



GeODin Basics Training

First steps with GeODin

Table of Contents

	Page
1. User Interface	3
2. Objects & object types	8
3. Organising object types	12
4. General data	18
5. Geological data	24
6. Geotechnical data	32
7. Samples	38
8. Well design	42
9. Groundwater	48
10. Data types	53
11. Creating a new data type	56
12. Creating data type parameters	60
13. Deleting data type parameters	66
14. Borehole measurement data	70
15. Filter measurement data	77
16. Layouts	85
17. Fill patterns & symbols	92
18. Dictionaries	95
19. User settings	99
20. GeODin Shuttle	102
21. GeODin Help	107

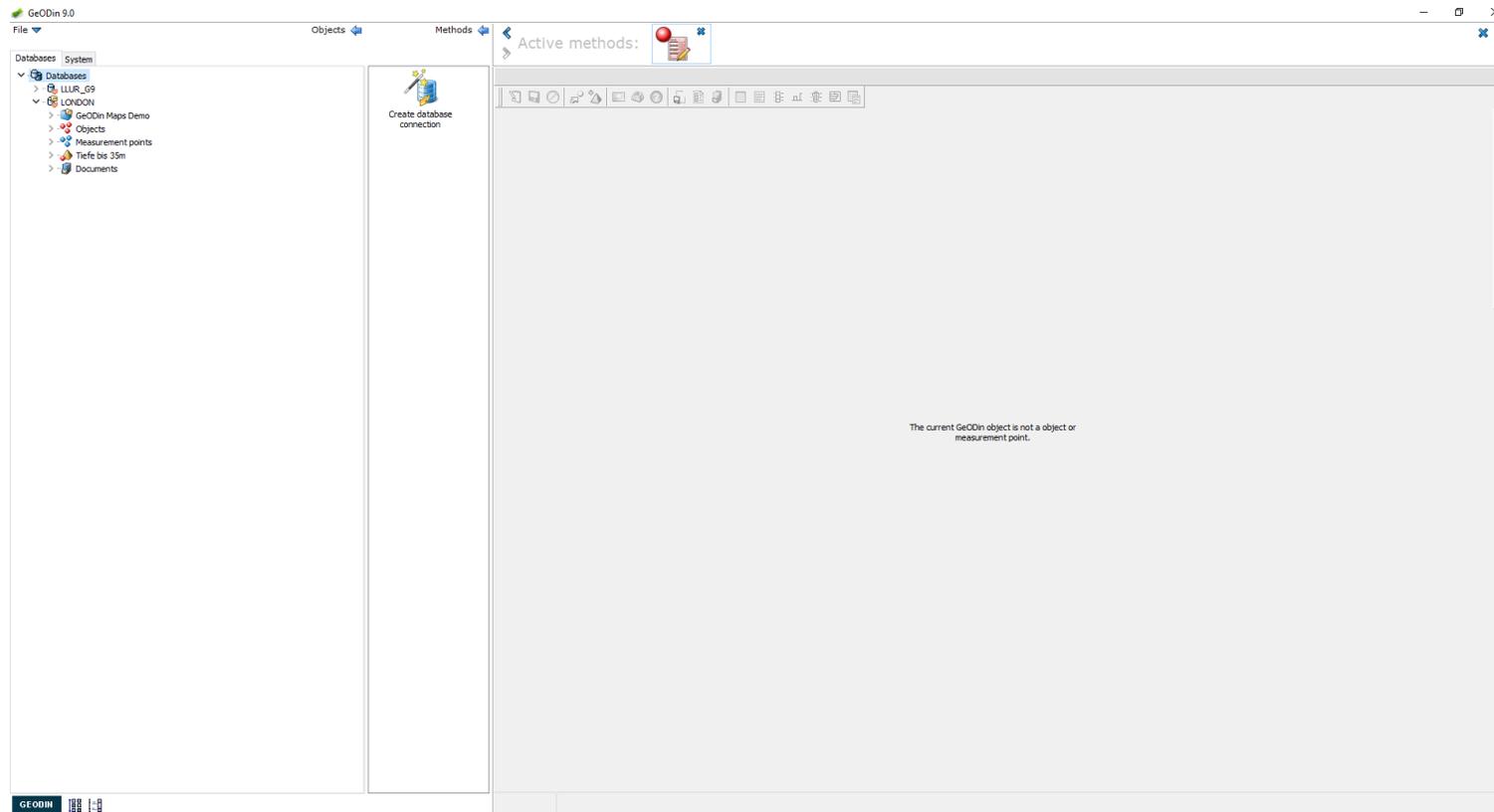
FUGRO



1. User interface

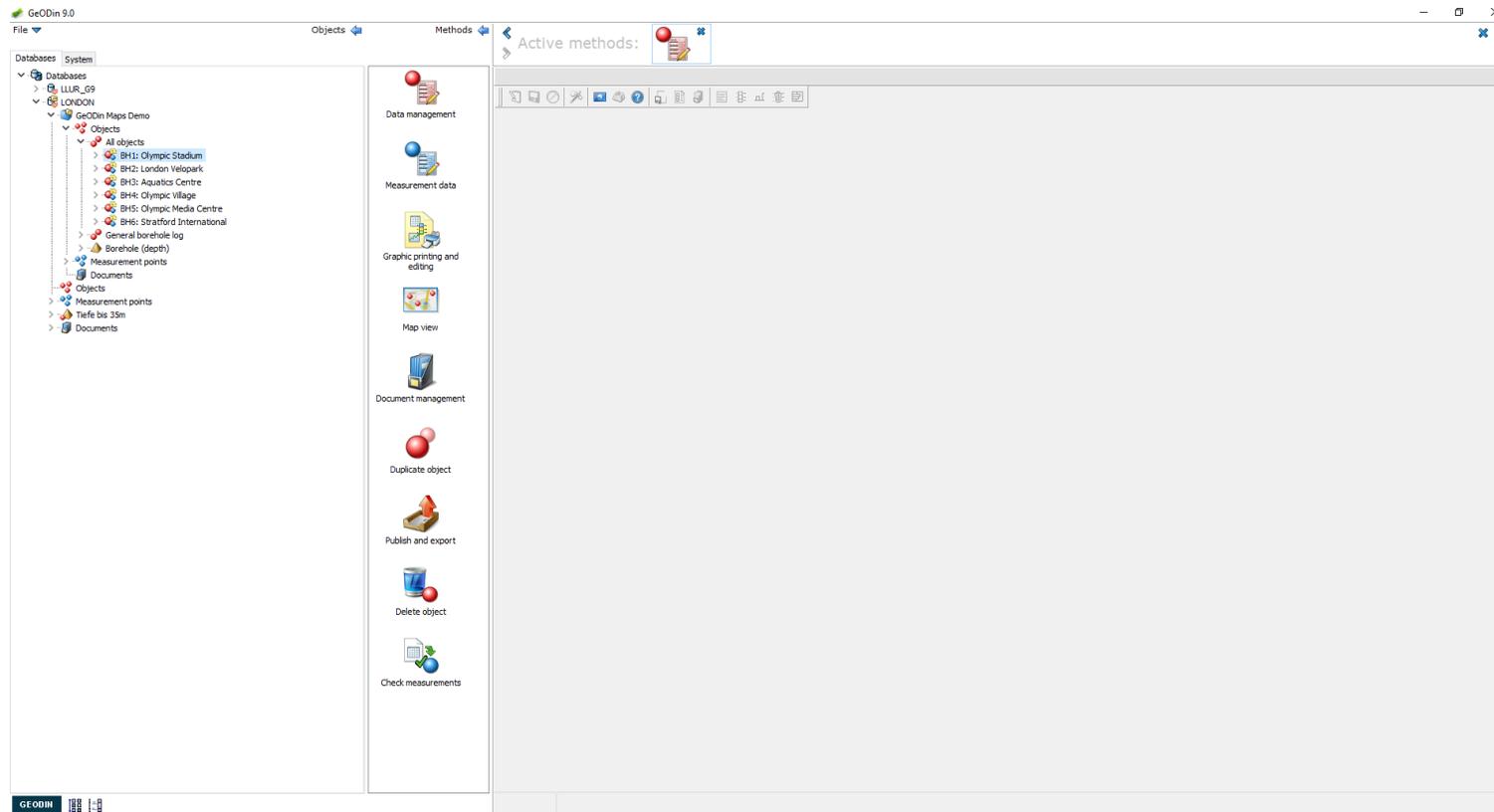
User interface (1)

When you start GeODin your databases are shown on the left hand side. In this example there is the London database containing one project. There are also three database nodes called <Objects>, <Measurements> and <Documents>.



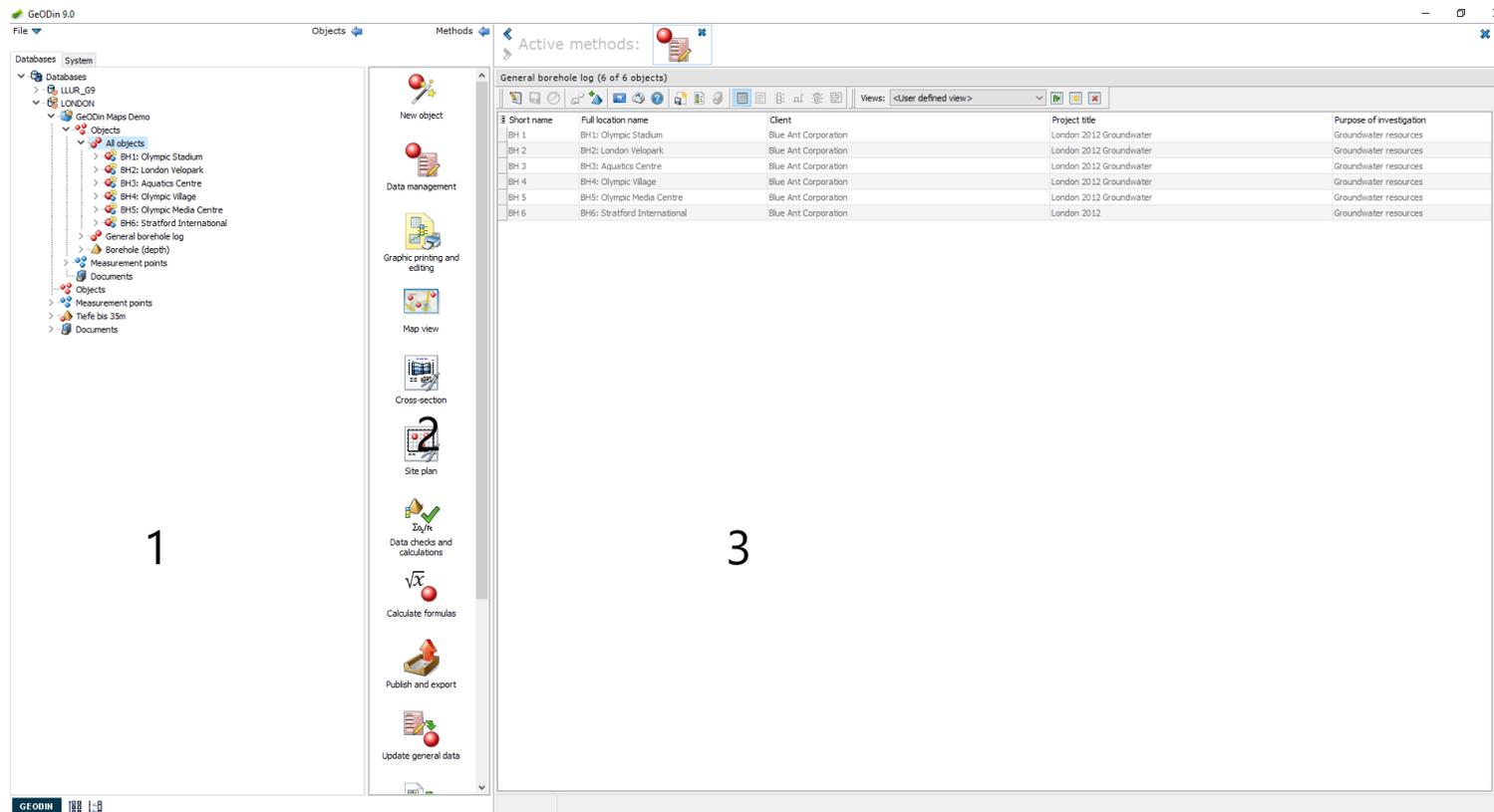
User interface (2)

Top-left there are two tabs for <Databases> and <System>, bottom-left are two icons for <Layout overview> and <Edit graphics> and on the top right are icons for the <GeODin Help> and <Information>.



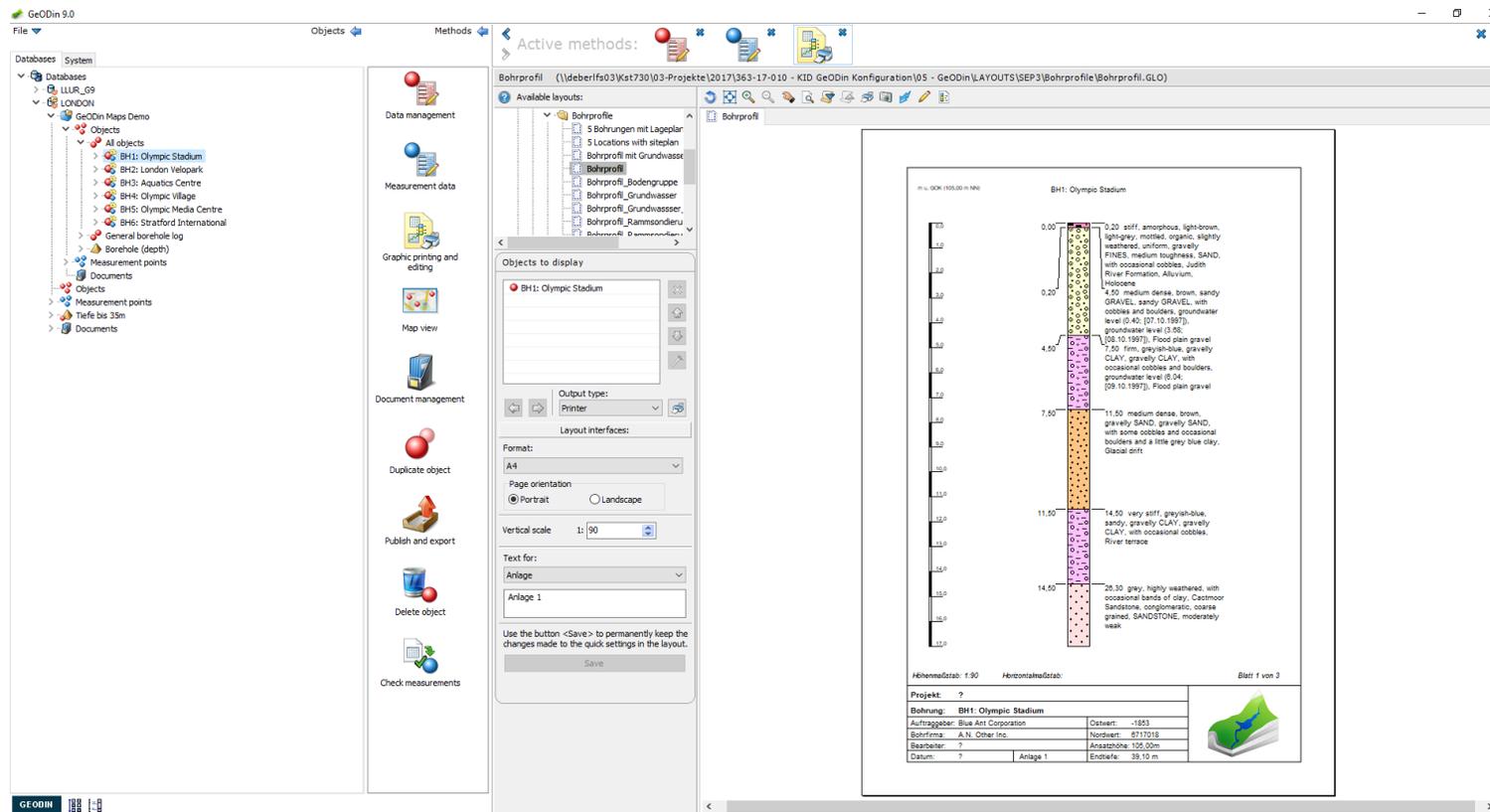
User interface (3)

The screen is divided into three areas. Left is a hierarchal view of GeODin databases, projects, objects, documents etc. Centre-left are the GeODin methods (to interact with the objects). The largest window panel on the right-hand side shows the active methods.



User interface (4)

You can use many active methods at the same time (data collection, measurement data, graphic editing etc.). Some methods open a new window on top of the active methods panel (cross-sections and site plans), or outside of GeODin (e.g. exports).

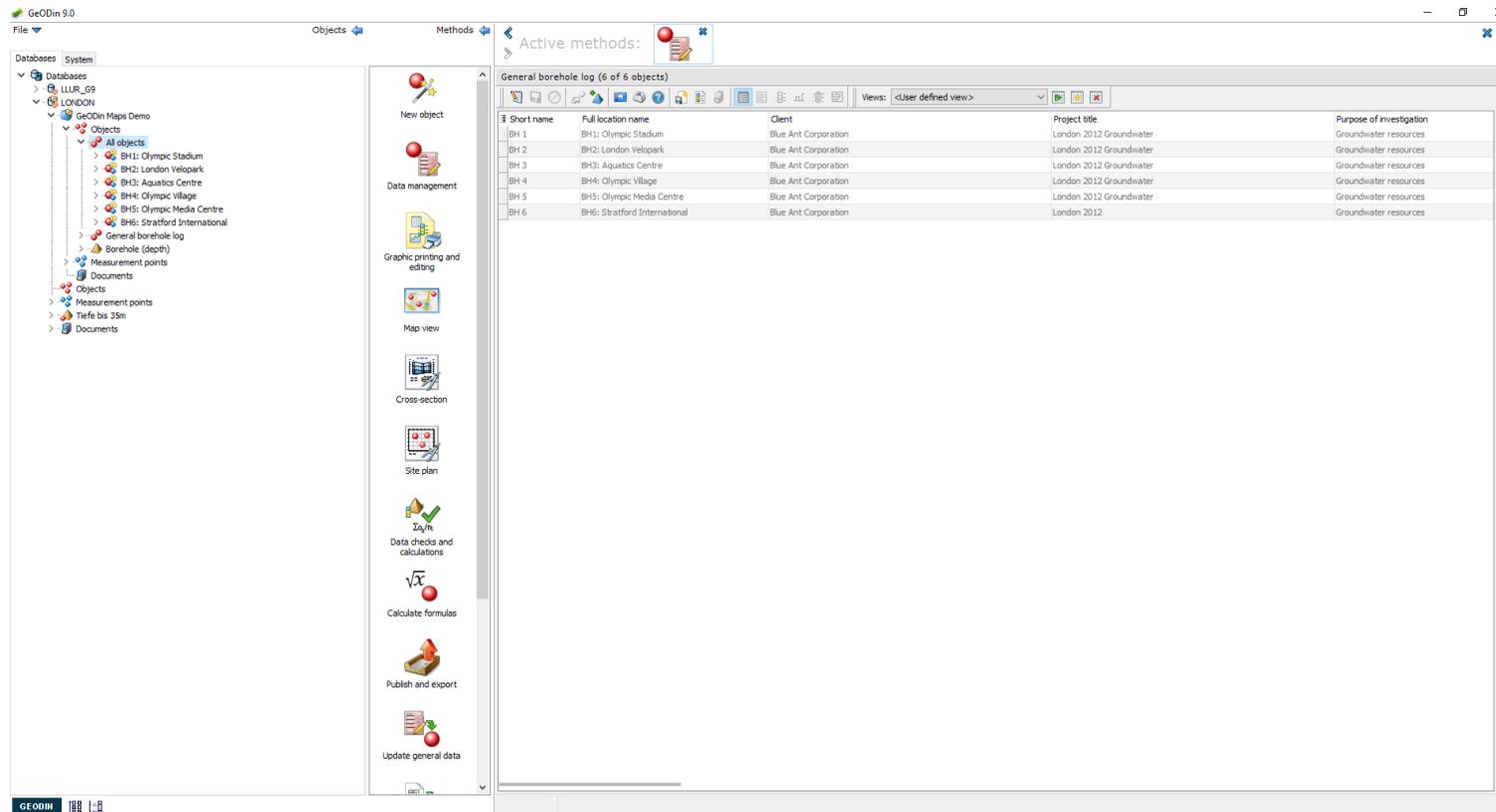




2. Objects & object types

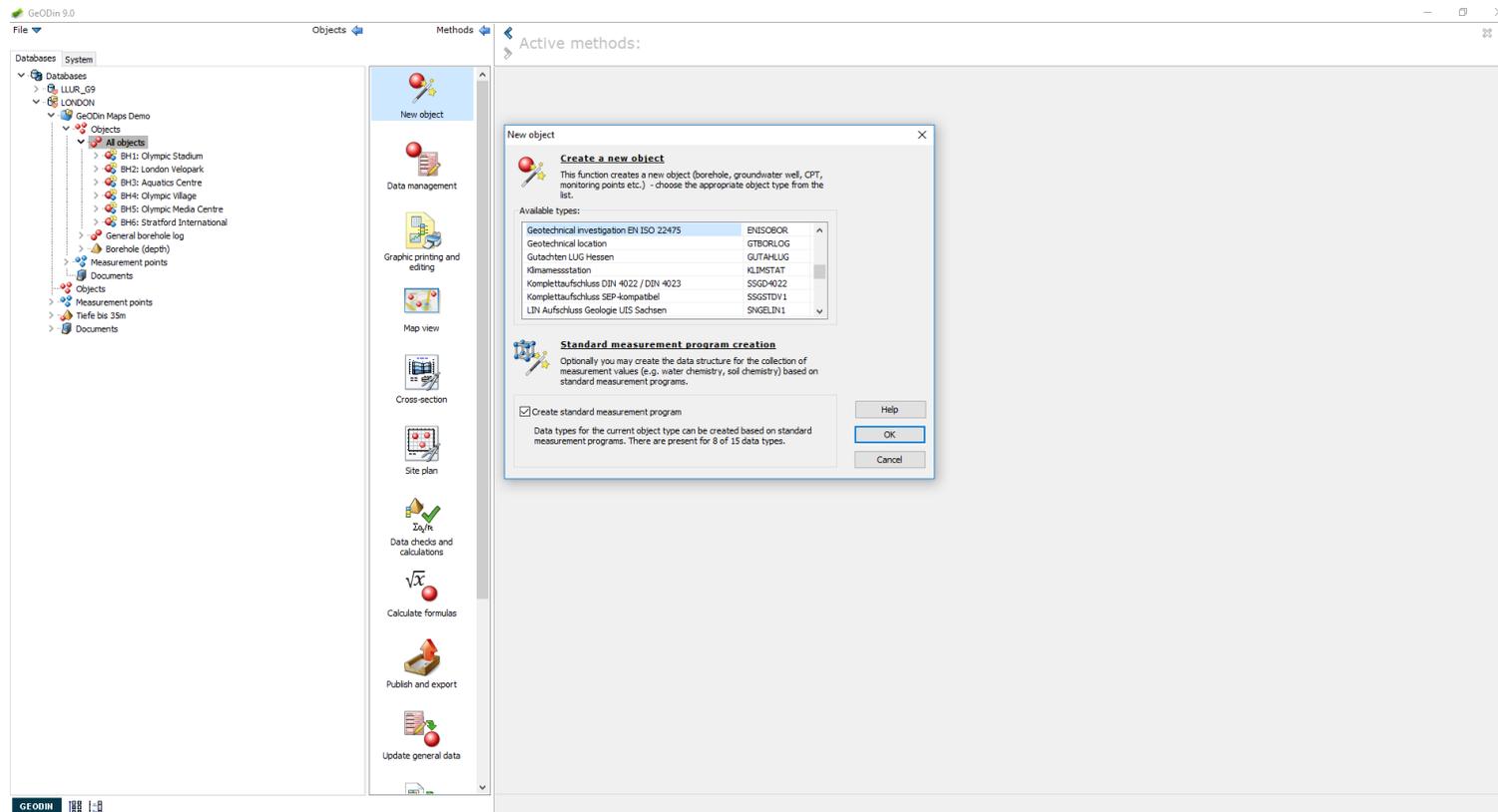
Objects & object types (1)

An object is part of a GeODin project. Often objects are called boreholes or locations, though these are only types of objects, albeit the most common. Objects are always described by general data such as name, coordinates, client, project title etc.



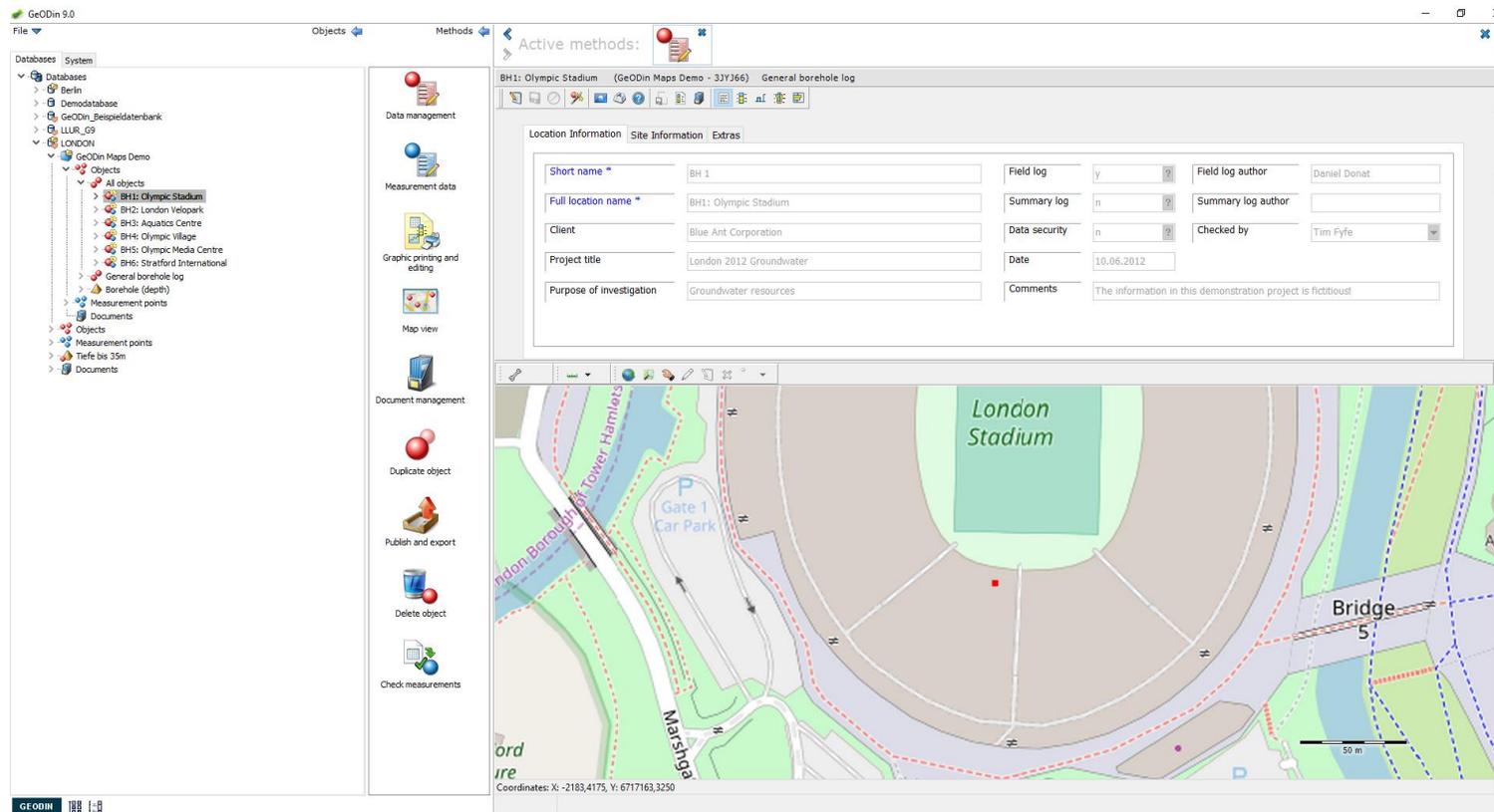
Objects & object types (2)

Each object type has a particular data structure for recording information. Examples are the BS 5930 and G1 Geotechnical borehole object types. GeODin presents a choice of object types in the <New object> method.



Objects & object types (3)

The <General borehole log> object type (shown below) contains general data fields, distributed over three tabs (location & site information and extras). The geological layer data collection conforms to the British Standard BS 5930.

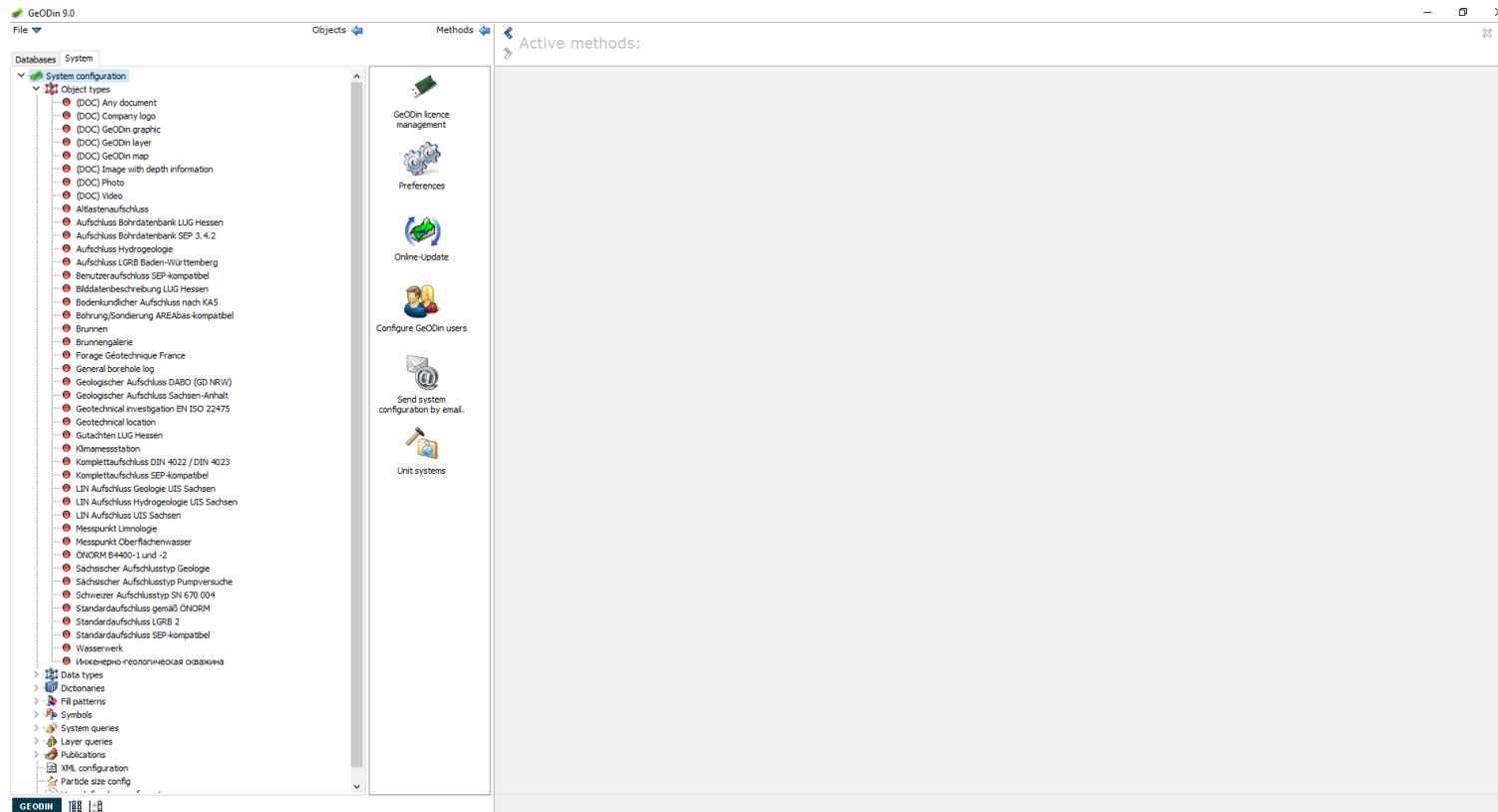




3. Organising object types

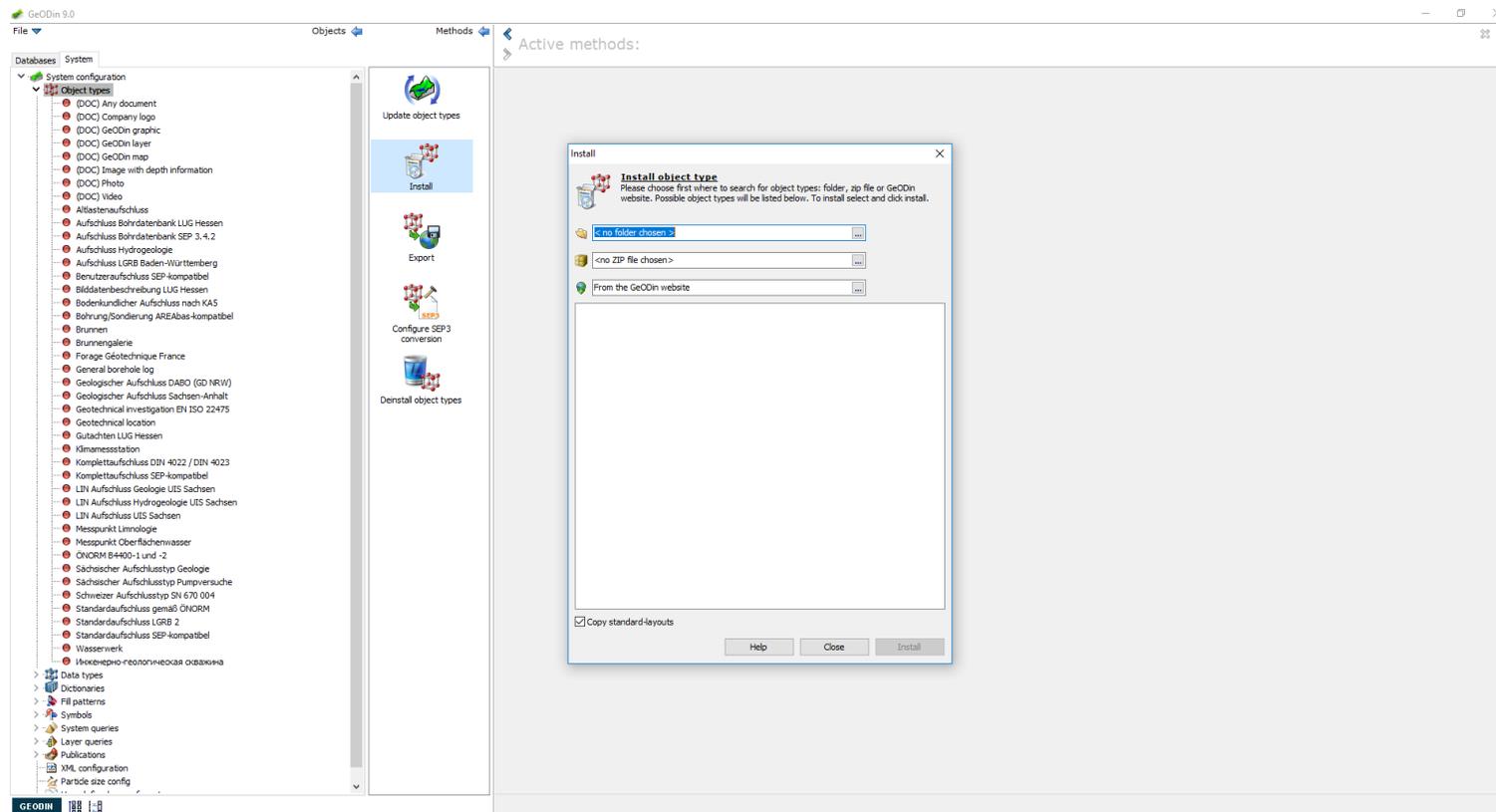
Organising object types (1)

All the object types in your GeODin installation are listed under the <System> tab in the <Object types> node. The number of object types can vary greatly: in this example there are seventeen, nine of which are types of documents.



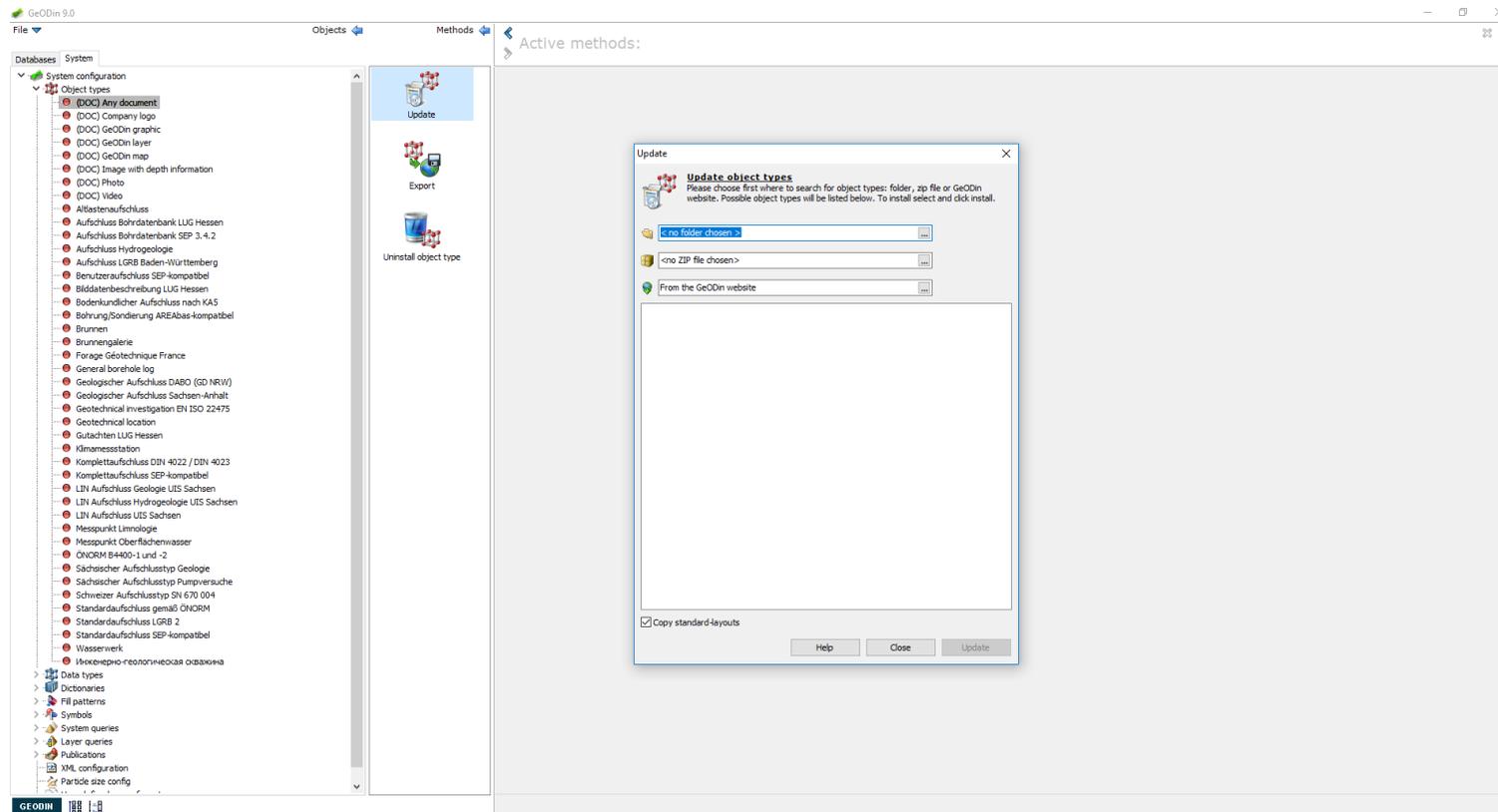
Organising object types (2)

To install a new object type choose the <Install> method. This can be carried out in three ways: by choosing a folder containing existing object types, selecting a ZIP compressed folder with objects, or by using the GeODin website link.



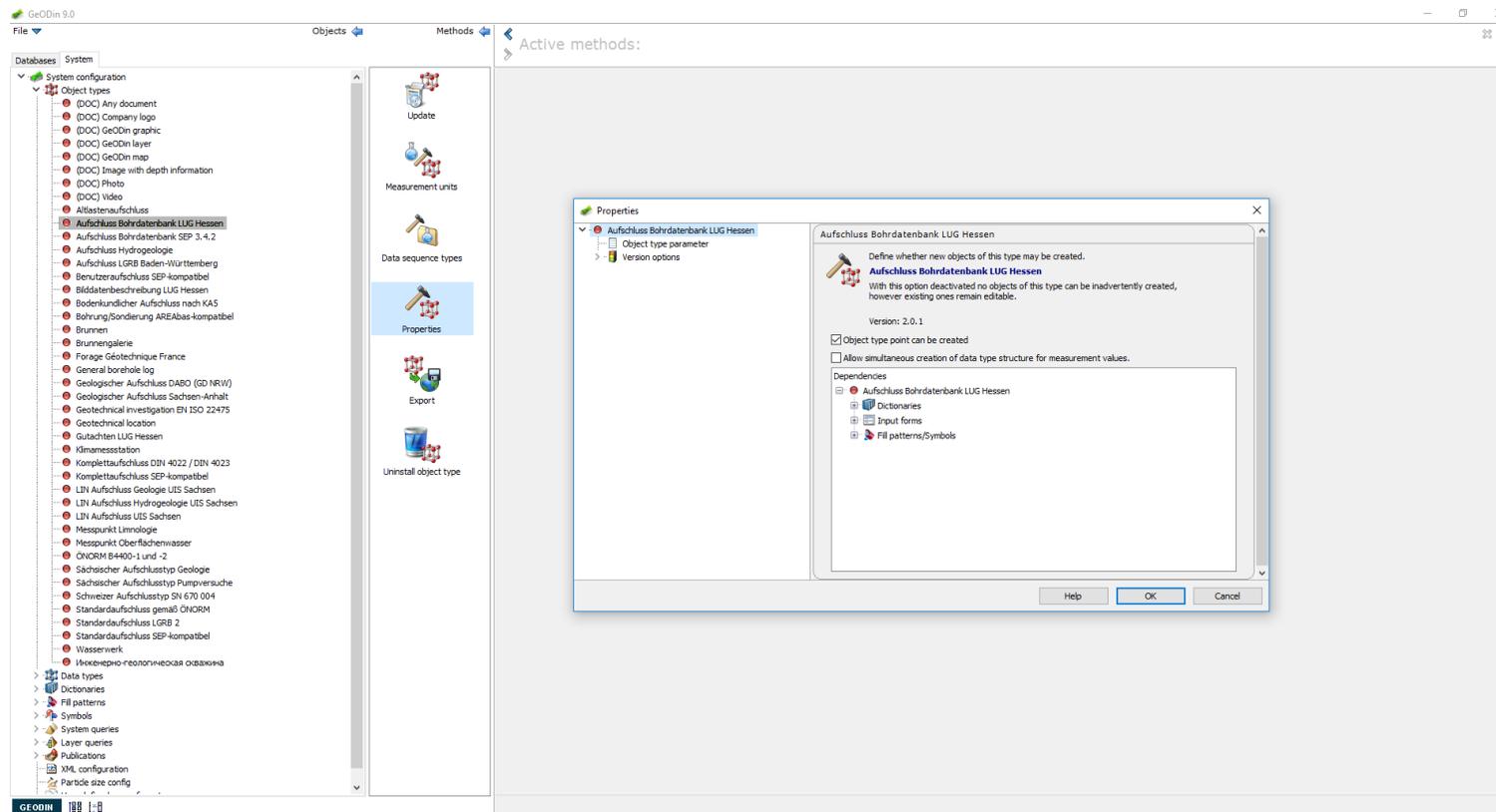
Organising object types (3)

To update an installed object type, select the object type under the <System configuration> and start the <Update> method. The same window as for installing objects opens, where you then have to choose the source and then proceed by clicking <Update>.



