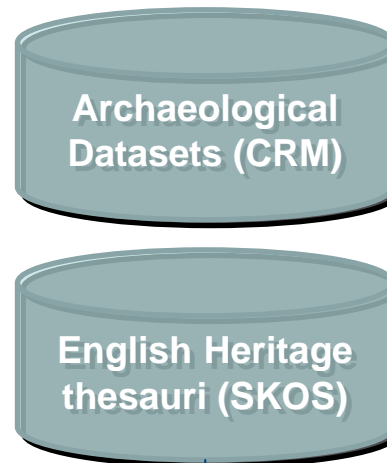
STAR – Web Services and Client Applications

- Windows Applications
- Browser Components
- Full text search
- Browse concept space
- Navigate via expansion
- Cross search archaeological datasets

STAR Client Applications



STAR Web Services



- Archaeological Sciences Thesaurus
- Evidence Thesaurus
- Building Materials Thesaurus
- Monument Type Thesaurus
- MDA Object Type Thesaurus

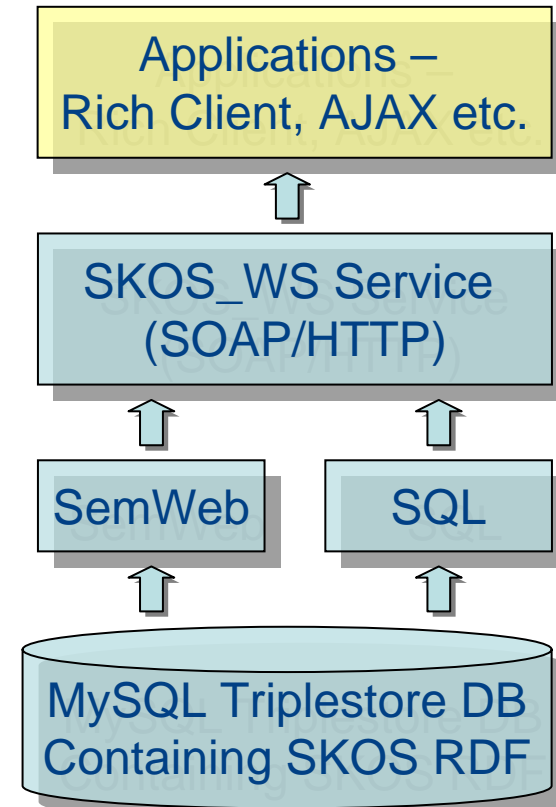


Technical Implementation Overview

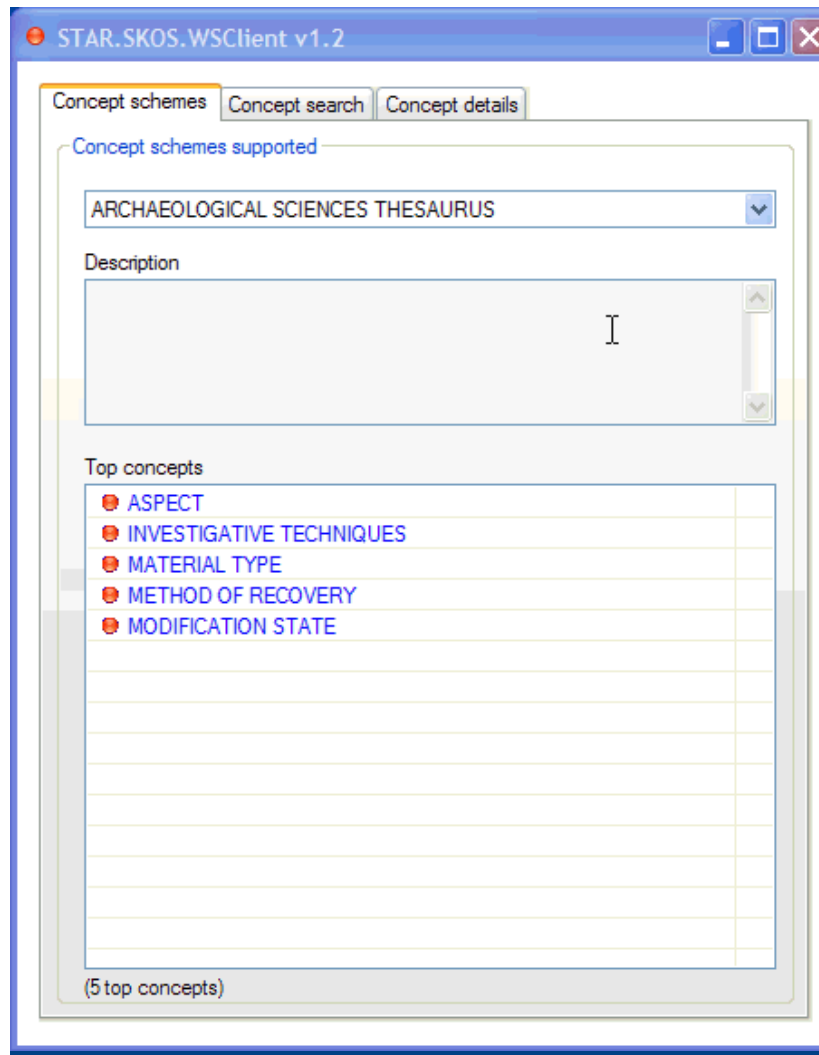
- Services implemented in C#, using “SemWeb” RDF Library (<http://razor.occams.info/code/semweb/>)
- MySQL database backend holds RDF triples representing multiple SKOS thesauri and glossaries – facilitates cross searching of thesauri
- Full-text index added for partial matching on literal strings

