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Max Planck Institute
Psycholinguistics



Data Category Registry

DCR2 Requirements





Version control

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0.1	2006-12-22	draft	PA	Global approach
0.2	2007-01-08	draft	PA	identify the important areas in the application

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1. Introduction

1.1 Purpose of this document

The Max Plank Institute for Psycholinguistics has been elected by ISO TC37/SC4 for the specification and the development of a new implementation of the ISO-12620 Data Category Registry which will serve the whole linguistic community. This document will specify the project requirements.

1.2 Scope

The project's purpose is to deliver a requirement specification document for the development of the next generation Data Category Registry implementation. Based on previous user experiences it became apparent that a new version for the SYNTAX Data Category Registry (<http://syntax.inist.fr>) will need to be implemented. This requirements document will act as a basis for discussion with interested stake holders within ISO and source code developers.

1.3 References

Following references have been used as input for this plan. They are referenced in the following text as indicated below:

Document	Description
[UML1]	M. Fowler. <i>UML Distilled</i> , Addison Wesley, Reading MA, USA, 1997.
[ISO12620]	
[ISO16642]	

1.4 Definitions, Acronyms and Abbreviations

Definitions, Acronyms and Abbreviations used in the document are listed below in alphabetic order.

Definitions

Acronyms

PA	Product Architect
PL	Project Leader
TBC	To be completed
DC	Data Category
DCR	Data Category Registry
DCS	Data Category Selection
WS	Working Space
TMF	Terminological Markup Framework (ISO16642)
LMF	Lexicon Markup Framework

Abbreviation





1.5 Summary

This section provides a summary of the document, giving a high level overview of how the requirements lead to the chosen architecture.

The information in this chapter should act as a basis for the source code of the application. It should be readable for other application programmers.

Data Category Registry is a platform describing the ISO-12620 norm. This platform allows for research, selection, editing, validation and distribution of standardized multilingual concepts (Data Category) for linguistics (e.g. Terminology, morph-syntax, annotation) or other domains (e.g. multimedia). A category of data serves to visualize descriptive elements of a metamodel. A metamodel determines the complex structure of the application domain (TMF, LMF, Morphalou, metadata...).





2. General Description

This chapter provides a background for the requirements described elsewhere in this document. It aims to provide a better understanding of the backgrounds for the requirements.

2.1 Problem description

2.1.1 Usability

In the given project usability is the main reason for remake of the former system. Ergonomics should keep pace with users staying adequate with programming technologies. In order not to suffer the critics of users, a lot of explanation about limits of the mentioned technologies should be made. It is necessary to involve users as much as possible into the description of the needs and to simplify the interfaces.

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2.1.2 Operational considerations

The operational considerations of the system is one of the major concerns of Max Planck Institute which aims at keeping the maintenance of the applications more simple. For these purposes a rigorous methodology should be followed and necessary documents should be made (specifications, technical documentation, user manuals).

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2.1.3 Scalability

TO BE COMPLETED AFTER MEETING

2.2 Previous experience

The former application (<http://syntax.inist.fr>) which was developed two years ago had the primary goal of introducing ISO-12620 norm and the connected tools. Its first merit is the fact that it exists. In addition, it allows users to create categories of data more or less easily and to visualize the data which is contained in the DCR.

This application was defined by Philippe Sébire in 2003 as a methodology of access to DCR. Strictly speaking, no specification document was produced at the time. The problem arose from the fact that there was no feedback from the users of the system since there were too few of them and, most importantly, they were not able to engage in a web-oriented specification.

In the beginning of the project, management of ISO procedures for submission of Data Categories, called NetSubmit, was independent from Syntax server (DCR). The two online applications were later combined as a modular platform. Since then, the NetSubmit module has the common interface with the module of research, the module of construction of DCS and the module of management of the Working Space. Unfortunately, this latter module has never been used.

However, no long-term perspective concerning the server, the data and the applications is clear at the moment. The Syntax server makes up to 100 entries and only around fifteen users contribute the DCS online or create new DCs. The most of the DCs are not standardized and the norm 12620 itself is not clearly fixed.

메모 [JD1]: In November, 2003 a programming team was created. Besides Philippe Sébire, project leader, Julien DUCRET, Isabelle Kramer and Jacky Tetu were recruited. By the end of the year, the team came apart due to lack of perspectives for Philippe Sébire, dismissal of Jacky Tetu, a different offer for Isabelle Kramer. Since May, 2004 Julien Ducret is the Webmaster, programmer and the project leader of DCBoard of the DCR.

메모 [NY2]: If you want it to exist in the long-term perspective, you have to talk about the necessity of keeping it going and ways to encourage more users to contribute DC, as well as why you need the money support for this !





2.3 Environment

The application will be used in an accessible, secured and multi-platform environment. Users come from all different continents and should be able to access easily the various applications. The access to personal data, to research work and to management interfaces should be protected. The usage of the DCR should not be constrained by a user's operating system and to a lesser extent to the software a user has.

The DCR server will operate in an Internet environment. It will be implemented as a web application to reduce software requirements on the client system. It will also be accessible by third party applications to perform browsing and lookup activities. Finally, the exchange of files (upload, download) will be in a normalized XML format (GMT).

2.4 Related applications

This section describes the relations between the application and other applications in other areas. All relations and dependencies to other applications including the implications for these applications are to be described in general terms. Implications include changes in functionality and/or interfaces. If the application is standalone it should be noted.

2.4.1 MetaModelBuilder

This standalone application allows the construction of a metamodel which follows the methodology used in TMF. It consists of two procedures. The first procedure allows constructing a graphical tree representation of structured elements. The second one anchors the features (e.g. DC) to the tree of constituents. The list of DCs used by the metamodel can be imported as an XML file (e.g. export from DCS to GMT format) from the Syntax server.

The interaction between the DCR and MetaModelBuilder is assured by the stable description of the DCR and by its capacity to export the DCs into GMT format. This application is open-source and implemented in JAVA.

MetaModelBuilder is currently used for the description of the MLIF norm (Multi-Lingual Information Framework ISO AWI 24626). The application produces the schemata of the norm description (structuring and anchoring of the DCs). It allows also to dynamically create the schemata for RelaxNG validation. RelaxNG will control the instances of the norm in the GMT format.

2.4.2 WebService LIRICS

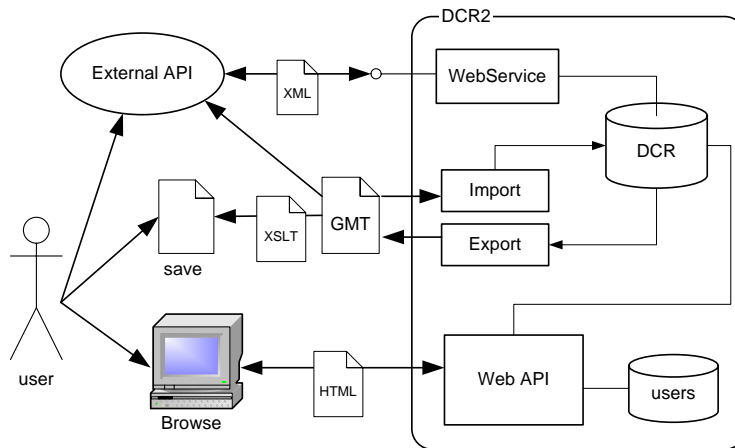
This extension of Syntax server was introduced in order to allow managing the DCR through an external application (API). This extension permits LEXUS to access the DCs (e.g. search, read, import, ...).

