NORWEGIAN JGOFS DATA COLLECTION

Date of publication: 27.03.2003
Published by: Norwegian Marine Data Centre, Bergen, Norway

1.0 CONTENTS OF DOCUMENT

This document explains the installation procedure for the NGOFS database and the scripts necessary to interact with the database.

2.0 CONTENTS OF CD

This CD contains version 1.1 of the Norwegian JGOFS database. To use the database it must be installed on a computer. Read the sections below for the installation procedure.

The database is stored in a file called ngofs_db.mdb. This is an MS-ACCESS database file that can be used to import the database tables into most databases. The scripts included on this CD require the database to be set up on an MSSQL-database server.

The scripts are included in the folder called interface.

The folder Win32 contains Windows platform versions of the Apache web server and PHP script language. This is free software.

3.0 INSTALLATION

The database can be set up on any database server, but if the included scripts are to be used without modification it is necessary to set up the database on an MSSQL server.

Create a new database in the MSSQL server and call it **ngofs**.
Import data to this database using the built-in “Import data” function. Import all the tables and don’t change their names.

Your database is now ready to be used by the included scripts. To install the software necessary to run the scripts, follow these instructions.

Install the Apache web server on your computer from the installation files on this CD, or download the latest version from *http://www.apache.org*

You will find a version of the Apache server on the Win32 directory on this CD.

Install PHP from the installation files on the Win32 directory on this CD, or download the latest version from *http://www.php.net/downloads.php*

Both Apache and PHP must be properly configured. Configuration files can be found on the Win32 directory, or on the above mentioned web-sites.

Copy the script files, HTML files, etc from the directory interface and all its subdirectories to your local computer. Store them with the original directory structure intact under the **htdocs** directory of

the Apache distribution. To make it easy, copy the entire interface directory with all its contents to directly underneath the **htdocs** directory.

The scripts are now accessible using a browser like Netscape or Explorer. Type in the address *http://your_machine_name/interface/start.html*.

You are free to change the directory name “interface” to whatever you prefer, and the address will then change accordingly.

The last step is to edit the script include.php. Follow this procedure

Open the file “include.php” under the “interface/script/” directory. Use any text editor for this purpose.
Edit the file to correspond to your machine name and database name.

Example: The line

```
$connection=mssql_connect("cbase","sa","");
```

must be changed to

```
$connection=mssql_connect("your_machine","user_name","password");
```

If you called your database “ngofs” then the second line need no editing. If you installed the database under a different name, change the second line from

```
$select_db=mssql_select_db("ngofs",$connection);
```

to

```
$select_db=mssql_select_db("your_database_name",$connection);
```

NOTE:

The MSSQL database server uses “sa” as a default username, and no password as default. Unless this is changed no editing should be necessary for these values.

Your local machine name can be found on you computer as follows:

On Windows 98: On the Start menu look in Settings/Control Panel/Network/TCP_IP

There is an option called “Identification”. Click it and your machine name is displayed.

On Windows 2000 and XP: Right-click on “My computer” in the Windows Explorer, and find your machine name

The installation should now be complete and the scripts are now ready to be used against the database.

4.0 USING THE DATABASE

Run the interface from the location *http://your_machine_name/interface/start.html*.

The contents of this CD has been tested using Microsoft Explorer 5.0, Netscape 7.0 and Opera 7.03

Bergen, 31.03.03

DATABASE TABLES DEFINITIONS

This document defines the tables in the NGOFS database. The database is contained as an MS ACCESS database in the file **ngofs_db.mdb**.

TABLE tChemical_metadata:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_chem_meta	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
chem_index	char(27)	Link station info and datatable tChemical_data	
Cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
ctd_station	integer	Identifier for ctd-station	
latitude	float	Latitude as decimal number	
longitude	float	Longitude as decimal number. Positive if east, negative if west	
date	integer	date on format yyyymmdd	
time	integer	24 h time on format hhmm	
bottom_depth	integer	bottom depth in meters	
max_sample_depth	integer	max depth of sampling	
no_ctd	integer	number of ctd samples at this station	
no_chem	integer	number of chemical samples at this station	
no_T	integer	number of temperature samples at this station	
no_S	integer	number of salinity samples at this station	
PHXXZZXX	integer	BODC Parameter Code Number of samples at this station	
DOXYDGAS	integer		
TCO2C1TX	integer		
CF13GCTX	integer		
CF14GCTX	integer		
PCO2CARB	integer		
PHOSAAD1	integer		
PHOSZZXX	integer		
SLCAZZXX	integer		
NTRIAAD1	integer		
NTRZZZXX	integer		
AMONAAD1	integer		
TNCNCNP1	integer		
H2SXZZXX	integer		
ALKYPOTX	integer		
CPHLFMP1	integer		
Unknown	integer	Oxygen – 18 Parameter code not known	
FR11GCTX	integer		
F113GCTX	integer		

FR12GCTX	integer		
GCD3QCMX	integer		
CORGCOD1	integer		
CORGCOTX	integer		
TCEAGCD3	integer		
NTOTCNPS	integer		
DSF6GCDX	integer		
IORTAMDP	integer		
OCFXCAXX	integer		