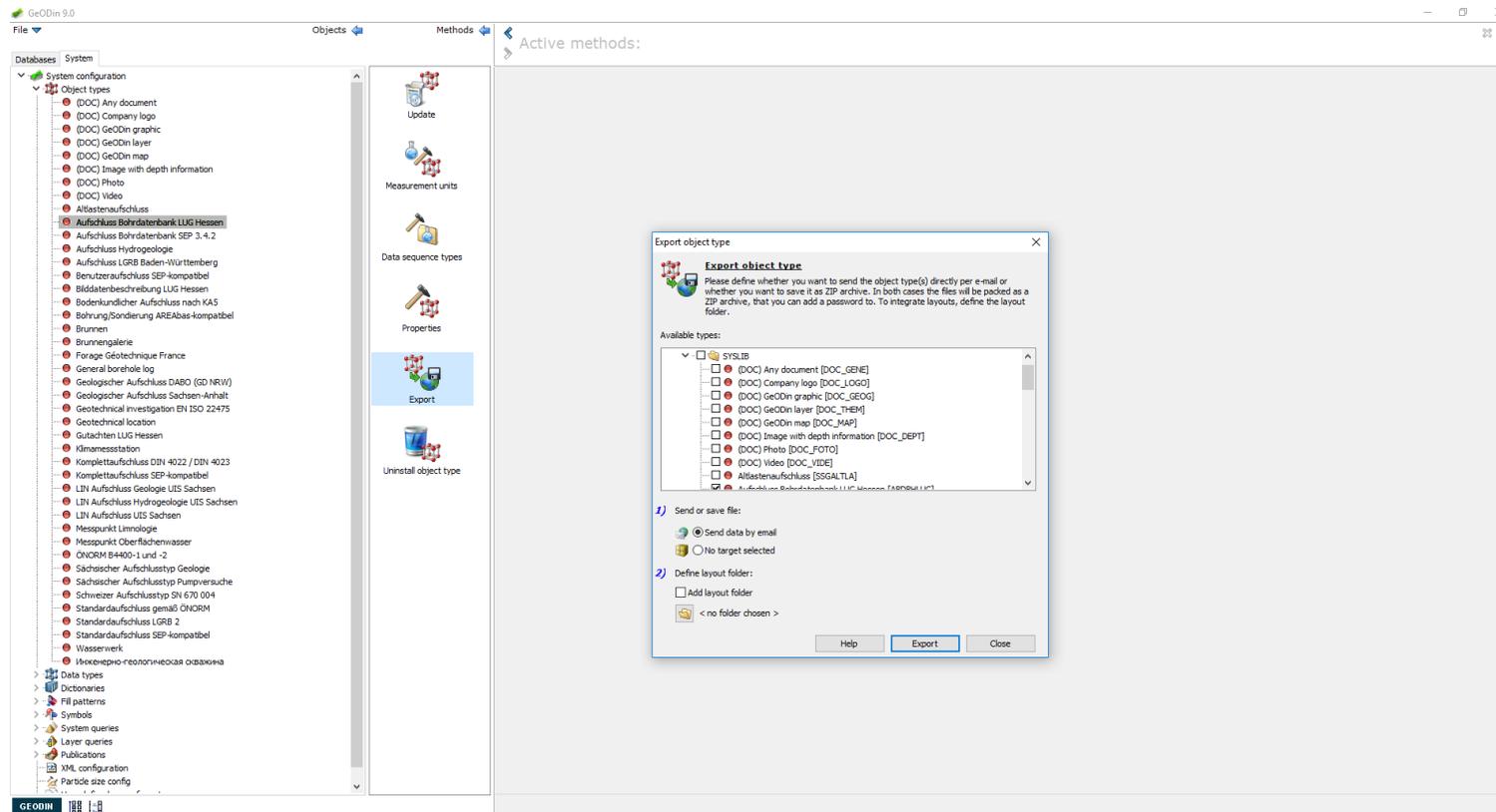
Organising object types (4)

Object type properties can be edited by starting the <Properties> method for a selected object type. There are options to allow object type creation (left unchecked only editing of existing objects of type is possible) and automatic data type creation for measurements.



Organising object types (5)

An object type can be exported in order to give it to another user who does not have it installed. Start the <Export> method and choose whether to send by email, whether to password protect the ZIP file and if a layout folder is to be included.

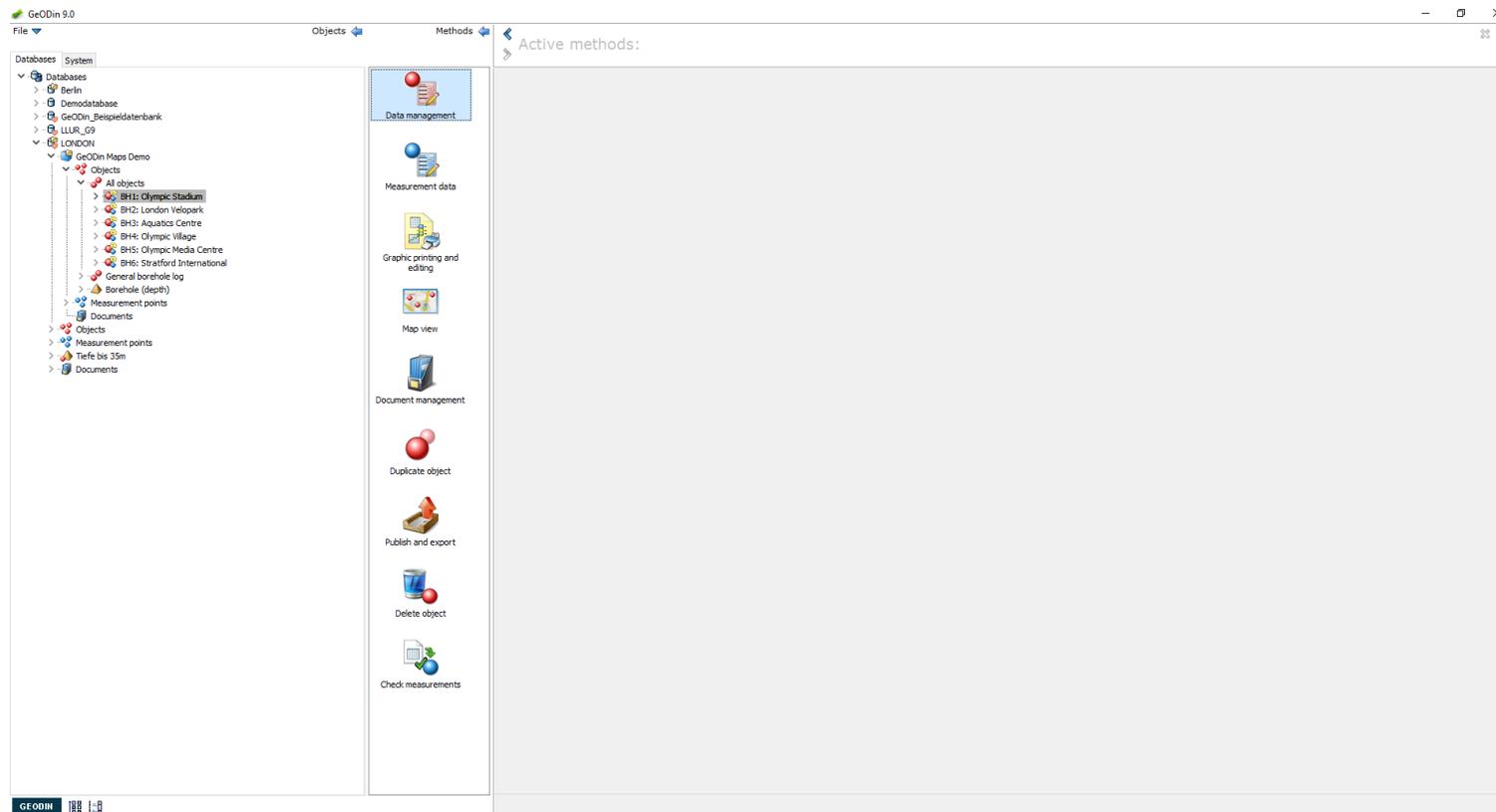




4. General data

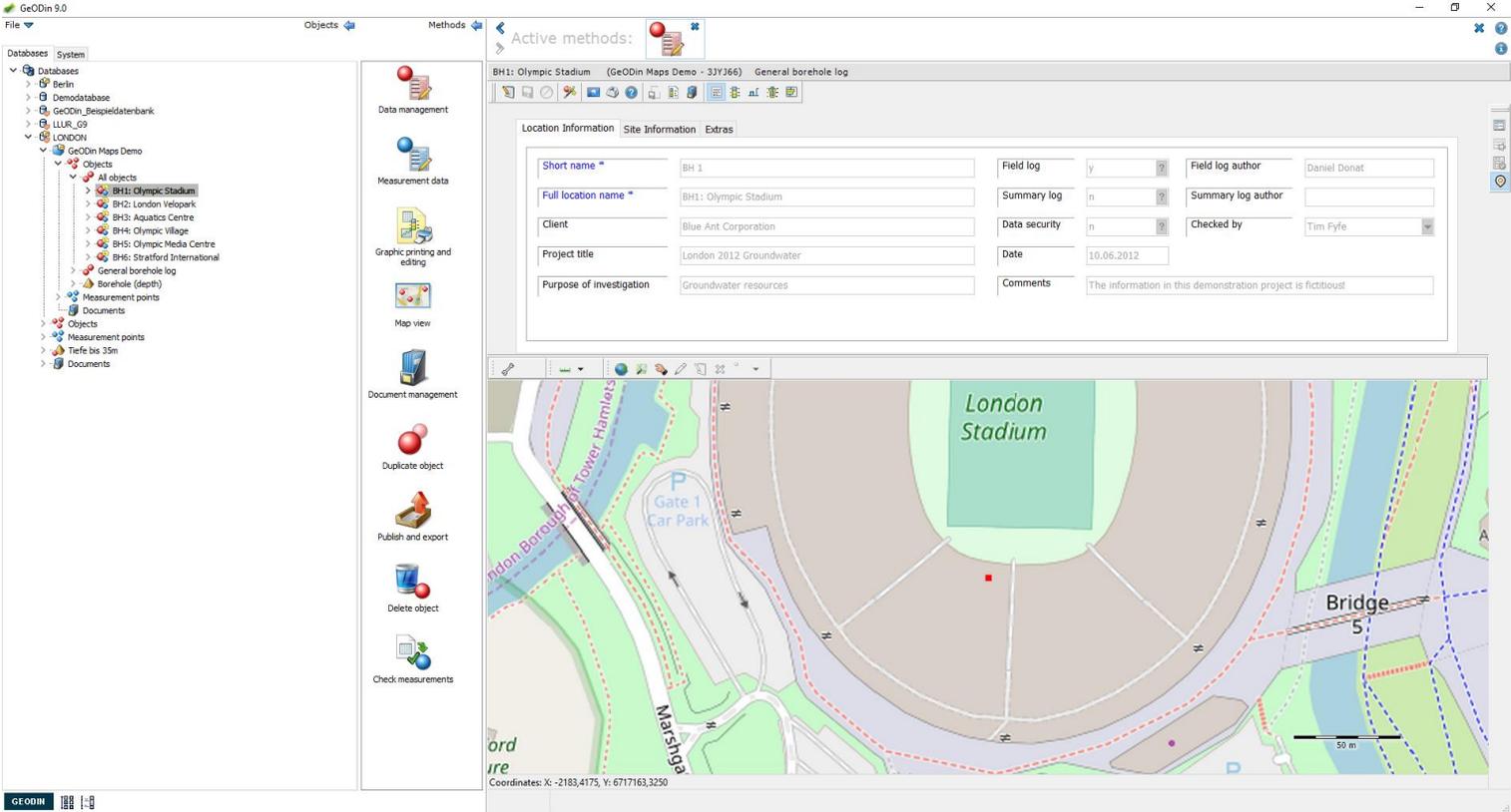
General data (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



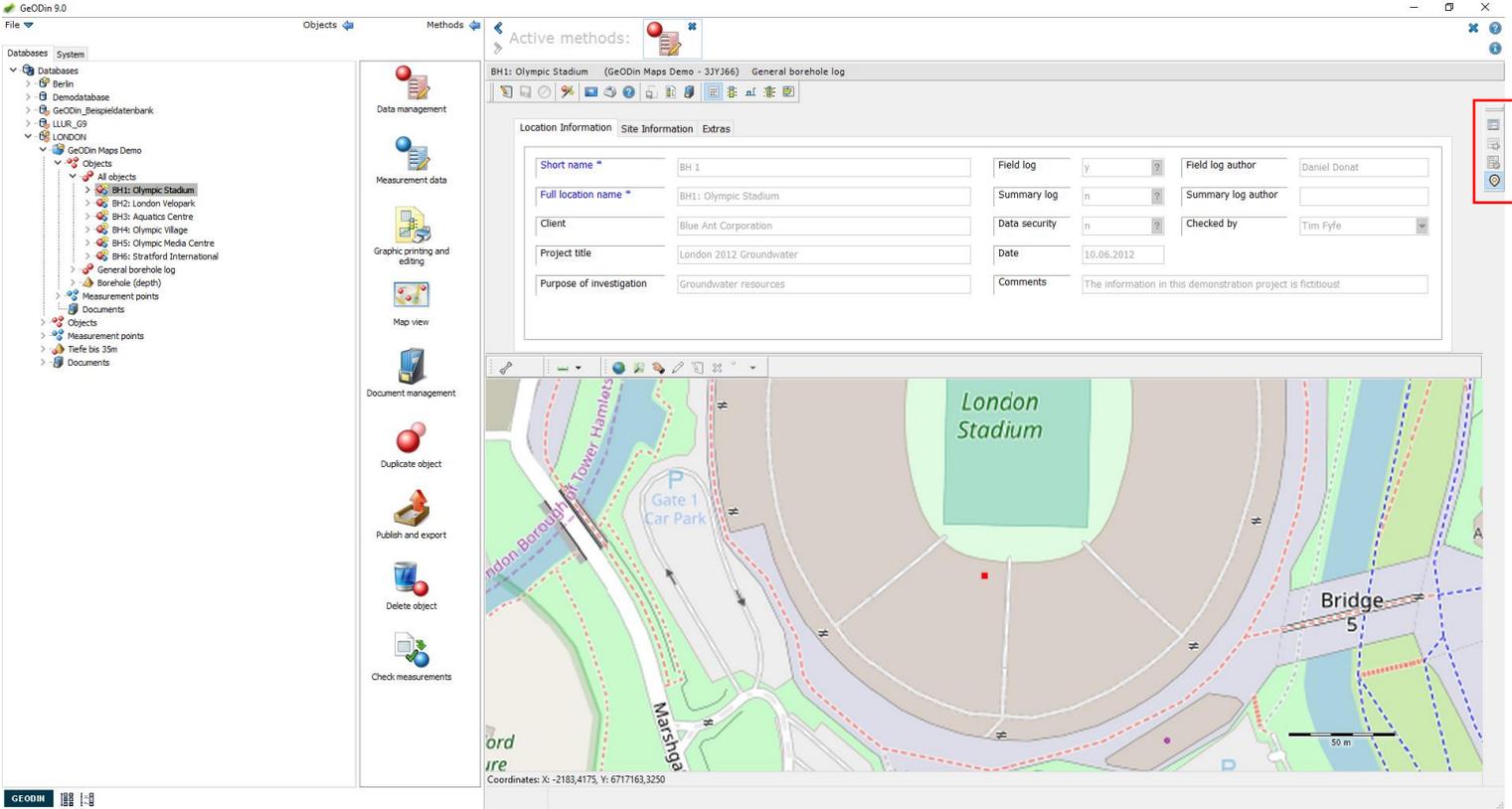
General data (2)

The <General data> for the chosen object is opened in one or more data masks. Change between the masks by selecting a tab. Here you can enter information on object name, project details, coordinates, heights, datum etc., depending on the type of object.



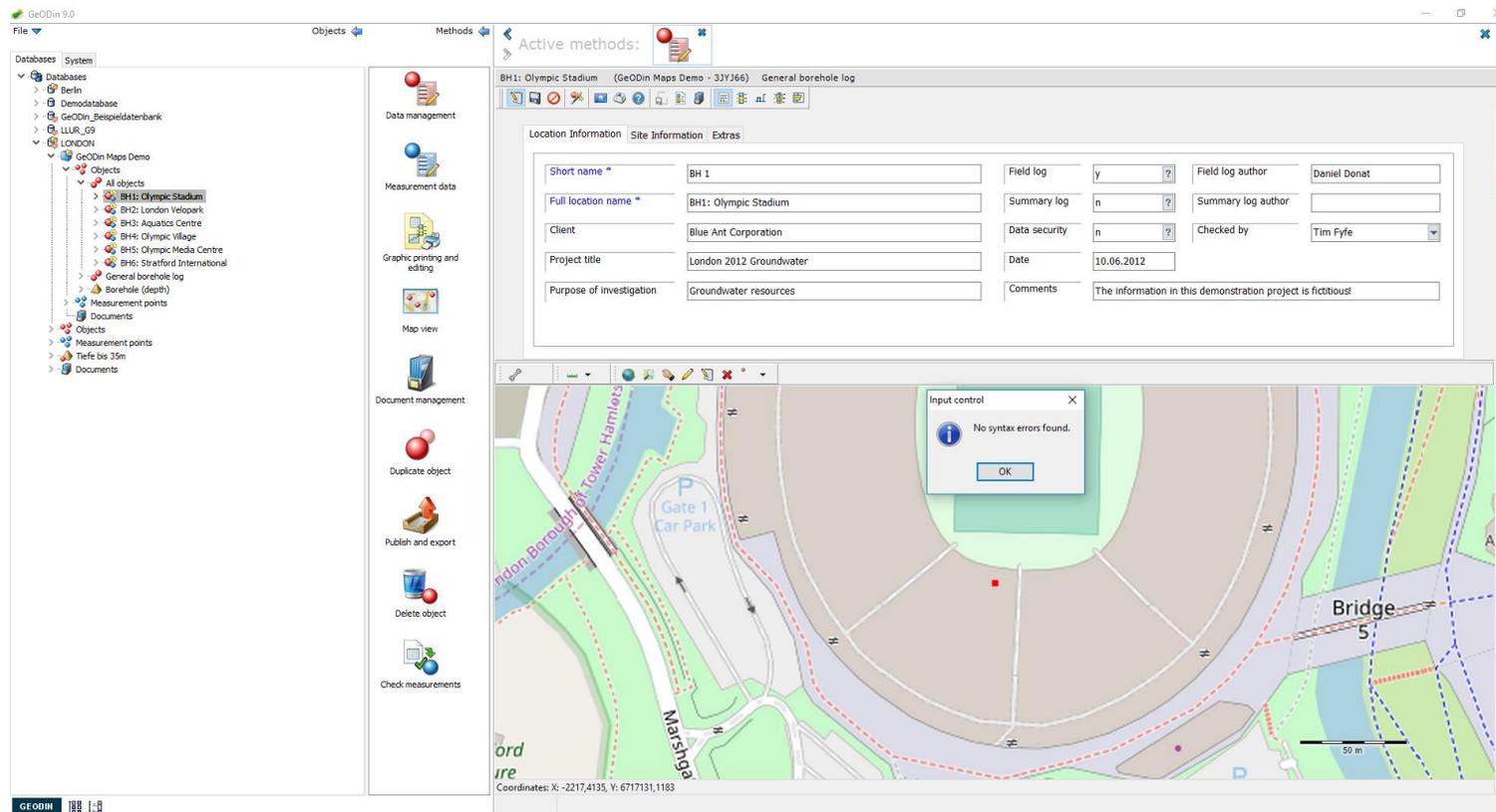
General data (3)

On the right hand side there is a group of three icons. Here you can switch between input masks (if more than one is present), enter default general data and perform an input check. Default general data is useful to avoid repetitive entries.



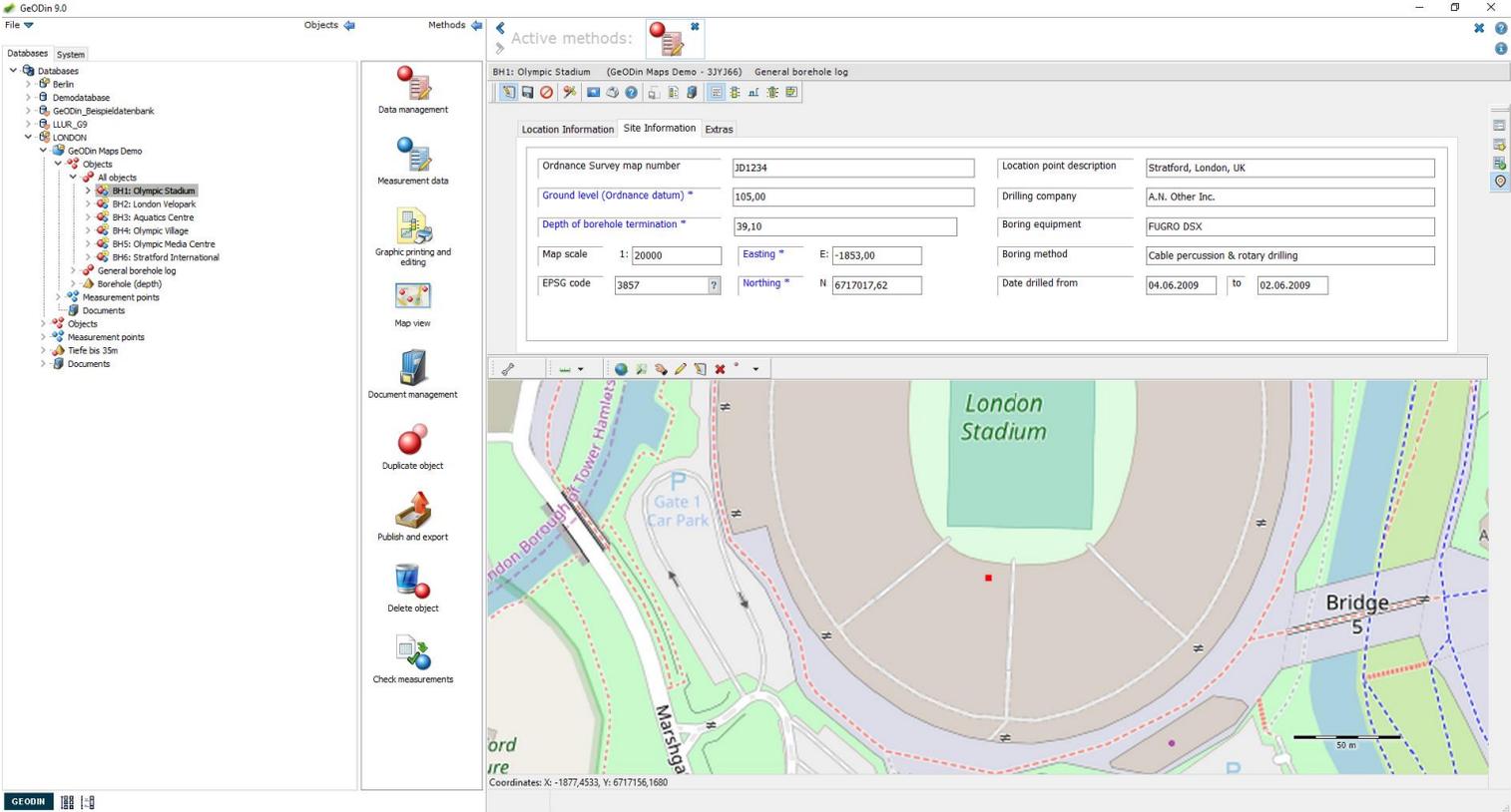
General data (4)

To enter information into the masks first click the <Edit object data> icon (pencil on notepad). When you are finished either click the <Save> icon or choose another object (which saves the current one automatically).



General data (5)

Some entry fields require an input without which you cannot save the object information. Usually these fields are marked in blue. Note that coordinate fields (X,Y, Z) are automatically filled with zero values. These can be changed when information is available.

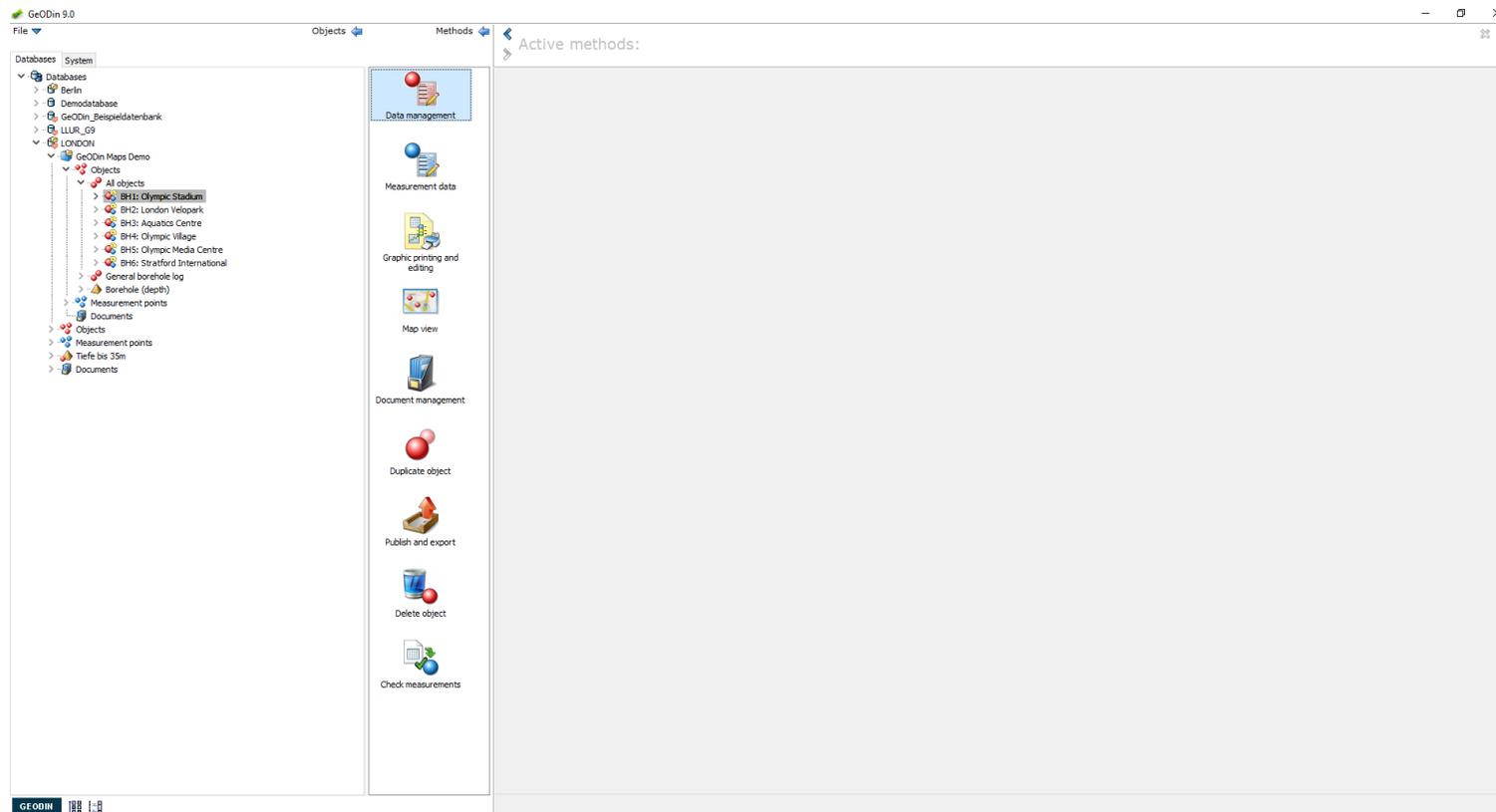




5. Geological data

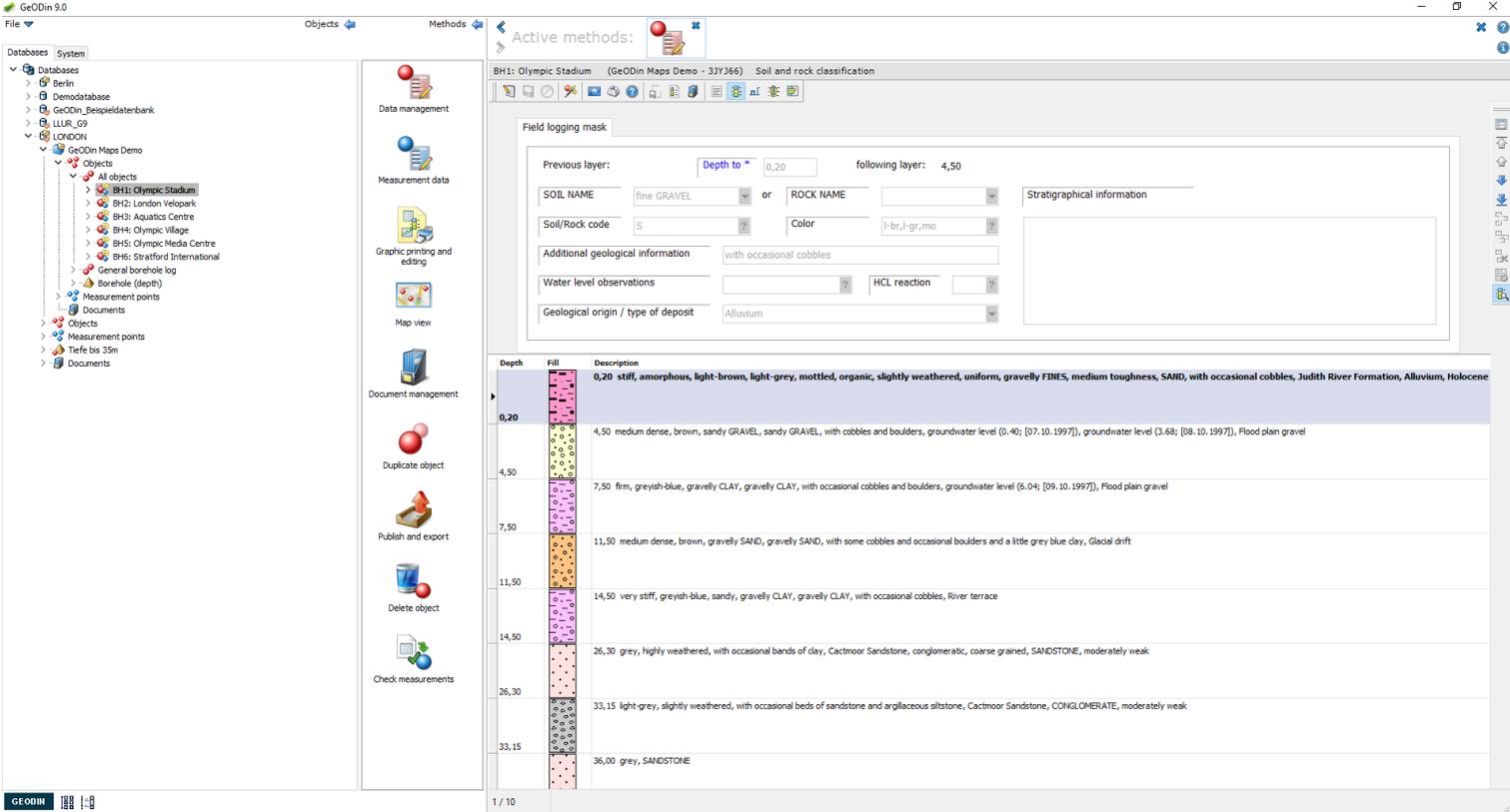
Geological data (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



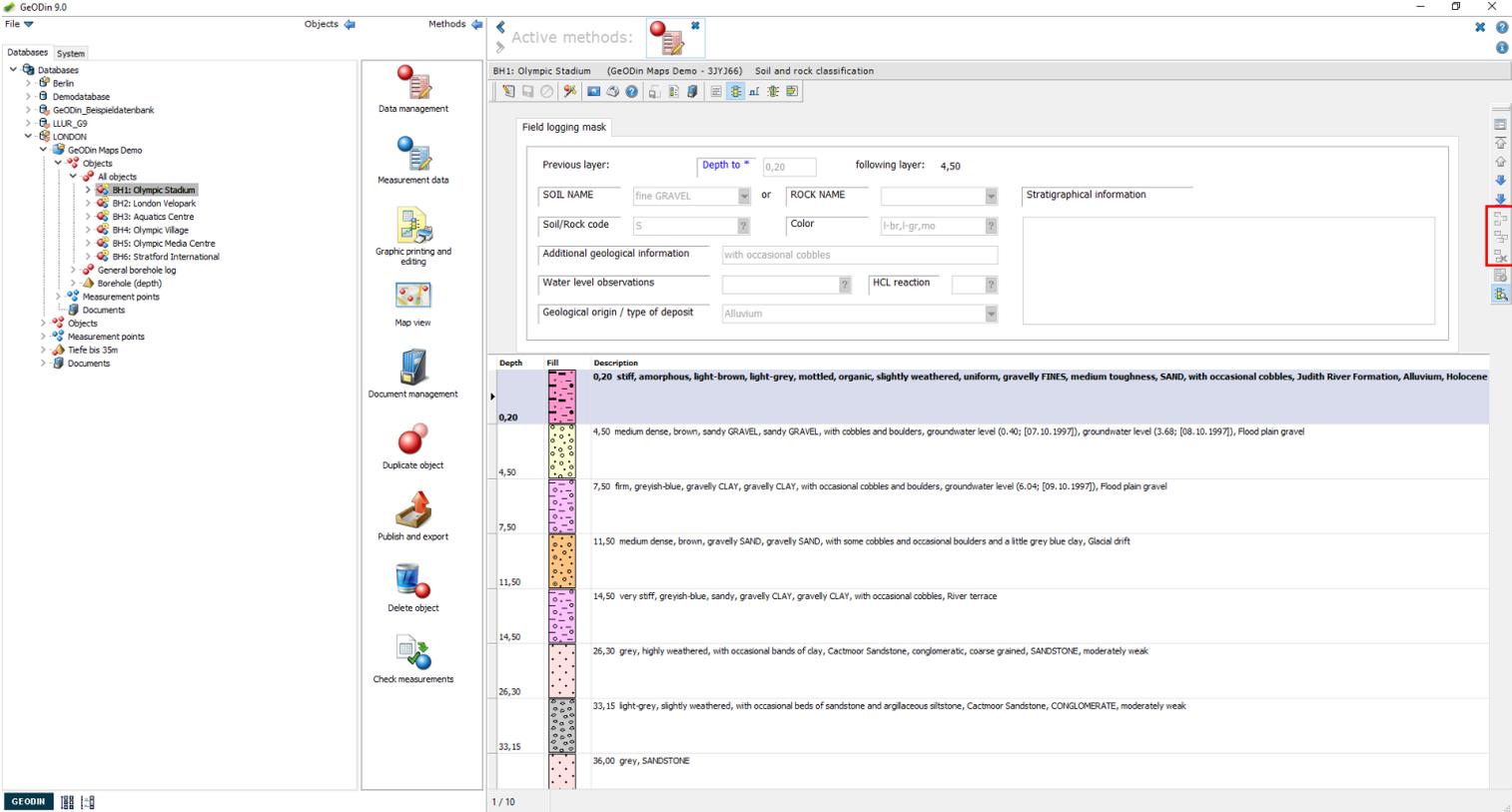
Geological data (2)

By default GeODin opens an object displaying the <General data> . Choose the icon to the right <Layer data> to open the editor for entering geological data collection.



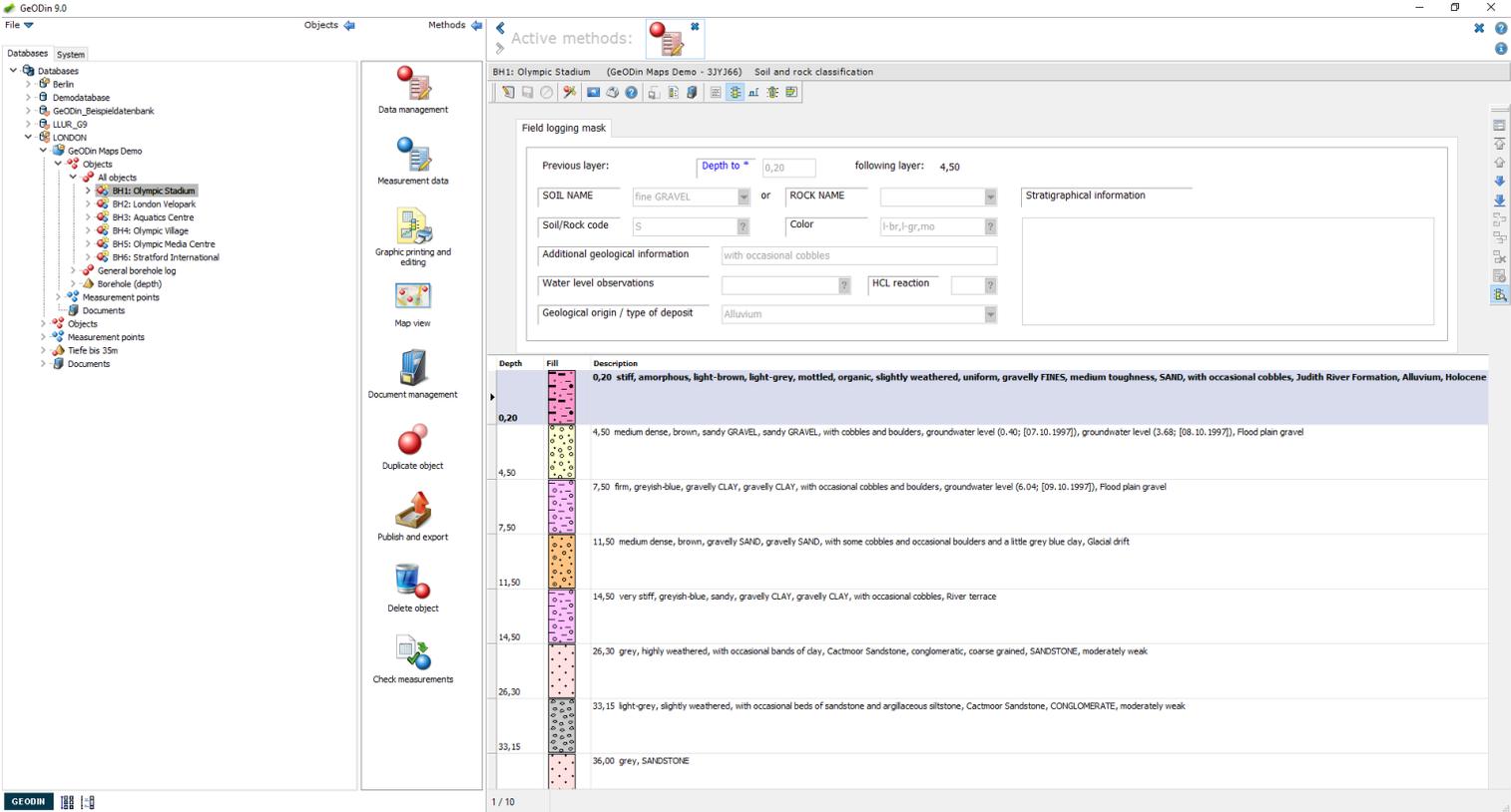
Geological data (3)

Click the <Edit object data> icon (pencil on notebook) to begin editing. This activates further icons to insert, duplicate and delete layers. Add a layer and fill out the appropriate fields. Note that the number and type of entry fields depend on your object type.



