# Manual GO4!

## Gorilla! Office (1.3e)

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A.P. v.d. Berg Machinefabriek B.V.
P.O. box 68 8440 PK Heerenveen
IJzerweg 4 8445 PK Heerenveen
Tel. +31(0)513 63 13 55
Fax. +31(0)513 63 12 12
E-mail go4!@apvdberg.nl

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# FOREWORD

## *General*

By purchasing GO4!® you have acquired a flexible program for loading, editing, storing and printing test data. For questions, remarks or suggestions with respect to the functioning of GO4!® please contact : A.P. van den Berg Machinefabriek B.V.

IJzerweg 4, POB 68
8440 AB Heerenveen
The Netherlands
Telephone : +31 513 631355
Fax : +31 513 631212
E-mail : go4!@apvdberg.nl

## *Indicator*

The functions are described in separate chapters. These chapters are indicated by a colored bar right across the width of the page. The function is mentioned to the left on this chapter bar. To the right you find how to select this function from the menu bar, including the corresponding key combination if applicable. Also the corresponding function bar key is shown, if applicable.

*Wherever possible, hints are given to simplify the use of GO4!. These hints are indicated with a* ☞

*Where actions are necessary or may cause problems, this will be indicated by text marked by a* 💣

Standard use of Windows (file storage, printer installation, etc.) is not mentioned in the manual. We assume that the user knows how to use Windows.

References in the GO4!® manual to buttons and/or function bars are indicated in a different color. For instance a reference to the printer configuration is shown as **Printer configuration**.

## *Liability*

GO4!® contains functions that enable you to edit test data. A.P. van den Berg Machinefabriek can in no way be held responsible for interpretations based on data that are thus processed.

# 1 Manual GO4! BASIC

## Gorilla! Office (1.3e)

## 1 INTRODUCTION

GO4!® is a database oriented software program for loading, presenting, processing, storing and printing CPT data. CPT data are found by selecting client, city, project number or a combination of these. The CPT data are reproduced in graphical form per project. Several functions are available to load CPT data or complete projects. All functions are compatible with the GORILLA!® and GEF formats. The general CPT data can easily be completed or changed. The CPT data can be presented in a lay-out designed by the client. They can also be loaded directly into Excel (97) for further processing.

## 2 SYSTEM REQUIREMENTS

The PC requirements for running GO4!® depend on its use. For instance, GO4!® in combination with Excel required more RAM. CPT tests with many and lengthy dissipation tests also require more RAM. When the lay-out editor is used extensively, a high resolution screen is recommended. Storage of the test results will require less local storage space in a network environment than on a local station.

The minimum system requirements are:

**Operating system : Windows 95/Windows NT**

**PC type : Pentium I, 120 or higher**

**Peripherals : CD-ROM player**

**Internal memory : 32 MB RAM**

**Screen : VGA 256 color (minimum 600 x 800)**

**Other : Parallel communication port**

A hardware copying protection is placed on the parallel communication port.

## 3 INSTALLATION PROCEDURE

A CD with the general GO4!® installation program and a diskette are supplied. The diskette contains client-specific files. During installation using the CD keep the diskette ready for insertion. To install the GO4!® package an installation program is used.

### *Installation GO4!*

Place the GO4!® CD in the CD station. The installation program will start automatically, depending on the configuration of your PC. If it doesn't, use Windows Explorer to activate the installation program. Double click on D:\SETUP.EXE (D being the CD-ROM player). Follow the screen instructions during installation.

## *Data directory*

Select a directory to store the test data. Take care of a well-organized structure and easy-to-recognize names. If necessary, create a directory by using the **Create Dir** key, e.g. C:\APB\MEASURING DATA.

When storing measuring data in a network environment, the relevant rights must be available.

## *Configuration*

Depending on the use of GO4!® it is possible to activate or de-activate a number of options during installation. The options below are available:

**Activate lay-out editor**
Activate this option to create or edit a lay-out.

**Activate database write access**
If the data are stored on a network and accessed from several stations, it can be useful to authorize one person to download the test results. Activate this option for this one person alone. De-activate it for other users.

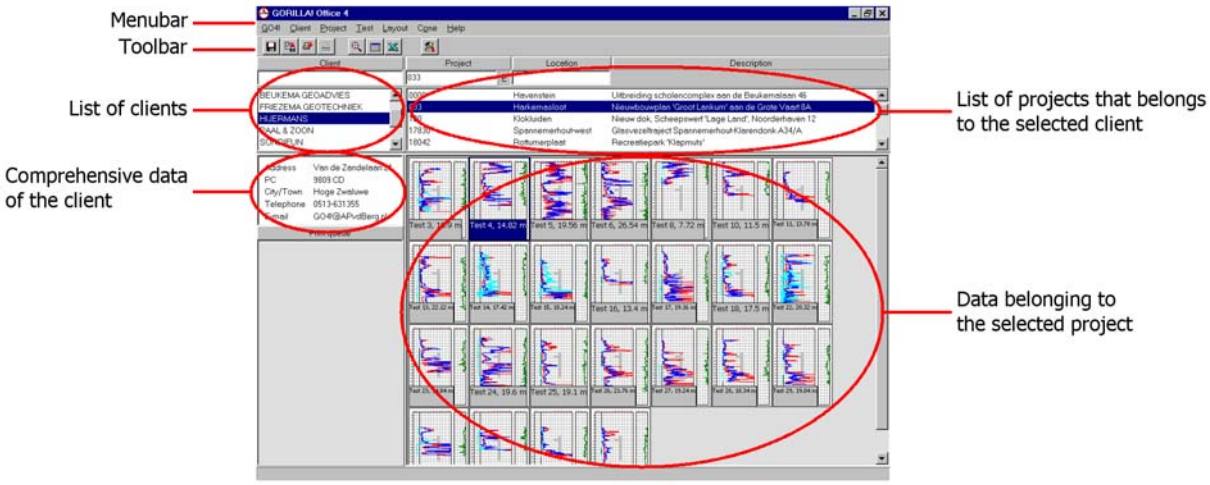
**Do not use the print queue**
GO4!® standard works with its own print queue. All print jobs are placed in this queue before the command for actual printing is given. In a number of cases you may want to print the test results directly without first placing them in the GO4!® print queue. In that case this option should be de-activated.

**Use another program to control GO4!®.**
It is possible to control GO4!® through a so-called COM interface. This option cannot be implemented without consultation with the supplier of GO4!. Therefore this option should remain de-activated.

**Activate the ReachOut button**
ReachOut is a software package allowing another PC to take over the control of your PC by means of a modem. This option enables A.P. van den Berg to provide extra service and support. ReachOut must be part of your software package in order to be used.

# 4 GENERAL USE

When the CPT data are loaded, they are stored in a database. Once this is done, data can be selected through the files client name, project number, location or a combination of these. When a project is selected, the corresponding test results will be shown on screen in graphical form (picture 1).




picture 1

It is easy to change and/or add additional information. GO4!® features a lay-out editor to present the test results in the right way. Different types of lay-out can be designed or adapted.

# 2 Manual GO4! USAGE

## Gorilla! Office (1.3e)

In this chapter a number of GO4!® functions are further explained. They are discussed in the same order in which they show up on the menu bar in the main menu.

## 1 GENERAL SETTINGS

Under GO4!® you will find the functions concerning the general operation of GO4!

### *Installing an update* GO4!/UPDATE

In a number of situations it is necessary to change or extend specific parts of the program. In that case the supplier of GO4!® sends an update floppy disk. Place the floppy disk in the A: drive. After selecting the function the update will automatically be installed.

### *Printing the test results* GO4!/PRINTING

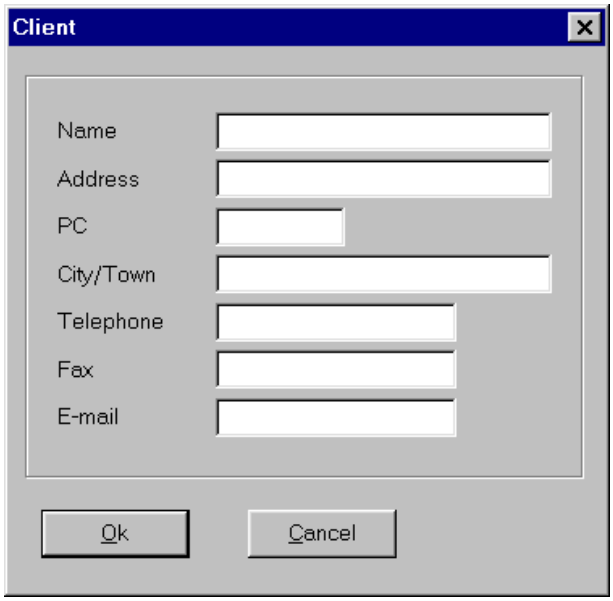
Select this function to print the data in the print queue. More information about placing print jobs in the print queue is given in the chapter PROJECT.