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2.5 Architecture

This section provides a general overview of the architecture.







3. Business Scenario Model

3.1 User characteristics

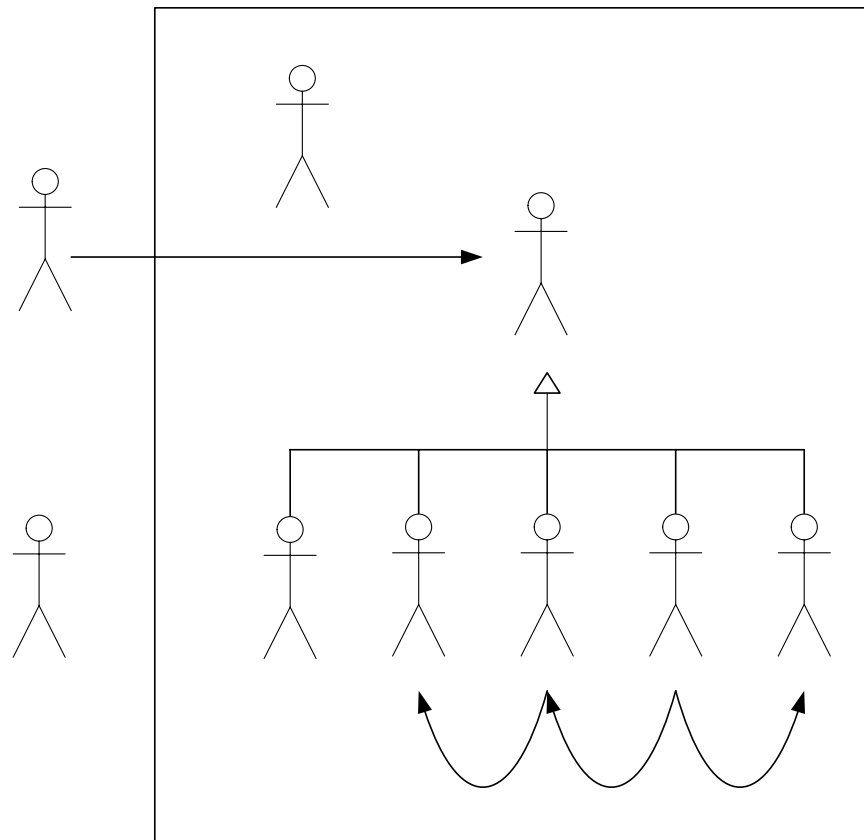
3.1.1 Overview

Describe in one or two paragraphs the environment in which the actors exist. Note that actors can be people or external systems.

In general the actors of the system are experts in normalization, linguistics specialists, external tools which use the categories of data to describe their contents. Experts in normalization will be primarily interested in editing and approving the categories of data, specialists in linguistics can use it for research and selection of normalized concepts, and tools can utilize the system for distribution and sharing of the group of categories of data which are relative to their domain of application.

3.1.2 Actor diagram

This part illustrates the relationship that exists between the various actor types.



[DCRBoardChairman](#)
[TDChairman\(Thematic domain chairman\)](#)
[TDJudge \(Thematic domain judge\)](#)





The person unknown to the system does not become a member until he is registered and authorized by the Webmaster. The process is described in the S-01 scenario.

A Member is a general notion which is represented by the following profiles: Experts, Judges, Chairman, Translators and DCRBoard. The procedures of nomination or dismissal of Judges, Chairman and Translators is described in the S-03 scenario. The Webmaster, the DCRBoard are nominated at the initialisation of the system.

The outside applications of the system are represented by the API actor.

3.2 Actor definitions

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Sue Ellen will define the actor roles and produce a document.

3.2.1 A-1 Anonymous

Description	A new person accessing the system
Aliases	Guest
Actor Type	<i>Passive person</i>

3.2.2 A-2 Webmaster

Description	The person responsible for users of the system, for access to the system and for managing the website.
Actor Type	<i>Active person</i>
Inherits	<i>Member</i>
Contact Person	<i>Julien DUCRET</i>
Contact Details	<i>Julien.ducret@safari-msi.com</i>

3.2.3 A-3 Member

Description	A person identified by the system
Actor Type	<i>Passive person</i>

3.2.4 A-4 Guest

Description	A person, business or organization wishing to visualize the contents of the DCR. Guest uses a specific login and password so that he does not need to registering beforehand.
Actor Type	<i>Passive person</i>
Inherits	<i>Anonymous, Member</i>
Restrictions	<i>Guest cannot save or modify information on the server.</i>

3.2.5 A-5 Expert

Description	A person, business or organization using the contents of the DCR
Actor Type	<i>Active person</i>





Inherits	Member
----------	--------

3.2.6 A-6 Chairman

Description	A head of the validation committee in a given domain
Actor Type	Active person
Inherits	Member
Contact Person	TBA
Contact Details	?

3.2.7 A-7 Judge

Description	A member recognized by the Chairman for his competence in a given domain
Actor Type	Active person
Inherits	Member
Contact Person	?
Contact Details	?

3.2.8 A-8 DCRBoard DCRChairman

Description	A member responsible for coherence of the DCR
Actor Type	Active person
Inherits	Member
Contact Person	?
Contact Details	?

3.2.9 A-9 Translator

Description	A member who is in charge of translations
Actor Type	Active person
Inherits	Member
Contact Person	?
Contact Details	?

