

“Promoting the creation of data catalogs for improved sharing of environmental information”

MDweb

**Cataloging & locating
environmental data**

User Manual

Version 1.3

Searching

What is MDweb?

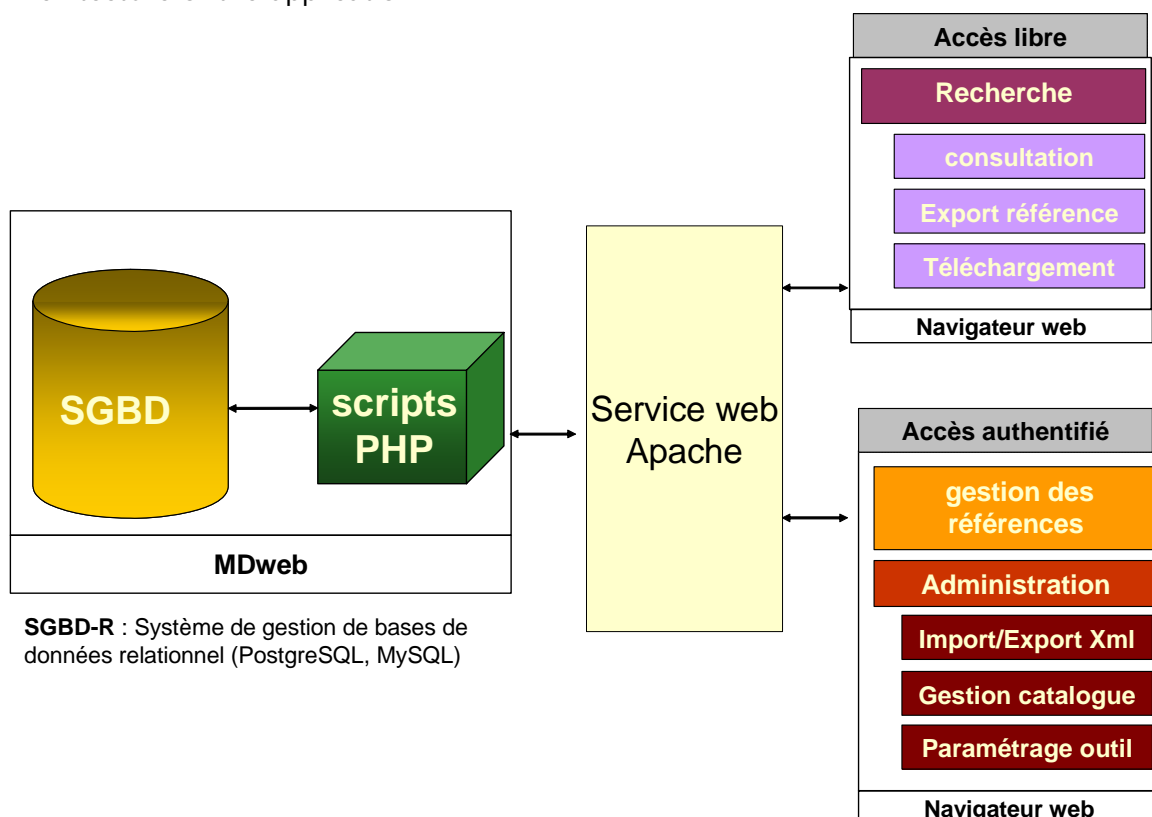
MDweb is a **generic, multi-lingual, multi-standard** application for creating, managing and accessing catalogs of environmental information via the Web. MDweb is built on 'open source' technologies (Apache, Postgres/PostGIS, PHP). It uses relational databases that can be accessed via a Web client to manage catalogs of geographical data references, to search for references and to download the listed resources, as well as to manage the created catalogs and the tool itself. MDweb can run independently on the Windows or Linux operating systems. MDweb uses the **ISO 19115** standard (geographic metadata) to structure, store and export references (metadata).