## 2 CLIENT DATABASE

Before measuring results can be loaded, a client name must be input in the database. Without a reference to a client and a project it is not possible to load the test results.

### *Input client data* CLIENT/NEW

The following window will appear on the screen:




*You must input the fields NAME, ADDRESS, POSTAL CODE and CITY.*

## ***Editing client data*** CLIENT/EDIT

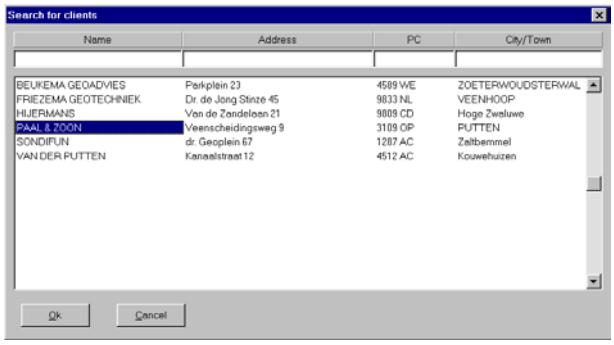
Client data can be changed and/or completed. The window as shown under ***Input client data*** will appear on the screen with the data already input.

## ***Delete client*** CLIENT/DELETE

Data of a client can be deleted only after all the project and/or test results have been deleted in GO4!®.

## ***Search client data*** CLIENT/SEARCH

This function enables you to search extensively for client data.




# 3 PROJECT

A project consists of one or more tests. Therefore to store a test a project must be present. If the corresponding project is not there it can be created. When a project is created while the client has not

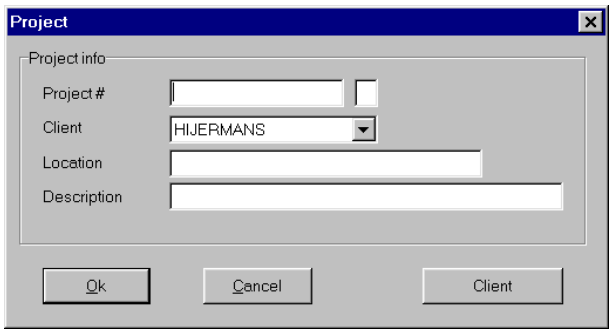
been defined, a new client can be created at that point. Project names consist of maximum 20 characters, with no restriction to the characters to be used.

e.g.: 200007-123/D289
PR3291
88-981237-MO

Furthermore an extension can be added to a project, for which 1 character is available from A to Z. Usually this extension is used to indicate an additional order concerning the same project. Such additional orders appear as a separate project in the list.

## *Create* PROJECT/NEW

To create a new project the following window is shown on the screen.

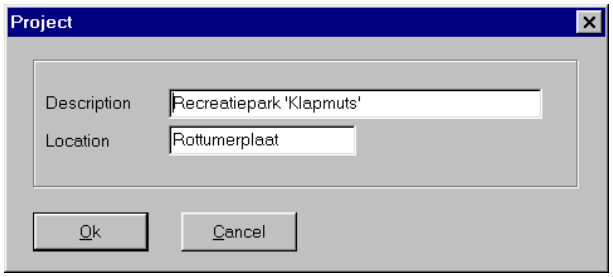



☞ *When inputting a client, a selection can be made from the client list by clicking on **CLIENT***

Select **CLIENT** to add a new client to the list.

## *Edit* PROJECT/EDIT

To edit a project the following window is shown on the screen.




☞ *Only the description and the city name of a project can be changed.*

## *Delete* PROJECT/DELETE

💣 *ALL MEASURING RESULTS BELONGING TO THE PROJECT WILL BE REMOVED!*

## *Save* PROJECT/SAVE

Different test results belonging to one project can be stored at the same time. Data can easily be exchanged this way. Data can be stored in two ways: in the original format or in "Geotechnical Exchange Format" (for more information see WWW.GEONET.NL).

**original format**

When **PROJECT/STORE/ORIGINAL FORMAT** is selected, the test results of the project will be stored in the GORILLA! ® format only if the files are already stored in GORILLA! ® format. Test results within the project that are available in GEF format will be stored in GEF format.

Choose the right directory and filename to store data. When no filename is input GO4!® will compose the filename from the order number with the test number as extension.

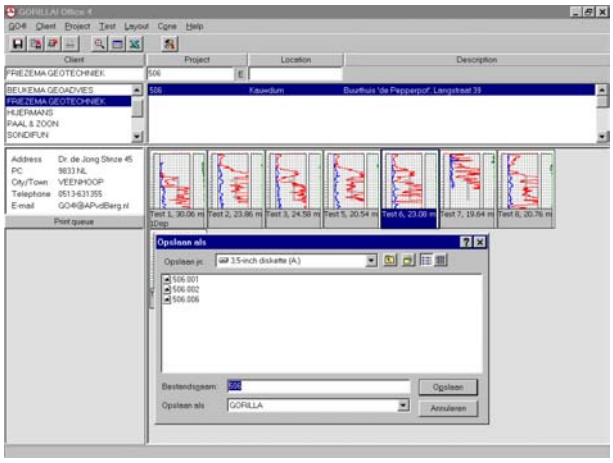
e.g.:
Order number = 506
Test number = 3
Filename = 506.003

**GEF format 1.0**

Irrespective of the original format, data can also be stored in GEF format by selecting **PROJECT/STORE/GEF FORMAT 1.0**. The GORILLA! ® files will automatically be converted to the GEF format; the files that are already stored in GEF will just be copied.

Choose the right directory and filename to store data. When no filename is input GO4!® will compose the filename from the order number followed by the testnumber, divided by a _sign. The extension will be GEF.

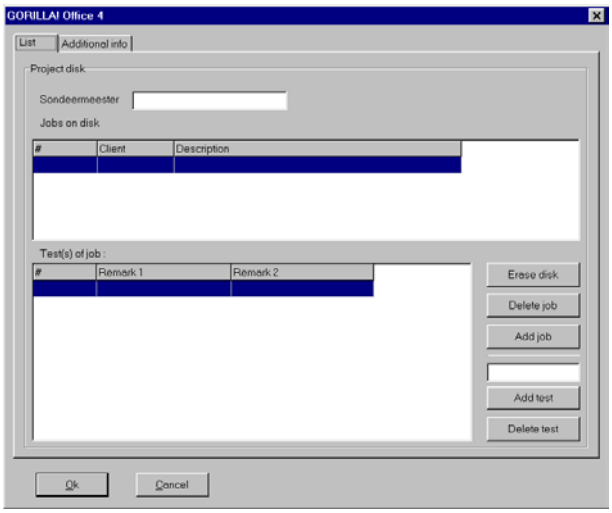
e.g.:
Order number = 506
Test number = 3
Filename = 506_3.GEF



*No extension can be given to a filename. The extension of the file will be defined by the serial number of the test*

## ***Project diskette*** PROJECT/PROJECT DISKETTE

GO4!® enables you to prepare a job before the actual test is performed at the site. This can only be done if an APB-data acquisition system is used in combination with GORILLA registration software. The data concerning the project to be performed and the corresponding tests can be input in GO4!®. The information that has to be available at the site can be copied to a diskette. To create a project diskette the following window is shown on the screen:



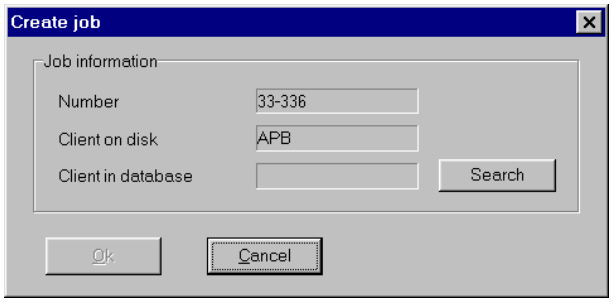

**input project**
Select this function to copy the data of the present project to the floppy disk. Several different projects can be copied to one project floppy disk. Projects already present on the floppy diskette are shown in the summary list.

**input tests**
Use the input field above this key to indicate which tests have to be performed at the location. For each test the corresponding number can be input. Several different tests can be input at the same time by giving their numbers separated by a comma e.g.: 1, 3, 4, 6, 7.
Subsequent tests are easily input by giving two numbers separated by a - sign. e.g.: 7-12. All tests that are included between these two numbers will be stored on the diskette (in case of the example: 7, 8, 9, 10, 11 and 12).

