Init1bes6 - Metadata Browser Functionalities

Pre Interview:

Item	Information/Response
Date:	12/09/2009
Requirement # unique id <*SemCon Ops Initiative*>.<*analysts initials*><*requirement number*> e.g. Init1dbw1 (eventually linked to Use Cases)	Init1bes6
Originator/Customer's Name:	Sal Mungal
Originator/Customer's Company:	Duke University
Stakeholder Community: Enter appropriate category of stakeholder from Primary Stakeholders: • Software and Application designers and architects • Software and Application engineers and developers • Scientific and medical researchers • Medical research protocol designers • Clinical and scientific research data and metadata managers • Clinicians • Patients • Medical research study participants • Broader Stakeholders: caBIG® Community WS NIH projects and related commercial COTS vendors (caEHR, SDO's (HL7, CDISC); International Collaborators (e.g NCRI, cancerGrid, China), Government and regulatory bodies (FDA, CDC, ONC) *(link to view SemConOps Stakeholders description).*	Software and Application designers and architects Software and Application engineers and developers Clinical and scientific research data and metadata managers
Summary of requirement pre-interview, by Reviewer:	Actor: Information Specialist Business Goal: To find/discover reusable metadata from knowledge /model repositories Information specialist uses an new integrated tool/browser (or a enhance version of existing ones) to browse metadata that should have following functionality: 1. Show timestamps as to when CDEs were created at and when they were released (change status etc.) Possibly a version control/revision history functionality added to metadata browser. 2. Show level of reuse as such as who else in knowledge repository has used a set or a particular CDE or how often it's been used and by whom. 3. Show the version of the domain model loaded into knowledge repository in the tree structure. 4. Switch between different views of the metadata in a user friendly manner. For instance without opening two browsers one for CDEs (e.g. CDE Browser in current architecture) and Class/Attributes (e.g. UML Model browser in current architecture)
Recommended Next Step Enter one: Follow-up interview, Observe, Use Case Template (text), Use Case Model (formalized/UML diagram), Group Discussion, Prototype, Waiting Room	Follow-up interview

Interview

Item	Script / Question	Information/Response

1	Hello, my name is NAME. I am calling you today because NCI and caBIG are working toward a new and improved version of the semantic infrastructure to better **support integration scenarios**. Our first step was to organize requirements collected over the past year. Your organization has expressed a requirement/need for BRIEF STATEMENT OF USER REQUIREMENT. This has been identified as potentially a critical component to support application /data and service integration, and we need more information in order to enable us to meet this requirement. **Do you have about 30 minutes to talk about this?**	Yes.
2	Do you have any solution integration needs? If so, what are they? Have you envisioned new ways of interacting with existing or new parts of the semantic infrastructure? *(prompt to elicit changes/new ways of using the infrastructure)*	I anticipate there will be a browser (or browsers) that will interact with knowledge and model repositories. Browsers should support different search mechanisms: - Concepts based searches. The concepts used for annotating model components should be able to used for searching - Boolean searches using concepts - Boolean searches using keywords - Keyword/free text searches - Google-like (Intuative) vocabulary to support advanced searches. (e.g. object class: gene or enumeration: liver) . Browser should support search against all levels of metadata and alll administered components. (e.g. object class name or public identifier, developer definition, class name etc.). During the search invocation browser should provide auto-complete function or suggestions in search box (e.g. as soon as you type a letter of few it will show options) . Browser(or browsers) should retrieve and show: - Metrics such as who else uses it, how many users, how many times used. This will enhance reuse. The more it is used the better to reuse it. The metric will help modelers to identify the reusable components. It will prevent modeling the same thing in slightly different way. Effective discovery/search will be supported by these metrics. - Timestamps such how long it has been around - Status of data element/model components (e.g. released/draft new) - Project versions that reused the data elements or model components. This could be in the tree structure like in current CDE browser. - Data element version - Contact (e.g email, postal address) for the model/data element owner Browser (or browsers) should be able to sort the elements based on the items listed above. Browser (or browsers) should support switching between model and data element view easily. Browser(s) should allow download of the corresponding model (or the pieces relevant to the data element) with a click of a button you should be able to download the corresponding model (or the pieces relevant to the CDE). Browser should be able to provide graphical (not only textual) view of model components tied to data elements. When model components are downloaded the user should be provided the option of downloading full inheritance structure (if exists) of the component. Browser should support mechanisms to "watch" data elements or model components and if desired alert interested parties about changes.
3	Are there any business changes you are assuming we will be able to deal with? *(prompt to elicit changes/new ways of using the infrastructure)*	Information specialist's use of metadata browsers as part of their modeling effort; possibly a starting point. Tighter data element/model centric view integration. Support for ranking based on metrics/status/data element version/status.
4	Are there any capabilities you are expecting to be available to support your needs? *(prompt to elicit expectations/dependencies)*	Please see responses to 2.
5	Do you use any of the existing software/services? If so, what do you like or dislike about it? (*if related to existing capability)*	Yes. Browsers, SIW, Curation Tool, Admin Tool Not user friendly. Too many tools serving similar purposes. Certain functionalities are only available in some so you need to know all for effective use. Most functionalites can be combined under one tool. Rigid/static result pages.
6	If this requirement in met, what would be the benefits? If you do not have it, what would be the negative impact? *(prompt to elicit benefits/value - will help to prioritize)*	Facilitating better discovery and consequently reuse of metadata (and models). Linking the metadata with model will help.