Its different modules

In its current version, the application consists of **three modules**:

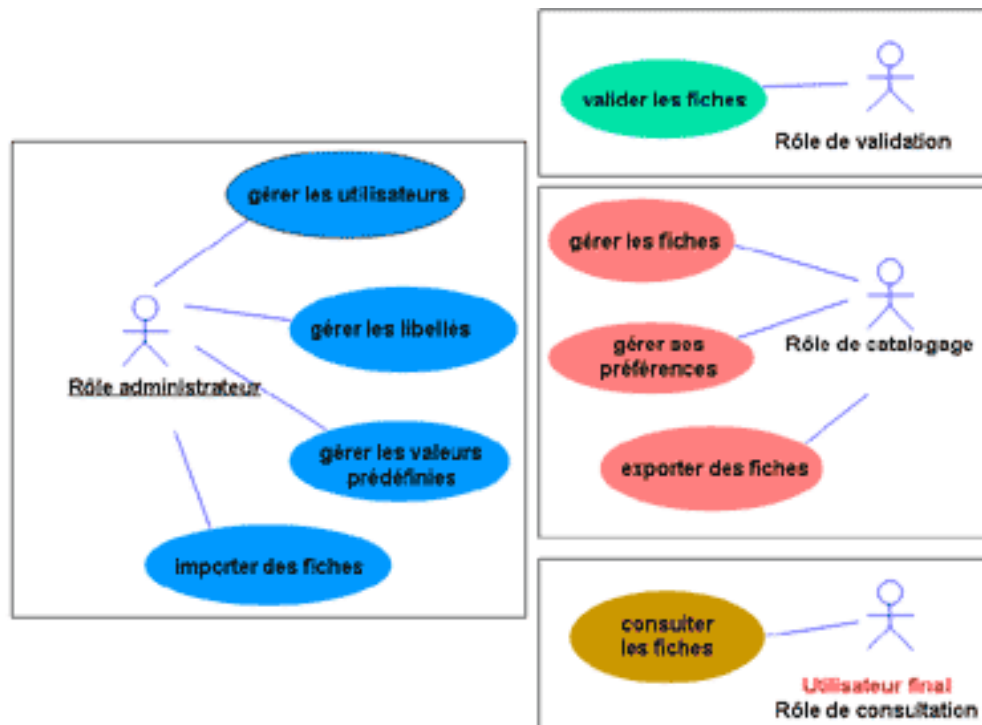
- a **'search' module** for references (metadata) which offers two search modes: one based on data types and another that is multi-criteria.
- a password-protected **'management' module** for entering and updating references and attached resource files.
- an **'administration' module** that permits configuration of the tool, management of all the references in existing catalogs, import and export of references in XML format, and the customization of interfaces.

Architecture of the application



Concept of roles and associated functionalities

By design, MDweb is a multi-user application which necessitates the definition of clearly distinct roles for the use of its different functionalities. Each user is assigned an account to which a role is given by the administrator. This limits the user's access to only those modules that correspond to the application tasks that have been assigned to him. Five roles are distinguishable:



- The **administrator** is the super-user. He can access all modules and can manage the catalogs, users and the tool's configuration.
- The **validator** is responsible for validating the references' contents. He thus becomes the guarantor of the quality of the references and data attached to the catalogs. To fulfil this role, this type of user will have access to all the references of a catalog irrespective of whether it was created by him or not.
- The **cataloger** describes the data. This role is most logically assigned to the producer of the data to be referenced. He is the most suitable person for describing the contents and characteristics of the data that he himself has produced. This type of user will have access to modules that allow the entry, updating and management of his own references.
- The **final user** has access to the catalog search-and-access module. Two cases can arise: if the user authenticates himself as a privileged user, he will obtain the rights to use the private-access module. If not, i.e., if he is an unauthenticated user, he will have rights only to a public search-and-access module.

