

# CDD

## *CERN Drawings Directory*

User's manual

Version 1.1

**CERN EST / 96-04 (ISS)**

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# **Introduction**

# About this manual

This manual describes the **CERN Drawings Directory** application (CDD). It is both an introductory guide for the new user and a reference manual for the experienced user. There is another manual available for CDD administrators, the present manual is oriented to standard users of the application.

There is first an introduction to CDD. What it is, and how it must be used.

Chapter I points at some basic concepts necessary to understand the application itself .

Chapters II and III describe the application in detail. Each chapter describes one of the CDD user interfaces, CDD Forms in chapter II and CDD Web in chapter III. In both cases there is a description of available functions for standard users, with suggestions of when/how each function should be used, as well as the answers to the most frequently asked questions. A detail of every screen will not be included in this manual, as CDD screens should be self-explanatory.

An index is included at then end for a quick reference.

# What is CDD?

CDD (CERN Drawings Directory) is a multi-platform utility which manages engineering drawings made in any division at CERN. The aim of CDD is not to store the graphical drawing itself, but to store a reference with some information related to the drawing. Access into this data is provided via a graphical user interface which is based upon ORACLE Forms (CDD) and WWW (CDD Web). The application might run in principle on any platform, but in its first version, CDD will run only on UNIX platforms and PC's.

Drawings following different numbering systems and different management rules can be handled by CDD. The only condition is that those particular functionalities are well defined.

Several drawing systems have been identified in CERN and were therefore considered when designing the application. The current version of CDD focuses on the following naming systems: EST (which is principally used for the LHC project), LEP, ST-IE, SPS, ST-CE, ALICE, ATLAS, CMS and LHC-B. Other CERN systems can be easily integrated on demand.

# Parts of CDD

Different parts can be distinguished in the CDD application:

## **The CDD database**

It is an ORACLE database where all the information used in the application is stored, as well as some general procedures that deal with it. These procedures are stored in the database and can be executed from the external world.

## **The CDD user-interface**

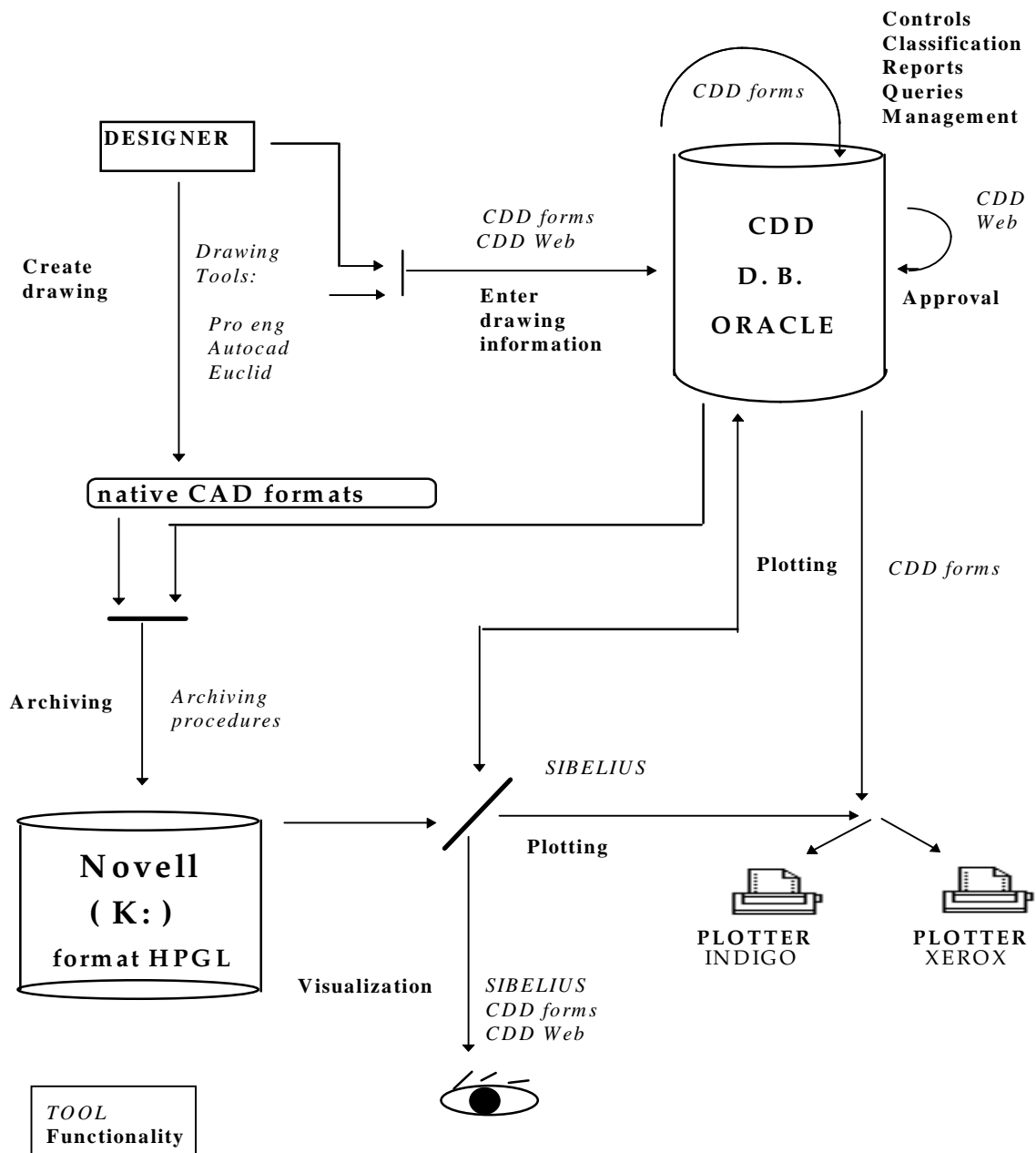
It is a set of programs, which allow the CDD user to interact with the information stored in the database. There are two kinds of interface:

- **CDD Forms** is a user interface written in ORACLE Forms 4 which offers all CDD functionality, fully described in this manual, except drawing approval.
- **CDD Web** which is a Web interface and offers at the moment just the main part of CDD user-oriented functionality (creation of new drawings, control, approval and retrieval of information).

All general concepts and procedures described in this manual are valid for both interfaces. The second part (Chapter II) describes only the interface CDD forms.

# Life Cycle of a drawing

It will be useful for the reader to fully understand where CDD fits into the complete package of facilities provided at CERN to deal with engineering drawings.



Designers first create their drawings using one of the CAD tools available at CERN (AUTOCAD, EUCLID, PRO ENGINEER, etc.). Then, via CDD, the drawing information is entered in an ORACLE database. This operation might be done either automatically from the drawing tool (e.g. EUCLID), or manually if user starts CDD himself.

Once the drawing exists in the database, and following the rules defined for each drawing system at CERN, it can be modified, controlled, classified, consulted, etc. using the CDD application.

When a drawing is ready, it will be automatically archived in HPGL format. Once the archival process is finished, it can be visualised graphically either via SIBELIUS or via CDD, but it can not be modified. (SIBELIUS is a graphical tool that runs on PC's and allows public consultation of all drawings stored in the database)

Once a drawing has been archived, an approval cycle might be started and completed via CDD Web.

Some other operations like plotting or classifying drawings, can also be done either via SIBELIUS or via CDD directly.



# Logging on to CDD

## CDD Forms

**From PC's** start CDD by double-clicking on the CDD icon in the EST-Division Windows group.

**From UNIX** systems, there are two pre-requisites:

- You must have AFS installed on your system.
- The environment variable `$CDD_HOME` must be set to */afs/cern.ch/user/c/cddmgr/bin*.

To start CDD, simply type the command `$CDD_HOME/cdd`.

In both cases, a window will appear on your screen asking for your name and password. Remember, this is the user name/password given to you by the CDD administrator, can be typed either in upper or lower case and it is different for CDD Forms and CDD Web. Once you have typed your user name and password, click on "Connect" button and if the validation is correct, the main CDD menu will appear in the screen. You are ready to use CDD.