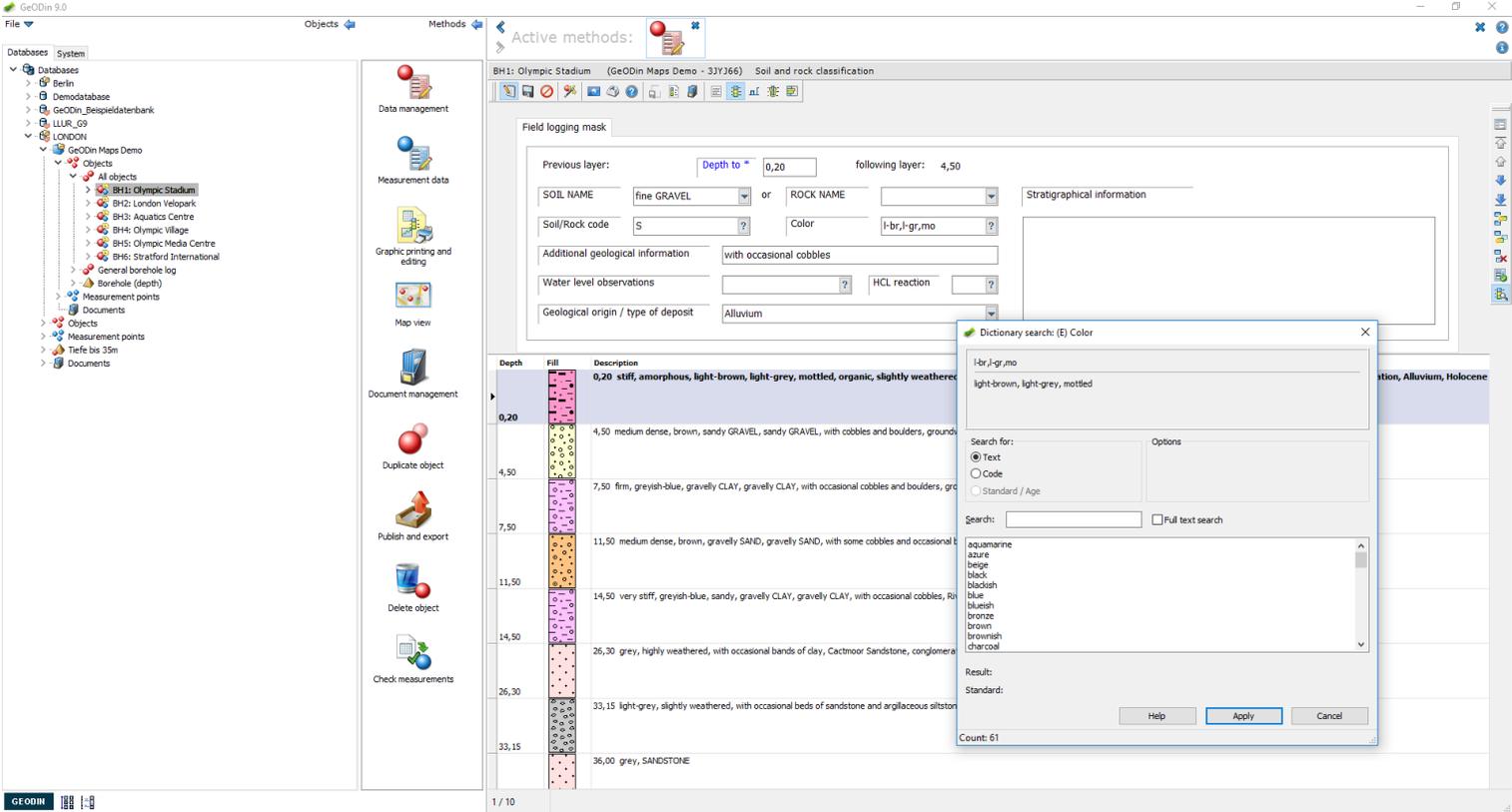
Geological data (4)

For each layer you must enter a lower boundary depth. Previous and following layer depths are shown as appropriate. Fields for petrographical descriptions, colour, bedding etc. may use codes or drop-down menus. Other fields allow you to enter remarks.



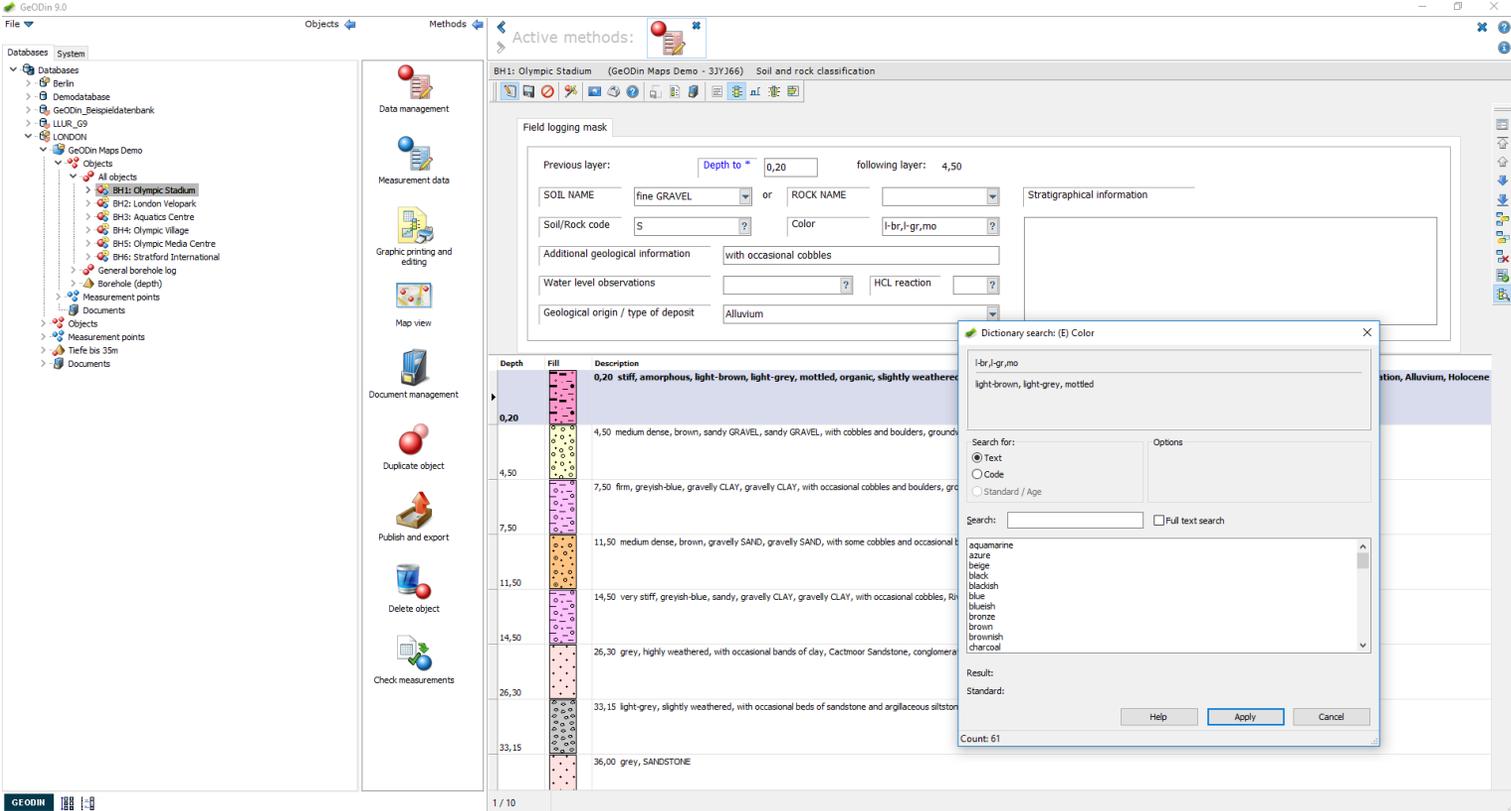
Geological data (5)

When entering data in a fields that uses codes you can look up an unknown code by clicking the “?” on the right hand side. This opens up the dictionary in a new window showing a list of possible entries.



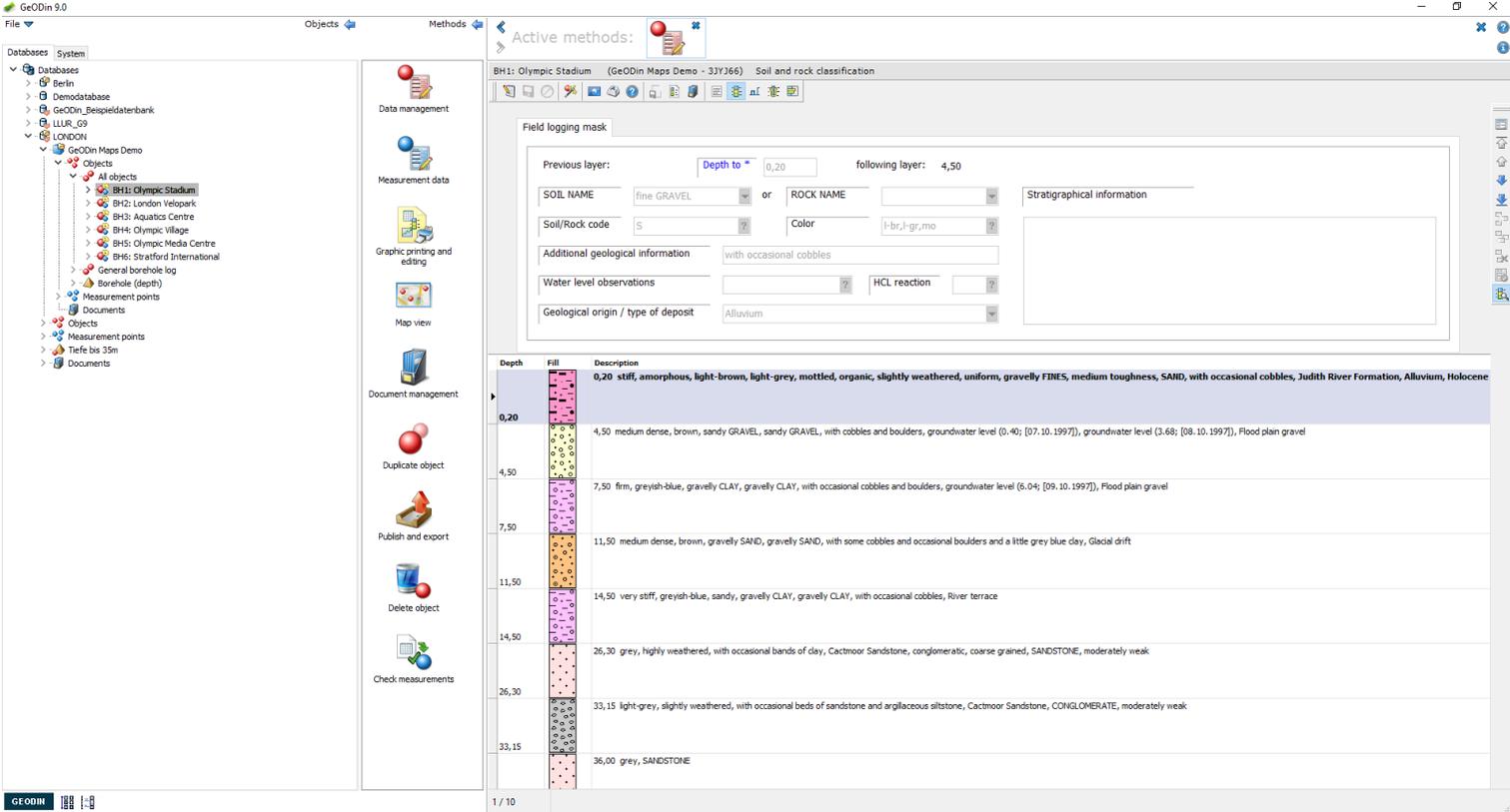
Geological data (6)

You can search for a term using either <Text> or <Code>, with additional options for full text and case sensitivity. The lower window pane updates automatically with each search entry. For example by entering an "s" terms for sand will be shown.



Geological data (7)

To navigate between layers use the arrow icons for first, previous, next and last layers. A graphic preview is shown below, with the current layer highlighted in bold text in the lower window panel.

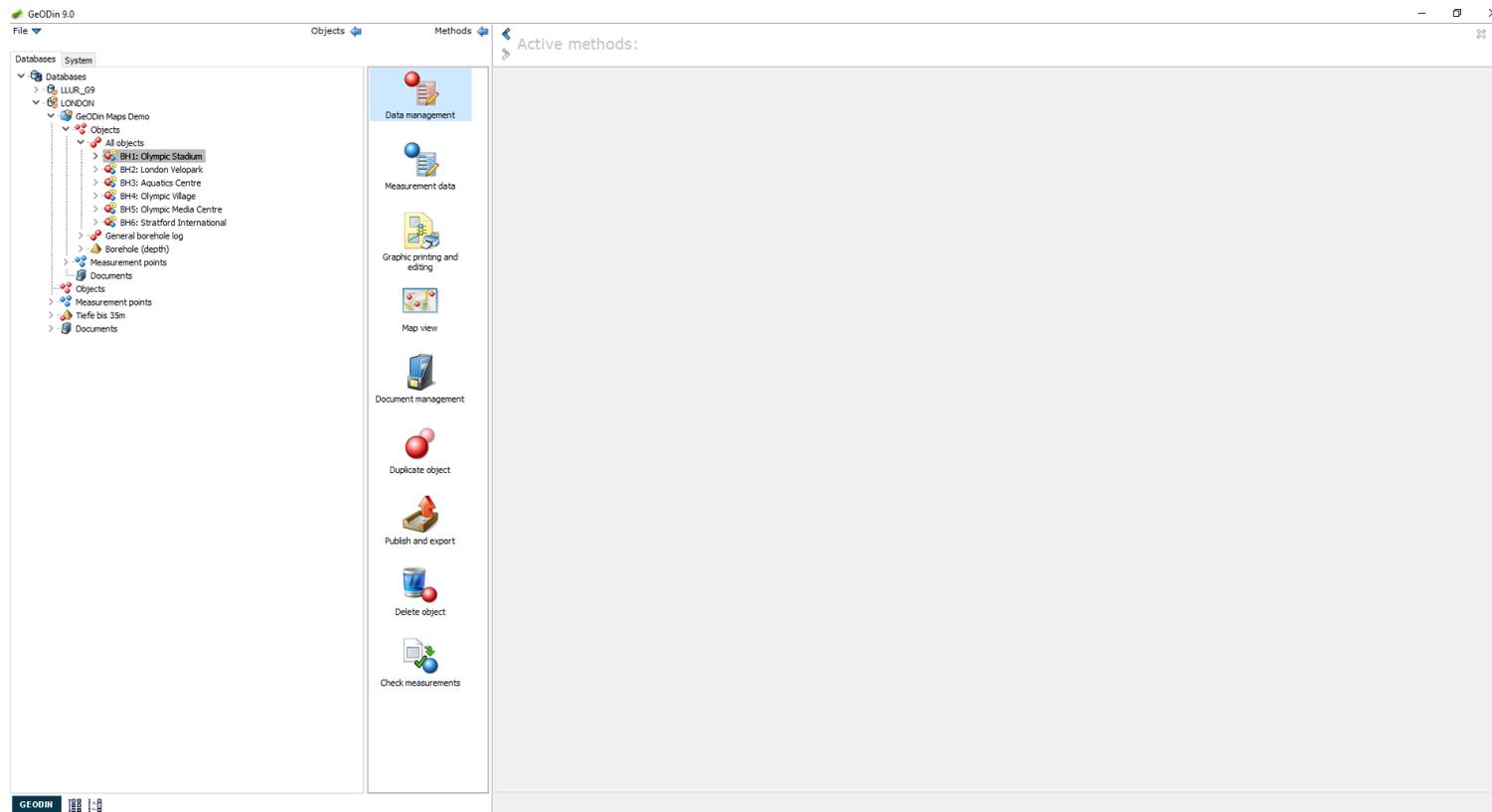




6. Geotechnical data

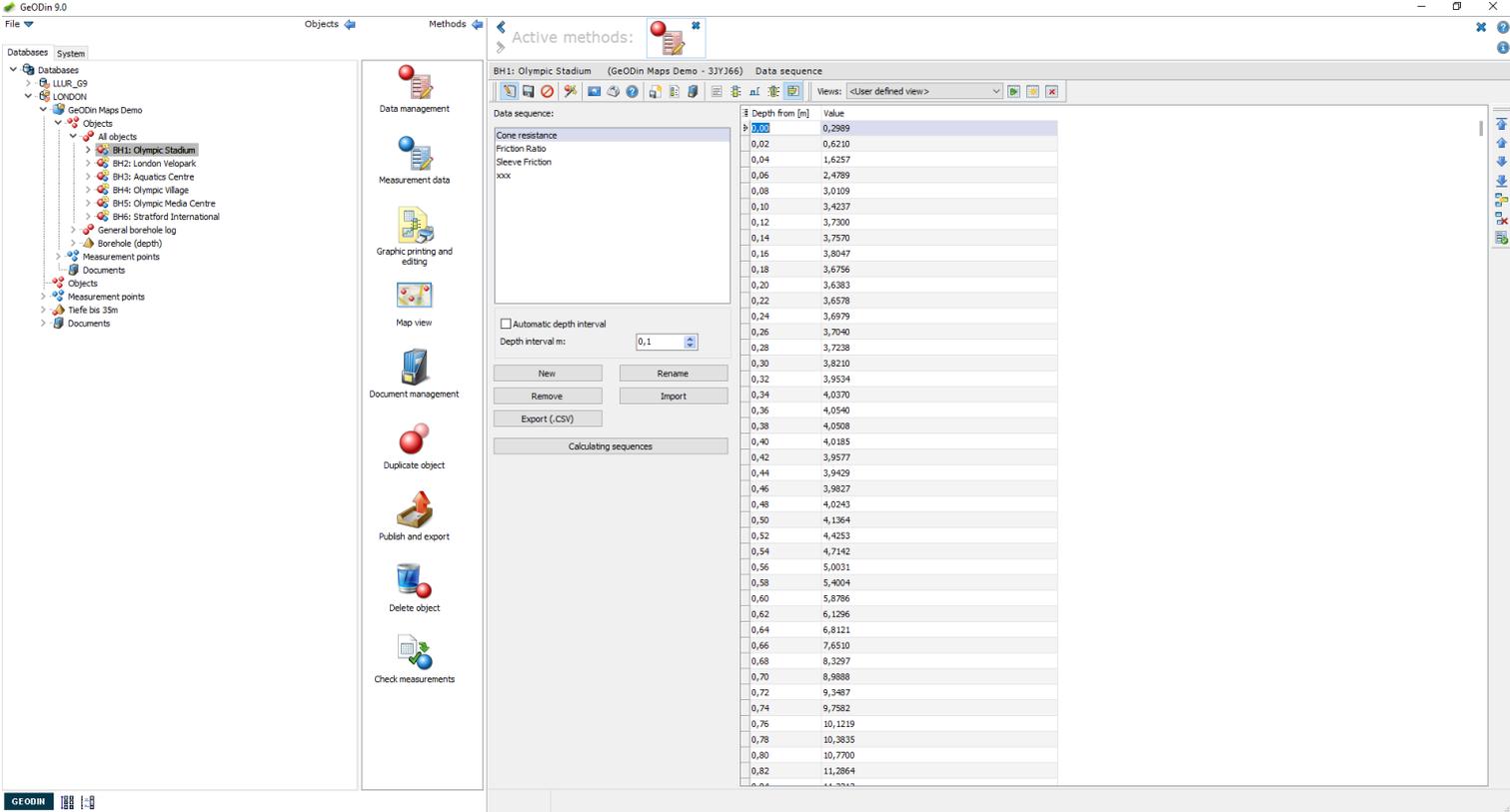
Geological data (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



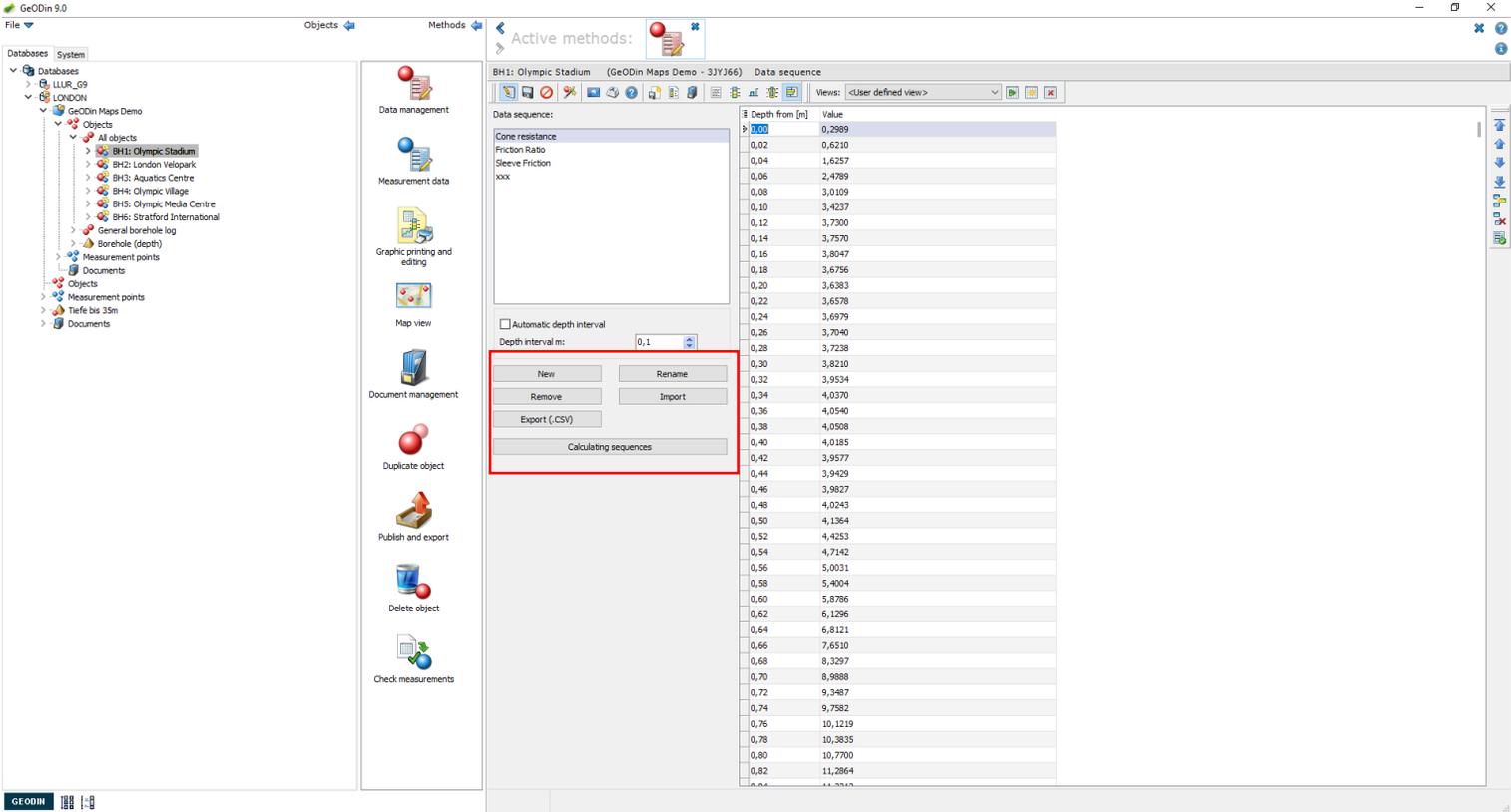
Geological data (2)

Choose the <Data sequences> icon from the tool bar. A list of geotechnical parameters is shown on the left with the corresponding depths and values on the right. Click the <Edit object data> icon to make changes.



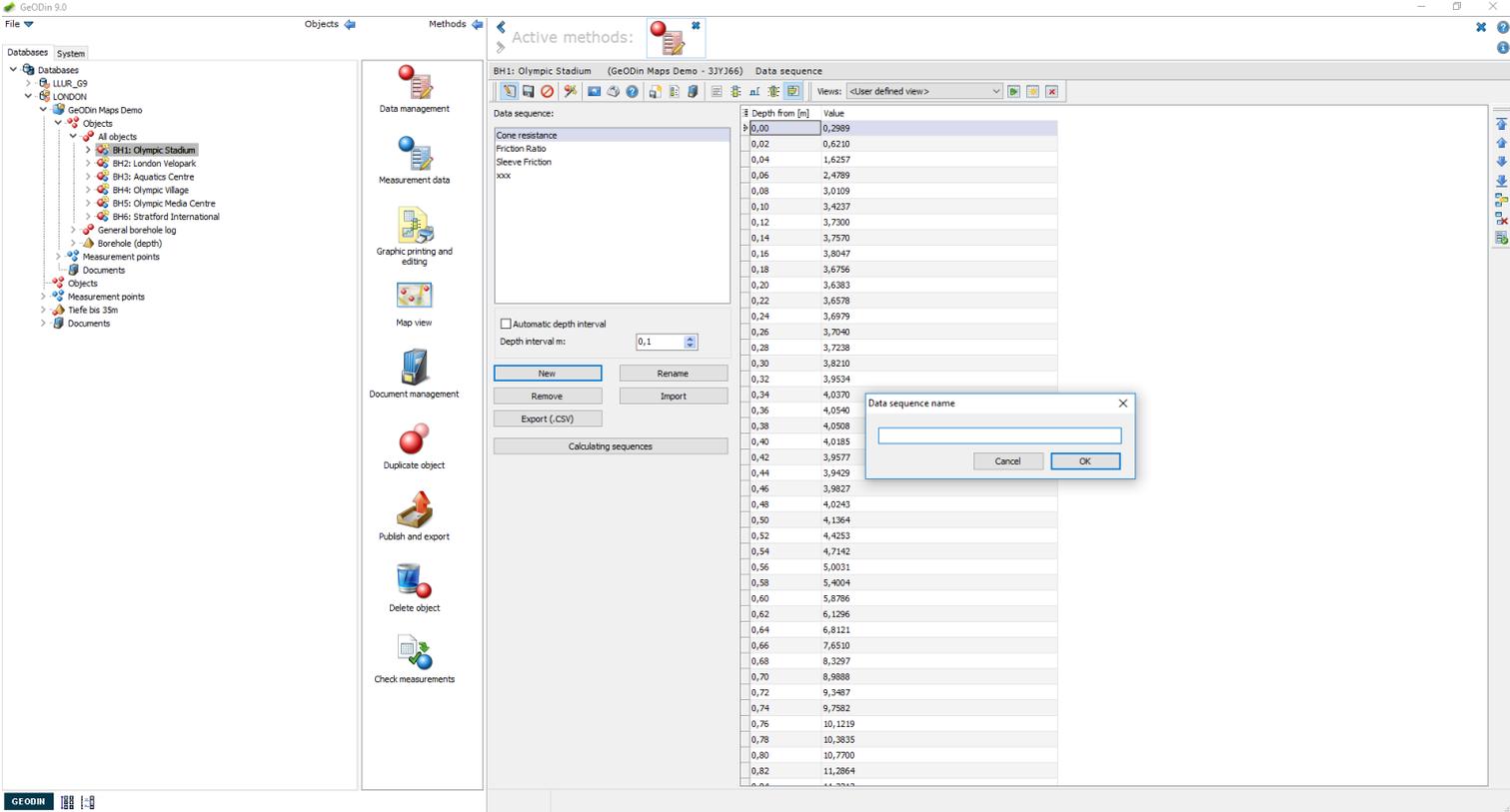
Geological data (3)

Existing data sequences may be edited by selecting the depth or value. A sequence may also be renamed, exported as a .csv file or deleted. Calculated sequences allow the use of formulae and layouts to create new sequences from existing ones.



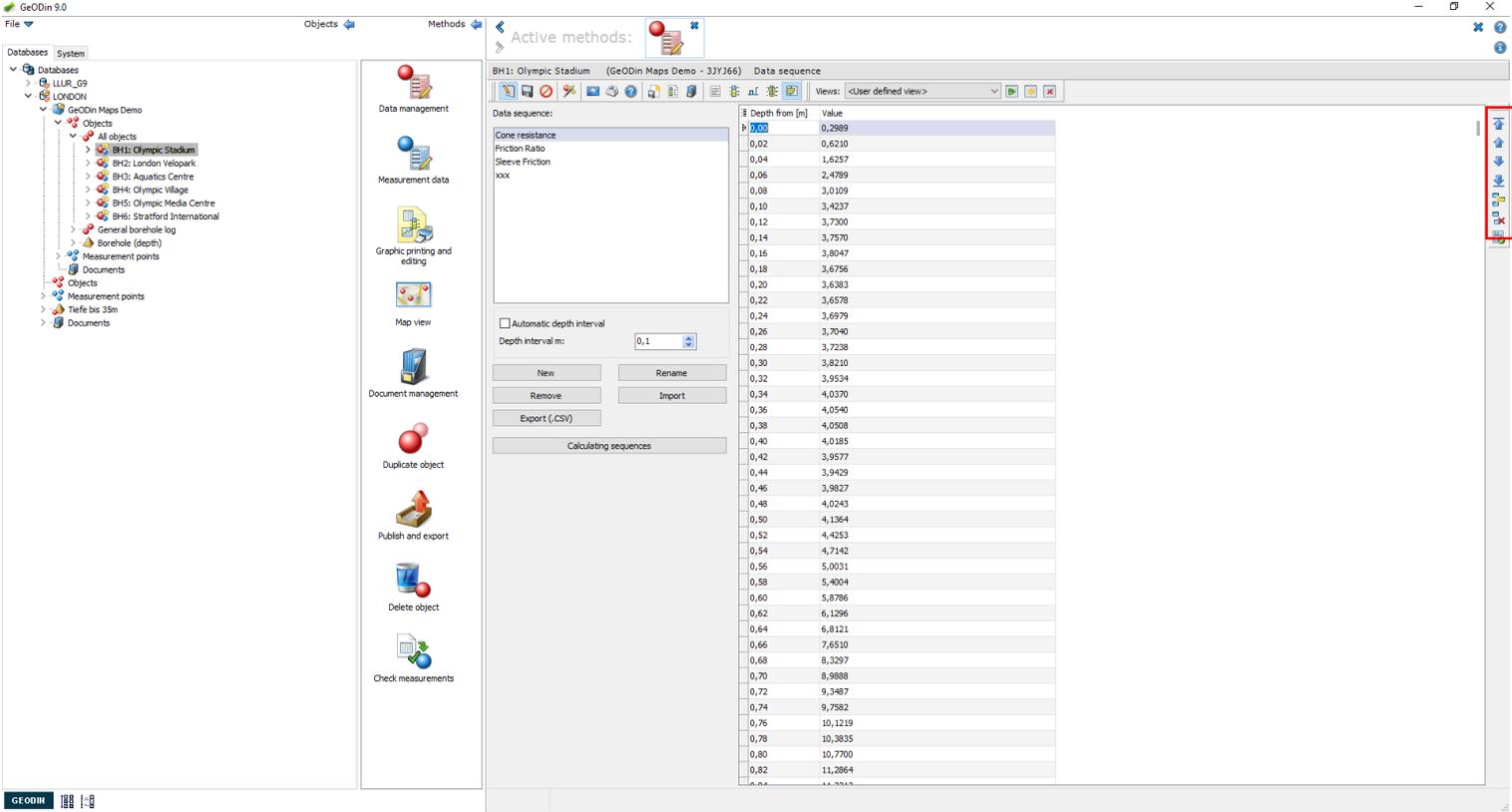
Geological data (4)

To create a new data sequence click the <New> button and enter a name. This is then shown selected in the list and can be subsequently filled with depths and values.



Geological data (5)

To add a new value click the <Insert record> icon and enter values. Use the tab key to move between columns and rows (or use the insert icons). Use the arrow icons to navigate up and down in a data sequence. An entry can be erased using the <Delete record> icon.

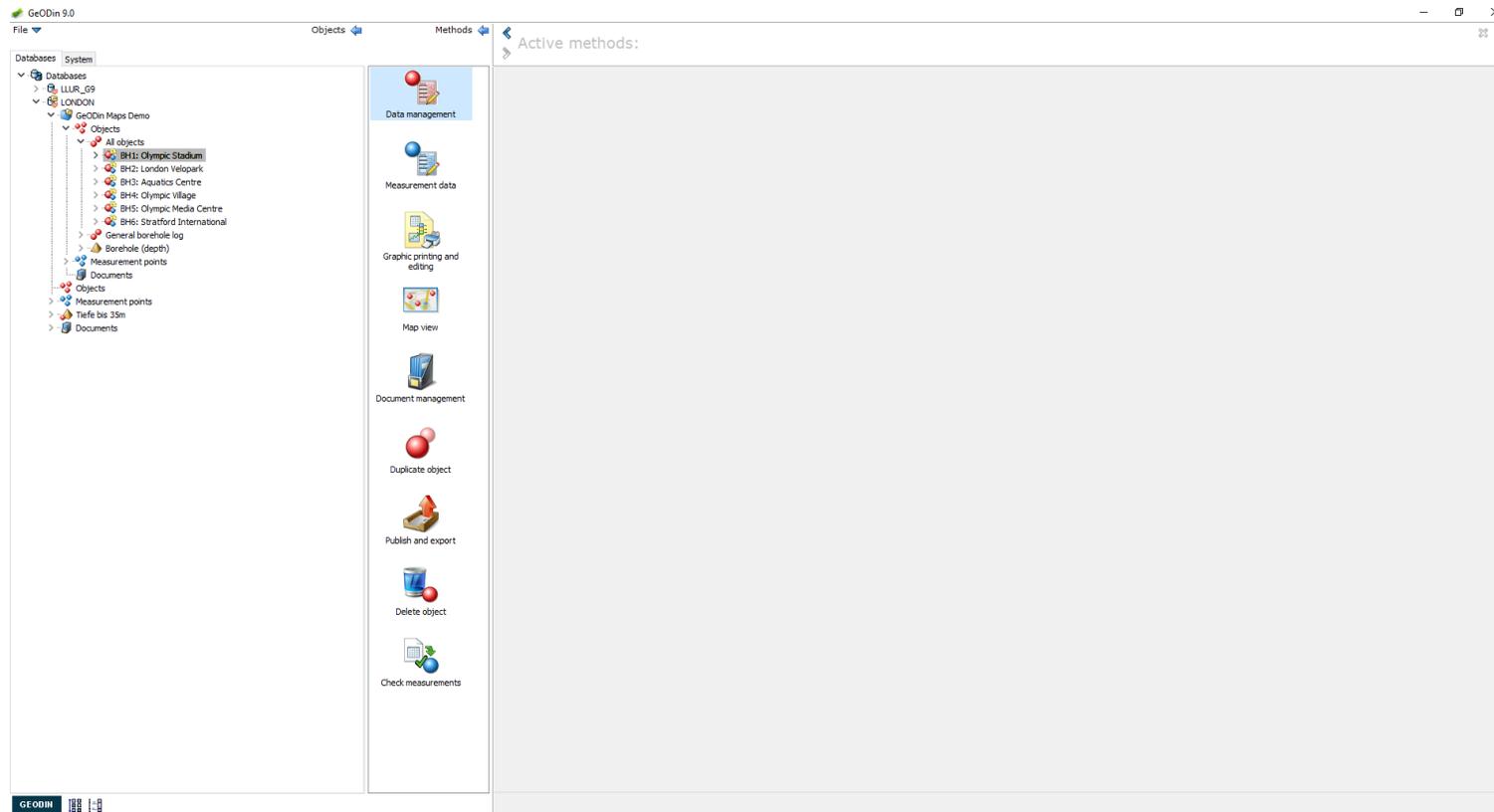




7. Samples

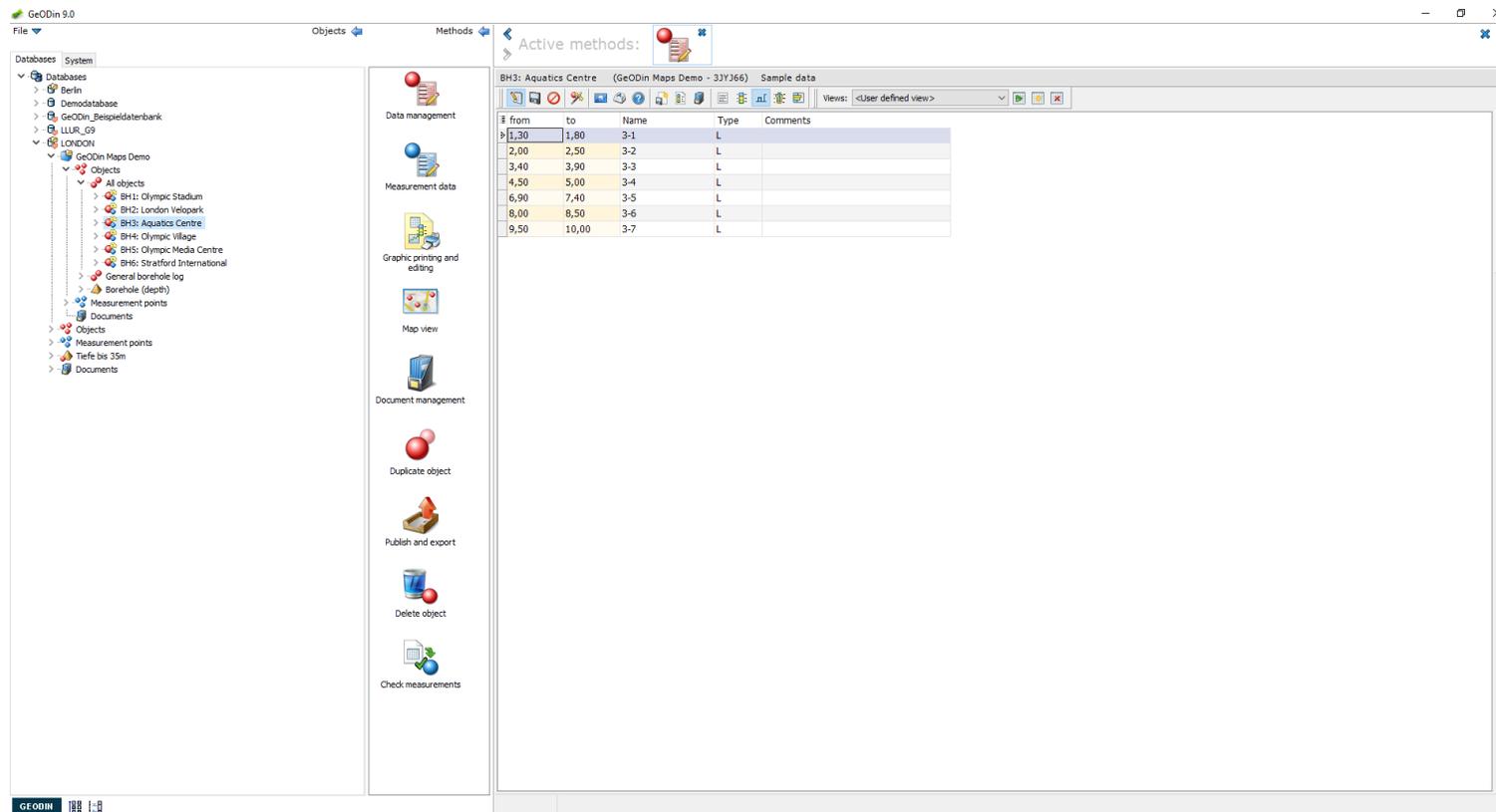
Samples (1)

Open a project in a database and select an object. Then start the <Data management> method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



Samples (2)

Samples can be entered in a table which contains depth columns (from - to), sample names, type and comments (depending upon your object type there may be more fields). Only the sample "from depth" is required. The sample/test type contains a dictionary.



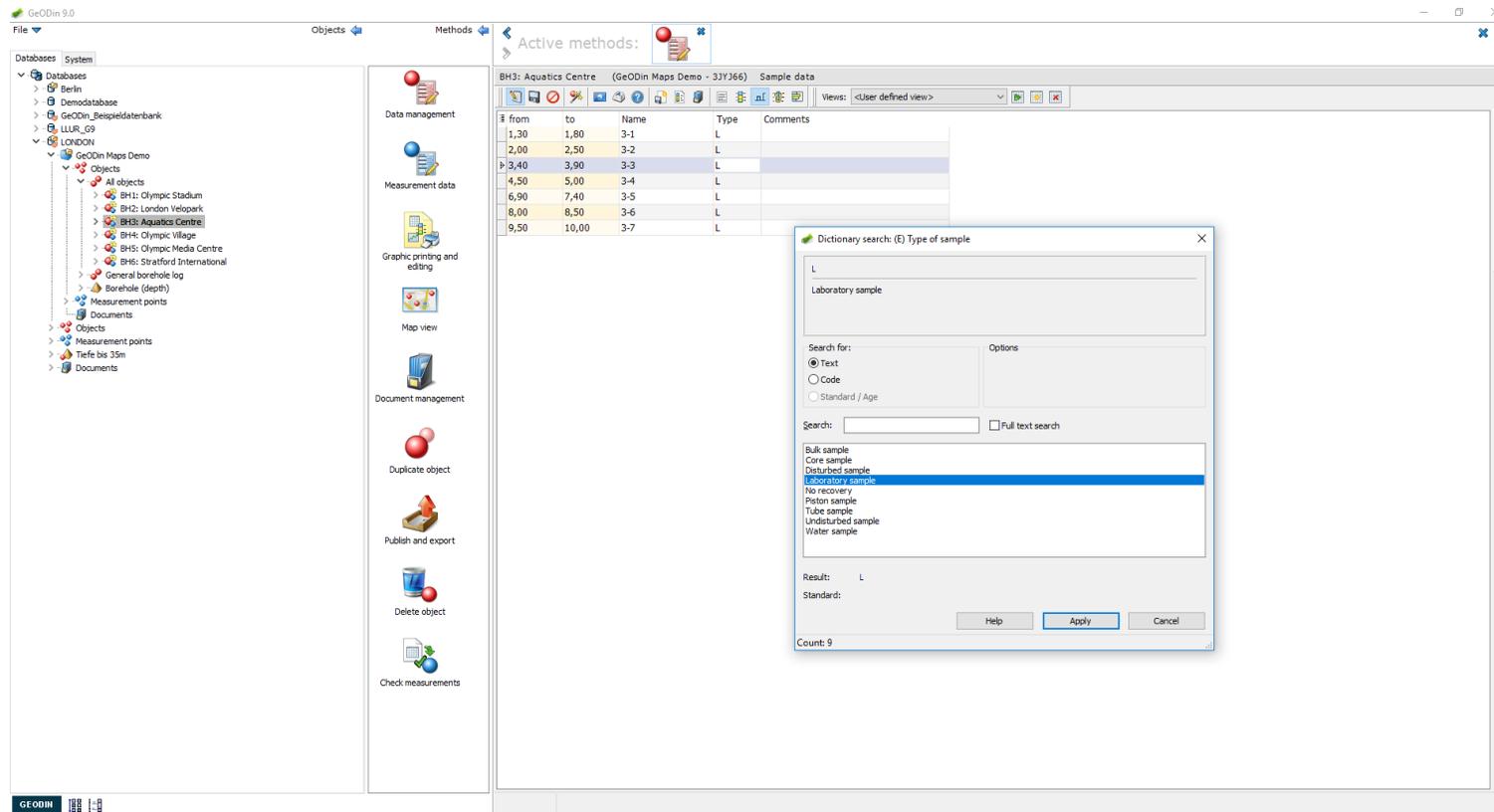
The screenshot displays the GeODin 9.0 software interface. The main window shows a table titled "Sample data" with the following columns: "from", "to", "Name", "Type", and "Comments". The table contains seven rows of data:

from	to	Name	Type	Comments
1,30	1,80	3-1	L	
2,00	2,50	3-2	L	
3,40	3,90	3-3	L	
4,50	5,00	3-4	L	
6,90	7,40	3-5	L	
8,00	8,50	3-6	L	
9,50	10,00	3-7	L	

The interface also shows a left-hand navigation pane with a tree view of databases and objects, and a central toolbar with various icons for data management, measurement data, graphic printing, map view, document management, duplicate object, publish and export, delete object, and check measurements.

