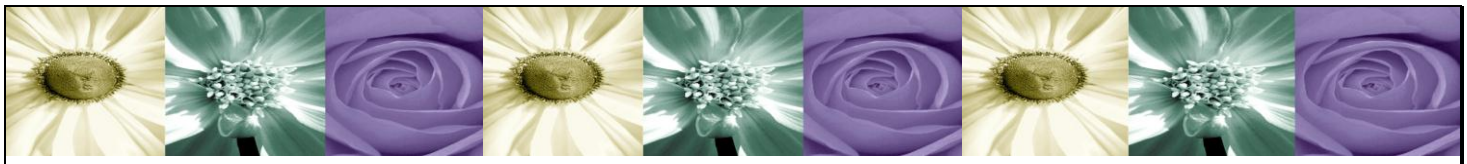

DataCycle Reporting

Excel report generation and distribution software

User's Guide

Version 8.1.14

APESOFT

DataCycle Reporting User's Guide

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Welcome to the DataCycle Reporting User's Guide, the report generation software that links your office automation and electronic mail to your organization's corporate data. We hope the software exceeds your expectations.

Thank you for your evaluation.

The ApeSoft technical team

Chapter 1

Introduction

Product description and architecture, ***installation*** *instructions,*
and concepts necessary for completing an evaluation with this guide

Welcome to the DataCycle Reporting User's Guide. This objective of this manual is to guide you through the evaluation of **DataCycle Reporting**. This chapter is mostly theoretical and will establish the fundamental concepts on which the rest of the chapters will be based. In the following sections, we will see:

(i) A brief description of the product and solutions

(ii) How to install the product

(iii) Concepts essential to successfully evaluating the product.

Product description

DataCycle Reporting automates Excel report generation and distribution via electronic mail or the web (Intranet/Internet), consolidating and presenting data available from any combination of the company's different systems: AS/400, Oracle, SQL Server, Lotus Notes, etc.

Although corporate reporting may be anything but simple, DataCycle

DataCycle Reporting's main advantage over other solutions is that it simplifies an otherwise complex set of processes, truly putting report design into the hands of advanced users of Excel rather than relying on IT. DataCycle Reporting not only delivers the right data to right people at the right time; it delivers the data in a **usable** format, by uniquely leveraging 100% of MS Excel's capabilities. As a result:

- There is no need to purchase licenses for each user

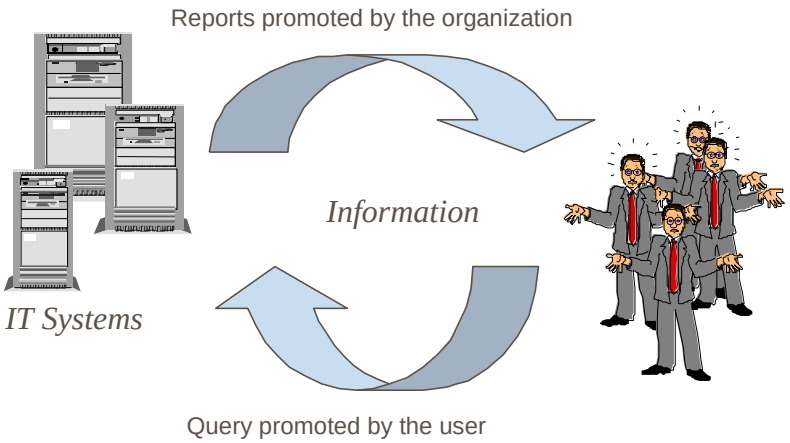
- There is no client software to install for viewing reports.
- MS Excel is arguably the best tool for displaying and manipulating data, and offers enormous flexibility for transforming data into different formats.

The product's main features are:

- Selective information distribution engine.
- Fully integrated process for the design, implementation, scheduling, execution and follow up of reports.
- Access to the most commonly used DBMSs (AS/400, Oracle, SQL Server, etc.)
- Centralized administration environment
- Project oriented organization
- Intuitive development environment
- Scalable and distributed architecture
- Design-once methodology: clear differentiation between user types facilitates report design and reporting processes. Technical users install product and design SQL queries. Advanced Excel users design reports and reuse both report designs and queries for any number of dashboards and reports. Lastly, anyone with a browser, a PDF or Excel viewer can consume reports.

Advantages of information distribution

DataCycle Reporting implements a selective-distribution-of-information model. According to this model, DataCycle Reporting acts like an engine in charge of collecting and integrating the data from the company's different information systems and automatically issues personalized reports.



This model's main advantages are:

- End users do not need a specific tool to access the information. They use MS Excel.
- Ideal for sending reports to users who are not permanently connected to the information systems.
- It allows for sending reports to users outside the company, clients, suppliers, etc.
- It is not necessary to install new connectivity software (middleware). Internal electronic mail or Internet suffices.
- The reports are generated by the reporting engine in batch mode. In this way the transactional system's users are not penalized during the day.
- The traffic in the communications network is minimized. The user obtains a very quick response.
- The separation between query and report design reduces efforts within IT departments providing functional/operational Departments with needed autonomy for obtaining new reports.

In most companies there are usually comparatively fewer people (around 3%) responsible for all or part of the tasks associated with aggregating and presenting data. The rest of the users (97%) are **information consumers.**

DataCycle Reporting is directed at generating reports for these consumers, so that they receive information in a flexible format (Excel), and are better able to make efficient use of the information.

What is Individualized Content Delivery?

It is fairly common for the same report to be distributed to different levels of the organization, or to different individuals within a given department, etc. This may be the case, for example, of executive dashboards and reports that are also delivered to department heads; or sales reports that are delivered to both managers and sales representatives; or expense reports for each head of department or branch manager, marketing reports for each product manager, structurally identical P&L's generated for each business unit, and so on.

Individualized content delivery (or "Multi-Reporting") allows each of the users to receive only the information in which they are interested. For example, individualized reporting allows for designing a sales report so that each representative receives a report with data pertinent only to their sales area.

The proactive company. Reporting based on alerts.

DataCycle Reporting goes one step further in information distribution. Business alert design allows for the creation of rules that define precisely when delivery of specific information must occur, how and to whom.

For example, a sales analysis report can be configured in such a way that it is automatically sent at the moment in which the reporting engine detects a significant deviation between real sales and established objectives. The users directly affected by this event receive an electronic message alerting them to the situation.

Business alerts can be configured for any of the company's management areas: sales analysis, payment analysis and management, objective compliance, financial management, etc.

Configuration of the conditions under which a given report will be sent is very simple.

Advantages of this alerts based model include:

1. Reduction of information overload.
2. Time savings
3. Quicker reaction to important changes, variances and critical business events.
4. Automated business reports providing context for the alerts

Main features

Report presentation formats

DataCycle Reporting generates reports in MS Excel spreadsheet format, in HTML format (Excel 2000 or higher required), PDF and in MS Access files.

Other products just EXPORT information to MS Excel...

…seriously limiting the power of the generated reports, while DataCycle Reporting **INTEGRATES** data into previously designed spreadsheets which have been enriched with all types of calculations, formulas, graphs …, taking advantage of all the capabilities offered by Microsoft Excel.

Excel reports can be leveraged as a sophisticated EIS (Executive Information System) with multidimensional analysis through the use of a wide range of detailed graphical functionalities, pivot tables, etc. A single Excel report can carry out the functions of hundreds of statistical reports. Thanks to MS Excel's pivot tables users can classify information, sort it, perform ABC analyses, change the grouping and display of the information, summarize it, etc. And, this single report can contain multiple sections with information from multiple data sources.

Report design

Since report designs are created with Microsoft Excel the organization's existing Excel based reports can be reused as templates in DataCycle Reporting. This makes for a significant advantage when first implementing the solution, and as the solution is extended throughout the enterprise, since reports that are already in use can be easily recycled, refined and automated in DataCycle Reporting.

Data access

Normally, one of the most complex tasks in reporting is that of retrieving data. DataCycle Reporting facilitates data access and usage by: (1) running an automatic inventory of the company's data models; and, (2) employing wizards that simplify the creation or importation of SQL sentences for retrieving the tables and fields revealed by the inventory. The result is a centrally accessible repository with the definition of the tables and fields that contain the required business information, the SQL sentences and any associated metadata. The data objects stored in the repository can then be used and reused in any combination in the development of any number of reports.

DataCycle Reporting can access data from the vast majority of DBMSs: AS/400, Oracle, SQL Server, Sybase, Informix, DB2, Lotus Notes, MS Access, ODBC, etc.

Report design by business users

DataCycle Reporting separates the business task of designing end reports from the more technical one of developing SQL queries. Administrative staff, power users of Excel, from each department or division can design reports independently, without the intervention of IT; while technical personnel design the SQL queries that fuel the reports. Since queries are typically created only once upon implementation, and then rarely, if ever, modified IT intervention is minimized. In fact, technical personnel need never have any knowledge of the actual reports to be created, nor the final format in which they are presented.

Simplification and reuse of SQL queries

As previously alluded to, DataCycle Reporting's design methodology allows for the creation of generic SQL queries which can be reused in multiple reports.

Report designers can use filter information returned by the generic queries through advanced filtering technology provided by DataCycle Reporting. This drastically reduces the number and complexity of SQL queries to be carried out.

Report distribution

DataCycle Reporting provides various report delivery mechanisms including local and network storage, uploading to a website, Sharepoint or an FTP directory, and email. DataCycle Reporting provides integration with most mainstream electronic mail systems (Lotus Notes, Exchange, etc). Advanced email delivery features include the ability to browse the corporate email address book; send mail directly through SMTP (Simple Mail Transfer Protocol); and automatically filter data by user, and deliver personalized messages and report content to corresponding email addresses.

Alerts: conditional report execution

Report generation and delivery can be triggered by events represented by a particular condition or set of conditions occurring in a database. For example, a report may be planned to execute in the event that the total value of credit assigned to a client is exceeded, is exceeded by a certain amount, is overdue, etc.

Performance optimization

Report execution may be balanced between the client and the server. Complex reports or reports with large volumes of data can be carried out on the **server** ("batch" execution of macros) or on the user's **client** PC (upon opening the report). These options allow companies to take full advantage of available resources towards optimizing performance for all involved.

Administration of the reporting environment

DataCycle Reporting is a graphical solution which enables centralized administration of the reporting environment. All administrative options are maintained in a central database (the repository).

Administrative features:

1. Electronic mail profile configuration.
2. Database connection configuration.
3. User / Group administration.
4. Report scheduling.
5. Job tracking (log).
6. Server profile configuration.

Basic report development

Data source inventory

DataCycle Reporting automatically imports database definitions. Once connection parameters to the database have been entered, DataCycle Reporting will import the names of the tables, fields and file types. This information will be used by wizards provided for construction of SQL sentences.

To facilitate the subsequent elaboration of SQL queries, the physical description of database objects and more intelligible logical descriptions are made visible.

Definition of the report model or template

Within Excel, the user defines the desired format for his or her report: columns, headings, colors, macros, graphics, etc.

Data retrieval design

A SQL sentence will be associated with each section of the Excel report. We can use a DataCycle Reporting wizard to construct SQL sentences, or existing SQL sentences can be copied into the wizard. The wizard allows for the dragging and dropping of table names or field names to create valid SQL syntax.

Generic query design drastically reduces the number of queries required and consequently the time spent designing them.

Location of the data on the report

To transfer the data retrieved into the Excel report, the output of the SQL sentences need only be assigned to cells or range names.

Selection of report recipients

Reports may be delivered via email by selecting among addresses configured in the company's electronic mail address book. Lotus Notes, MS Exchange and any electronic mail system with a MAPI interface are supported.

Report "batch" scheduling

Finally, we must indicate the frequency (daily, weekly, monthly, annually, etc.) with which reports will be generated.

Execution

The DataCycle Reporting server is in charge of carrying out data retrieval, report generation, and delivery based on the configured schedule.

Common Solutions with DataCycle Reporting

This is a sampling of solutions often implemented using DataCycle Reporting.

Corporate reporting from ERP or other enterprise system

DataCycle Reporting is an ideal solution for resolving the reporting needs of all users in the company who need to access information. The ubiquity of Excel, overall simplicity of the resulting reports, and rich analytical functionalities of Excel provide for enormous cost savings and novel efficiencies, company-wide.

Integrated web-based reporting

DataCycle Reporting can automatically refreshing corporate web-based reports. Any user with an Internet browser can consult these reports.

Personalized report distribution for mobile users

Excel report distribution via electronic mail provides for timely delivery of data in a usable format to an environment of mobile users without permanent connection. This solution is totally compatible with salesforce management applications.

Data warehouse reporting

Data warehouses contain valuable data, generally consulted by complex and expensive tools. With DataCycle Reporting the data warehouse can be made more accessible, more cost effective, better utilized, and therefore more valuable by sending information to the entire company very inexpensively.

Financial reporting

Financial Controllers save a lot of time and effort by avoiding the tedious task of manually entering data into report and control worksheets. DataCycle Reporting is an ideal solution for implementing cost management or budget control systems.

Dashboards and balanced scorecards

Excel is an excellent tool to present the company's balanced scorecard and allow its data to be explored. With DataCycle Reporting, all scorecards and dashboards can be automated; and even more importantly, personalized dashboards can be sent to everyone in the company.

New services for clients and suppliers

The use of reports based on standards such as Excel and HTML, and distributed via electronic mail make DataCycle Reporting ideal for offering new services to the company's clients or suppliers.

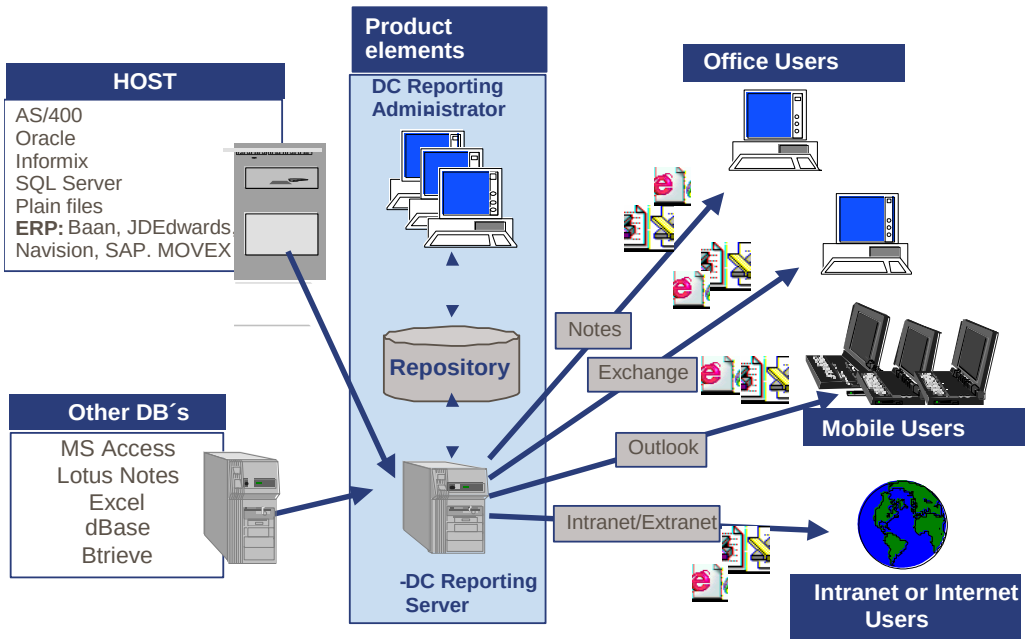
DataCycle Reporting Architecture

DataCycle Reporting is made up of 3 basic elements:

DataCycle Reporting Administrator: client application that runs in win95, win98, win NT (server or workstation), win XP, win2003 and Vista, whose primary functions are to design reports and administer the reporting system. It is not uncommon for there to be various DataCycle Reporting administrators in a company.

DataCycle Reporting Server: server application that runs mainly in win server (although it can run on NT Workstation, win95, win98, win XP, win2003 and Vista) whose main function is to automatically execute planned reports. Several servers can work in parallel to provide additional reporting scale.

Repository: database where all information regarding the reporting system is stored: projects, tables, reports, scheduling, execution logs...

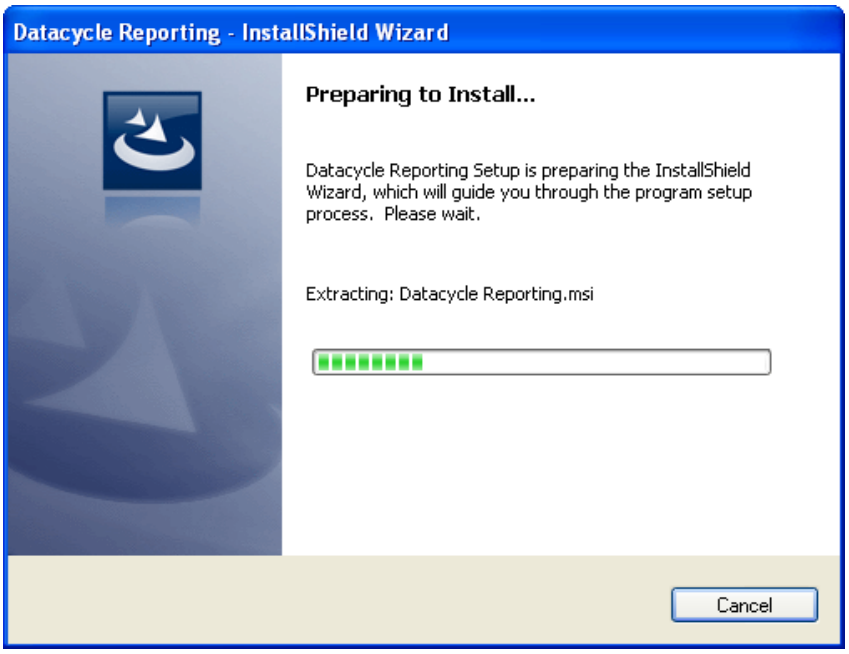


Hardware and software requirements

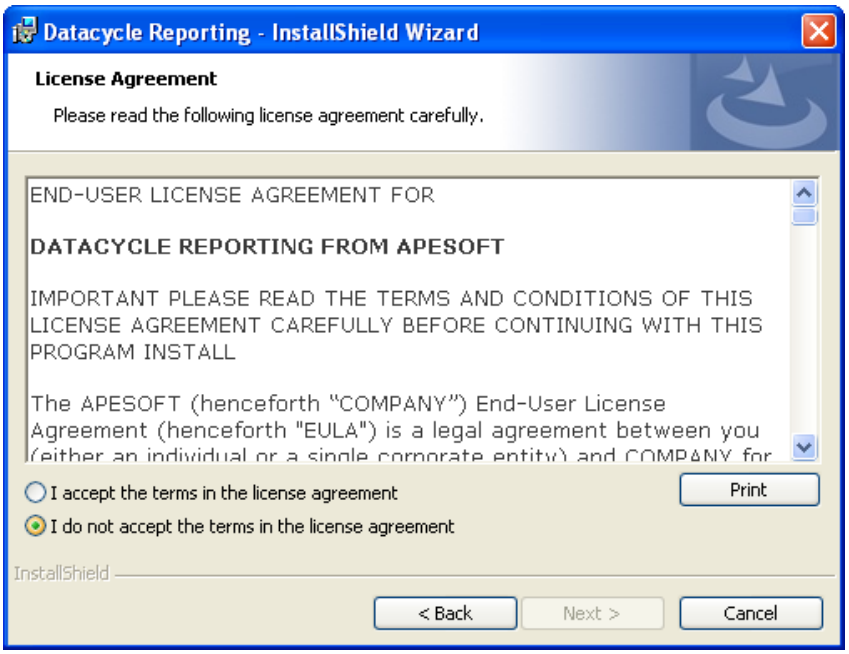
Description	Hardware requirements	Software requirements
DataCycle Reporting Administrator client software.	512Mb RAM 150 MB Hard Disk	Microsoft Windows 98, 2000, NT, XP, 2003, Vista, 7 Display and analysis tools: Excel and Access, Explorer … **Optionally:** • Outlook, Lotus Notes or any compatible MAPI mail. • ODBC connectivity with your computer system: AS/400 ⇨ Client Access Oracle ⇨ SQL*Net ...
DataCycle Reporting server - server application responsible for processing and scheduling reports.	512Mb RAM 200 MB Hard Disk	Windows 95 or Higher Display and analysis tools: Excel and Access, Explorer … **Optionally:** • Outlook, Lotus Notes or any compatible MAPI mail. • ODBC connectivity with your computer system: AS/400 ⇨ Client Access Oracle ⇨ SQL*Net ...

DataCycle Reporting Installation

DataCycle Reporting has a quite simple installation process. Just run the dc_setup.exe file found on the Installation CD and follow the step-by-step guide.

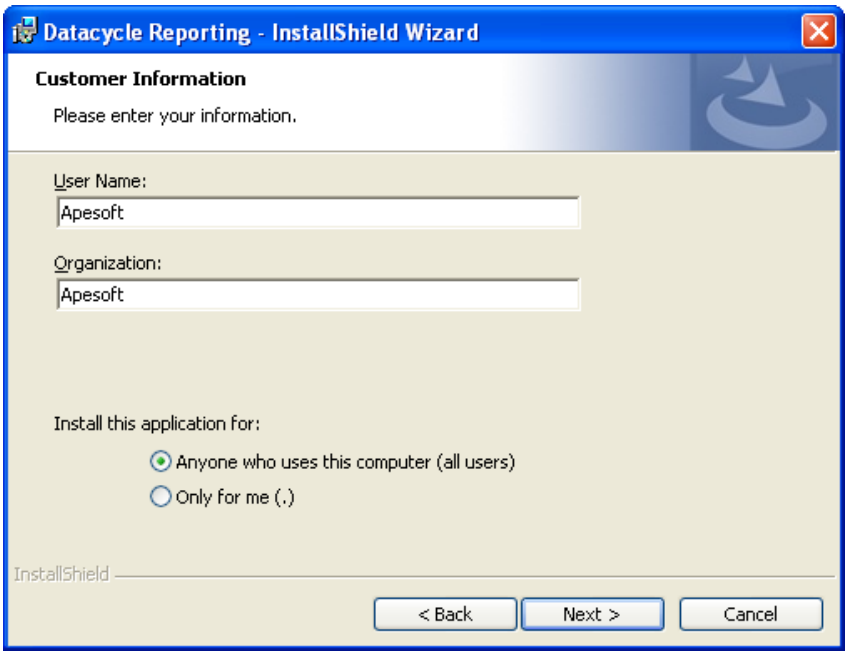

Datacycle Reporting - InstallShield Wizard
Preparing to Install...
Datacycle Reporting Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Extracting: Datacycle Reporting.msi
Cancel

Datacycle Reporting - InstallShield Wizard
Welcome to the InstallShield Wizard for Datacycle Reporting
The InstallShield(R) Wizard will install Datacycle Reporting on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel



Registration Information

Register the installation by filling in user and company names. In the case of an update, the installer simply prepopulates the form, confirming the existing registered user.

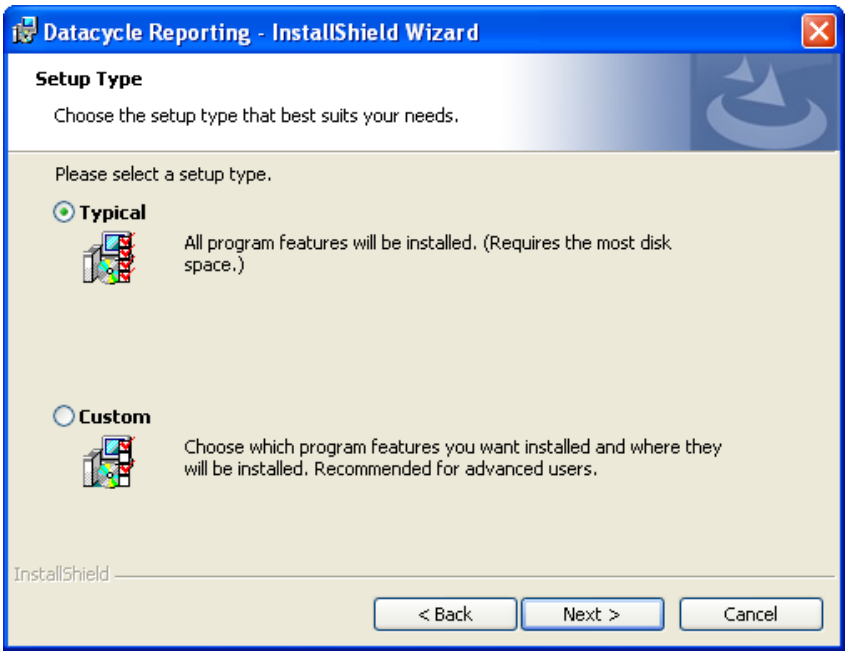


Select the destination directory

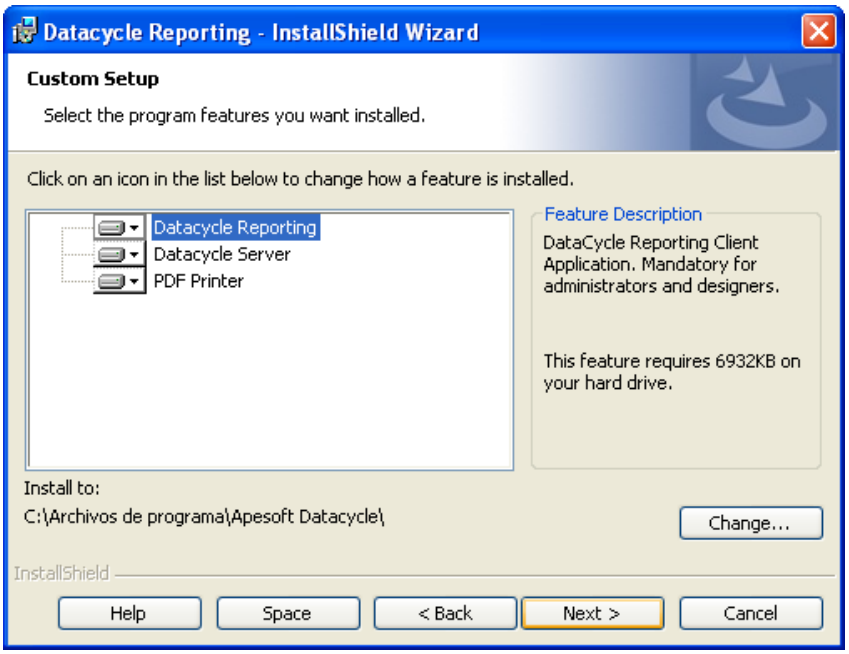
The default folder is c:\Program Files\Apesoft DataCycle. We recommend that you do not change this directory. If you must, then you will have to remember to enter the same directory in the next step.