- The **standardizer** is the organization or individual from the coordinating organization who defines the structure of the metadata used to reference data. He ensures the consistency in catalogs when several copies of MDweb are being used in an overall distributed sharing system within one organization or programme.

This document's purpose

This document is a manual for the user in his MDweb role as cataloger, validator or administrator. It lists in detail the essential concepts and procedures necessary to use MDweb.

Who is it meant for?

This document is meant for users who are not computer experts. Explanations are provided whenever it is necessary to understand concepts specific to the tool for its use.

Structure of the document

This document is logically divided into three usage-oriented parts:

- Guide to reference searches
- Guide for managing references
- Guide for the tool's administrator (managing the tool and references)



Guide to Reference Searches

Contents for the Guide to Reference Searches

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Before starting to search...

This guide provides general explanations **for searching and accessing detailed information** (metadata) contained in **referenced data sets** in the online data catalog. The access to the data itself is the responsibility of the institution.

The goal of this tool is to provide access to **environmental data catalogs of the concerned institution or project** by way of three search modes. They form part of the **Data search** section:

- **By data type**
- **Multi-criteria search**
- **New references**

Predefined queries

Predefined queries allow the user to conduct a search on **fixed and unchangeable** criteria. Two types of predefined queries are offered:

Searching by data type: The search request returns all the references matching the specified data type from all online catalogs.

New references: The search request returns all new references (period configurable at the time of MDweb installation, default is 30 days) from all online catalogs.

Multi-criteria searches

The multi-criteria search mode allows the user to compose a search request by using up to four criteria. These criteria allow him to refine his search. The criteria that can be used relate to the following questions:

What data type? To what data type(s) does the search apply: the user can choose one or more data types from the ones offered (vector theme, image, etc.).

On what? Which keywords is the user searching for: he can specify one or more of them.



When? Allows the user to specify the period in which the data that he is searching for was created.


Where? He can specify the geographical location of the data to which his search applies.

What does MDweb provide the user?

MDweb does not provide access directly to data sets. MDweb offers searches for and access to references or metadata records, i.e., it provides access to information that is essential for knowing:

- **The existence of a data set**
- **The data set's characteristics** (its type, creation date, format, who owns it, etc.)
- **A description of its contents** (summary, title, thematic and spatial descriptors, quality, etc.)

A data set's characteristics are **accessible with your web browser**  and exportable as a **XML file**  so that they can be stored on your **personal computer**.

If the owner of the catalog so wishes, he can attach a zip archive  containing the data set to each metadata record. In such cases, you can download the data set.

Composing a multi-criteria search request

When you click the Multi-criteria search menu item, a tabbed form appears which can be used to compose a multi-criteria search request. Fill in the form on one or more of the criterion tabs (**What data type?**, **On what?**, **When?**, **Where?** and **Catalog?**) to compose a query.

You can select multiple values for the **What data type?**, **On what?** and **Catalog?** criteria. For each criterion, the values selected are validated by the Validate button before exiting the form. The **When?** and **Where?** criteria only allow one period and one geographic extent respectively. The search starts when the validated criteria are submitted by clicking the Submit button of the general form (at bottom right of the page).

An example of composing a multi-criteria search request

A user wants to search for all **vector themes** (**What data type?** criterion) which were created before **01/01/1996** (**When?** criterion) and which include the term **commune** (**On what?** criterion) in **Metropolitan France** (**Where?** criterion). The example below shows, step-by-step, how to compose this search request with the required four criteria using the MDweb search forms.

- Choosing and validating the **On what data type?** criterion

Quel type de données ? Sur Quoi ? Quand ? Où ?

1. Choose the What data type? tab

Quel type de données ? : Choisissez le type de données sur lequel doit porter la recherche. Par défaut, la recherche portera sur l'ensemble des types.

2. Select the data type: Vector theme

Quel type de données ?