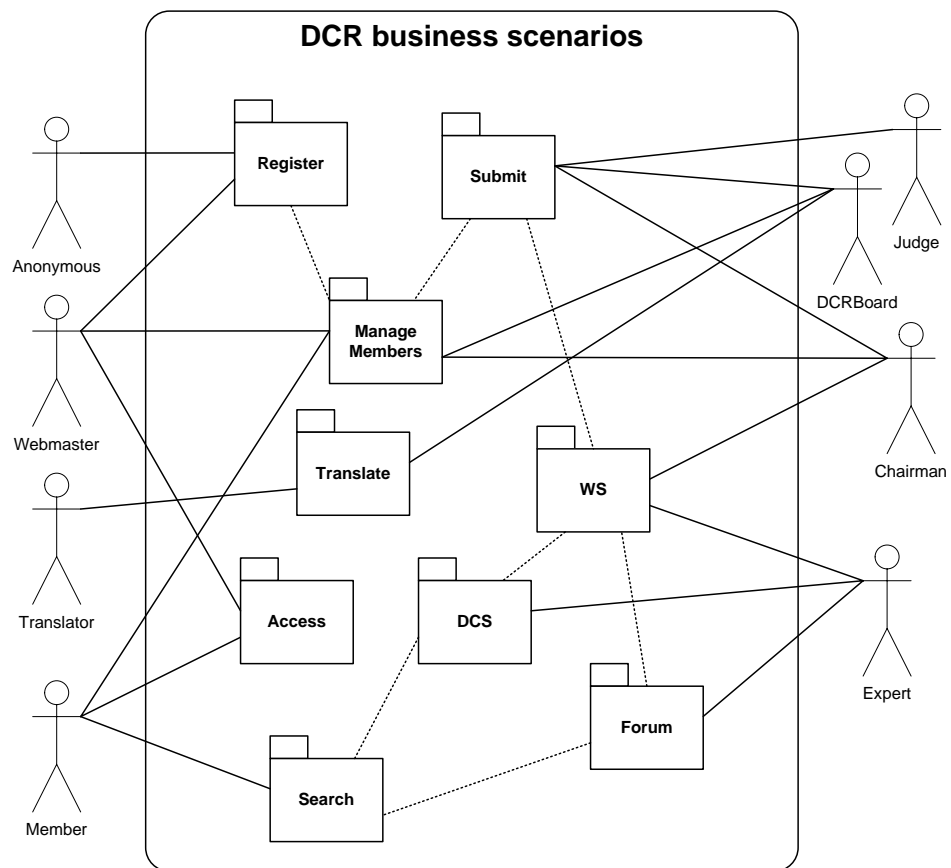
3.2.10 A-10 External API

Description	An external software program
Actor Type	Passive person
Aliases	MetaModel Builder, LIRICS, SyntaxTools
Inherits	
Contact Person	Julien DUCRET
Contact Details	Julien.ducret@safari-msi.com

3.3 Graphical Scenario diagrams

This section presents the business process scenarios of the subject area a graphical form.





Each actor can realize (solid line) one or more business scenario (folders). Interactions between the scenarios are represented by the dashed lines.

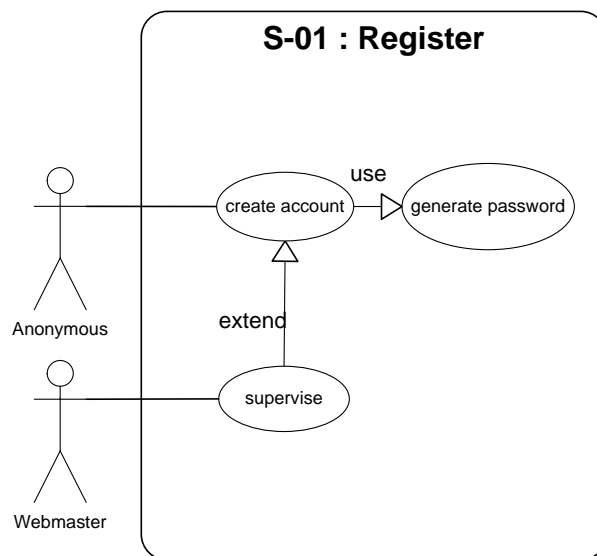




Use case scenarios

3.3.1 S-01 Registration

삭제됨: er



Anonymous becomes member...or prospective member

Description:

New users may sign up to the system. The user registration involves previously unregistered users (Anonymous) and the Webmaster. The Anonymous user wishing to register provides personal details and submit a registration request to the webmaster. The webmaster reject or accepts the request and the requesting user is notified of the result.

Prospective members sign up to the system

Actors:

Anonymous, Webmaster.

Preconditions:

The user does not need to be registered

Scenario Text:

1. **Anonymous** user creates an account in order to make a request for subscription as a Member. He provides his e-mail (mandatory), name (mandatory) postal address (optional), and phone numbers (optional).

Institution, institution role are added as well.

2. The **Webmaster** authorizes or rejects the request. In case of authorization of the request, the Anonymous user receives the password via e-mail and automatically becomes a Member.
3. The new **Member** connects to the server using his email and the given password.

Alternative Courses:





1. The **Anonymous** user logs on to the LDAP reference of the MPI.
2. He makes a request for subscription through management system of the LDAP in order to access the DCR as a **Member**.
3. A **Member** connects to the server using his email and his LDAP password.

Extends:

None.

User Interfaces:

Constraints:

Management of the « DCR Member » profile on the LDAP level.

Questions:

Is there a policy of restriction of contents distribution of the DCR ?

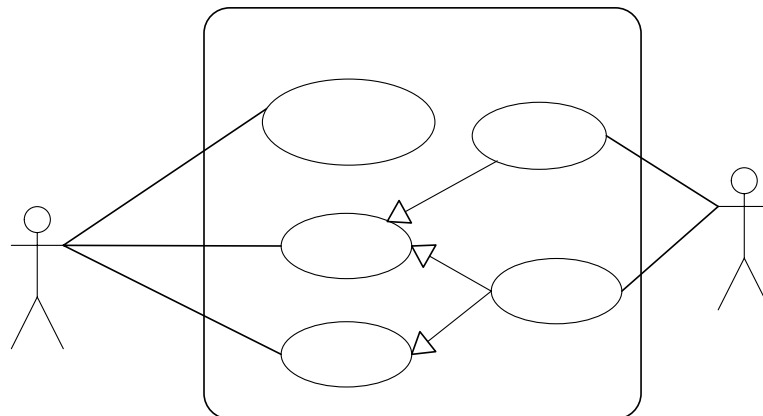
Notes:

None

Authors:

PA

3.3.2 S-02 WebSite access



Description:

Members can connect to the server. The access to the site requires a previously registered member and supervision by the Webmaster. The member connects to the website using his email and password. The Webmaster controls the number of people connected to the website in the real time and can restrict the access for the purposes of stable performance or totally reject the access for security or maintenance purposes.



**Actors:**

Anonymous, Member, Webmaster.

Preconditions:

The user must be registered.

Scenario Text:

1. If a **Member** forgets his password, he can request a new password to be sent to him via e-mail.
2. A **Member** connects to the server using his email and password and this automatically updates the date of his latest connection.
3. The **Webmaster** controls the traffic of the website (online/offline, dates of the most recent connection by members, statistics) and can restrict it.
4. At any moment a **Member** can disconnect from the website.

Alternative Courses:

None.

Extends:

None.

User Interfaces:**Constraints:**

Management of the « DCR Member » profile on the LDAP level.

Questions:

Are data concerning traffic, visits, number of data categories public?

Is there statistics ([number of connected](#), [month report](#), [new propositions per committee...](#)) that the users wish to see?

Notes:

None

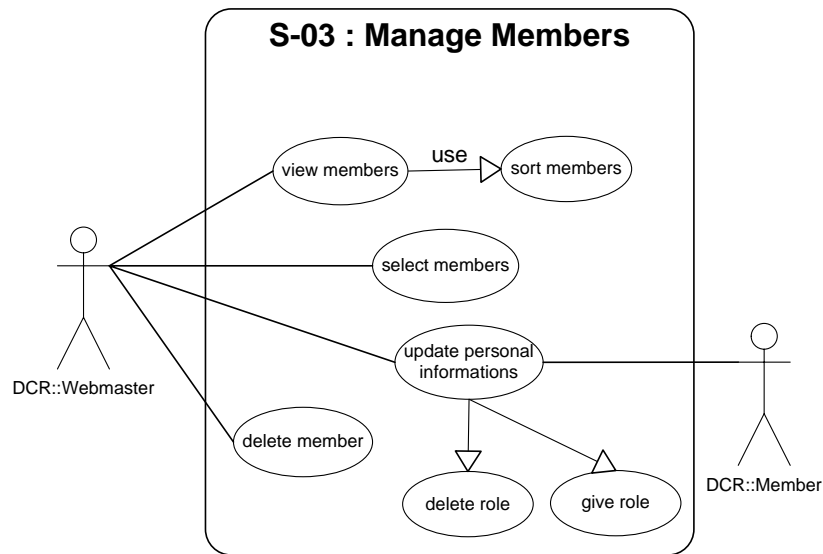
Authors:

PA





3.3.3 S-03 Manage members



Description :

A Webmaster or any other member who have the role of Chairman or DCRBoard can manage the members of the website. The user must be connected to the system and authorized. A member is automatically warned of any modifications of his account via email. The user sees the list of the members and can sort them by different criteria. The user can therefore select one or more members before deleting them or change their role or ban them from the system.