## CDD Web

From any platform, using any Web Browser (e.g. Netscape), you can access the CDD page at the URL address:

*[http://wwwlh01.cern.ch:8005/cdd/owa/c4w.get\\_in](http://wwwlh01.cern.ch:8005/cdd/owa/c4w.get_in)*

## **Logging off from CDD**

When you have completely finished using CDD Forms, you can either click on the button “Exit CDD”, or choose the Exit command in the Action menu.

# CDD Support

There is a support team always ready to answer to all your questions, suggestions and demands:

**By E-mail: [cddmgr@mtcao.cern.ch](mailto:cddmgr@mtcao.cern.ch)**

Do not hesitate to contact the CDD  
support team in case of problems !!!

# **I. Basic concepts in CDD**

# 1. Drawing Objects

There are several concepts around the management of drawings which are very different from each other and it is important to identify them clearly. Throughout this manual and in the application itself, these are very commonly used terms which must be explained in detail:

## 1.1 Drawing System

A drawing system can be defined as a **common set of rules which define the way** that any **drawing** created inside that system must be **identified, numbered, and managed**.

In this way, we can deal with drawings belonging to different drawing systems. Some data and functionality will be common to all drawing systems, and some will be specific to each one.

One of the most important points which differentiates one system from another is the way drawings are numbered.

The following drawing systems have been identified at CERN:

- EST

Drawing numbering:

Project (3)	Equipment (5)	Sequence number (4)
-------------	---------------	---------------------

E.G.: Drawing **LHCLQAO\_0001** where:

Project = LHC (Large Hadron Collider)  
Equipment = LQA0\_ (Short Straight Section)  
Sequence number = 0001

Management rules: Drawings must be controlled twice before they can be archived.

Other specific information: Activity, Function and Design Office must also be defined for every drawing.

## - LEP

Drawing numbering:

Project (3)	Activity (3)	Equipment (4)	Sequence number (4)
-------------	--------------	---------------	---------------------

E.G.: Drawing **LEP620BOOV2001** where:

Project = LEP (Large Electron Positron Colider)

Activity = 620 (LEP)

Equipment = BOOV (Tests BOTM)

Sequence number = 2001

Management rules: Drawings must be controlled twice before they can be archived.

Other specific information: Design Office and Function must be defined for every drawing.

Notes: This system is an old drawing system, where new drawings can not be created. References to the existing drawings have been kept so that they can be consulted.

## - ST-CE

Drawing numbering:

Project (4)	Design Office (3)	Corps d'état (1)	Ouvrage (4)	Sequence number (4)
-------------	-------------------	------------------	-------------	---------------------

E.G.: Drawing **----DIC100402635** where:

Project = ---- (Sans designation particulière)

Design Office = DIC (Dauner Ingénieur Conseil)

Corps d'état = 1 (Génie Civil)

Ouvrage = 0040 (Physicists Building)

Sequence number = 2635

Management rules: Drawings must be controlled once by anybody before they can be archived.

Other specific information: Function must be defined for every drawing. Other information, like microfilm data, might also be defined.

#### - ST-IE

Drawing numbering:

Project (3)	Equipment (5)	IE Zone (1)	Sequence number (3)
-------------	---------------	-------------	---------------------

E.G.: Drawing **LEPEBD--2000** where:

Project = LEP (Large Electron Positron Colider)

Equipment = EBD-- (Schema de distribution basse tension)

IE Zone= 2 (Point 2)

Sequence number = 000

Management rules: Drawings must be controlled once by anybody before they can be archived.

Other specific information: Design office must also be specified for every drawing.

#### - ST-HM

Drawing numbering:

Project (3)	Rapier class (3)	Rapier number (4)	Sequence number (4)
-------------	------------------	-------------------	---------------------

E.G.: Drawing **LEPMPR00840014** where:

Project = LEP (Large Electron Positron Colider)

Rapier Class = MPR (Ponts roulants)

Rapier Number = 0084

Sequence number = 0014

Management rules: Drawings must be controlled once by anybody before they can be archived.

Other specific information: None.

**- SPS**

Drawing numbering:

Project (3)	SPS subject (7)	Sequence number (3)
-------------	-----------------	---------------------

E.G.: Drawing **SPS8031040001** where:

Project = SPS (Super Proton Synchrotron)

SPS Subject = 8031040 (Kicker Magnets)

Sequence number = 001

Management rules: Drawings must be controlled only once by anybody before they can be archived.

Other specific information: Design Office and Function must be defined for every drawing.

Notes: This system is an old drawing system, where new drawings can not be created. References to the existing drawings have been kept so that they can be consulted.

**- Experiments: ALICE, ATLAS, CMS and LHC-B**

Drawing numbering:

Experiment Code (3)	PBS Code (5)	Sequence number (4)
---------------------	--------------	---------------------

E.G.: Drawing **ATLLBMRA0001** where:

Experiment code = ATL (Atlas)

PBS Code = LBMRA (Example of PBS code in ATLAS)

Sequence number = 0001

Management rules: Drawings must be controlled twice before they can be archived.



Other specific information: Activity, Function and Design Office must also be defined for every drawing.

## **1.2 Drawing Subject**

A drawing subject is a concept that can be found in any drawing system. It is a **‘logical’ way in which a set of drawings can be grouped** or classed **together inside a given drawing system**. This concept is important as it allows us to group a large number of drawings according to a more selective criteria.

In every system, the drawing subject will include one or more components of the drawing identification in every system. E.g. for EST drawing system, the drawing subject is defined as the pair Project + Equipment. This means that drawings will only exist if they belong to pre-defined sets of pairs. It also means that we can easily obtain the list of all drawings created under a given drawing subject (e.g. LEPAARB1).

These are the drawing subject definitions inside each drawing system:

### **- EST**

Project (3) + Equipment (5)

e.g.: LHCLQAO-0001

### **- LEP**

Project (3) + Activity (3) + Equipment (4)

e.g.: LEP620BOOV2001

### **- ST-CE**

Project (3) + Design Office (4)

e.g.: ----DIC100402635

### **- ST-IE**

Project (3) + Equipment (5)

e.g.: LEPEBD--2000

#### - ST-HM

Project (3) + Rapier class (3)

e.g.: LEPMPR00840014

#### - SPS

Project (3) + SPS subject (7)

e.g.: SPS8031040001

#### - Experiments: ALICE, ATLAS, CMS and LHC-B

Project (3) + PBS Code (5)

e.g.: ATLLBMRA0001

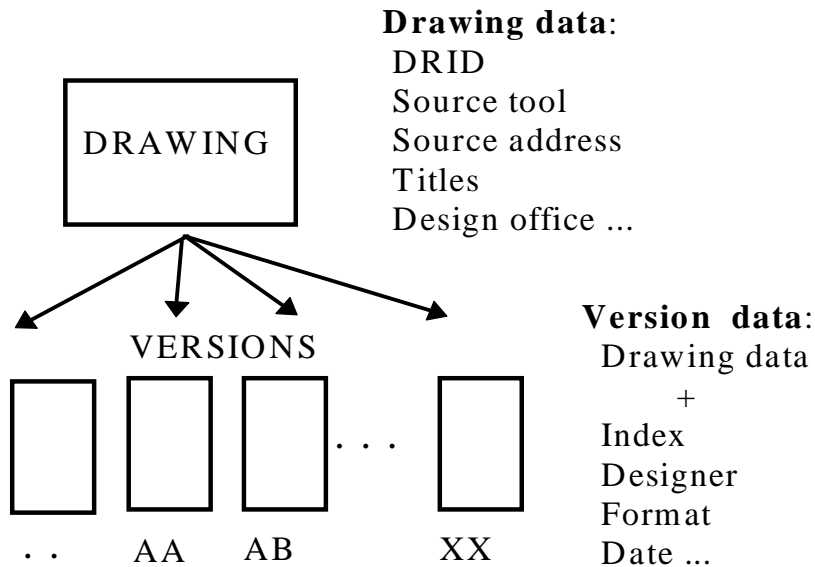
### 1.3 Unique DRrawing IDentifier (DRID)

Every **drawing** has a **unique identifier**, which identifies the drawing with a dedicated and unique “name” inside a drawing system. As we have seen, the way that this DRID is built varies from one system to the other. All the examples of drawing numbering that we have seen in 1.1 are in fact drawings’ DRIDs (e.g. LHCLQAO\_0001 in EST).