- BD relationnelle
- BD relationnelle
- BD Géographique
- Carte numérique
- Carte papier
- Image - Thème raster
- Thème vecteur**
- Présentation
- Classeur Excel - Table BD

Valider réinitialiser

3. Validate your choice to include it in your search criteria.

Envoyer

réinitialiser tout

Critères de recherche sélectionnés

Où ? : N : °, S : °, O : °, E : °

Quand ? : Date de début : Date de fin :

Sur Quoi ? :

Quel type de données ? : **Thème vecteur**

Note: You can select several data types for your search request by repeating steps **2** and **3**.

- Choosing and validating the **On what?** criterion

Quel type de données ? Sur Quoi ? Quand ? Où ?

1.

Sur Quoi ? : Choisissez un ou plusieurs mots-clés sur lesquels vous voulez orienter la recherche d'une donnée. Le choix du (des) mots-clés peut être basé sur un thésaurus. Pour les mots-clés libres, la recherche porte sur les champs titre, résumé, mots-clés, thème général de l'ISD et ti.

2. Enter a keyword or use the icon

Mots clés commune Valider réinitialiser

3. Validate your choice to include it in your search criteria.

réinitialiser tout

Critères de recherche sélectionnés

Où ? : N : °, S : °, O : °, E : °

Quand ? : Date de début : Date de fin :

Sur Quoi ? : **commune**

Quel type de données ? : **Thème vecteur**

Note: You can select several keywords for your search request by repeating steps **2** and **3**. The words included in the On what? criterion are combined by the AND logical operator. The search takes place on the following fields of the metadata record: Abstract, Resource title, Topic category and Keywords.

The **On what?** form offers the user a **dictionary of keywords** used by users from which he can select one or more terms or a **thesaurus**, by default that of GCMD (Global Change Master Directory). Two examples of their use in composing the **On what?** criterion are provided:

Example of using the keyword dictionary

2. Select a term from the dictionary and click it to transfer it to the field.

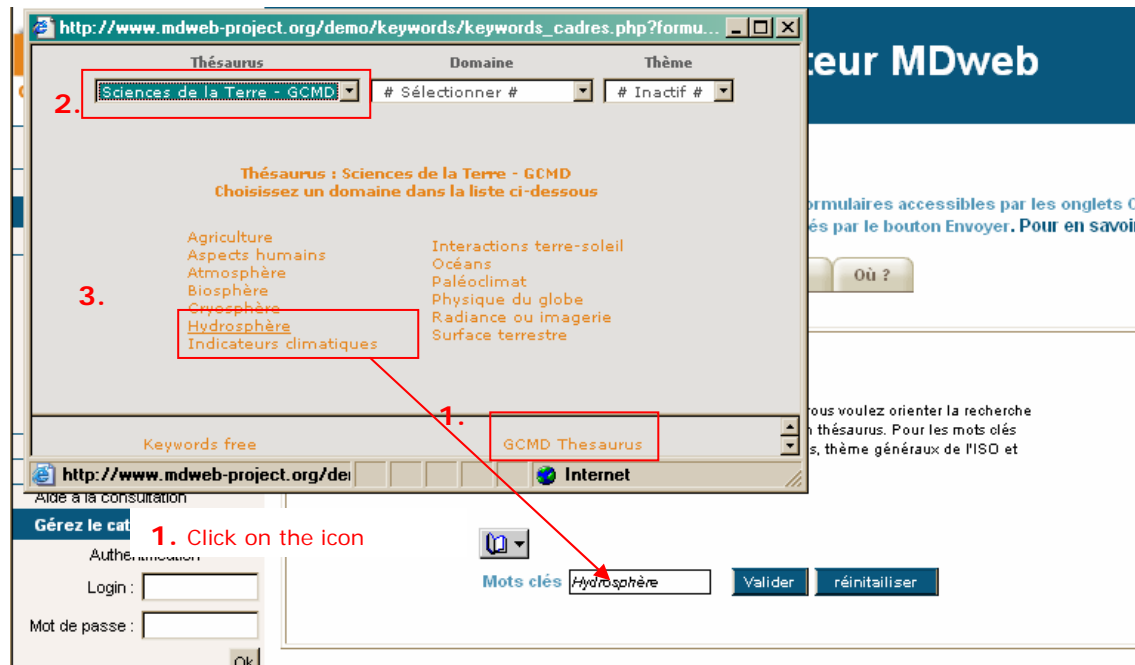
terme	Catégorie
activité	
agriculture	
amazonie	Spatial
bresil	Spatial
commune departement region	
cours d'eau	
cours d'eau non pérennes	Spatial
hydrogéologie	Thématique
hydrographie	Thématique
hydrologie	Thématique
Isère	Spatial