**additional information**
Additional information to a test can be input via the tab page **additional information**. On this tab page all fields are given that are available within GO4!® at that moment. To prevent that the additional information has to be input again for each test, use the key **USE AS STANDARD**. After using this key the additional information will be allocated to all tests.

## *Load a data disk* PROJECT/LOAD DATA DISK

While loading the data disk a selection is made as to which project the test results belong. If the relevant project is present in the database, the data will be stored under this project, regardless of which project is active on the screen at that moment. If a project is present on the diskette but not in the database, it will be created in the database. Before this can be done it has to be known to which client the project belongs. The information on the diskette that must be correctly stored in the database is shown on the screen:




*Searching for a client is only possible in the list where clients have already been input.*

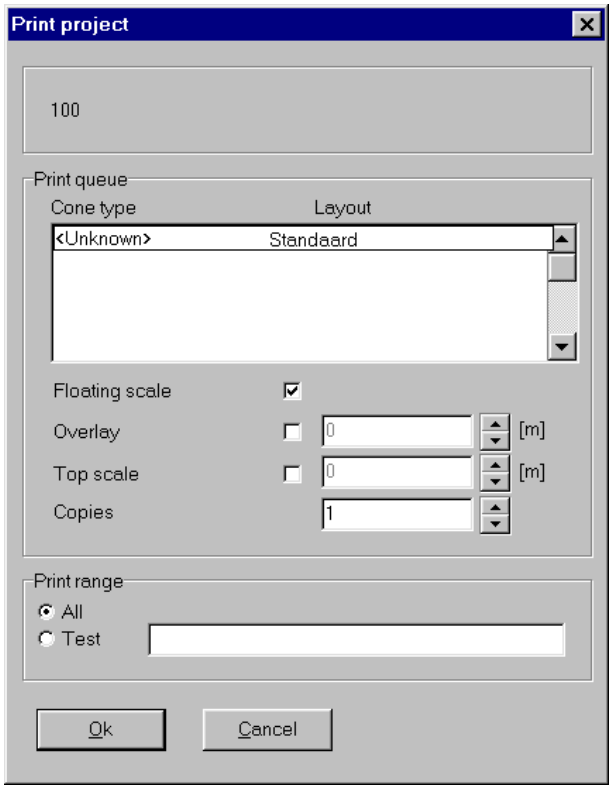
If possible it is indicated which client is mentioned on floppy disk. By means of the option **SEARCH** a list will appear of all clients available in the database. By selecting a client from this list the test results are stored under the indicated project number and the relevant client. If there is a file in the database with the same test number, the possibility is given to store the test results from the floppy disk in the database under a different test number .

## *E-mail*

E-mail is used more and more to transmit data from location to the office. Independent of the e-mail process used, GO4!® 1.3E has a simple option to process data that are transmitted by e-mail. This is based on the principle that the files are stored in a fixed directory. Standard the directory C:\APB\GO4!\E-MAIL is used for this. Upon pushing the e-mail key on the function bar this directory is searched for data files. If possible the files are automatically included in the database and then removed from the e-mail directory. The process can be compared to downloading from a project data floppy disk. The directory where the data files are searched can be changed in consultation with the supplier.

## *Printing* PROJECT/PRINTING

GO4!® works with a print queue. In this list several print commands can be placed before printing is started. Print commands can be stored per project and per test. Select the project for which the test results are to be printed. Select **PRINTING**. The following window is shown on screen:




☞ *If you want another lay-out: click on the indicated lay-out. Then select a lay-out from the list.*

The following options are available for print commands:

### Floating scale
Usually a floating scale is used for depth reproduction. The ground level is taken into account. When this option is de-activated the test length is reproduced, always starting with 0. The ground level is indicated in a separate field.

### Overlay
For tests that take up more pages than one, a part of the previous page can be repeated on the next page using this option.

### Scale starting point
In certain cases you may get a better overview when all tests of a project start at the same value of the depth scale (floating scale option is activated).

*the scale starting point cannot be lower than the maximum ground level of one of the tests.*

### Copies
The test will be printed the number of times indicated.

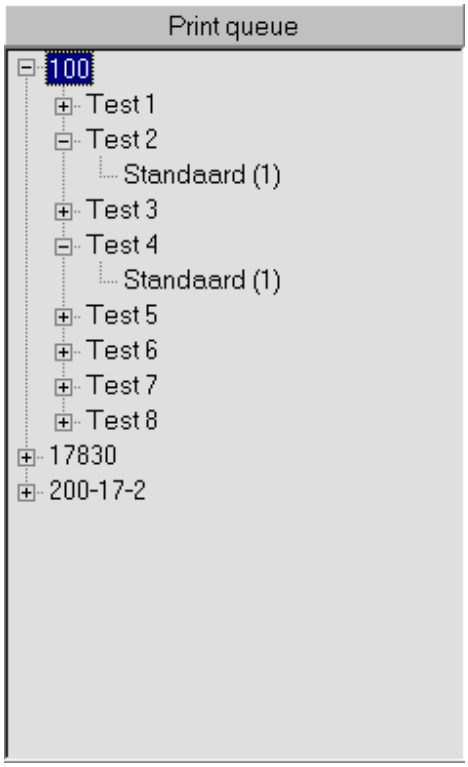
### Print range
When you want to print only part of a test: select **MEASUREMENTS** under print range. Indicate in the selection field which CPT data must be printed . The tests to be printed can be input, divided by a comma. E.g. 3,7,13,14.

Subsequent tests can be input by giving two numbers divided by a -sign. E.g. 7-12. All tests included between these two numbers will be placed in the print queue (in case of the example: 7, 8, 9, 10, 11 and 12).

Both methods can be combined. E.g. 1-9, 15-20.

After confirming the settings and the selection of tests, the print command will be placed in the print queue. The relevant project number is placed in the print list. Several projects can be placed in the print queue in the way described above, before giving the command to print all tests placed in the GO4!®print queue.

More information can be acquired of the projects that are placed in the print queue. Click on the + sign in front of the project number to show which test data belonging to that project will be printed. Click on the + sign in front of the individual test to see the lay-out and how many times the test will be printed. Click on lay-out to change the print setting for the test.

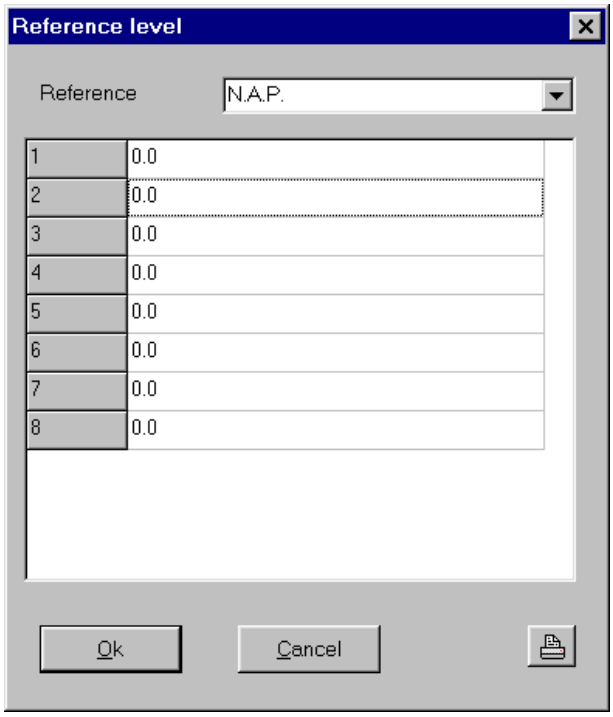



☞ *To print practically all test data of a project you may want to select all tests and then remove those tests that need not be printed from the print list.*

☞ *Choose*  *from the work bar to print data in the print queue.*

## ***Reference level*** PROJECT/REF.LEVEL

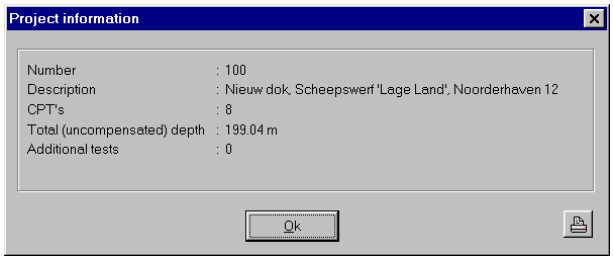
The reference level is not always known at the time that a test is performed. Often this information is input after loading the reference levels of tests results for further processing. Select this option to input all tests of a project:




The values can be printed a table by using the key.