TABLE tChemical_data:

FIELD NAME	**FIELD FORMAT**	**FIELD DESCRIPTION**	**FIELD CONSTRAINTS**
key_chem_data	integer	row counter	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
chem_index	char(27)	Link station data and metadata-table tChemical_metadata	
cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
ctd_station	integer	Identifier for ctd-station	
latitude	float	Latitude as decimal number	
longitude	float	Longitude as decimal number. Positive if east, negative if west	
date	integer	date on format yyyymmdd	
time	integer	24 h time on format hhmm	
bottom_depth	integer	bottom depth in meters	
sample_depth	integer	sample depth in meters	
temper	float	temperature measurement	
salinity	float	salinity measurement	
PHXXZZXX	float	BODC Parameter Codes Measurements in units defined in table tParameter_info	
DOXYDGAS	float		
TCO2C1TX	float		
CF13GCTX	float		
CF14GCTX	float		
PCO2CARB	float		
PHOSAAD1	float		
PHOSZZXX	float		
SLCAZZXX	float		
NTRIAAD1	float		
NTRZZZXX	float		
AMONAAD1	float		
TNCNCNP1	float		
H2SXZZXX	float		
ALKYPOTX	float		
CPHLFMP1	float		
Unknown	float	Oxygen – 18 Parameter code not known	
FR11GCTX	float		
F113GCTX	float		
FR12GCTX	float		
GCD3QCMX	float		

CORGCOD1	float		
CORGCOTX	float		
TCEAGCD3	float		
NTOTCNPS	float		
DSF6GCDX	float		
IORTAMDP	float		
OCFXCAXX	float		

TABLE tCTD_meta2:

FIELD NAME	**FIELD FORMAT**	**FIELD DESCRIPTION**	**FIELD CONSTRAINTS**
key_CTD_meta	integer	row counter	primary key identity(1,1)
platform_code	char(4)	Four-letter platform code	
ctd_index	char(27)	Link station info and datatable tCTD2	
start_latitude	float	Start latitude of station as decimal number	
end_latitude	float	Start latitude of station as decimal number	
start_longitude	float	Start longitude as decimal number. Positive if east, negative if west	
end_longitude	float	Start longitude as decimal number. Positive if east, negative if west	
start_date	integer	Start date on format yyyymmdd	
end_date	integer	End date on format yyyymmdd	
start_time	integer	24 h time on format hhmm	
end_time	integer	24 h time on format hhmm	
station_no	integer	Station identifier	
echo_depth	integer	Bottom depth in meters	
no_measures	integer	Number of measurements at this station	
cruise_id	char(15)	Cruise identifier	

TABLE tCTD2:

FIELD NAME	**FIELD FORMAT**	**FIELD DESCRIPTION**	**FIELD CONSTRAINTS**
key_CTD	integer	row counter	primary key identity(1,1)
platform_code	char(4)	Four-letter platform code	
ctd_id	char(27)	Link station data and metadata-table tCTD_meta2	
station_no	integer	Station identifier	
sample_depth	float	Depth in meters	
salinity	float	Measurement value	
temperature	float	Measurement value	
sigma_tetha	float	Measurement value	
pot_temperature	float	Measurement value	
ctd_meta_link	integer	Link station data and metadata-table tCTD_meta2	

TABLE tBiology_metadata:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_bio_metadata	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
bio_index	char(27)	Link station info and datatable tBiology_data	
Cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
ctd_station	integer	Identifier for ctd-station	
latitude	float	Latitude as decimal number	
longitude	float	Longitude as decimal number. Positive if east, negative if west	
date	integer	date on format yyyymmdd	
time	integer	24 h time on format hhmm	
bottom_depth	integer	bottom depth in meters	
Z510M00Z	integer	BODC Parameter Code Number of samples at this station	
P490M00Z	integer		
Z000M00Z	integer		
P000M00Z	integer		
P498M00Z	integer		
P200M00Z	integer		
EXUVMIXX	integer		
P400M00Z	integer		
CPHLFMP1	integer		
PHAEFMP1	integer		
Z601M01Z	integer		
TD10M00Z	integer		
Z500M00Z	integer		
P427M04Z	integer		
CPHLPR01	integer		
P499M00Z	integer		
P499M00Z	integer		
Z530M00Z	integer		
Z520M00Z	integer		
P436M00Z	integer		
TD00M00Z	integer		
P530M00Z	integer		
Z540M00Z	integer		
P400M00E	integer		
Z701M00Z	integer		
PU02M00Z	integer		
ZU02M00Z	integer		
ZU03M00Z	integer		
PU01M00Z	integer		
ZU00M04Z	integer		
ZU01PR01	integer		
SNCURSPB	integer		
SFPXPIPE	integer		
TCUPROPZ	integer		