From now on, we will use the term DRID to refer to this unique identifier.

### 1.4 Drawing / Version

It is important to distinguish clearly between a drawing and the different versions of that drawing that might be created in the drawing’s life. There is **some data associated** with the **drawing** itself, no matter which version we are considering (e.g. the source tool of a drawing will be the same for all versions of that drawing). On the contrary, there is **some information linked** to the **version** itself, which can vary from one version to the next one (e.g. the designer).



In fact, “the **drawing**” is only an **abstract concept**, which **englobes all** its **versions** and some common information for all of them. The **physical realisation of a drawing**, the object (paper) we obtain at the end that can be seen, is always a given **version** of the drawing.

A **drawing** will always be **identified** by its **DRID**. A given **version** of that drawing will be **identified** by the drawing’s **DRID plus an index** (e.g. LEPAARB10001 AA will be the second version of that drawing)

The “**index**” of a drawing will indicate the version we are on; it starts with ‘..’ (first version) and grows AA, AB, AC, etc. The use of ‘..’ is only an internal CDD representation, not used in the “cartouche”. This permits easy queries: typing ‘..’ means “I want the first version and only this one”.

A **drawing** is **created once** and **with** it, its **first version** (index ‘..’) is created automatically. Later, **several versions of the same drawing** can be created, always respecting the data already defined for the drawing. Some drawing data can be changed under specific conditions (e.g. the drawing has never been archived). In the same way, some characteristics of a given version can also be changed.

When a new version is created, all previous versions are “frozen” and the **last version** remains as the “**active version**”. This means that all operations like modifications, control, plotting, archival, etc., will only be possible for the active version of the drawing. Old versions will remain visible and can be consulted, but they are not “active”.

Following the same principle, only the last version of a drawing can be deleted. The deletion of a complete drawing is also possible but this operation requires certain privileges.

There are some limitations when creating a new version of a drawing. This is explained in detail in Chapter II of the CDD User Manual.

## 2. Access

As CDD deals with very different drawing systems, it is necessary to define a way to manage the access to the different drawing objects, so that the security is guaranteed.

**Access** to a drawing object must be understood **only** as the **right to alter** the data of that drawing object, **never to obtain information** about it. **Any user** can **query** information and print **any drawing in any system**, no matter which group he belongs to.

### 2.1 Users/Groups

**Users** are distributed **in** different types of **groups**, and the **access to** the different **drawing objects** will be **defined in relation to** these **groups**. The same user can belong to different groups if required.

Every user will have a **user name** and **password** to login, and his rights will be determined according to the group(s) he belongs to.

The assignment of users to groups is the task of an administrator, and it will be transparent to standard users.

These are the different types of groups existing in CDD:

Standard users: There can be as many as required for each drawing system. Users belonging to these groups can create drawings inside the associated system.

System administrators: Only one per drawing system. Users belonging to this group can define the drawing subjects of the system, as well as the standard groups/users able to work in that system.

Special groups: Groups with the rights to do specific operations (plotting, equipment's definition, application managers, etc.)

## 2.2 Access to a drawing system

A **standard** user can **access** a drawing system (that is to try to create drawings inside it), **if** he **belongs** to at least one of the **standard groups in that system**.

A system **administrator** can **access** a drawing system (that is to define subjects and/or standard groups inside it) when he **belongs** to the **system administration group of that system**.

## 2.3 Access to a drawing subject

A standard group must also be associated to a given subject(s) inside a system. That means that only users in that group can create or modify drawings which belong to that subject. **If no access is specifically defined for a subject, users can not create or modify drawings of that subject even if they can access the system.**

## 2.4 Access to a drawing

A standard user can access a drawing (that means create, modify, control, etc..) if he can access the subject to which the drawing belongs.

**Once the user has access to a given subject, he has access to all drawings inside the subject, as well as to all versions of the drawing.**

## 3. Classification

Drawings can be “logically” classed together, so that a user can freely decide to group a certain number of drawings following a certain order.

As the sequence number of a drawing is automatically given by the application, this possibility gives the user a chance to arrange a subset of drawings, no matter which number they have.

### 3.1 Folders

A folder is simply the **way to class any set of existing drawings in a certain order**.

A folder **contains drawings** (all versions), **not a particular version**. That means that once the drawing is classed inside a folder, all versions are classed automatically inside it.

A folder has an unique name which identifies it, and it can be modified (drawings added, removed or re-ordered).

A **complete folder can be plotted at once** (only the latest archived versions of the drawings inside the folder will be plotted).

### 3.2 Access to a folder

There is a way to limit the access to a given folder, and this is done via groups of users. When creating a folder, a **relationship between this folder and one or more standard groups** is created. In this way, only users belonging to those groups can modify the folder or its contents. As usual, anybody can read or print a folder, no access control is done for that kind of operations.

It is important, when creating a folder, to specify clearly which groups of users can access it. As this is a user-oriented approach, any user can in principle create any folder, and by default the user’s standard group will be assigned to the folder to define the access to it. If wanted, any other groups can be related to the folder, but users will only be able to choose between groups to which they belong themselves.

## 4. Dictionary

The CDD Dictionary is simply a repository of all “objects” to which drawings of any system are related, either by definition of the drawing itself or by any other kind of relationship.

These objects can be things like: equipments, “ST ouvrages”, SPS subjects, projects, activities, design offices, etc.,

Normally, these objects are identified by a code and are described by a short text. The dictionary is a way to obtain selective lists of all these different codes and objects.

There is no access restriction to the dictionary. Any user can look at any of this information.

## 5. Drawing links

Drawing subjects and drawings are related to one or several objects of the dictionary by their own definition (see 1.1 and 1.2. of this chapter). For instance, considering the drawing system EST, the subject LHCXELMX is linked to the equipment XELMX by definition. This makes all drawings of that subject (e.g. LHCXEMLX0001) also linked to that equipment. This is due to the implicit hierarchy established between all the drawing objects.

CDD gives the possibility to define also “extra” links between a given drawing or drawing subject and any other object.

These relationships allow us to obtain a list of drawings linked “somehow” to a certain equipment, to other object (e.g. ouvrage for ST-CE), or to any combination of them.

### 5.1 Links with other objects

Links can be defined between drawing subjects or drawings and objects like equipments, ouvrages, Half Cells, SPS Subjects, Corps d’etat and IE Zones.

If the link is established with a subject, all drawings inside it will be found as well as if the link had been defined for them. Particular links between a drawing and any object can also be established.

If two “objects” are somehow linked together (e.g. an equipment can be defined as component of another “super-equipment”), this information can also be used. When trying to obtain all drawings linked to the “super-equipment”, we should also obtain as a result all drawings linked to any of the components.

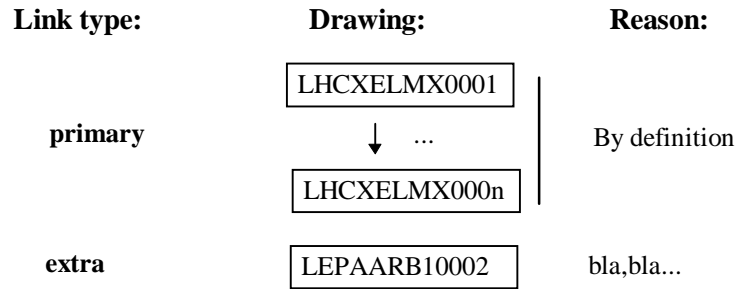
This is illustrated in the following example:



**1.- Add an extra link between equipment XELMX and drawing LEPAARB10002**



**2.- Query list of drawings linked to equipment XELMX:**



## **5.2 Keywords**

A list of drawings associated to a certain keyword can be found easily in CDD. Subjects and drawings may be associated at any time to a list of existing keywords.