Only one administrator may administrate any role.

Roles are associated with thematic domains

Administrator assigns DCR Chairman. (there is only one DCRChairman)

DCR Chairman assigns TDChairman (there is one TDChairman per thematic domain)

TDChairman assigns TDJudge

DCRChair

Chairman may assign or retract judge permissions to/from users for the profile the chairman is presiding.

Actors:





Webmaster (in a broader sense: Chairman, DCRBoard).

Preconditions:

The user must be registered and assigned the role of Webmaster, Chairman or DCRBoard.

Scenario Text:

1. the **Webmaster** see the list of all the **Members** of the system. He can navigate through the list of Members by the name, country, date of the most recent access, role (**Judge, Chairman, DCRBoard, Translator, Expert**), ...
2. the **Webmaster** can see the detailed profile of a selected **Member**.
3. the **Webmaster** can choose to delete or add a role to a **Member** who will be automatically notified by email.
4. the **Webmaster** can choose to permanently ban a **Member** from the system if he does not respect the user regulations of DCR.

Extends:

S-07: Manage propositions, S-0X: Integrate DC.

User Interfaces:

Constraints:

Be connected to the system.

Questions:

When a member receives a new role (Judge, Chairman, Translator), does he accept it automatically or is he required to confirm it? [Confirmation is not needed](#)

How to motivate the members to accept a role?

Can a role be considered as a mission of a predetermined duration? If so, is it necessary to manage the procedure of elections and people rotation within the DCR?

Can a member be a Judge, Chairman, Translator and Expert at the same time? [Yes, multiple roles can be accumulated](#)

What is the policy of using DCR?

[Roles assignment is done outside of DCR system \(ISO formal process\)](#)

Notes:

None.

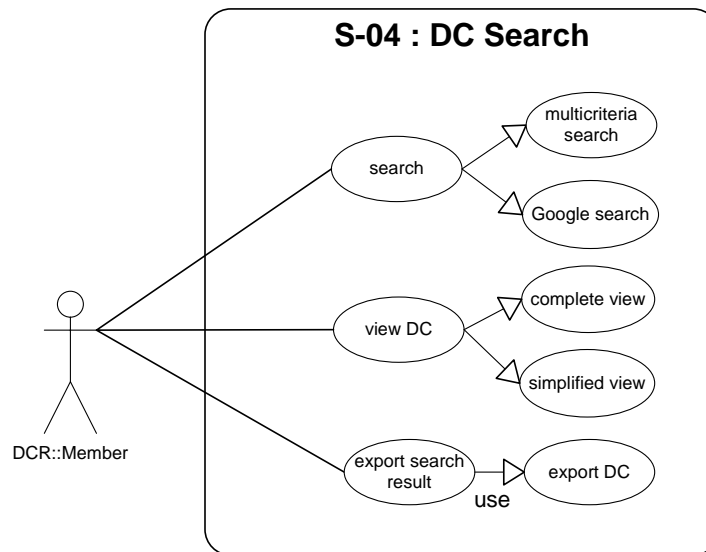
Authors:

PA.





3.3.4 S-04 Data Category search



Missing is browse usecase.

Browse pane in parallel to the working pane. Browse pane lists all dc's alphabetically, by date or by author.

Profiles provide an alternative entry point to lists of dc's.

Future extension could be to allow for other sorting mechanisms such as using information for a language section(sort by language)

Description:

A member can access the DC (standard and public) of the DCR by means of search interface. The user has to be connected and authorized via his personal account or as a Guest.

In the first case (multicriteria search) the user sends the query via the interface which consists of various search criteria: ID, status, committee, contents, name, language...

삭제됨: media

In the second case the search is in a general mode, it is simplified (google search) and covers all the pages of the site where the search of DC is relevant (news, Working Space, forum...). The user provides a keyword, usually the ID of the DC.

In both case, the user can sort the list of the retrieved DC by different criteria, select on or more DCs before seeing them in a detailed or a simplified mode (The simplified view is a customizable view that may be defined as a user preference). Finally, the user can export the search results as a GMT file.

Actors:

Member

Preconditions:

The user must be registered or connected as a Guest.





Scenario Text:

1. **Member** can conduct a multi-criteria search (ID (index), profile, status, content description, ...) or to conduct a simple search (google like)
2. **Member** can see a DC in a simplified form (description level) or in a complete form (description and language section)
3. **Member** can choose to export the result of the search as a GMT file.

Extends:

The google search and the simplified view can be extended:

S-06: Working Space; before the Expert makes the proposition of creation, modification or deletion of a DC.

S-07: manage new proposition; at this stage the Chairman verifies the relevance of the proposition in his committee.

S-08: vote process; at this stage the Judge can compare the DCs and argument his vote.

S-09: Integrate DC; at this stage the DCRBoard can detect possible redundancy.

User Interfaces:

Constraints:

None.

Questions:

Which are the most common criteria of selecting a DC?

In how many domains minimum can one conduct a google search?

What are the regulations of publication and visibility of a DC within the DCR?

Multiple workspaces may be searched simultaneously.

All users may search workspaces., i.e. including a guest.

Authorization comment. An * option must be available to declare a dc open for all users.

Maybe add another 'researcher' role.(Peter Wittenburg)

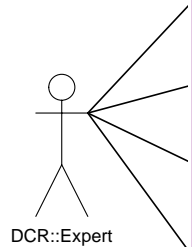
Notes :

None.

Authors:

PA.

3.3.5 S-05 Data Category selection



삭제됨:



Data Category Selection is used for gathering dc's of interest, perhaps some dc's from one profile extended by some dc's from another profile or workspace. Datacategories may be added or removed from this DCS bag. DC's may be selected from several workspaces (provided access restrictions are passed)

DCS's are persisted for a predefined periods of time and need to have a name. The notion of persists DCS's and folders may be integrated at a technical implementation level.

A DCS may be submitted to the ISO process.

Description:

An Expert is prompted to create a data category selection (DCS). The user must be connected to the system and authorized. The user realizes a scenario of the type "Shopping-cart" in respect to search tools. At first he conducts a search through DCR in order to find either standard or personal (WS) DCs which are necessary for his application. He compares them in order to find the DC which is most applicable for his needs. Finally, the user saves all his DCs in a file (by the title of a list of pointers). The DCS have no use for the user unless it can be saved and exported. Indeed, a DCS generally follows a normalized description (e.g. TMF).

Actors:

Expert.

Preconditions:

The user must be registered.