Select Components

Indicate whether you want to run a custom installation (all programs will be installed) or a custom one, where you can choose which program features will be installed.

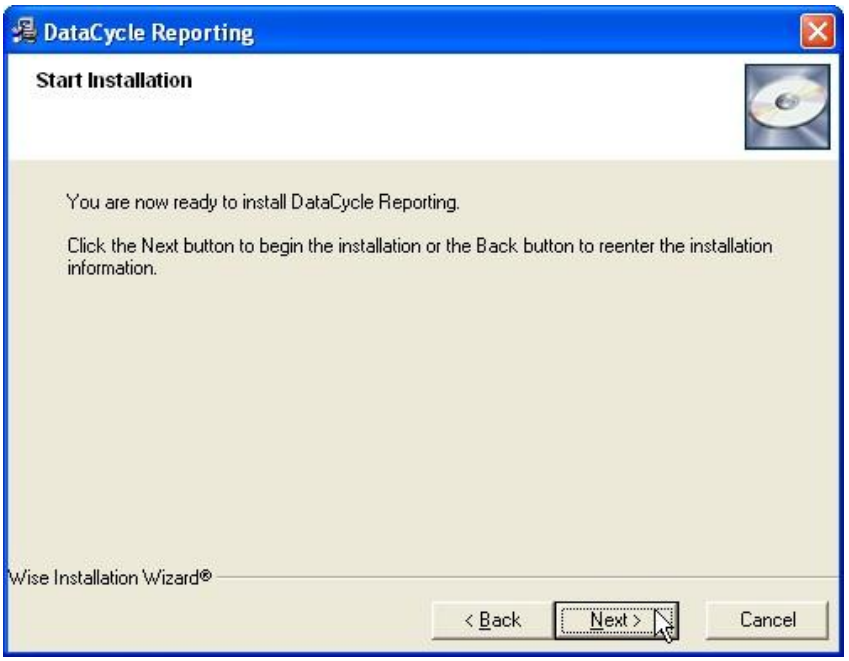


Indicate whether you want to install the Client application, the Server application, or both. If this is a first time Installation, you will most likely indicate installing both. In the case of an update, select the appropriate one depending on what you already have installed on your PC. See version update.

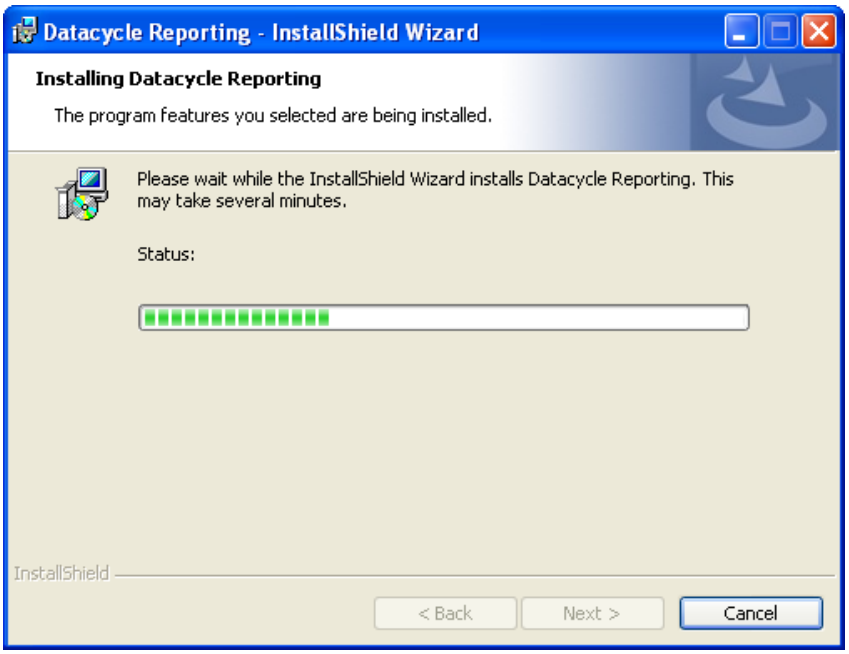


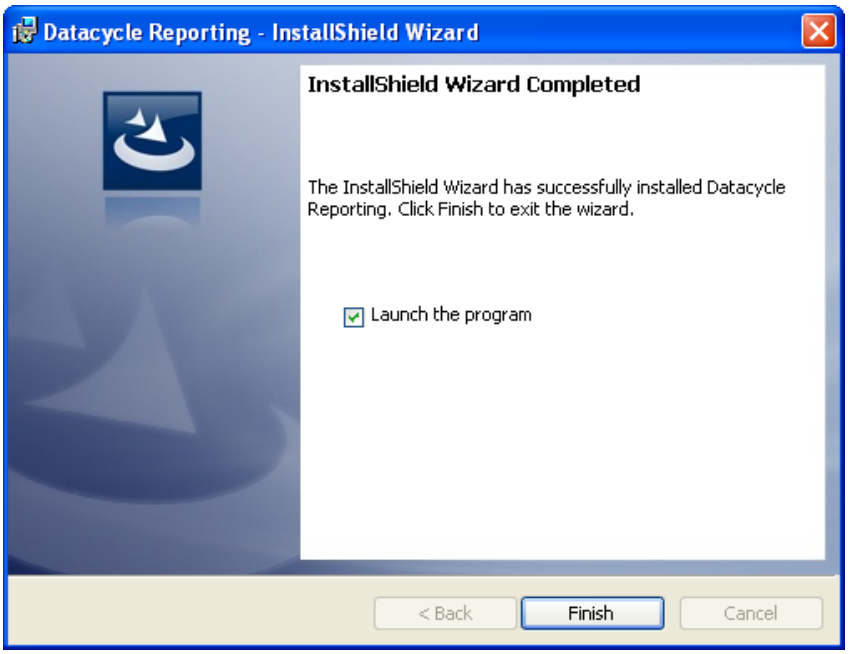
Ready for Installation!

Click the "**Next**" button to proceed with the Installation.



The installation process will now proceed to install and register the components.

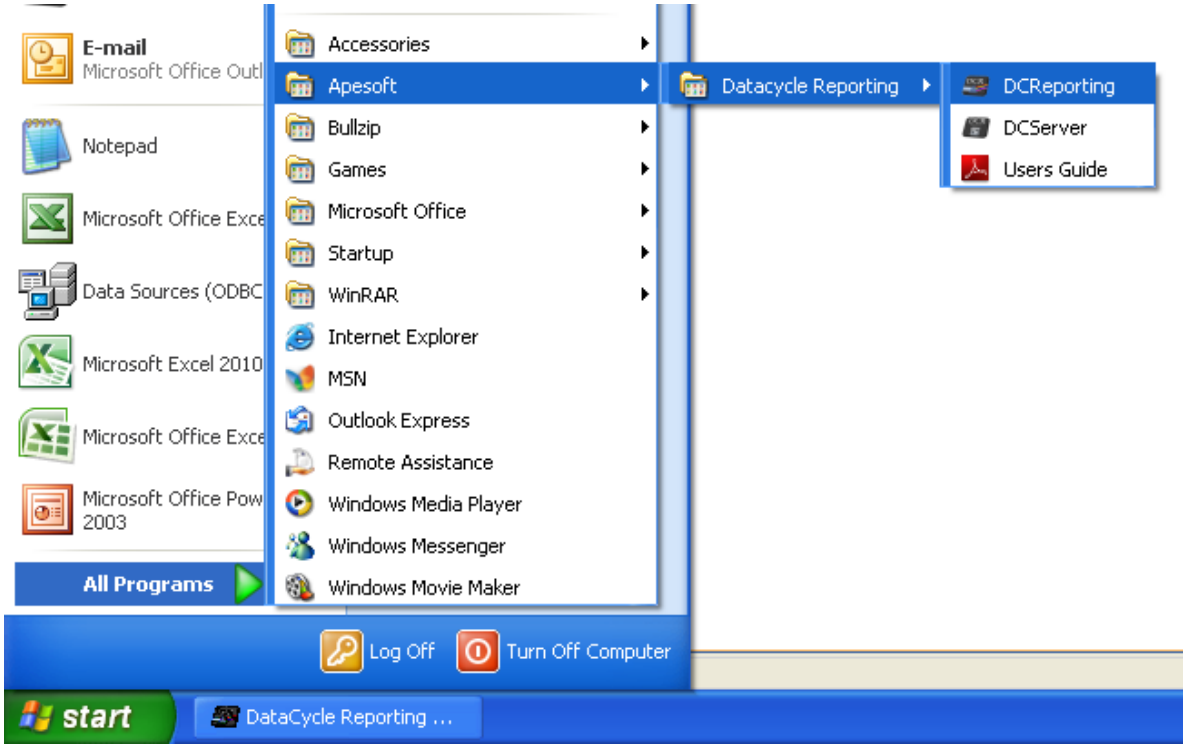




Occasionally, you may be prompted to restart your computer or server for installation of a given component to complete.

Note: If you have any problems during the installation process, you can refer to the install.log file in the DataCycle Reporting installation directory, where a trace of operations is run during the installation process.

Installation will leave an entry in the **All Programs** menu called **Apesoft DataCycle**.



Starting DataCycle Reporting

Setup installs two icons on your desktop:

This is the DataCycle Reporting Administrator, the application you use during this evaluation.

This is the DataCycle Reporting Server, which is accessed through the Administrator to schedule and execute reports, but will not otherwise be used during the evaluation.

Now, double click the icon

Important: DEMO version

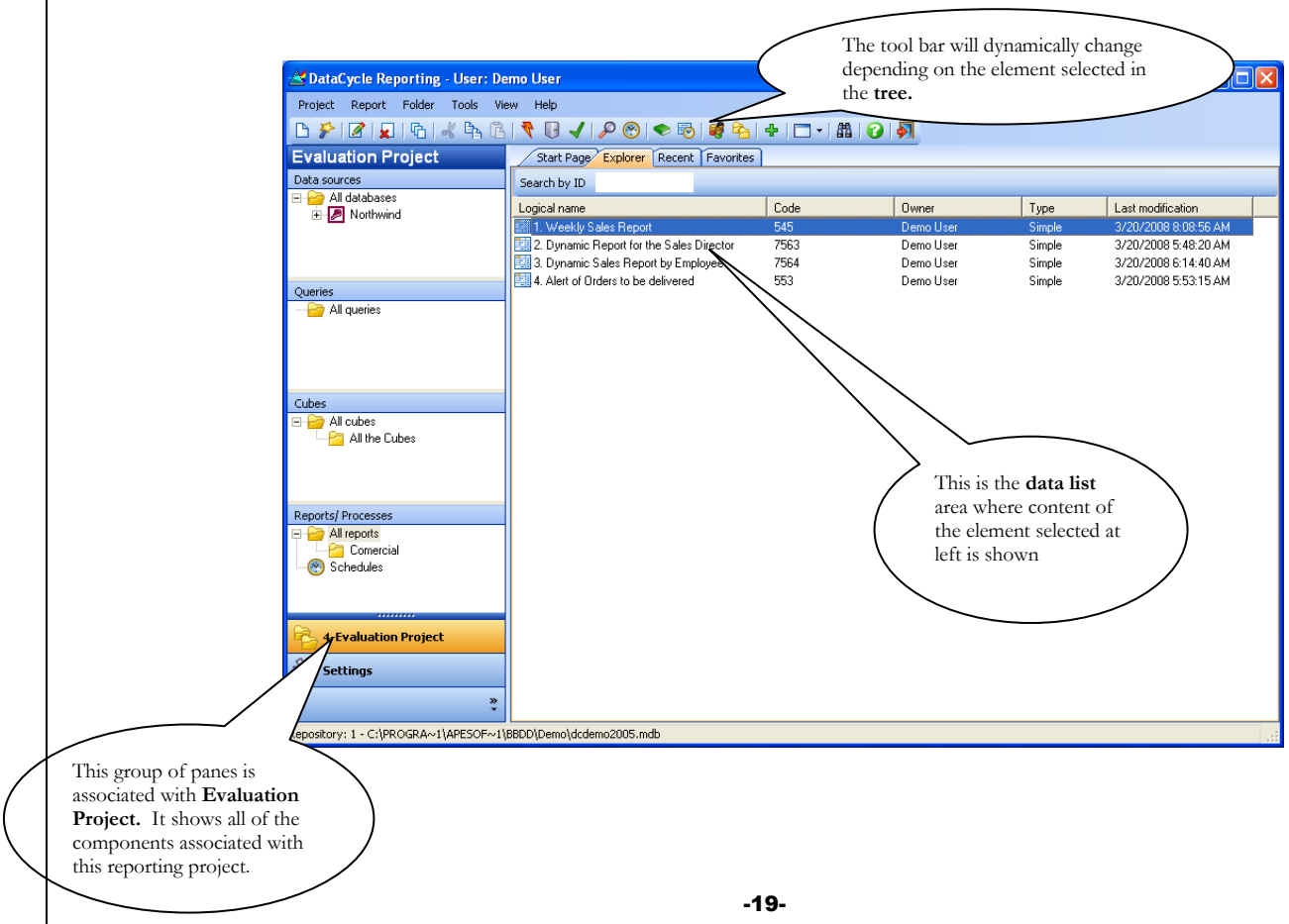
If you are using the DEMO version, a program warning screen will appear, indicating the number of days or executions remaining to evaluate the product. Press **OK** to start the program. Read "Licenses Management" chapter for more information

The DataCycle login window appears:

By default, the system proposes **DCREPORTING** for both user and password (password is case sensitive). Press Ok.

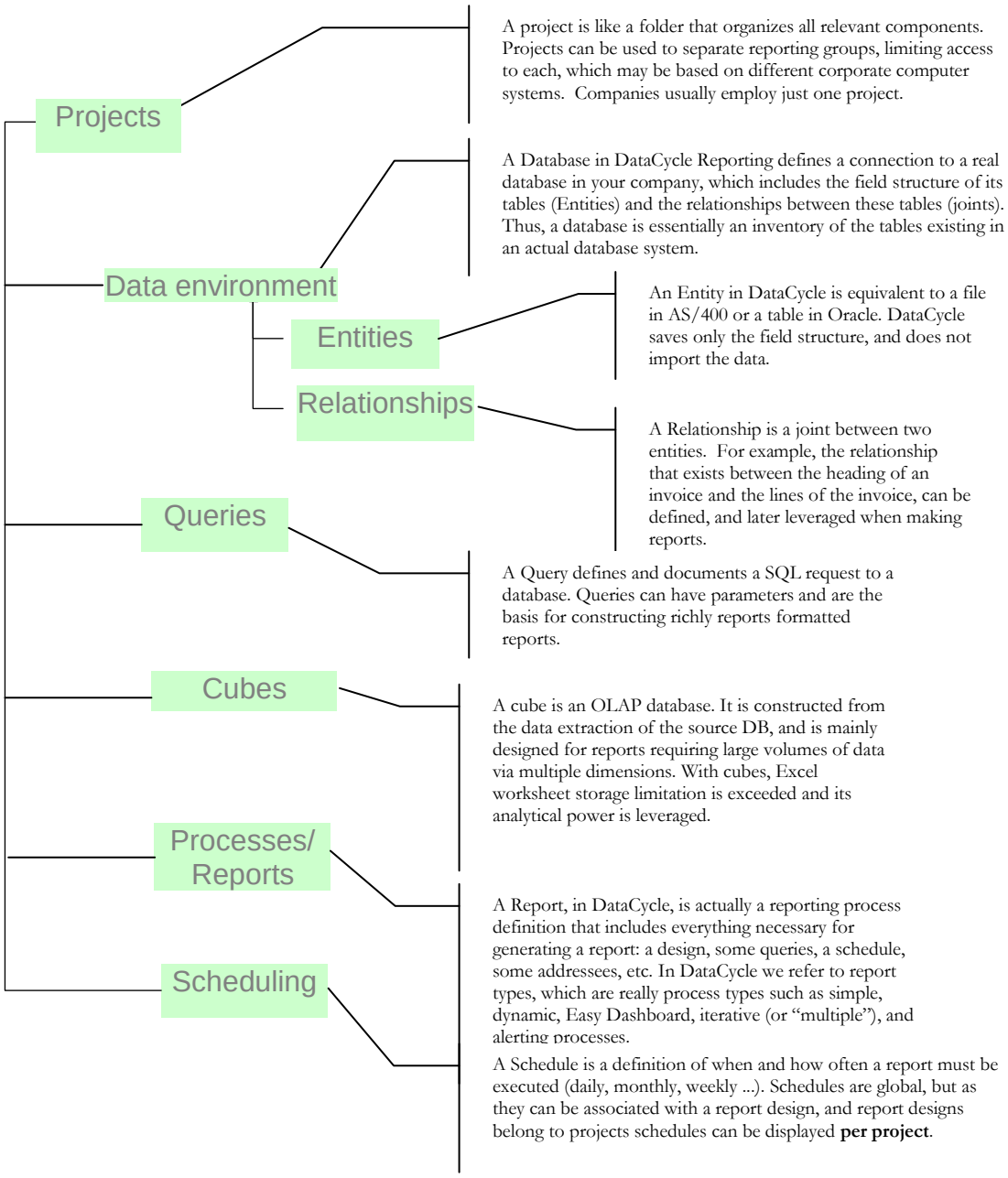
DataCycle Reporting user interface

DataCycle Reporting's main window has the following structure:



Basic concepts in DataCycle Reporting

Please review the following basic concepts which will make learning DataCycle Reporting much easier.



How to evaluate DataCycle Reporting

This evaluation guide has been organized to provide you with a thorough, step by step tour of DataCycle Reporting's main features and functionalities, while simultaneously providing you with an introductory tutorial on developing reports in DataCycle.

All the sample reporting processes you create will be saved within "**Evaluation Project**", a pre-defined project installed by default in the repository. Another report folder called "**Commercial**" will also be installed where you will find additional examples of DataCycle Reporting's capabilities.

Conclusions

In this introductory chapter we have learned what DataCycle Reporting is, as well as some basic concepts which are going to be useful in the following chapters, as you construct a widening range of reporting processes. This example should provide a solid understanding of DataCycle Reporting's capabilities.

Chapter

2

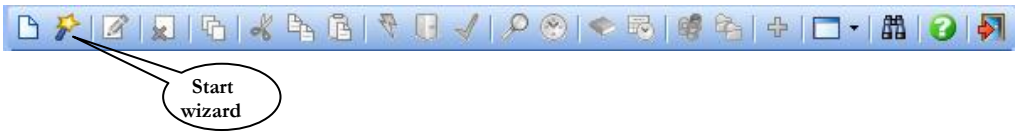
The first report

We are going to create a simple reporting process that leverages a pre-formatted Excel report design, to show the basic characteristics of DataCycle Reporting.

The objective of this chapter is to create a simple first report using the Report Design Wizard. We are going to create an employee report providing the user with the ability to search and filter within the resulting report.

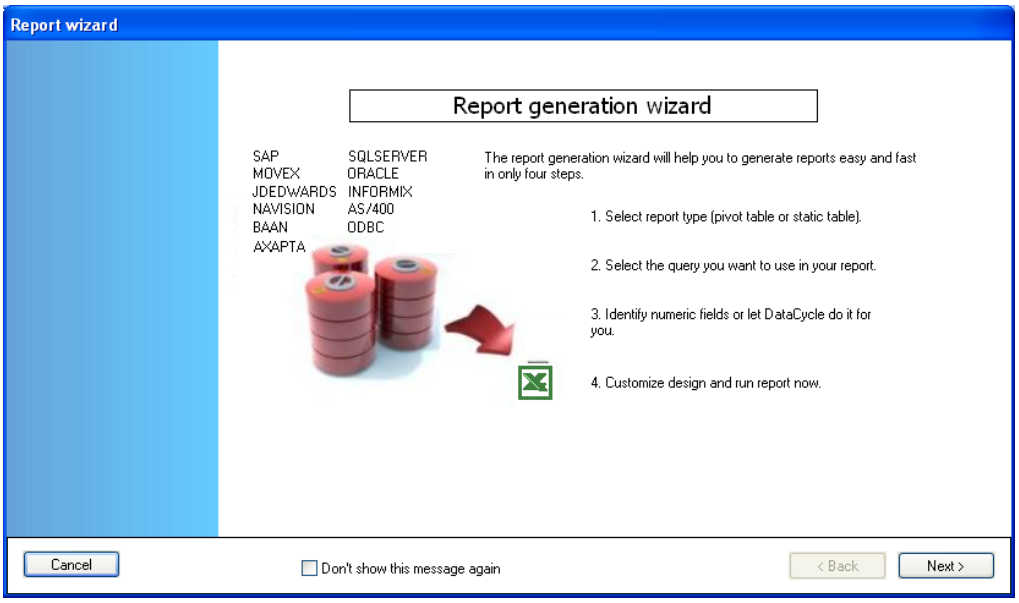
Wizard for quick report design

The wizard can be started with the magic wand icon situated in the upper toolbar (you must have All reports selected).



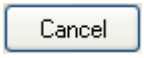
Welcome screen

The first screen is a welcome screen and provides the user with an overview of the steps required to quickly and easily create a reporting process, and of course, the associated report.



The 4 steps necessary to complete a report are:

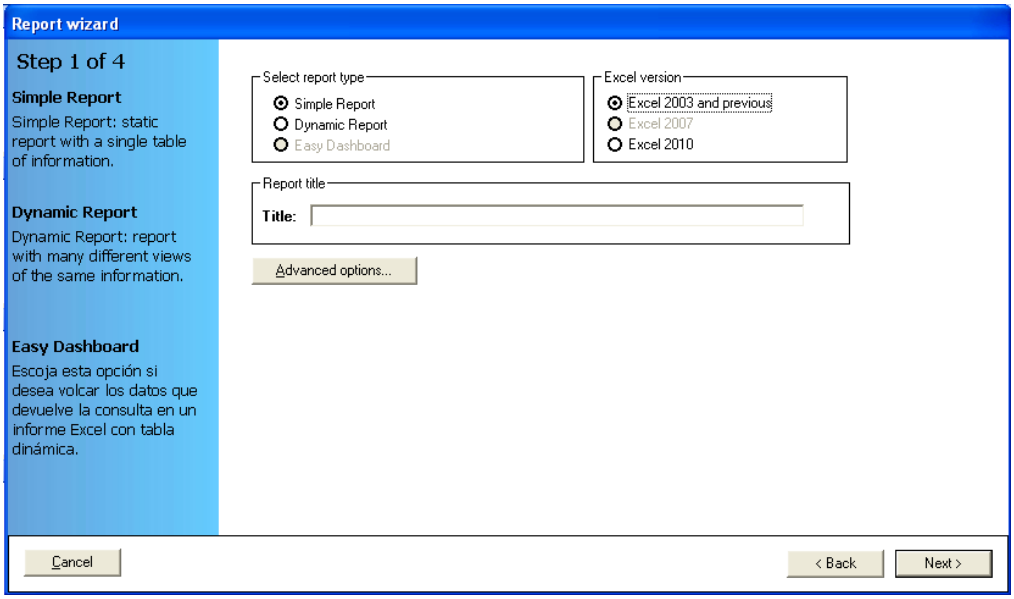
- **Step 1**. Select a design type for your report: a Static report or one with a Pivot Table (dynamic).
- **Step 2.** Choose the query that will retrieve the data that we want for the report.
- **Step 3.** Specify which fields will be numerical, or let DataCycle Reporting do this automatically. This step is important when defining a report design that includes a pivot table.
- **Step 4.** Define the report's appearance (format and design) which will be used as a template, and execute or display the report.

The user can cancel the procedure at any time as the 

button is available in each step, or advance with the wizard to the next step, by pressing the

button.