## 6. Control rules

Depending on the drawing system, one can define different sets of rules about the way drawings inside the system must be controlled. The **control** of a drawing is simply a “**signature**” made by someone **saying** that the **drawing is OK and ready to be archived**. In fact, **control** is done **on the active version** of a drawing, not on the drawing itself.

At the moment there are four different control rules defined in CDD, but new rules can be implemented if needed for new systems. These are the existing control rules:

*- No control is needed*

*- One control not restricted*: One control is needed, and it can be done by anyone

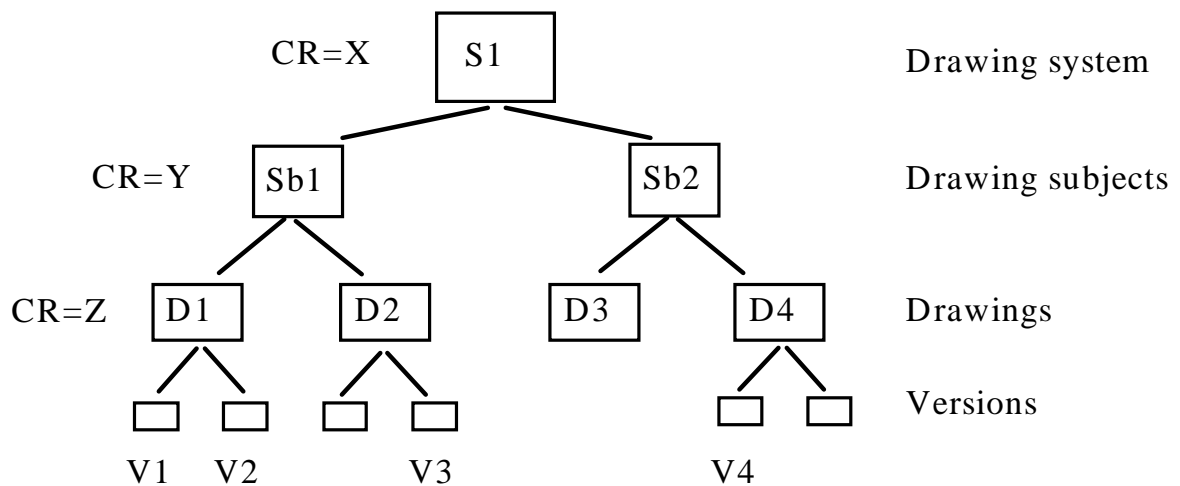
*- Two controls not restricted*: Two controls needed, and they can both be done by anybody.

*- Two controls, first one restricted*: Two controls are needed, and the first control must be done by someone different from the drawing’s designer.

Every **drawing system** has a **control rule** defined **by default** which is applied to any drawing “under” it. But there is also the **possibility** (only for administrators) to define **another control rule** at the **drawing subject level** or even at a **drawing level**. That makes it possible to have a general way of control for the system, to define a specific control rule for a particular set of drawings (drawing subject) or even another rule for one particular drawing.

This flexibility has some limitations, as we have to define somehow when a control rule can or cannot be changed, and the effects of that change in every level. **When** a drawing (in fact its last version) **starts** the **control** process, the control **rule** to be applied **is obtained**. The way this control rule is obtained is **by looking from the lowest level to the highest one** (first search at a drawing level, then at a drawing subject level, and finally at a drawing system level). If one particular level does not have a control rule defined, it means that the rule to be applied must be taken from a higher level. Once the control rule to be applied is obtained, it can not be changed for that particular version, which will be controlled in that way. However, the control rule of any level can be changed at any time, which means that for every version to be controlled in the future, the new control rule will be applied.

This is illustrated in the following figure:



In the above figure, we have defined three different control rules: X for drawing system S1, Y for drawing subject Sb1 and Z for drawing D1. Let's see the control rule which would be applied for versions V1, V2, V3 and V4:

- V1 and V2 would be controlled with rule Z, as it is defined for its drawing.
- V3 would be controlled with rule Y, as drawing D2 does not have any specific control rule defined, and so it will take the control rule of the higher level (subject).
- V4 will be controlled with rule X, as the only defined control rule in the hierarchy is the rule for the system (X).

Lets assume now that none of the four versions have started to be controlled, and we start the control of V1 in this situation, that is with rule Z applied. Then we decide to change the control rule of D1 to rule K. After the change, the version V1 will finish its control following the rule Z, as it started, but when the control of V2 starts, the applied rule in that case will be the new rule for the drawing, that is rule K.

## 7. Language checks

There are several screens in the application where users are asked to enter a short text in english and in french (e.g. drawing titles).

A mechanism exists in CDD which checks that a given text is either english or french, and displays a **warning** message in case the text has not been recognised as a text written in the expected language.

This mechanism is based on a french and english vocabulary with some commonly used terms. You can **help us to improve** this vocabulary with some new terms: if you obtain the message "*Undetermined language for that text*", it means that the words used in your text are not in the CDD vocabulary. If you consider it reasonable, please don't hesitate to contact CDD support team so that we can include new terms in it.

## **II. Standard operations in CDD Forms**

# 1. Generalities

## 1.1 How to change your password?

### Menu option:

There is no menu option for this action, just click on “**Change Password**” button in the **CDD main screen**.

### Description:

This option can be used to change the user’s password, and it is recommended to do so at least once after the user has been registered for the first time.

A window will appear asking for the old password and the new password, which must be typed twice for confirmation. Click on “OK” to change the password or “Cancel” to cancel the operation.

### Notes:

The new password will be applicable from the next CDD session.

Passwords must be at least six characters long, start by an alphabetic character and have at least one numeric character.

## 1.2 Types of CDD screens

There are two types of screens in CDD Forms: **Action** screens and **Information** screens.

**Information** screens let you **query data** from the database, which you can then view and/or print. But you will not be able to modify data.

**Action** screens let you create, modify or delete information in the CDD database. By using these screens you might **change data**, and you will have to Commit those changes to make them definite in the database.

You will be able to identify easily in which kind of screen you are. There is a colored button in the top left corner of every screen: red button for Info screens and green button for Action screens.

## 2. Drawings

### 2.1 How to create a new drawing?

#### Menu option:

Choose **Drawings - New drawing** in the CDD menu or click on the button “New drawing” at CDD main screen.

#### Description:

This is one of the main operations in CDD, and it consists of the creation of a new drawing, together with its first version. The user must enter all drawing information, and then confirm the operation by clicking on “Commit” button. Once the new drawing is created, a dialog window will be displayed giving the DRID assigned to the new drawing. User can choose then if he wants to Exit or restart with another drawing.

#### Notes:

- 1.- The first information to be entered is the drawing system in which the drawing is going to be created. In case the current user can only access to one drawing system, that system will be proposed by default.
- 2.- Once the system is defined, the user will be asked for the drawing subject in which the drawing is going to be created. Remember that the structure of the drawing subject depends on the drawing system (see 1.2 in Chapter I ). The last subject used by the user will be proposed by default, but it might be changed. A list of existing drawing subjects is available.
- 3.- The designer related to the current user (if any) will be proposed by default, but it might be changed. A list of existing designers is available.
- 4.- The number assigned to the new drawing will be automatically given by the application.
- 5.- A button clear is available at any time, to clear all information and restart again.



## **2.2 When a user is not allowed to create a drawing?**

A user will not be able to create any drawings in a given drawing system if he does not have access to that system. If you wish to create a drawing in a system for which you don't have access, please contact that system administrator (see section 2 in Chapter I for access definition).

Once the user is authorized to select a given drawing system in which to create drawings, he will only be able to create drawings in a limited number of subjects. Only subjects to which the user has access will be allowed. If you want to create a drawing under a certain subject to which you have no access, please contact the responsible system administrator and request the access to that subject.

## **2.3 How to create a new version of an existing drawing?**

### **Menu option:**

Choose **Drawings - New version (index)** in the CDD menu or click on the "New version" button at CDD main screen.