## *Project information* PROJECT/INFO

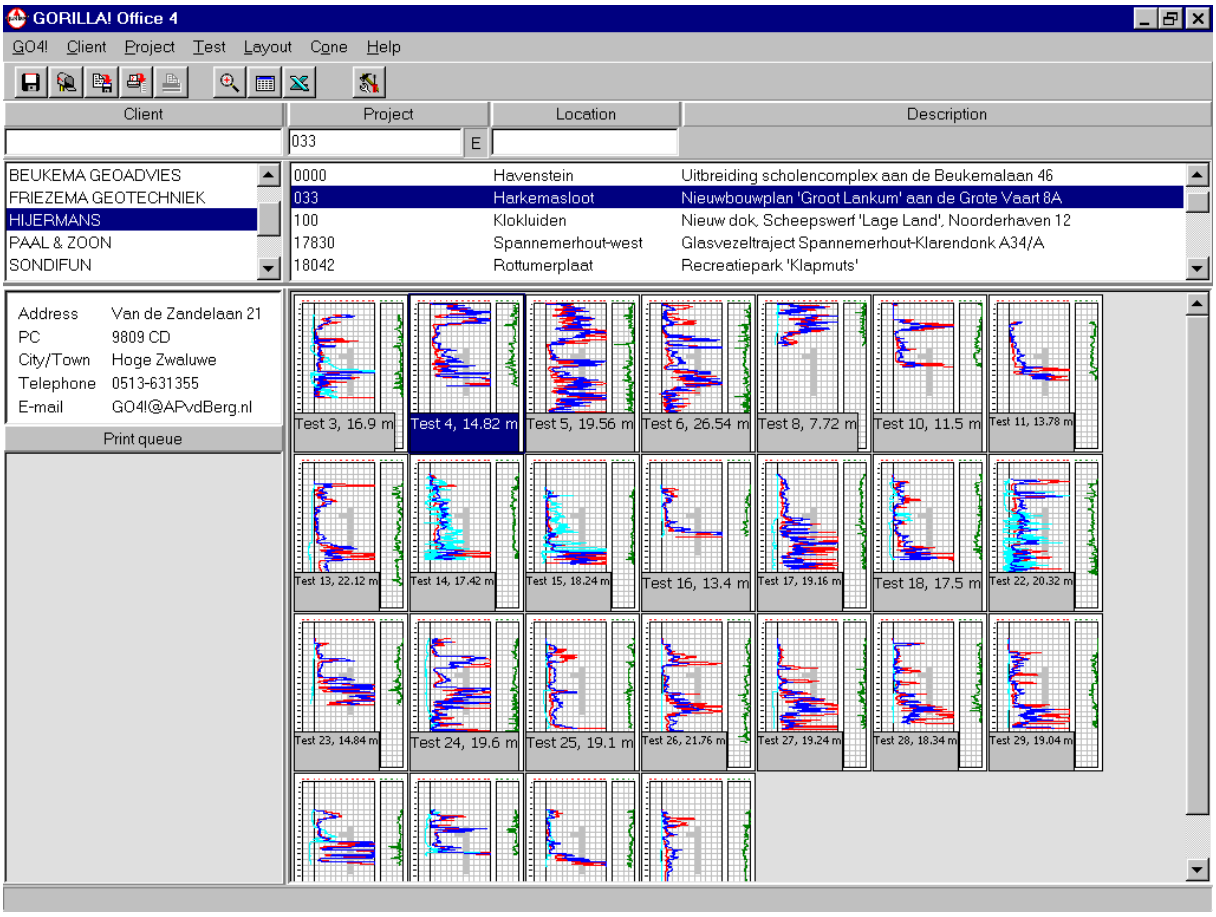
Select this function to get an overview of the selected project: the number of tests performed, the total test length af all tests and the number of additional tests performed (such as dissipation tests etc.). Data can be changed and/or added.




☞ *Select to print the project information.*

# 4 CPT TESTS

CPT test are being displayed per project. This gives a clear overview of the test results, wich can be processed furhter on. Processing of a test can only be done on the selected test. Selections are made by the left mouse button.




## *View*

Use this option to magnify the selected test. The option VIEW has been extended with a function to store a test in graphical format. The test can be stored in BMP or WMF.

## *Load* TEST/LOAD

With this function new test results can be loaded from the floppy disk. A project filter is used to prevent wrong data to be assigned to the selected project. This means that only those files are shown from the floppy disk which belong to the selected project. If also other files have to be loaded, the filter can be adapted so that all the tests on the floppy disk are shown. The test results will be shown on the screen immediately after loading.

## *Store* TEST/STORE

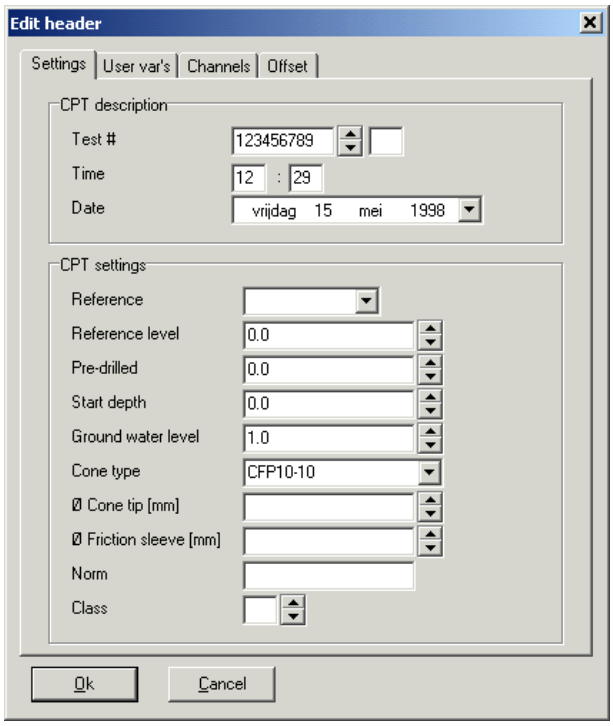
GO4!® provides a number of options to exchange test results. The test results can be stored in the original GORILLA format, in the universal GEF (Geotechnical Exchange Format) and in Excel 97 format. To do this, select **TEST** and then **STORE** from the menu bar. Then select the format in which the data is to be stored.

*When data are only available in GEF, they cannot be stored in GORILLA format. However, they can be stored in Excel format.*

## *Header information* TEST/HEADER INFORMATION

A test contains test results and additional header information. This information is partially input at the time that a test is performed. Afterwards information can be changed and/or added. The header information consists of a number of fixed fields and a number of fields that are user-specific.

☞ *This function can also be activated by selecting the wanted test on the screen and clicking on the right mouse button. Then select HEADER INFORMATION for changes.*




☞ *For the fields DATE, REFERENCE POINT and CONE TYPE THE use the key. You will get an overview of data from which you can select the wanted item.*

### User var's

By selecting the tab page **User var's** the user-specific fields can be filled out/edited.

### Channels

By selecting the tab page **Channels** a selection can be made of the channels to be printed. A list is shown with the channels present in the test file. When a channels is checkmarked it will be printed.

### Offset

By selecting the tab page **Offset** the zero values are shown. The difference in the value of the zero values before and after the test gives an indication of whether the test was successful or not. As a rule the difference in the zero values is of more importance than their absolute values. Usually the zero value of the inclination deviates and may even be negative. This depends on the sensor that is used.

☞ *This setting will be stored for printing at a later time.*

### *Excel* TEST/EXCEL

This function is used to load and process data in Excel. Only GORILLA files can be used. Files in GEF cannot be processed with Excel, because they are report files. Excel has two tab pages: "Header" contains the header information and "Test" contains the test results. The changes made in Excel can be copied to the test files. This is only valid for the test data. Changes in the additional header information will not be copied.

### *Print* TEST/PRINT

Use this option to add one test to the print queue. For setting the print options see chapter PROJECT/PRINT.

### *Sort* TEST/SORT

All tests of the selected project will be shown in the main screen. Select this option to sort the tests in the following ways:

**Number** : the tests are shown in the order of test number
**Date/time** : the tests are shown in the order of performance

### *Restore* TEST/RESTORE

While loading the test results, a work copy will be made automatically of the original file, as it is delivered from the test location. All changes made in GO4!® or Excel will be made in this work copy. To undo changes, select **TEST** from the menu bar and then **RESTORE**. This will restore the original situation.

### *Remove* TEST/REMOVE

Removes the test results of the selected test.