Samples (3)

A sample name should always be given so that it can be better identified when entering measurement values. Use the toolbar icons to insert, duplicate and delete records. Use the toolbar arrow icons to navigate through the sample table.

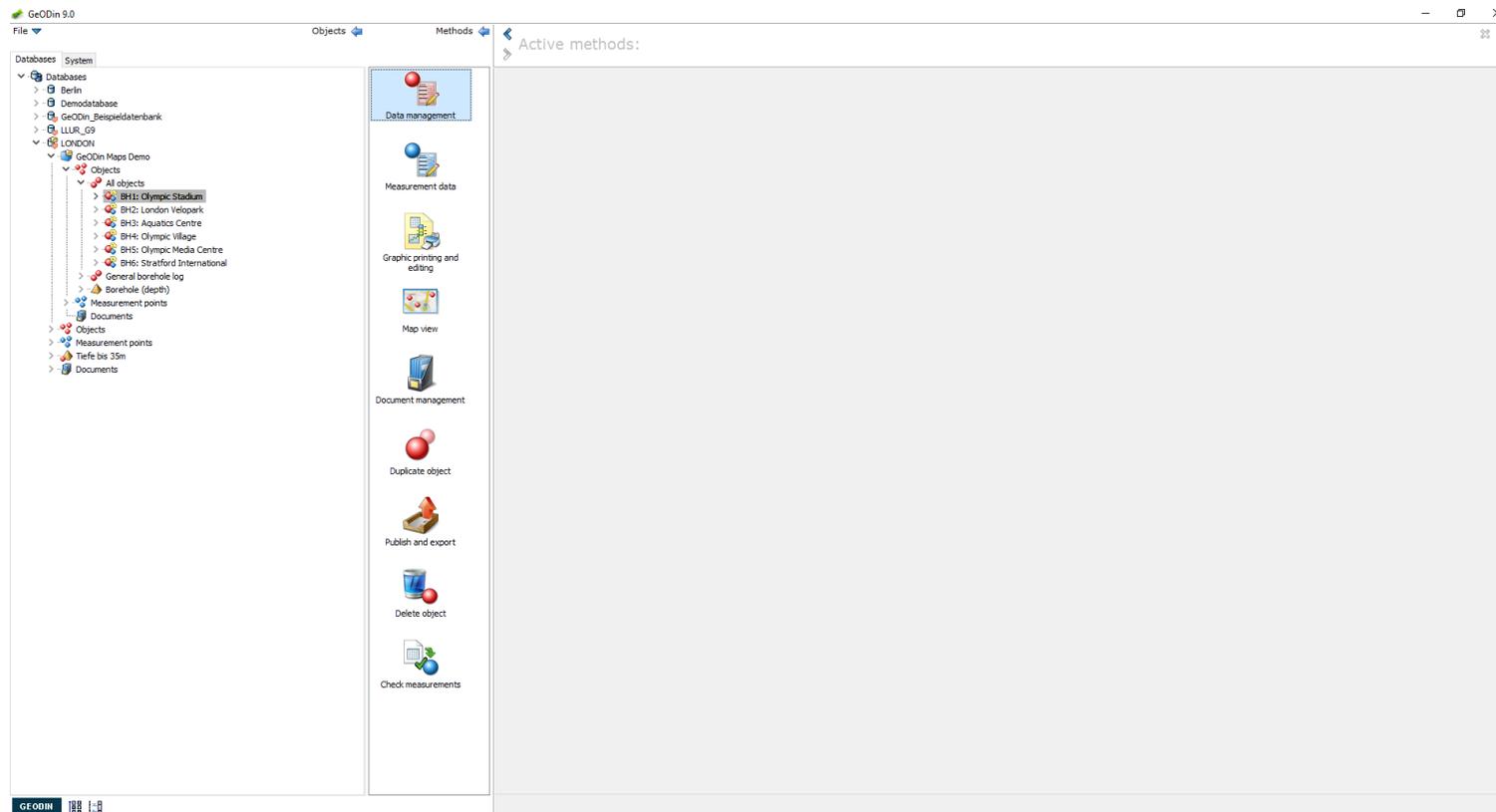




8. Well design

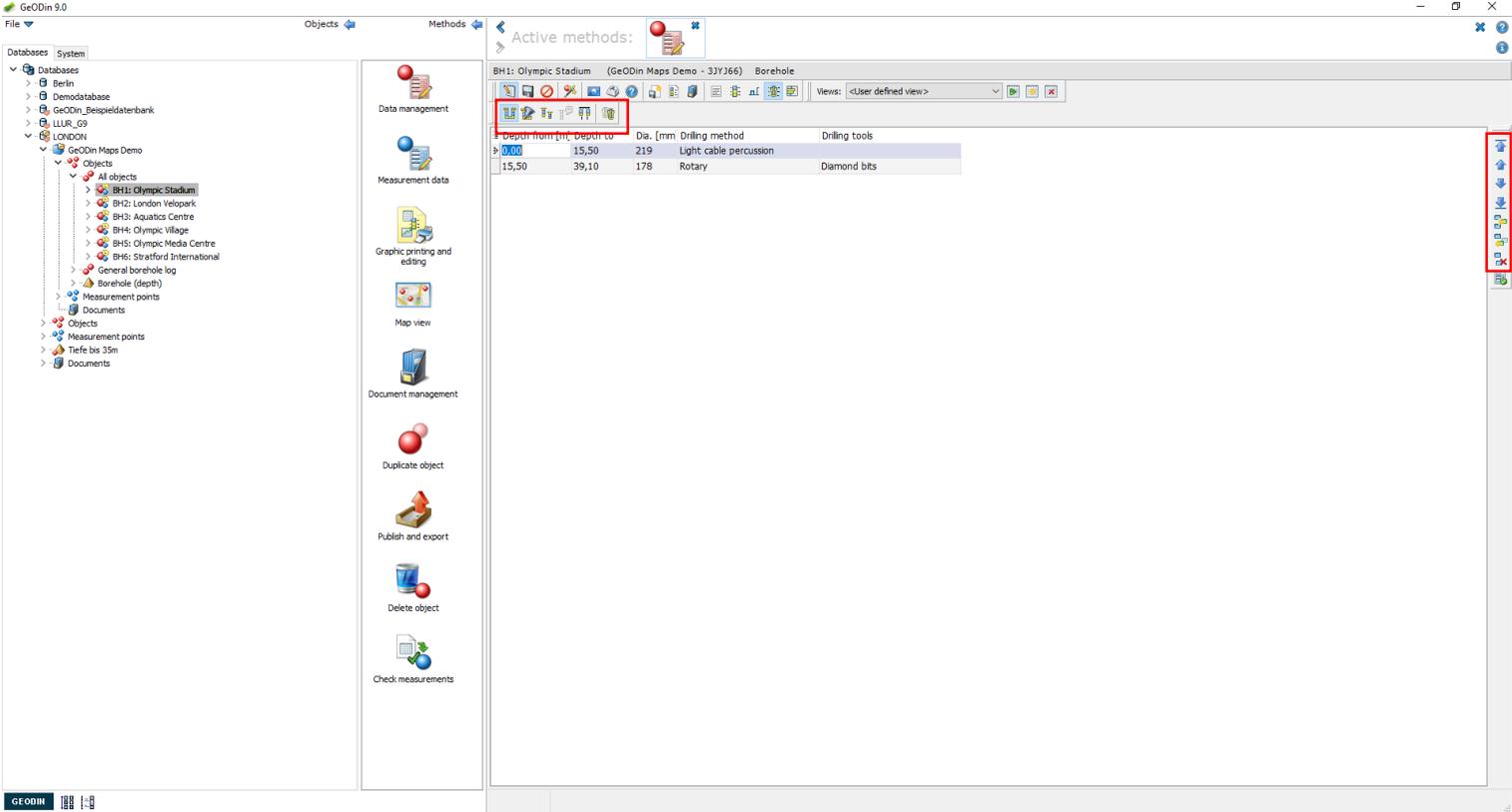
Well design (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



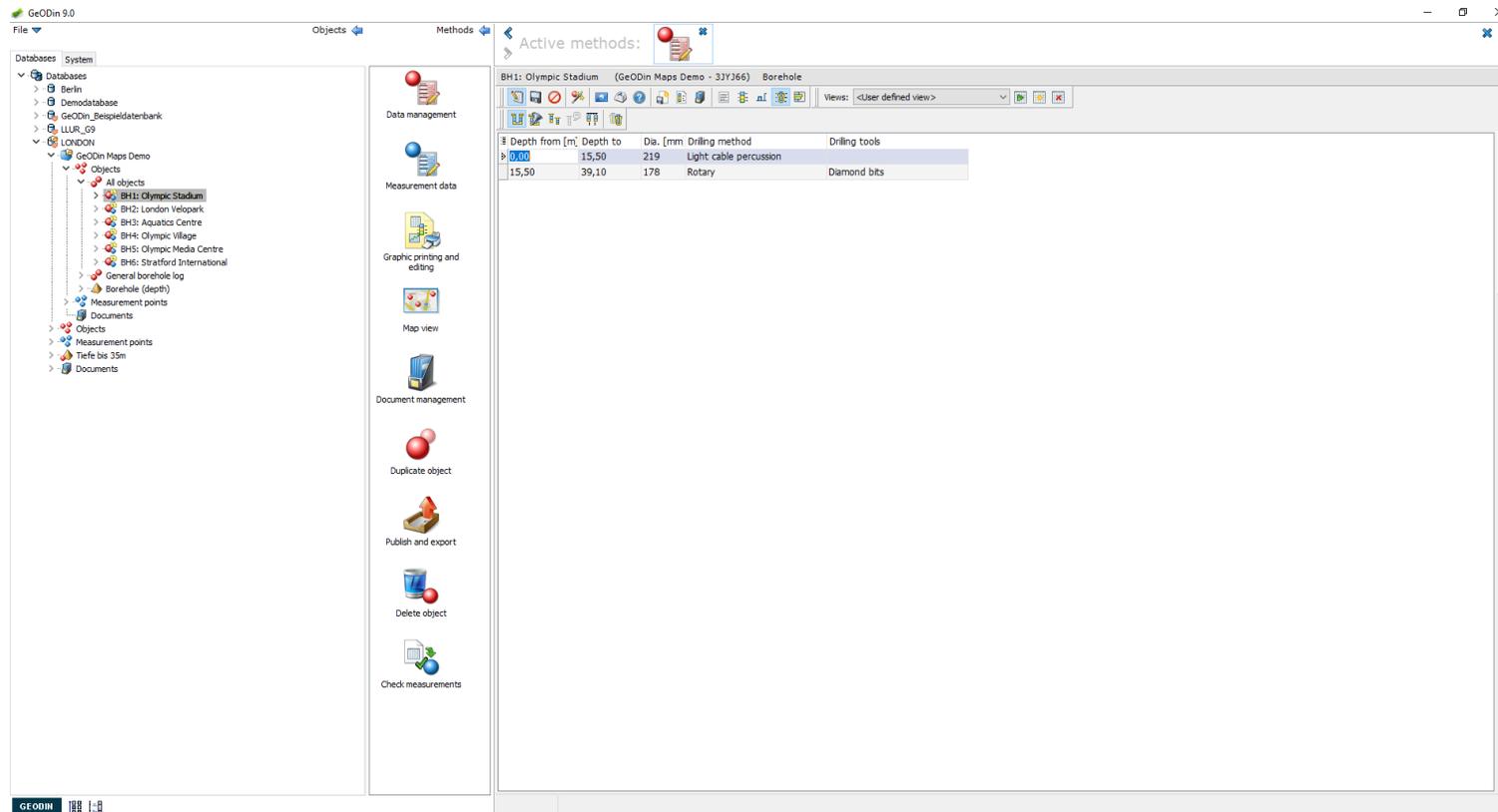
Well design (2)

Click the <Well design data> icon . This activates a further set of icons for entering borehole, backfill, casing/piezometer/, filter details and special features. Click on the <Edit object data> icon to start data entry. For each of the editors use the toolbar icons to insert, duplicate and delete records. Use the toolbar arrow icons to navigate through the well design tables.



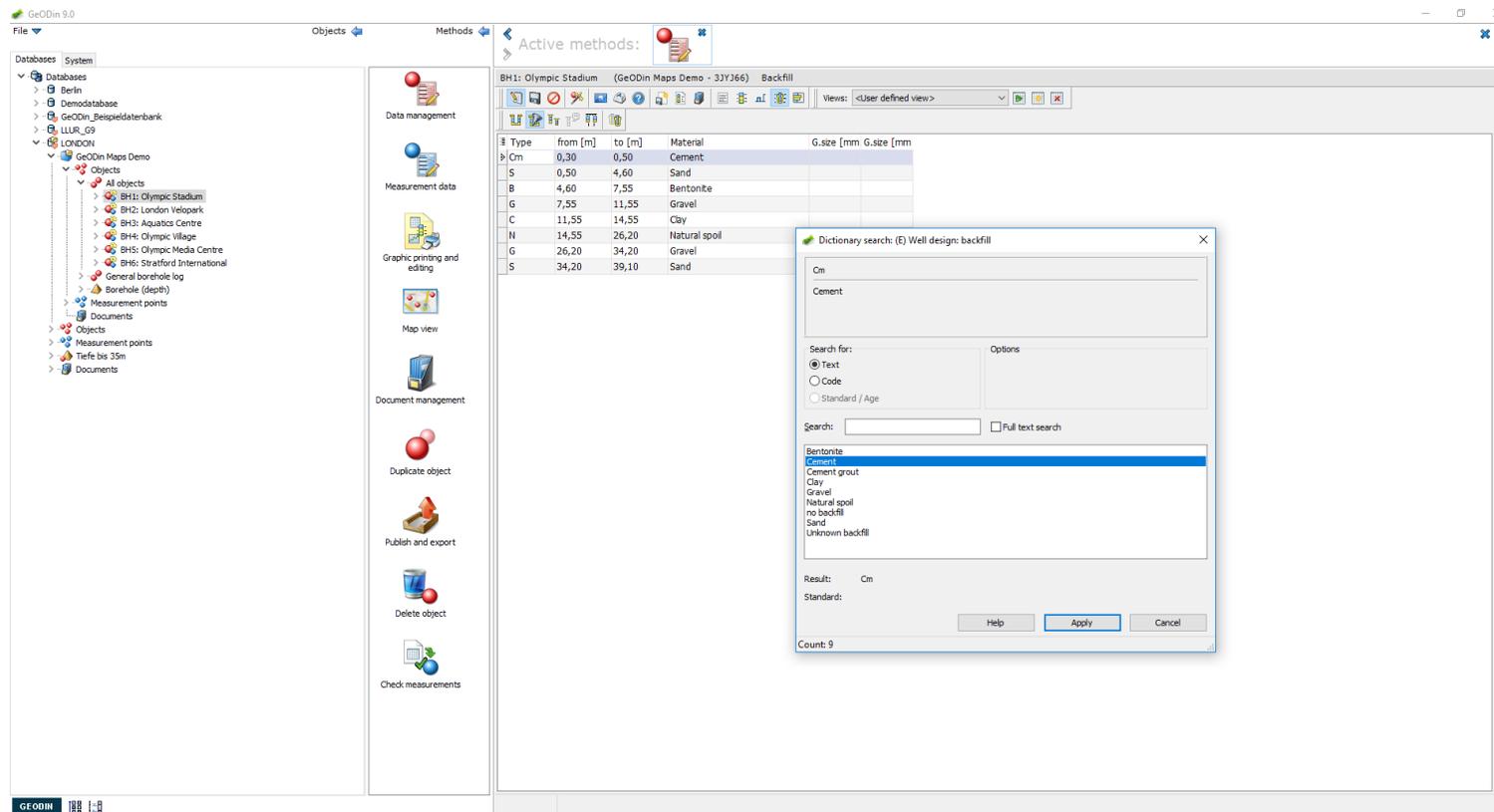
Well design (3)

There are several types of fields: some accept codes, others have drop-down menus and several require numerical values. Note that a “depth to” must be greater than a “depth from”. Depths and Diameter fields are obligatory entries.



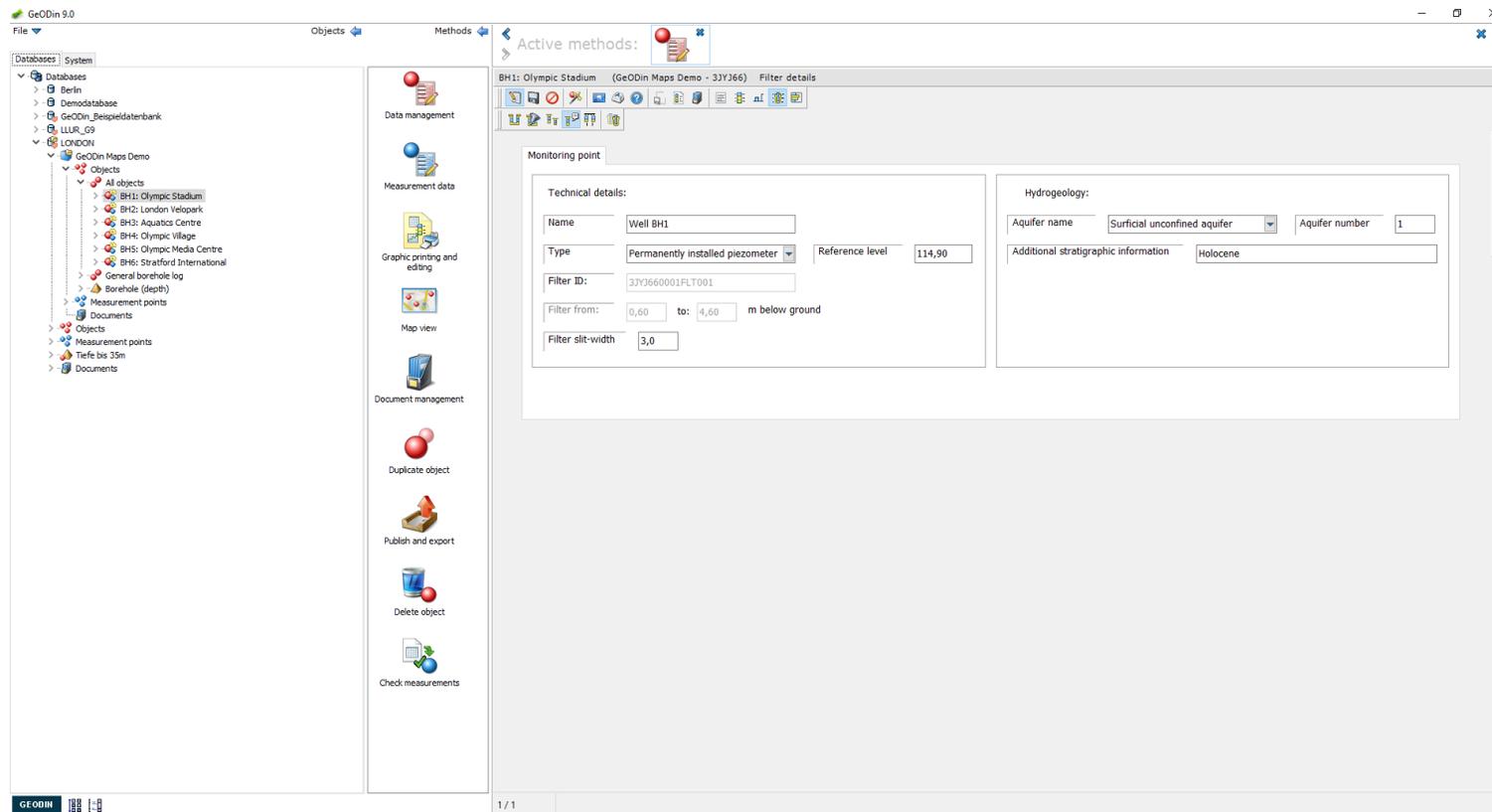
Well design (4)

Automatically generated text fields may be edited/overwritten (e.g. in the casing editor the code "ca" produces the word "casing" in the <Type of casing> column). This can be changed to "Plastic casing".



Well design (5)

The <Filter details> icon is only active when a filter element is selected in the casing table. Clicking the icon opens a general data mask for the filter where technical details and hydrological can be entered.

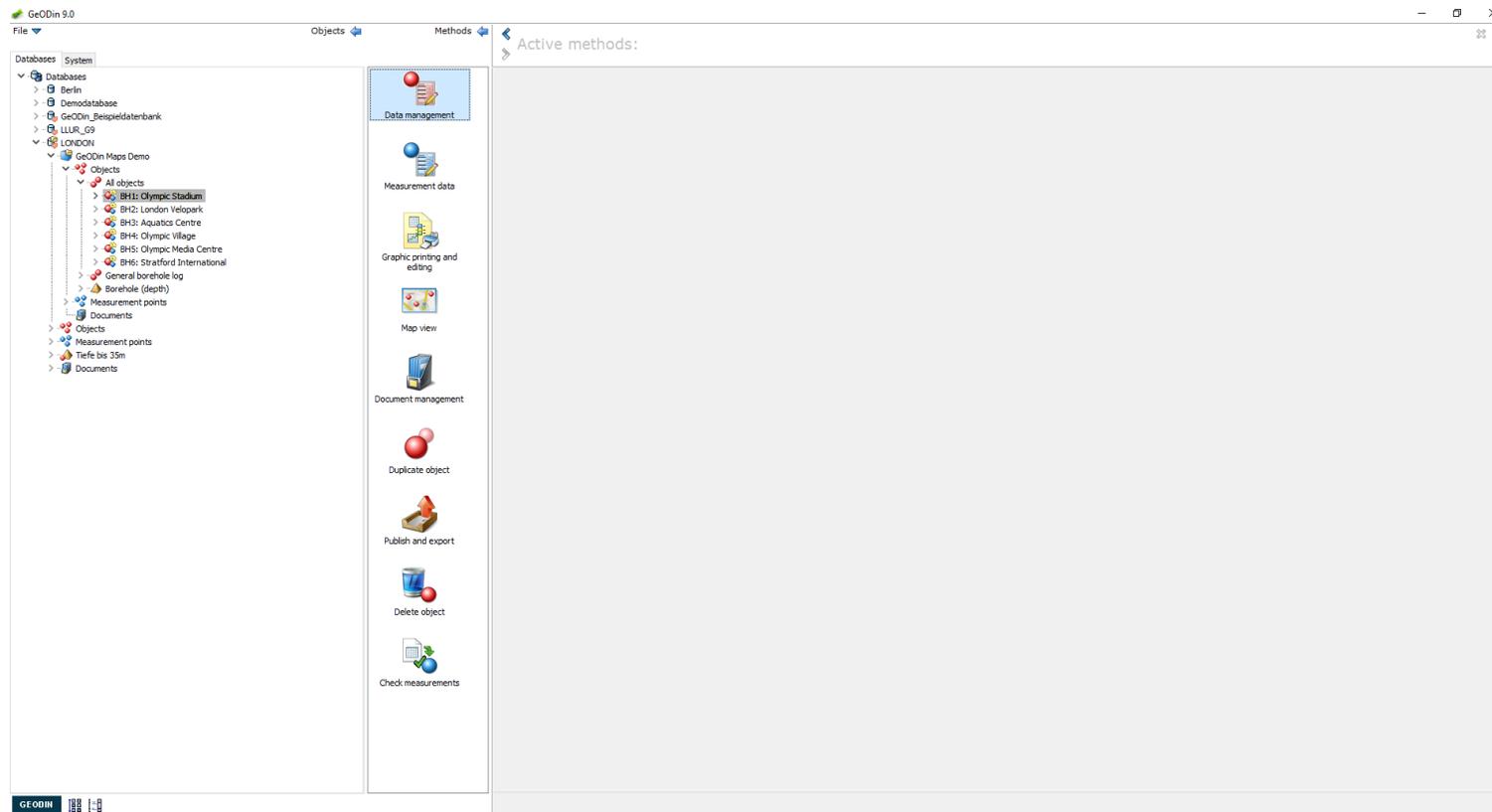




9. Groundwater

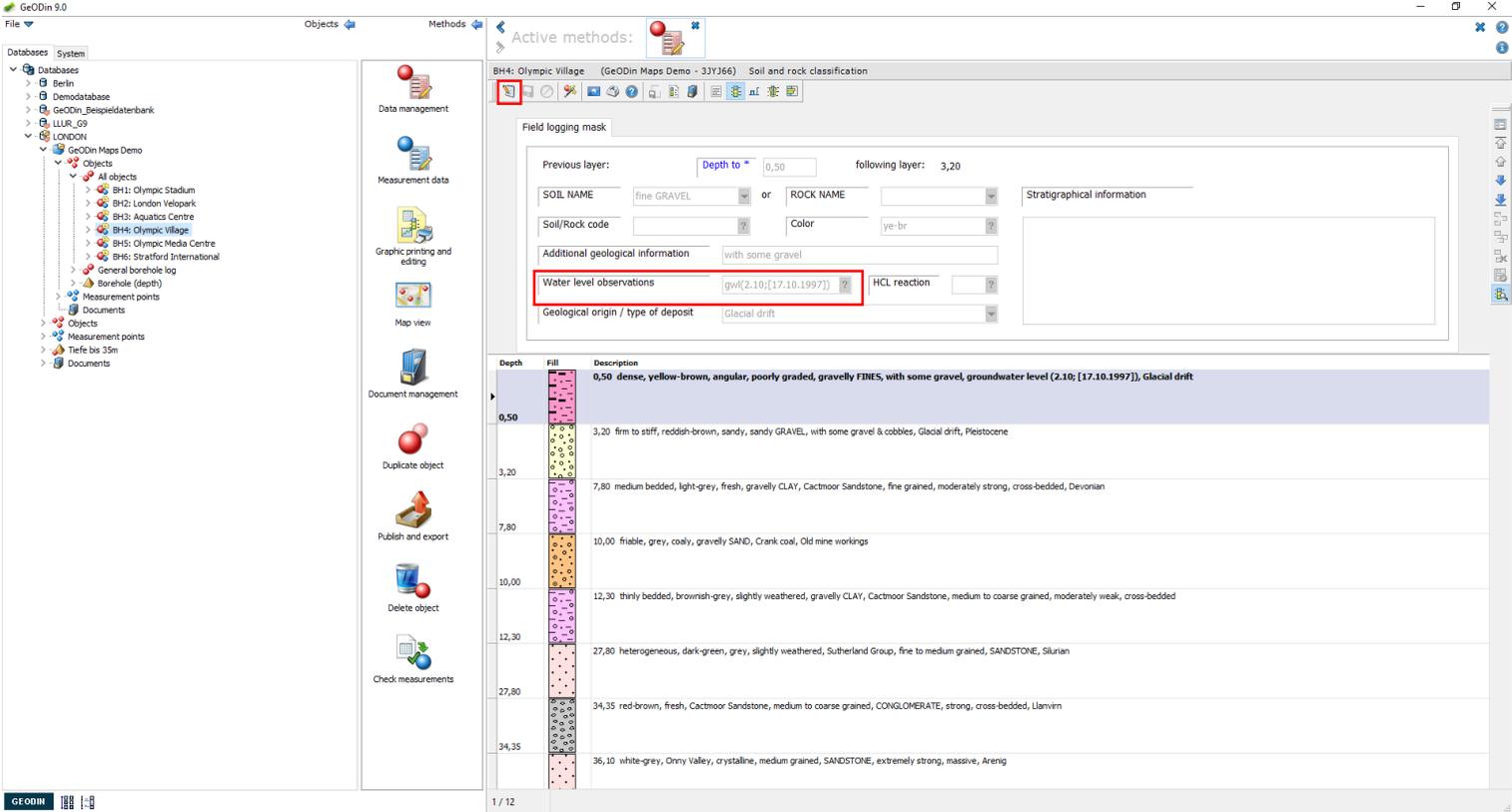
Groundwater (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



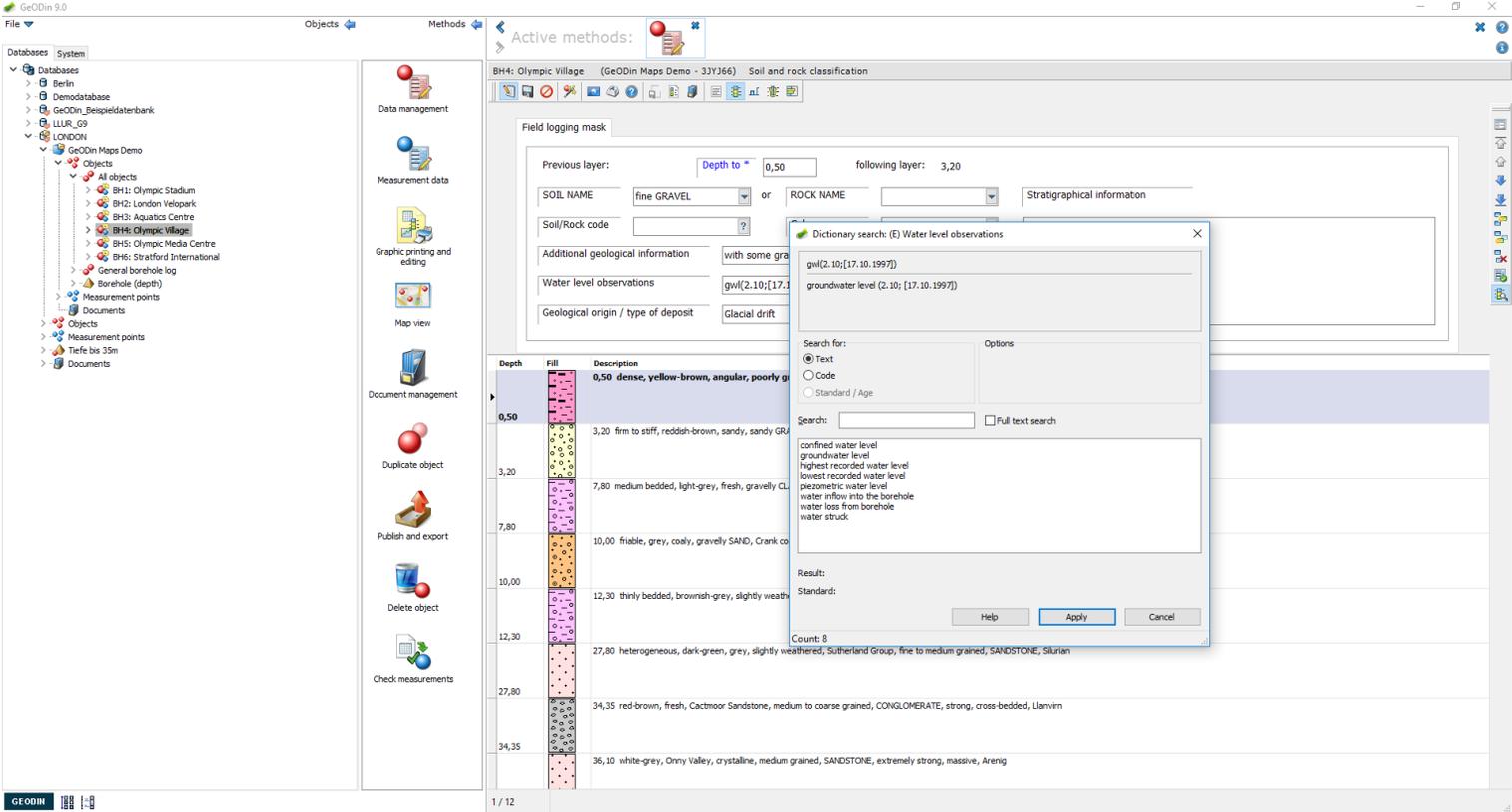
Groundwater (2)

Depending upon the object type groundwater can either be entered in a table or in a designated field as part of the geological layer data information. Select the <Water levels> icon and activate the edit modus by clicking the <Edit object data> icon. Use the toolbar icons to insert, duplicate and delete records. Use the toolbar arrow icons to navigate through the water level table.



Groundwater (3)

In the General Borehole Log (BS5930) enter water data in the water level observations field. Click on the "?" to see the list of available codes (e.g. lowest / highest / groundwater level). After the depth use a semi-colon to separate it from a measurement date.



Groundwater (4)

Multiple entries are allowed in the BS5930 water observations field by separating entries with a comma as in the following syntax example: code(depth;date),code(depth;date)

The screenshot displays the GeODin 9.0 software interface. The left sidebar shows a project tree with 'BH4: Olympic Village' selected. The main window shows the 'Field logging mask' for 'Soil and rock classification'. The 'Water level observations' field is highlighted with a red box and contains the text 'gw(2.10;[17.10.1997])'. Below the form is a borehole log table with columns for Depth, Fill, and Description.

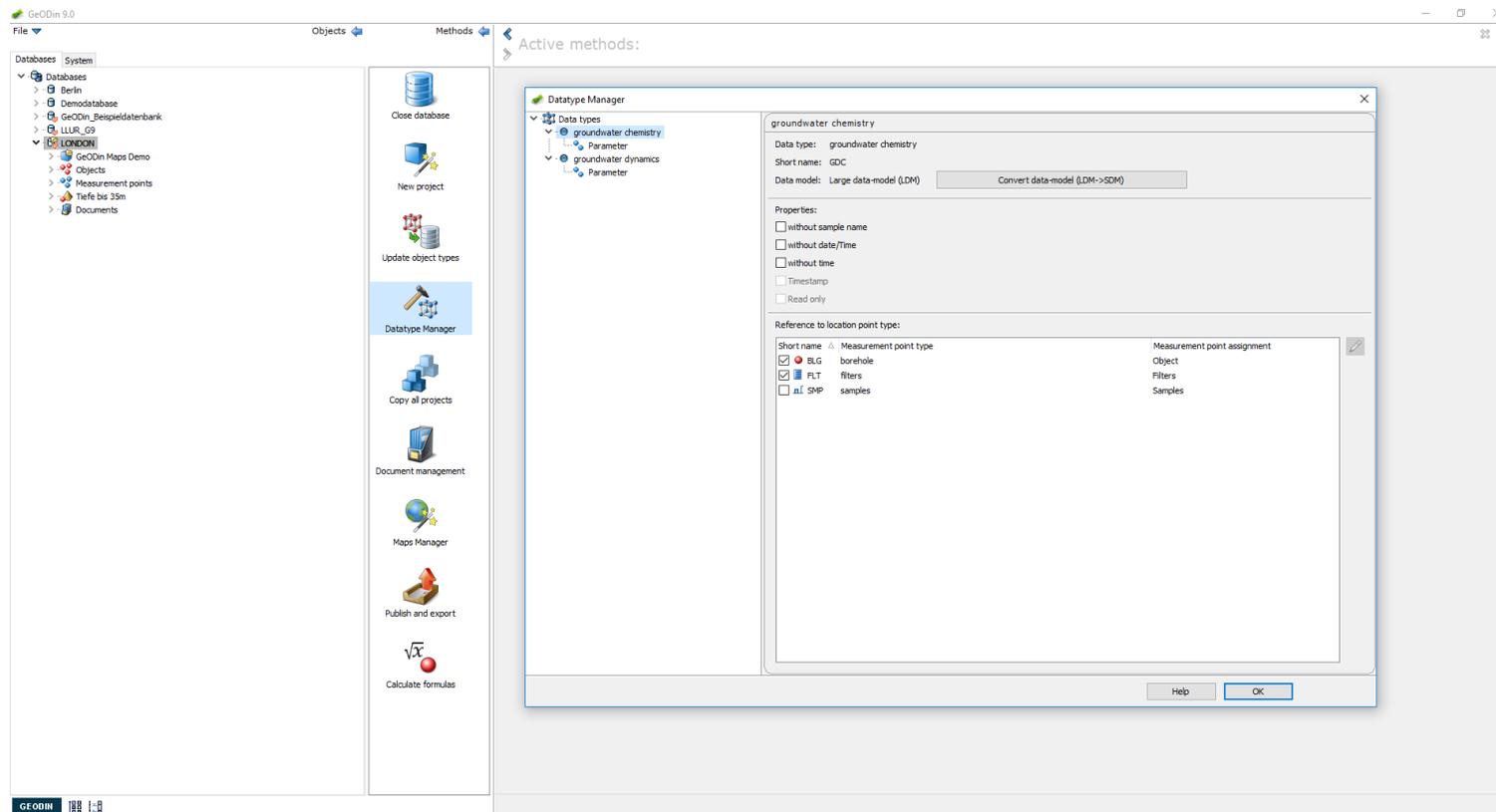
Depth	Fill	Description
0,50		0,50 dense, yellow-brown, angular, poorly graded, gravelly FINEs, with some gravel, groundwater level (2.10; [17.10.1997]), Glacial drift
3,20		3,20 firm to stiff, reddish-brown, sandy, sandy GRAVEL, with some gravel & cobbles, Glacial drift, Pleistocene
7,80		7,80 medium bedded, light-grey, fresh, gravelly CLAY, Cactmoor Sandstone, fine grained, moderately strong, cross-bedded, Devonian
10,00		10,00 friable, grey, coaly, gravelly SAND, Crank coal, Old mine workings
12,30		12,30 thinly bedded, brownish-grey, slightly weathered, gravelly CLAY, Cactmoor Sandstone, medium to coarse grained, moderately weak, cross-bedded
27,80		27,80 heterogeneous, dark-green, grey, slightly weathered, Sutherland Group, fine to medium grained, SANDSTONE, Silurian
34,35		34,35 red-brown, fresh, Cactmoor Sandstone, medium to coarse grained, CONGLOMERATE, strong, cross-bedded, Llanvirn
36,10		36,10 white-grey, Onny Valley, crystalline, medium grained, SANDSTONE, extremely strong, massive, Arenig



10. Data types

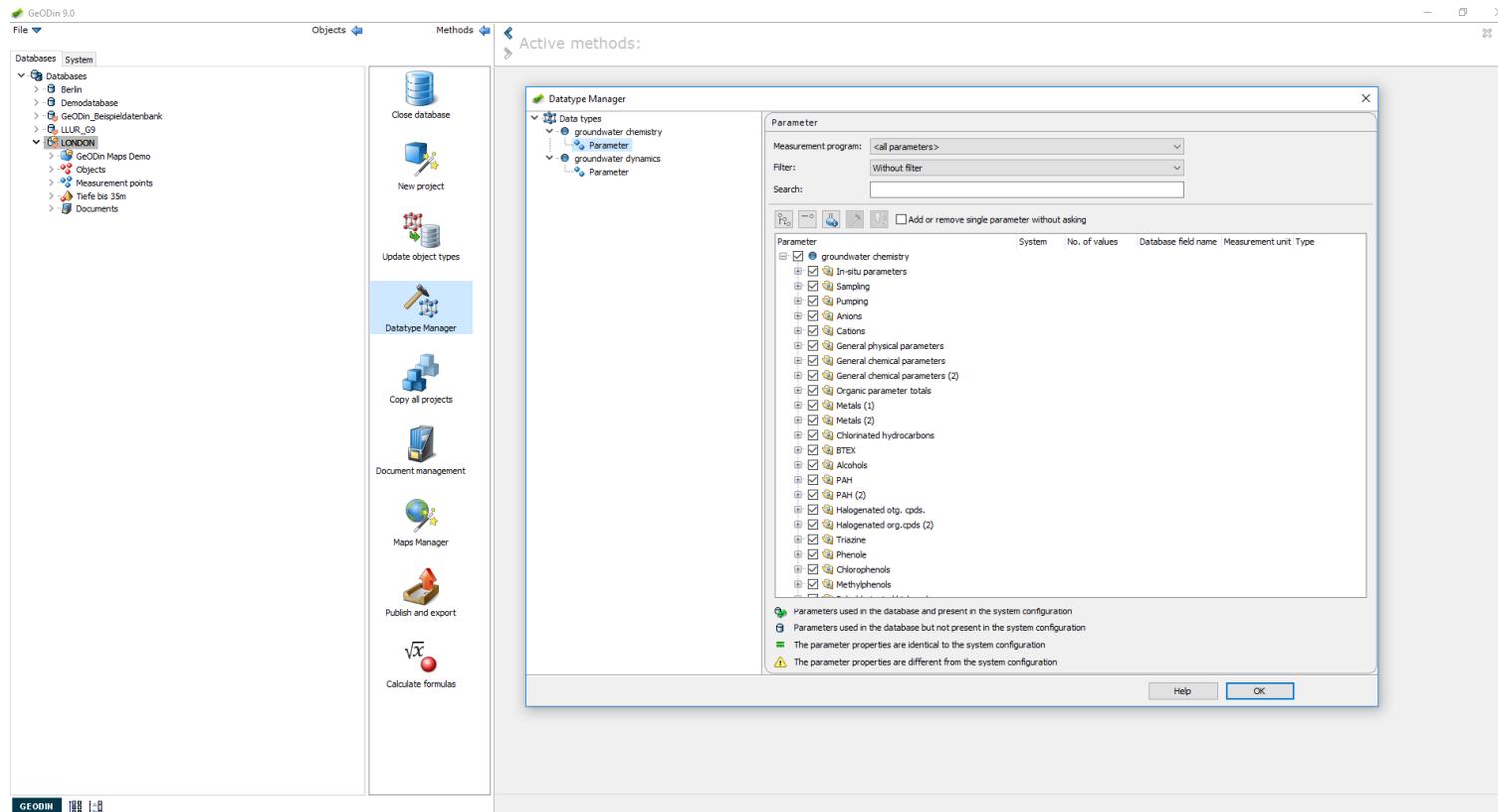
Data types (1)

Data types are used for recording measurement values such as chemical analyses, laboratory tests and water levels. Data types are organised into parameter groups (BTEX, Anions, Atterberg Limits) and associated with samples, screens (filters) or boreholes.



Data types (2)

Measurement values stored in data types can be compared with lists (e.g. guideline values) and used in formulae to calculate parameter sums (e.g. PAH) or even new values. A data type is arranged in groups, each of which can hold any number of parameters.

