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Guide
for Use of the Data Input Mask

International Geological Map of Europe
and Adjacent Areas
1: 5000000

BGR Bundesanstalt für Geowissenschaften und Rohstoffe

FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES

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Introduction

The 2nd edition of the International Geological Map of Europe and Adjacent Areas, scale 1 : 5 000 000 (IGME 5000/2) is being developed as a GIS, including a geological database. In addition a printed map showing the up-to-date geological information and a CD-ROM containing an extract of the GIS will be produced. The geology of both the land and sea areas will be displayed. The project was started in December 1994 by BGR, under the aegis of the Commission of the Geological Map of the World (CGMW).

This small guide has been written to help staff of the geological institutions participating in the IGME 5000/2 project to use the data input mask.

The Data Input Mask

As the IGME 5000/2 is planned as a GIS, diligent planning and organisation of the GIS database is necessary. To supply this database with information, the co-operation of international contributors is necessary. Therefore, a data input mask (Figure 1 on page 3) has been developed and is being distributed.

The geological units on the draft maps can be described by filling in several data fields within the input mask. The most important data field is the identification number (IN), to be created by contributors for each geological unit. This IN provides the link between geological units on the (hand-drawn) drafts and the descriptions (attributes) in the database being populated by BGR.

Based on term dictionaries, the mask provides information to be added to the areas, covering the items: age, petrography, metamorphic age, metamorphic grade and protolith. There are several other data fields where individual input is required: the tectonic environment, the regional name and - of course - the IN.

The descriptions provided will be collected in a database table. When data acquisition is complete, the mask system includes functions to compress and copy the database for mailing or e-mailing and to create a back-up for local use.

By filling in the data input mask (and returning data to BGR), contributors will enable BGR to generate a database from which geological information can be retrieved to generate thematic maps. The GIS will also allow printing of the geological map and production of a CD-ROM with extract data (see above).

System Requirements

Operation of the IGME-system requires a standard-PC with MS-Windows 3.x, MS-Windows 95 or Windows NT operating system. The installed software occupies about 5 MB of diskspace. It is recommended that a minimum display-resolution of 800 x 600 pixels and a minimum range of 256 colours are used. Performance is improved if plenty of memory is available.

Installation

The IGME-System is shipped on diskettes. Insert diskette No. 1 into the computer diskette drive. Open the programme manager, select the diskette drive and execute the **SETUP.EXE** file. Follow the instructions of the setup programme. In the first instance you should accept the defaults offered by the programme.

The SETUP programme creates a new programme group, which contains two icons: **IGME** and **LEG_xprt**. Installation is now complete.

Start-up

To start the programme double-click the left mouse button on the icon "IGME". After loading the programme the screen will show the following mask:

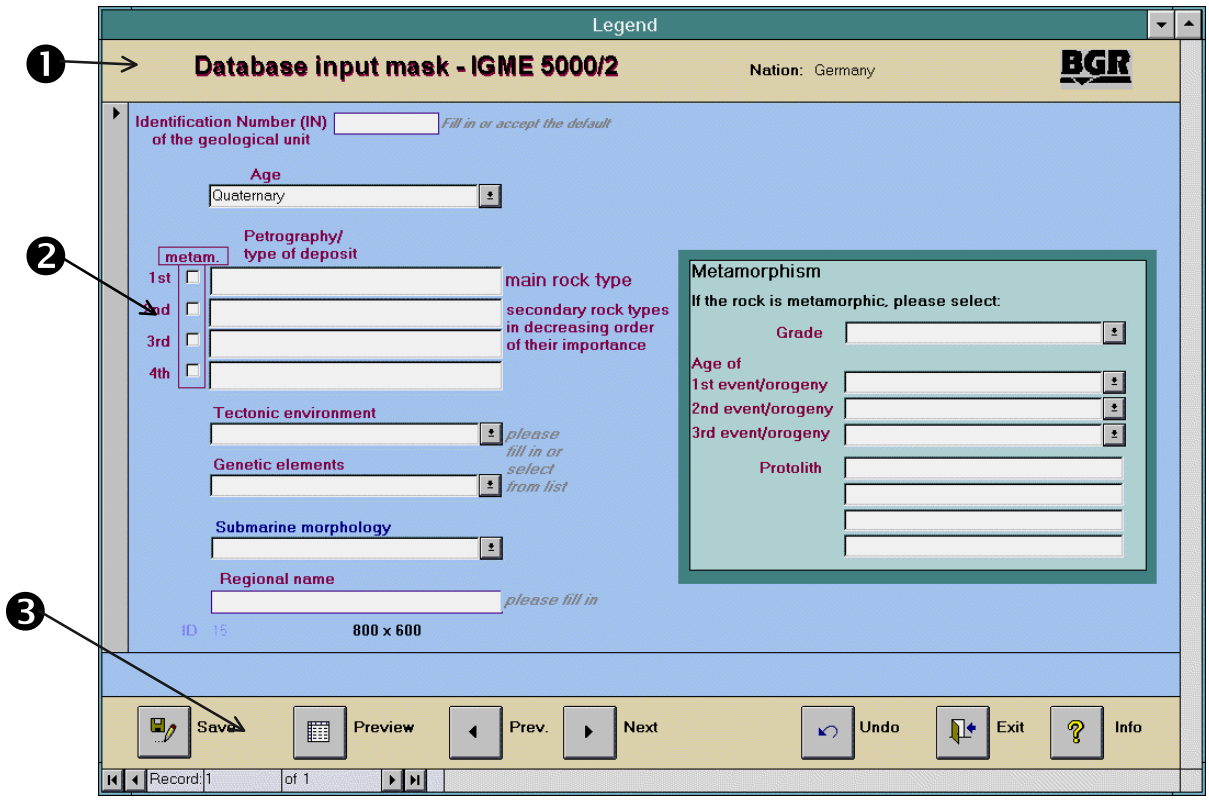

Figure 1: Screenshot of IGME-Input mask

The mask is divided into three parts:
The header strip ❶, with title and name of contributing nation.
The form area ❷, with input fields.
The foot area ❸, with seven function buttons. When clicked with the mouse these buttons trigger the following actions:

Info:	Shows information about the BGR and the editors of the IGME.
Save:	Saves the displayed dataset.
Undo:	Returns the form to its state after the last save.
Preview:	Shows a listing of existing data with sort and search capabilities and makes it easy to navigate through the data. Its use is described in the Preview section on page 6.
Next:	Moves to the next set of data.
Previous:	Moves to the previous set of data.
Exit:	Exits the system.

Data Acquisition

Data input using the mask is straightforward.

ID-Number

Users assign an ID-number to each geological unit on the map. To ensure a link between this and the datasets, each dataset is labelled with this ID-number.

At the first use of the system, and before moving to a new and empty dataset, users are asked to accept a default ID-number.

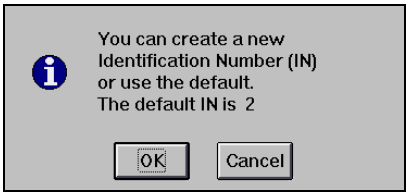

Figure 2: Suggestion for ID

If the default ID-Number is unsuitable, click on CANCEL and insert another aproriate number. Nevertheless, in most cases it is simpler to accept the suggestion.

If the suggested ID-number is accepted it will be filled in automatically; otherwise the cursor will move to the field named 'Identification Number (IN) of the geological unit' and the user must type in the number that identifies the geological unit.

Pressing the tab-key or use of the mouse moves the cursor to the next field.

Age

Entries into this field must be selected from the age-table of the dictionary. Opening the table and making a selection from it is done simply using the mouse. How to open a dictionary table and how to select an entry are described on page 7.