1. Click on the icon

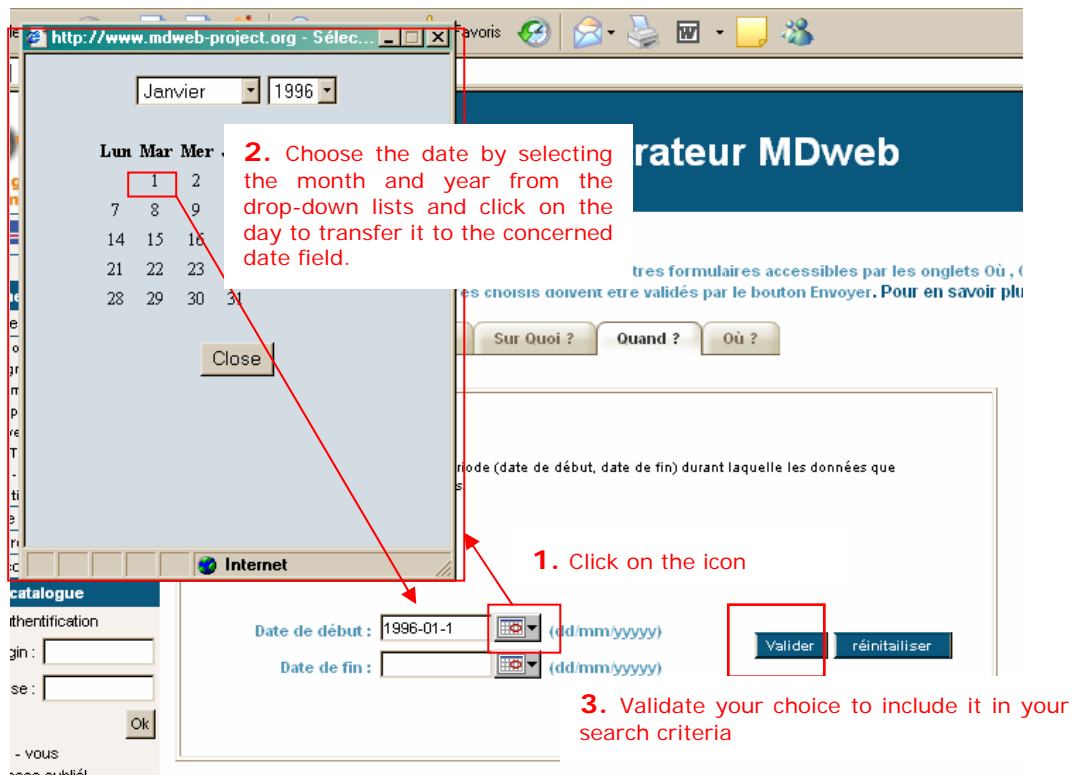
Mots clés [Valider] [réinitialiser]

Example of the use of the thesaurus

You can use the existing thesaurus (1). Load it in the pop up. Select the *Science de la Terre – GMCD* thesaurus from the thesaurus drop-down list (2). Navigate within the thesaurus using the Domain and Theme lists. To select a word and send it to the form, click on it (3).