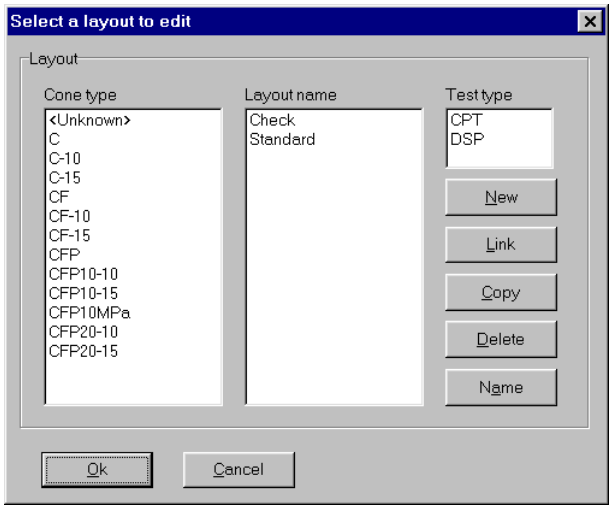
# 5 LAY-OUT

GO4!® offers extensive possibilities to print test data. Several lettertypes, colors, scale divisions,logos etc. are easily available. All functions to design a lay-out are available under the lay-outeditor.

☞ *All functions regarding the lay-out will be described in the chapter "LAY-OUT EDITOR".*

### *Editing* LAY-OUT/EDIT

The following window will be shown on the screen:




In the window all available cone types will be shown and the lay-out available per cone type :

**Link**
A lay-out will be linked to a cone type. All tests performed with the same cone type can be printed with the same lay-out.

**Copy**
When you want to make a new lay-out we advise that you copy and edit an already existing lay-out, instead of designing an entire new lay-out from scratch.

**Delete**
Delete the selected lay-out.

**Name**
To assign a name to a lay-out.

## *Import/export* LAY-OUT/IMPORT/EXPORT

T he lay-out definition can be imported. Usually the import function is only used if the lay-out is not designed by the client but by an external party (e.g. the supplier of GO4!).

## *Screen lay-out* LAY-OUT/SCREEN

In the GO4!® main window the test results are also shown in a certain lay-out. This can be the same lay-out that is used for printing. Since the reproduction on screen is relatively small compared to reproduction in print on paper, grid and/or colors can be changed or removed to give a clearer picture. Of course it is possible to create an entire new lay-out for reproduction on screen. Standard, the screen lay-out is assigned to the cone type <unknown>, so that a picture will always appear on the screen, regardless of the cone type used.

# 6 CONE

For a correct processing of the test data, the data of the cone type used to perform the test must be available. It concerns for instance data of the parameters that can be measured with the cone type, the dimensions of the cone etc. The lay-out definition is also assigned to a cone type, so that the same lay-out is used for the same cone type.

## *Import* CONE/IMPORT

Together with GO4!® a list of standard cone types is supplied. When a new cone type is launched the corresponding information is to be included in the list. This information is supplied on a floppy disk.

Place the cone type floppy disk in the floppy disk drive. Select the function **CONE/IMPORT**. The present list of cone types will appear on the screen. Then select Import to include the data in the list. Now the new cone type will be on the list.

# 3 Manual GO4! LAY-OUT EDITOR

## Gorilla! Office (1.3e)

## 1 INTRODUCTION

To create a specific lay-out, a number of general design rules apply. By following these rules, you will get a lay-out that is well-organized and easy to adapt if necessary.

- For a new lay-out, make a good inventory of which data have to be shown in print and if these data depend on the presence of parameters etc.
- Take care of a sufficiently high resolution for graphical images.
- When creating a lay-out a standard graph is drawn. This makes it easier to install limits etc.
- Take care of an easy-to-recognize- name for your lay-out, so that selection is easier afterwards.

## 2 BASIC PRINCIPLES

A number of basic principles are important to design or edit a lay-out. A few of these basic principles appear below.

**Cone type:**
In principle a lay-out is designed for just one cone type. This makes an automatic link easy between the tests (made with a certain cone type) and a defined lay-out. It is also possible to use a general lay-out that can be used for all cone types. To do this a lay-out can be assigned to several cone types.

**Several lay-outs per cone type:**
Several different lay-outs can be assigned to one cone type. For instance with differences in paper format, language, depth scale, parameter scale division, units, etc.

**Kind of lay-out:**
If a certain cone is suitable for different kinds of tests (for instance dissipation in case of a water pressure cone) a separate lay-out can be defined for the same cone type.

**Layer structure:**
In principle the lay-out consists of different objects layered over each other. Large objects can cover small objects that were placed earlier. The order in which the objects appear in the object list is the order in which they are placed. This order can be changed by clicking on an object and moving it to another place.

**Properties:**
Objects such as texts, scale divisions, grid etc. have their own specific properties, that may be visible or not depending on the available test data. This makes it possible to define a general lay-out in which for instance scale divisions are left out if a parameter is not present.

**Printer definition:**
A printer definition can be coupled to a lay-out. This enables you for instance to directly send a fax with a special fax lay-out.

# 3 OBJECTS

A lay-out definition consists of a number of objects. These objects can be changed while you place them, or afterwards. Each object has a number of properties. The number of properties depends on the kind of object. Furthermore different objects can be coupled to each other. While creating or changing a lay-out a number of general principles exists with relation to the objects. Below you will find a number of these principles.

**Magnetic grid**
In order to place objects in the right way a magnetic grid is built in. This grid takes care that the objects are placed at a fixed distance to each other. The grid is installed with a mesh distance of 2.5 mm. It can be de-activated with the function **Options/magnetic grid**.

**Properties**
To adjust the properties of an object, select the object with the cursor and press the right mouse button. Depending on the object selected, a window with one or more tab pages will appear. Select the correct tab page to edit the properties of the relevant object.

**Select object**
To edit an object, select it with the left mouse button. If another object covers the object to be edited, use the object list. Select the desired object from the list using the mouse and clicking with the left mouse button. The object will remain selected until you click on another object or none at all.

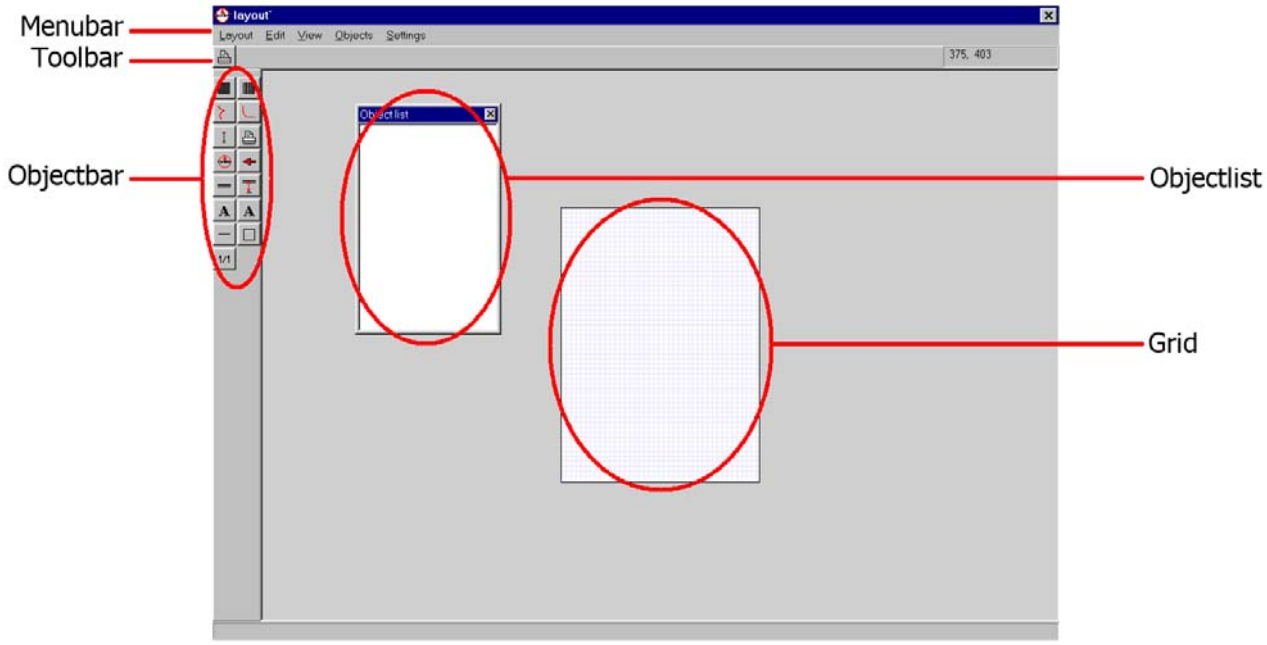
**Move object**
To move an object, select it first. The selected object can be moved by pointing at it with the cursor in the object list and then dragging it to the new position with the left mouse button pressed down. Release the mouse button at the wanted position.