Petrography/Type of Deposit

Insertion into these fields is not direct but via another form, which is opened by pressing a key (with the cursor in one of the four fields) or by double-clicking with the left mouse button. The opened 'Petrography' form (Figure 3) partially covers the database input mask. The chosen petrography field appears with a different background colour. Now the user can open one of the dictionary tables to select the desired description. When selected, one click on the OK-button (with the pencil symbol) transfers the description into the field on the main-database mask. The next petrography field chosen on the database mask is then highlighted by the different background colour, indicating the new destination for the next item selected from the petrography form.

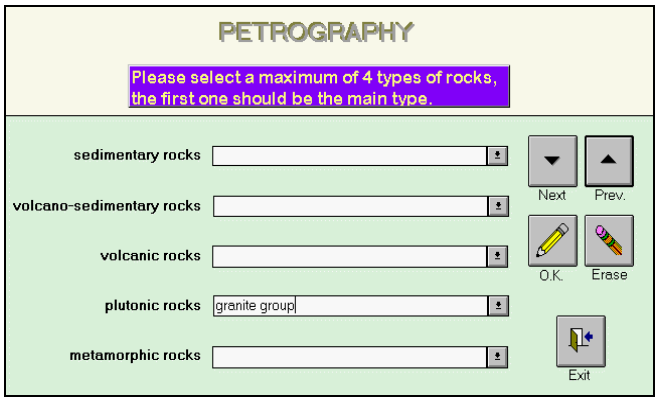

Figure 3: "Petrography" form

To make corrections use the NEXT or PREVIOUS buttons to move the cursor to the desired field and simply overwrite with a new selection or delete by clicking on the ERASE-button (with the eraser symbol). It is not necessary to populate all four fields, but it is not possible to leave blank fields in the middle of the petrography list.

Tectonic Environment

Entries for this field can be selected from the dictionary table, or can be typed in directly. Provision of a choice between dictionary and direct typing options makes this field distinctive. Also the field may be left blank.

Genetic Elements

As for "Tectonic Environment", entries can be selected from the dictionary table or typed in directly. Provision of the two options makes the field distinctive. The field may be left blank

Submarine Morphology

Completion of this field is straightforward: entries are chosen from the dictionary table, or the field may be left blank.

Regional Name

The data input mask uses this field to allow entry and retrieval of the regional names of geological units. As regional names are not included in the dictionary tables, the cursor must be placed in the Regional Name field, and the entry typed in directly.

Metamorphism

This sub-form is activated if the user selects the metamorphic rock type. The selection of the entries into the fields for grade and age of 1st/2nd/3rd event/orogeny is achieved by selecting them from dictionary tables (see page 7, section „Use of Look-up Tables“). Entries for the ‘Protolith’-fields are picked from a separate form that is used in the same way as the ‘Petrography’-form.

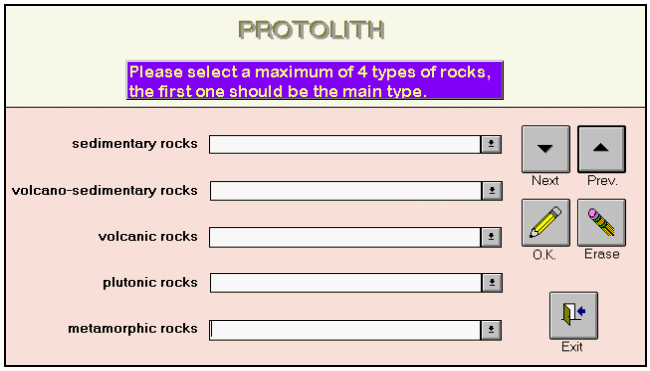

Figure 4: "Protolith" form

Preview

This form provides a list of the data at a reduced size and provides the facility to sort each displayed field in ascending or descending order. Additionally there is a button to call up the ACCESS search-utility.