### **Description:**

This screen lets you create a new version of a drawing. First, select a drawing by giving its DRID (list of values available), and then fill in the form with all the new version information. Only drawings to which the user has defined access can be selected here (see 2.4 of Chapter I).

To confirm the operation, click on "Commit" button. Click again in the drawing's DRID to clear the screen and to select another drawing or click on "Exit" to finish the operation and close the screen.

### **Notes:**

- 1.- Some drawing data will be displayed for user's information, but it can not be modified in this screen. If you really want to modify this information, look at section 1.5 in this chapter.
- 2.- The index assigned to the new version will be given automatically by the application (it will be the index following to the last existing version).
- 3.- Some information will be proposed by default from the previous version information, but it can be modified if desired (e.g. designer).
- 4.- You can decide to send a mail to all controllers of the previous version (if any) to inform them about the creation of a new version. A check box is available for that purpose. By default, no mail is sent.

## 2.4 When a user is not allowed to create a new version?

1.- A user will not be able to create a new version of a drawing if he has no access to that drawing (see 2.4 of Chapter I for definition of drawing access).

2.- A new version can not be created for a drawing which is not “available”. That means:

- the drawing has been marked as lost or obsolete
- someone is working on a version which has not been archived.
- the last version has been archived but it is under approval.

3.- Once the drawing access is guaranteed and the drawing is marked as “available”, new versions can be created under certain conditions. Initially, while no version has ever been controlled or archived, you can create as many versions as you want of the same drawing. But once one version (any) has been controlled, then no other version can be created until the previous one has been archived successfully.

## 2.5 How to obtain all information about a drawing?

### Menu option:

Choose **Drawings - Drawing information** in the CDD menu or click on the “Drawing information” button in the main CDD screen.

### Description:

This operation allows you to **obtain all information about any version of any drawing inside any drawing system**. If a version is archived, you can also **visualize** it on the screen.

First of all you must select the version(s) you want to look at. To do so, you must enter a query criteria so that a limited search of versions according to that criteria is done. Then, the result is displayed and can be consulted on the screen. It is important to enter a good criteria, selective enough, so that a small set of drawings are retrieved. To do this, several information can be entered: DRID, english and french title, index, or any combination of them. The character ‘%’ can be used as a joker at any time.

Once the search has been limited by the desired criteria, click on the “Retrieve” button to actually query the database. Several pages of information are available, just by clicking on the proper button. If you want to view a given version, click on “View” button and wait a few seconds. A new window will appear on the screen where you can see the electronic source of that version.

You can also look at the next/previous drawings retrieved by just clicking on the up/down arrows.

**Notes:**

- 1.- If no particular index has been entered as query criteria, then only the last version will be selected. If a particular version (index) different from the last one is wanted, then include it in the criteria and repeat the operation.
- 2.- Only archived versions can be visualized. The button which allows you to visualize a version is only active when you are querying archived versions.

## **2.6 How to control a drawing?**

**Menu option:**

Choose **Drawings - Control version** in the CDD menu or click on the “Control” button in the main CDD screen.

**Description:**

This operation allows you to control the last version of a drawing or set of drawings (see Section 6 in Chapter I)

First of all, users will have to select the drawing or list of drawings to be controlled. This is done by entering a search criteria (DRID, designer name and titles can be used) and clicking on the “Retrieve” button. The last version of all drawings selected will be listed, together with some information about them, including the control rule which will be applied. For each version, there are also two check-boxes to do the two possible controls (for some systems only one will be necessary). Just click on those buttons for the versions you want to control and click “Exit” to finish.

**Notes:**

- 1.- Remember you will only be able to control those drawings to which you have defined access.

## **2.7 How to change the control rule of a drawing?**

Standard users can not modify drawing control rules, but this operation can be done by the system administrator if it is considered convenient. Just contact him if you wish so.

## **2.8 What to do with an archiving error?**

In case of an archiving error for a given version of a drawing, this version will remain “locked” until the error is corrected. The archiving process will not consider it until it “knows” that it has been corrected. When corrected, you have to “tell” the system about it, so the version will be unlocked and the archiving process will try to archive it again. There is a screen in CDD which lets you do this operation.

### **Menu option:**

Choose **Drawings - Correct archiving error** in the CDD menu.

### **Description:**

This operation allows you to inform the system that a version is again ready to be archived.

The way to operate in this screen is very similar to the Control screen. First of all, users will have to select a drawing or a list of drawings to be “corrected”. This is done by entering a search criteria (DRID, designer name and titles can be used) and clicking on “Retrieve” button. The last versions of all drawings selected will be listed, together with some information about them, including the archiving error message. For each version, there is a button to make the correction. Just click on that button for those versions you want to correct, and then click on “Commit” to validate the operation. The “Exit” button will close the screen.

## **2.9 Plotting a drawing**

### **Menu option:**

Choose **Drawings - Plot** in the CDD menu.

### **Description:**

This operation allows you to plot the last archived version of a list of drawings. Simply choose a/some drawing(s) by giving its DRID (list of values available), and the plotter name where you want the output. The last archived version of each selected drawing will be then sent to the chosen plotter. Click on “Commit” to confirm and on “Exit” to finish the operation and close the screen.

### **Notes:**

Remember that **ONLY** archived versions (paper archived excluded) can be plotted.

No access to the drawing is necessary for this operation. Any drawing of any drawing system can be selected by any user.

## **2.10 How to define extra links between a drawing and other objects?**

### **Menu option:**

Choose **Drawings - Drawing links** in the CDD menu.

### **Description:**

This operation allows you to create extra links between an existing drawing and any other object (see 5.1 in Chapter I).

First select the drawing by giving its DRID (list of values is available for help) and all existing links for that drawing will appear on the screen. You can then enter or delete as many links as desired. For every link, the type of object (equipment, ouvrage, etc.) and its code will have to be entered, as well as a description of the relationship and its weight factor (level).

Click on “Commit” to validate any change and “Exit” to finish the operation and close the screen.

### **Notes:**

1.- Only drawings to which the user has access rights can be selected here.

## **2.11 How to associate drawings to keywords?**

### **Menu option:**

Choose **Drawings - Keywords** in the CDD menu.

### **Description:**

This operation allows you to associate a certain number of keywords to a given drawing.

First select the drawing by giving its DRID (list of values is available for help) and all existing keywords for that drawing will appear on the screen. You can then enter or delete as many keywords as desired. Only a limited and pre-defined set of keywords are available, but this list is opened and can be extended. Just contact the CDD application administrator if you wish to include any keyword in the list.

Click on “Commit” to validate any change and/or “Exit” to finish the operation.

### **Notes:**

1.- Only drawings to which the user have access allowed can be selected here

## **2.12 How/when to modify drawing information without creating a new version?**

### **Menu option:**

Choose **Drawings - Modify drawing/last version** in the CDD menu.

### **Description:**

This operation consists of the modification of some information associated with the last version of a drawing, without having to create a new one. Some drawing data can also be modified in this screen, but only in some particular cases, as a drawing modification implies that the modification will be valid for all its versions

The user must select a drawing giving its DRID. Then, all information associated to this drawing and its last version is displayed, and user can try to modify it. This modification might be possible or not, depending on the kind of information to be changed and the status of that particular version (see notes for more details).

To make the modifications definitive, click on “Commit” button. Click on “Clear” to select another drawing or “Exit” to finish the operation and close the screen.

### **Notes:**

- 1.- Only the current version (last one) of a drawing can be modified. Previous versions can not be modified, as they are frozen with the creation of a more recent one.
- 2.- There are several rules to define when certain data can be modified. It depends basically on the type of data, the drawing system and the drawing status. In general, these are the basic rules applied:

#### **Data that can be modified at any time:**

- Activity (this depends on the drawing system)
- Design office (if it is not part of the drawing subject)
- Function
- External Reference number
- Non standard information
- Comments

#### **Data that can never be modified:**

- DRID
- Index
- Ouvrage (only for ST-CE)
- Corps d'etat (only for ST-CE)
- IE Zone (only for ST-IE)

#### **Data that can be modified depending on archiving status (version archived or not)**

- Source tool

- Source address
- Titles
- Format
- Designer
- Date
- Reason for modification

## **2.13 How to delete a version of a drawing?**

### **Menu option:**

Choose **Drawings - Delete Drawing/versions** in the CDD menu.