**Change object size**
To change the size of an object, select it first. The selected object is indicated in a dotted field. At the corners and in the middle of the sides are squares. The object can be made bigger or smaller by pointing at one of the squares with the cursor and moving the mouse with the left mouse button pressed down. With most of the objects it is possible to fill in the sizes nummerical true the propertie box.

**Object list**
The objects created can be found in the object list. The order in the list is the order in which the objects have been placed. To change the order in which objects have been placed, click on the relevant object and drag it to a new position in the list with the left mouse button pressed down. Release the mouse button to place the object in the new position.

# 4 CREATE A NEW LAY-OUT

Select  from the function bar to start the lay-out editor. Then select the cone type for which the lay-out is to be created. Click on **NEW** to create a new lay-out. Input a logical name under which the lay-out will be stored. Select the lay-out from the list that was just created and click on **OK**. The main window of the lay-out editor will appear on the screen:




To the left you will see an object bar with icons for placing the different objects on the graph, that will help you with an easy construction of the lay-out. The lay-out is constructed from a number of components that are placed over each other in layers. Larger objects may entirely cover smaller objects. Since a layer can only be selected with the mouse when it is visible, it may seem that the covered objects are out of reach. Therefore it advisable to first place the large objects and then the smaller ones. The construction will then remain well-organized and result in easier selection. Every object can also be selected by clicking on it in the object list. Once selected, its properties can be changed.

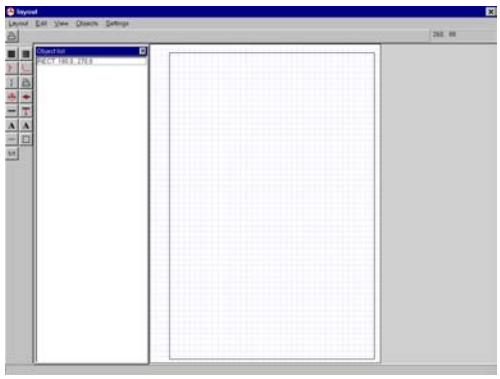
Not only the order of the layers is important while constructing the lay-out, but also the order of the objects, because objects may have a link to each other.

☞ *In a number of cases it can be handy that one object covers the other. Use the object list to do this. Select the wanted object. Press the left mouse button to drag the object to the wanted position in the list. Release the left mouse button to place the object.*

☞ *We advise to design a lay-out in the order as indicated in this chapter.*

## *Border* OBJECTS/BORDER

While designing a lay-out it is important to know which printer will eventually print the data. Select the correct printer choosing **Lay-out** from the menu bar and then **Printer settings**. The drawing area that is shown in the lay-out editor, is the area that can be printed on by the printer. Use **Properties** to set the line thickness and color. For background color select the tab page **Background** under **Properties**. Click on the box behind Color to select a color.

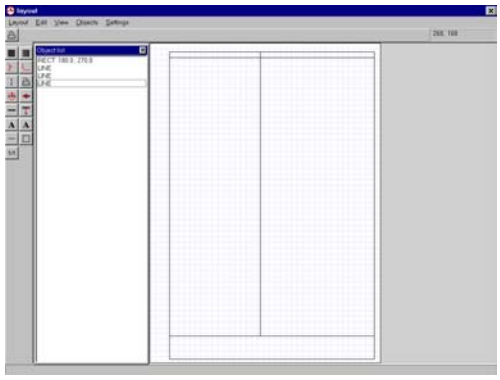


☞ *When a lay-out is designed for several different printers, it is advisable to work with the smallest print area. This area is indicated in the printer manual (margins).*

☞ *For a good overview of the print area, place a border object with the size of the work area and then print it.*

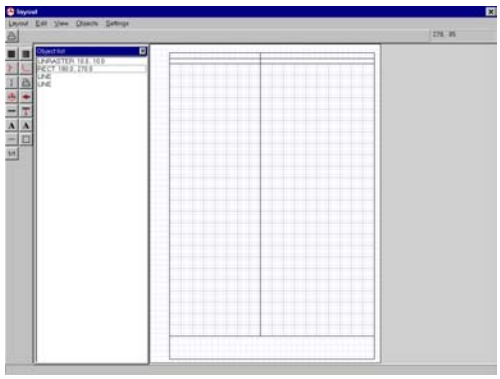
## *Lines* OBJECTS/LINE

Before placing the grids and graph it may be useful to first divide the lay-out in several areas. To make a clear division don't only use the border objects but also the line objects. Place the cursor on the starting point from where the line has to be drawn. By clicking on the left mouse button the starting point of the line is fixed. Then move the cursor to the end point of the line. By clicking on the left mouse button the end point of the line is fixed. Use **PROPERTIES** to define the thickness and color of the lines



## *Linear grid* OBJECTS/GRID (LIN)

The grid forms the basis for the lay-out, since all parameters and references are placed with respect to the grid. Place the grid as wanted. Eventually the graph will be drawn in this grid. Take the number of parameters to be reproduced in the graph into account. Take care that enough space remains outside the grid for placing the scale divisions for the parameters. Standard, a border is drawn around the grid. Use **PROPERTIE**S to define thickness and color of the lines of the border as well as of the grid.

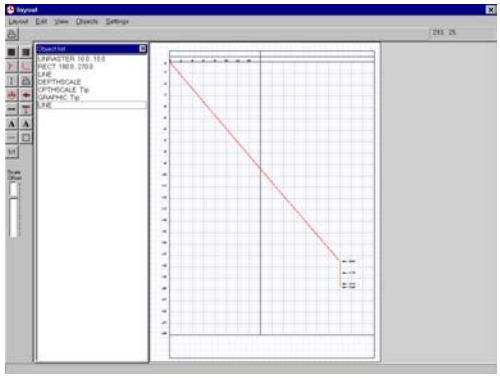


☞ *In a number of cases it is useful to make the visibility of a grid dependent on a parameter. For instance a smaller division of the grid for reproducing the friction ratio. When the friction ratio cannot be calculated (for instance when a cone for only cone resistance measurement is used) this grid will not be shown.*

☞ *By using several grids with a different division and a different line thickness clear subdivisions can be easily made.*

## *Graphs* OBJECTS/GRAPHIC (LIN)

The test results of different parameters can easily be reproduced in graphical form. Select **OBJECTS** from the menu bar and then **GRAPH**. The cursor will change into an arrow with a page attached to it. Place the graph with the cursor in the left upper corner of the grid that was already placed. Then click on the left mouse button to place the graph. Automatically 3 objects will be placed: a graph, a depth scale and a parameter-scale division. Each object has its own properties. Standard, the graph to reproduce the cone resistance is placed. Adapt the dimensions of the graph to the dimensions of the placed grid. When the test value exceeds the margin, the numerical value is given where the graph stops. Determine where the numerical values are placed by moving the right margin.

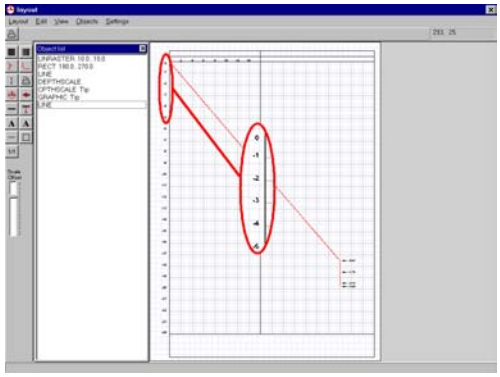


**Exceeding the maximum limit**

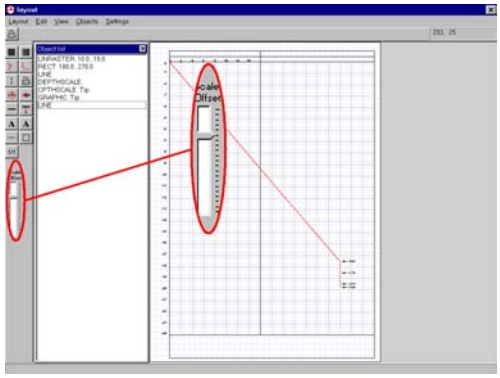
For adapting the settings with regard to exceeding the maximum limit, select the graph and push the right mouse button. Then select **PROPERTIES** and choose tab page **LIMIT**. If you want numerical information to be shown, select it. Then select in which way excess of the maximum value should be indicated. If **MAXIMUM VALUE** is selected only 1 arrow will appear at the maximum value when the limit is exceeded. If **INTERVAL** is selected, the numerical value will be given in intervals as indicated. The distance between the text or the arrow point and the graph can be defined using **MARGIN**. Do not select show limit arrows if only numbers and no arrows are required to indicate excess of the maximum limit.