To select a field for sorting, use the mouse to place the cursor into the field, then click on the desired button to start sorting the displayed list. This sorting only affects the temporary data display, not the underlying real data table. As the name of this form suggests, it is read-only, and the data on the temporary display cannot be changed.

Please note that the main form (Legend) always shows the set of data relating to the current cursor position. This selection stays valid even if the preview form is closed. This provides an easy way to navigate through the data.

Undo

Accidentally altered data can be reset to their condition before the change by pressing this button.

Use of Look-up Tables

This system for collating data for the IGME 5000/2 legend is based on Microsoft ACCESS. If you have used ACCESS before you will find the application easy to use. The following hints are intended for users with no ACCESS experience.

Selection lists are characterised by a button, located at the righthand end of the input area (Figure 5), marked by a black, down-pointing arrow.

The list is opened by clicking on the arrow button with the left mouse button. Usually only eight rows from the list are visible. If the full list includes more than eight items, a shift bar appears to the right of the list. Use of the up and down buttons, or drag-button on the switch bar allows scrolling through the complete list.

Figure 5: Button to open a look-up table

When the desired line is located it is selected by pointing with the cursor and clicking the left mouse-button (Figure 6). The content of the line is transferred into the field, and the list closes.

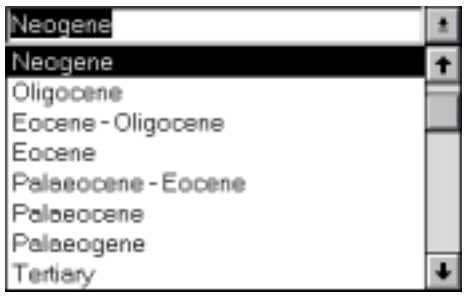

Figure 6: Look-up table: how to select an item by pointing with the cursor

Another way to do a selection is to type the first two or three characters of the required term into the field. The section of the list containing the words beginning with the typed characters is shown automatically (Figure 7).

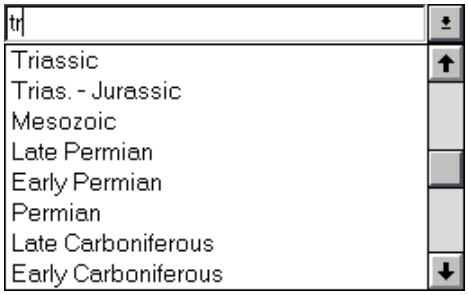

Figure 7: Look-up table: how to select an item by typing the first characters

This mechanism will only allow choice of terms from the list. There is no way to include terms not in the list. Any attempt to do so will cause an error message to be displayed.

Saving the Data / Back-up of the Data

The collected data are always saved on closing the application. Saving also takes place with each single set of new or changed data when the input-mask displays a new (and therefore empty) or another already registered data set. Additionally the actual data set can be saved by clicking on the SAVE button in the footer area of the data mask (see ”Save“ on page 3).

A set of data is marked as not yet stored by a pencil symbol, which is displayed at the grey marker bar (left side of the input-mask). If the data are unchanged, or already stored, a small triangle is shown in this position.

To close the application, simply click on the button with the door symbol (EXIT). The system operation will terminate.

Back-up copies of the data should be made periodically. To do this, close the application and then start the copy and compress function. Double-clicking the icon shown here (Figure 8) starts the programme to copy and compress the database. You will be asked for the destination of the copy, e.g. a floppy-drive. Follow the directions on the screen.

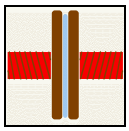

Figure 8

Please do not rename the file thus created.

Shipping the Data

Make a copy to a floppy disk, using the procedure described in the previous section.

Send this to the following address:

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Kristine Asch
Stilleweg 2
30655 Hannover
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phone (++49) (511) 643-3324
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e-mail Kristine.Asch@bgr.de

For security, please keep one additional copy of the data.

Thank you very much for your kind co-operation!

Notes