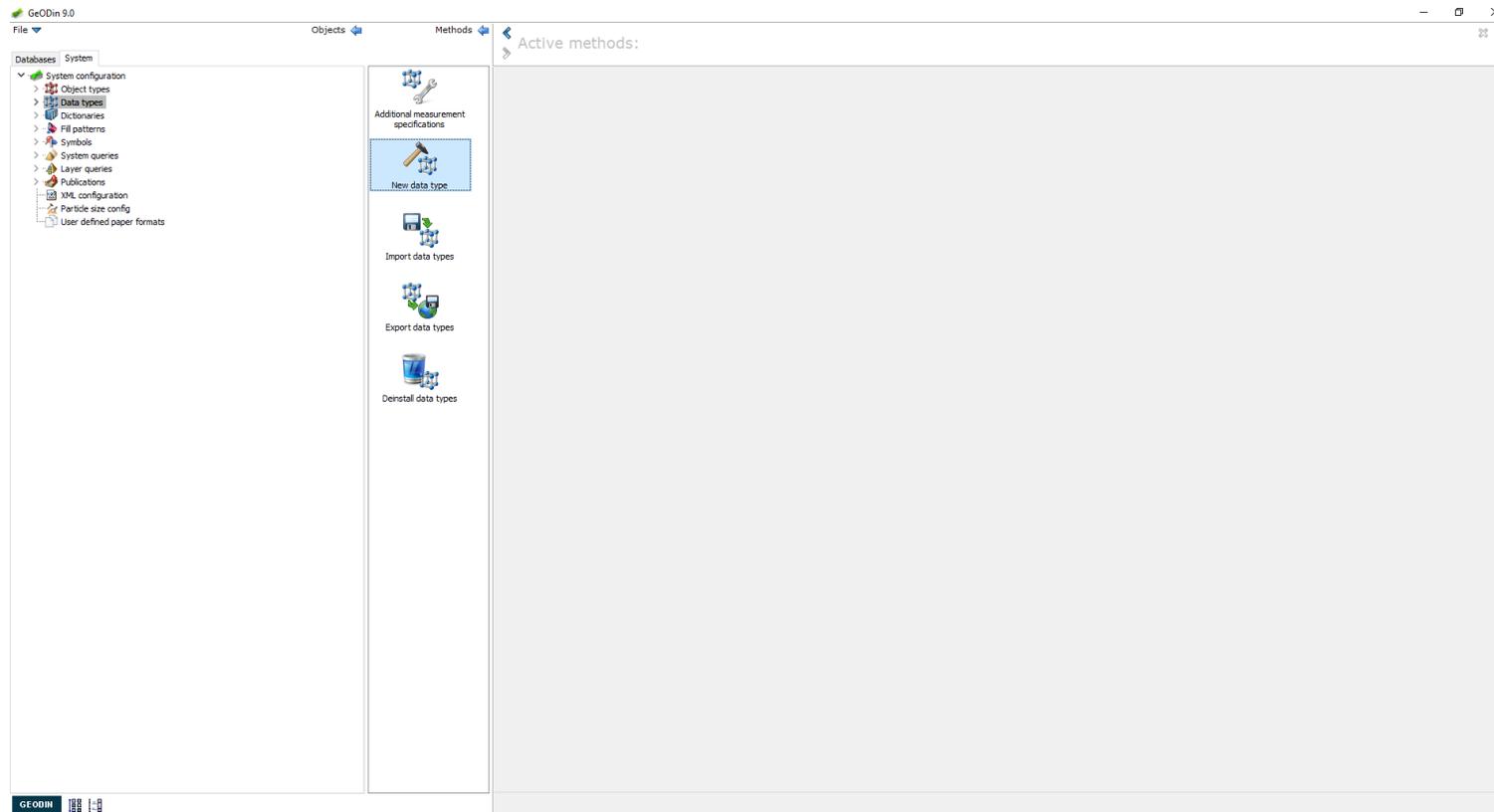




11. Creating a new data type

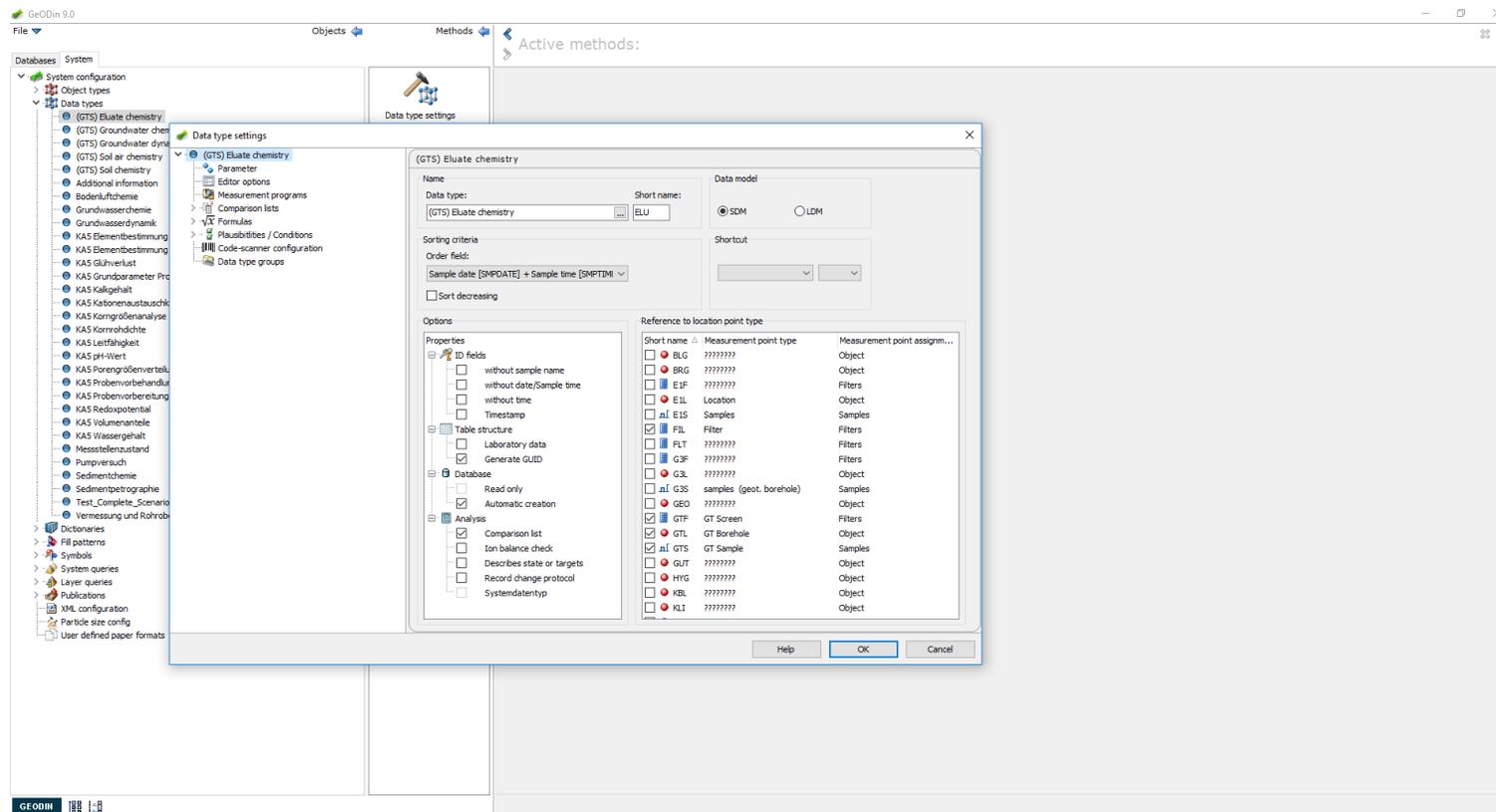
Creating a new data type (1)

Measurement values stored in data types can be compared with lists (e.g. guideline values) and used in formulae to calculate parameter sums (e.g. PAH) or even new values. A data type is arranged in groups, each of which can hold any number of parameters.



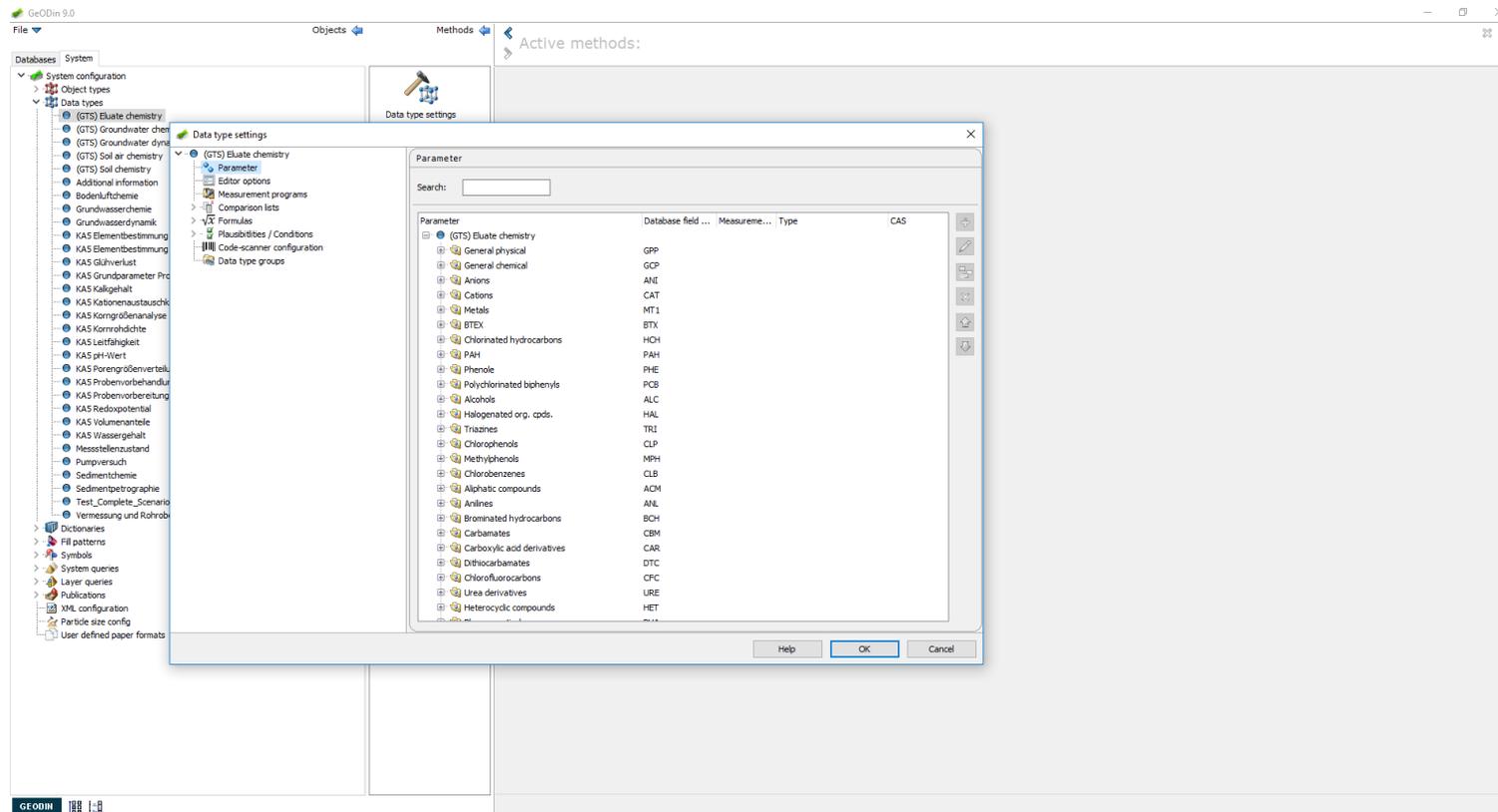
Creating a new data type (2)

Enter a name for the data type and a three letter abbreviation. In the window < Data type settings> assign the data type to one or more measurement point types and confirm with <OK>. Further property options and shortcut keys are also available.



Creating a new data type (3)

Each data type is built from one or more groups, each of which contain the parameters. First create a group and then the parameters belonging to it. There is no limit on the number of parameters or groups.

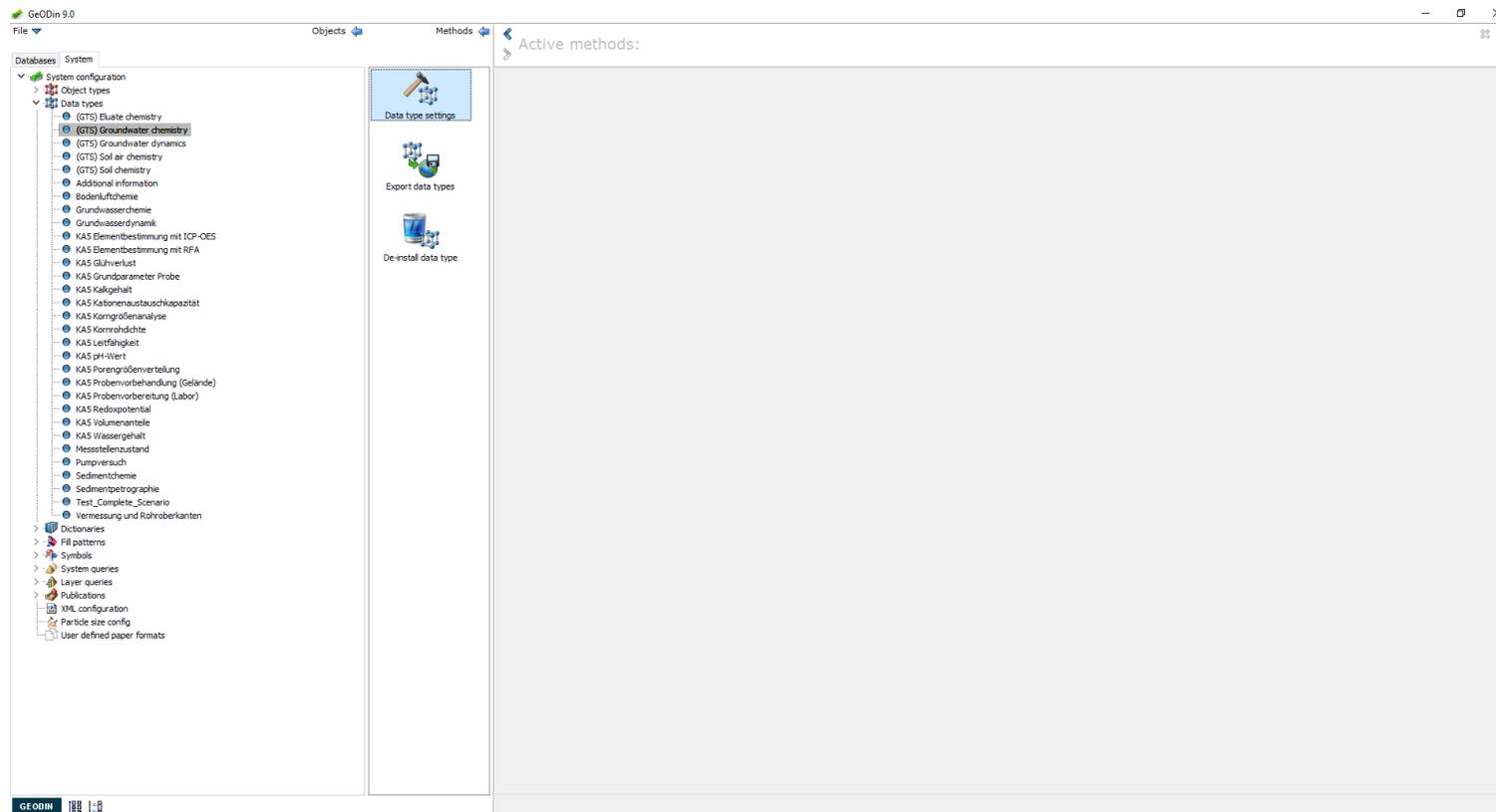




12. Creating data type parameters

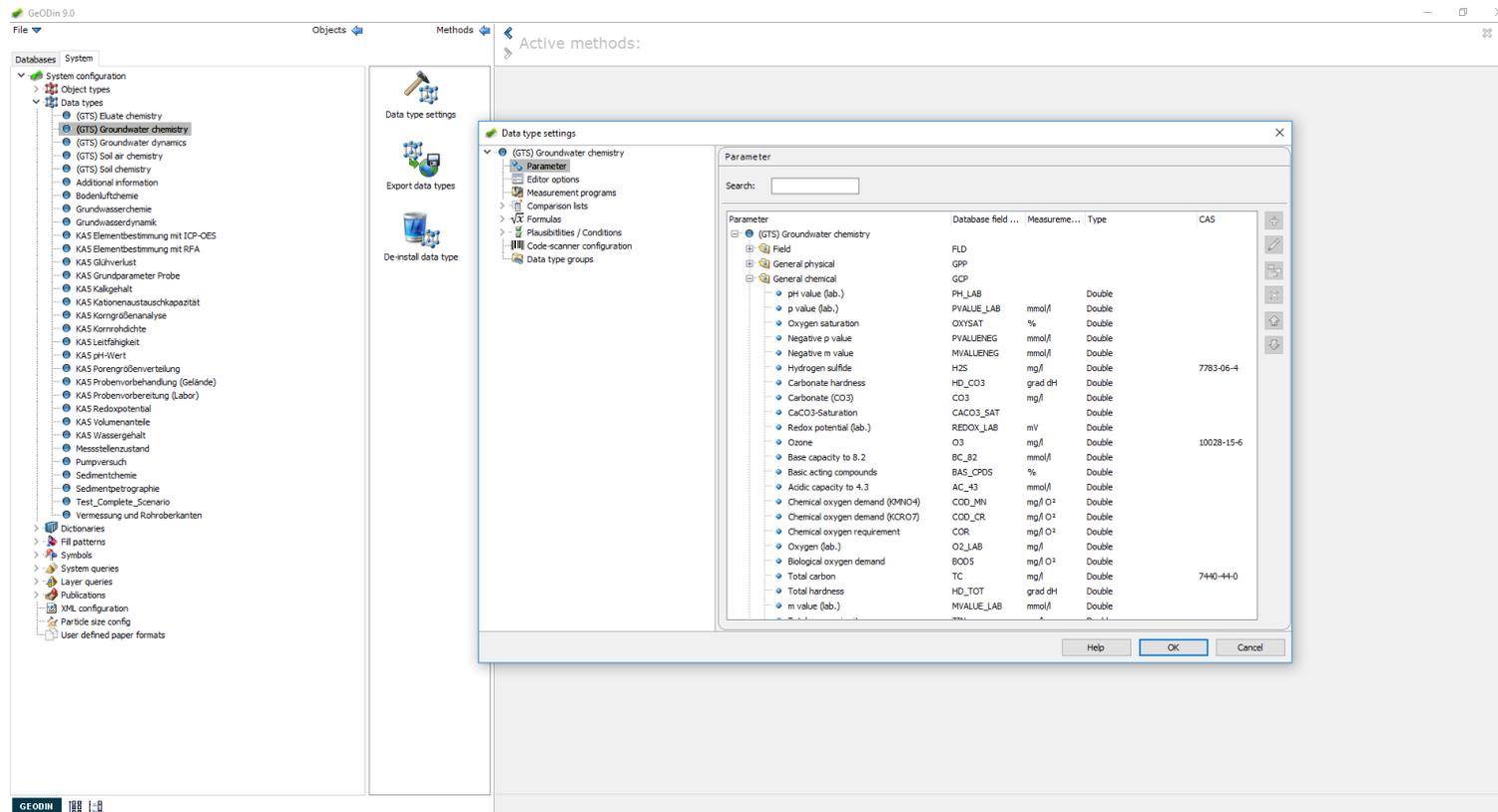
Creating data type parameters (1)

Click the <System> tab, select the node <Data types> and start the method <Data type settings> which opens a new window (Note: in addition to creating parameters you can also edit formulae, lists, plausibility rules and measurement programs).



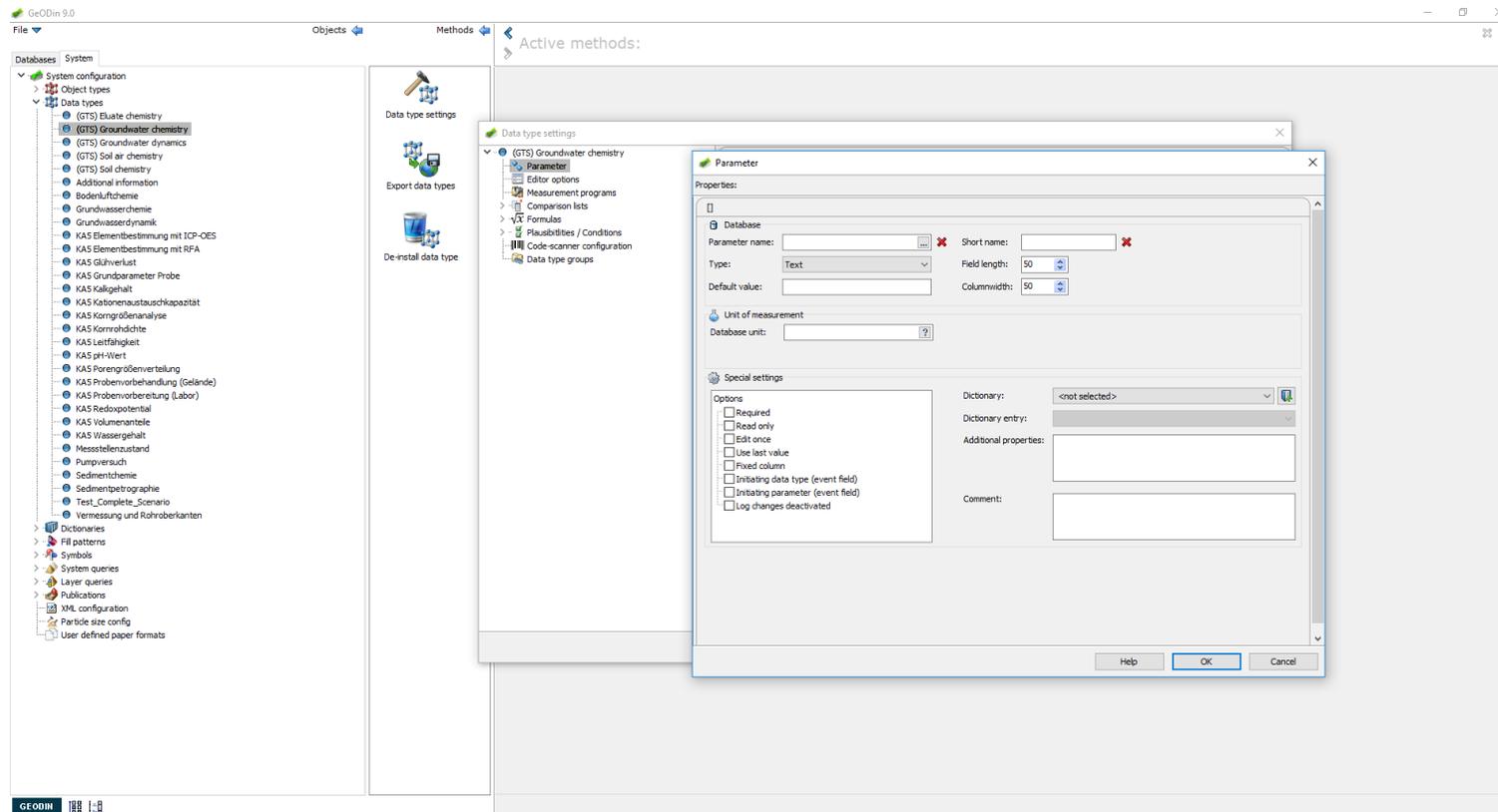
Creating data type parameters (2)

Select a parameter and choose a group (e.g. Sampling). Add new parameter to the group by clicking the plus sign.



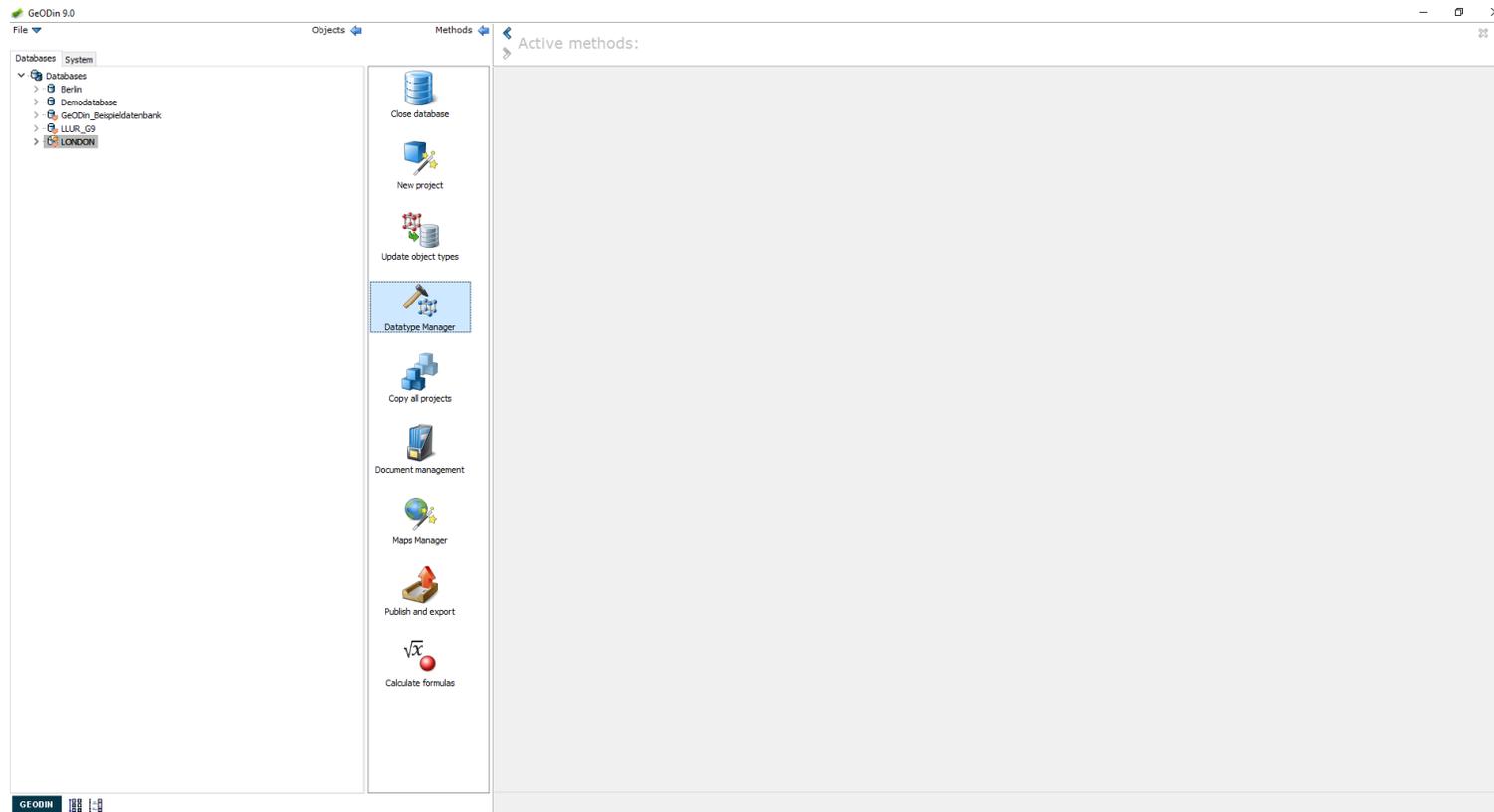
Creating data type parameters (3)

Enter a parameter name, short name, field type (text, whole number etc.), field length, decimal places and unit of measurement. Confirm mit OK. The parameter has now been added to your system.



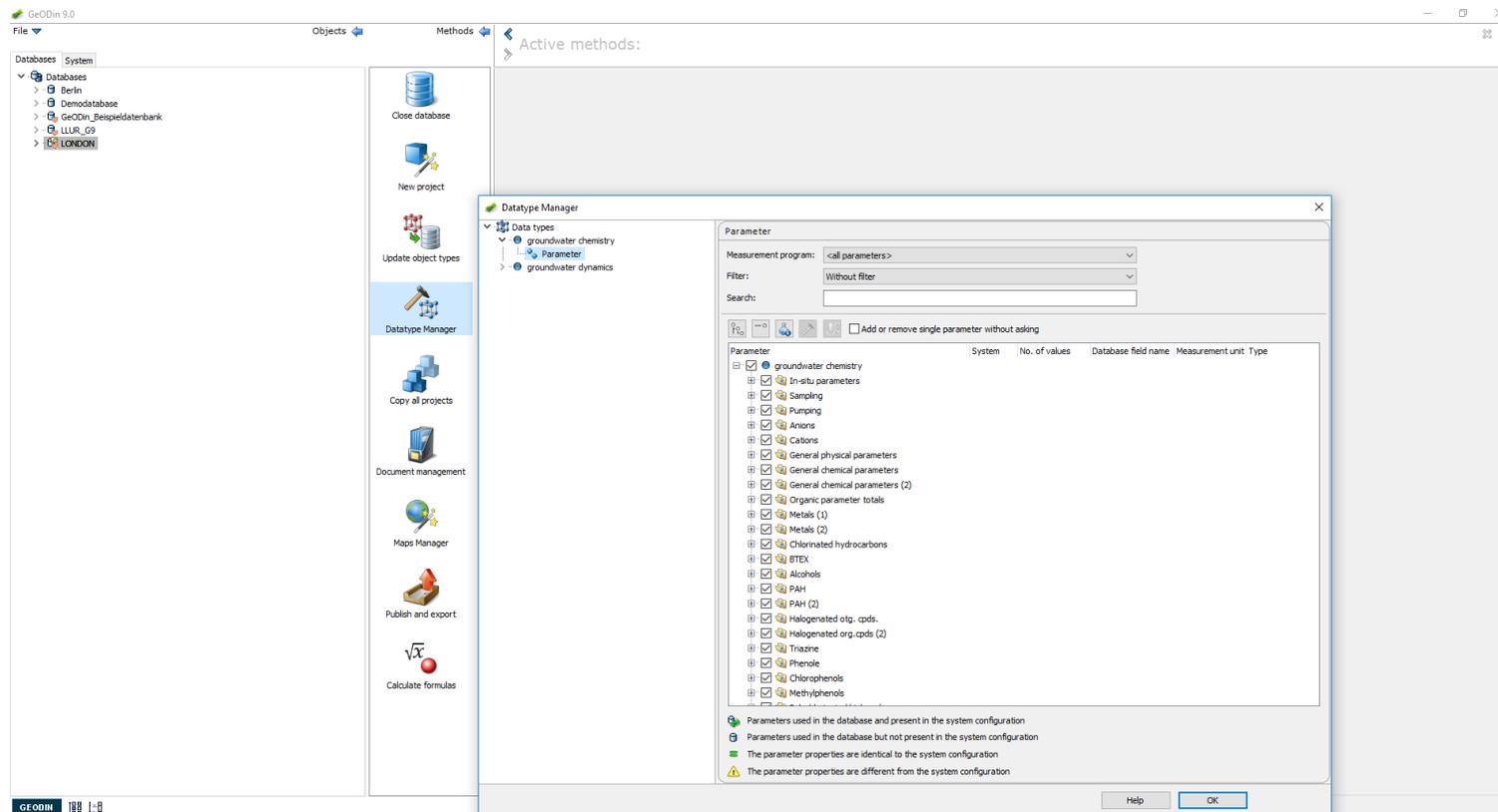
Creating data type parameters (4)

To add the data type to a database, first select the <Database> tab, choose the database and start the method <Data type manager>.



Creating data type parameters (5)

Choose the relevant data type and group to which you added the parameter. Tick the empty box before the parameter name to add it to your database.

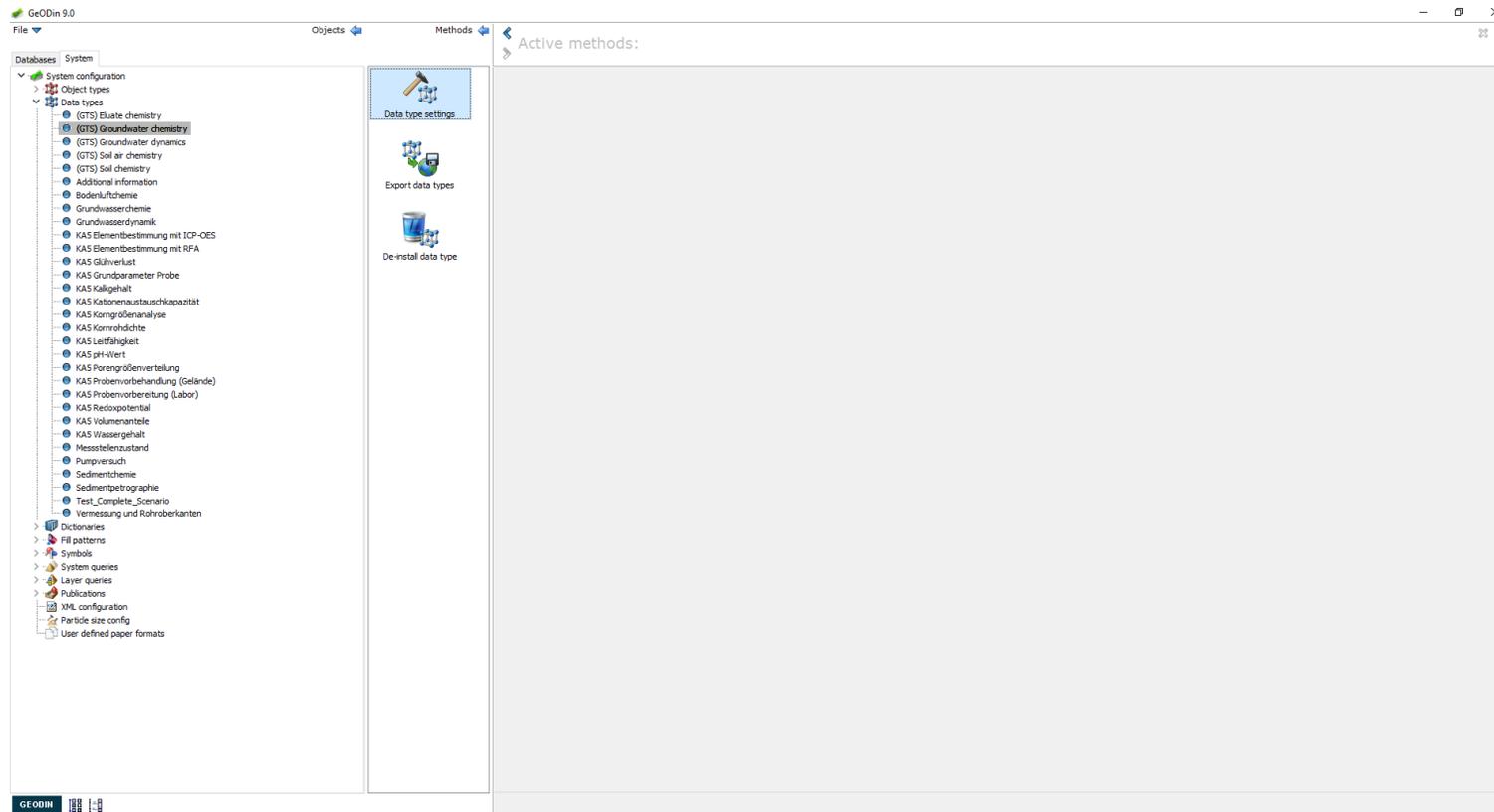




13. Deleting data type parameters

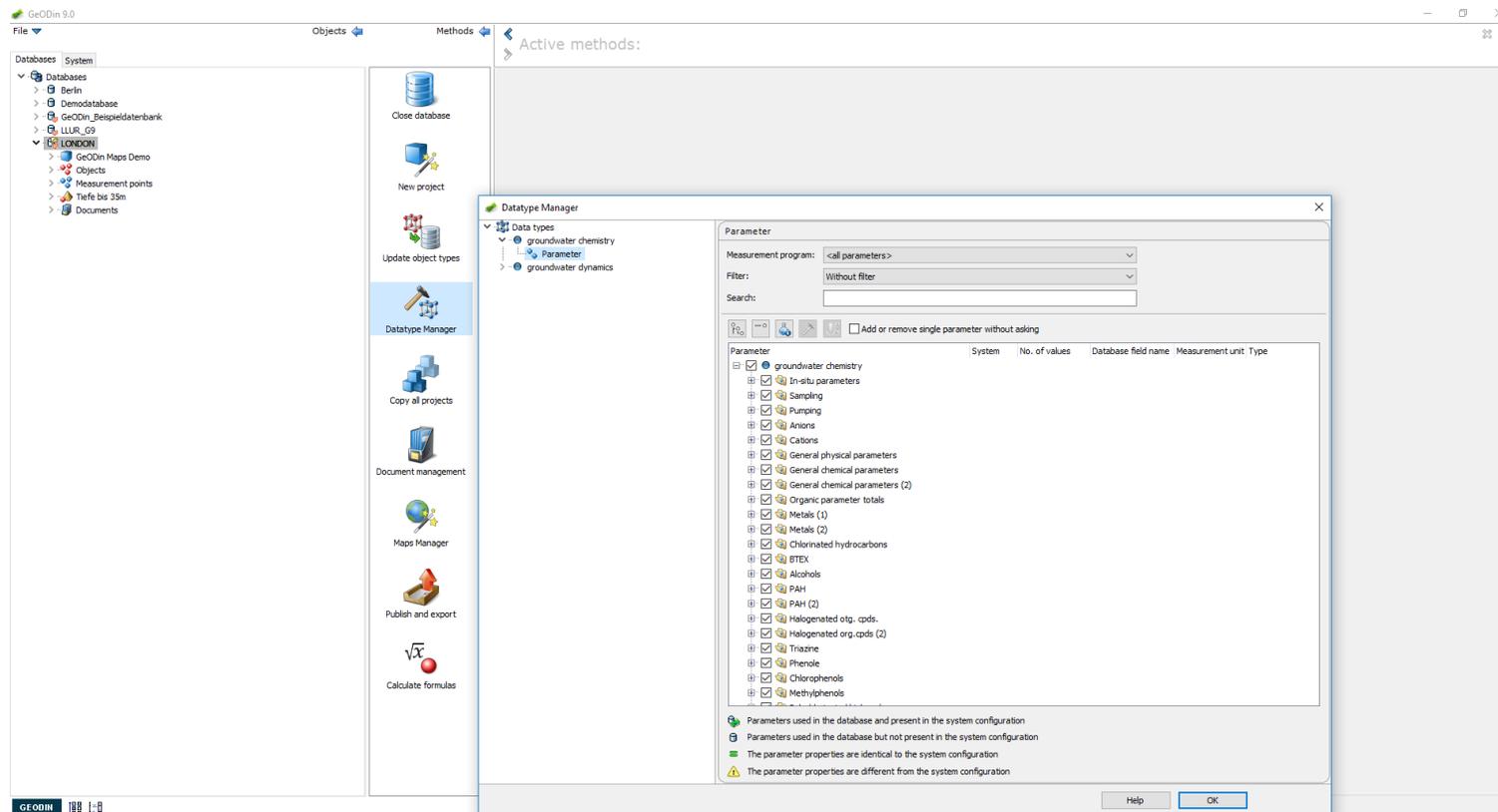
Deleting parameters from data types (1)

Under the <Databases> tab choose a database and start the <Data Type Manager> method. Note that here see are deleting a parameter from one database and not from the data type. The latter can only be done under the <System> settings.



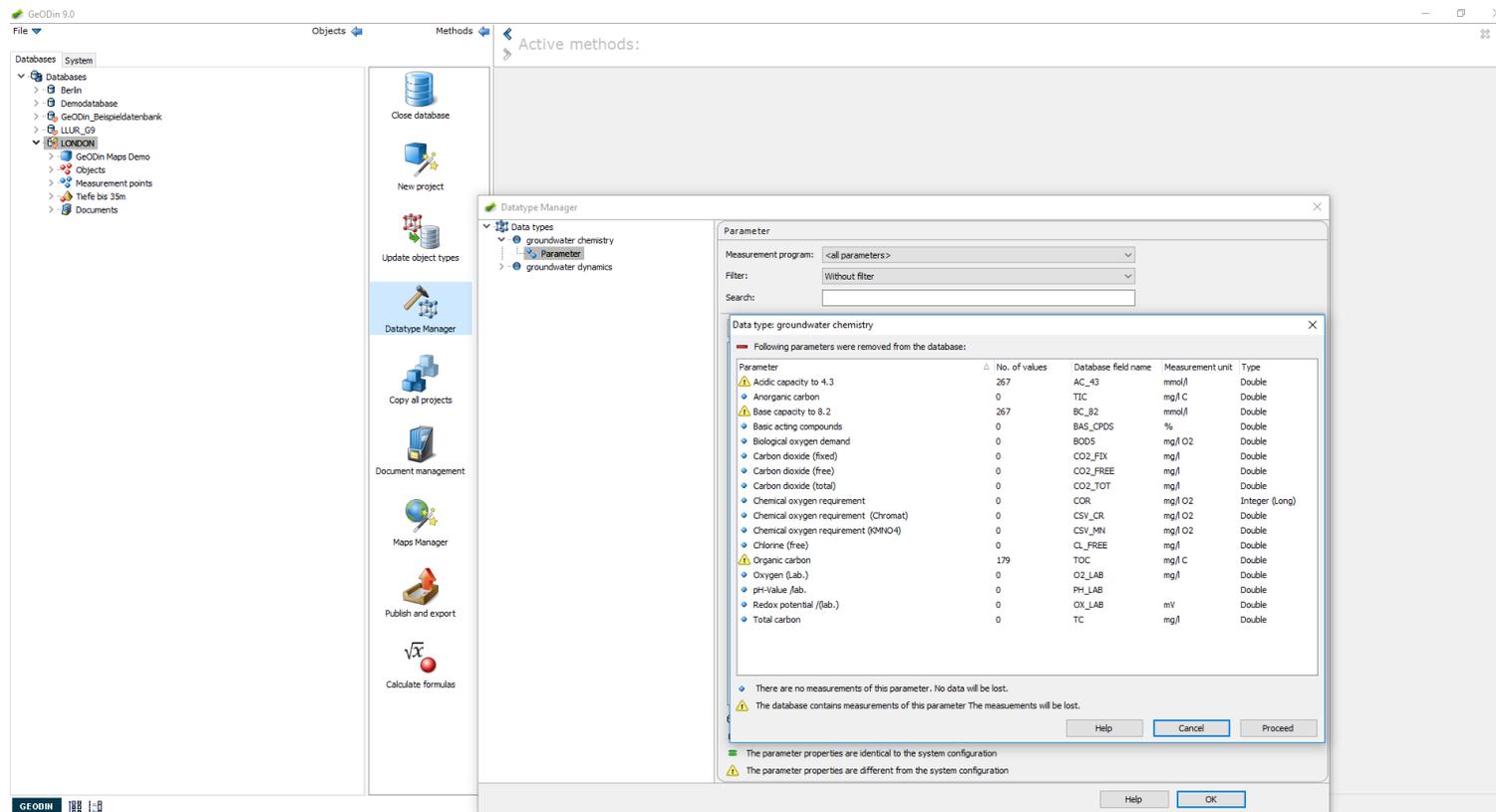
Deleting parameters from data types (2)

Choose the relevant data type, group and parameter and then uncheck the box to the left of the parameter name.