Step 1. Report type selection

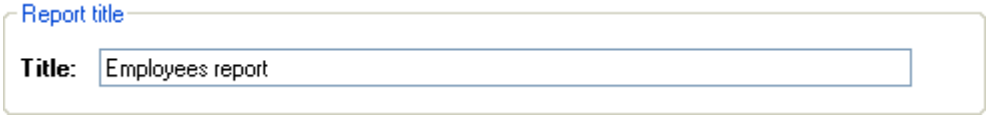


In this screen, we specify the type of report design we want to create. We can select if we want to create a report that generates a simple, static report design,a dynamic design that includes a pivot table, or an Easy Dashboard*, to get simple dashboards in a few clicks.

(*) Feature only available with Excel 2010

We will create a simple, static report by selecting:

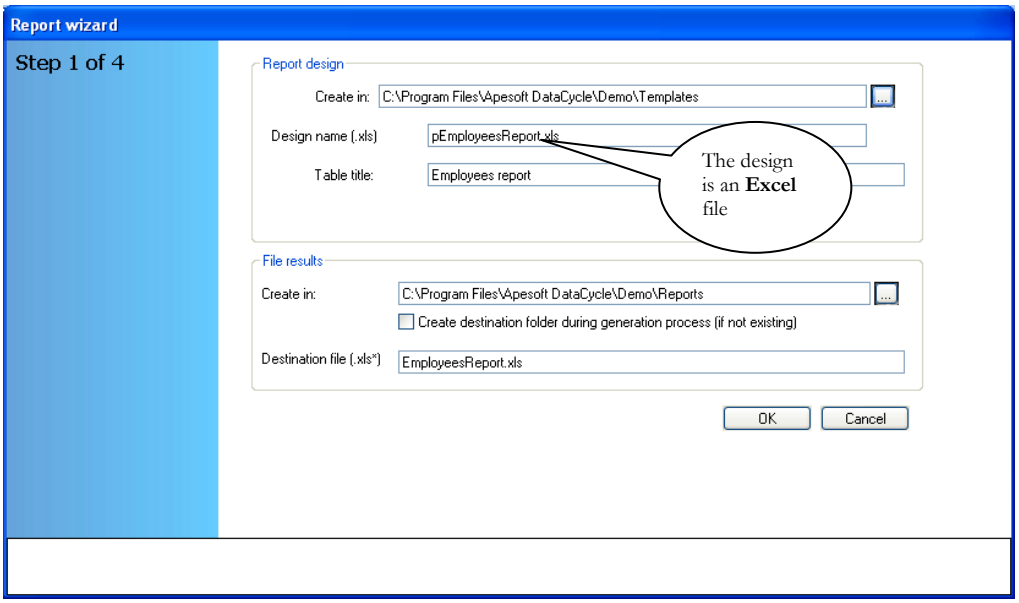
The name of the report must also be specified. We will call it **Employees report:**



DataCycle Reporting will automatically complete a set of fields required to create the report, such as: selection of a pre-defined design, and certain report generation

options. These options may be customized by pressing the Advanced options... button.

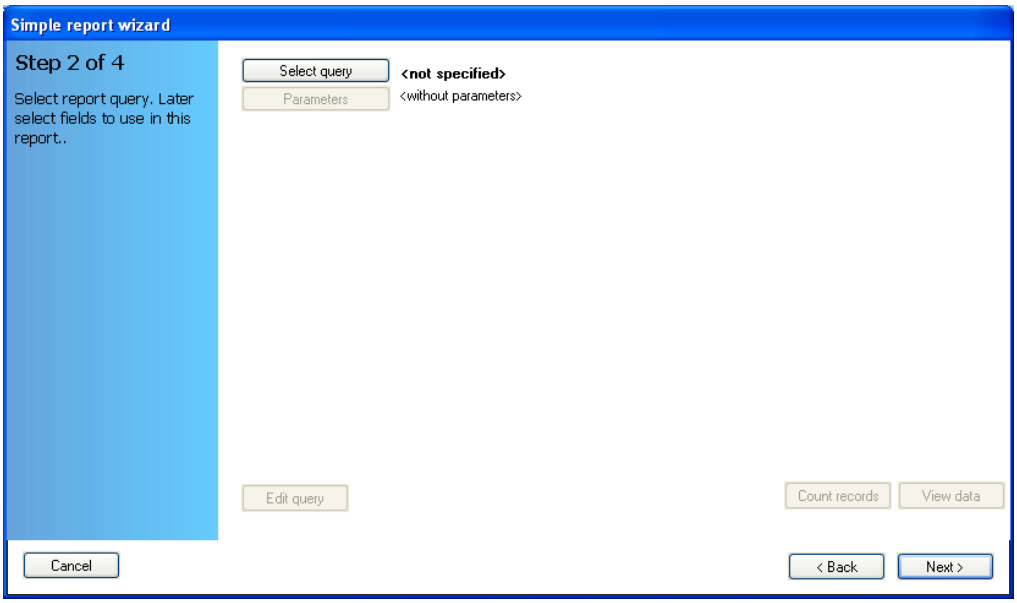
The design which will be applied to the report using the wizard is based on a template included in DataCycle Reporting. The following illustration is shown for your information, as we will not go into the configuration of advanced options in this example.



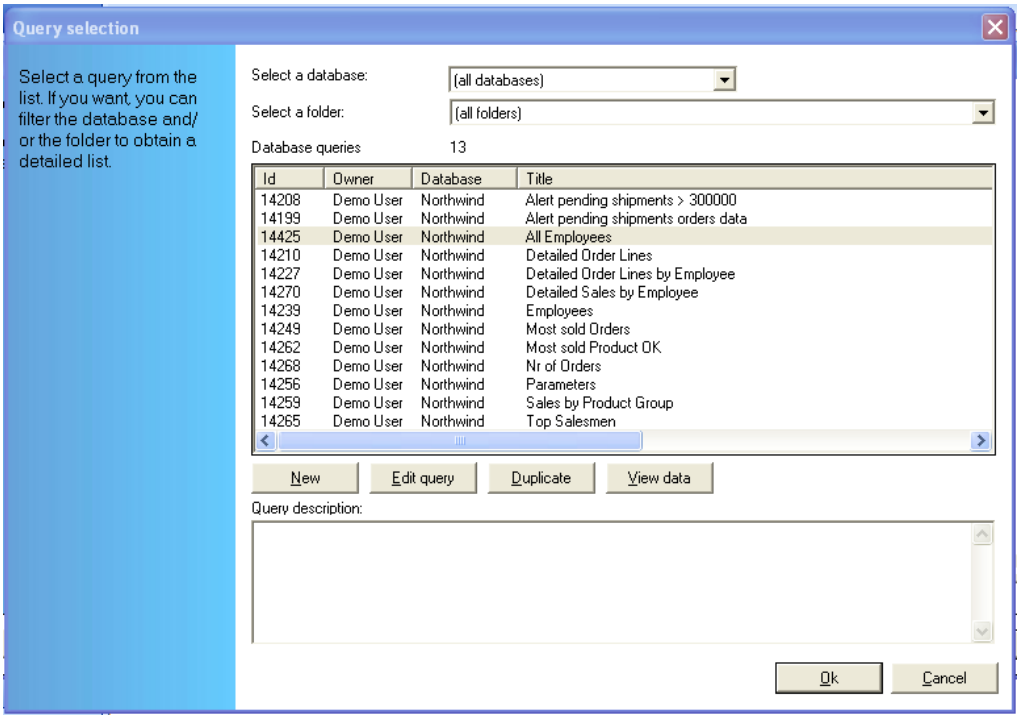
Press the Next > button (unless you have entered the Advanced Options window; in which case you must press Cancel first, or OK if any value has been changed and you wish to apply the change).

Step 2. Query selection

The next step consists of selecting the query to be used in the first report.

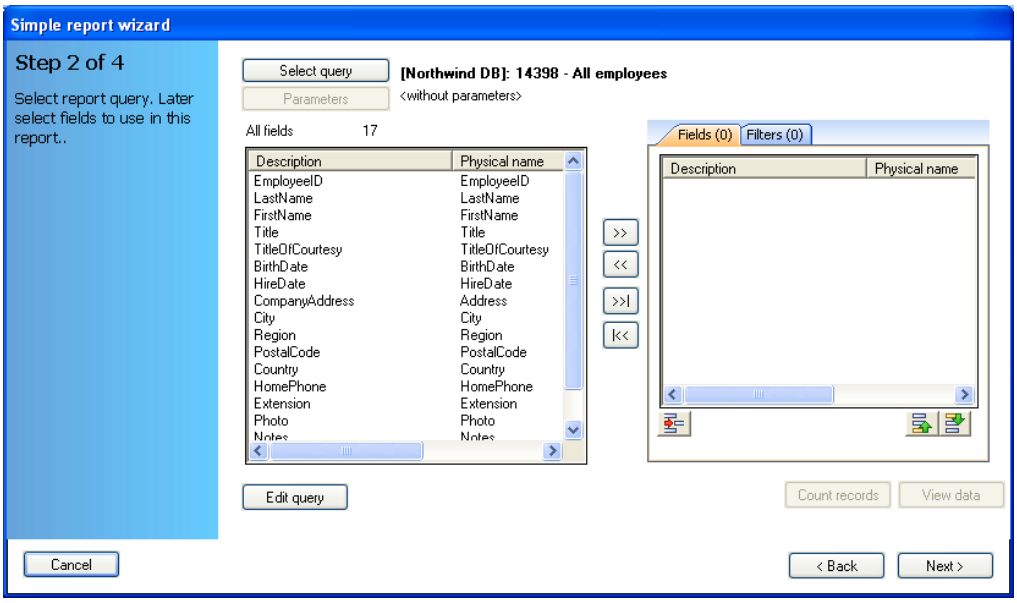


Press the Select query button to choose the query which will be used to retrieve data for this first report.



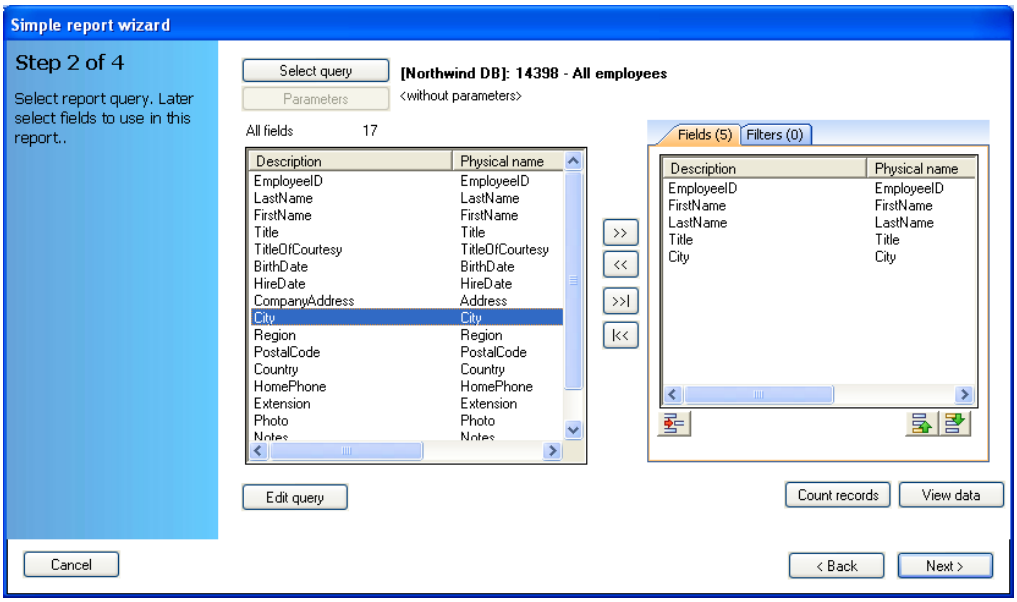
Select the query "All Employees" and then press OK.

The fields returned by the query will then be shown on the left side of the form.



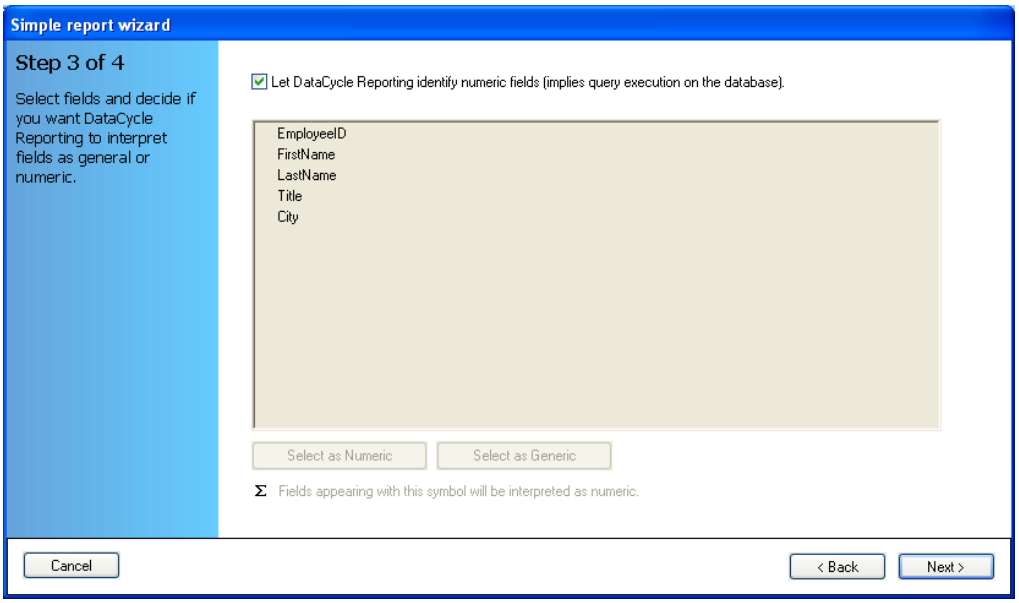
This field sub-selection is one of the main methods for reusing the same query in several reports - for each report, choosing among available fields returned by a query or set of queries.

To select the fields to be used in the report highlight the fields in the panel situated on the left side of the example below that correspond to those on the right side, and press the >> button, or simply double click on them. After you have selected all five of the fields to be used in the report you may use the and buttons to change their order. The final result should be as follows:



Step 3. Numerical field configuration.

Once the fields from the query have been selected, we can let DataCycle automatically determine which of the selected fields are numerical, or when can establish this ourselves.

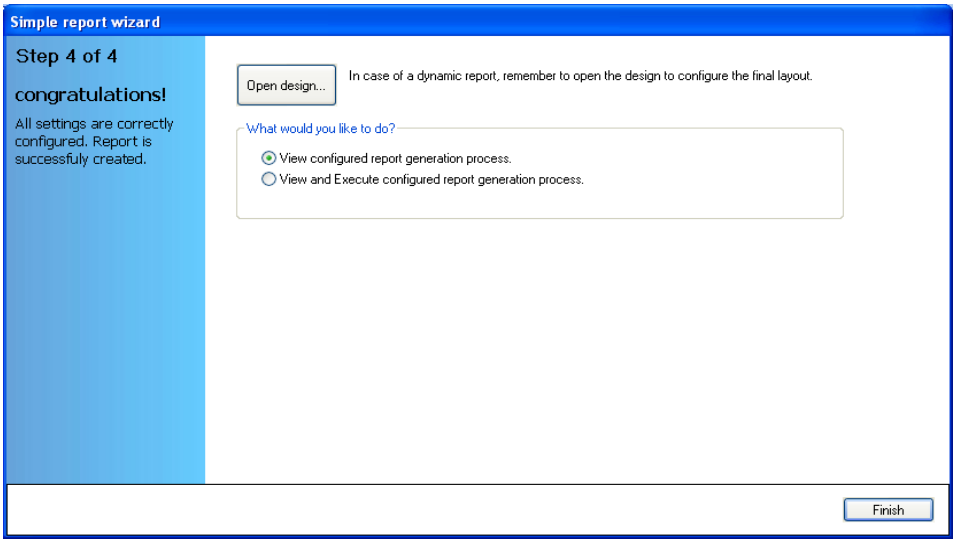


By marking the checkbox you are allowing DataCycle Reporting to execute a query that obtains only the structure of the data, which will allow DataCycle to determine the data type of each field and verify numerical fields.

In this example we will let DataCycle Report identify the numerical fields.

Press to continue.

Step 4. End of report creation



The design and the report we have configured has been created automatically. If you wish, you may now open the design for re-touching by pressing

.

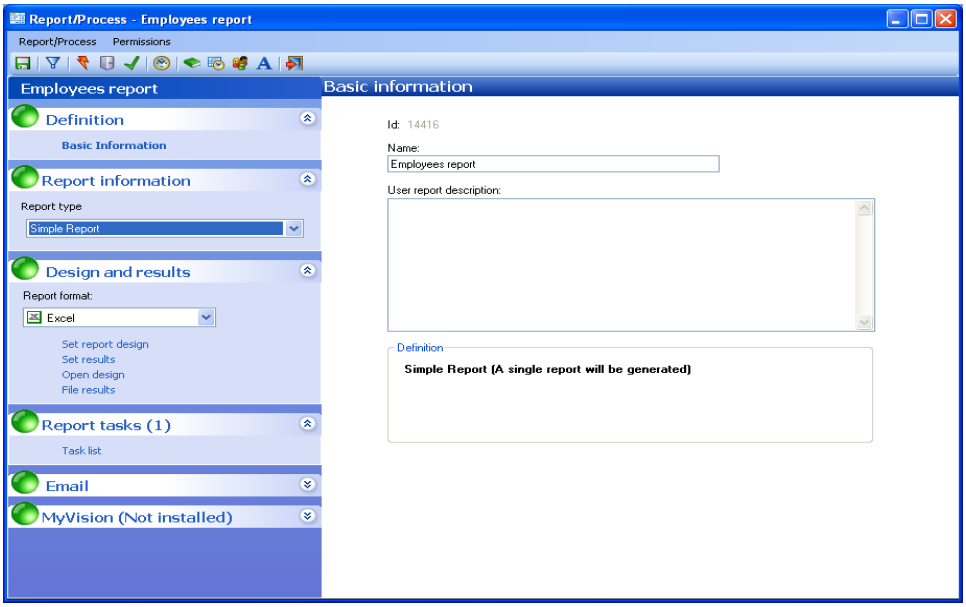
If you open the design, remember to close it before returning to the wizard.

Finally, you will be presented with two options:

1) **View configured report generation process.**

With this option selected, pressing the

button will launch the Report Configuration window.

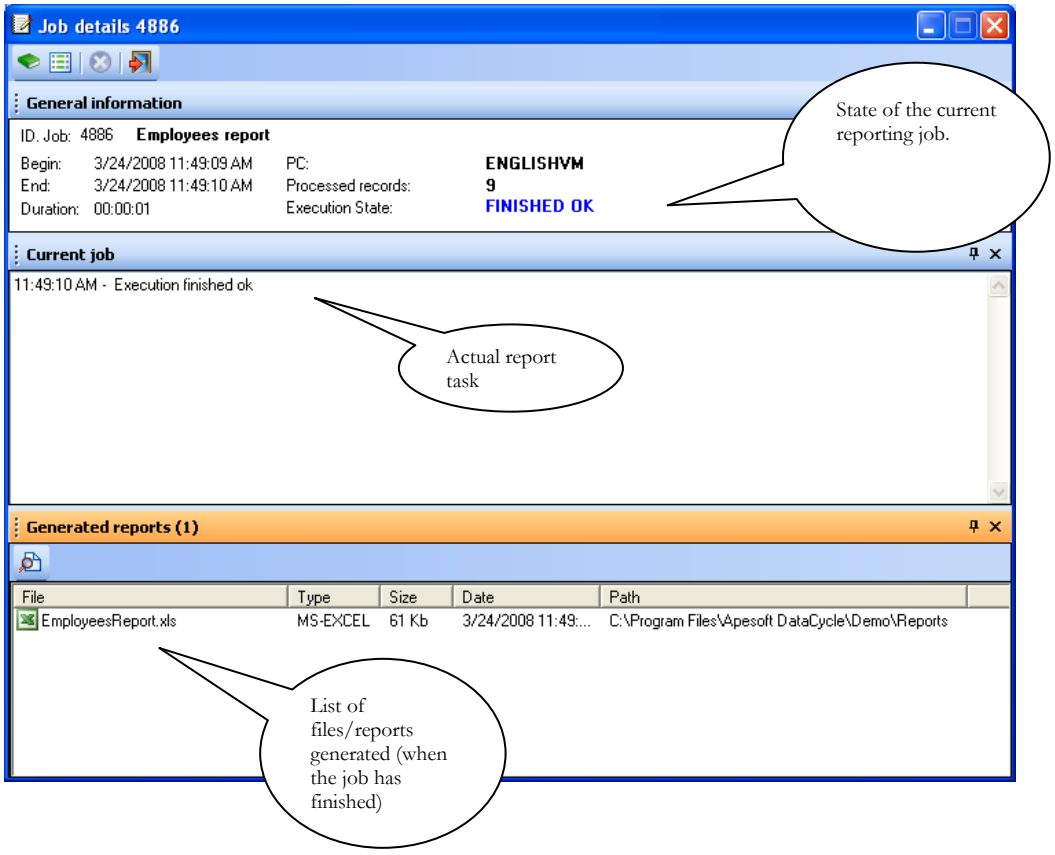


You can execute the report by pressing the (execute) button on the main tool bar. This is useful if you wish to make some final changes to the reporting process prior to executing the report for the first time. Option 2, below, describes what happens upon executing a report.

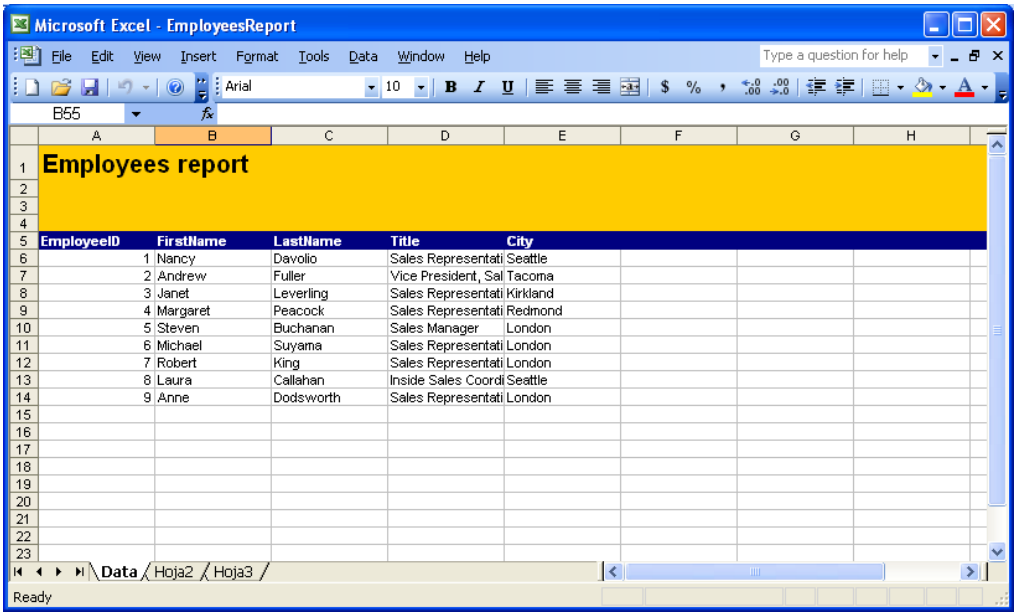
2) **View and execute configured report generation process**.

Upon pressing the Finish button report execution is launched and a progress monitor window appears where you may view in real time the tasks that are executed in the generation of the report; the status of the reporting job during and after execution; the final result; and if needed, a context sensitive activity log to review each task in the event an error is reported.

The reports generated appear in the lower list, so that when report generation has completed the resulting report can be launched by double clicking the file (or pressing while selecting the report).



Open the report by double clicking on the name of the file generated in the list. Microsoft Excel will open showing the new report:



If you close the monitor, you will see that it is also linked with the report definition window.

Conclusions

We have built a simple, tabular report using a Wizard. This is a very quick and easy way to build reports that can also include graphs to improve visualization.

In the following chapter we will see how to create more complex and powerful reports: dynamic reports, easy Dashboards, and then iterative ("multiple") reports.

Chapter

3

The dynamic report:

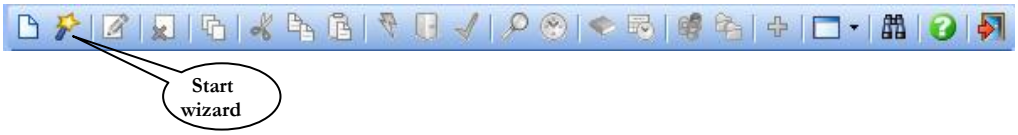
We will use Microsoft Excel's pivot tables to generate a more powerful type of report.

Pivot tables are ESSENTIAL for REPORTING.

Pivot tables **provide advantages for both the report consumer the report designer**. For the former it represents efficiencies in the depth and speed of analyses vital for the business; and for the latter it is an opportunity to achieve these efficiencies with very little effort. A single pivot table is capable of providing hundreds of possible views in a single report. Consequently, this type of report is equivalent to hundreds of different reports.