- GetTopmostConcepts(..) : Concept[]
- GetConceptScheme(..) : ConceptScheme
- GetConceptSchemes() : ConceptScheme[]
- GetConcept(..) : Concept
- GetAllConceptRelatives(..) : ConceptRelative[]
- GetKeywordMatch(..) : ConceptRelative[]
- ExpandConcept(..) : ConceptRelative[]

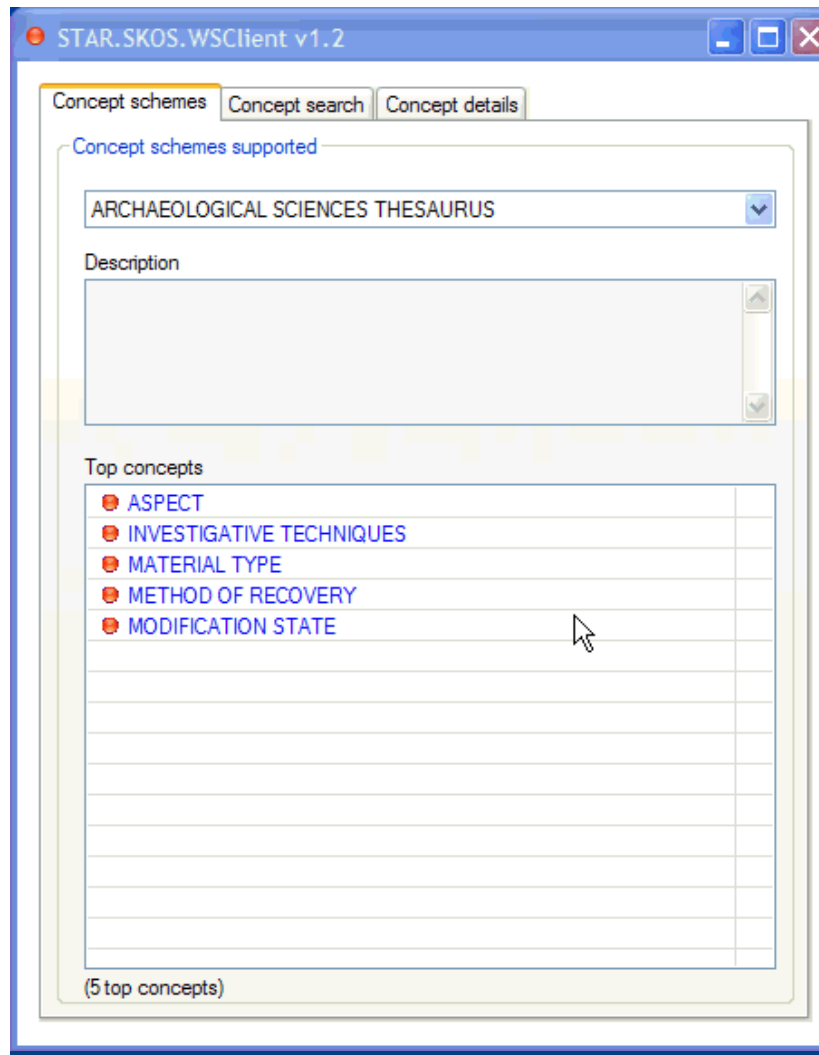
STAR Web Service Calls



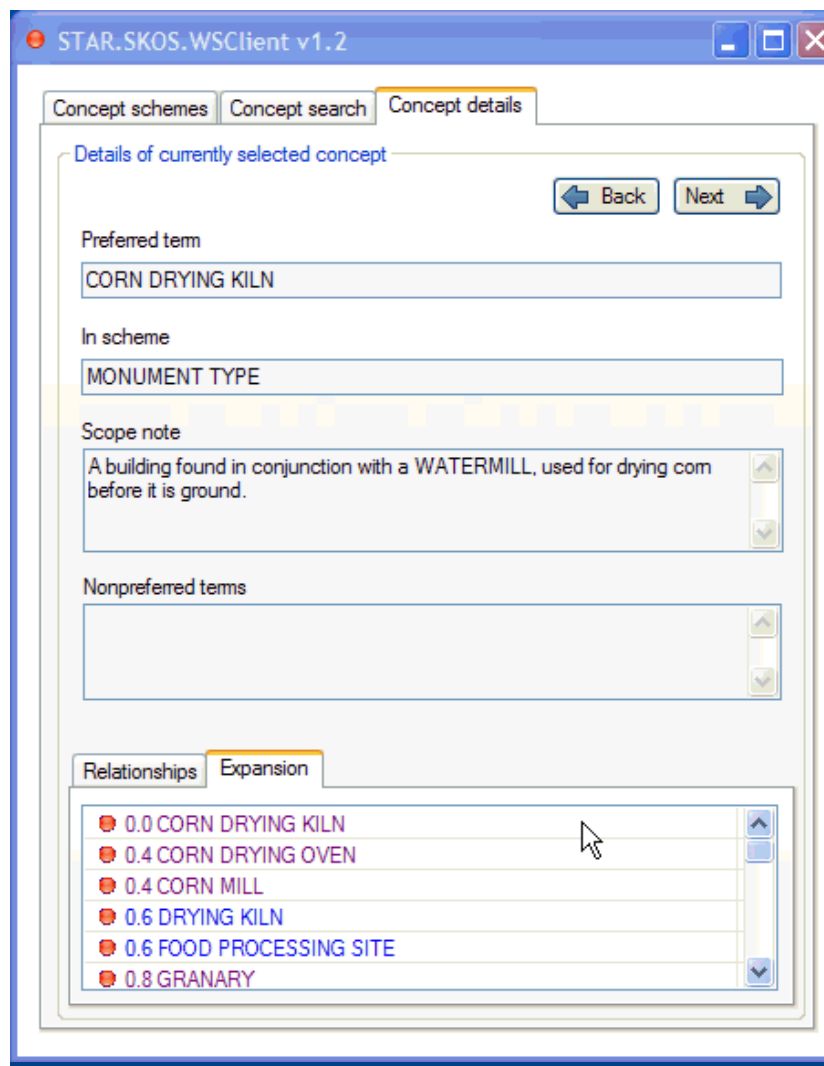
STAR Services – Windows Client Applications



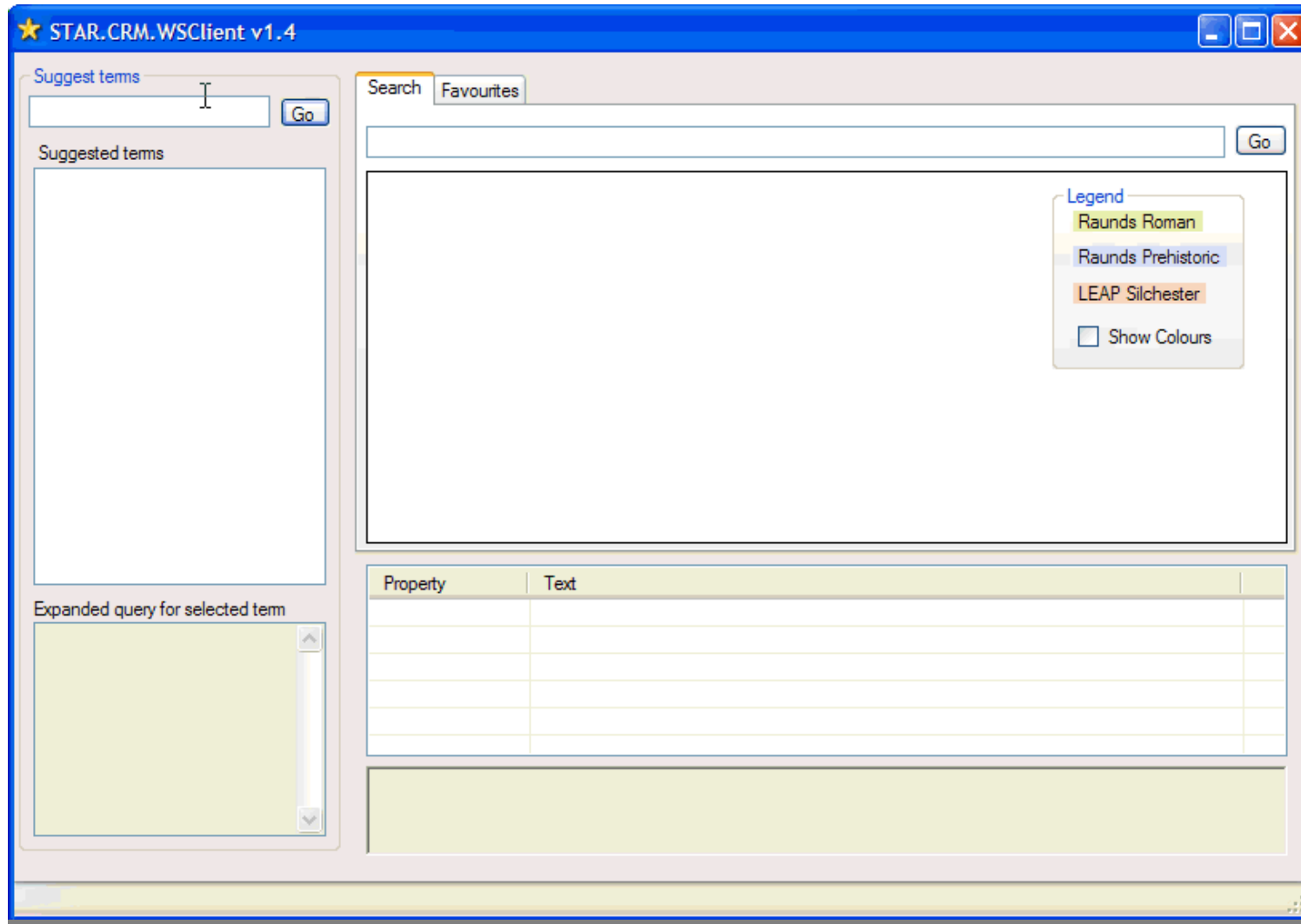
STAR Services – Windows Client Applications