Deleting parameters from data types (3)

By clicking <OK> the parameter is processed for deletion from the database. Note that it may still be present in other databases, as well as being available in the <System> settings.

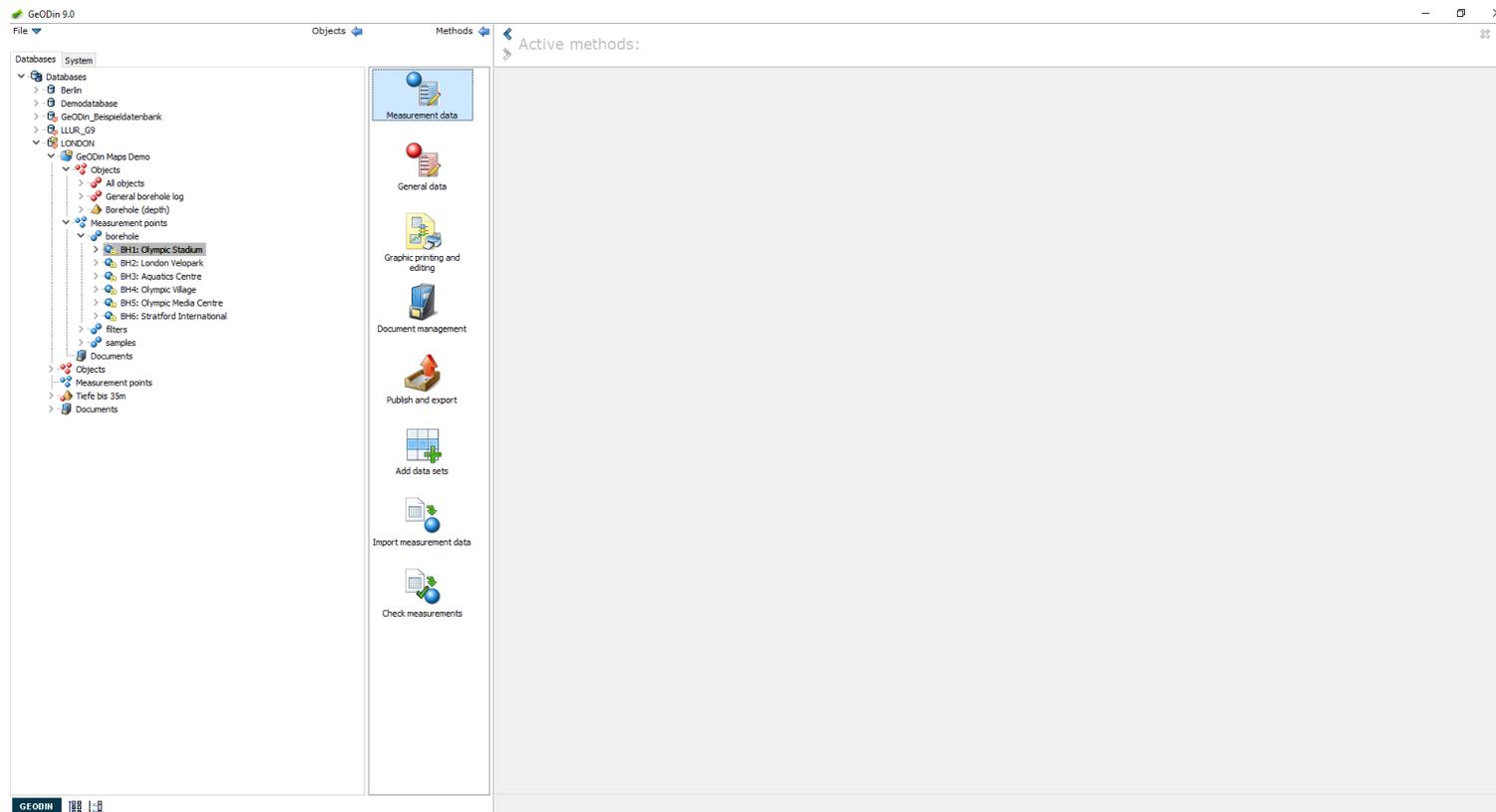




14. Borehole measurement data

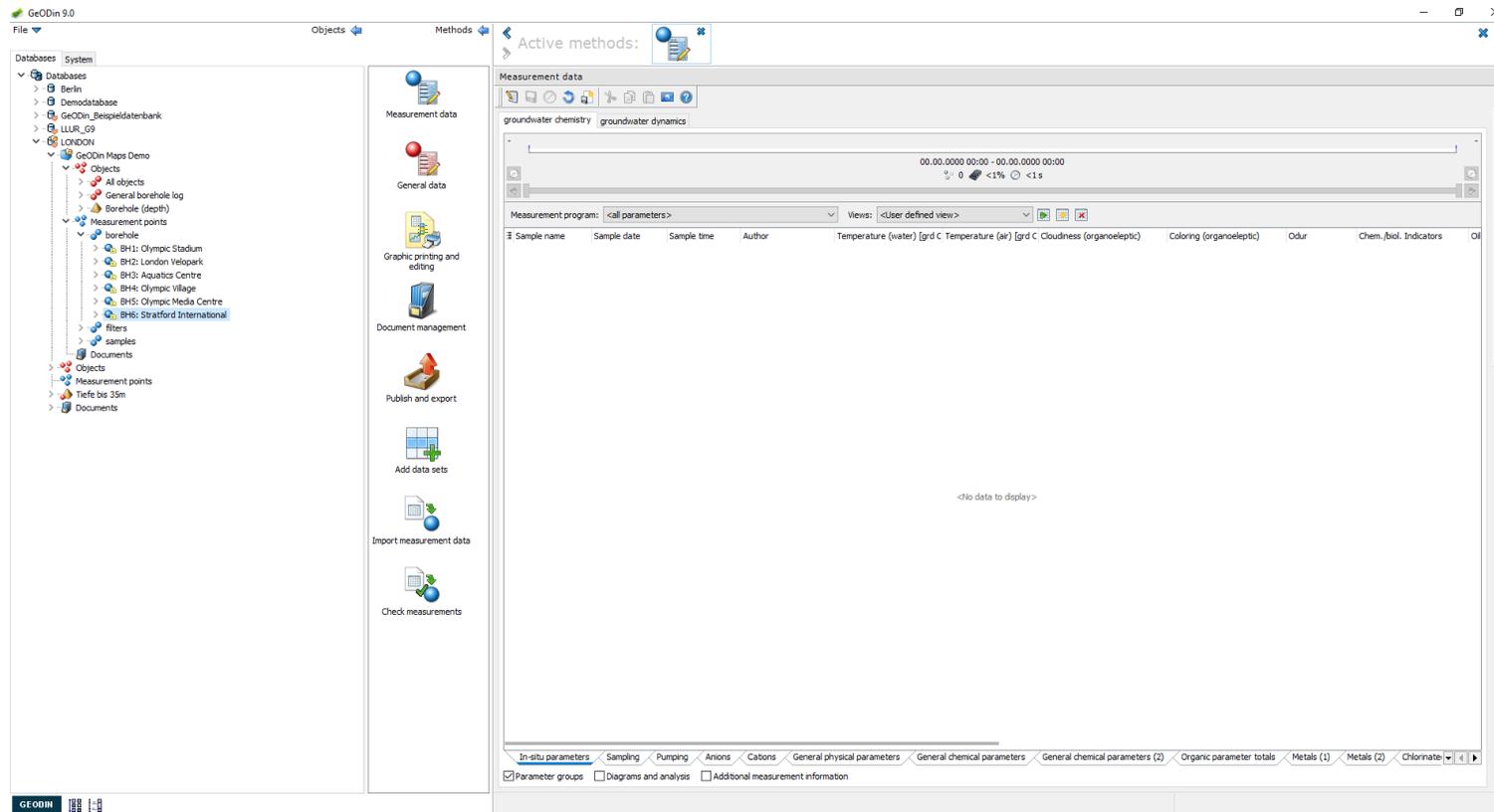
Borehole measurement data (1)

Open a project in a database and select an object. Then start the <Data management> by method by double-clicking in the method bar or by right-clicking the object and selecting from the pop-up window.



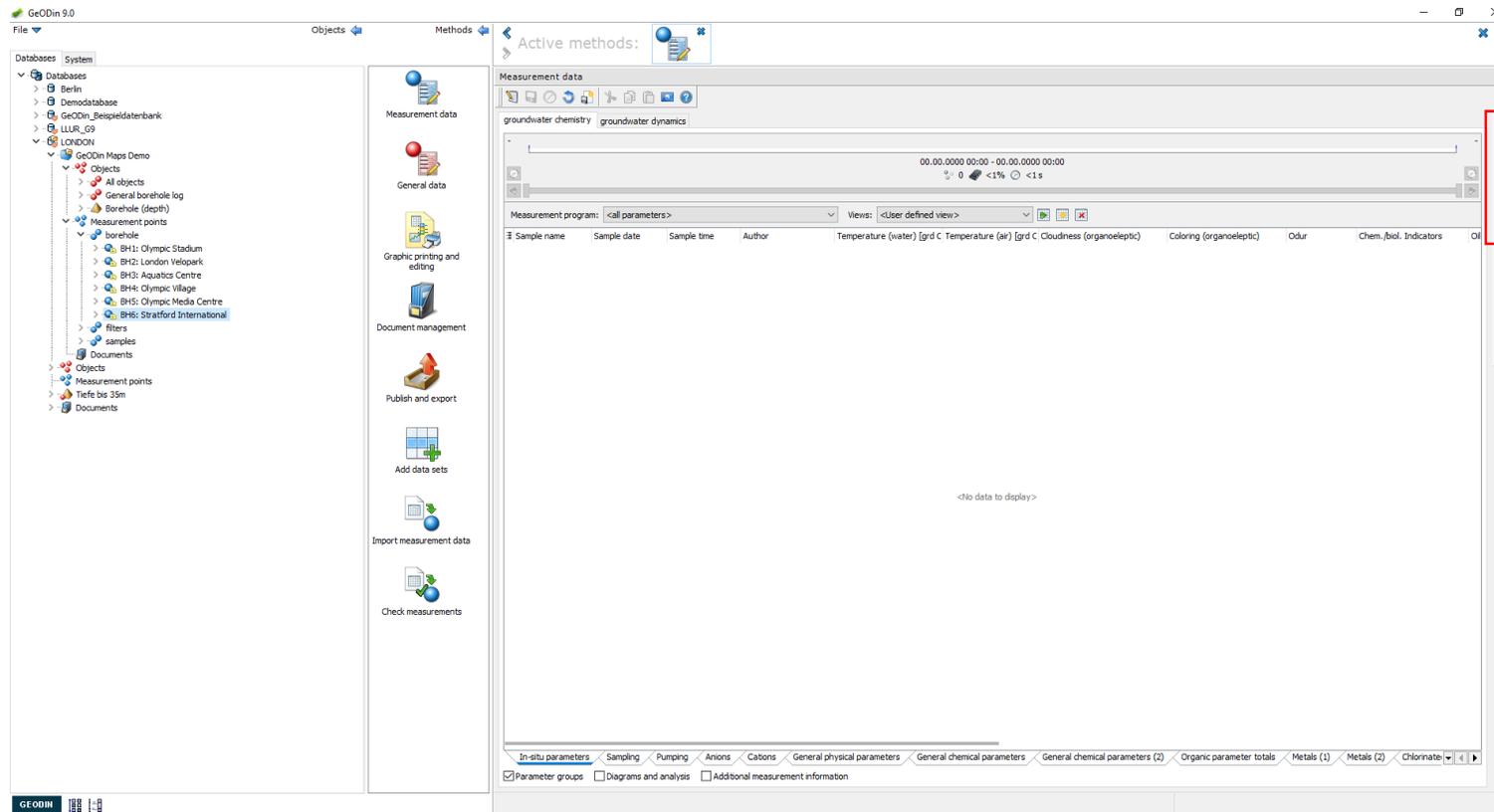
Borehole measurement data (2)

Measurements for objects are not related to specific depths. Hence their usefulness lies in recording information for parameter such as soil air or groundwater pumping rates for complete boreholes, or for objects on the surface such as climate measuring stations.



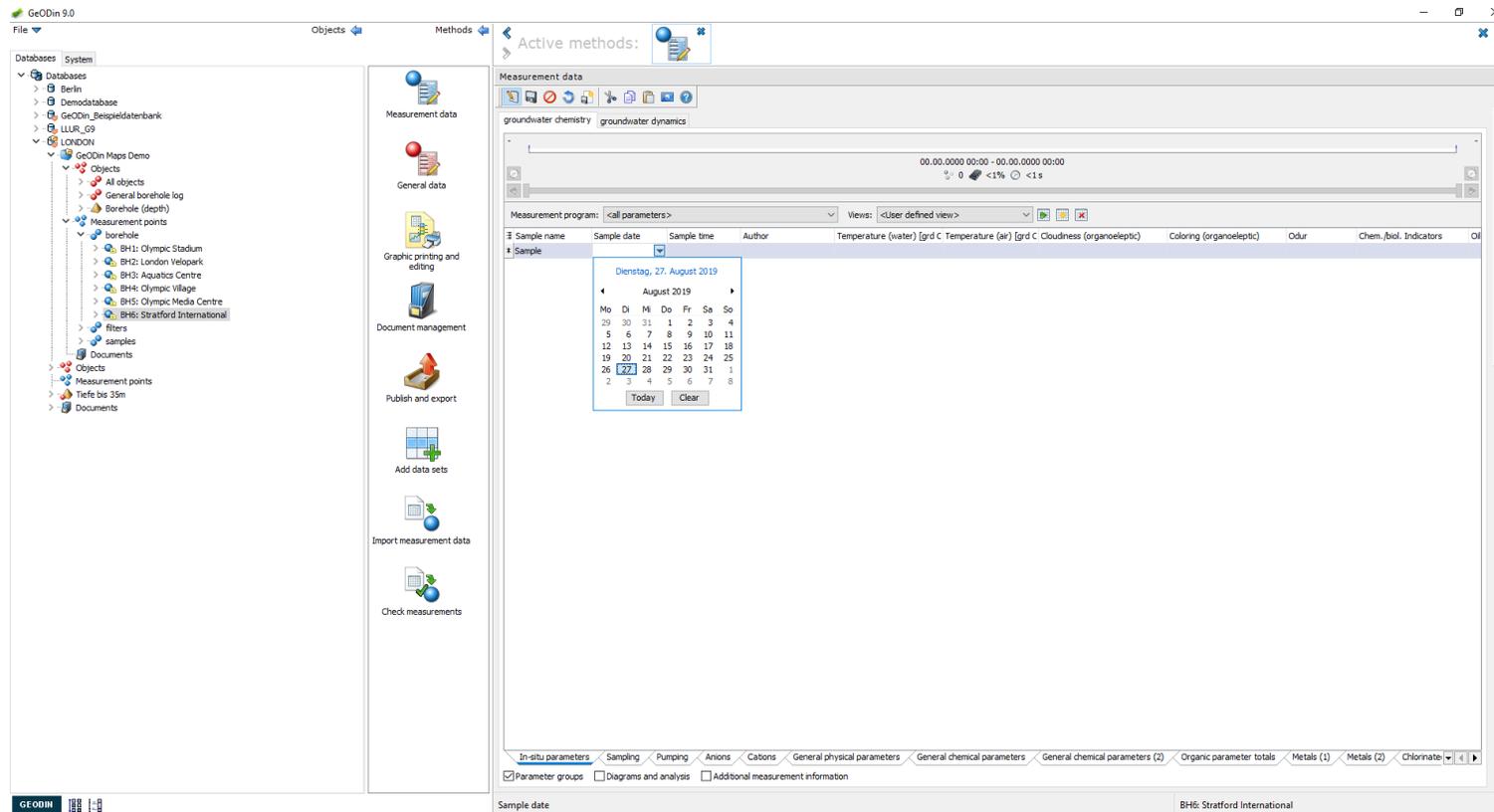
Borehole measurement data (3)

Use the toolbar icons to insert, duplicate and delete records. Use the toolbar arrow icons to navigate through the measurement table. Measurement programs and views can be selected (e.g. all or used parameters measurement programs; user defined views).



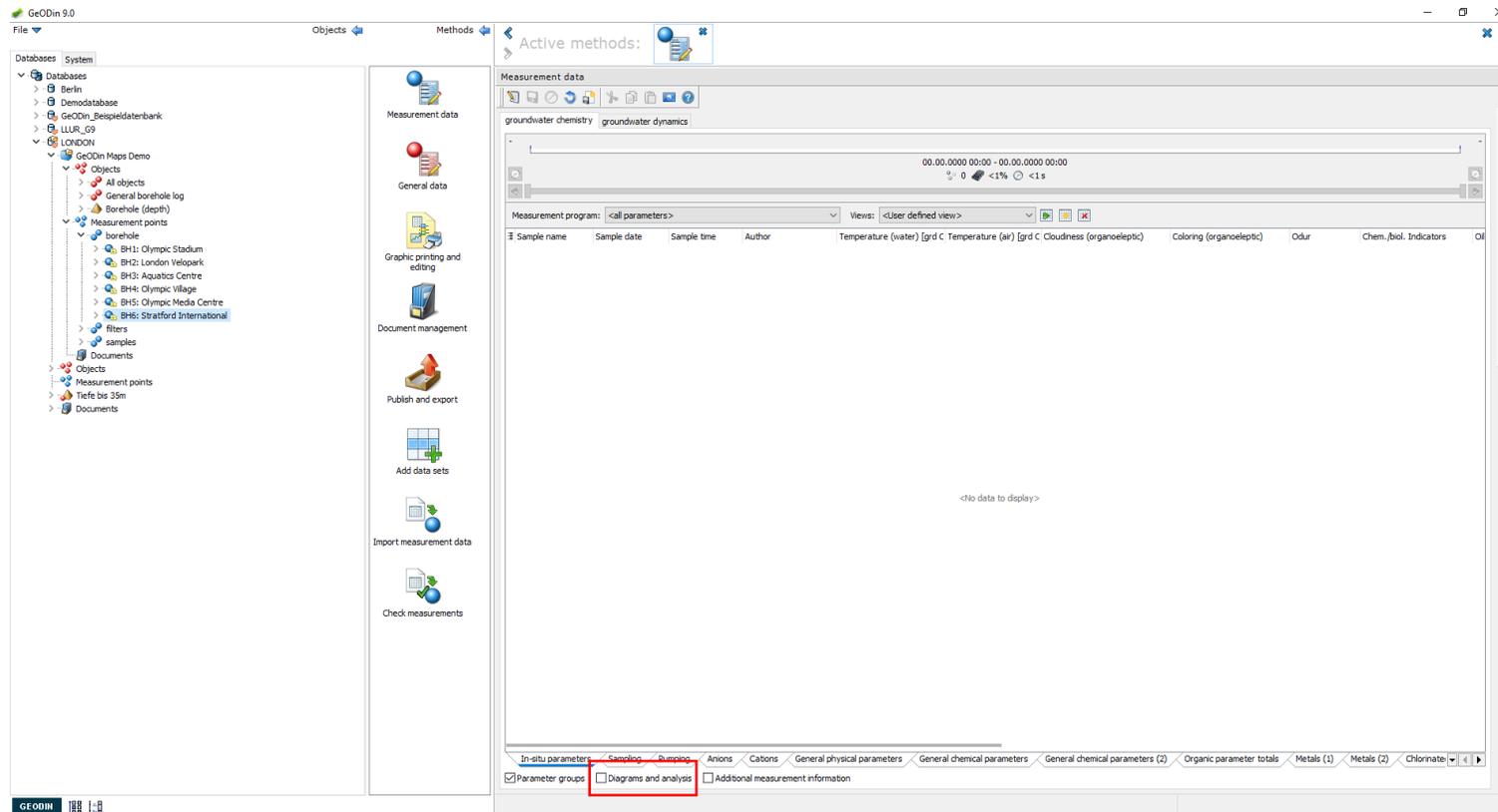
Borehole measurement data (4)

Turn on editing and insert a new data record. Select a <Monitoring point ID>, enter a sample name and date; sample time is optional. Then enter your measurement values. column widths and positioning can be customised.



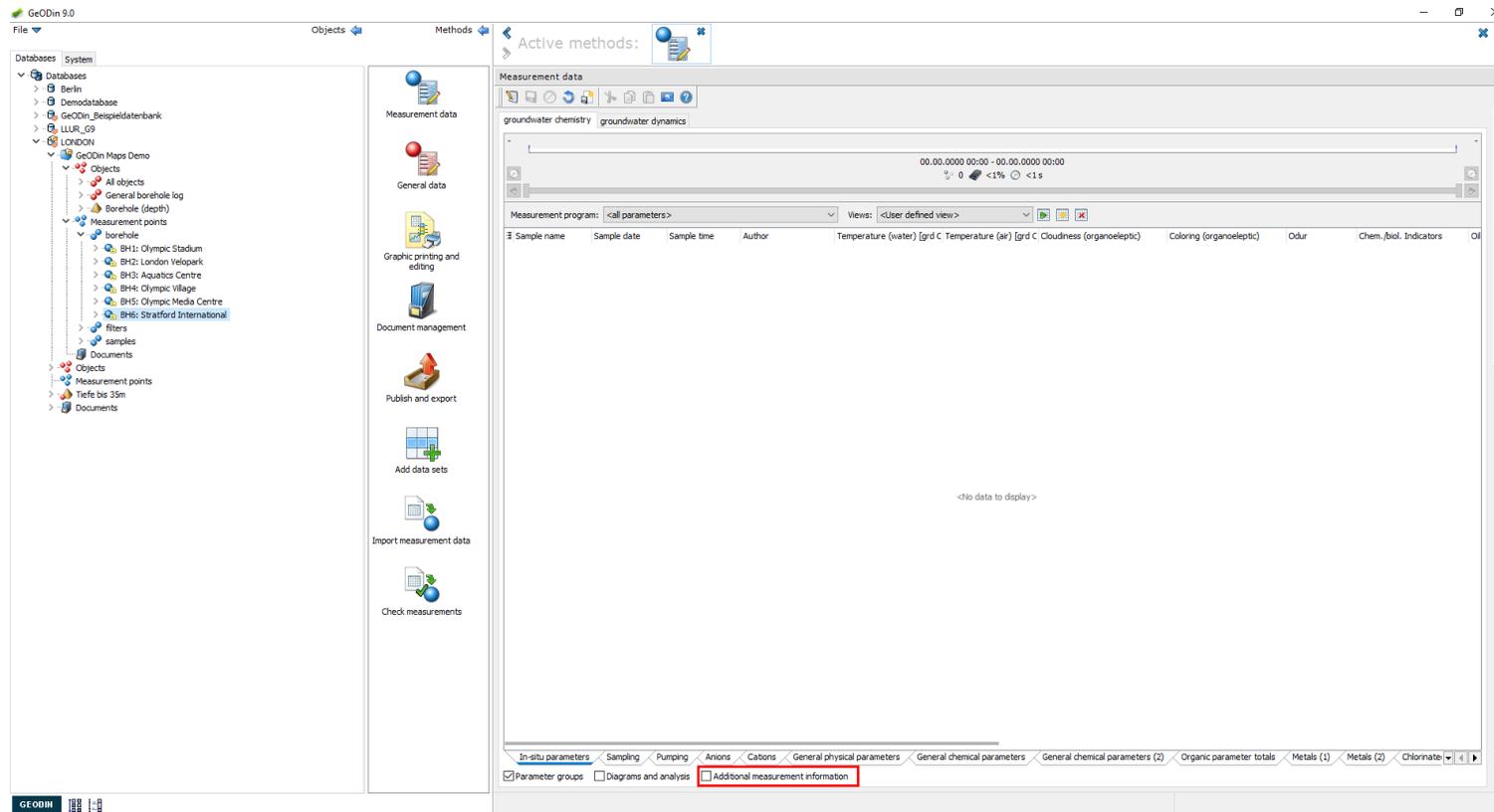
Borehole measurement data (5)

Beneath the measurement panel is a rows for tabs containing parameter groups (e.g. BTEX in this example). On the right hand side are horizontal navigation arrows and a vertical parameter group selection arrow.



Borehole measurement data (6)

Further details such as detection limits and methods of analysis can be entered individually for each sample by activating the <Additional measurement information> checkbox or by clicking the mask icon.

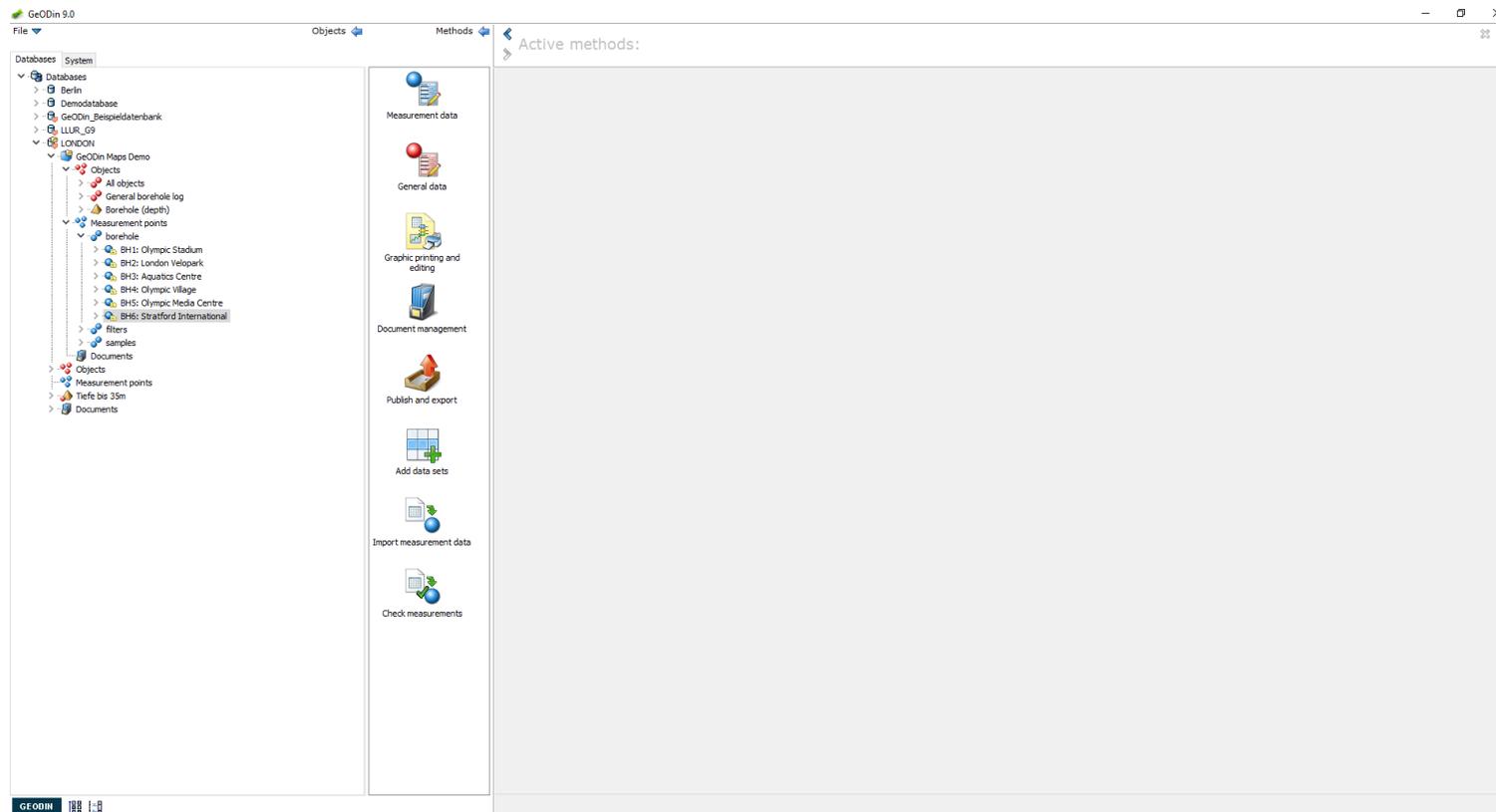




15. Filter measurement data

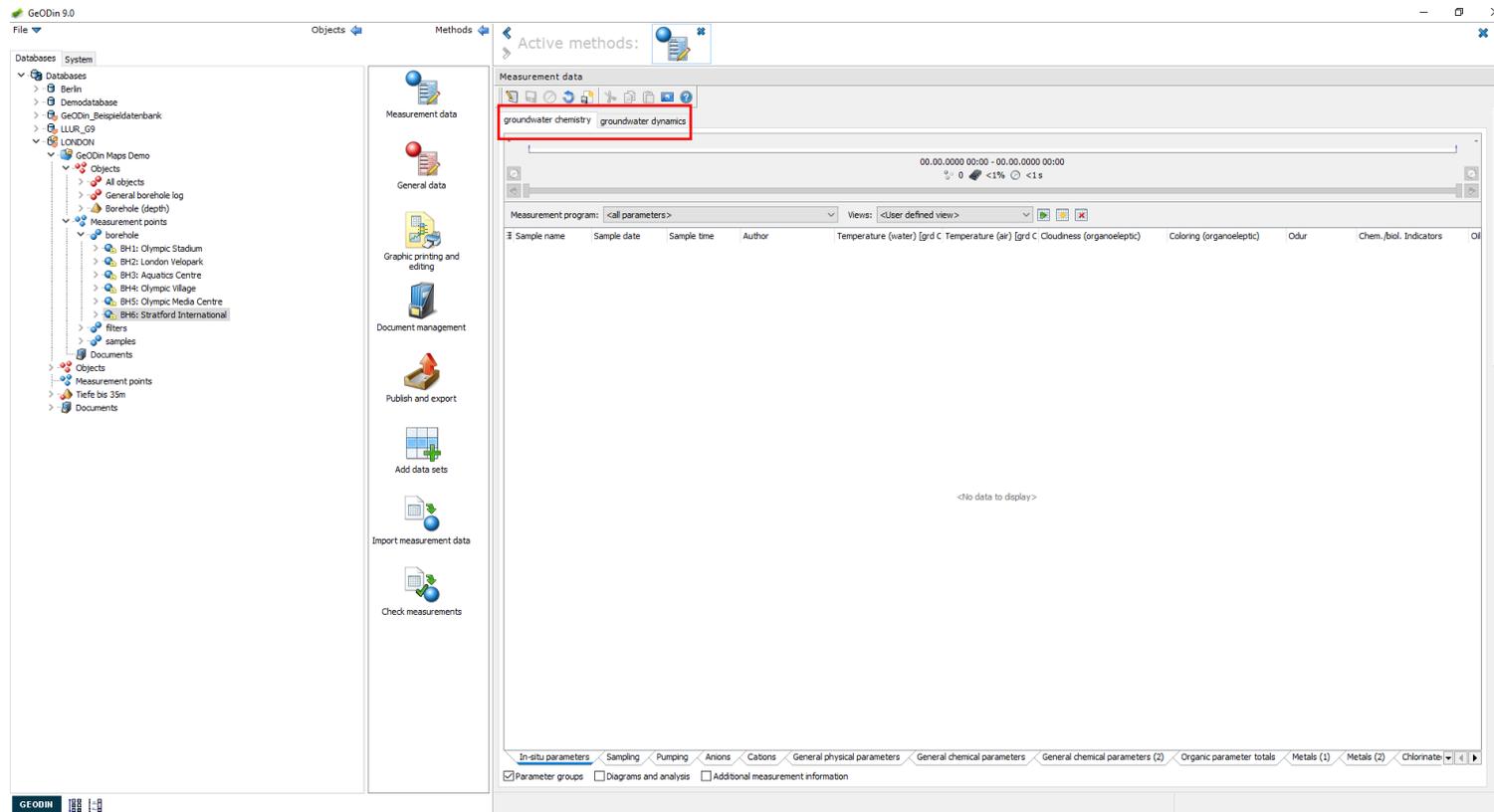
Filter data (1)

Open a project from a database and choose the node <Measurement points>. This contains the categories locations, samples and screens/filters. Select filter/screens and open the method <Measurement data>.



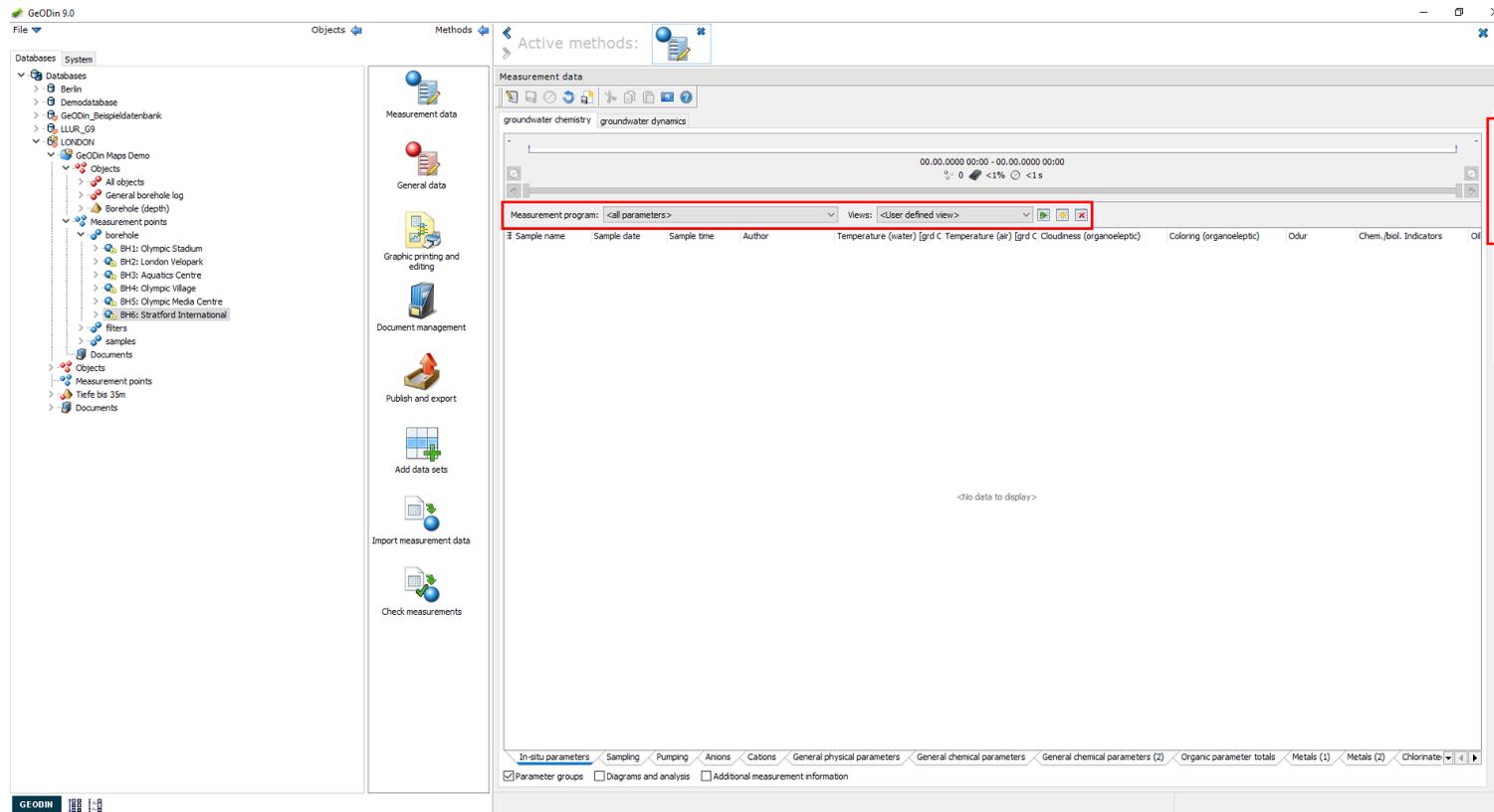
Filter data (2)

Beneath the <Measurement data> toolbar there is a row of tabs. These are shown for the data types installed in the database that are associated with filters (e.g. groundwater chemistry and groundwater dynamics).



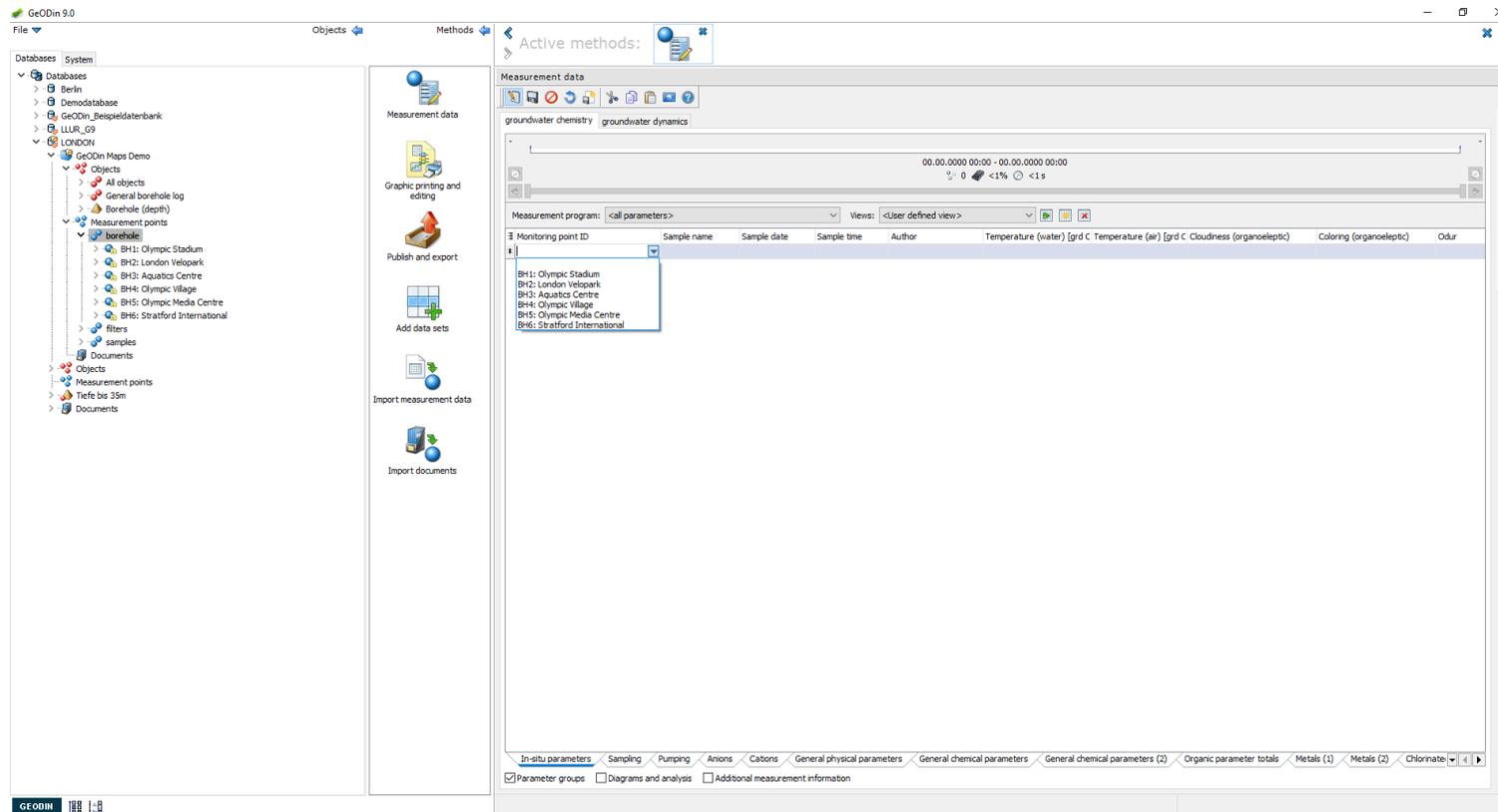
Filter data (3)

Use the toolbar icons to insert, duplicate and delete records. Use the toolbar arrow icons to navigate through the measurement table. Measurement programs and views can be selected (e.g. all or used parameters measurement programs; user defined views).



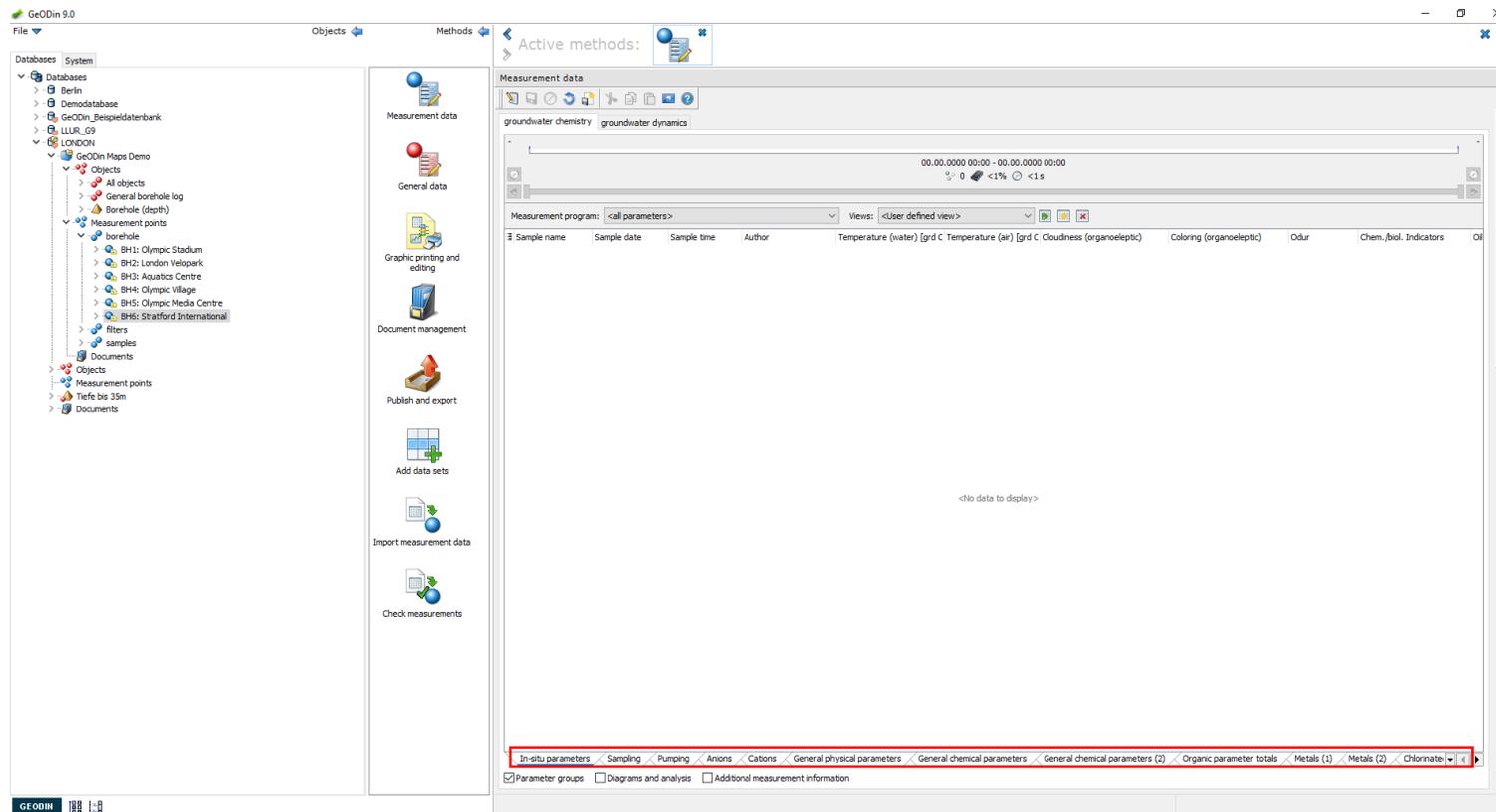
Filter data (4)

Turn on editing and insert a new data record. Select a <Monitoring point ID>, enter a sample name and date; sample time is optional. Then enter your measurement values. column widths and positioning can be customised.