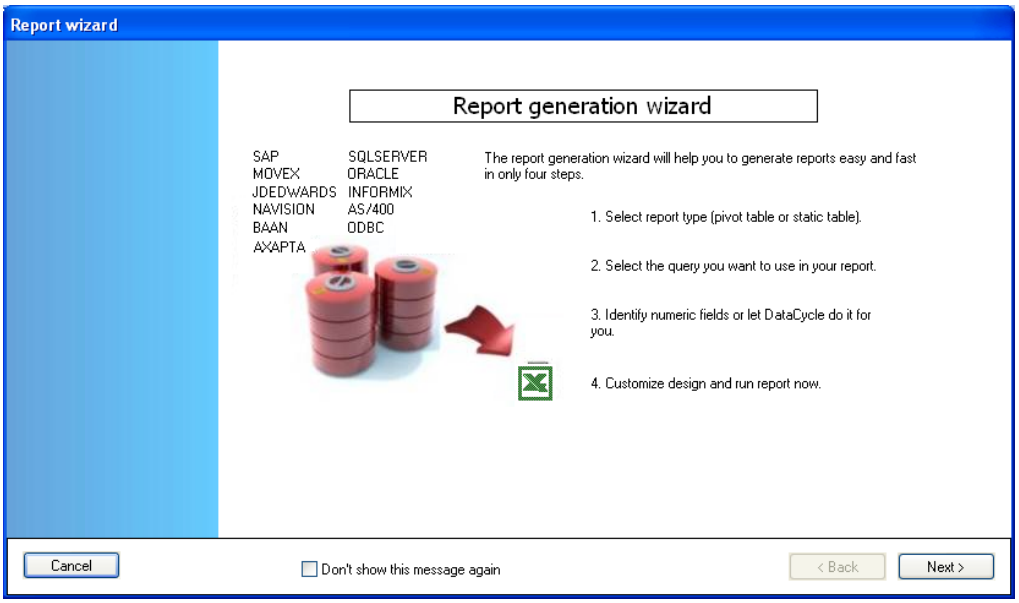
Wizard for quick report design

Again, we are going to work with the Wizard to create this report:



Welcome screen

And, again the first screen is a welcome screen with an overview of the steps required to quickly and easily create a reporting process, and its associated report.



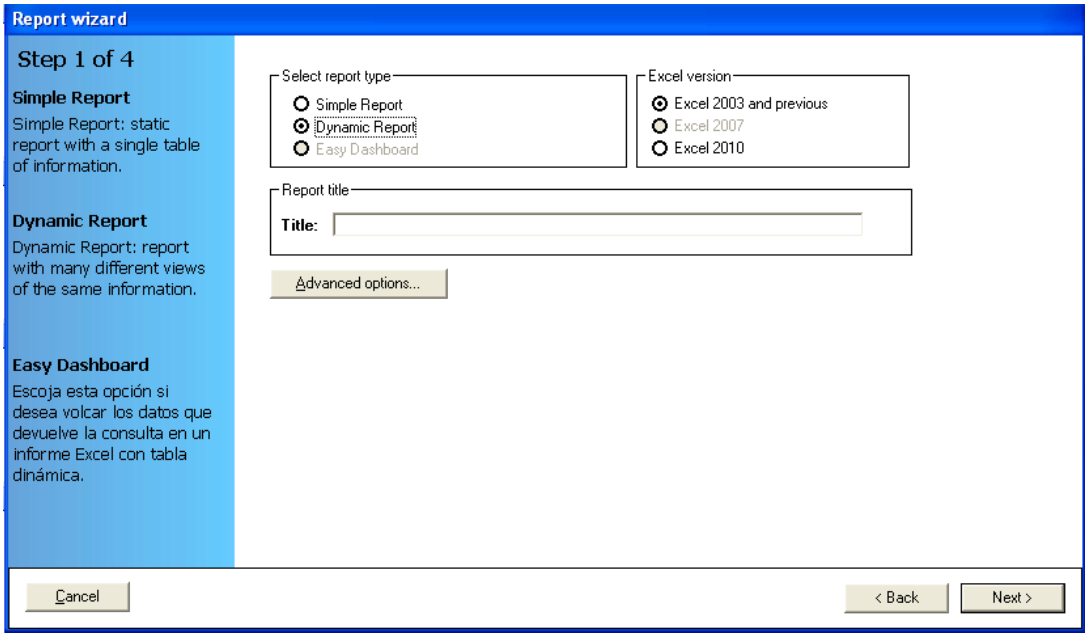
The 4 steps necessary to complete the reporting are:

- **Step 1**. Select the type of report: in this case it will be 'Dynamic Report'.
- **Step 2.** Choose the query that will retrieve the data for the report.
- **Step 3.** Identify which fields are numerical, or let DataCycle Reporting do it automatically.
- **Step 4.** Define the report's appearance (format and design) which will be used as a template; and execute or display the report.

Press

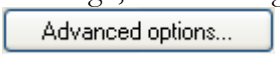
to continue.

Step 1. Report type selection

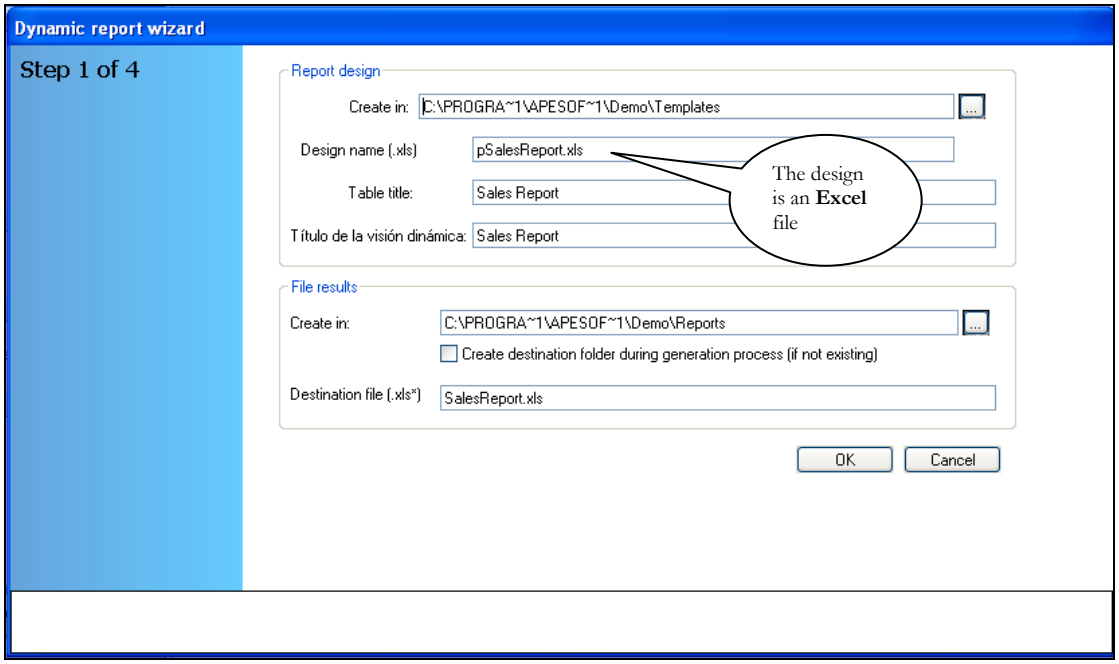


Specify the type of report design to be used. Select the 'Dynamic Report' option.

The name of the report must also be specified. We will call it **Sales Report:**

DataCycle Reporting will automatically complete the fields necessary to create the report, such as: the design, and certain generation options. These options may be customized by pressing the  button.

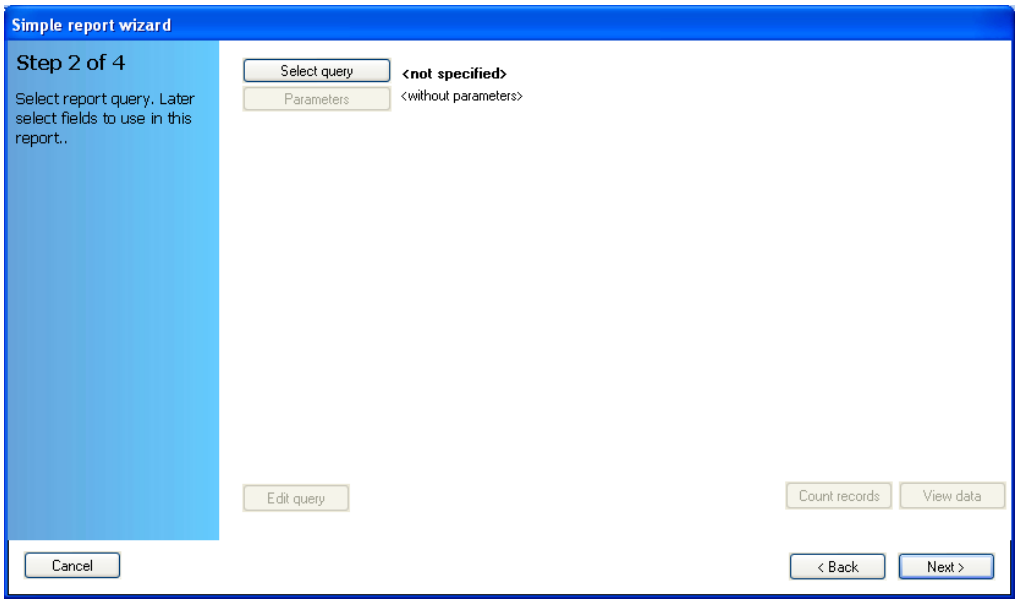
The design which will be applied to the report using the wizard is based on a design template included in DataCycle Reporting. The following illustration is shown for your information, as we will not go into the configuration of advanced options in this example.



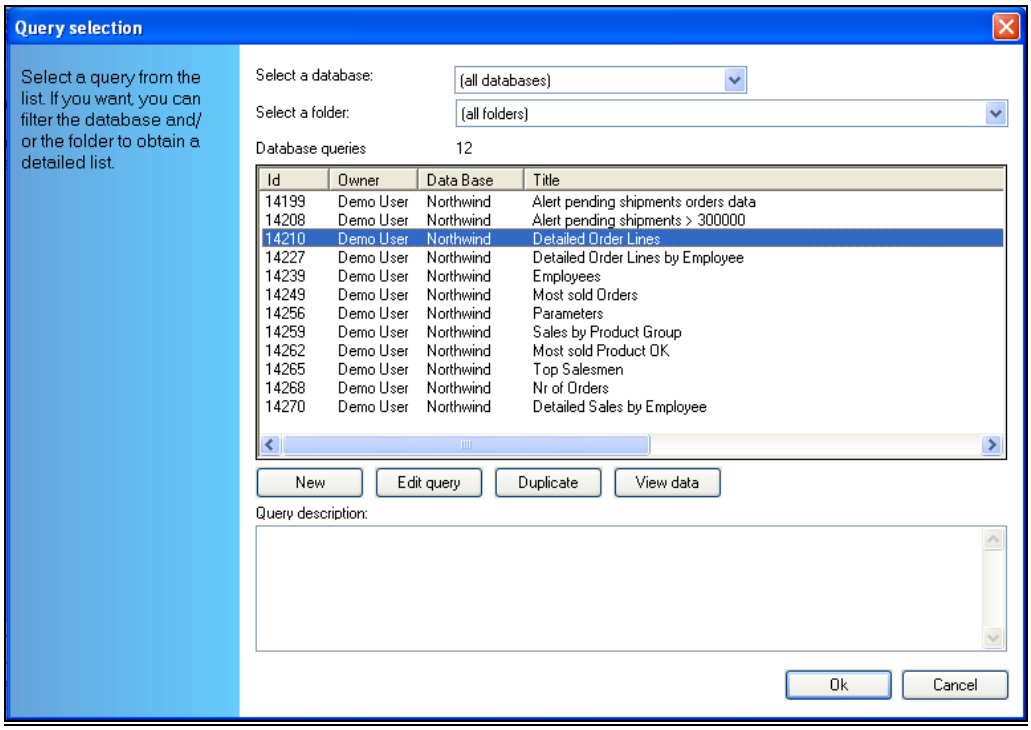
Press the Next > button (unless you have entered the Advanced Options window; in which case you must press Cancel first, or OK if any value has been changed and you wish to apply the change).

Step 2. Query selection

The next step consists of selecting the query to be used in this report.

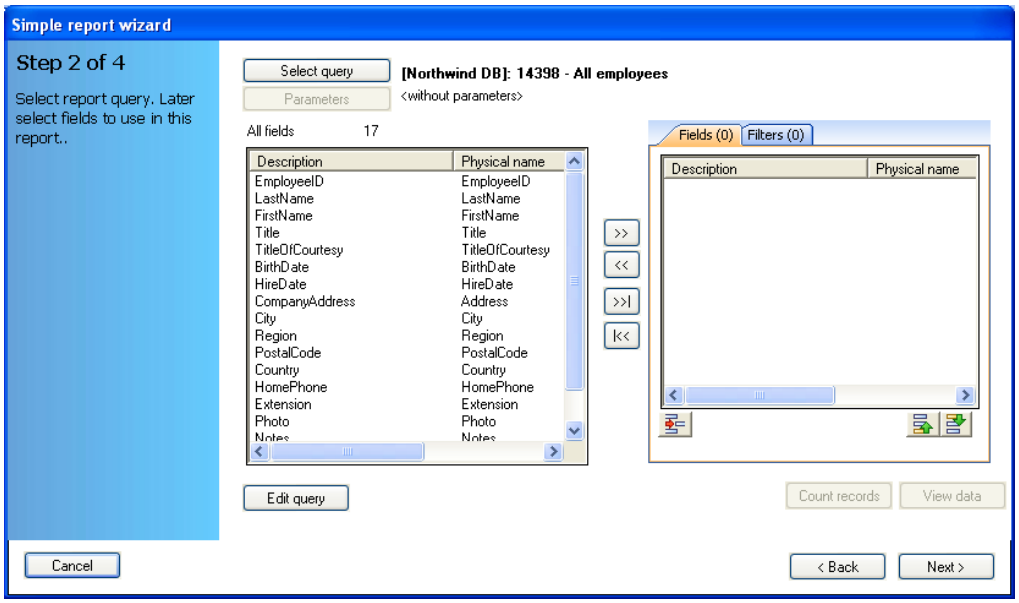


Press the Select query button to choose the query which will be used to retrieve data for this first report.



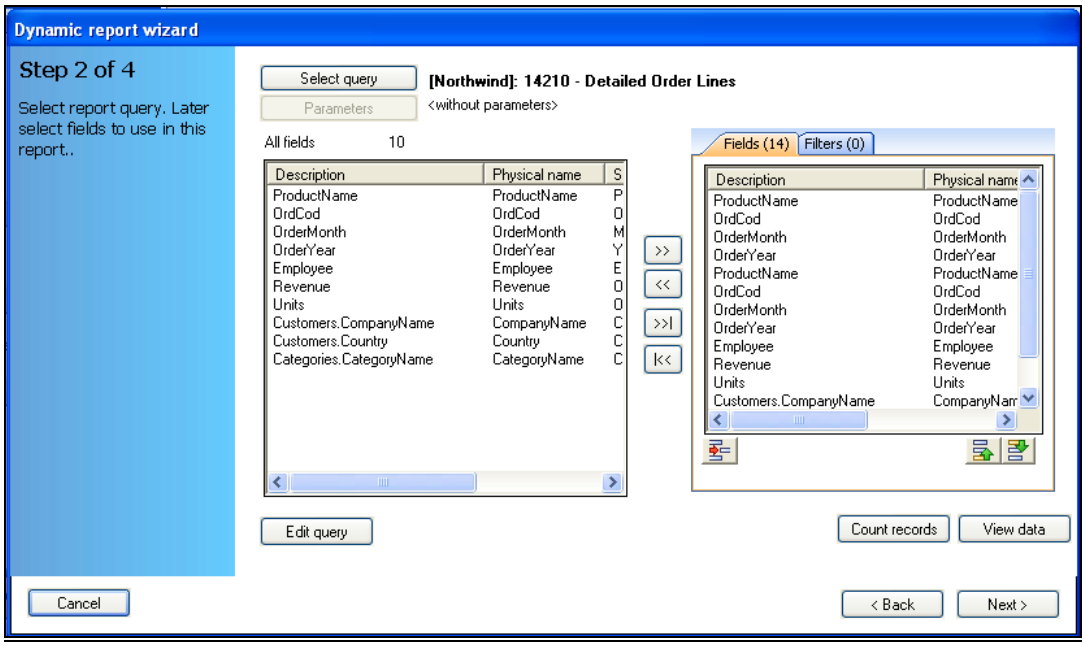
Select the 'Detailed Order Lines' query and press OK

You will see the fields returned by the query on the left side of the form.



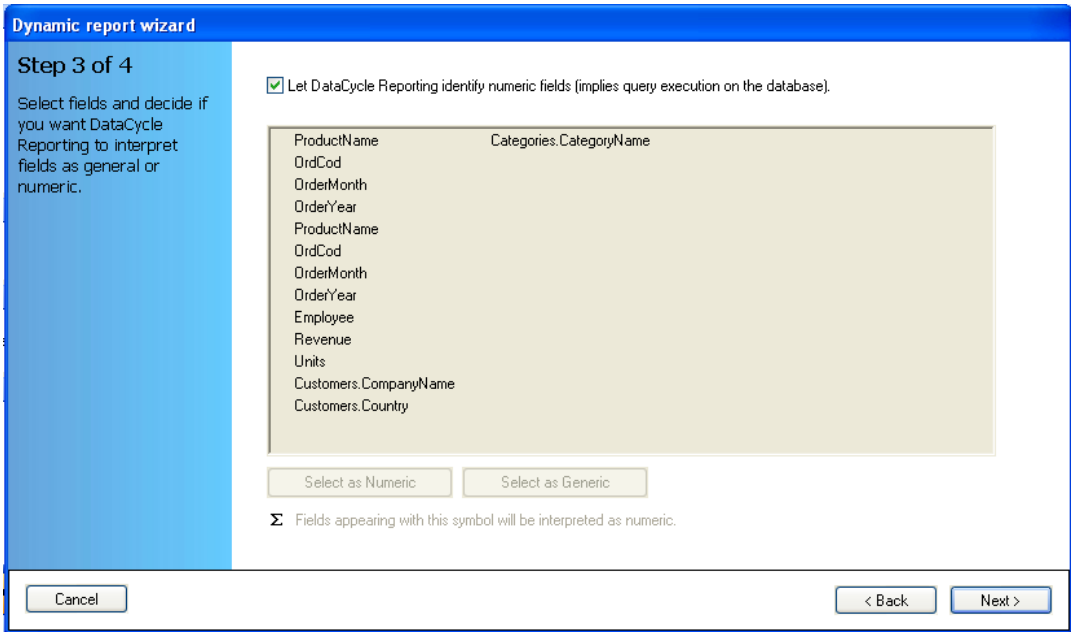
As mentioned before, field sub-selection is one of the main methods for reusing the same query in several reports - for each report, choosing among available fields returned by a query or set of queries.

To select the fields to be used in the report highlight the fields in the panel situated at left that correspond to those on the right side of the example below, and press the >> button, or simply double click on them. After you have selected all 14 of the fields to be used in the report you may use the and buttons to change their order. The final result should be as follows:



Step 3. Numerical field configuration.

Just as with the first report, once the fields from the query have been selected, we can let DataCycle automatically determine which of the selected fields are numerical, or when can establish this ourselves.



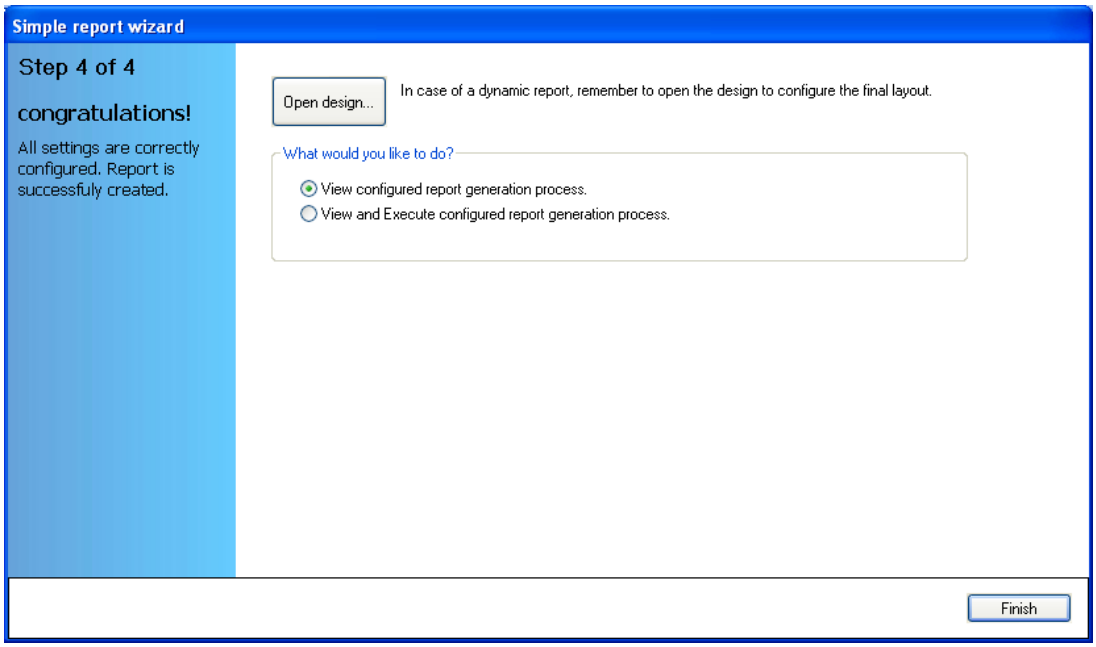
By marking the checkbox you are allowing DataCycle Reporting to execute a query that obtains only the structure of the data, which will allow DataCycle to determine the data type of each field and verify numerical fields.

Again, in this example we will let DataCycle Report identify the numerical fields.

Press

to continue.

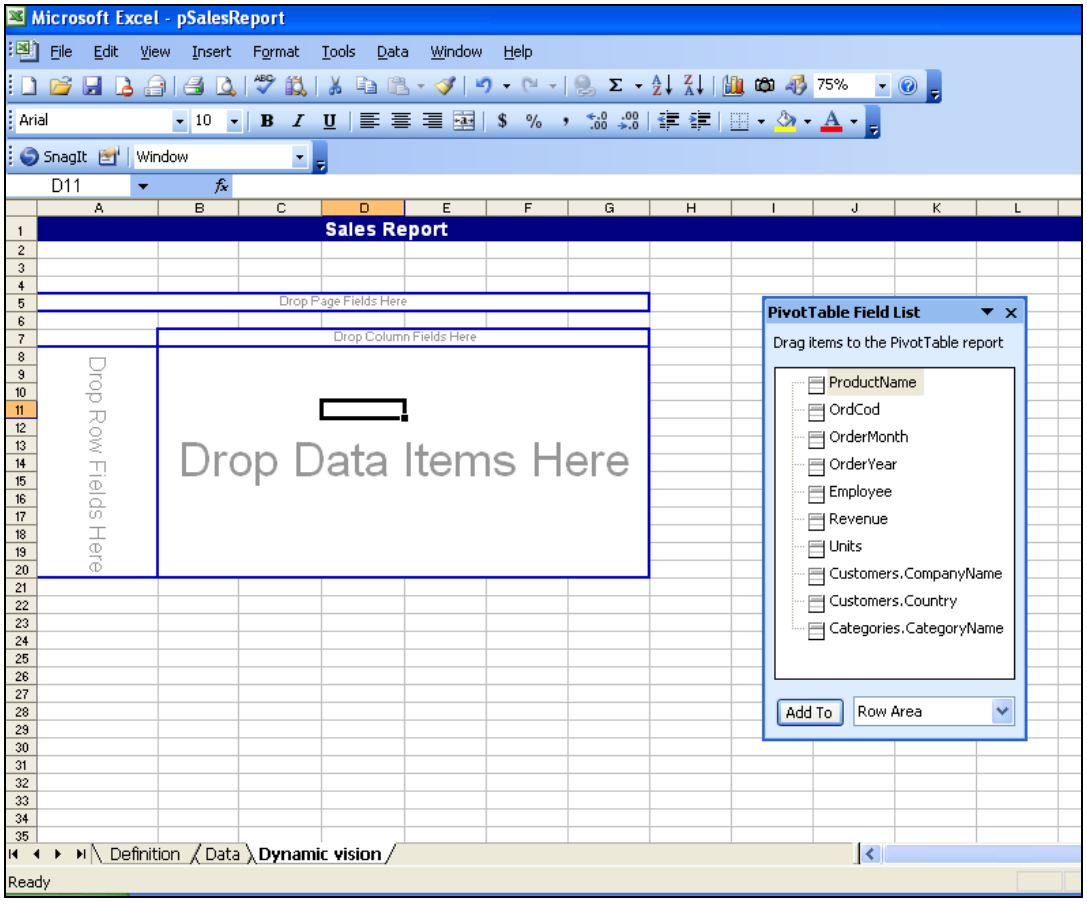
Step 4. End of creation report



The design and the report we have configured have been created automatically.