Scenario Text:

1. *Expert* can perform a multi-criteria search on the DCR and on his WS.
2. *Expert* selects a number of DCs which he can add or extract from his DCS
3. *Expert* is able to compare a number of DCs in order to refine his choice.
4. *Expert* manages his DCS in his personal space and can therefore save, store and finally export them as a GMT file.

Extends:

S-04 : Data Category Search.

User Interfaces:

Constraints:

It is necessary to understand that a DCS exported into a GMT format is a photo of a group of DC. This group evolves and changes with time (a private DC can become standard, a standard DC can be deprecated...). This is why we are talking about a list of pointers to the DC when they are saved on the server. The evolution of a DCS on the server can be therefore followed.

Questions:

Given that a search of DCs, their comparison and finally the selection of a DC in order to create a DCS are strongly connected, is it reasonable to conduct a search without creating a DCS?





Since the export of the search result is very close to the creation of a DCS, can we fuse the two processes?

Is it conceivable to limit the number of DCS according to the profile? (e.g. Guest: 1, Expert: 10...)

Would it be relevant to also export a DCS in a form of a list of pointers to a DC?

Is the notion of a generic pointer to the DC understandable? If so, see the LEXUS [glossary](#) web service.

Is the notion of supervision of a DCS relevant and conceivable?

Notes:

None.

Authors:

PA.

3.3.6 S-06 WorkingSpace

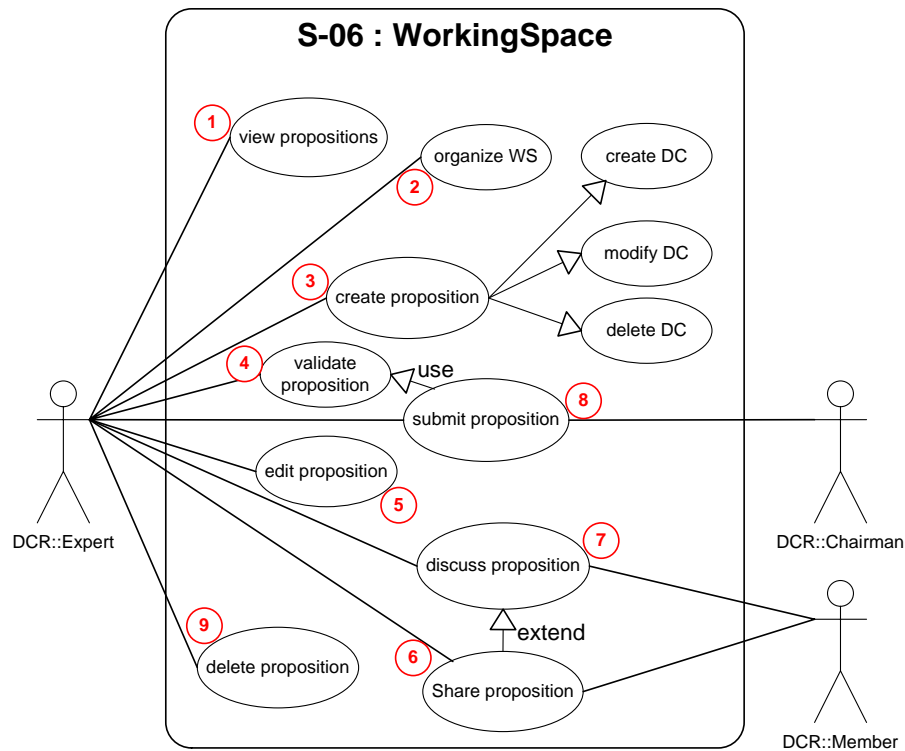


Diagram needs to be reviewed. Proposals should be removed and replaced by datacategories. Diagram needs to be clarified.





Proposition should become proposal. A proposal is a collection of datacategories. Each datacategory may refer to other datacategories through the conceptual domain or 'broaderGenericConcept' (term needs to be evaluated).

Datacategories should be subject to version control. Once a proposal is submitted the original submitter should not be able to modify this DC and modifications should be made on a new version of the DC. Another branch may be created once the original DC has been accepted and is modified by potentially another user. Multiple version of the same DC may therefore exist. The version control mechanism must take this into account, i.e. multiple version and multiple branches.

Edit proposal does not exist. Should be 'Edit Proposed Datacategory'. It applies to Judges or TDChairman who may modify individual data categories.

Proposals as such do not exist. Datacategories are submitted individually to the ISO process.

DCS may be used to submit a group of datacategories.

Lifecycle problem needs to be addressed when a DC is part of multiple profiles and is submitted

Description:

An Expert is prompted to propose new DCs or modify other DCs or even suggest deleting a DC. For this he must be connected and authorized by the system in order to manage his personal space of propositions: Working Space. In order to completely realize this scenario an expert must be able to submit a proposition to the Chairman and communicate with the members of the DCR.

An Expert has the possibility to see the group of his propositions, to modify or delete them. If his proposition succeeds, he can verify that his description is complete and that the DC corresponds to the minimal criteria of validity (a unique ID, a correct version, one description at minimum, a language section and a name section in English...). If his proposition is valid, the expert submits his proposition to a committee. Finally, the expert can discuss, share and work together with other experts on a proposition or a group of propositions.

Actors:

Expert, Members, Chairman.

Preconditions:

None.

Scenario Text:

1. An *Expert* publishes a group of propositions which he puts forward
2. An *Expert* can, if he wishes, sort and organize his propositions the way he wants (profiles, folders, ...)





3. An *Expert* can propose creation of a new DC, a modification of an existing DC and finally request deletion of an existing DC.
4. At any time an *Expert* can verify if his proposition (e.g. creation) falls under the necessary and sufficient conditions in order to be compatible with ISO procedures of validation.
5. An *Expert* can modify the whole or a part of contents of a DC. The process of saving the modifications will be maximally atomized. .
6. An *Expert* can decide to publish his work and therefore share the DCs with the *Members*. The selected DC will be shared either with all the *Members*, and as a result visible from the module of search (S-04 and S-05), or with a limited number of *Members*.
7. Since sharing took place, a dialogue can be established among the Expert and the Members on the topic of a DC or a group of DCs if sharing was done through a profile.
8. The *Expert* can decide to submit a valid proposition to the Chairman who is the head of a committee. This initializes the process of validation of DCs.
9. An *Expert* can decide to permanently delete a proposition. By doing this he stops all the discussion connected with his proposition.

Extends:

None.

User Interfaces:

Constraints:

None.

Questions:

Is the proposition of deletion of a DC relevant?

What are all the conditions of validation of a proposition ?

How to describe the WS management ? Do we store DC in folders or views ?

Notes:

None.