**Depth scale**

When placing a graph, a depth scale is placed at the same time. The end of the depth scale indicates where the graph will end. It is advisable to allign this with the grid that has already been drawn. The length of the depth scale can be easily adjusted by clicking on the grey square at the bottom of the box and then moving it. The length of the scale division will automatically be adapted.

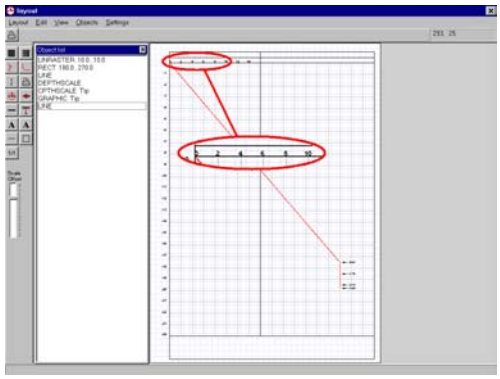


Select the depth scale by clicking on it with the left mouse button in the lay-out, or in the object list. To the left on the screen a setting slide will appear. By means of the track bar it is possible to move the numbers of the scale division within certain margins, in order to obtain a correct allignment of the numbers with respect to the grid. Click on the right mouse button and select **Properties** to change the settings of the depth scale.



**Scale division of a parameter**

When placing a graph, a scale division of a parameter is placed at the same time. Select **Properties** to change the settings of the scale division.



**SCALE DIVISION**

For a correct scale division, first select the tab page Scale division. Define the number of units and the corresponding number of milimeters that it takes up on the page under **Measured Units** and **mm's on paper**.

**SCALING FACTOR**

For reproducing units other than SI units, the correct value can be obtained using a scaling factor.

**DECIMALS**
Input the number of positions behind the comma with which the scale division is shown on the screen.

**STARTING VALUE**
For reproducing scale values that do not start with 0 the starting value of the scale division can be given.

**NUMBERS WITHIN THE GRID**
With this option you make sure that the scale division at the beginning and the end of the division is shifted so that numbers fall within the grid.

**SHOW STARTING VALUE**
In some cases you may not want fthe irst value to be shown at a scale division in order to prevent confusion with other scale divisions. By checking this option the first value of the scale division will not be shown.

☞ *The reproduction of the scale division can be made dependent on the presence of the relevant parameter in the test results. Only the parameter scale divisions of the parameters that are in the data file are printed. This makes the graph easier to interpret. Select the relevant parameter scale division and choose* ***PROPERTIES****. Select tab page* ***representation*** *and select the correct parameter from the list.*

In the way described above several different parameters can be shown in the lay-out. Place a next graph as indicated earlier. Then select this graph and select the parameter to be shown using the tab page **Settings** under **Properties**. Select the wanted parameter from the list under option **Name** . Then adjust the scale division of the parameter with respect to measuring range and division of the scale. Then adjust the other properties of the parameter.

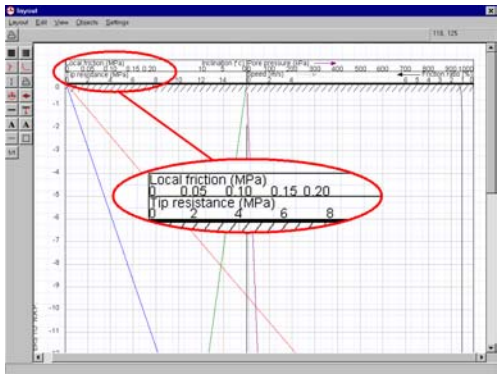
☞ *For a clear distinction it is advisable to give each parameter a different line type or line color. Give the scale division of the parameter the same color as the line with which the graph is made.*

## *Numerical range* OBJECTS/NUMERICAL RANGE

Sometimes you may want the test results of a parameter reproduced as a numerical range instead of as a graph. This is mostly done for inclination. Place the cursor at the position within the lay-out where the numerical range should start and click on the left mouse button to confirm the position. The numerical range is placed the same way as a graph. Click on the right mouse button to change the properties of the numerical range.

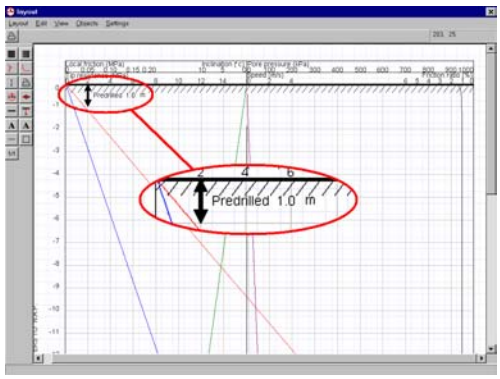
## *Ground level* OBJECTS/GROUND LEVEL

The ground level object will be placed in the left upper corner, since this is the zero-level. Placing this object determines the position in the horizontal plane where it has to be indicated. Go to the left upper corner of the grid with the cursor and click on the left mouse button to conform the position. Click on the right mouse button to change the properties of the ground level object.



## *Predrill* OBJECTS/PREDRILLED

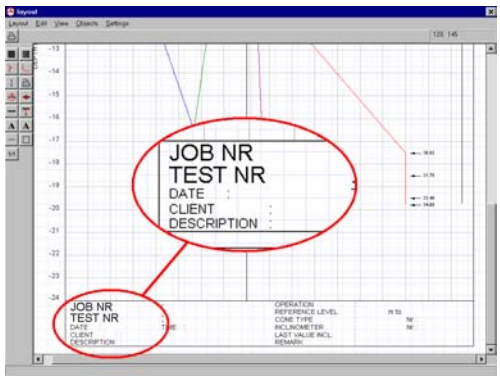
Performance of a test in a predrilled hole may cause problems in the presentation of the test results over the predrilled interval. These problems can be prevented by placing the object **Predrilled**. Place the object on the wanted horizontal position with the starting point at the same level as the ground level. A vertical arrow will be placed. The length of the arrow will be determined by the length of the predrilled interval that is indicated in the test results. The parameters obtained over the length of the predrilled interval will not be shown. The arrow will only be shown when the predrilled interval is larger than 0 cm.




☞ *The value of the predrilled interval can be included in text in the lay-out by way of illustration. To do this it is necessary to link the reproduction of the text to the predrilled object . The text will then only be shown if there is a predrilled interval.*

## *Texts* OBJECTS/TEXT

To input the text, place the cursor on the position where the text is to be placed and click on the left mouse button. Push on Enter or click on the left mouse button to close this function. Click on the right mouse button to change the text and/or the properties of the text. The lay-out can be kept well-organized by coupling the reproduction of the text to a parameter. In that case when certain parameters are not present the texts belonging to them will not be shown either. Select the tab page **Visibility** and select the parameter to which the presentation of the text belongs. For placing header information, the lay-out editor provides two options: placing the contents of a data field and its description. The value of a data field is variable and is included in the data file.

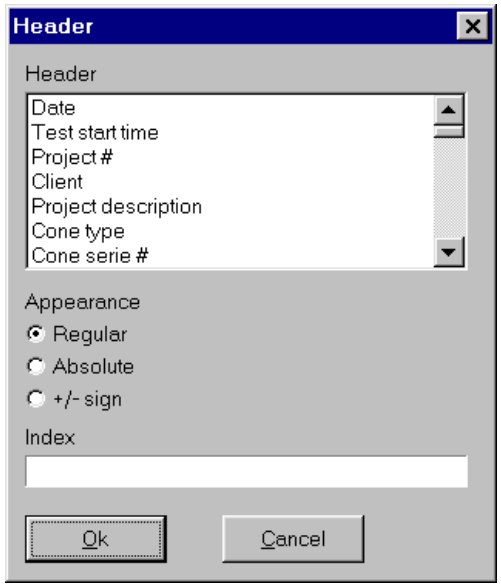



☞ *To allign several different texts it is advisable to place the first text as described above. Select tab page **Position** under **Properties**. Here the X and Y coordinates are indicated where the text starts. Use the X and Y values for placing the next texts, by placing them at a random position and selecting **Position** under **Properties**. Input the same X coordinate if the text is to appear exactly under the previous one, and input the same Y coordinate if the text is to appear on the same line.*

*On the tab page **Offset** under **Properties** a text can be given a variable offset in Y-direction with respect to a parameter. This option is used only in special cases. Ask your supplier for additional information if necessary. Make sure that **Variable Position** on the tab page **Offset** under **Properties** has no checkmark in front of it.*

## *Header information* OBJECTS/HEADER INFORMATION

After inputting all texts they can be provided with the additional information that is stored in the data files. A window will appear in which all available additional information is shown. Select the wanted field. If available, the value of the field will appear in the window **CONTENTS**. Select the correct presentation form of the field under **PRESENTATION**.