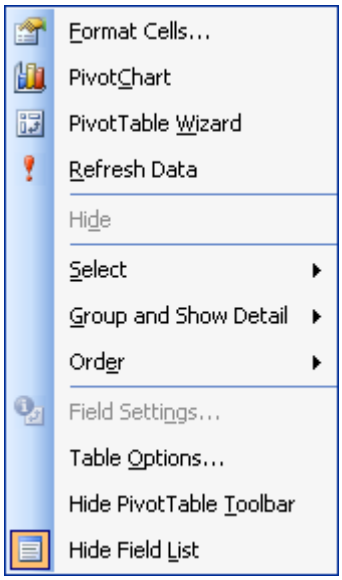
This time, open the design by pressing

.



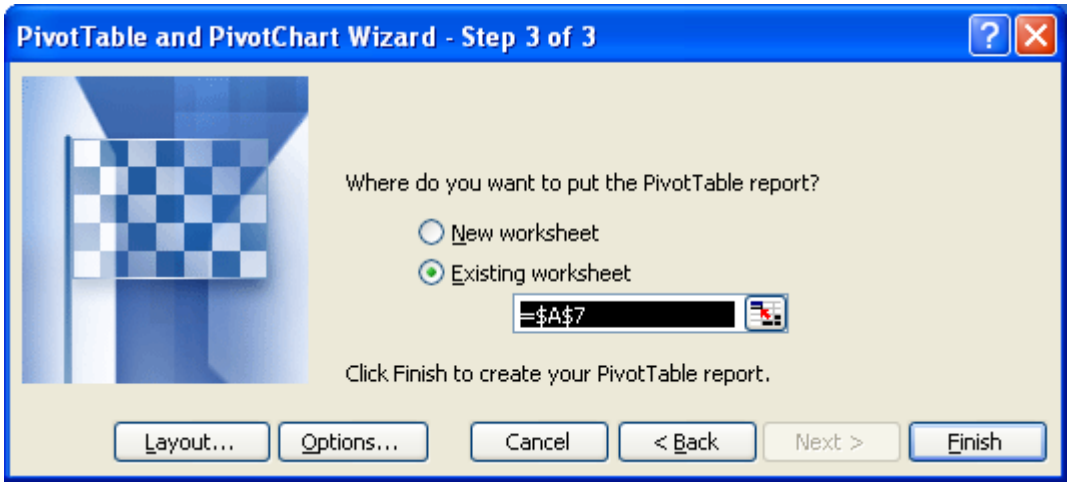
Please note: MS Excel 2007 will be different, but the procedure, though not identical, quite is similar. Please review the entire procedure and desired results in this guide, and adjust accordingly. This guide will be updated with soon with exact instructions for Excel 2007. (Please feel free to contact Support in the meantime if you encounter any difficulties.)

Situate your mouse over the dynamic table, and right click. The following menu will appear:



Select "**Pivot Table Wizard"** and the pivot table wizard will appear.

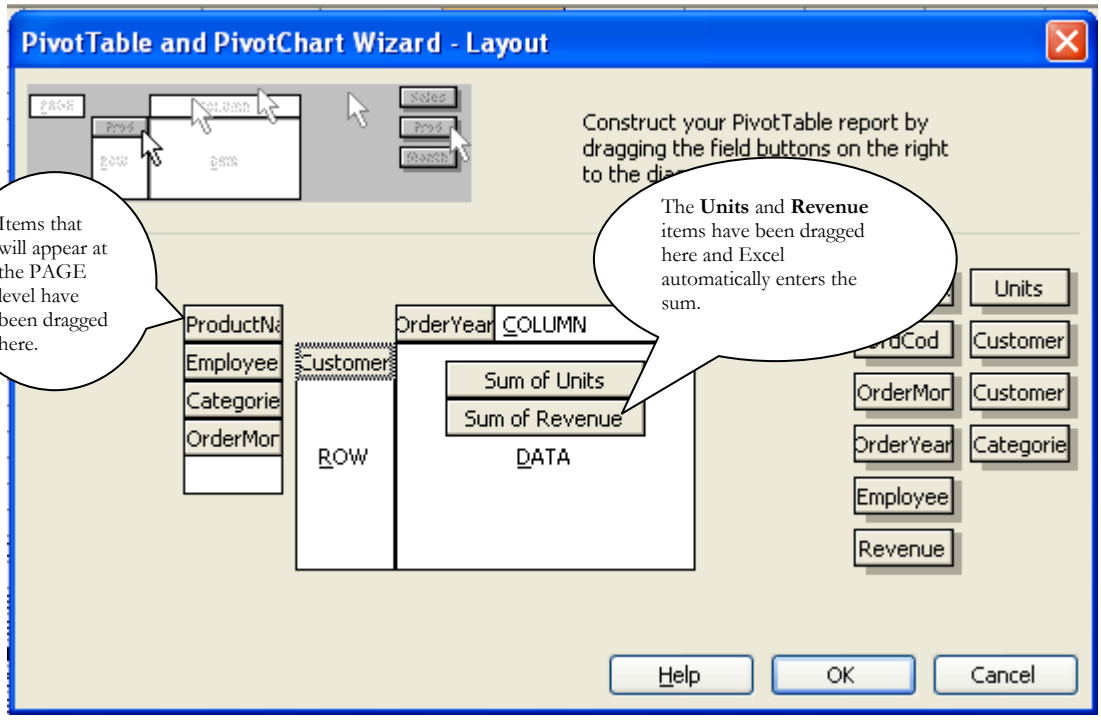
The wizard will have this appearance depending on the version:



Press the Layout... button to display the section of the wizard where the appearance of the pivot table is designed. The following window will appear.

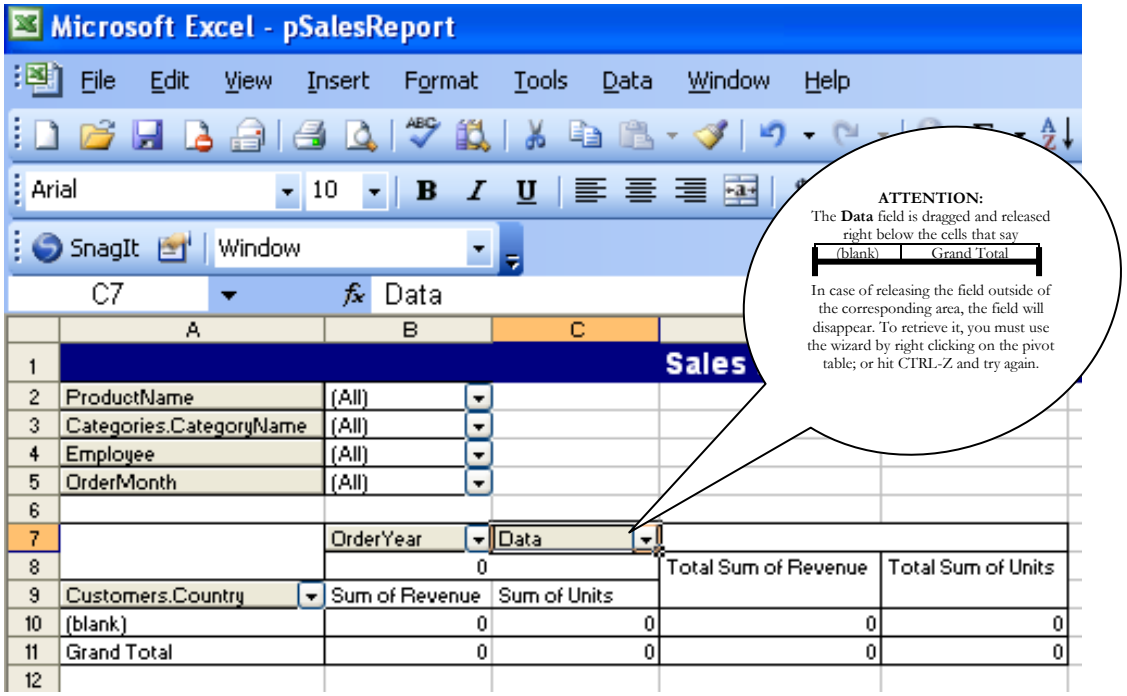
This next step involves dragging the items on the right to a suitable location, either PAGE, COLUMN, ROW or DATA. (As you will see, PAGE level items represent fields that are not included in the initial table, but which will be available to the user in the final report. Fields placed at the COLUMN or ROW level will be populated with data when the report is executed; and in this example, DATA level items will be automatically summed by Excel, and associated with both the row items and the column items.)

Drag and drop them so they look like this:



Press OK, and then Finish.

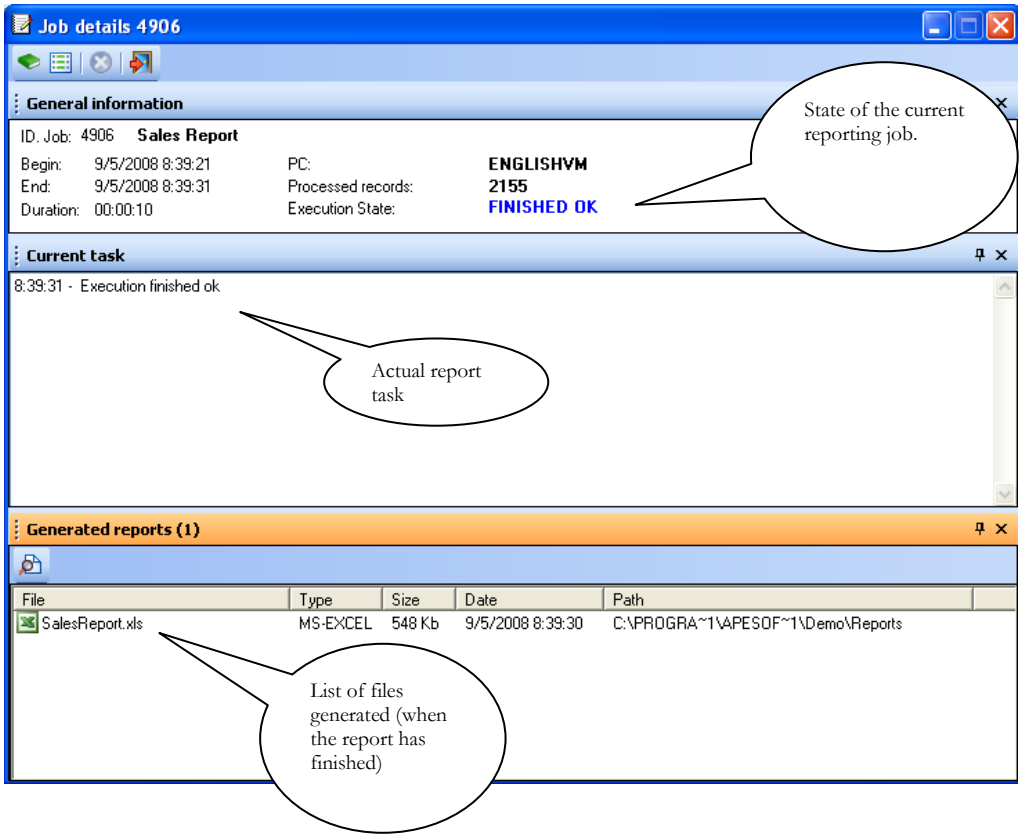
Now drag the **Data** item to the column level, as shown in the bubble below. The template must look like this:



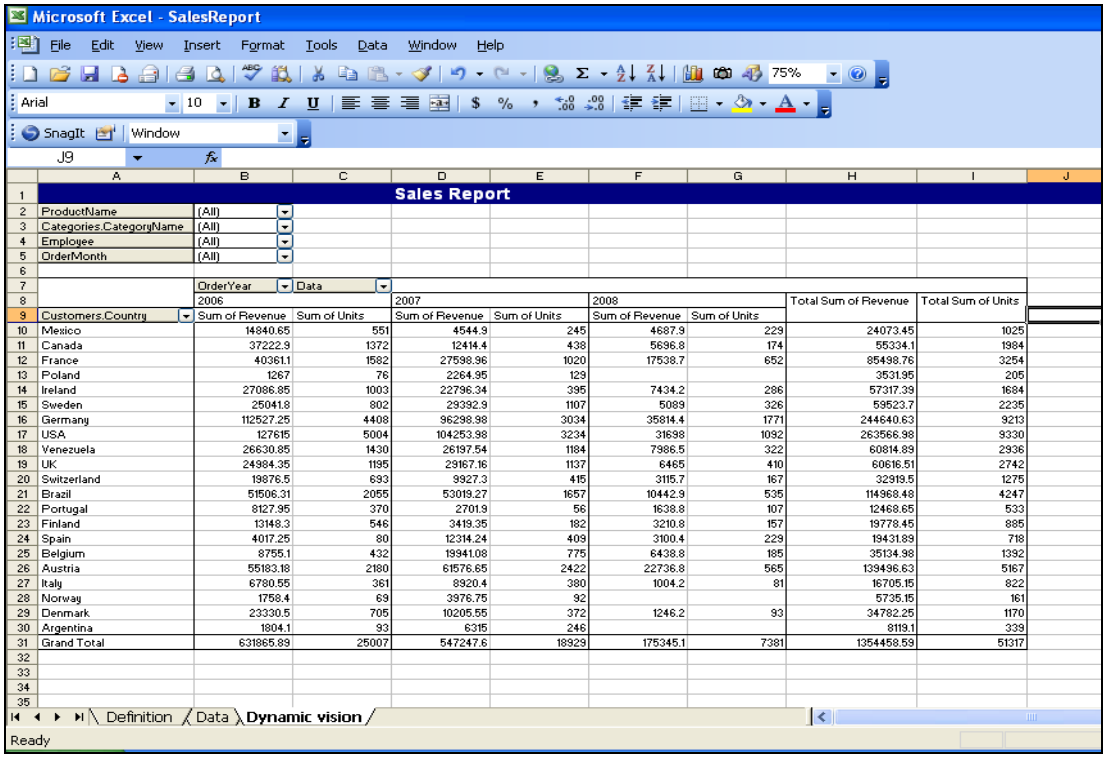
Close the design and return to the Wizard window.

Upon pressing the Finish button report execution is launched and the progress monitor window that we saw before.

The reports generated appear in the lower list, so that when report generation has completed the resulting report can be launched by double clicking the file (or pressing while selecting the report).



Please open the report by double clicking on the filename generated in the file list, as seen above. Microsoft Excel will open showing you the report you just created:



Conclusions

Given how easy it is to create pivot tables with DataCycle Reporting, and the power pivot tables represent for report consumer, it may prove worthwhile seriously considering extensive use of dynamic reports within the enterprise, particularly in conjunction with analytical reporting.

Chapter

4

Easy Dashboard*

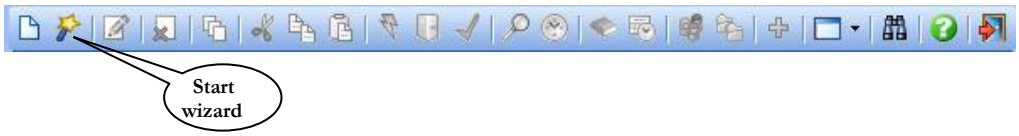
(*) only available with Excel 2010

In business Inteligence (BI), a Dashboard is a report that provides a targeted overview of the company or a set of business processes about which decisions must be made. Easy Dashboard is a DataCycle Reporting report type, that offers powerful dashboards in a few clicks.

The objective of this chapter is to create an Easy Dashboard report by using the Easy Dashboard Wizard. We are going to create an employee report providing the user with the ability to search and filter within the resulting report.

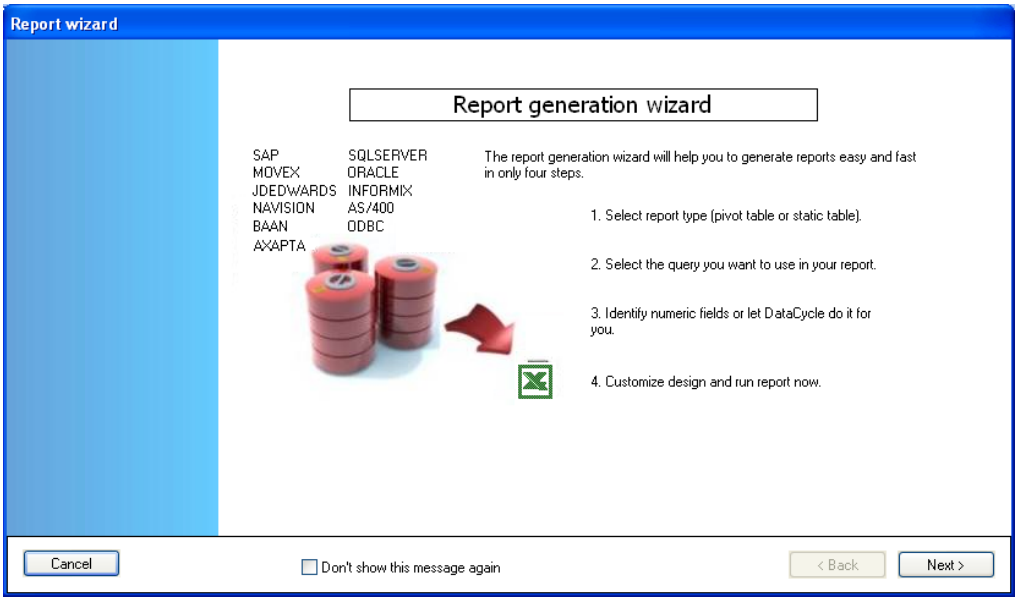
Wizard for quick report design

Again, we are going to work with the Wizard to create this report:



Welcome screen

And, again the first screen is a welcome screen with an overview of the steps required to quickly and easily create a reporting process, and its associated report.



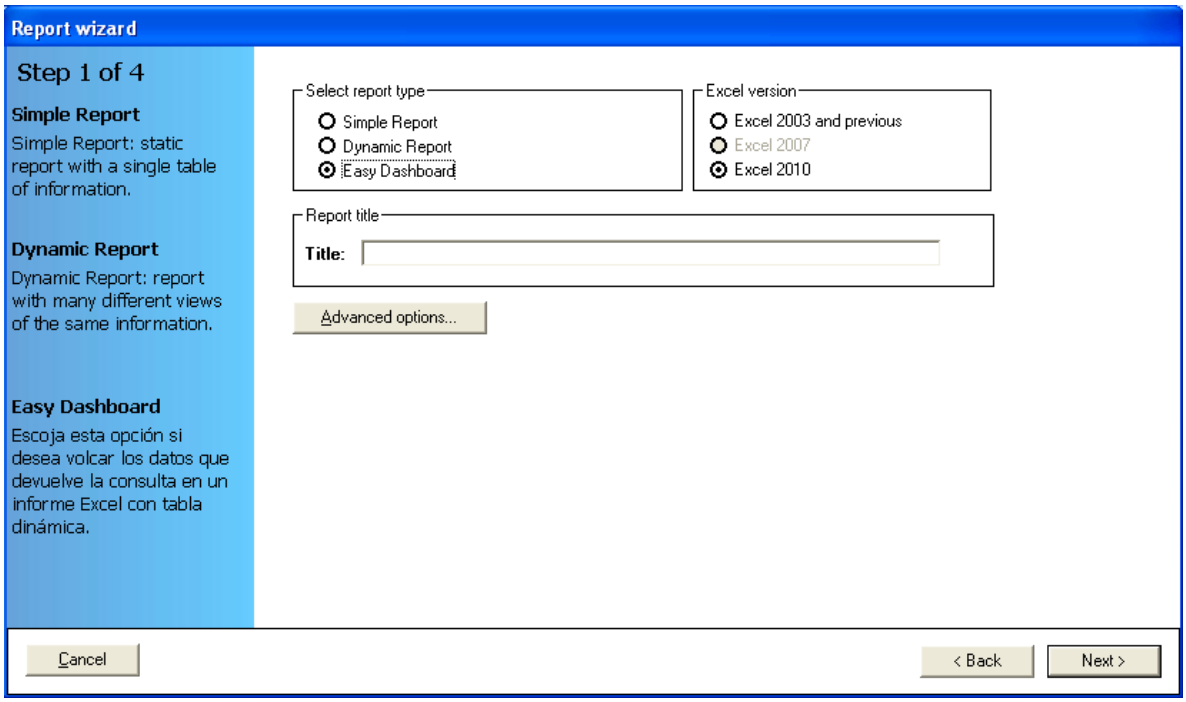
The 4 steps necessary to complete the reporting are:

- **Step 1**. Select the type of report: in this case it will be 'Easy Dashboard'.
- **Step 2.** Choose the query that will retrieve the data for the report.
- **Step 3.** Identify which fields are numerical, or let DataCycle Reporting do it automatically.
- **Step 4.** Define the report's appearance (format and design) which will be used as a template; and execute or display the report.

Press

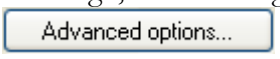
to continue.

Step 1. Report type selection

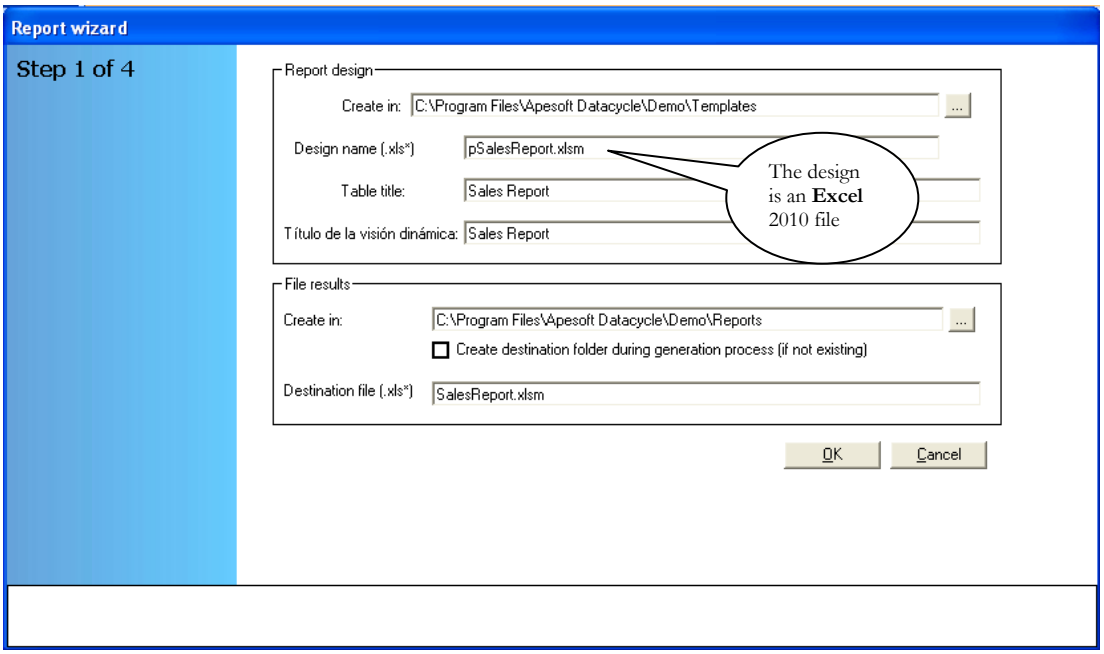


Specify the type of report design to be used. Select the 'Easy Dashboard' option.

The name of the report must also be specified. We will call it **Sales Report:**

DataCycle Reporting will automatically complete the fields necessary to create the report, such as: the design, and certain generation options. These options may be customized by pressing the  button.

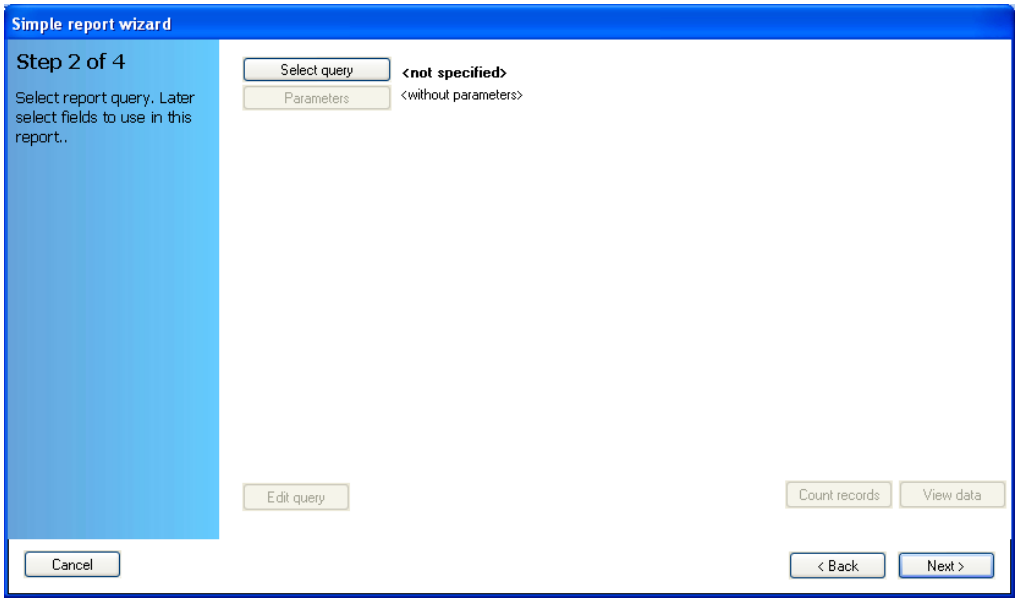
The design which will be applied to the report using the wizard is based on a design template included in DataCycle Reporting. The following illustration is shown for your information, as we will not go into the configuration of advanced options in this example.