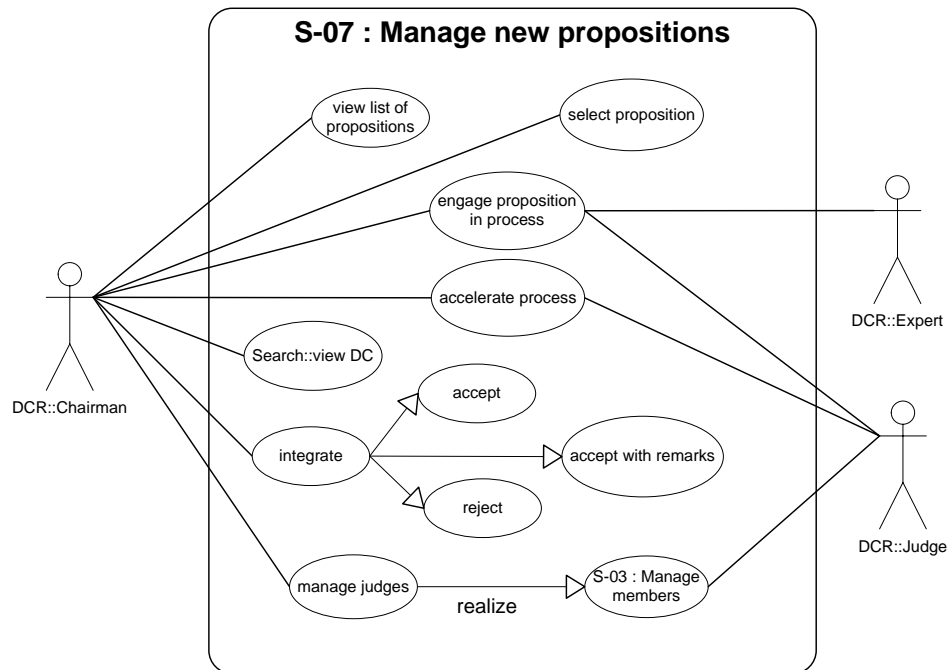
Authors:

PA





3.3.7 S-07 Manage new propositions



Description: The Chairman is responsible for a committee. The user must be connected and authorized by the system and designated by the DCRBoard as responsible for a committee. The user must be able to manage new propositions, designate the judges, and initialize the voting process for each newly accepted proposition. A Chairman can, if necessary, recall or even dismiss his judges. Finally, it is the Chairman who makes the final decision of standardization of a DC.

View propositions should be 'View prop'

Engage proposition in process. Means interact with Expert on the proposed DC. This is most likely done using email, outside of the system, so it should not be included in this diagram.

Accelerate process means initiate process, i.e. assign judges to evaluate the proposed datacategory. There will always be an odd number of judges to make sure a decision is forced.

Integrate should become 'process'.

Exchange of comments should be integrated and described as a use case here.

Actors:

Chairman, Judge, Expert.

Preconditions:





The user must be authorized as a member and designated as Chairman of a committee by the DCRBoard.

Scenario Text:

For example, can an expert designated as a Judge refuse his mission? What is the duration of the missions? Are there elections?

How to replace a Judge or a Chairman who was unsuccessful in the voting process?

Can the Chairman alone decide on standardization of one or several DCs?

How many judges minimum must be gathered for a discussion? Must it be a group of judges of a committee or a subgroup of selected judges?

How to deprive the Chairman of his duty and give it to another judge? In case of the Chairman being too slow or absent, for example.

Notes:

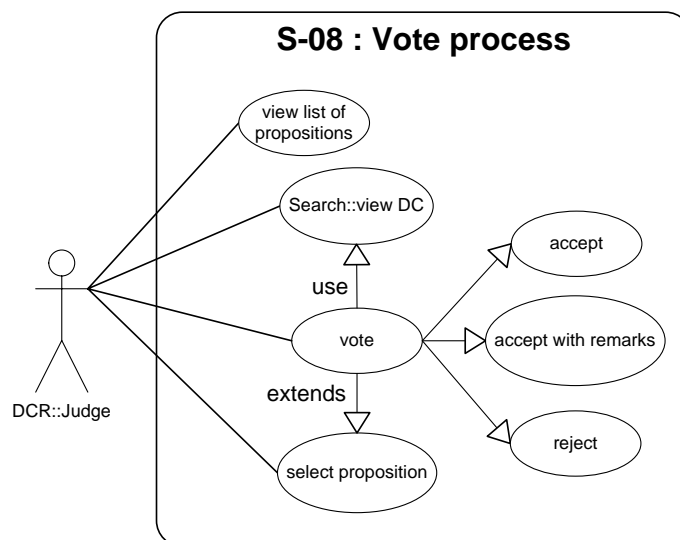
None.

Authors:

PA.

3.3.8 S-08 Balloting process

삭제됨: Vote



Description:

The rejection and resubmission process needs to be integrated somehow.

Accept with remarks should be removed or renamed to 'returned to be revised'. Essentially the DC is rejected and the remarks/comments are available to the original submitter





When a DC has been accepted or rejected an the original submitter of the DC is notified of the result of the balloting process. (Note, the use case above only describes the individual judge's actions.) When the last judge has voted the message is generated.

Comments are made by the judges, possibly multiple times. Once they have all casted their vote, the result is passed back to the TDChair who then releases the results.

Acceptance or rejections should be done within a predefined period of time.

Add the chair into the use cases here, describe his role.

A Judge is assigned to a committee to validate a group of propositions which he receives. He sees the list of propositions whose contents he needs to evaluate. In order to do so, he selects a proposition, investigates its contents and votes for or against its standardisation.

Actors:

Judge.

Preconditions:

The user must be authorized as a member and be designated as a Judge by a Chairman in a given committee.

Scenario Text:

1. The Judge can see the group of propositions which are proposed to him. It is possible to sort them by the date received, in the alphabetic order, by author.
2. The Judge can select one of the propositions on which he is going to give his opinion.
3. The Judge sees the proposition without modifying its contents and votes: he can accept the DC without reserve, accept it with comments or reject the DC with motivation of his refusal.

Alternative Courses:

None.

Extends:

None.

User Interfaces:

Constraints:

The scenario must correspond to the submission procedures of the DC (cf. section 4.2.1).

Questions:

What criteria should be accounted before the evaluation of a proposition?

How to deprive the Judge of his duty and give it to another judge? In case of the Judge being too slow or absent, for example.





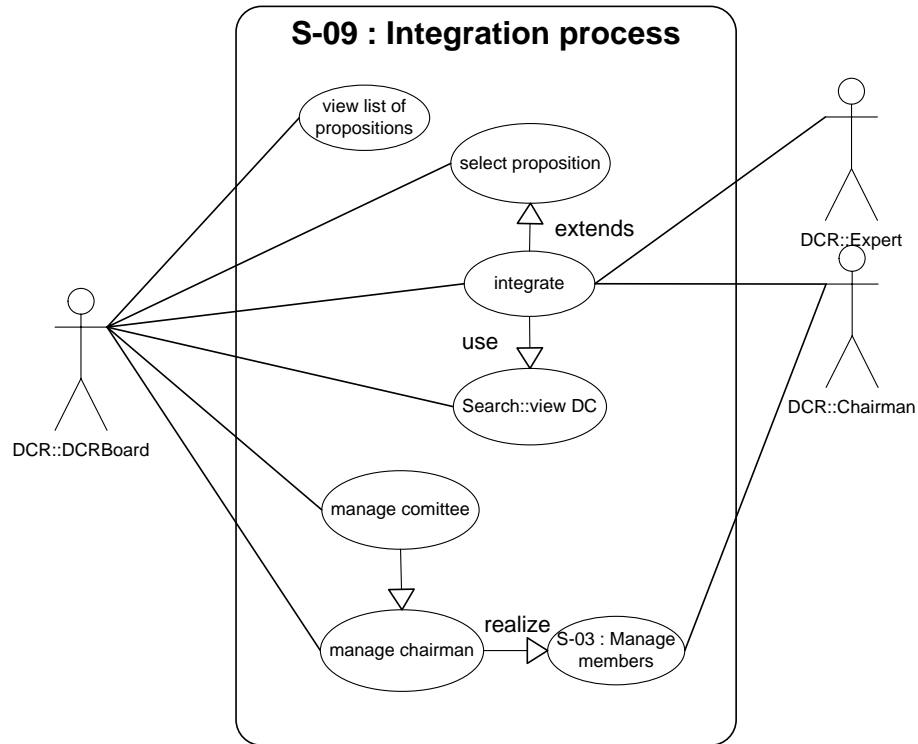
Notes:

None.