☞ *GO4!® has a standard list of header items. User specific header items can be added in consultation with the suplier.*

**NORMAL:**
Select **NORMAL** to show the contents of the field as indicated in the data file.

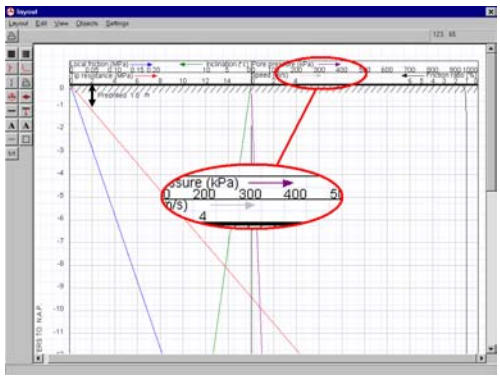
**ABSOLUTE NUMBER:**
If the contents holds a number, this one can be shown as an absolute value. Of course this option can only be used if the field contains a number.

**SIGN:**
Usually only the -sign is used to show the polarity of a number. The + sign for a positive number is left out for the sake of convenience. Using this function, the polarity of a number can be shown with a detached sign. This sign will then indicate a - in case of a negative number and a + in case of a positive number. The option **SIGN** may be useful especially in combination with the option **ABSOLUTE NUMBER**. Select the relevant field and choose the option **+/- SIGN**. The window **CONTENTS** will show only the polarity of the number. Click on **OK** and place this sign at the wanted position. Select **OBJECT/HEADER INFORMATION** once more and select the same field again. Now choose the option **ABSOLUTE NUMBER**, click on **OK** and place the field at the wanted position in the lay-out.

☞ *This option is very suitable for presenting a reference level where the notation +NAP or -NAP is used.*

## *Arrows* OBJECTS/ARROW

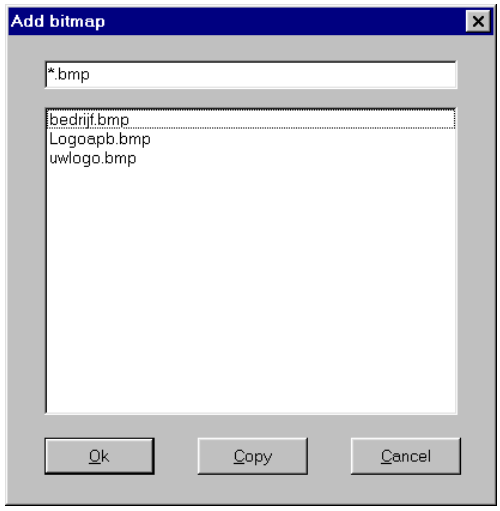
By way of illustration arrows can be used in some places in the lay-out. For instance for scale divisions etc. Point with the cursor at the position where the arrow must be placed and click with the left mouse button to place the arrow. Click with the right mouse button to set the properties of the arrow.



☞ *When the arrow is used for a scale division it may be clearer to give the arrow the same color and/or line type in which the graph is drawn.*

## *Illustration* OBJECT/ILLUSTRATION

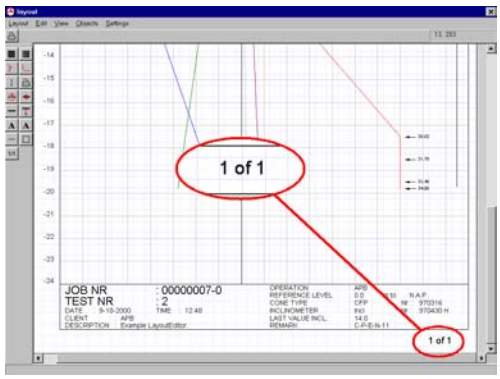
Illustrations can be included in the lay-out to enhance it. Only illustrations in BMP format can be included. On the screen you will see a list in which all available illustrations are included. If an illustration is not included in the list it can be copied to the list from another location. Select option **COPY** to do this. Select the desired illustration and confirm. The illustration is now copied to the list. Then select the illustion from the list and click on **OK**. Place the illustion on the wanted position in the lay-out.



## *Page number*

OBJECTS/PAGE NUMBER 

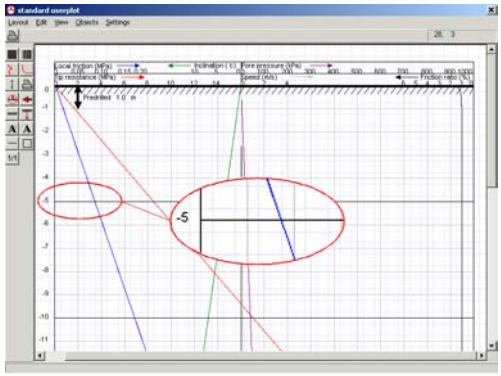

Place the text on the wanted position in the lay-out. Click on the left mouse button to confirm the position. Click on the right mouse button to change the properties.




## *Ref. Raster*

OBJECTS/REF. RASTER

In the lay-out an extra horizontal line can be created. In this way the lay-out can be made clearer for instance by creating a horizontal line each 5 metres. As an extra feature a 0-metres reference will be indicated at the first horizontal line.



# GLOSSARY

**Additional information:**
Different data are usually necessary to further classify the test results. For instance the location and description of the test.

**Database:**
A database is a collection of data that are easily accessible.

**Dissipation test:**
When a test on depth basis is interrupted by a test on time basis one speaks of a dissipation test. It is mainly performed with equipment for registering pore-water pressure. The way in which the pore-water pressure changes during registration on time basis gives additional information about the soil properties in situ.

**Free variables:**
A test contains standard additional information. Additionally it is possible to register specific data while testing. These so-called free variables are user-specific.

**GEF:**
GEF stands for Geotechnical Exchange Format. This format is used to exchange test data on report level. The GEF format can be used in only one way, is extendable and self-editing. The universal format makes conversion programs unnecessary. More information abouth GEF can be found on www.geonet.nl.

**GORILLA!® data acquisition system:**
GORILLA! ® is part of the new generation of A.P. van den Berg data acquisition systems. GORILLA! ® is the registration software that is used in combination with the these data acquisition systems. It stands for Graphically Oriented Realtime Interactive Logistic Logging Assistant.

**Ground level:**
Usually the ground level is the level where the test starts.At this point the data acquisition system is set at zero and depth registration starts. Since the ground level is only a relative indication of height, the distance of the ground level with respect to a certain reference level is indicated.

**Predrill:**
When it is not possible to measure directly starting at the ground level, because of a hard top layer (asphalt, dirt etc.) predrilling or digging is necessary. In that case the ground level disappears. There are two ways to start the test:

1. Start the test at the original ground level. No test results will be obtained in the predrilled interval, because of interrupted soil conditions. By including the predrilled interval in the header information, GO4!® will not show the test results obtained in the predrilled interval.
2. Start the test at the bottom of the predrilled hole. The predrilled interval is skipped. It will be necessary to indicate that the first test results were obtained from the bottom of the predrilled hole, and not from the ground level. In GO4!® and GORILLA! ® this level will be called the starting level.

**Print queue:**
GO4!® works with an internal print queue. This means that all the print orders are placed in a queue before being actually printed. To print the data in the print queue a separate command must be given.

**Project description:**
Tests are usually performed on project basis. This means that a project contains a number of tests. All projects have a project description so that they can be distinguished one from the other. A short description indicates the project.

**Project disk:**
With an A.P. van den Berg GORILLA!® data acquisition system it is possible to prepare a project beforehand. Data can be saved on a disk at the office before tests are performed. The CPT operator uses the data on the disk to perform the correct number of tests at the work site.

**Project information:**
Each project has a number of properties unique for that project. They can be found under project information.

**Reference level:**
The reference level indicates the absolute height of the test performance. A common procedure is to set the zero level of the test equal to the ground level and then mention the distance of the ground level with respect to a standardized reference level (e.g. N.A.P.).

**Starting level:**
See predrill, item 2.

**Test data:**
Test data is a general term for test results as well a additional information.

**Test results:**
Test results are the results that are acquired while measuring several parameters. These test results are usually stored on depth or time basis. The test results can be shown in a graph for instance.

**Upper scale value:**
In a number of cases it is handy to have all tests within a project started at the same depth value. By inputting the Upper scale value all tests within the selected project will be printed with graphs starting at the indicated Upper scale value.

**Water depth:**
For a test under water it is not possible to use the ground level as reference level. Usually the soil level is input at the reference level. The variable Water depth is used to also show the water depth in the graph.

# INDEX