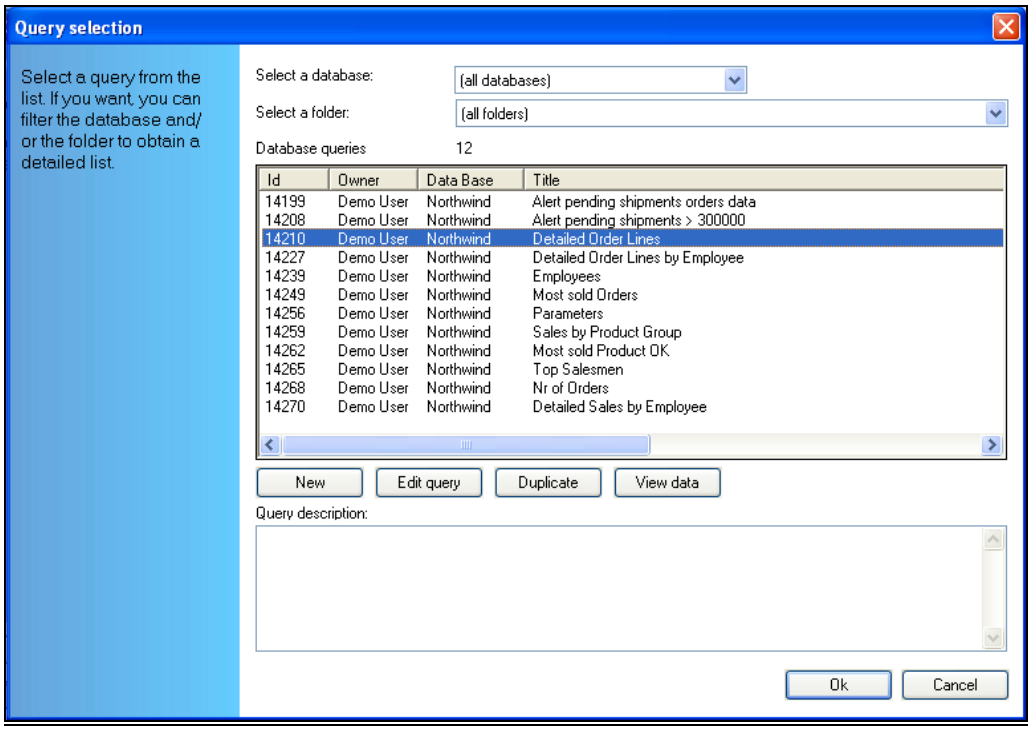
Press the Next > button (unless you have entered the Advanced Options window; in which case you must press Cancel first, or OK if any value has been changed and you wish to apply the change).

Step 2. Query selection

The next step consists of selecting the query to be used in this report.

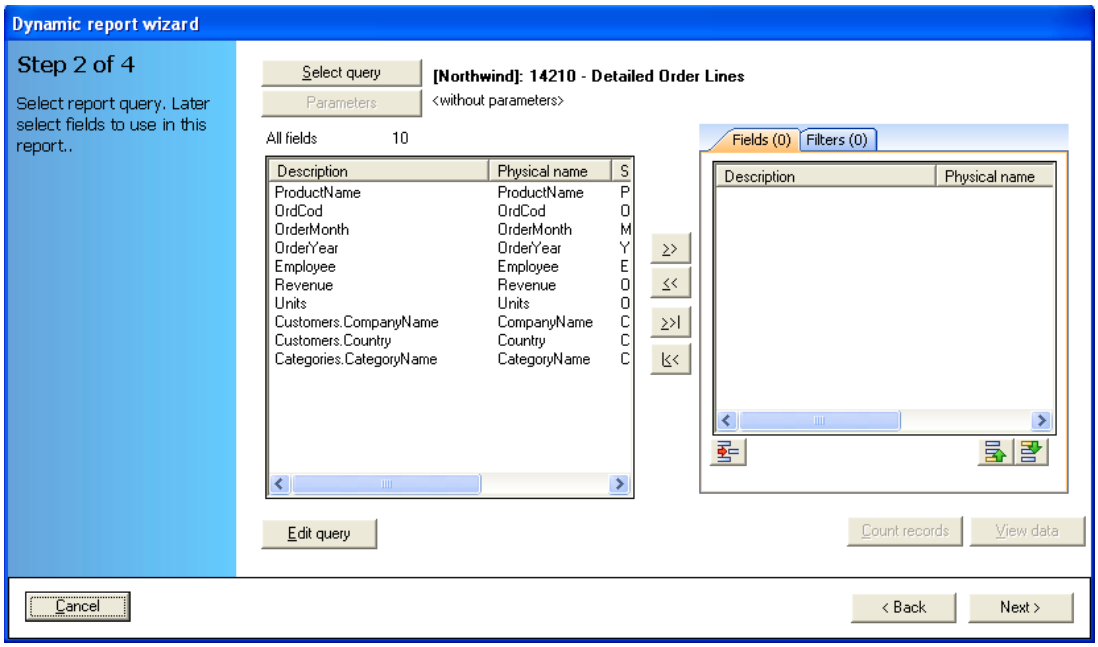


Press the Select query button to choose the query which will be used to retrieve data for this first report.



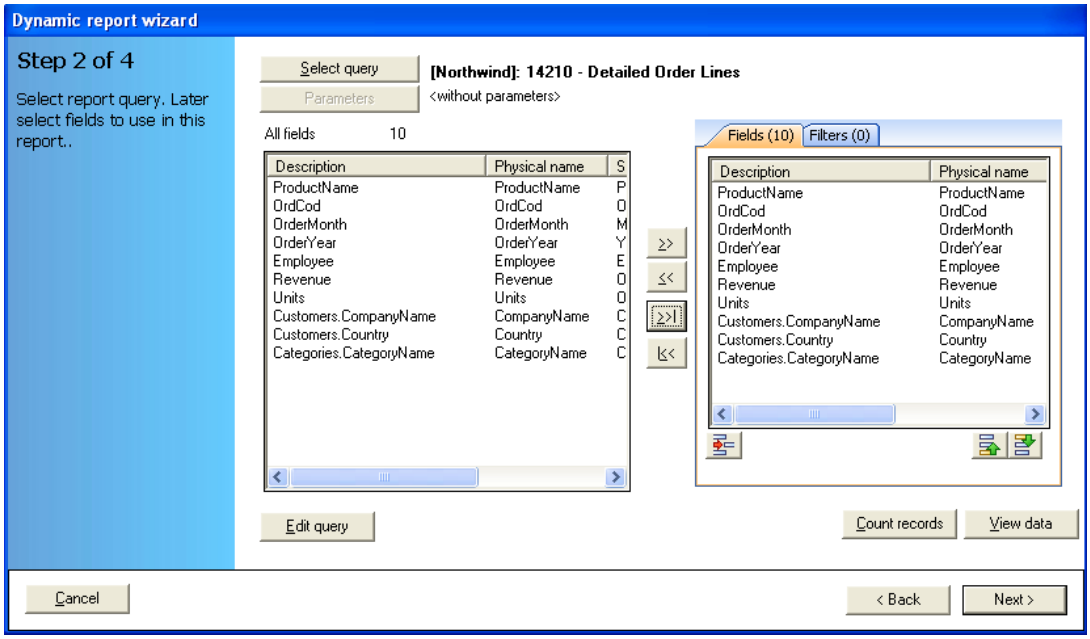
Select the 'Detailed Order Lines' query and press OK

You will see the fields returned by the query on the left side of the form.



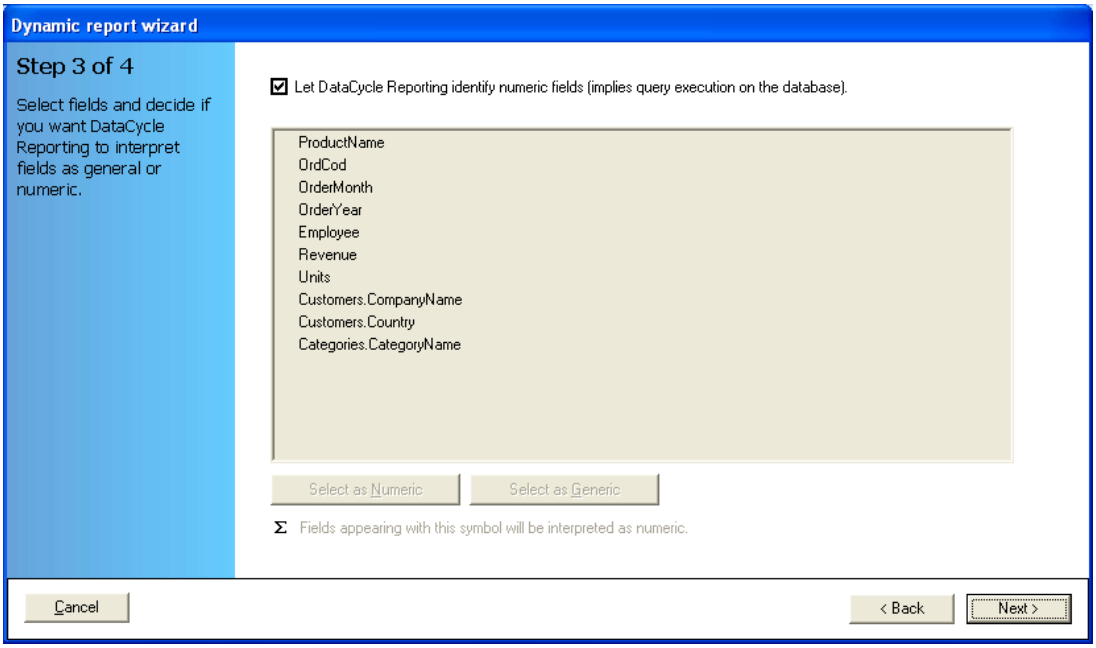
As mentioned before, field sub-selection is one of the main methods for reusing the same query in several reports - for each report, choosing among available fields returned by a query or set of queries.

To select the fields to be used in the report highlight the fields in the panel situated at left that correspond to those on the right side of the example below, and press the >> button, or simply double click on them. After you have selected all 10 of the fields to be used in the report you may use the and buttons to change their order. The final result should be as follows:



Step 3. Numerical field configuration.

Just as with the first report, once the fields from the query have been selected, we can let DataCycle automatically determine which of the selected fields are numerical, or when can establish this ourselves.



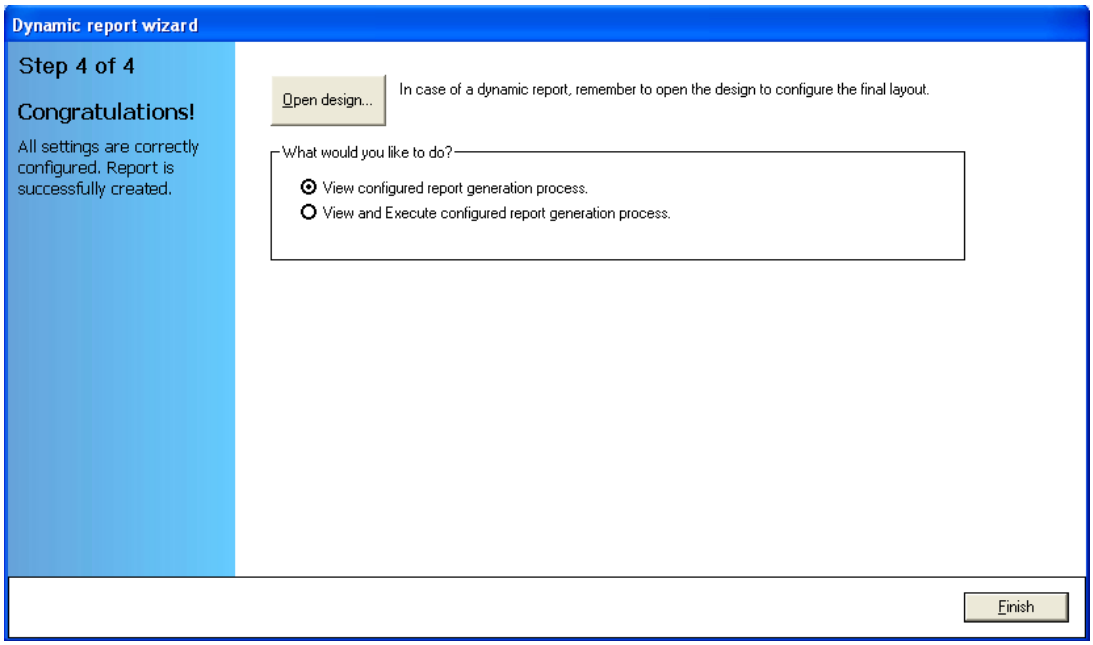
By marking the checkbox you are allowing DataCycle Reporting to execute a query that obtains only the structure of the data, which will allow DataCycle to determine the data type of each field and verify numerical fields.

Again, in this example we will let DataCycle Report identify the numerical fields.

Press

to continue.

Step 4. End of creation report

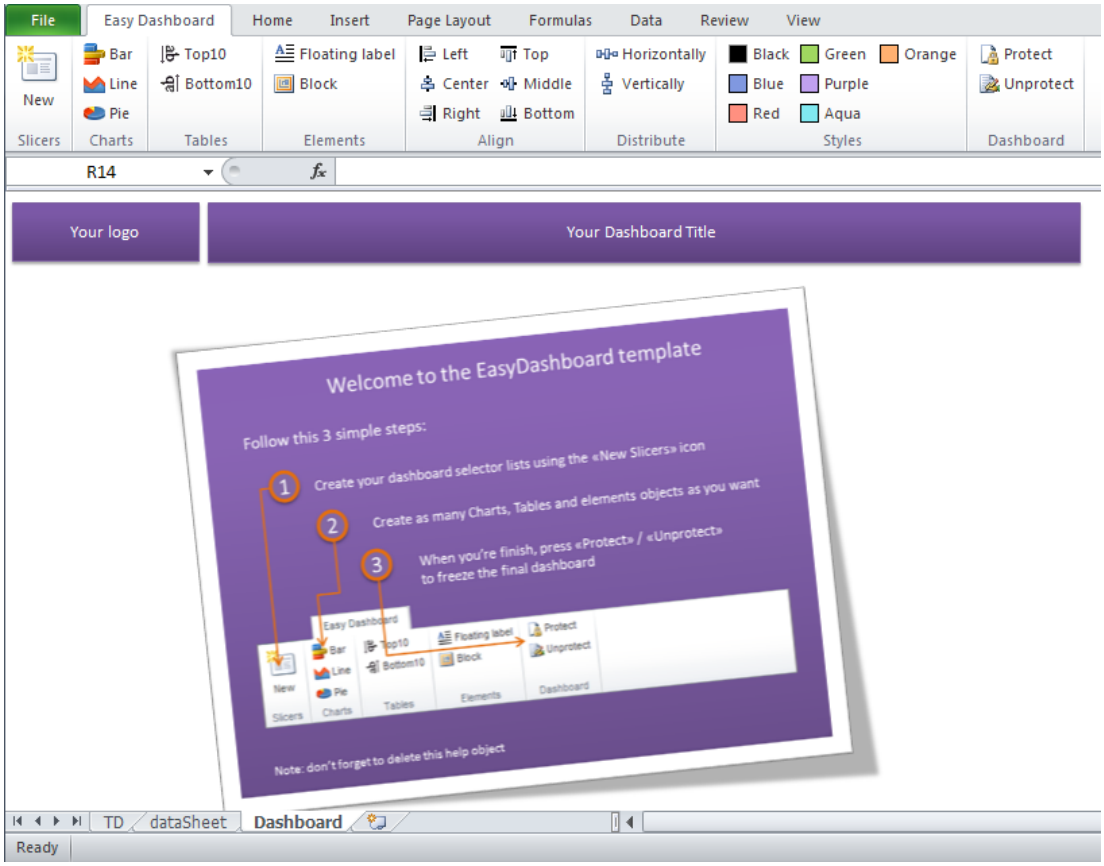


The design and the report we have configured have been created automatically.

Open the report design by pressing

.

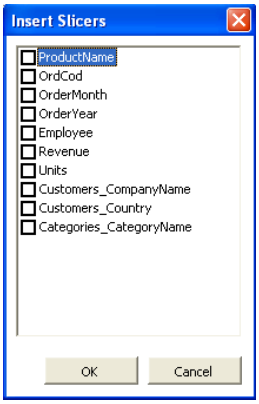
Each new element included in the Easy Dashboard from the Ribbon bar, generates a new pivot table, copy from the master one, filled with the query. Easy Dashboard uses slicers data offered by Excel 2010, in order to join all pivot table copies from dimensions defined from icon "New"



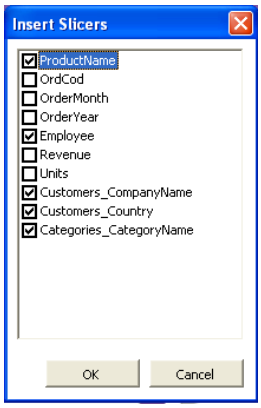
The own template, contains instructions to proceed:

1. Create your dashboard selector lists using the "New" icon

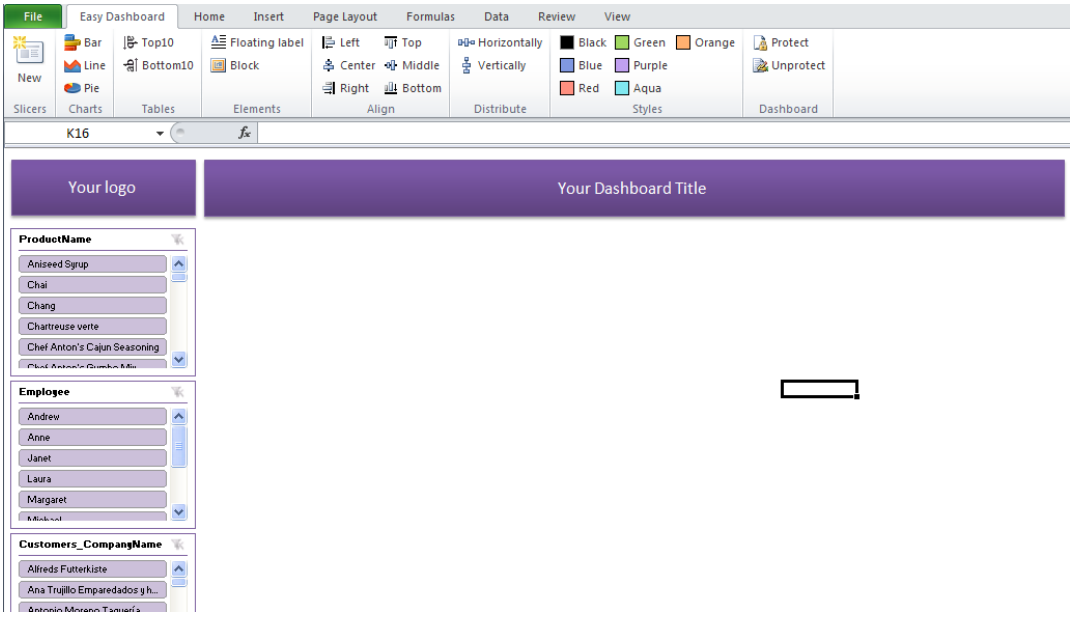
   - When pressing icon, a new window with all available fields is shown:



   - Select wich fields will be used as filters / selectors, and press "OK"

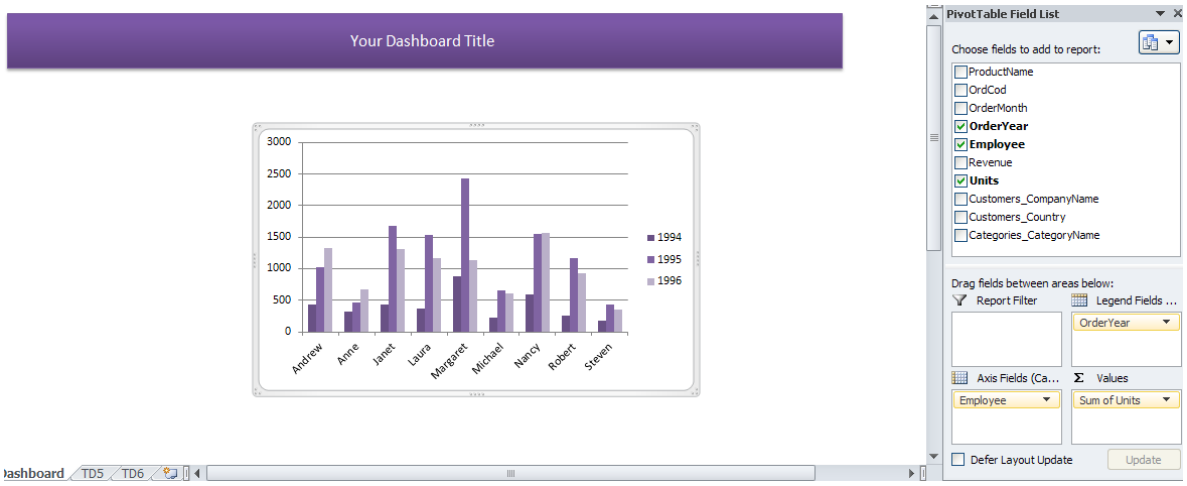


- For each selected field, a new filter list will be added to the dashboard. If you need to move down all of them, just press <Ctrl> and click on each list to be moved. Then, drag all selected lists to the desired position.