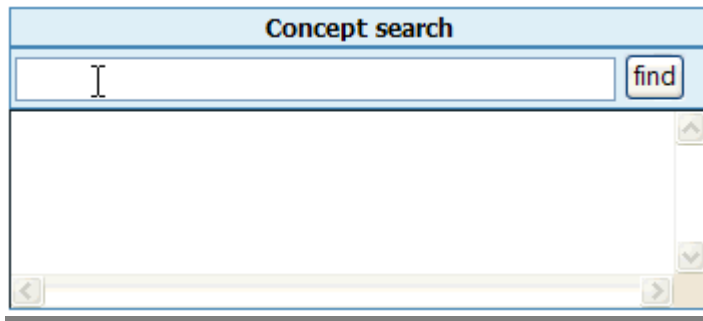
STAR Services – Windows Client Applications



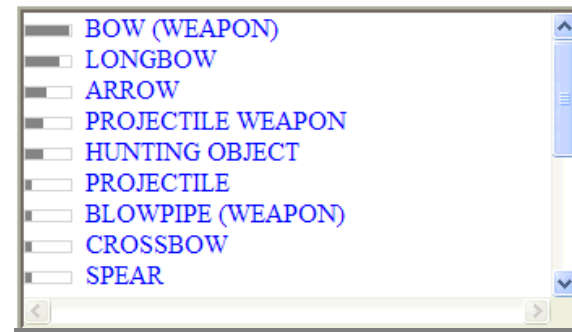
STAR Services – Windows Client Applications