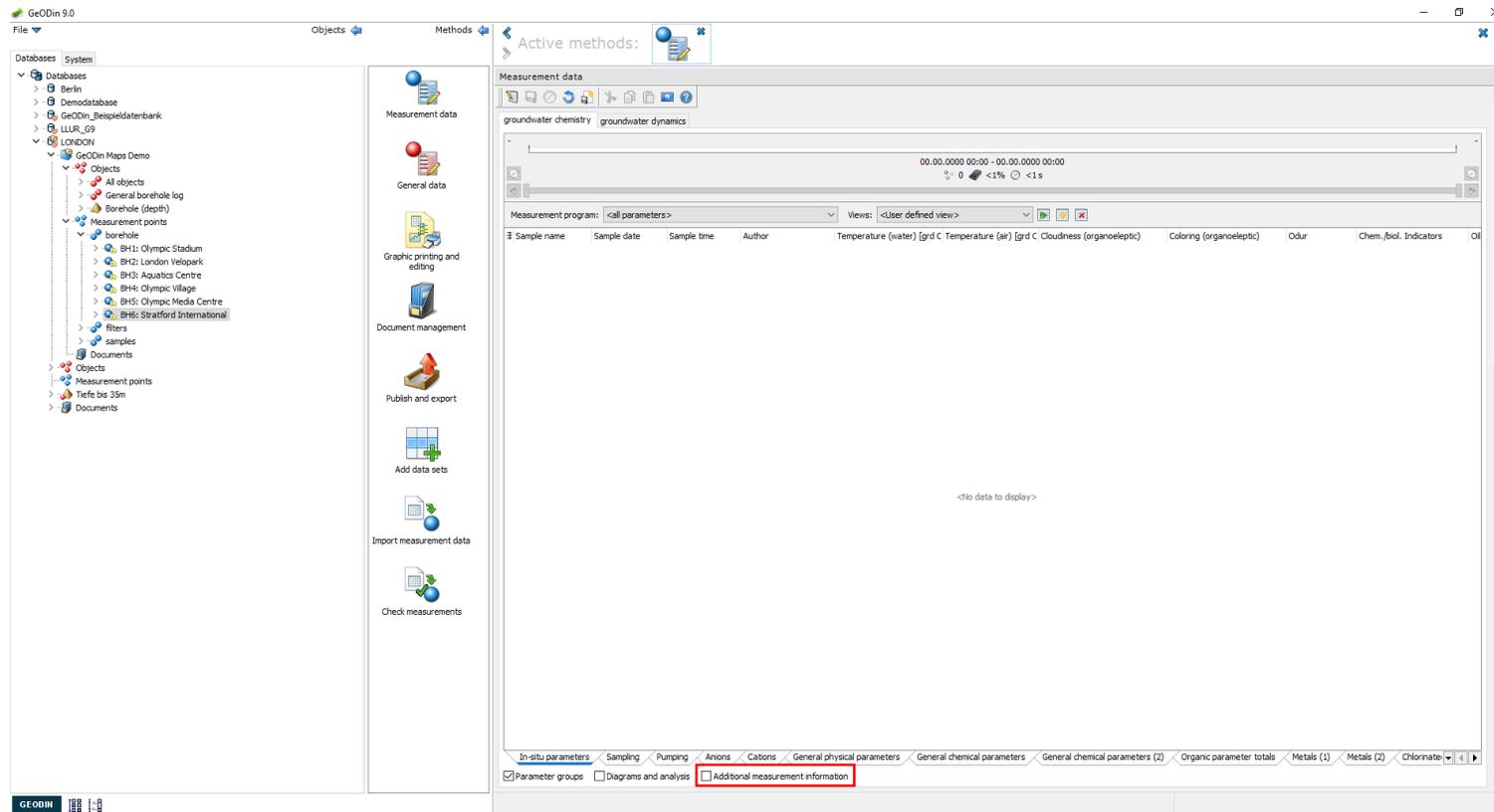
Filter data (5)

Beneath the measurement panel is a further rows of tab containing parameter groups (e.g. Anions, Cations, Metals, Organic parameter totals etc.). On the right hand side are horizontal navigation arrows and a vertical parameter group selection arrow.



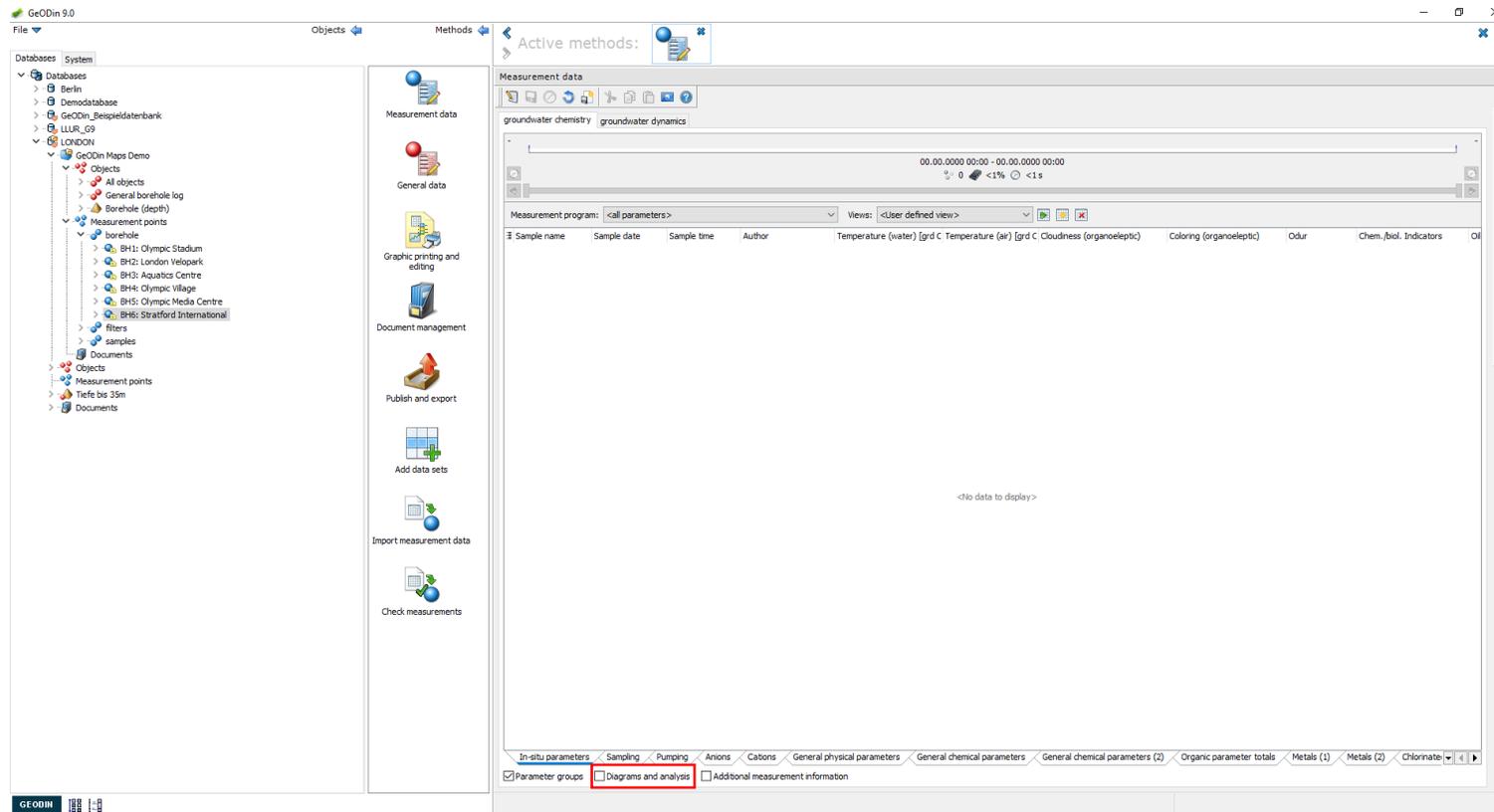
Filter data (6)

Further details such as detection limits and methods of analysis can be entered individually for each sample by activating the <Additional measurement information> checkbox or by clicking the mask icon.



Filter data (7)

Column and row overview charts can be shown by checking the <Diagrams and analysis> checkbox. Plausibility controls, formulae and list comparisons can also be displayed here. Note that the <Parameter groups> box is checked by default.

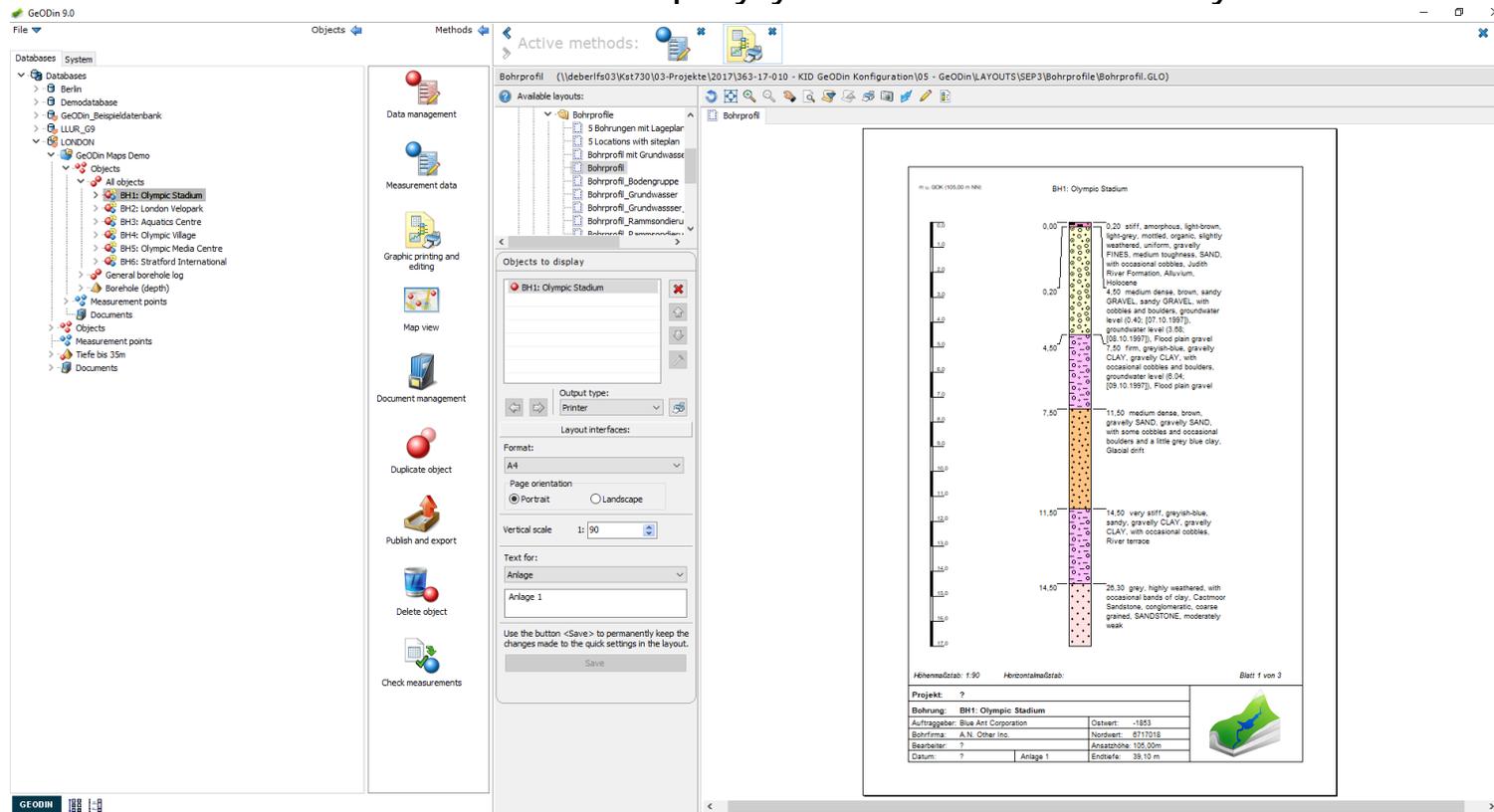




16. Layouts

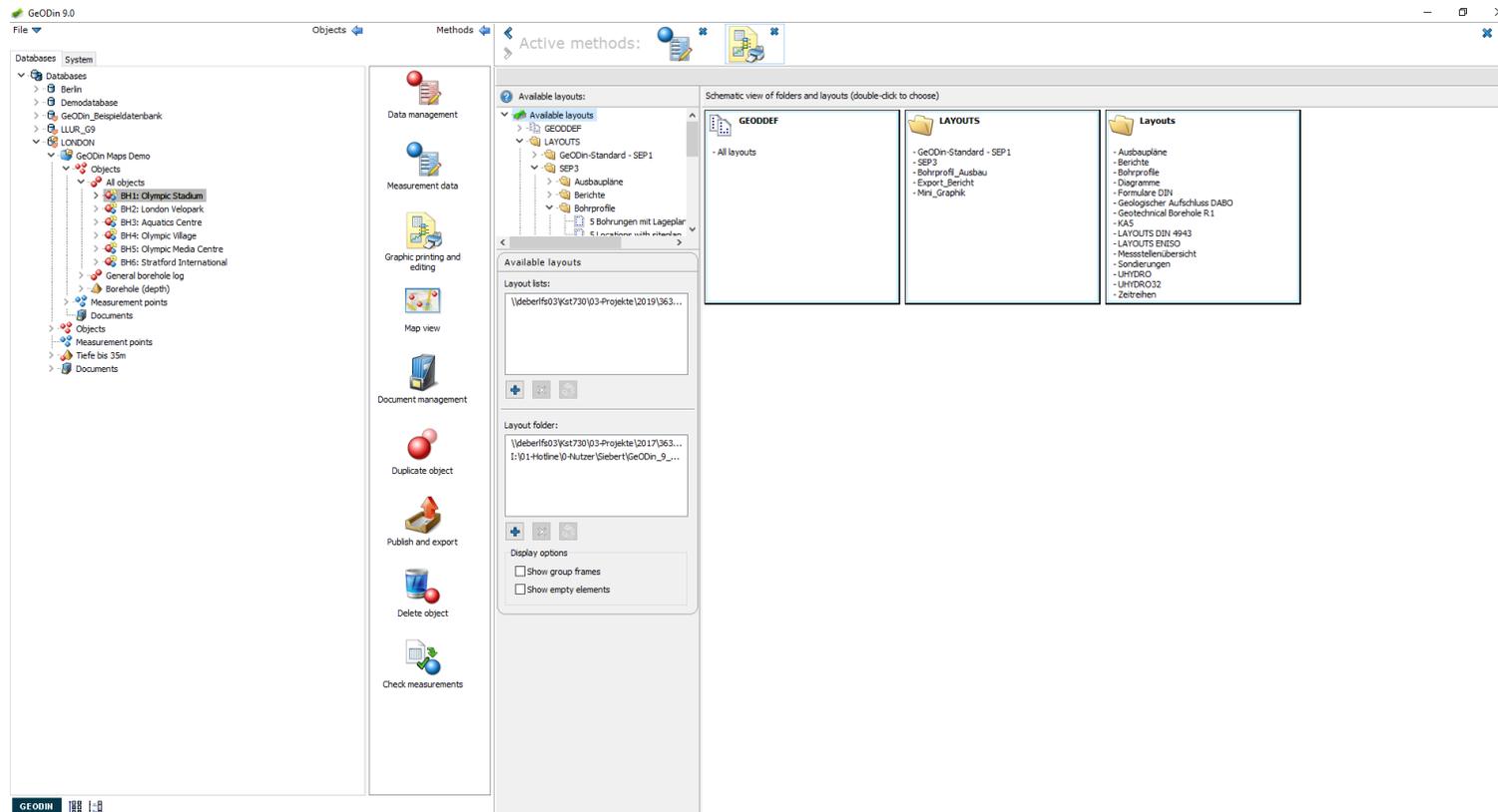
Layouts (1)

To visualize your data, select an object from a project and then start the method <Graphic printing and editing>. A layout will open on the right hand side displaying your object data. This view can also be opened by clicking the <Layout overview> icon in the bottom left of the GeODin window. Make a selection to display your data from the layouts listed.



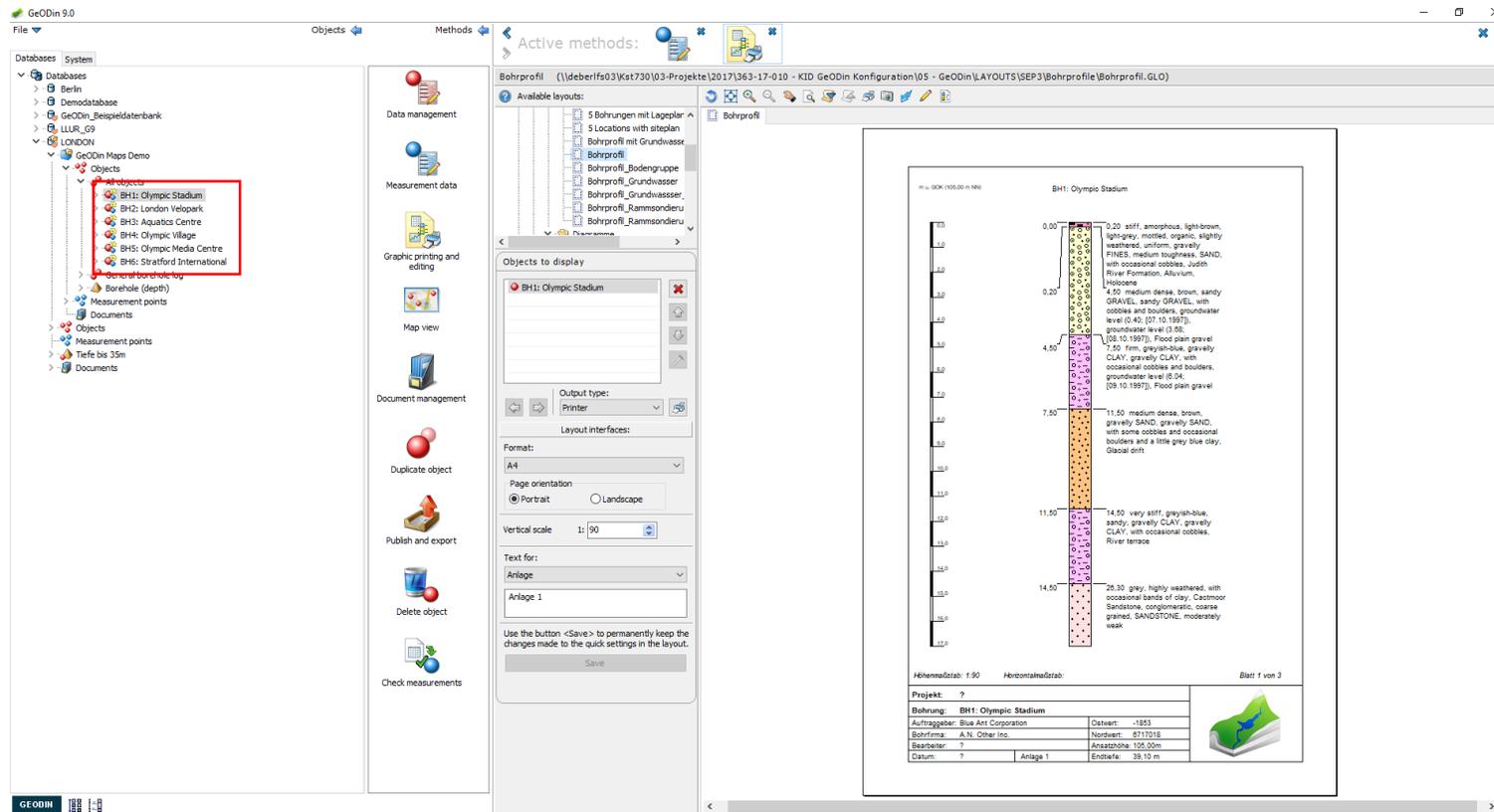
Layouts (2)

Layouts can be stored in folders and lists with defined paths. To organize these add and delete these entries as appropriate. Remember to update if you make changes, so that new layouts appear under the <Available layouts> list in the top window.



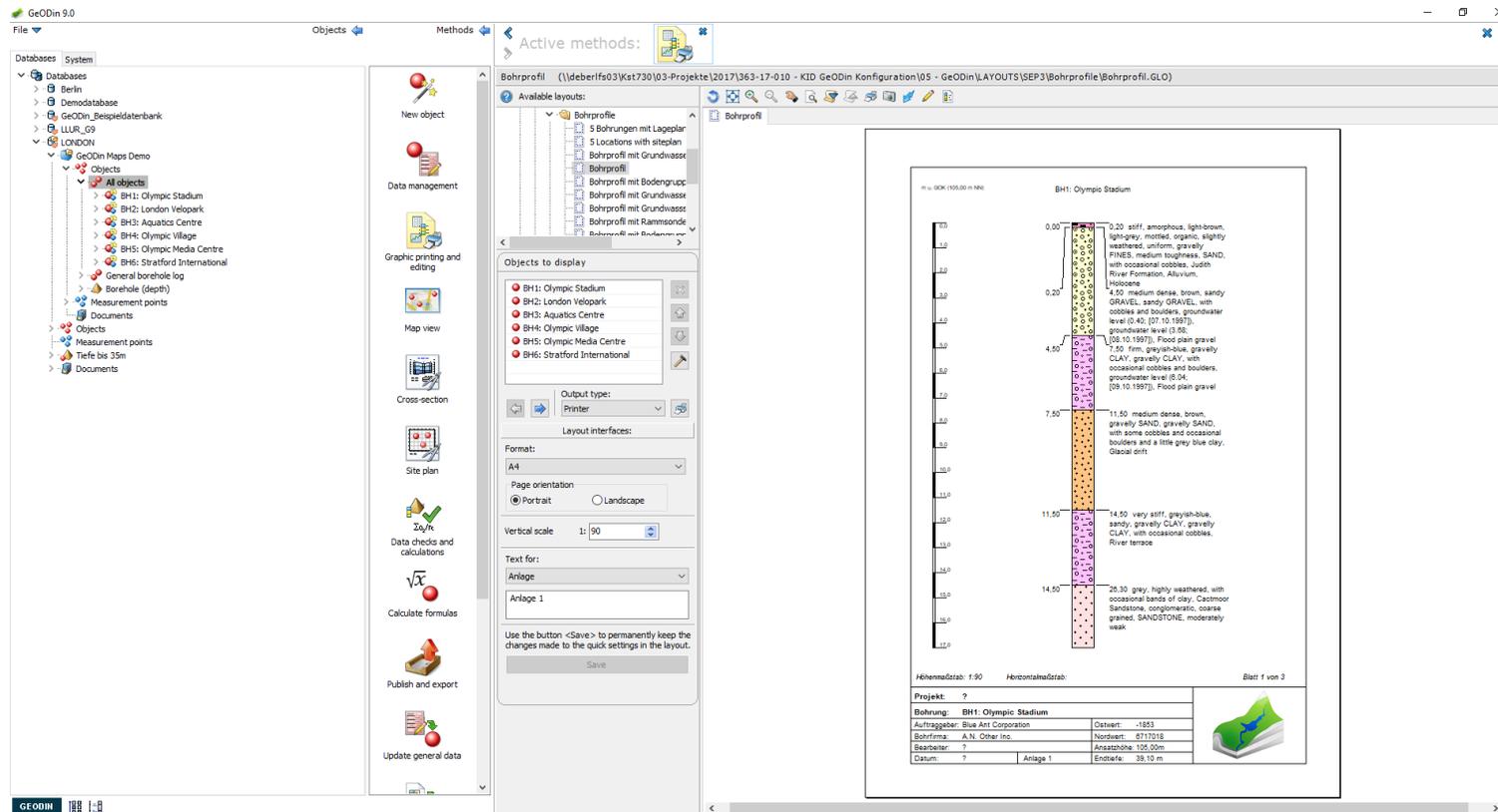
Layouts (3)

Layouts are just templates to display data. To view another object just select it from a project in your database and the layout will update and show the new information.



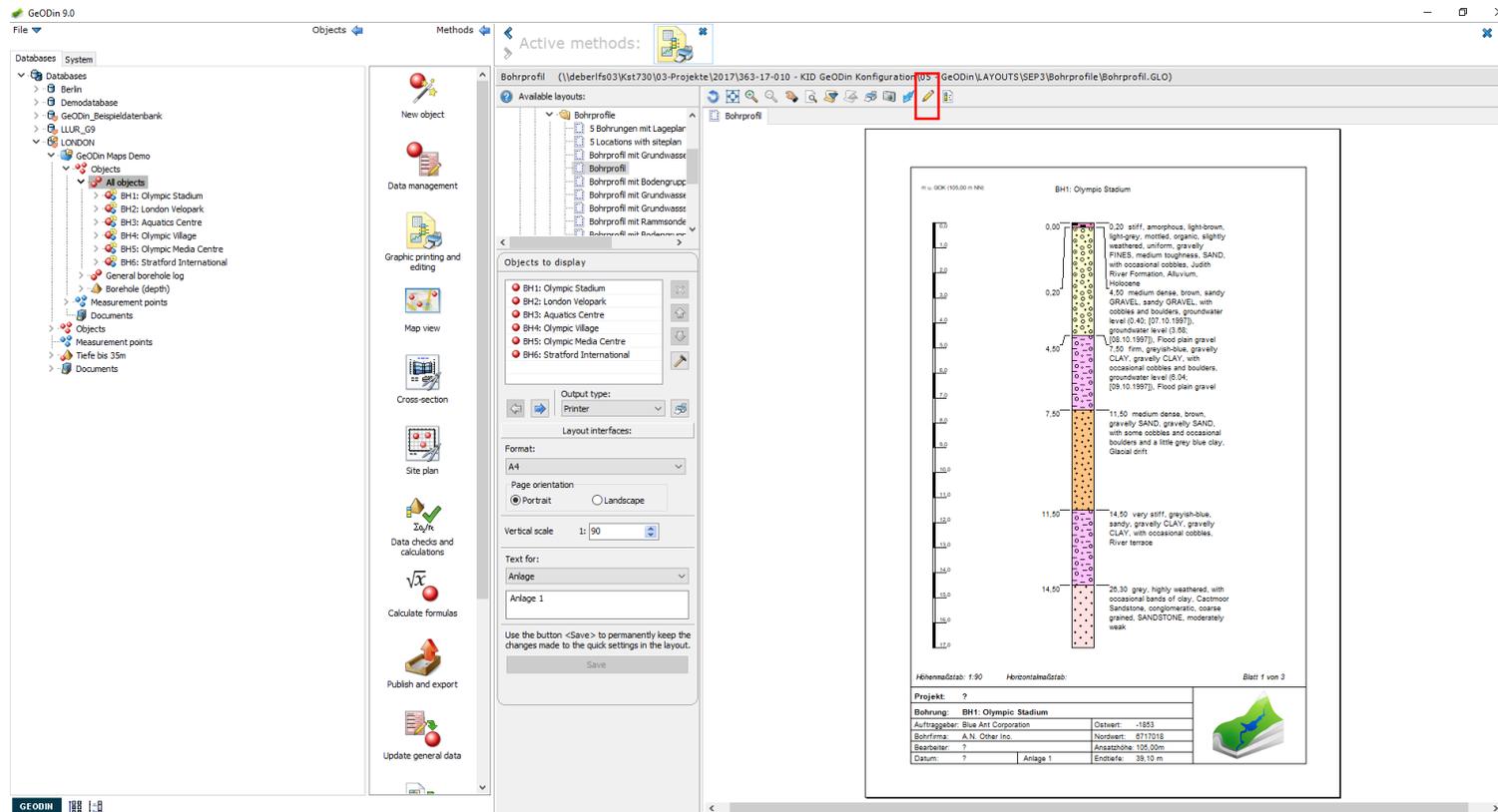
Layouts (4)

Alternatively you may select the <All objects> entry in the GeODin object manager. Now when you make a selection from the available layouts, the <Objects to display> window lists these objects and allows you to cycle through them whilst updating the display.



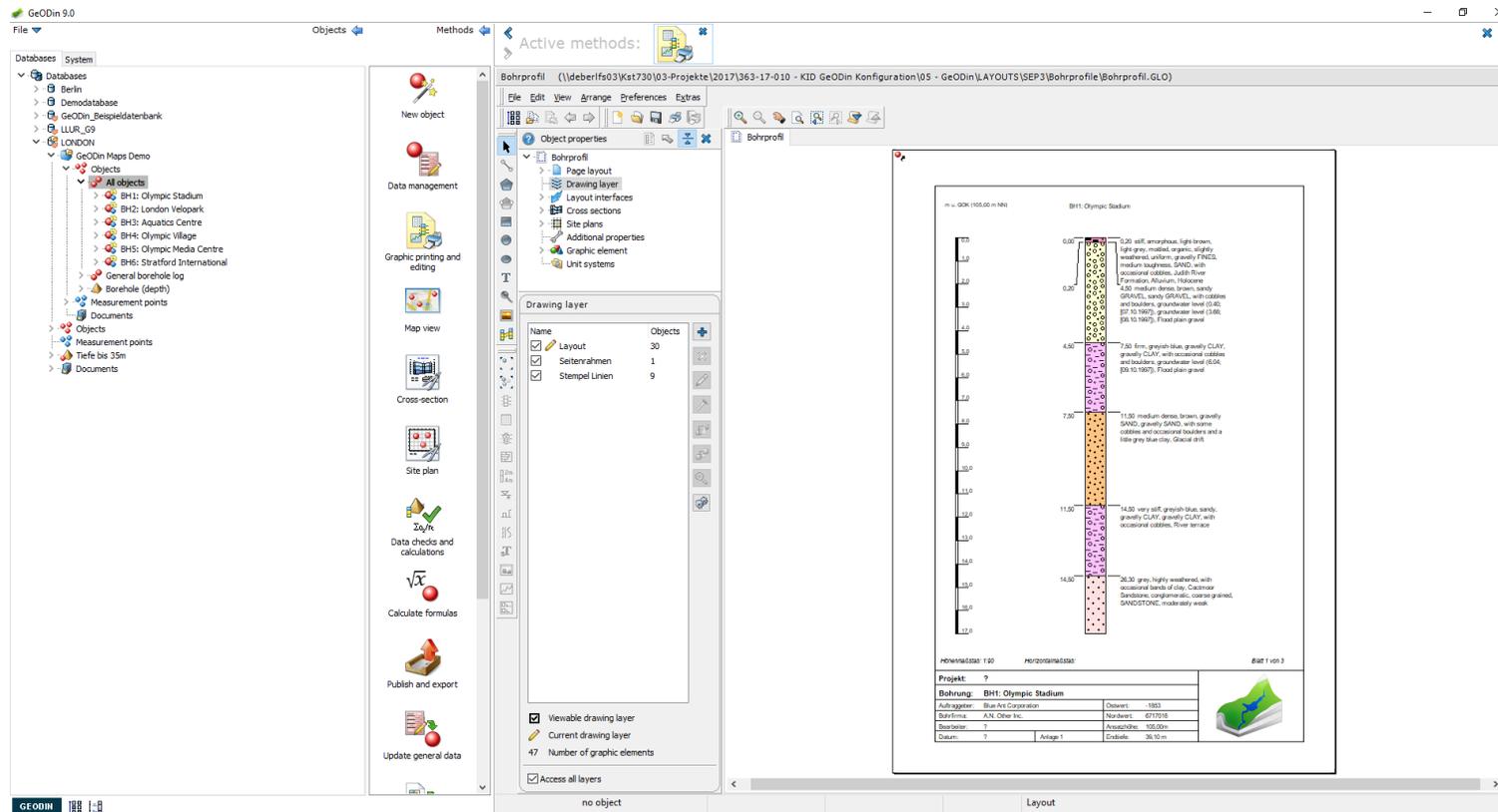
Layouts (5)

To edit details of a current layout click the pencil icon in the graphic window. This activates the editing mode, displaying the graphic properties. In this modus objects displayed in the layout can only be updated using drag and drop.



Layouts (6)

When you select a graphic element in the layout, its' properties are displayed to enabled detailed editing of items such as scale, data source, text etc. To switch back to the layout overview click the toolbar icon, saving as required.



FUGRO



17. Fill patterns & symbols

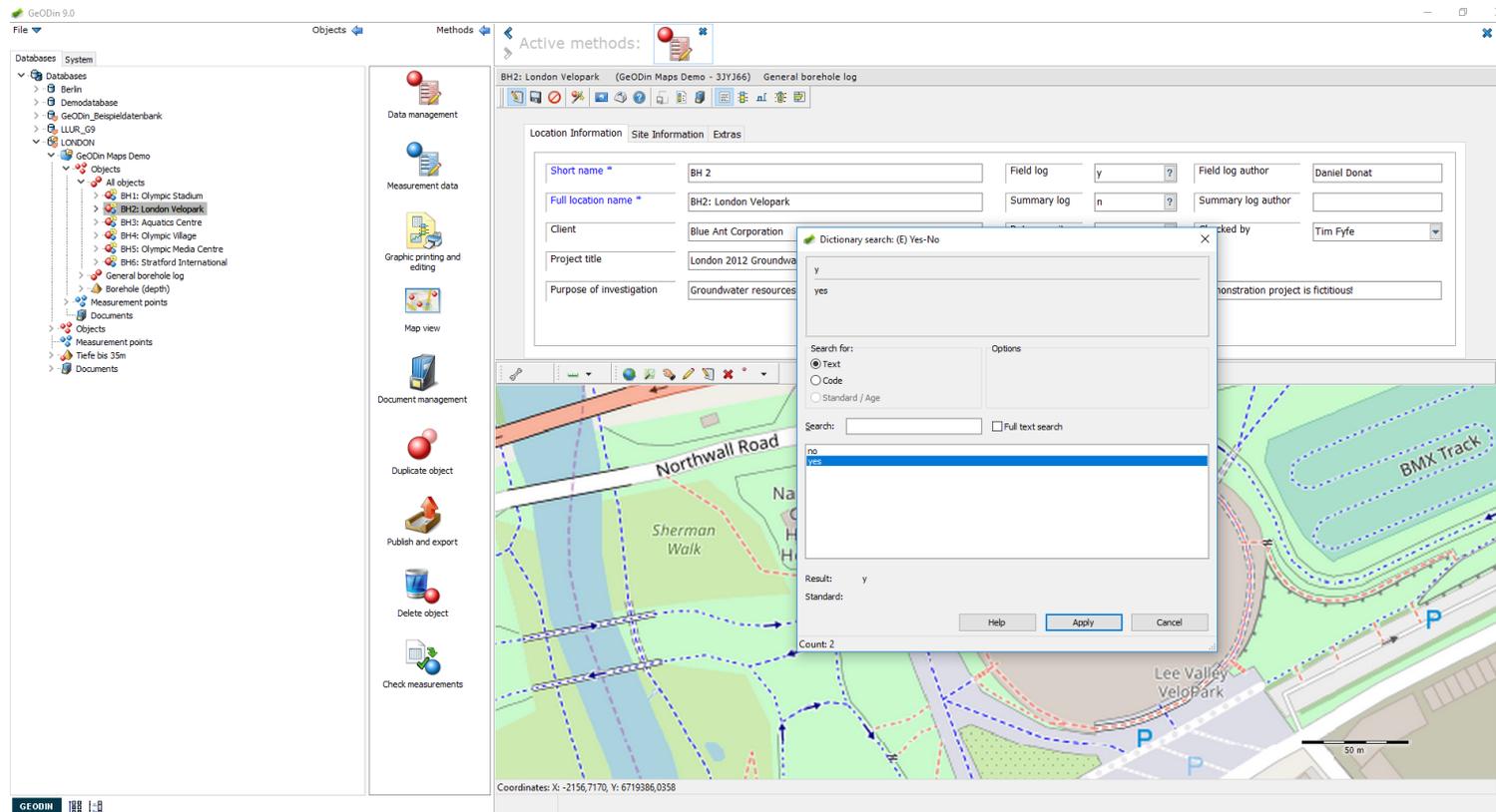
FUGRO



18. Dictionaries

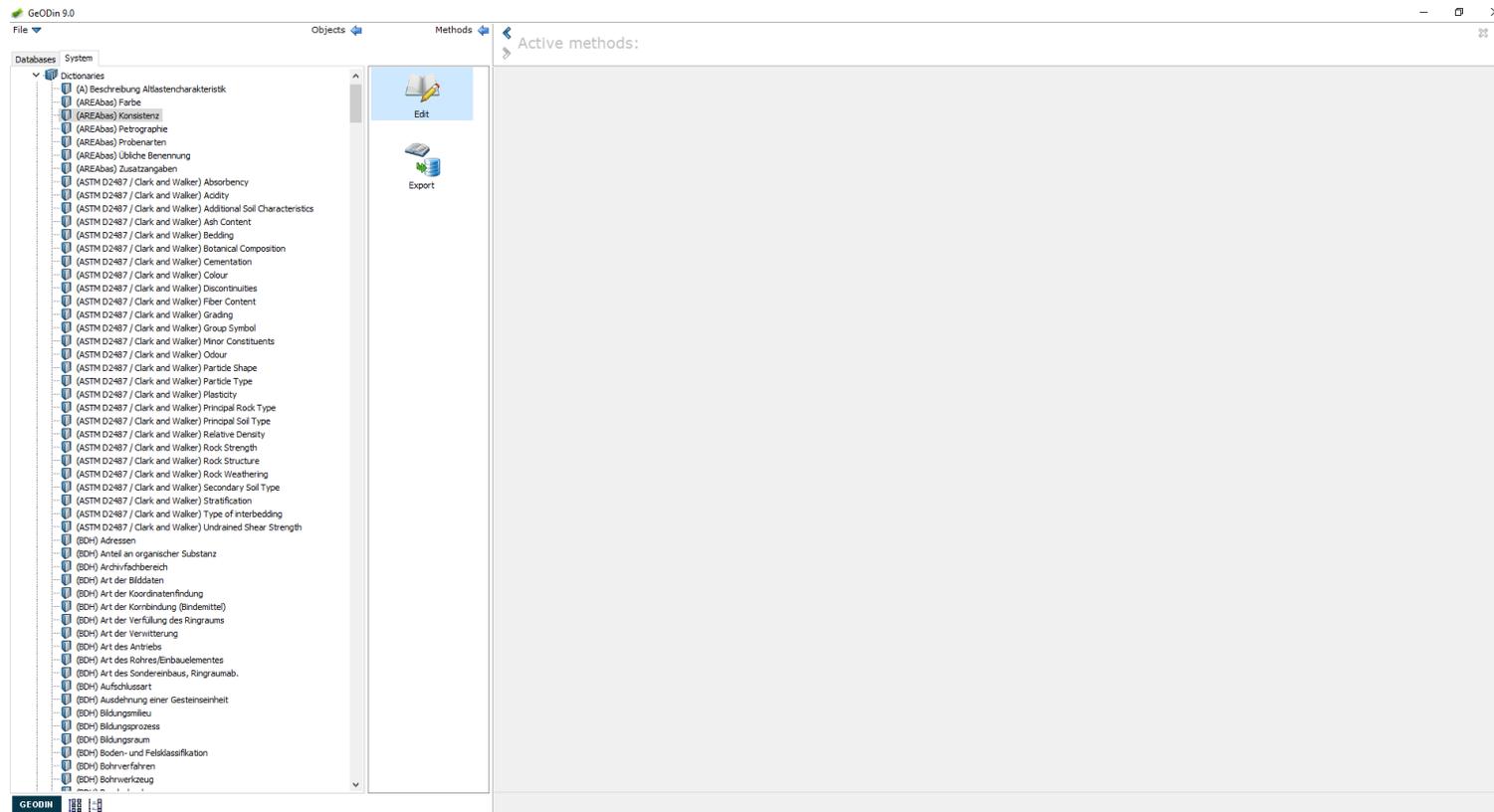
Dictionaries (1)

Some GeODin data fields require a code entry instead of text. These codes are stored in a dictionary which can be accessed via the "?" at the end of the field. The name of the dictionary appears in the title bar of the window.