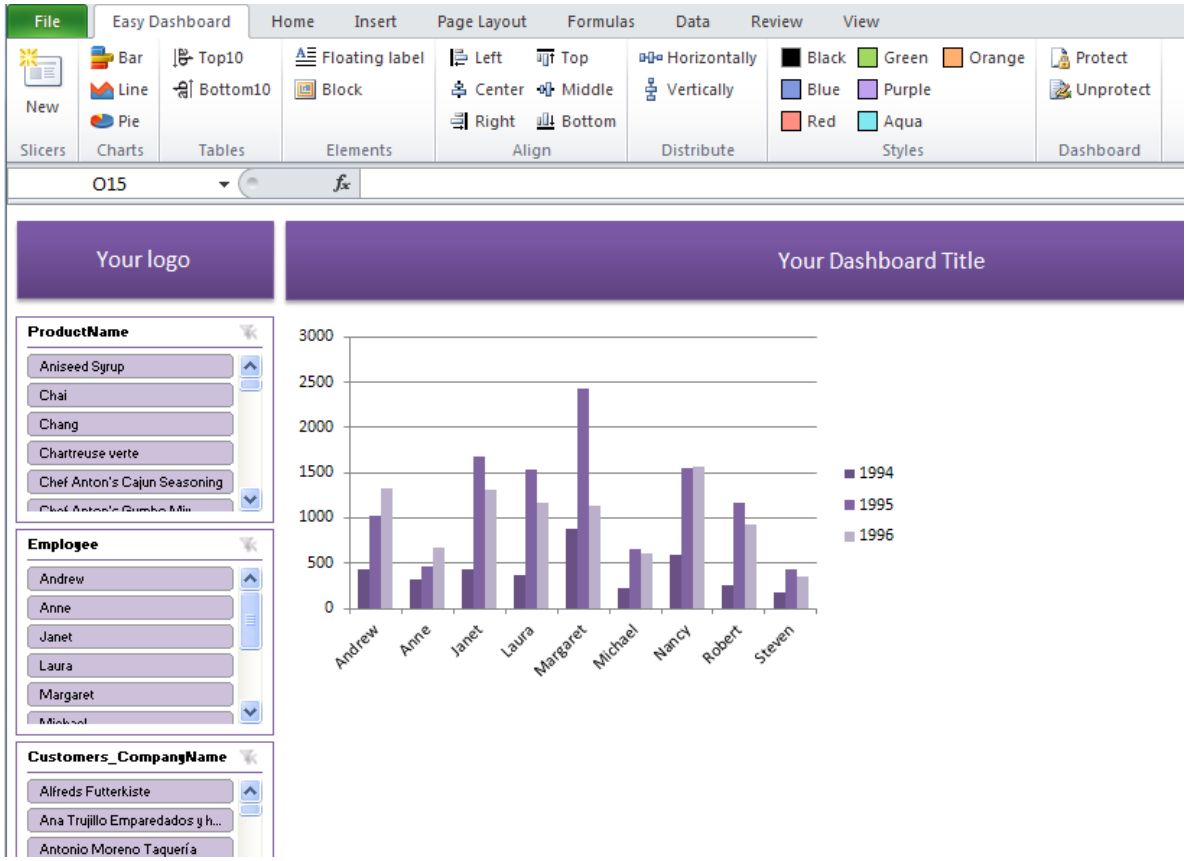


2. Create as many Charts, Tables ans element objects as you want

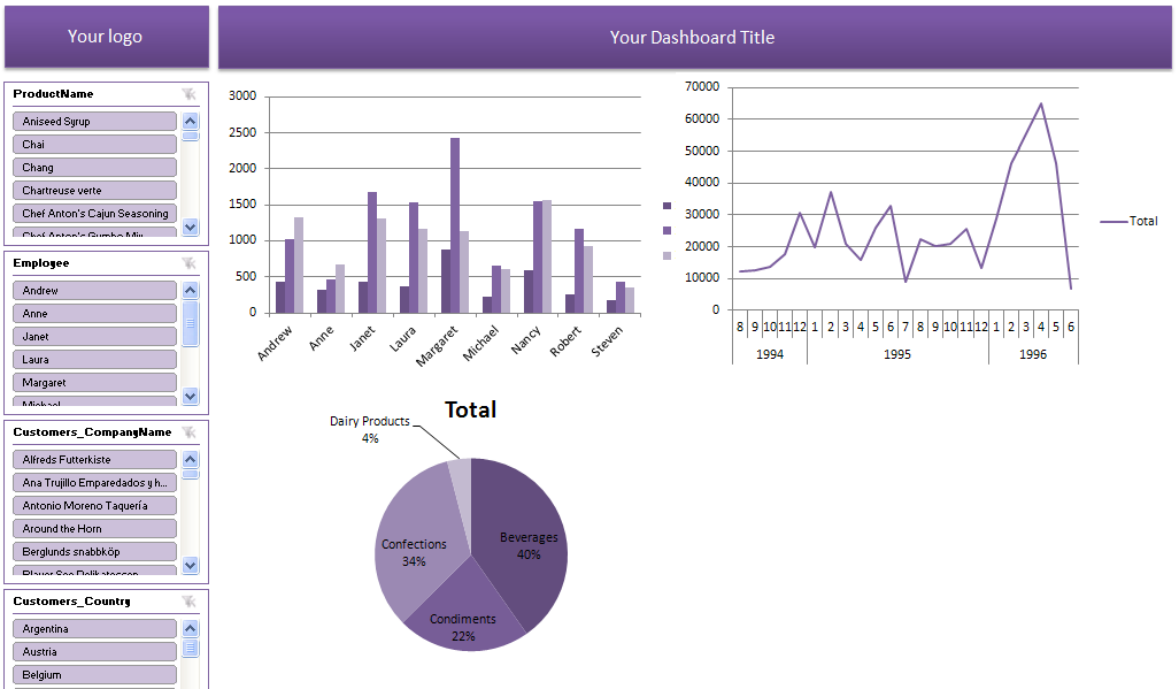
- Add a Bar chart by pressing



Once the chart is finished, place it on the desired position and click outside the chart zone to hidden the Pivot table field list:



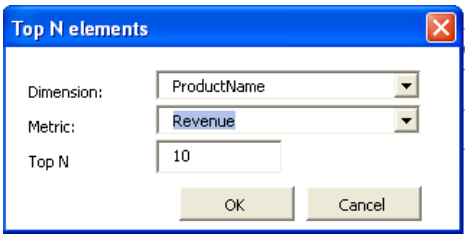
- Add a Line Chart by pressing Line, and a Pie Chart by pressing Pie:

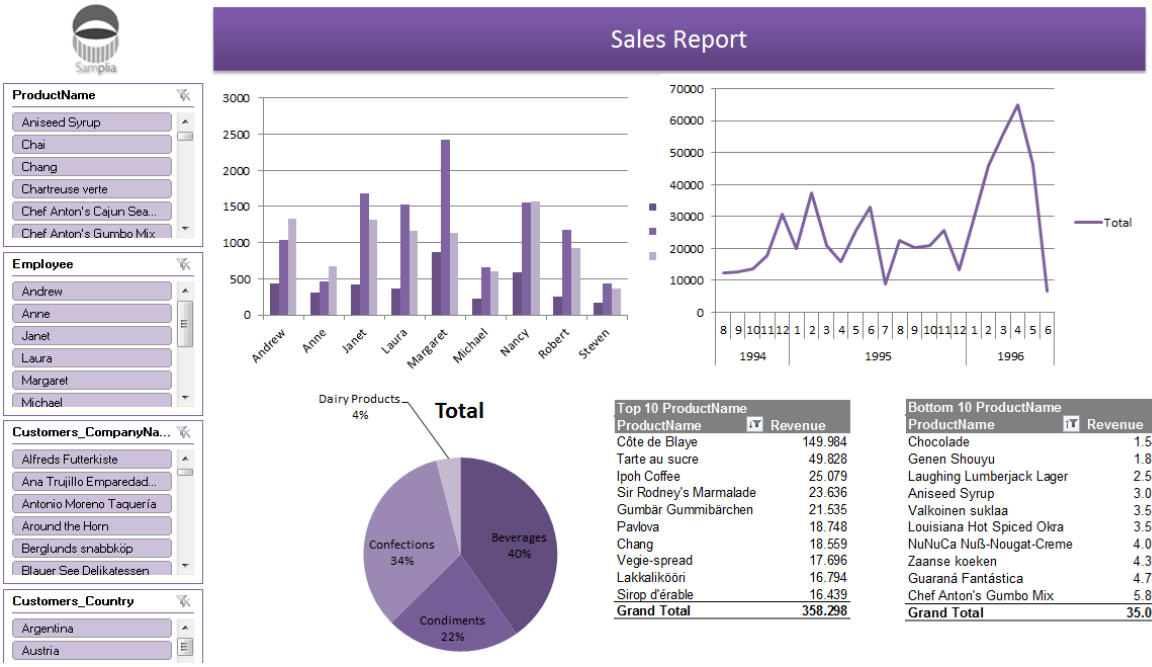


- Add a Label for each Chart by pressing Floating label

- Add a Top10 List by pressing Top10, and a Bottom10 List by pressing Bottom10:

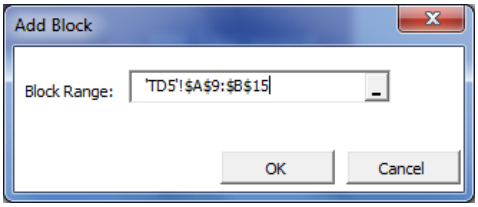
  ➢ Remind selecting a numeric field as a Metric:





- Add a block by pressing Block :

  Select a Cells group in any Sheet or a defined Cells range from the Report Design.



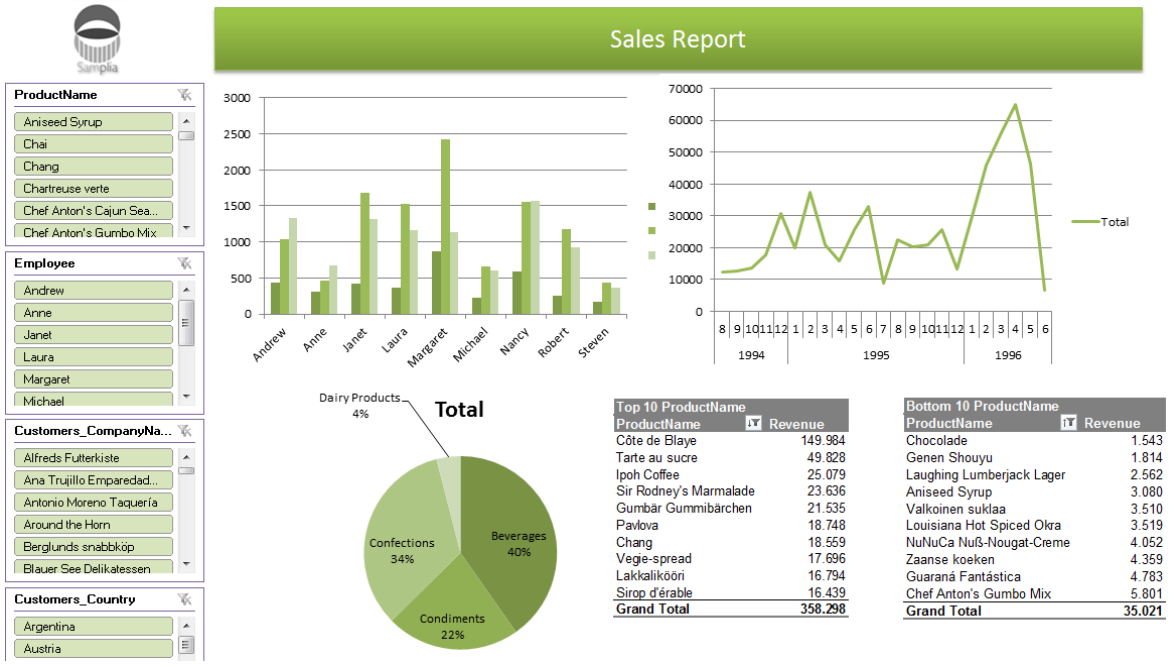
  When pressing "OK", it will be included as a dynamic image in the Dashboard Sheet.

  - Any change in the referenced range will be visible from this dymanic image

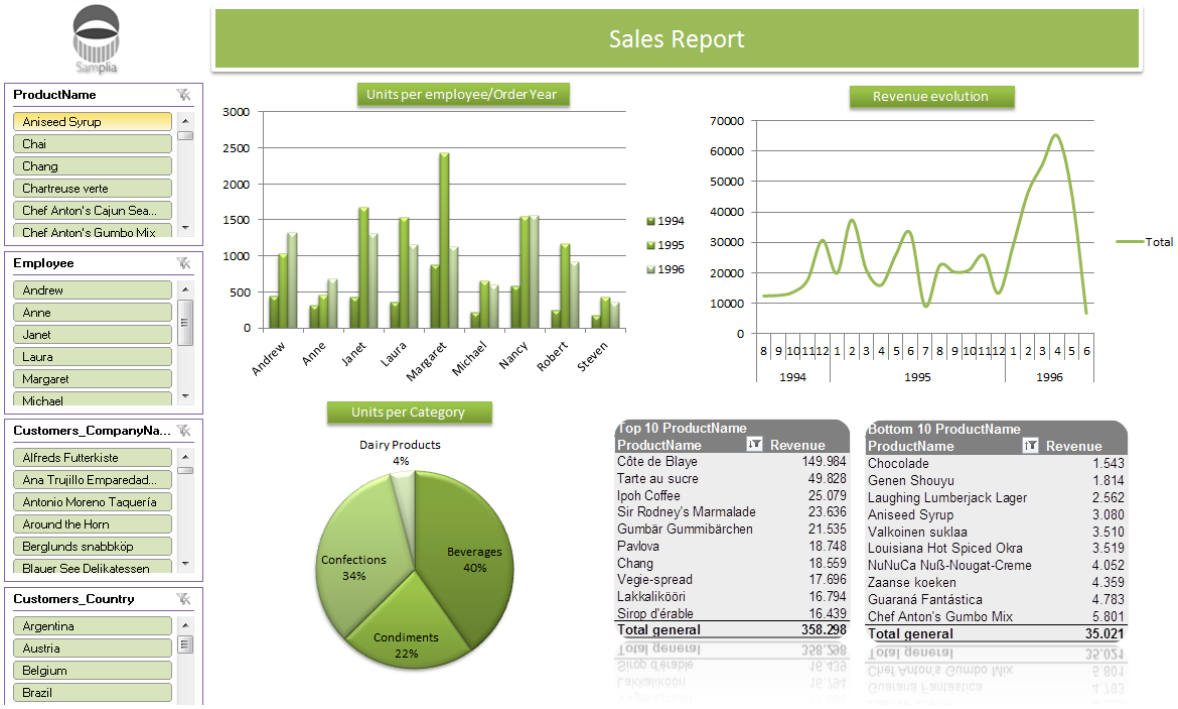
- Align/Distribute

  By holding <Ctrl>+element (chart, List, block, label,..), and then pressing any of the available options in "Align" or "Distribute" ribbon section, you can organize more effectively the selected elements.

- Styles: you can change the Dashboard style by pressing some of the coloured icons in "Style" Ribbon



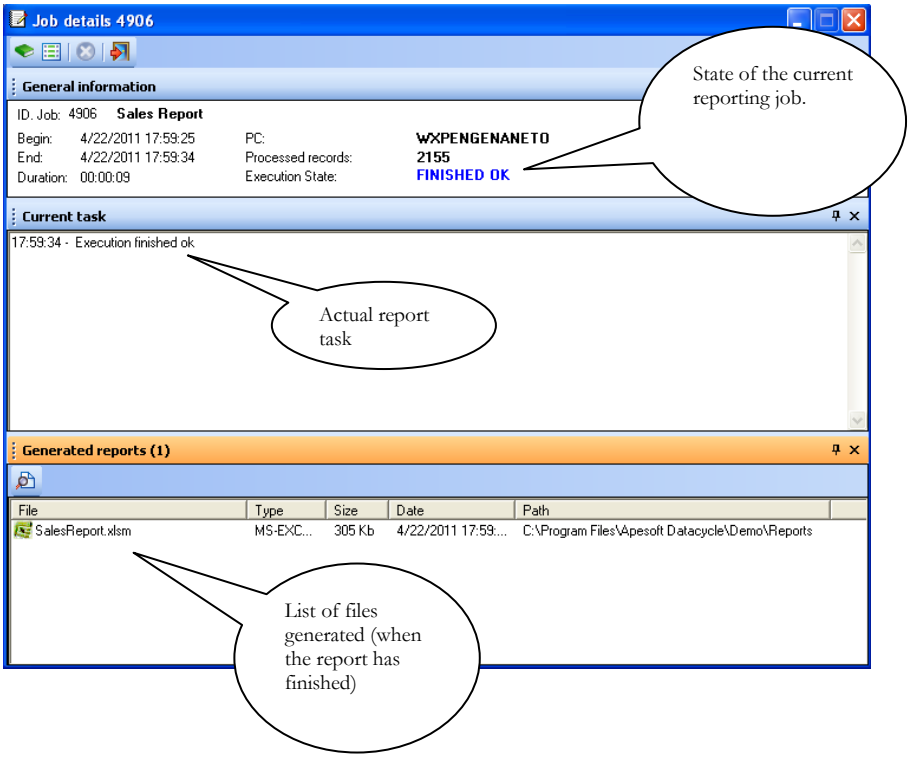
- Finally, you can use any Look&Feel customization available in Excel.



3. When you are finished, press "Protect" to freeze the final dashboard, and avoid changing objects location to the user

Finally, close the Design by saving, and press

. The new process will be executed, and the report generated:



Please open the report by double clicking on the filename generated in the file list, as seen above. Microsoft Excel will open showing you the report you just created:

Using filters

You can select one or more values (holding <Ctrl> and pressing all fields). To remove a filter, just press .

Each time you apply a new filter, the previous set filters remain. The behavior is the same as using Excel Auto-filters

Following with the example, if we need Andrew's Sales, we just press "Andrew" value

Conclusions

Given how easy it is to create an Easy Dashboard with DataCycle Reporting, and the power to express main business or technical data in a single Sheet, it may prove worthwhile seriously considering extensive use of Easy Dashboard within your enterprise.

Chapter

5

Individualized content delivery reports

DataCycle Reporting is capable of generating multiple reports that are structurally identical, but contain data customized for each report recipient

Let's suppose that the dynamic sales report we just completed in the previous chapter must be distributed to all sales representatives in the Northwind company. This report may be useful for Executive Management or Sales Management, but may be useless and excessive data for each individual salesperson. In other words, we may not want to send all sales data to all of the salespeople. Instead, we may want to filter the data in such a way that each salesperson receives only the data relevant to him or her.

To do this, we will create a report process that generates several structurally identical reports that contain data specific to each salesperson. This sort of situation occurs frequently in organizations of many types and sizes:

- Sales per Regional Manager
- Costs per Project or Project Manager
- Revenue per Product Manager
- Expenses per department
- Operating accounts per division or company
- ...

Each of these reports can be left in personal directories for each recipient, sent via email with a personalized message for each recipient, or generated in HTML and uploaded to a Web application.

Approach for this example

Here, we will reuse the query designed in the previous chapter. You, the report designer, will add a filter to the existing query, and thereby adapt it to the new requirements.

In this example, we hope to show that DataCycle Reporting provides the autonomy in report design, and data access that company departments and divisions need. You will be able to design new reports using pre-existing general queries and need not depend on the availability of technical personnel to implement new reports or modify existing ones.

Working with parameters and filters

One of DataCycle Reporting's most powerful functionalities consists of using a type of variable or "place holder", that we will call a parameter, in queries and reports. Depending on the values passed to them parameters allow queries and reports to produce different results. Combined with the use of filters DataCycle Reporting provides considerable breadth and depth in the use of queries and reports.

Values can be passed to a parameter within a query either manually by a user or automatically from an internal process. Depending on the values, the query will return different results. For instance, DataCycle allows for using information in corporate databases as parameters, such as the name or company ID of sales representatives; information entered by the user when carrying out the query; and information returned by the operating system such as the current date or the user executing the report.

Some examples might include:

1. Query of sales by region requiring user input of the region parameter.

2. Query of sales by employee requiring user input of the employee parameter.

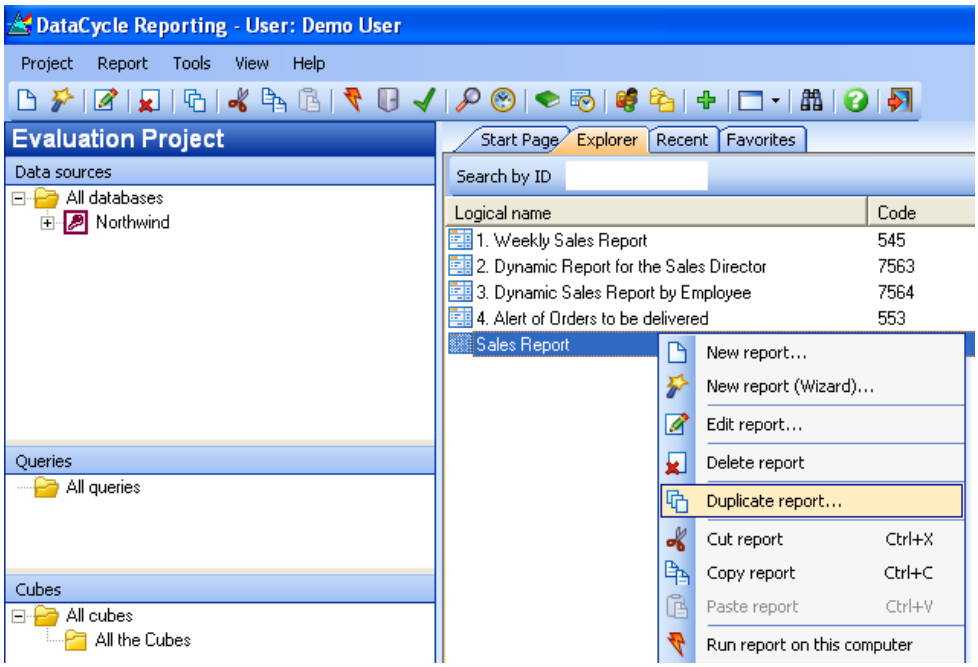
3. Query of sales for a specific period requiring user input of the start and end dates.

In addition, filters create a logical layer that keeps SQL query design independent from the design of the reports that leverage them. You might think of filters as a way of applying business criteria to a query without having to modify the query itself. You will practice the use of queries, parameters and filters in the following sample report. This methodology promotes the design and use of simple, generic queries minimizing the number and complexity of queries, while providing report designers with the requisite business criteria for carrying out their reports.

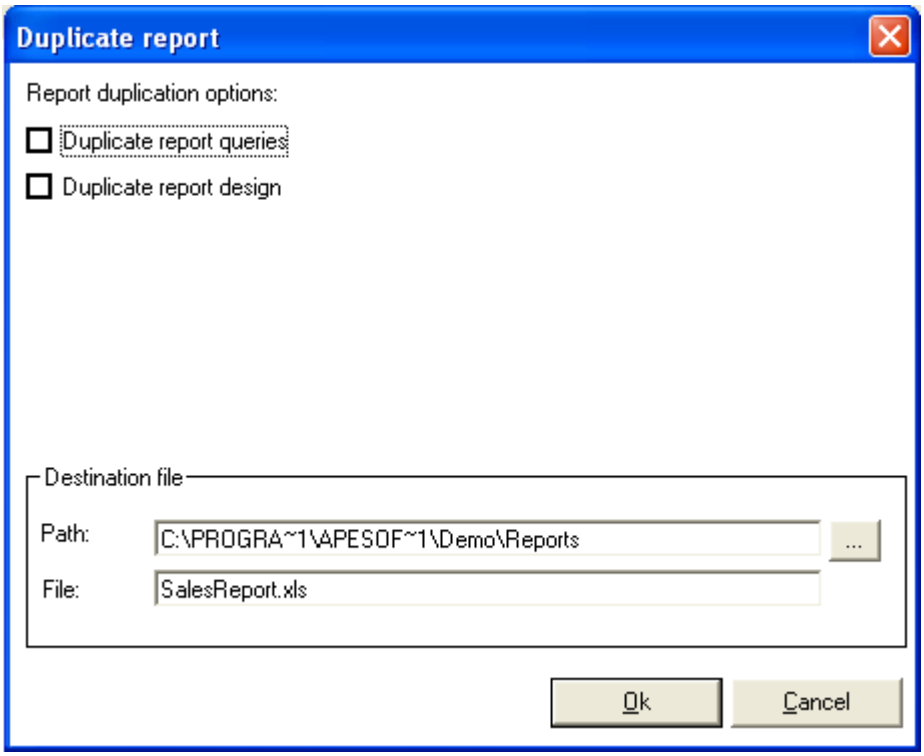
Creating multiple individualized reports

In this example, you will start out with a copy of the report created in the previous section.

From the report Explorer tab of the Evaluation Project main window select the **"Sales Report"** report. Right click on it to activate the context menu, and select the "**Duplicate report …"** option.

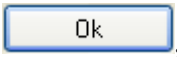


A window will appear that allows you to specify certain report duplication options.

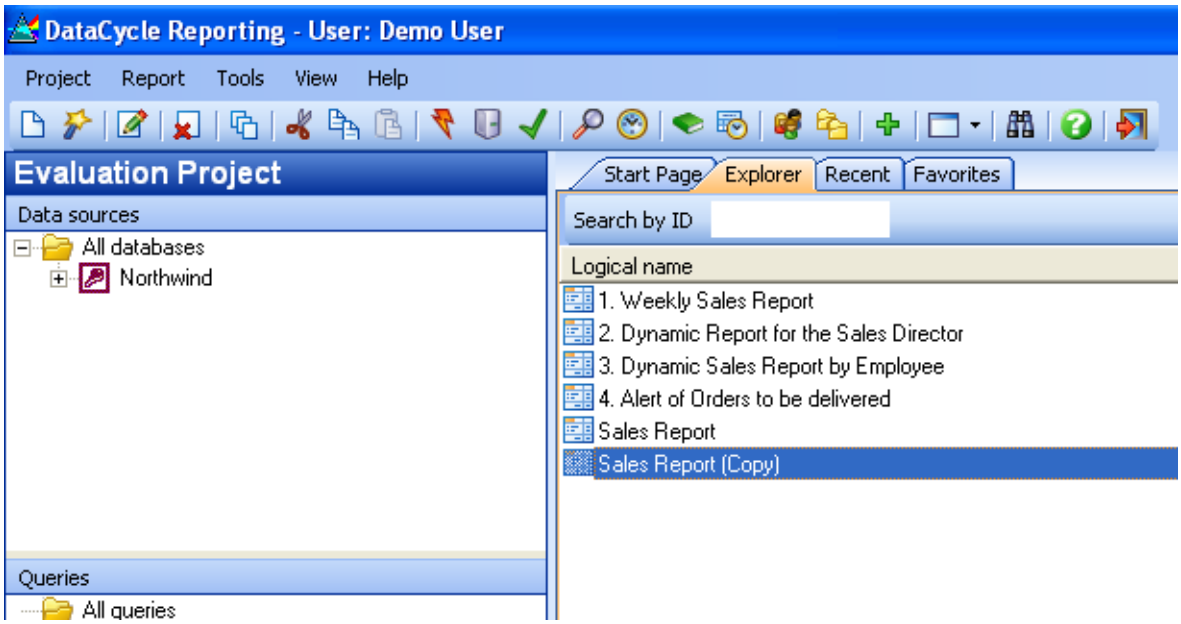


In this case, it will only be necessary to duplicate the report design since we can reuse the **Detailed Order Lines** query already used by the report.