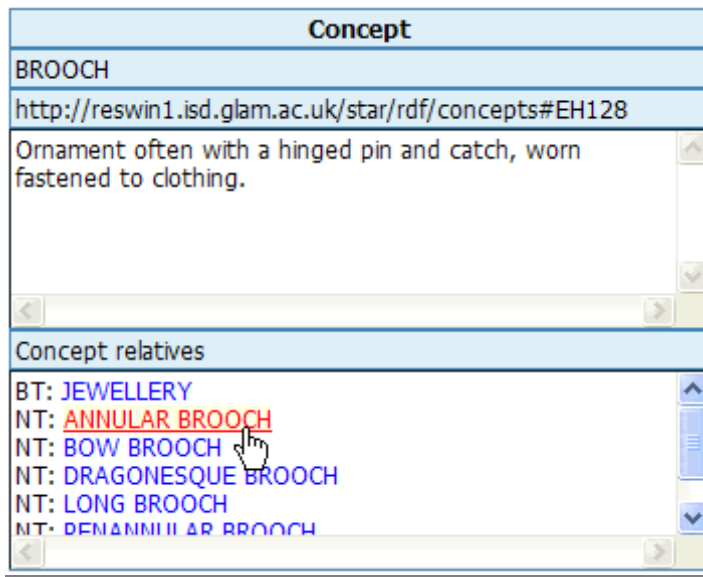
STAR Services – Web Client Components



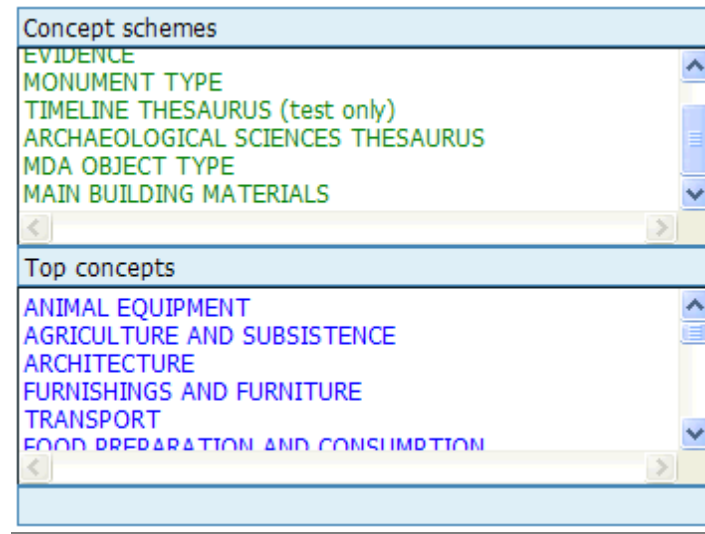
Search across multiple thesauri



Navigate via semantic expansion



Display concept details



Browse available thesauri



A Case For More Specialised Services?

- Vocabulary types not specified within SKOS
 - Thesauri
 - Classifications
 - Taxonomies
- API based on SKOS could also consider:
 - pre co-ordination
 - facet grammar
 - synthesis rules

Classification schemes – usage observations

- More general, covering wider subject area
- Longer, more descriptive captions
- Notation encompasses specific ordering principle
- Usage – browsing subject area
- Classification, not indexing
- Pre-coordinated captions. KWIC / KWOC?

Laurence-Moon Syndrome — ultrastructure
Laurence-Moon Syndrome — therapy
Laurence-Moon Syndrome — surgery
Laurence-Moon Syndrome — rehabilitation
Laurence-Moon Syndrome — radiotherapy

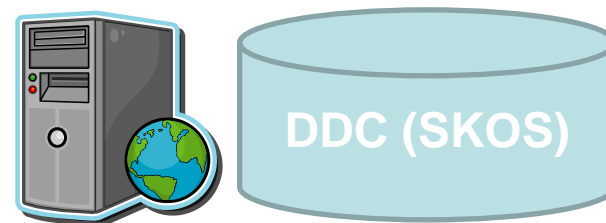
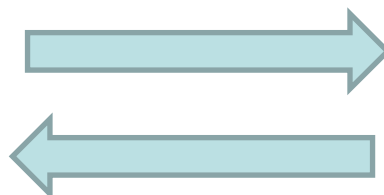
Dedicated Service API or Query Language?

- Query Language (e.g. SPARQL)
 - Flexibility – end user dictates requirements
 - Standardisation of query language
 - Ease of deployment – native implementations
- Service API
 - Less knowledge of underlying data schema required
 - Aggregation functionality, pre-processing, algorithms
 - Performance - query optimisation server side

PERTAINS – Tag Suggestion Services

Document Metadata

- Title
- Classification
- Uncontrolled keywords
- Controlled keywords
- Description



PERTAINS Web Services

- Aim - improve quality of tag metadata
- Basis - existing document metadata / DDC (SKOS)
- Algorithm - matching, weighting, filtering, ranking
- Implementation - URL based web service interface

PERTAINS – Client Applications

DDC Search

Note: All copyright rights in the Dewey Decimal Classification system are owned by OCLC. Dewey, Dewey Decimal Classification, DDC and WebDewey are registered trademarks of OCLC.

Select area(s) of interest

000: Computer science, information & general works	
100: Philosophy & psychology	
200: Religion	
300: Social sciences	
400: Language	
500: Science	
600: Technology	
700: Arts & recreation	
800: Literature	
900: History & geography	

Clear selection

Suggest terms from selected area(s) of interest

Suggest terms

0 results



Conclusions

- Significant potential for reuse
 - Third parties can integrate your data
- Pre-built functionality – eases end user adoption
 - Platform neutral access
- Maintain version control
 - Dissemination of updates – instant
- Maintain access control

Terminology Services

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University of Glamorgan

you live, you learn