- Choosing and validating the **When?** criterion



- o Choosing and validating the **Where?** criterion


Example using an existing geographic object

In this first example, the user wants to search for data sets that have the **Isère département** as geographic extent. His geographic reference base contains an entity that is the **outline of the Isère département** in the **Départements** layer. By using the information tool , he displays the label of the geometry on which the cursor is hovering. He can transfer the coordinates of the geometry to the form.



Example of using an encompassing rectangle to define the geographical extent

In this second example, the user wants to search for data sets that have French territory

as geographical extent. In this case, the encompassing rectangle tool  lets him draw a rectangle with the mouse that corresponds approximately to the extent on which he wants to conduct the search. **When the mouse button is released, the coordinates of the rectangle appear in the form.**



1. Draw the rectangle using the mouse. When you let go the mouse button, the coordinates are sent to the form.

2. Validate to send the coordinates to the Where? criterion.

o Submitting the search request

Once all your criteria have been selected, you can launch the search.

Quel type de données ?
Sur Quoi ?
Quand ?
Où ?

Quel type de données ? : Choisissez le type de données sur lequel doit porter la recherche. Par défaut, la recherche portera sur l'ensemble des types.

Quel type de données ?

BD relationnelle

Valider

réinitialiser

1. Your selected criteria

Critères de recherche sélectionnés

Où ? : N : **51.0030°**, S : **41.1164°**, O : **-5.2785°**, E : **11.3553°**

Quand ? : Date de début : **1996-01-1** Date de fin :

Sur Quoi ? : **commune**

Quel type de données ? : **Thème vecteur**


2. Submit the search request

Envoyer

réinitialiser tout

Click to clear the selected criteria.

• Search results

The records that meet the search criteria are displayed in a list. The following information of each reference record is displayed: record title, its creation date, the name of the data catalog to which it is attached, its data type. Use the  icon to view the reference's detailed description.

MDweb
Cataloging & locating
environmental data

Accueil

Recherchez des données

Par type de données

- :: BD relationnelles
- :: BD Géographique
- :: Carte numérique
- :: Carte papier
- :: Thème vecteur
- :: Image - Thème raster
- :: Classeur - Table BD
- :: Répartition

Démonstrateur MDweb

Réponses 1 à 2 sur 2
◀ ◻ ◻ ◻ 1 ◻ ▶ ▶ ▶
Lancer une autre recherche

1. Communes francaises - 1999-02-01	sidtm-essai (France)	Thème vecteur	
2. Departements francais - 1999-02-01	sidtm-essai (France)	Thème vecteur	

Réponses 1 à 2 sur 2
◀ ◻ ◻ ◻ 1 ◻ ▶ ▶ ▶
Lancer une autre recherche























Moving around in the results of your search?

The search results are displayed in a list. The displayed page looks like this:

Recherche des cartes numériques

Navigation bar

Réponses 1 à 15 sur 18



1. Carte des aptitudes des sols de l'observatoire du Ferlo sud (Sénégal) -	Ferlo (Sénégal)	Carte numérique	127,27 Ko (24-06-2004)	 
2. Carte des Unités Paysagères de l'observatoire de Dantia (Niger) - données 1991-95 -	Dantia (Niger)	Carte numérique	127,27 Ko (24-06-2004)	 
3. Carte morpho-pédologique de l'observatoire de Dantia (Niger) - données 1991-95 -	Dantia (Niger)	Carte numérique	127,27 Ko (24-06-2004)	 
4. Carte des Unités de Pratiques Combinées de l'observatoire de Dantia (Niger) - données 1991-95 -	Dantia (Niger)	Carte numérique	127,27 Ko (24-06-2004)	 
5. Carte des Unités Paysagères l'observatoire du Ferlo sud (Sénégal)	Ferlo (Sénégal)	Carte numérique		 
6. Carte des bilans ressource -usage (agricole) pour la période 1911-95 - observatoire de Dantia (Niger) -	Dantia (Niger)	Carte numérique		 
7. Carte des Unités de Pratiques Combinées l'observatoire du Ferlo sud (Sénégal)- SIEL ROSELT Sénégal 2004 -	Ferlo (Sénégal)	Carte numérique		 
8. Carte des bilans ressource -usage (pastoral) pour la période 1911-95 - observatoire de Dantia (Niger) -	Dantia (Niger)	Carte numérique	235,96 Ko (25-06-2004)	 
9. Carte des bilans ressource -usage (bois-énergie) pour la période 1911-95 - observatoire de Dantia (Niger) -	Dantia (Niger)	Carte numérique	236,04 Ko (25-06-2004)	 
10. Carte des indices de risque de l'observatoire de Dantia (Niger) données 1991-95 -	Dantia (Niger)	Carte numérique	242,71 Ko (25-06-2004)	 
11. Carte des indices de risque de l'observatoire de Dantia (Niger) scénario prospectif : projection des tendances (1995-2004) -	Dantia (Niger)	Carte numérique	373,61 Ko (25-06-2004)	 