TABLE tBiology_data:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_bio_metadata	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
bio_index	char(27)	Link station data and metadata-table tBiology_metadata	
Cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
ctd_station	integer	Identifier for ctd-station	
latitude	float	Latitude as decimal number	
longitude	float	Longitude as decimal number. Positive if east, negative if west	
date	integer	date on format yyyymmdd	
time	integer	24 h time on format hhmm	
bottom_depth	integer	bottom depth in meters	
sample_depth	integer	sample-depth in meters	
Z510M00Z	float	BODC Parameter Codes Measurements in units defined in table tParameter_info	
P490M00Z	float		
Z000M00Z	float		
P000M00Z	float		
P498M00Z	float		
P200M00Z	float		
EXUVMIXX	float		
P400M00Z	float		
CPHLFMP1	float		
PHAEFMP1	float		
Z601M01Z	float		
TD10M00Z	float		
Z500M00Z	float		
P427M04Z	float		
CPHLPR01	float		
P499M00Z	float		
P499M00Z	float		
Z530M00Z	float		
Z520M00Z	float		
P436M00Z	float		
TD00M00Z	float		
P530M00Z	float		
Z540M00Z	float		
P400M00E	float		
Z701M00Z	float		
PU02M00Z	float		
ZU02M00Z	float		
ZU03M00Z	float		
PU01M00Z	float		
ZU00M04Z	float		
ZU01PR01	float		
SNCURSPB	float		
SFPXPIPE	float		
TCUPROPZ	float		

TABLE tBiology_fluxdata2:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_bio_fluxdata	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
Cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
station_id	integer	Identifier for ctd-station	
start_latitude	float	Start latitude as decimal number	
end_latitude	float	End latitude as decimal number	
start_longitude	float	Start Longitude as decimal number. Positive if east, negative if west	
end_longitude	float	End Longitude as decimal number. Positive if east, negative if west	
start_date	integer	start date on format yyyymmdd	
end_date	integer	end date on format yyyymmdd	
start_time	integer	24 h time on format hhmm	
end_time	integer	24 h time on format hhmm	
sample_depth	integer	sample-depth in meters	
PCFXMIAF	integer	BODC Parameter Code Number of samples at this station	
PNFXMIAF	integer		
PCFXMICC	integer		
PNFXMICC	integer		
PCFXMICB	integer		
PNFXMICB	integer		
PCFXMIDF	integer		
PNFXMIDF	integer		
PCFXMIFL	integer		
PNFXMIFL	integer		
CLFXFMXX	integer		
PHFXFMXX	integer		
PCFXMIHL	integer		
PNFXMIHL	integer		
OCFXCAXX	integer		
PCFXMIPZ	integer		
PNFXMIPZ	integer		
SOCXCAXX	integer		
PCFXMISF	integer		
PNFXMISF	integer		
SCLXFMXX	integer		
SPHXFMXX	integer		
STNXCNXX	integer		
PCFXMITD	integer		
PNFXMITD	integer		
TNFXCNXX	integer		

TABLE tBiology_fluxdata2:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_bio_fluxdata	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	Four-letter platform code	
Cruise_id	char(15)	Cruise identifier	
local_station	char(10)	Identifier for local station name	
station_id	integer	Identifier for ctd-station	
start_latitude	float	Start latitude as decimal number	
end_latitude	float	End latitude as decimal number	
start_longitude	float	Start Longitude as decimal number. Positive if east, negative if west	
end_longitude	float	End Longitude as decimal number. Positive if east, negative if west	
start_date	integer	start date on format yyyymmdd	
end_date	integer	end date on format yyyymmdd	
start_time	integer	24 h time on format hhmm	
end_time	integer	24 h time on format hhmm	
sample_depth	integer	sample-depth in meters	
PCFXMIAF	float	BODC Parameter Codes Measurements in units defined in table tParameter_info	
PNFXMIAF	float		
PCFXMICC	float		
PNFXMICC	float		
PCFXMICB	float		
PNFXMICB	float		
PCFXMIDF	float		
PNFXMIDF	float		
PCFXMIFL	float		
PNFXMIFL	float		
CLFXFMXX	float		
PHFXFMXX	float		
PCFXMIHL	float		
PNFXMIHL	float		
OCFXCAXX	float		
PCFXMIPZ	float		
PNFXMIPZ	float		
SOCXCAXX	float		
PCFXMISF	float		
PNFXMISF	float		
SCLXFMXX	float		
SPHXFMXX	float		

STNXCNXX	float		
PCFXMITD	float		
PNFXMITD	float		
TNFXCNXX	float		

TABLE tParameter_info:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_para_info	int	index of rows	Primary key, identity (1,1)
parameter_name	char(50)	full name of variable	
parameter_shortname	char(20)	short name of variable	
parameter_unit	char(50)	unit of measurement	
parameter_code	char(20	BODC Parameter Code	
parameter_description	text	Description	
method	char(100)	Method of measurement	

TABLE tPlatform:

FIELD NAME	FIELD FORMAT	FIELD DESCRIPTION	FIELD CONSTRAINTS
key_platform	int	index of rows	Primary key, identity (1,1)
platform_code	char(4)	platform identifier used in all other tables	
platform_name	char(30)	name of platform	
nation	char(30)	platform nationality	
loader_number	integer	input number in database	