Authors:

PA.

3.3.9 S-09 Integration process



Needs to be reviewed. And may be dropped

Description:

The DCRBoard are responsible for the coherence of the DCR. The user must be connected to the system and authorized to have the status of the DCRBoard. The DCRBoard must integrate and keep available all new DCs which have successfully passed the voting procedure. The DCRBoard has the right to create the committees and assign a Chairman for the committees.

Actors:

DCRBoard, Chairman

Preconditions:

The user must be authorized as a member and be designated as a DCRBoard.

Scenario Text:





1. The DCRBoard can see the group of validated propositions. It is possible to sort them by the date received, in the alphabetic order, by author.
2. The DCRBoard can select one of the propositions which he will integrate into the DCR. He informs the Chairman of the committee via email whose DC is about to be integrated. The Expert who provided the proposition is also informed via email about the final integration of the DC and its final status (ID, status, version, and committee).
3. The DCRBoard is responsible for the committee and must be able to designate the Chairmen of each committee who will accept the duty. He must be able to designate or dismiss the Chairmen as he thinks is necessary.

Alternative Courses:

None.

Extends:

None.

User Interfaces:

Constraints:

The scenario must correspond to the submission procedures of the DC (cf. section 4.2.1).

There exists only one DCRBoard for the whole DCR.

Questions:

Can the DCRBoard refuse a DC? If so, under which conditions?

Can the integration be automatized?

Notes:

None.

Authors:

PA

3.3.10 S-10 Forum

How can the communication among the members within the DCR be organized?

Extends:

S-04 DC Search, a member can send a message to the Chairman of the committee which is responsible for a DC or to the Expert who has published the proposition.

S-06 Working Space, the Expert replies to the message concerning his proposition. He can also bring up a discussion by inviting other members to discuss one or a group of propositions.

3.3.11 S-11 Translate

How to translate a DC into many languages without changing its meaning?







4. Business Domain Model

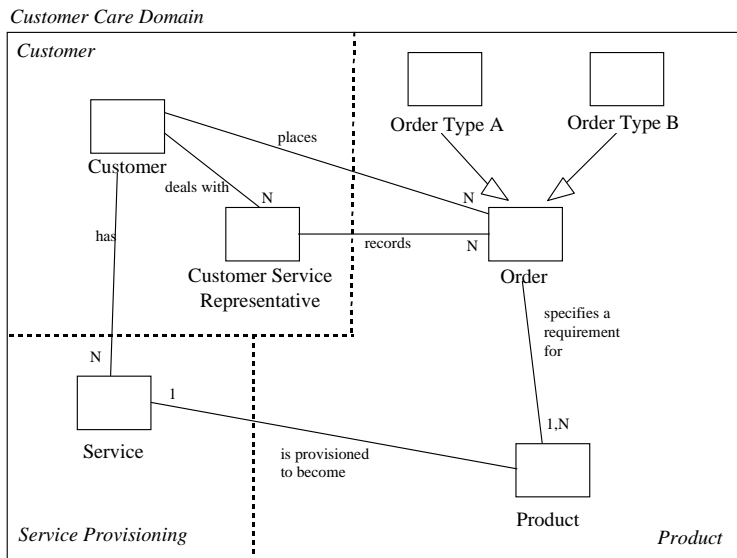
A Business Domain Model is a high level object model of the classes that exist in the business domain supported with a general statement about each Class covered within the model.

Given that the model is largely used to structure the problem, emphasis is placed on the assignment of a unique name and description as well as the identification of candidate relationships between the classes.

4.1 Business Class Diagram

Insert a copy of the business class diagram here. Complex systems may need to be partitioned into Subject Areas as in the example below.

Example (An Customer Care System):



4.2 Business Object Definitions

4.2.1 Propositions and the ISO submission process

Description.

This part describes the procedure of validation of ISO of the DC. The object which this diagram describes is the proposition (DC with the status "Private Candidate").

Attributes

Registration authority: the state of registration of the DC. The possible values are: private, submission, balloted, deliberation, registration, standard, and rejected.

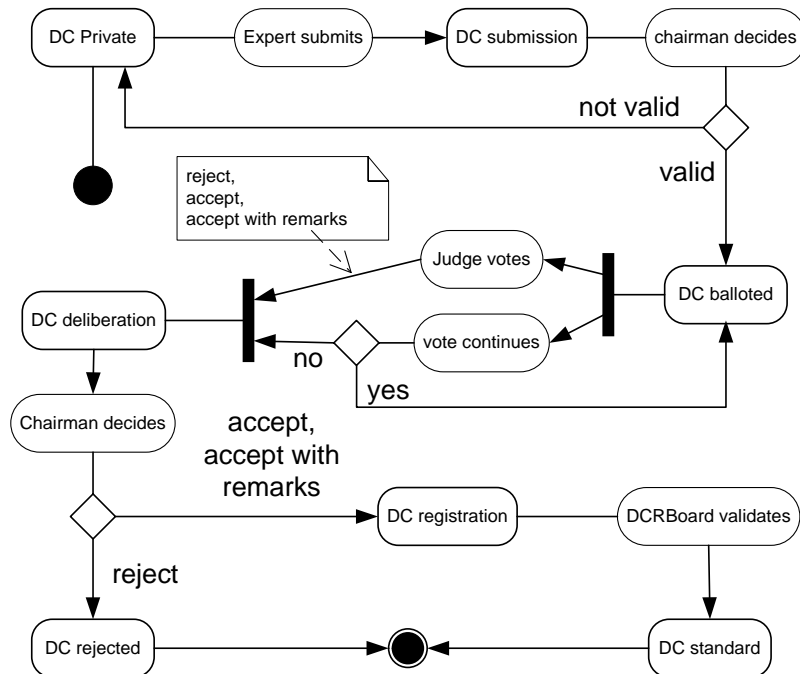




Responsibilities

The expert initialises the procedure. The Chairman sends and takes away the DC in the cycle of voting. The Judges give their opinions during the process of voting. Finally, the DCRBoard assures the integration of the standardized proposition in the DCR.

State diagram





5. Non -Functional Requirements Specification

The information in this chapter should serve as the basis for application design. The information in this chapter should act as a basis for the design of the application for the software engineer(s). Furthermore, it should provide a means of communication with (potential) users. Make sure that all requirements are uniquely identified for easy reference.