Summarized description of a reference and links for exporting it and to the detailed description.

Each list item looks like this:

Each list item structure:

- Title of the data set and creation date
- Catalog name
- Data available for download
- Detailed description of the reference
- Data-set type
- Exporting the reference in XML format

4. Carte des Unités de Pratiques Combinées de l'observatoire de Dantia (Niger) - données 1991-95 -	Dantia (Niger)	Carte numérique	127,27 Ko (24-06-2004)	 
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Detailed description of a reference

The detailed description of a reference or metadata record is structured into **tabs** (shown in red below) which are based on the **major parts of the standard**. The **Data set tab** provides information on the contents, the type, the format of the data set, its creation date, etc. The **Localization tab** provides information on the spatial extent and the reference system of the data set.

[Carte des unites de pratiques combinees de l'observatoire de dantiandou \(niger\) - donnees 1991-95](#) [Retour](#)

Fiche mise à jour le : 02-08-2005

Catalogue : Dantiandou, Torodi, Tondikandia (Niger)

Jeu de données	Localisation	Qualité	Distribution	Aperçu	Contacts	Infos sur la fiche
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Identification du jeu de données

Résumé :
la carte des unités de pratiques combinées contient en 5 classes les pratiques combinées du territoire de l'observatoire de Dantiandou. Elle est issu de la modélisation du territoire par le SIEL-ROSELT - période 1991-95

Auteur(s) :
 Statut du jeu de données :
 Langue du jeu de données : **français**
 Jeu de caractères utilisé dans le jeu de données : **8859-1**
 Thème(s) ROSELT couvert(s) par le jeu de données : **structure du paysage**
 Thème(s) ROSELT couvert(s) par le jeu de données : **usages, pratiques d'exploitation**
 Thèmes généraux couverts par le jeu de données : **Ressources et gestion de l'environnement**
 Thèmes généraux couverts par le jeu de données : **Géosciences**

Mots clés
 mot-clé : **paysage**
 Nom du thésaurus : **none**
 Date d'édition du thésaurus : /
 type de mot-clés : **Matière**

Informations générales sur le jeu de données
 Titre : **Carte des Unités de Pratiques Combinées de l'observatoire de Dantiandou (Niger) - données 1991-95**
 Date de Référence
 Date de création du jeu de données : **15-04-2004**
 Type de date : **création**
 Type de jeu de données : **Carte numérique**

Informations sur la maintenance du jeu de données
 Fréquence de mis à jour du jeu de données :
 Informations sur la format du jeu de données

Contacting the information manager

The Contact tab provides contact information for the individual(s) (or organization) who manages the data set in question, who distributes it if it accessible online or if it can be ordered, and the contact information of the organization or individual in charge of managing the data catalog (metadata manager).