### **Description:**

This screen lets you remove from CDD the last version of a drawing. Any users that have access to that drawing can in principle delete **its last version, but only if this version has not started the archiving process**. To delete the drawing, users must contact their system administrator, as this operation requires special privileges.

Users must select a drawing with its DRID, and then click on the “Return” button. Then, all existing versions of that drawing will be listed in the screen, they can also be consulted by clicking on the “Info” button.

To delete the last version of a given drawing, simply click on the button “Delete last version”, and confirm the operation. Click on “Clear” to select another drawing or “Exit” to finish the operation and close the screen.

### **Notes:**

- 1.- Only the active version (last one) of a drawing can be deleted, but this operation can be repeated several times for the same drawing. In that case, the last active version will be deleted each time.
- 2.- You can NOT delete a version if it is the ONLY version of the drawing. In that case, ask your administrator to delete the drawing.

## **2.14 When/how to change the status of drawing?**

Any drawing can be in one of the following states:

- Available ( A new version can be created. Last version is archived)
- Obsolete
- Lost

- Working on a new version (a new version has been created in CDD but it is not archived yet)
- Project of a new version (designer is working on a new version, but it is not yet in CDD)
- Last version under approval.

A new version of a drawing can only be created when the drawing is “available”. It may be necessary to “inform” other users that a drawing is not available any more for some special reason. For instance, when you are working on another version, before you actually create the new version in CDD (“Project of a new version”). In the same way, you might also want to inform that a given drawing is “lost” or “obsolete”, to avoid that new versions are created.

On the other hand, you can also change the drawing status back to “available” at any time, e.g. if you find a lost drawing or you decide to abandon your new version. There is a screen in CDD which lets you do this operation.

**Menu option:**

Choose **Drawings - Change drawing state** in the CDD menu.

**Description:**

This operation allows you change the state of a drawing. Simply choose the drawing to be modified by its DRID (list of values available), and then choose the type of change to be done. Click on “Commit” to confirm and on “Exit” to finish the operation and close the screen.

**Notes:**

Remember that this operation can only be done for those drawings to which you have access (see 2.4 of Chapter I)

## **2.15 How to obtain printed lists of drawings?**

**Menu option:**

There are two ways: Choose **Drawings - List of drawings** or **Reports - List of Drawings** in the CDD menu. Then, choose between the different options proposed.

**Description:**

This operation allows you to obtain printed lists of existing drawings. For more information see section 4 in this chapter.



## 3. Folders

### 3.1 How to create a new folder?

#### Menu option:

Choose **Folders - Manage folders** in the CDD menu.

#### Description:

This operation allows you to create a new folder and class inside it as many drawings as wanted, in a certain numeric order. First of all, a folder name and description must be entered, and then the list of groups to which access is going to be allowed. At least one group is mandatory here. Then, click on button “Folder contents” to include drawings in it. Click on “Commit” button to confirm and on “Exit” to finish the operation and close the screen.

#### Notes:

- 1.- Remember that only groups to which the user belongs can be assigned to the folder. By default, a standard group to which current user belongs will be proposed.
- 2.- A sequence number will be proposed by default when including a drawing. This number can be modified at any time by the user.

### 3.2 How to modify a folder’s contents ?

#### Menu option:

Choose **Folders - Manage folders** in the CDD menu.

#### Description:

This screen also allows you to modify a folder’s contents, by simply adding or removing drawings or changing the sequence number of existing drawings . First of all, the folder name to be modified must be entered (list of values available). Once the folder has been selected, click on button “Folder contents” to see its contents and modify it. Click on “Commit” button to confirm and on “Exit” to finish the operation and close the screen.

### Notes:

Remember that only folders to which a user has access will be available (see 3.2 of Chapter I).

## 3.3 How to give/remove access to a folder?

### Menu option:

Choose **Folders - Manage folders** in the CDD menu.

### Description:

This screen also allows you to define who can access a given folder, by simply adding or removing groups to which the access is allowed. First of all, the folder name to modify must be entered (list of values available). Once the folder has been selected, include or remove as many groups as wanted (at least one group is mandatory). Click on “Commit” button to confirm and/or “Exit” to finish the operation.

### Notes:

Remember that only groups to which the user belongs can be selected here (see 3.2 of Chapter I).

## 3.4 How to plot a complete folder?

### Menu option:

Choose **Folders - Folder information/plot** in the CDD menu.

### Description:

This screen allows you to look at a folders’ contents, and to order the plotting of the whole folder (last archived version of every drawing inside it). First of all, the folder name or a mask of it must be entered (list of values available) and then you must click on button “Retrieve”. Folder’s general information and contents will appear on the screen, giving also for each drawing inside it, its last version and the last archived version. Remember that only the last archived version (if any) of every drawing will be plotted.

Click on “Plot folder” to order the plotting. If everything is correct, a dialog window will appear and the user will be asked about the plotter name and number of copies. Enter this information and then click on “OK” or “Cancel”.

## 4. Dictionary

### 4.1 How to retrieve information from the dictionary?

#### Menu option:

Choose **Dictionary** in the CDD menu, and then one of the options available depending on the information you want to obtain.

#### Description:

All screens under this menu are screens with a common structure and a common usage. The only difference is the information which can be obtained from each of them. We will explain here the general way in which these screens must be used (see 4.2 for details of every screen).

These are all **query-only screens**, which any user can use to retrieve information from the database. **First** of all, the user **restricts** the amount of **information** to be **retrieved** by entering a **query criteria**. In the upper part of the screen the user can enter some data (or masks of it by using the character %), to indicate what kind of information he is looking for. **Then**, by **clicking on the “Retrieve”** button, the **requested information** will **appear** in the bottom part of the screen **in the form of a list**. An horizontal scroll bar is available to visualize all data in one row. This operation can be repeated as many times as required: simply by clicking again in the upper part of the screen, everything will be cleared and a new query can be entered. The “Cancel” button will exit the screen.

There is a **second usage** of these screens, as they appear very often in the application **as lists of values** for a given field in another screen. In this case, the usage is similar, but once the list has appeared, the **user can choose one of the elements in the list by clicking on “Select”** button. In that case, the list disappears and the information is passed back to the previous screen.

#### Notes:

1.- Note that the “Select” button will always exit the form, but it will only select a value when it is being used as a list of values called from another screen. It will not have any effect when it is called by the user from the Dictionary menu.

2.- Sometimes, when used as lists of values, some of the fields used as query criteria in a normal query might be disabled for the user and automatically set to a certain value. This is because the calling screen needs to restrict the list in a certain way.

## **4.2 Which kind of information can be obtained from the dictionary?**

All this information can be obtained from the dictionary:

### **List of drawings:**

The list of drawings in CDD, restricted by the following conditions:

- DRID (or part of it)
- Creation date
- English title (or part of it)
- French title (or part of it)
- External Reference number (or part of it)

### **List of drawing subjects:**

The list of drawing subjects in CDD, restricted by the following conditions:

- Subject code (or part of it)
- Drawing system
- English title (or part of it)
- French title (or part of it)
- Subject status (Active, Inactive or Both)

### **List of drawings linked to a given object or set of objects:**

The list of drawing links, restricted by the following conditions:

- DRID (or part of it)
- English title (or part of it)
- French title (or part of it)
- From one to three pairs object type/object code to which the drawing is linked

### **List of projects:**

The list of existing projects in CDD, restricted by the following conditions:

- Project code (or part of it)
- Drawing system
- Project description (or part of it)
- Project status (Active, Inactive or Both)

### **List of sub-projects or activities:**

The list of existing activities in CDD, restricted by the following conditions:

- Project code (or part of it)

- Sub-project code (or part of it)
- Drawing system
- Sub-project description (or part of it)
- Sub-project status (Active, Inactive or Both)