Often when the full requirements of a system are explored, it is difficult to represent all of the requirements on a Business Scenario Model. The Business Scenario Model is best at representing truly "functional" requirements that map to the process of the business. Those that are non-functional in nature (i.e. statements on usability, reliability etc) can only be embedded within the context of a functional requirement, and as such, risk getting lost in the paper work.

This document exists to document the "non-functional" requirements of the system.

They should be clearly and concisely stated.

5.1 Overview.

Provide a brief overview of the non-functional requirements.

5.2 Enabling Technologies

5.2.1 Target Hardware & Hardware Interfaces

Where a requirement exists for a specific hardware environment to be used to deliver the system, detail the requirements.

This should specify the logical characteristics of each interface between software product and the hardware components of the system. It also covers such matters as what devices are to be supported, how they are to be supported, and protocols. For example, terminal support may specify full screen support as opposed to line by line.

5.2.2 Target Development Environment

Where a requirement exists for the system to be developed using specific platforms, software and tools, state the requirement.

5.2.3 System Interfaces

Due to deployment requirements, specific system interfaces may be required (e.g. "the business cannot deliver service X if the new system does not talk to System B"). If these are known, state them. Focus on the enabling technology aspect of these connections.

Where specific technology must be used, document the requirements.

The account should list each system interface and identify the functionality of the software to accomplish the system requirement and the interface description to match the system.

5.3 Capacity Planning

5.3.1 Traffic Volumes over Time

Traffic volumes differ throughout the hours of operation. Discuss the expected traffic volumes over the normal operating period.

Often, it is most sensible to rate the traffic levels in terms of 0 for the lightest level, 1 for the heaviest, and 0.5 for the medium load.

5.3.2 User Populations and Locations

State the user population levels expected on a per location basis. Where different user groups are expected to generate different traffic levels, state the differences.





5.3.3 Permanent Storage

What are the expected requirements with respect to permanent storage? What volume of data is to be held? What replication and backup procedures are required?

5.4 Printing

What are the printing requirements?

5.5 Network

What are the networking requirements? Explore these requirements in as much detail as possible.

5.6 Workstations

Explore the requirements for a workstation by covering the following subjects:

- Diskspace
- Performance
- Memory
- Screen attributes
- Processor requirements
- Interfaces.

5.7 Operational Parameters

5.7.1 Usability

Discuss the usability requirements for the new system. How understandable, learnable and operable is the new system to be?

5.7.2 Reliability

Discuss the requirements which respect to the level of reliability that is expected with the new system.

In particular, consider the following section on the recoverability requirements for the new system.

Recoverability & Backup

Describe the backup and recovery requirements for the system.

Restart

Describe the requirements for restarting the system after a temporary problem in the system hardware or software.

5.7.3 Maintainability

Explore the maintainability requirements for the new system. How easy should it be to analyse it, change it and test it?

What criteria will be used to measure the stability of the system?

5.7.4 Portability

Review the requirements of the system in terms of portability. Consider how adaptable, installable, and replaceable the system is to be.





Should the system conform to any portability standards?

The section should specify the attributes of software that relate to the ease of porting the software to other host machines and/or operating systems. This may include:

- Use of proven portable languages
- Use of a particular compiler or language subset
- Use of a particular operating system.

5.8 Performance requirements

This section describes a number of general guidelines regarding performance requirements in such areas as response times, memory use, disk use, and network use. This section does not provide exact figures.

5.9 Software system attributes

This section describes a number of software attributes such as reliability, availability (checkpoints, recovery, and restart), security, maintainability, and portability. These attributes may serve as requirements.





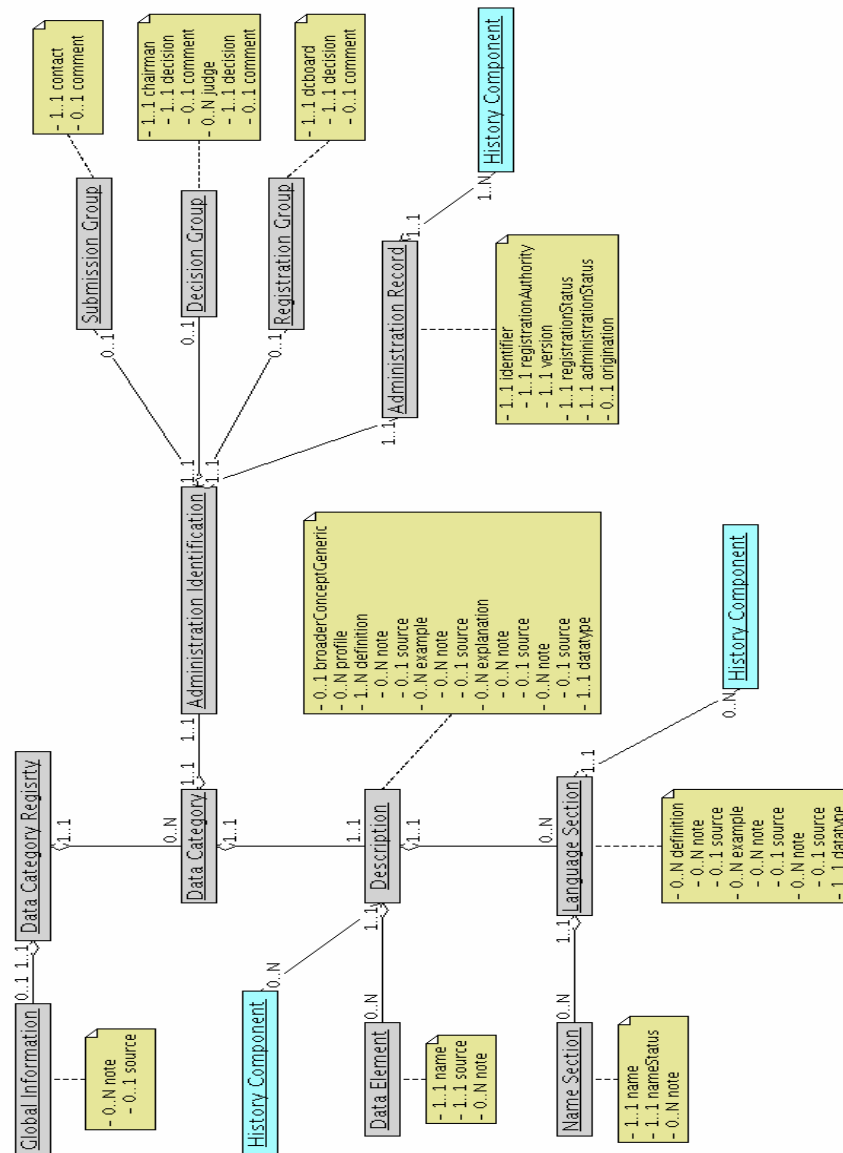
6. Future extensions

This section provides an indication of the direction in which the application will extend in the future. It describes all requirements which have been postponed until later versions.





Appendix A. DCR2 diagram with Meta-Model Builder



[Add keywords to search on to allow users to find DC.](#)





Model stability is an issue. Here since there may be changes. It is expected that these will be limited at the attribute level.

Community aspects need to be integrated. The current idea is to integrate this as an attribute of language section.