Carte des unites de pratiques combinees de l'observatoire de dantiandou (niger) - [Retour](#) donnees 1991-95

Fiche mise à jour le : 02-08-2005 Catalogue : Dantiandou, Torodi, Tondikandia (Niger)

Jeu de données	Localisation	Qualité	Distribution	Aperçu	Contacts	Infos sur la fiche
----------------	--------------	---------	--------------	--------	-----------------	--------------------

Identification du jeu de données

Nom de l'organisme : **DE/MHE/LCD**
 Rôle de l'organisme : **Gestionnaire**
 Adresse postale : **BP 11870**
 Ville : **Niamey**
 Code postal :
 Pays : **Niger**
 Adresse électronique : iwata@intnet.ne
 Site web donnant des informations sur l'organisme
 Adresse web (URL) :

Distribution du jeu de données

Coordonnées du distributeur du jeu de données

Nom de l'organisme : **DE/MHE/LCD**
 Rôle de l'organisme : **Distributeur**
 Adresse postale : **BP 11870**
 Ville : **Niamey**
 Code postal :
 Pays : **Niger**
 Adresse électronique : iwata@intne.ne

Information for the distribution of the data set

The Distribution tab provides the information necessary (format, address) to access the data set via a zip archive or Web address. This is valid only if the data set manager has allowed access.

Carte des unites de pratiques combinees de l'observatoire de dantiandou (niger) - [Retour](#) donnees 1991-95

Fiche mise à jour le : 02-08-2005 Catalogue : Dantiandou, Torodi, Tondikandia (Niger)

Jeu de données	Localisation	Qualité	Distribution	Aperçu	Contacts	Infos sur la fiche
----------------	--------------	---------	---------------------	--------	----------	--------------------

Distribution du jeu de données

Informations sur le format de distribution du jeu de données

Format du jeu de données : **pdf**
 Version du format du jeu de données : **Acrobat Reader**

Informations pour le transfert du jeu de données

Taille en Mo du jeu de données : **0,124**

Informations sur le jeu de données en ligne (On line)

Adresse web (URL) : http://www.roselt-oss.org/coord/ressources/NER_DT_4.zip
 Description du service proposé : **fichiers téléchargeables**





Informations sur le support du jeu de données (Off Line)

Nom du support : **aucun**
 Densité du support :
 Nombre de volumes :
 Format du support : **aucun**

Using the cartographic module (Where? criterion)

The cartographic querying module is accessible in the multi-criteria search form in the **Where?** tab. It is activated if your browser supports and has a SVG plug-in installed (Internet Explorer). If not, only four fields into which you can enter the North, South, East and West coordinates will be displayed. If the SVG plug-in is not installed, you can download it and install it from this link: [SVG plug-in](#).

This form gives the user the **possibility of specifying in an interactive manner the coordinates of a geographic area or geometry over which he wants to conduct the search**. The form includes four commands:

	Zoom-in function: allows the user to zoom in on a particular area. Click on the radio button to activate the zoom function and specify the area to zoom to with the mouse.
	Initial-zoom function: allows the full view of the map, in its entirety.
	Function that allows searches to be limited to particular geographic zones. Also extracts the selected zones coordinates. Click on this command's radio button and, with the mouse, draw a rectangle. The coordinates of this rectangle are filled in in the fields of the form. Validate the coordinates using the Validate button.
	Displays the label of the geometry over which the mouse cursor is hovering. Also extracts the geometry's coordinates. Click on this command's radio button then click on the geometry to restrict the search to it. The coordinates of the selected geometry are filled in in the fields of the form. Validate the coordinates using the Validate button.

Contacts



IRD / Desertification unit (US 166) www.desertification.fr
500, rue Jean François Breton, 34093 Montpellier Cedex 05, France
TEL: +33 (0)4 67 54 87 02

J.C Desconnets jcd@teledetection.fr

B. Granouillac bgranou@teledetection.fr

MDweb project site: www.mdweb-project.org

Online demo: www.mdweb-project.org/demo/