### **List of design offices:**

The list of existing design offices in CDD, restricted by the following conditions:

- Office code (or part of it)
- Drawing system
- Office description (or part of it)
- Office status (Active, Inactive or Both)

### **List of source tools:**

The list of existing source tools in CDD, restricted by the following conditions:

- Tool code (or part of it)
- Tool description (or part of it)
- Tool status (Active, Inactive or Both)

### **List of functions:**

The list of existing functions in CDD, restricted by the following conditions:

- Function code (or part of it)
- Function description (or part of it)
- Function status (Active, Inactive or Both)

### **List of equipments:**

The list of existing equipments in CDD, restricted by the following conditions:

- Equipment code (or part of it)
- Equipment description in english (or part of it)
- Equipment description in french (or part of it)
- Creation date
- Equipment status (Active, Inactive or Both)

### **List of ouvrages:**

The list of existing ouvrages in CDD, restricted by the following conditions:

- Ouvrage number (or part of it)
- Ouvrage type
- Ouvrage site
- Ouvrage location (or part of it)

- Ouvrage description in english (or part of it)
- Ouvrage description in french (or part of it)

**List of SPS Subjects:**

The list of existing SPS Subjects in CDD, restricted by the following conditions:

- SPS Subject code (or part of it)
- Subject description in english (or part of it)
- Subject description in french (or part of it)
- Subject status (Active, Inactive or Both)

## 5. Printed lists (Reports)

### 5.1 How to obtain a printed list?

#### Menu option:

Choose **Reports** in the CDD menu, and then one of the available options depending on the report you want to obtain.

#### Description:

All options under this menu are special screens with a common structure and a common usage. The only difference is the output which will be obtained from each of them. We will explain here the general way in which these screens must be used (see 4.2 for details of every of them).

The aim is to obtain a printed list with CDD information, in some cases this list might be restricted by the user by giving a pre-condition. Any user can start any report, there is no access control for this kind of operation.

Once an option has been chosen from the Reports menu, a new window will appear on the screen. The user must select here the Output device (that is screen, printer, file, etc.), enter the number of copies and restrict the list by giving a value (not mandatory). Select *Screen* option to get a copy of the result in the screen before printing, or *Printer* if you want the report to be sent to the printer directly. When you have finished entering this information, click on “Run report” button at the top of the window, or “Cancel” to cancel the operation and go back to CDD main screen.

If you have chosen the “Run Report” option, a second window will appear after some seconds with the result of the report. You can navigate between pages using the buttons “Next”, “Previous”, “First” and “Last”, and then you can also print it by clicking on the button “Print”. This will show the classical print set-up window in Windows.

#### Notes:

For UNIX users, the user default printer will always be used as an output printer. Don't try to change it and simply leave the default options as proposed.

For PC users, you can choose your printer normally by clicking on the button *Choose Printer*

## **5.2 Available reports in CDD**

All these different reports can be obtained from CDD:

### **List of drawings:**

Users can obtain two different lists of drawings in CDD:

- List of drawings giving the DRID, the designer or a combination of both.
- List of drawings linked to a given equipment code or part of it.

### **List of folders**

Users can obtain a printed list of folders in CDD, restricted by the folder name or a part of it.

### **List of equipments**

Users can obtain a printed list of equipments in CDD, restricted by the equipment code or a part of it.

### **List of ouvrages**

Users can obtain a printed list of ouvrages in CDD, restricted by the ouvrage site or a part of it.

### **List of SPS subjects**

Users can obtain a printed list of all SPS Subjects in CDD.



### **III. Standard operations in CDD Web**

# 1. Web notions

Before surfing on the CDD Web interface with your Web browser (Netscape for example), it would be useful to have an overview of classical Web features. These features are considered not to be browser-dependant even if they can appear in slightly different ways.

## 1.1 Pages

Information on the Web is displayed on **pages**. When using a Web server, such as CDD Web, the user goes through many pages; some of them are used to display information only, others are used to get information from the user (these pages are also called **forms**). Using a Web server is like **navigating** inside an interactive book.

## 1.2 Hyperlinks

A **hyperlink** is a particular word or image that leads from one page to another. Just click on it to jump to the referred information.

Hyperlinks are easy to detect: hyperlink texts appear very often in blue and underlined; hyperlink images appear inside a blue border. Also, the mouse aspect changes when placed over a hyperlink.

## 1.3 Navigation

Since using Web is like browsing an interactive book, you have the ability to go **back** to the pages previously read. This action is performed when clicking on “back” button of the browser.

Of course, after you have gone back somewhere, you have the ability to go **forward**. Just click on the “forward” button of the browser.

For these reasons, within the following chapters, we will use a navigational vocabulary like “go to”, “go back” and so on...

As CDD Web pages are dynamically built, displayed data are the ones that are in the database at the very moment the page is called. But once the transfer is done, the page becomes static. To **reload** the page, click on “reload” or “refresh” button of the browser.

## 2. Generalities

### 2.1 Look and feel

After login, the **home page** is displayed. From there, you can go to any feature of CDD.

At the bottom of all the other pages there is a **navigation toolbar**. Using it, you can go back home from anywhere and also jump directly to any important page of CDD. This is the Web equivalent for pop-up menus.

Each page has got a **title** on top, so you know at any moment the kind of page you are in.

Because complex processes may require many pages, a **table** on top of the page reminds you the previous choices and the followed path.

For long pages, a **fast access line** is displayed on top. This line contains hyperlinks that allows you to jump to a particular place of the page.

### 2.2 How to change your password?

#### Home page / navigation toolbar:

Just click on **Change Password hyperlink**.

#### Description:

This option can be used to change the user's password, and it is recommended to do so at least once after the user has been registered for the first time.

A page will appear asking for the old password and the new password, which must be typed twice for confirmation. Click on "CHANGE" button to change the password or go back home using the navigation toolbar.

#### Notes:

1.- The new password will only be considered from the next CDD session.

- 2.- Passwords must be at least six characters long, start by an alphabetic character and have at least one numeric character.

## **2.3 Log history**

### **Home page / navigation toolbar:**

Click on **Log History** hyperlink.

### **Description:**

This page can become very useful after you have made several connections to the CDD Web server. It contains the list of the drawings you have used during previous connections.

Therefore, if you wish for instance to follow up day after day the state of a drawing, you will have to execute the retrieval process only once then use the log to get the information the other times. As the pages are dynamically built, displayed data are always up to date.

### **Notes:**

- 1.- Old logs are automatically deleted from the list. You can define the log lifetime within the user preferences page (see section below).

## **2.4 Preferences**

### **Home page / navigation toolbar:**

Click on **Preferences** hyperlink.

### **Description:**

This page is the one where user can define personal preferences. Three kinds exist:

#### **Retrieval preferences:**

Selected information will be used as default search criteria anywhere search is necessary except in particular cases.

#### **Plotter preferences:**

To indicate what plotter should be used by default.

#### **Log history preferences:**

To indicate the maximum lifetime of a connection log.

**Notes:**

- 1.- If retrieval preferences are not used in a search (eg. control search), it is indicated by a message.
- 2.- When not set to default, retrieval preferences appear in the request criteria top table.
- 3.- Plotter preferences do not appear if the user is not registered as being at CERN.
- 4.- The “DEFAULT” button resets the preferences values to their default values.

## 3. Features

### 3.1 How to create a new drawing?

#### Home page / navigation toolbar:

Click on **New Drawing Insertion** hyperlink.

#### Description:

This is one of the main operations in CDD, and it consists of the registration of a new drawing. The user must enter all drawing information through several pages, and then confirm the operation. Once the new drawing is created, a page will be displayed giving the DRID assigned to the new drawing.

#### Notes:

Several pages are necessary to get the complete new drawing information. The following steps are required.