7	If, for any reason, we were not able to create that solution, do you think there might be another way to solve this issue? Can you think of an alternative solution? *(prompt to elicit alternative solutions/workarounds)* *(to be prepared by the Requirement Analyst)*	Alternative solution I can think of involves a lot of manual work and using multiple tools. This leads to potential misses, lack of reuse and poor modeling.
8	Would you agree that we can summarize your requirement like this? *(Summarize one requirement in 2-3 lines and read back to interviewee for confirmation.)*	Support metadata reuse by providing knowledge/model browsers with: - effective search capabilities - search result ranking leveraging reuse metrics - easy navigatation between different representation of metadata - user friendly search result presentation (e.g. graphical) Allow users to get notified about metadata changes. The desired functionalities are further detailed in response to question 2.
9	How important is this requirement to the interviewee? *Required: Customer Priority/Annotationrement Analyst* *(Provides concrete assessment of the relative importance for the requirements specification)*	Select: 1. Must have
10	On a scale from 1 to 3 with 1 being "not satisfied" to 3 "completely satisfied", how would you rate your overall satisfaction with the product if this requirement was met? *(Relative rating/ranking of how satisfied or dissatisfied interviewee would be if this requirement were met/not met)*	Select: 3. Completely satisfied
11	Are there other requirements that you would like to share with us? I'd be more than happy to call you back another time, or if you have another 10 minutes, please share other issues you can think of. *(prompt to elicit any hidden - potentially higher priority requirements if they exist)*	Listed under 2.
12	Who else should we talk to in order to elicit more information about this need?	Other Guide to Mentors or Information Modelers.
	For specific service enhancement or requirement from Forum entry:	
13	Can you or someone else give me a step-by-step description of how you would describe the expected performance/behavior of the software in order for you to feel that your requirement is met? *(Required: Fit Criterion - will help us create test cases and user acceptance criteria - to be prepared by the Requirement Analyst)*	Should work. Performance should be acceptable; model should be accessible in no time. Search results should return most valid model components/data elements at the first page (effective ranking) If not results found it should say the search is conducted but no matches found (e.g. SIW is cryptic) Watch/alert should alert promptly as metadata changes. Auto-complete function provides an informative list.
14	Forum Link:	https://cabig-kc.nci.nih.gov/Vocab/forums/viewtopic.php?f=40&t=139 https://cabig-kc.nci.nih.gov/Vocab/forums/viewtopic.php?f=40&t=138
15	URLs (optional):	CDE Browser feature request: https://gforge.nci.nih.gov/tracker/?func=detail&group_id=34&aid=18584&atid=213 - historical UML Model Browser feature request: https://gforge.nci.nih.gov/tracker/index.php?func=detail&aid=29161&group_id=46&atid=255 - historical
16	References (optional):	Links to articles, papers or presentations related to this requirement