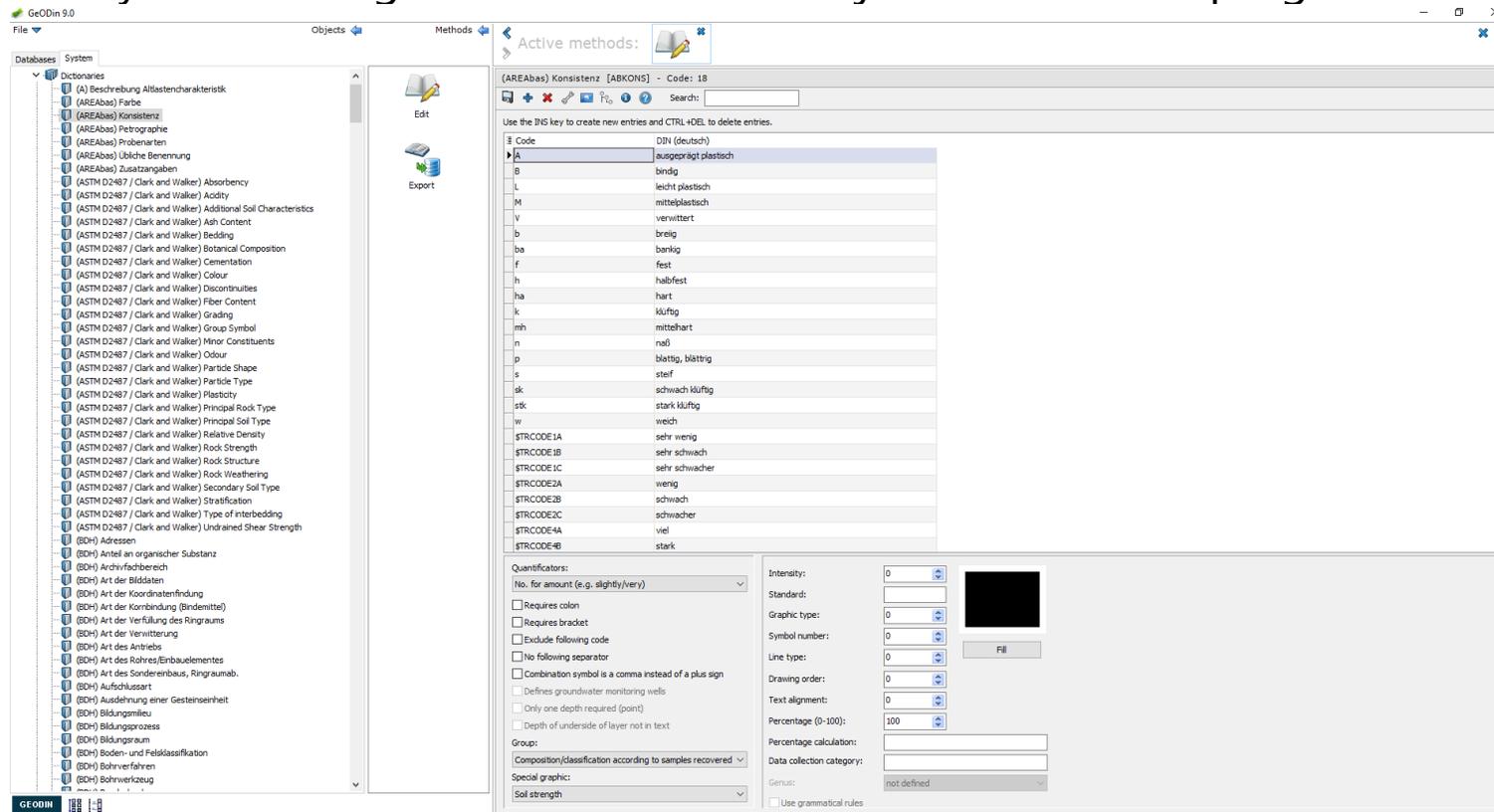
Dictionaries (2)

If you need to add a new item to a dictionary or make a change to an existing code, select the dictionary from the <Dictionaries> node in <System configuration> under the <System> tab. Open the dictionary with the <Edit> method.



Dictionaries (3)

Either click the <New> button or select a code and click the <Change> button. Enter a code and a text (ignoring DB-code) and click <OK>. Some codes may need additional quantificators or a fill pattern. Click the <Save> icon and the return to your project under the <Databases> tab. The new code can be used straight away for entering information in the object data field. A program restart is not necessary.

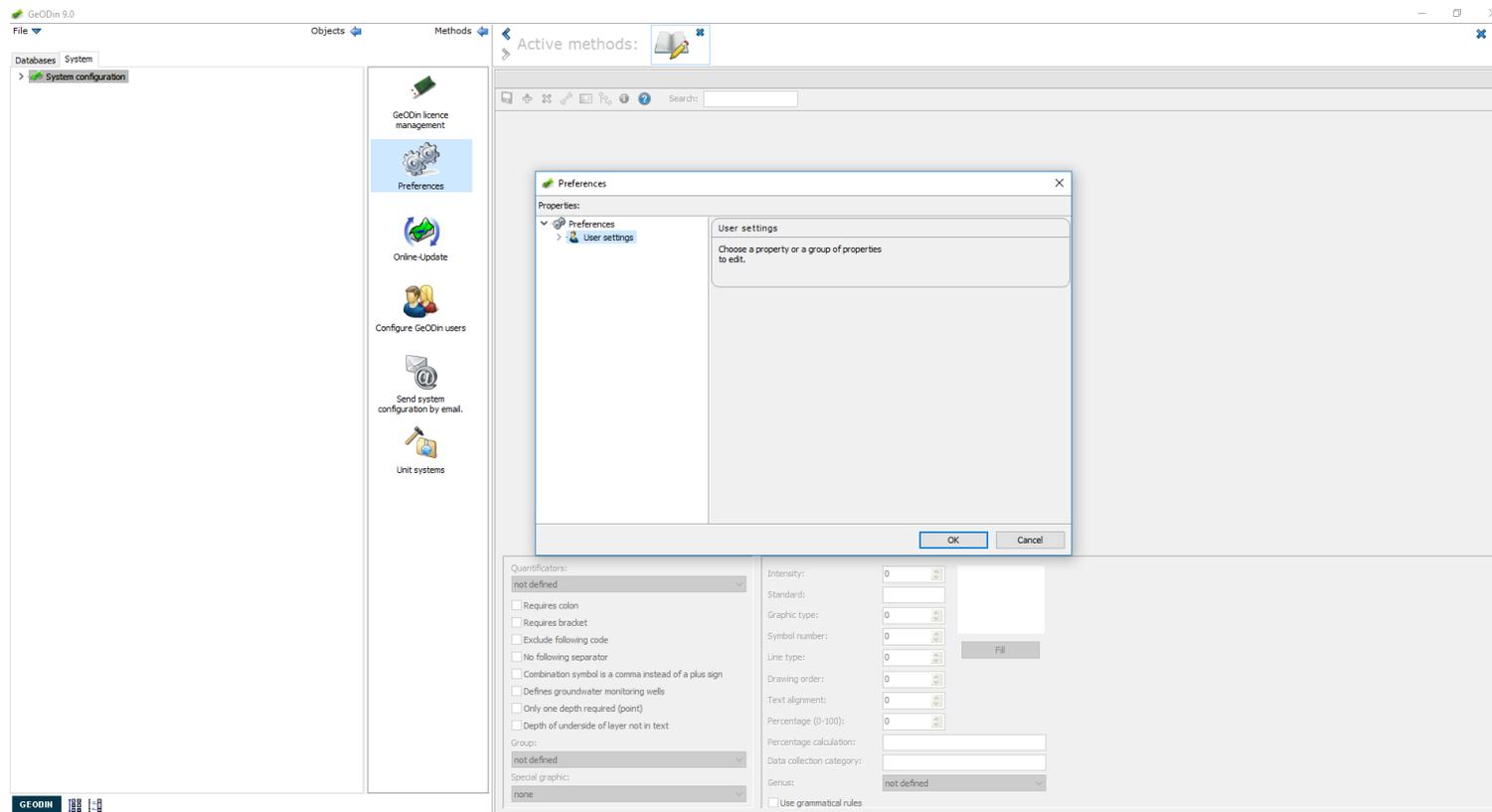




19. User settings

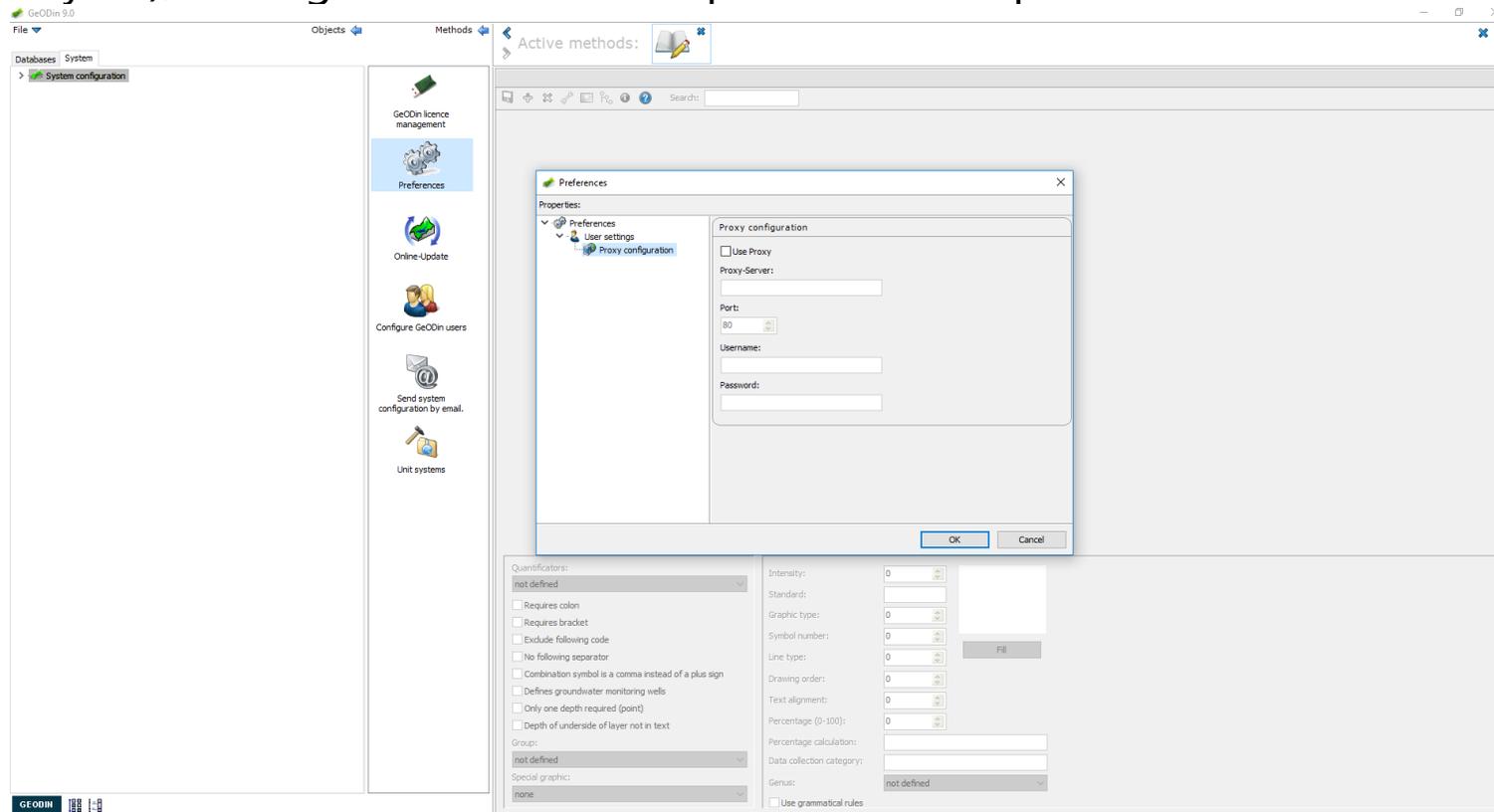
User settings (1)

The method <User Settings> under the <System> tab enables proxy configuration details to be entered. If your computer is connected to a local network that's protected from the Internet by a firewall, you may need to specify a proxy.



User settings (2)

A proxy server is a computer on a local network that acts as an intermediary between a single computer user and the Internet so that the network can ensure security, administrative control, and caching service. To add these settings click <Use proxy> and enter the proxy server IP address, port number (usually 80), adding a user name and password if required.



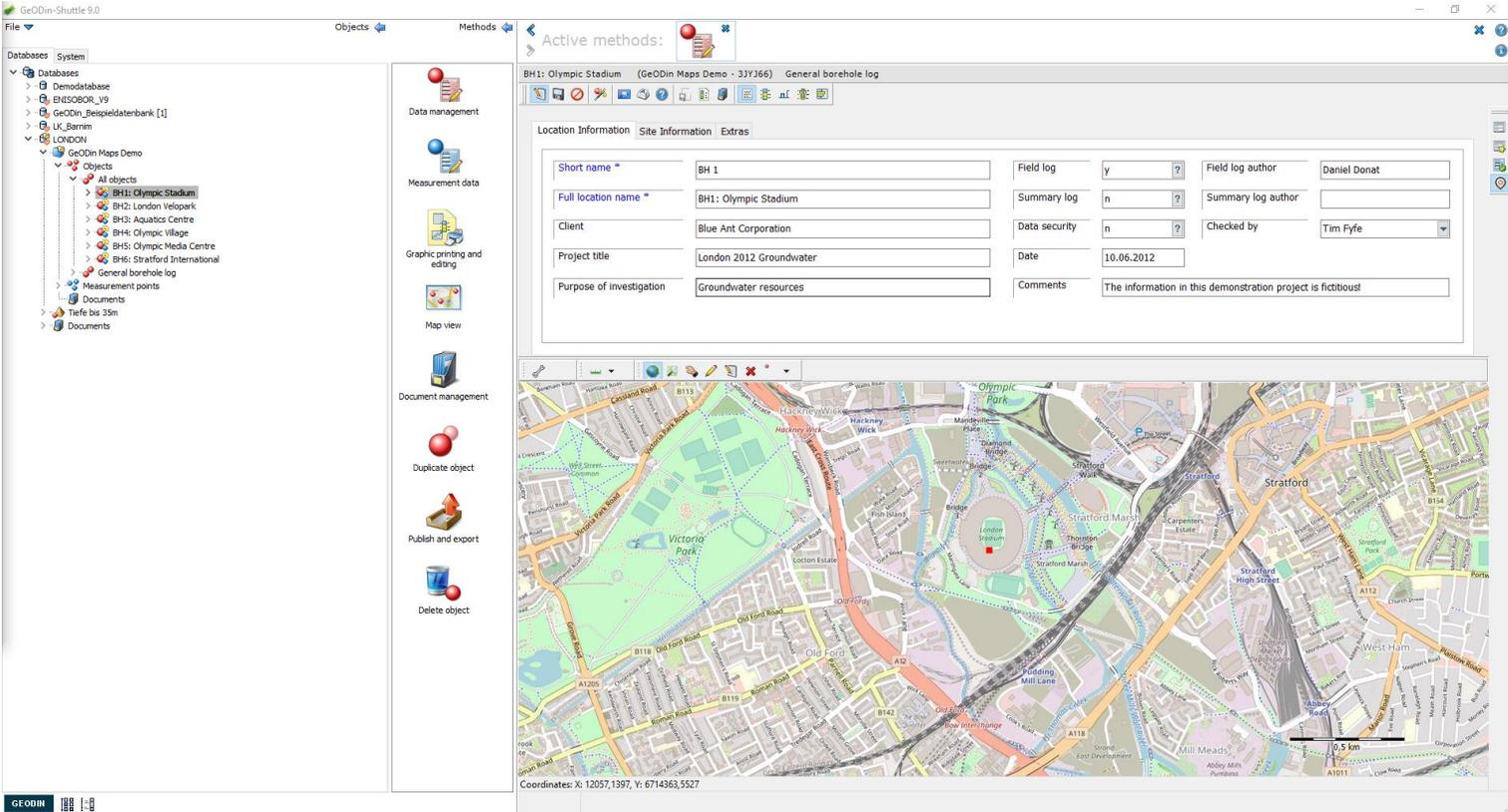
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20. GeODin Shuttle

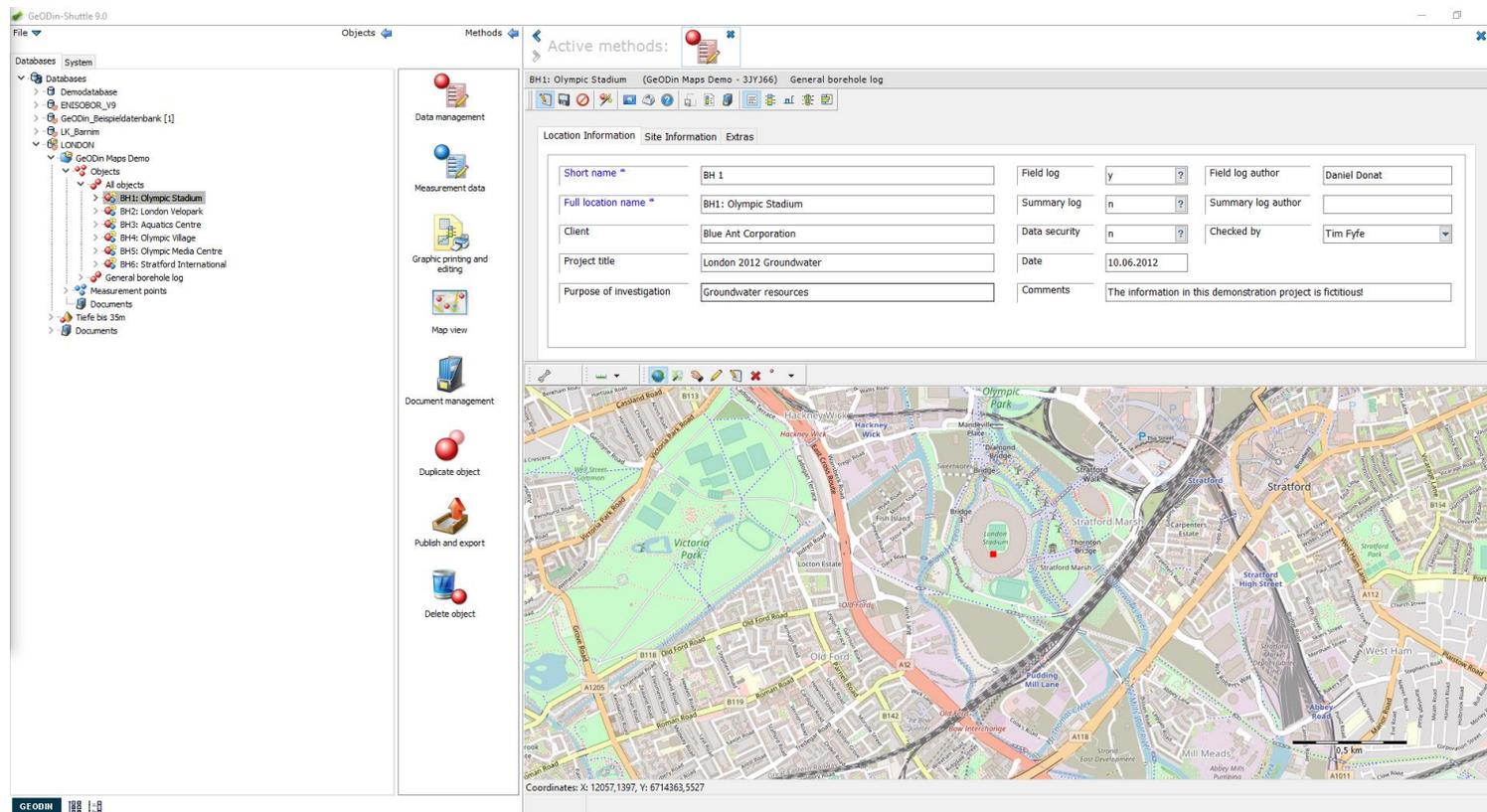
GeODin Shuttle (1)

GeODin Shuttle is free version of the GeODin software. It has the same interface, works with a Microsoft Access database and uses the same file formats as the commercial version. You can download it from our website www.geodin.com



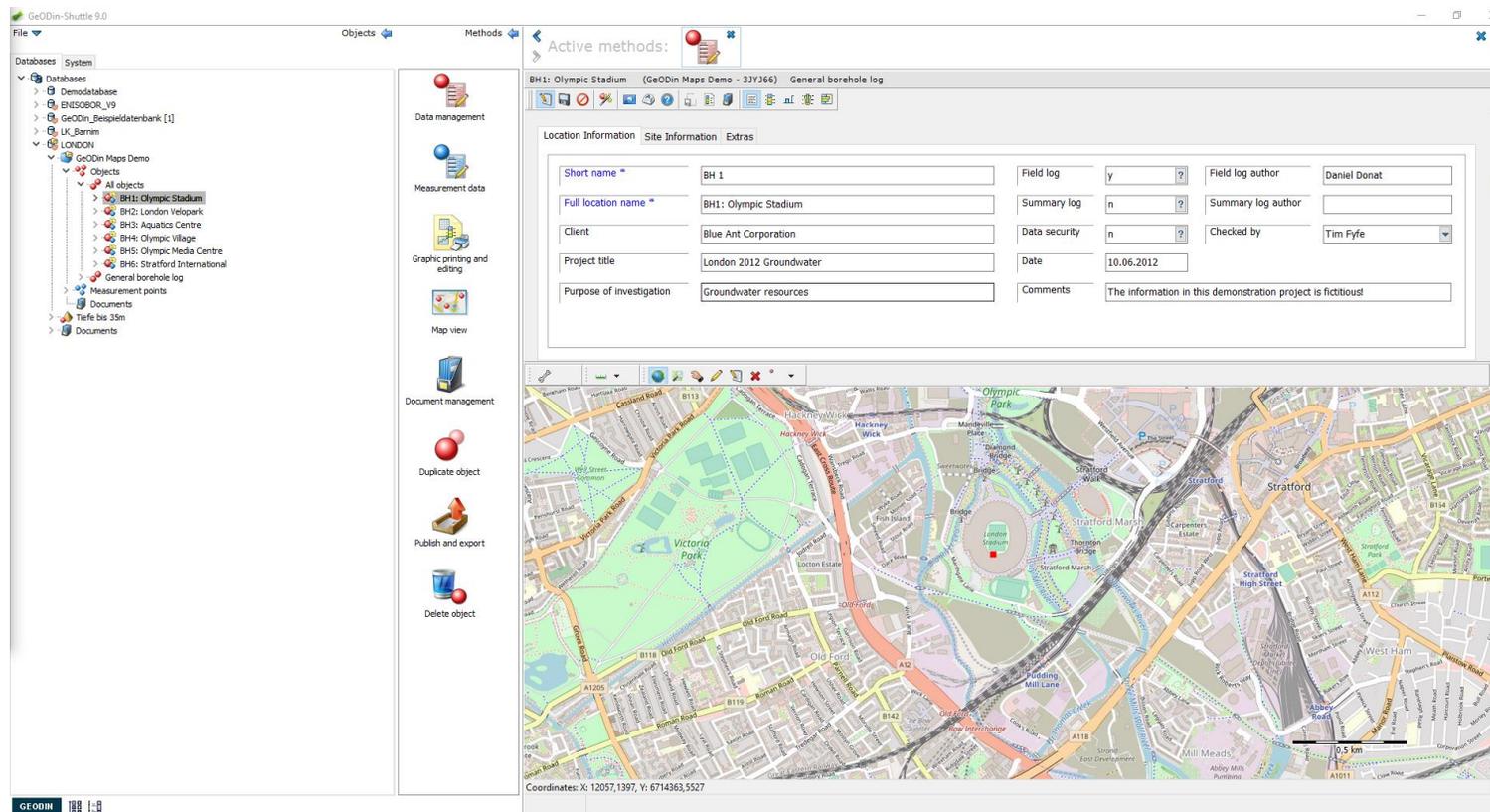
GeODin Shuttle (2)

GeODin Shuttle enables you to enter and organize geological, geotechnical, environmental and groundwater data, just as with a full GeODin licence. There are however some limitations such as the import & export of general data not being available.



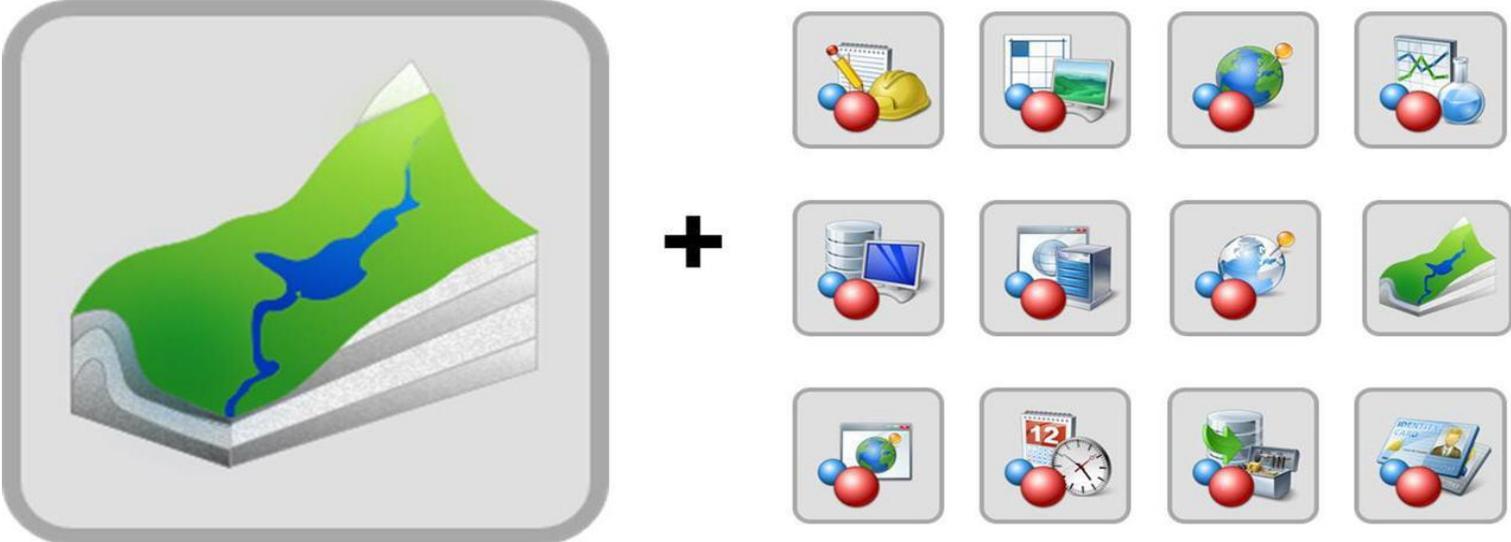
GeODin Shuttle (3)

The data you enter can be visualised with the method <Graphic printing and editing>. In both the screen display and on the print a watermark appears. Note that there is no watermark when the same data is displayed or printed with the commercial licence.



GeODin Shuttle (4)

Since GeODin Shuttle includes much basic GeODin functionality, it is ideal for work onsite or as an additional office data entry program. To make further use of the data a GeODin licence and one or several GeODin modules are necessary.

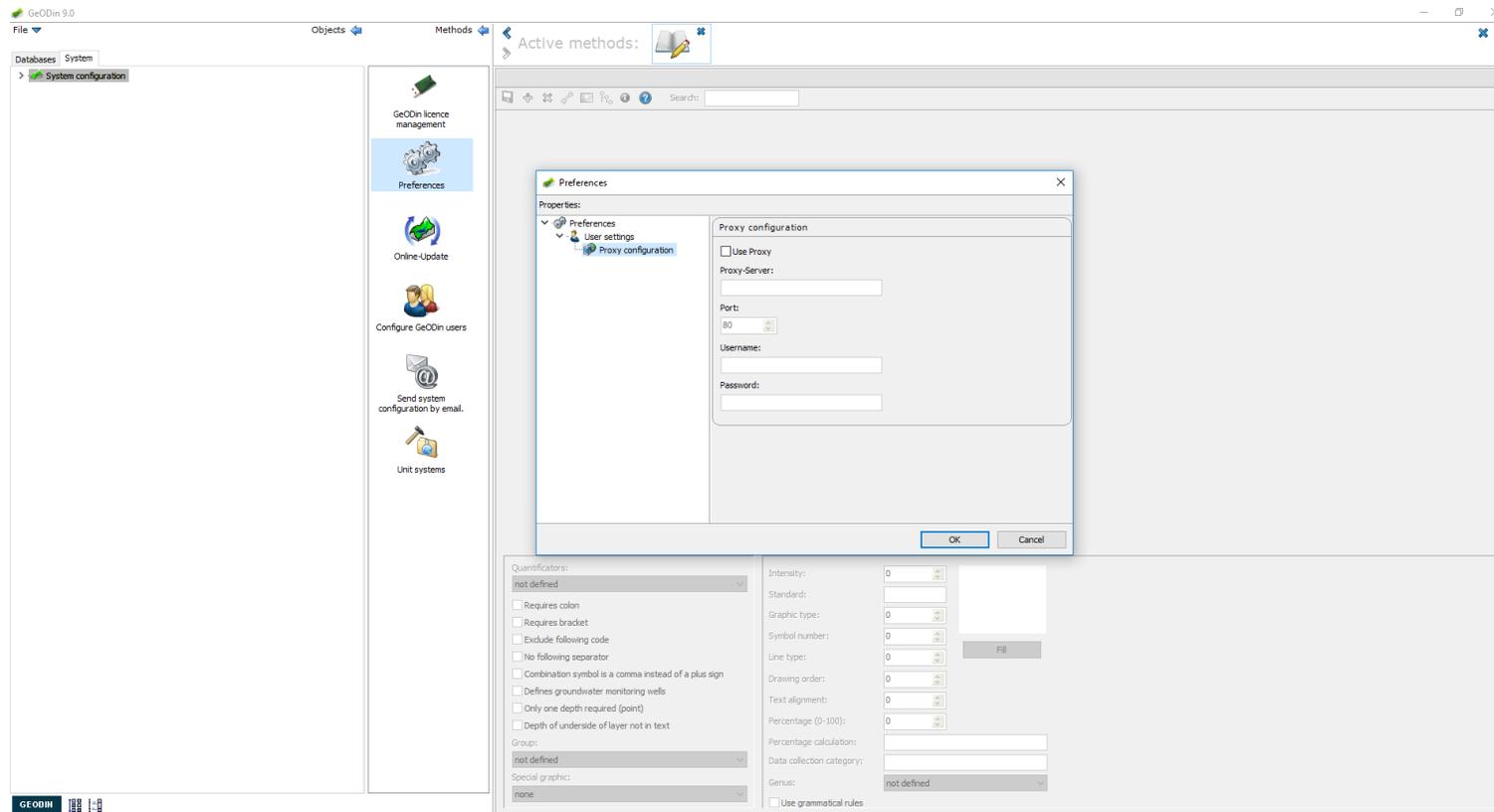




21. GeODin Help

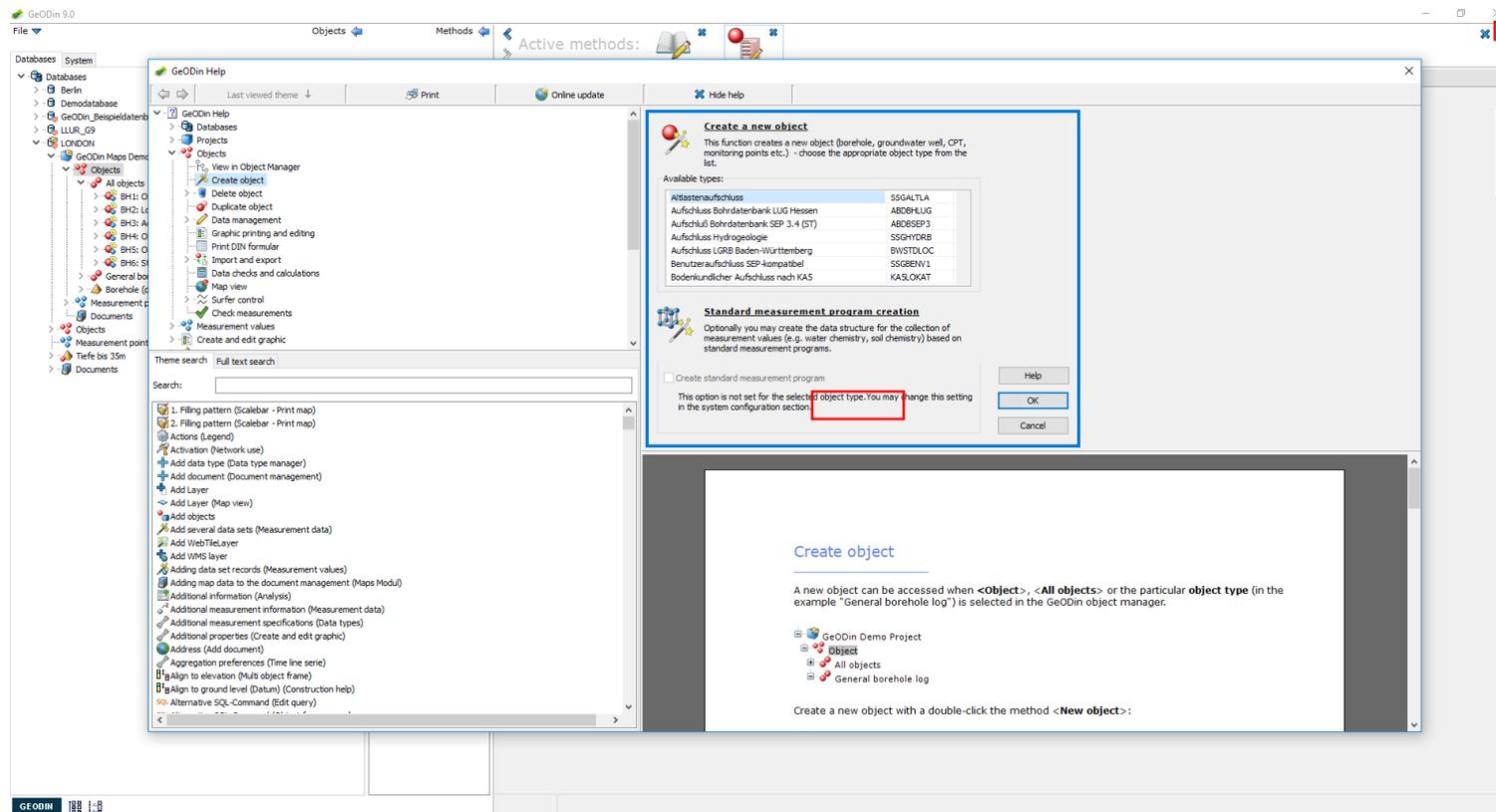
GeODin Help (1)

The integrated GeODin Help can be opened at any time by clicking on the “?” in the top right-hand corner of the GeODin window. Alternatively click the <F1> function key. You can also click the <Help> button in any dialogue window.



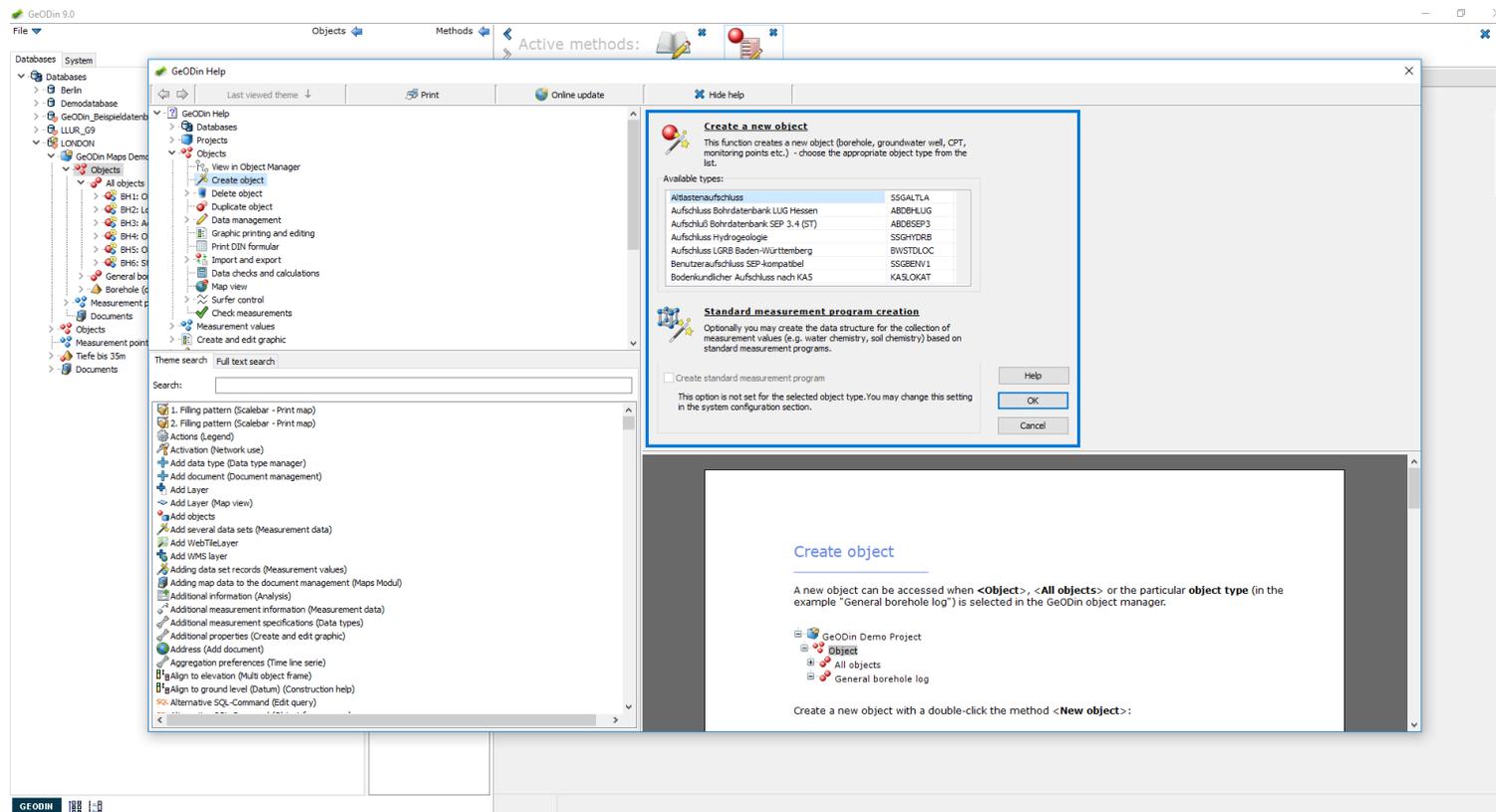
GeODin Help (2)

By using the <F1> key the chapter for the current topic will be opened. For instance if you opened the <Measurement data> method, then this page will be shown as a starting point in the <GeODin Help>.



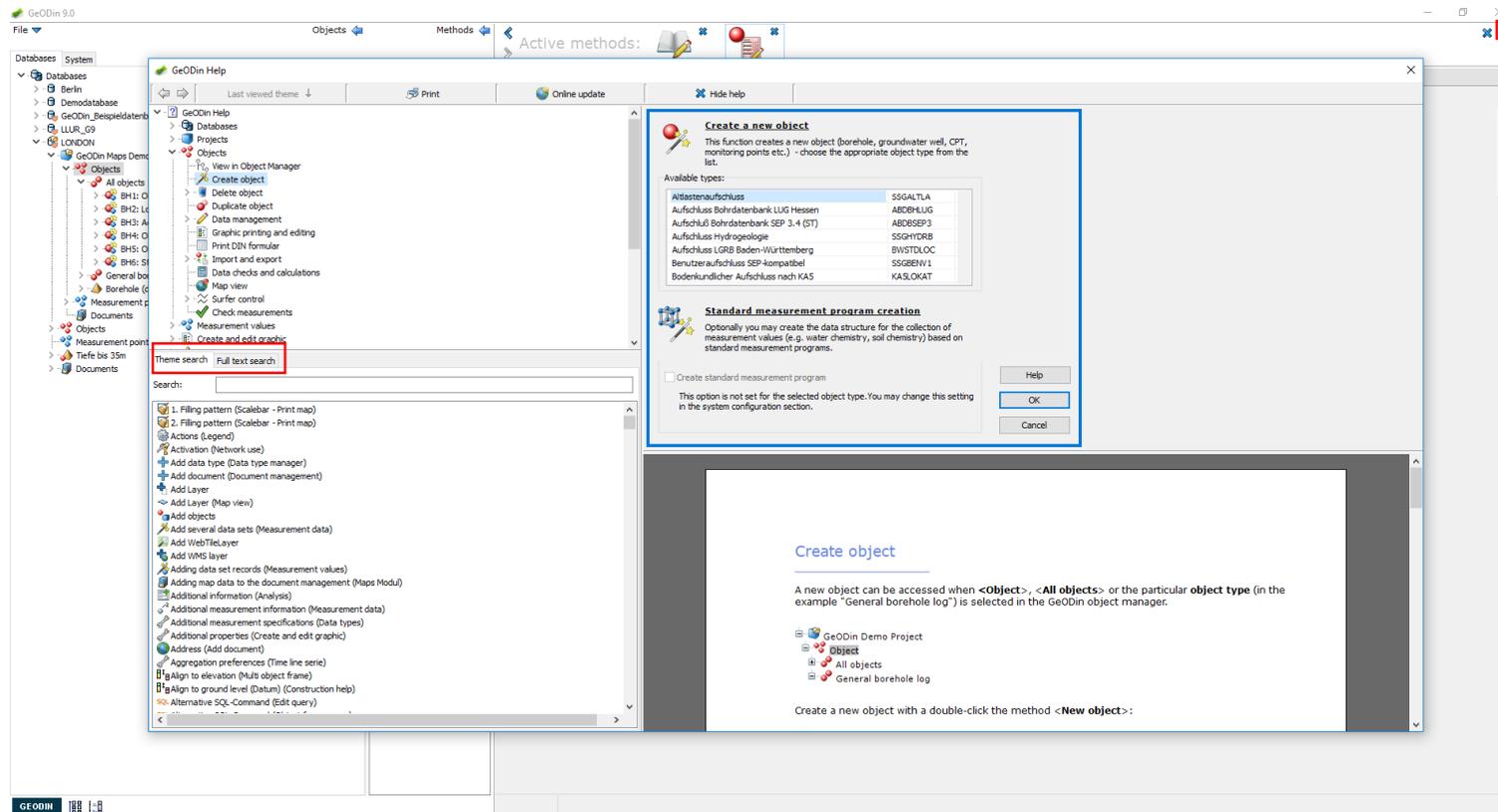
GeODin Help (3)

There are many ways to navigate within the <Help>. You can use highlighted links within each help article, the tree hierarchy panel in the top-left panel, the <Previous> and <Next> theme arrows and the next to these the list <Last viewed theme>.



GeODin Help (4)

You can search for specific themes or use the full text search in the lower-left panel. Themes update interactively when you type in a search term, narrowing down your choice. To run a full text search click <Start>. Use <Stop> to limit the number of results.





Thank you

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