- 1.- The first information to be entered is the drawing system in which the drawing is going to be created. In case the current user can only access to one drawing system, that system will be proposed by default; otherwise a list will be displayed in which each drawing system is a hyperlink.
- 2.- Once the system is defined, the user will be asked for the drawing subject in which the drawing is going to be created. Remember that the structure of the drawing subject depends on the drawing system (see 1.2 in Chapter I ). The last subject used by the user will be proposed by default, but it can be changed. A list of existing drawing subjects is available.
- 3.- The designer related to the current user (if any) will be proposed by default, but it can be changed. A list of existing designers is available.
- 4.- The number assigned to the new drawing will be automatically given by the application.
- 5.- A reset button is available at any time, to reset all information to their initial states.
- 6.- Before inserting the new drawing, the user is asked to check the data. If something is wrong, he has the ability to go back to the page concerned and change as desired.

## **3.2 When a user is not allowed to create a drawing?**

See 2.2 of Chapter II

## **3.3 How to create a new version of an existing drawing?**

### **Home page / navigation toolbar:**

Click on **New Version Insertion** hyperlink.

### **Description:**

These pages let you create a new version of a drawing. First, select a drawing by giving its DRID (use % as joker character), and then fill in the form with the new version information. Only drawings to which the user has defined access can be selected here (see 2.4 of Chapter I).

### **Notes:**

- 1.- Some drawing data will be displayed for the user's information, but it can not be modified in this screen. If you really want to modify this information, see section 3.10 in this chapter.
- 2.- The index assigned to the new version will be given automatically by the application (it will be the index following the last existing version).
- 3.- Some information will be proposed by default from the previous version information, but it can be modified if desired (e.g. designer).
- 4.- You can decide to send a mail to all controllers of the previous version (if any) to inform them about the creation of a new version. A check box is available for that purpose. By default, no mail is sent.
- 5.- Before inserting the new version, the user is asked to check the data.

## **3.4 When a user is not allowed to create a new version?**

See 2.4 of Chapter II



## **3.5 How to obtain all the information about a drawing?**

### **Home page / navigation toolbar:**

Click on **Drawing Retrieval** hyperlink.

### **Description:**

This operation allows you to **obtain all the information about any version of any drawing inside any drawing system**. If a version is archived, you can also **visualize** it on the screen.

Two ways are available:

### **Fast drawing retrieval:**

You can retrieve a drawing by giving as request criteria its DRID, external reference and title (English or French). “%” is joker character.

Once criteria are entered, click on “FAST !” button.

### **Guided drawing retrieval:**

If you have no idea of the above mentioned information about a drawing, CDD Web can help you !

First of all, select the area concerned by the drawing (e.g. LHC Experiments, Accelerators...), then click on “GUIDED” button.

Then the guided retrieval becomes specific to the chosen area. Just answer the questions and you will get the drawing you want if it exists.

### **Information page:**

This page displays the complete information about the selected drawing.

### **Notes:**

- 1.- On top, the fast access line allows you to jump to the part of the page (that may be long) you are interested in.
- 2.- In the section “Version”, the list of existing versions of the drawing is displayed; you can choose the one you want just by clicking a hyperlink.
- 3.- If the chosen version is archived, it is possible to display the drawing itself, using a HPGL viewer. For more information on such a viewer, click on the HPGL explanation hyperlink at the bottom of the drawing information page. See also the HPGL viewer page on EST division pages, located on CERN server (<http://www.cern.ch>).

## **3.6 How to control a drawing?**

### **Home page / navigation toolbar:**

Click on **Control** hyperlink.

### **Description:**

This operation allows you to control the last version of a drawing or set of drawings (see Section 6 in Chapter I)

First of all, the user will have to select the drawing or list of drawings to be controlled. This is done by entering a DRID as a search criteria (% as joker character). The latest version of all drawings selected will be listed, together with some information about them, including the control rule which will be applied.

A hyperlink is associated to any DRID and leads to the drawing information page.

If control is allowed for a version, an execution hyperlink is also displayed (e.g. Execute INITIAL control). Just click on it to execute the control. Otherwise, the reason why control is not allowed is explained.

### **Notes:**

- 1.- Remember you will only be able to control those drawings to which you have defined access.

## **3.7 What to do with an archiving error?**

In case of an archiving error for a given version of a drawing, this version will remain “locked” until the error is corrected. The archiving process will not consider it until it knows that it has been corrected. When corrected, you have to tell the system about it, so the version will be unlocked and the archiving process will try to archive it again. There is a page in CDD Web which lets you do this operation.

### **Home page / navigation toolbar:**

Click on **Correct Archiving Error** hyperlink.

### **Description:**

This operation allows you to inform the system that a version is again ready to be archived.

The way to operate in this page is very similar to the Control page. First of all, the user will have to select a drawing or a list of drawings to be “corrected”. This is done by entering a DRID as search criteria. The latest versions of all drawings selected will be listed, together

with some information about them, including the archiving error message. For each version, there is a hyperlink to make the correction.

## **3.8 Plotting a drawing**

### **Home page / navigation toolbar:**

Click on **Plot** hyperlink.

### **Description:**

This operation allows you to plot the last archived version of a list of drawings. Simply choose a/some drawing(s) by giving its DRID, the plotter name where you want the output, the number of copies you want and the folding type. Click on “PLOT” hyperlink to send the drawing to the chosen plotter, or choose to plot the whole displayed list (this hyperlink is available at the bottom of the page).

### **Notes:**

- 1.- Remember that ONLY archived versions (paper archived excluded) can be plotted.
- 2.- No access to the drawing is necessary for this operation. Any drawing of any drawing system can be selected by any user.
- 3.- Only CERN users are allowed to plot drawings.
- 4.- **Warning:** reloading or refreshing the page resends drawing(s) to the plotter.

## **3.9 How/when to modify drawing information without creating a new version?**

### **Home page / navigation toolbar:**

Click on **Drawing Modification** hyperlink.

### **Description:**

This operation consists of the modification of some information associated with the last version of a drawing, without having to create a new one. Some drawing data can also be modified in this page, but only in some particular cases, as a drawing modification implies that the modification will be valid for all its versions

The user must select a drawing giving its DRID. Then, all information associated to this drawing and its last version is displayed, and user can try to modify it. This modification

might or might not be possible, depending on the kind of information to be changed and the status of that particular version (see notes for more details).

**Notes:**

- 1.- Only the current version (last one) of a drawing can be modified. Previous versions can not be modified, as they are frozen with the creation of a more recent one.
- 2.- There are several rules to define when certain data can be modified. It depends basically on the type of data, the drawing system and the drawing status. In general, these are the basic rules applied:

**Data that can be modified at any time:**

- Activity (this depends on the drawing system)
- Design office (if it is not part of the drawing subject)
- Function
- External Reference number
- Comments

**Data that can never be modified:**

- DRID
- Index
- Ouvrage (only for ST-CE)
- Corps d'etat (only for ST-CE)
- IE Zone (only for ST-IE)

**Data that can be modified depending on archiving status** (version archived or not)

- Source tool
- Source address
- Titles
- Format
- Designer
- Date
- Reason for modification

## **3.10 CERN approval of a drawing**

**Home page / navigation toolbar:**

Click on **CERN Approval** hyperlink.

**Description:**

These pages allows CERN approvers to start, comment and stop approval cycles for a drawing. Commenting on a drawing is available to any approver, whereas start and stop cycles are the privilege of approval responsables.

**Standard approver case:**

A list of drawings under approval for the user is displayed. This list can be ordered by DRID, deadlines or approval sectors. Click on DRID hyperlink to select a drawing.

Then the user is asked to indicate if the drawing is approved, rejected or ignored, and to give the reason of the choice.

**Approval responsible case:**

A first page requests the responsible to specify what action is to be done: start cycle, stop cycle or comment a drawing.

When **starting** a cycle, the responsible person is asked to choose an approval sector (if many exist) by clicking on its name. Then, the **exact DRID** of the drawing to be started is requested.

When **stopping** a cycle, a list of drawings currently under approval is displayed. Then the actions to be done are the same as for commenting a drawing, except that when done, the approval cycle of it is over.

**Notes:**

- 1.- If there is only one drawing under approval for the user, no list is displayed, the program jumps directly to the approval information page.
- 2.- An approval cycle cannot be started for a drawing if its control and archiving are not completed.

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