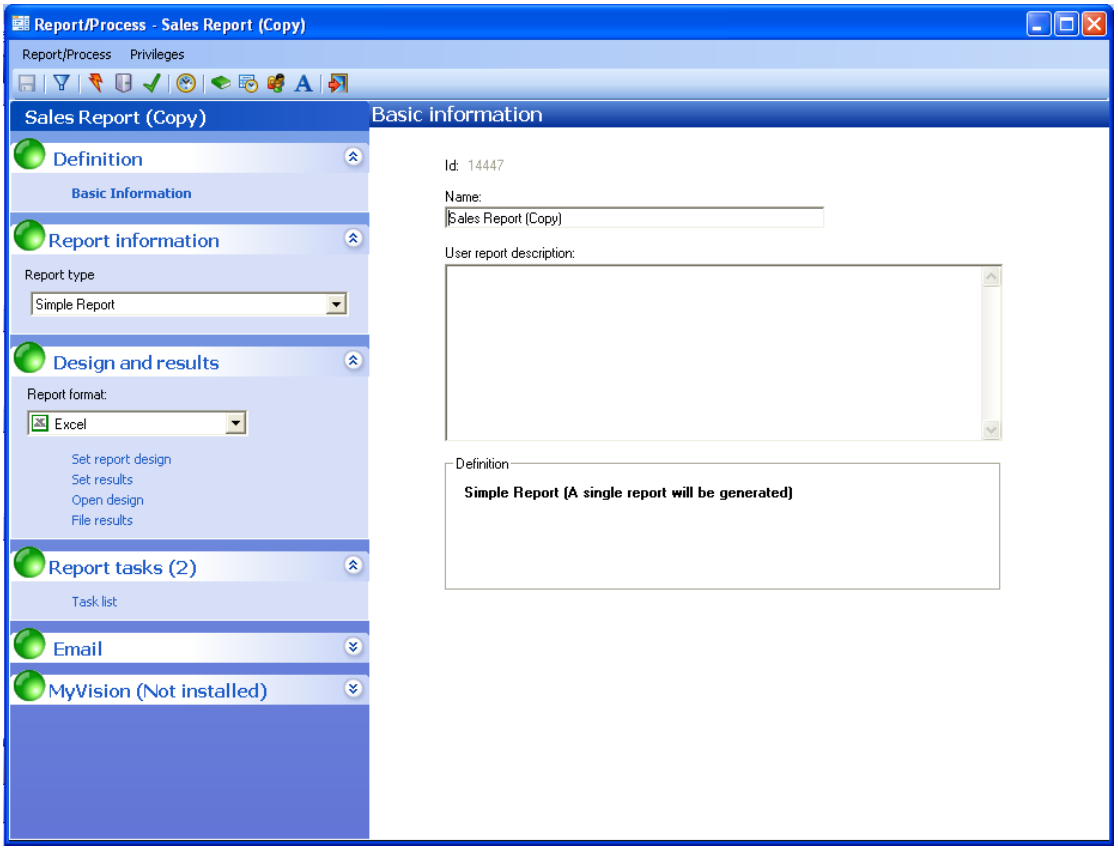
For now, do not modify the directory or name of the file to be generated. You will do this later.

Press 

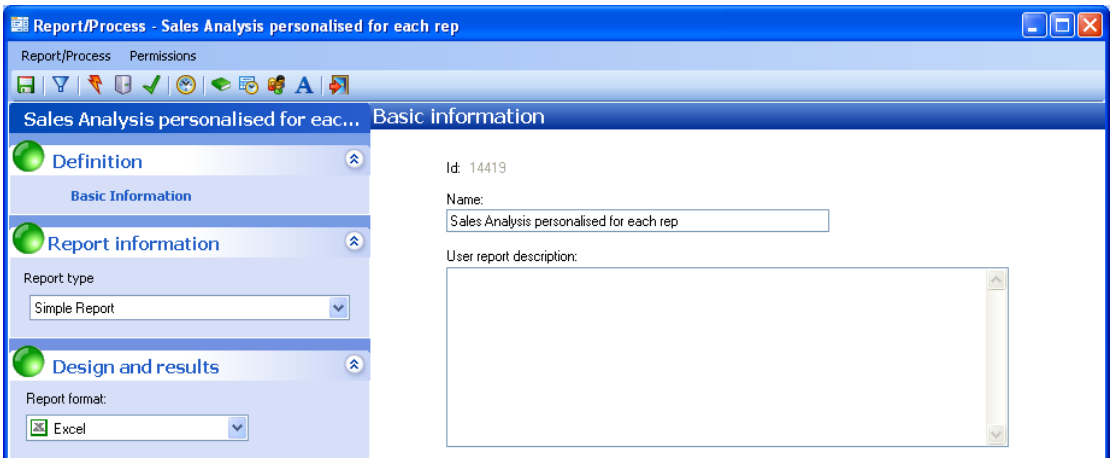
, and observe how a new report entitled **"Sales Report (Copy)"** appears on the report list.



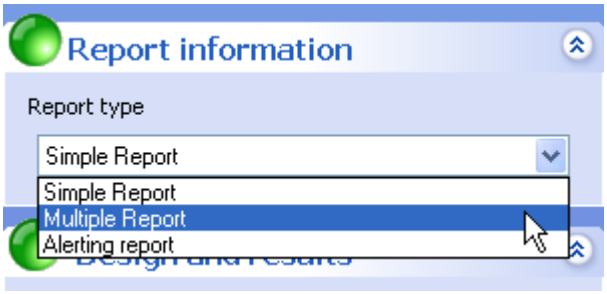
Select the report and edit it.



Now, change the report's title. Call it "**Sales analysis personalized for each rep".**



Next, change the **Report Type** in the drop-down list from a simple reporting process to a multiple report process. Select **Multiple Report**.

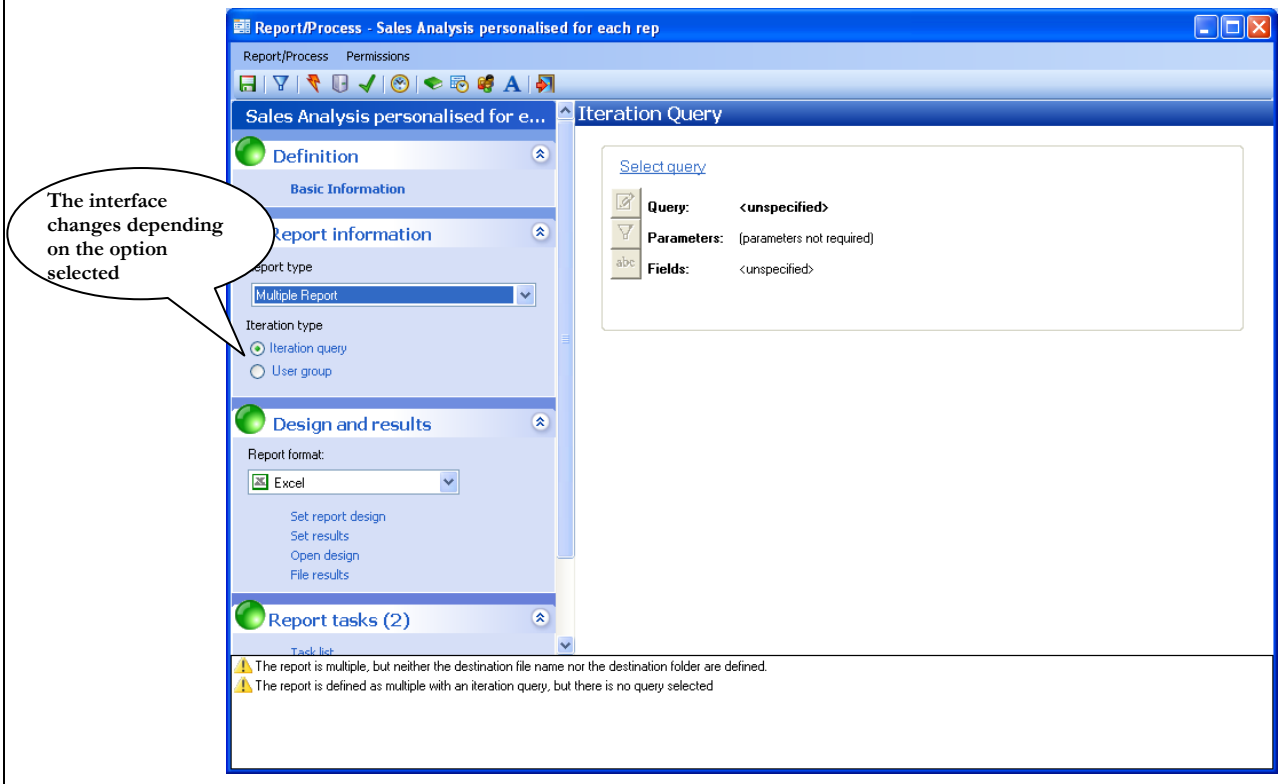


The multiple report process type provides for the configuration of more parameters, and allows you to choose from two types of query:

1) **Iteration query**. This is an iterative query, or a query that is run once for every register returned. In other words, this query will allow you to execute the report once for each individual retrieved by the Iteration Query.

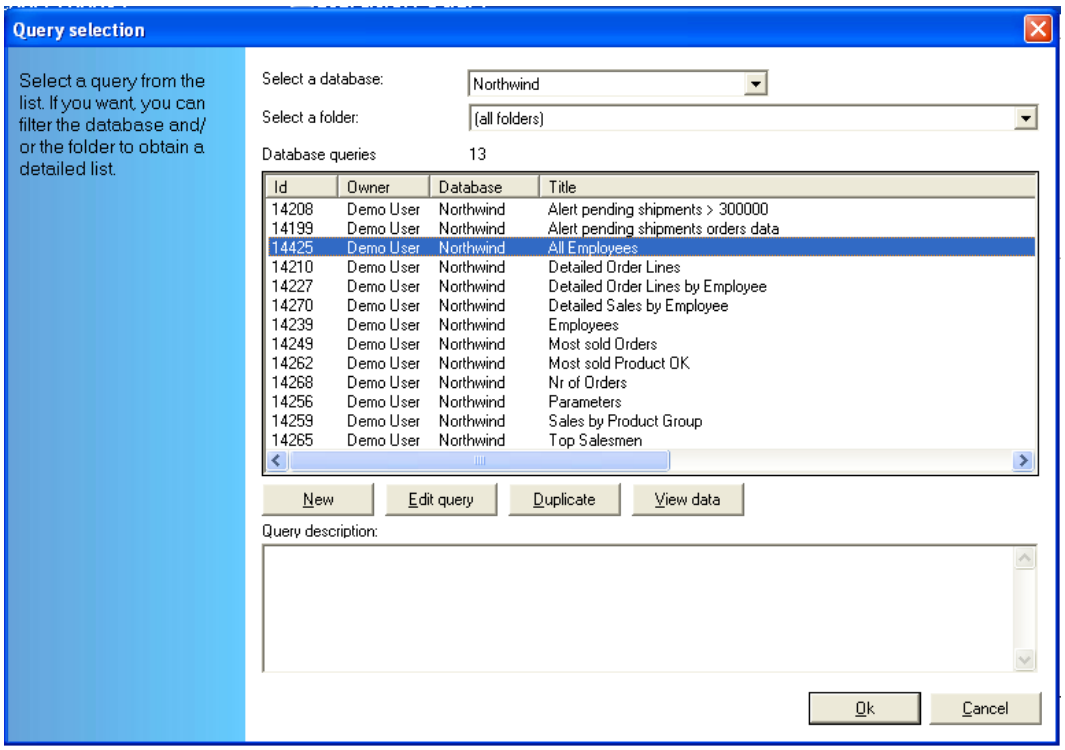
2) **User group**. This is another type of iterative query. However, instead of using a query to identify the individuals for whom the report will be run, it leverages information obtained from the members of a user group.

In this example, you will use the first option, **Iteration query**.



You must now define how the Iteration Query will identify report recipients. To do this you will select the "All Employees" query for reuse (from the first report). An iterative function will invoke the "All the employees" query such that a report is executed for each of the registers (employees) returned by the query.

Press Select query and select the **All the employees** query.



Press the Ok button or double click the query title.

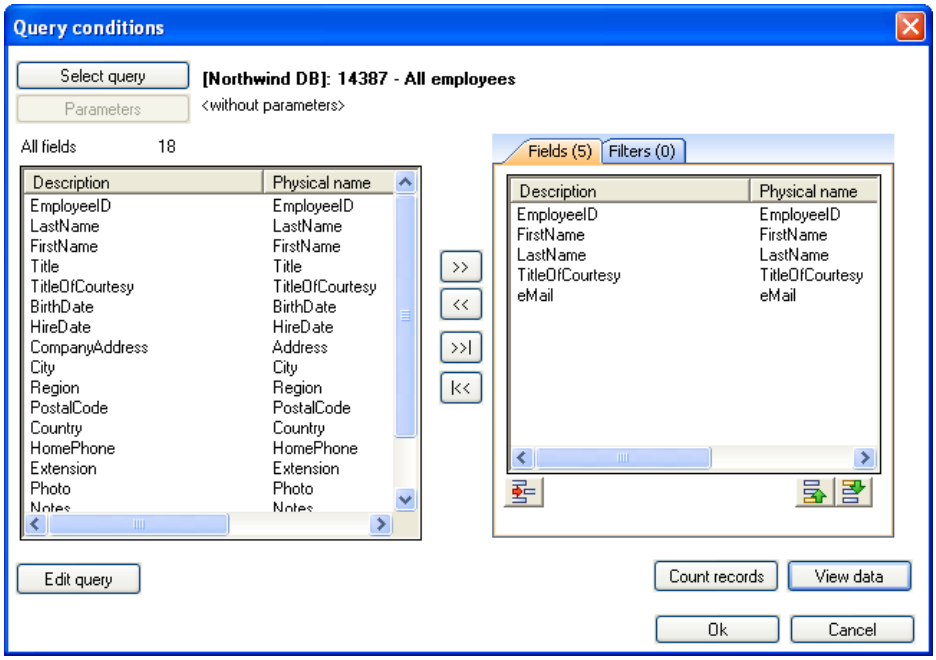
A query field selection window will appear. You will now choose the fields needed to personalize each of the iterations to be carried out over the course of this multiple report generation process: **IdEmployee, FirstName, LastName, TitleOfCourtesy and eMail**. Please notice that each of these fields is used in a different way by the Iteration Query function.

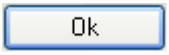
- The **IdEmployee** field is fundamental as it is used to filter the queries that retrieve sales data at each iteration. This allows each employee to receive a report with data specific to him or her.

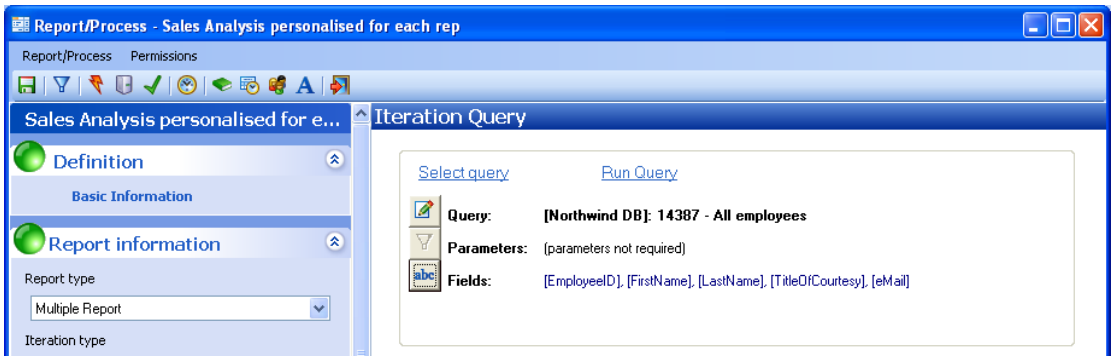
- The **FirstName** and **LastName** fields will be used to generate a different file name for each of the report's iterations, so that each employee will receive a personalized report file.

- The **TitleOfCourtesy** field (salutation) is particularly useful in conjunction with email. In this case, it will be used to personalize the message to which the report will be attached; while the **eMail** field will determine the email address to which the message will be sent. Again, these fields are associated with each of the report's iterations.

The query field selection window should look like this:



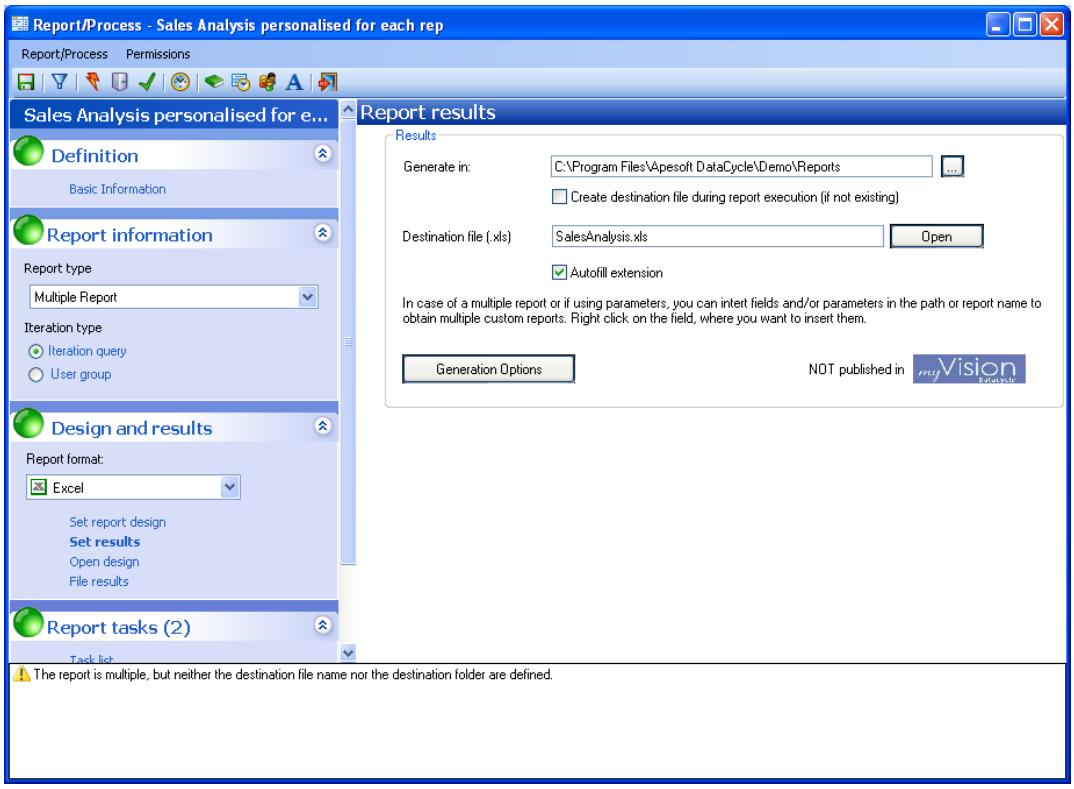
Press  and return to the report window.



Using fields as parameters

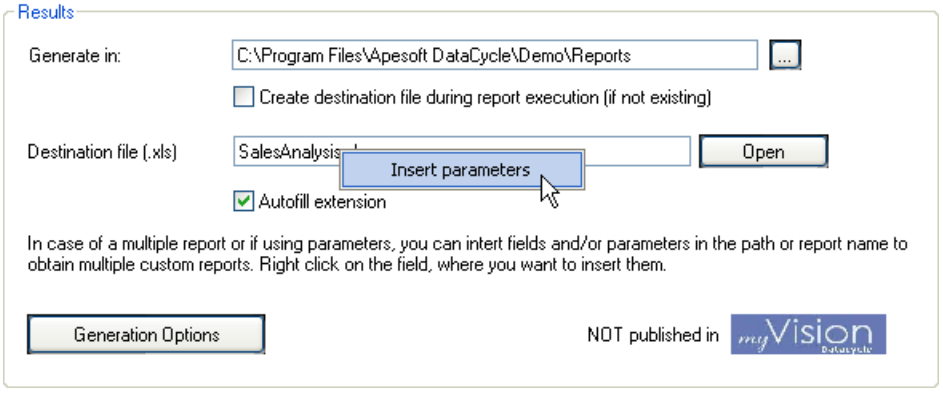
As mentioned above, each of the fields returned by the iteration query (an evaluation query) will be used as a parameter in other parts of the multiple report process definition.

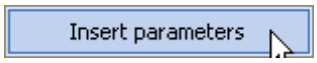
Press the **Set Results** option in the **Design and Results** section to the left.

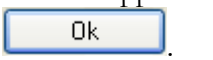


The only change to be carried out, here, will be in the destination file field. You will use the available parameters to configure the field so that the filename generated at each iteration is different.

Modify the default filename SalesAnalysis.xls by placing the cursor just before the dot (.), typing a space and right clicking. A small context menu will appear indicating that you may insert a parameter.



Upon pressing 

a list of available parameters will appear. Select the **Evaluation fields** tab, mark the **FirstName** parameter, and press 

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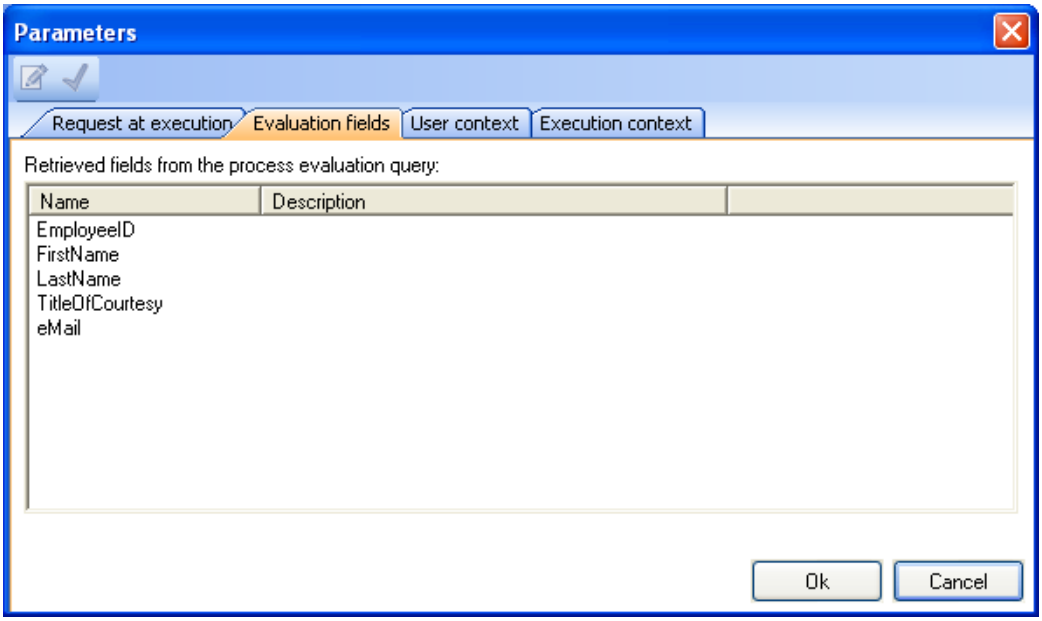
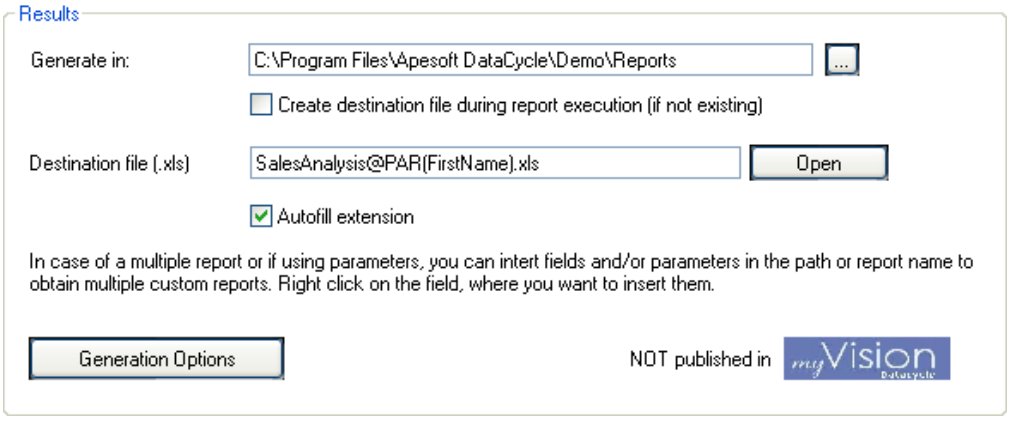
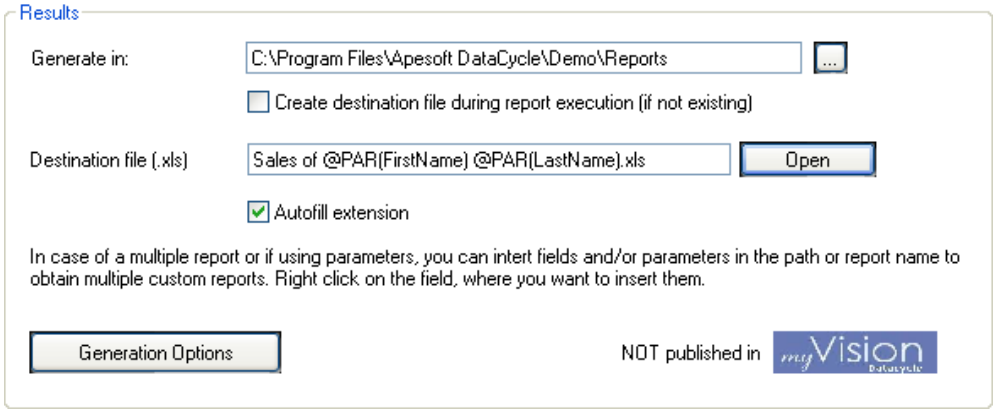




Leave another space between the name parameter and the **.xls** extension and repeat the operation to insert the **LastName** parameter. Now change "Sales Analysis" to "Sales of ". In the end, the configured file name should appear as follows:

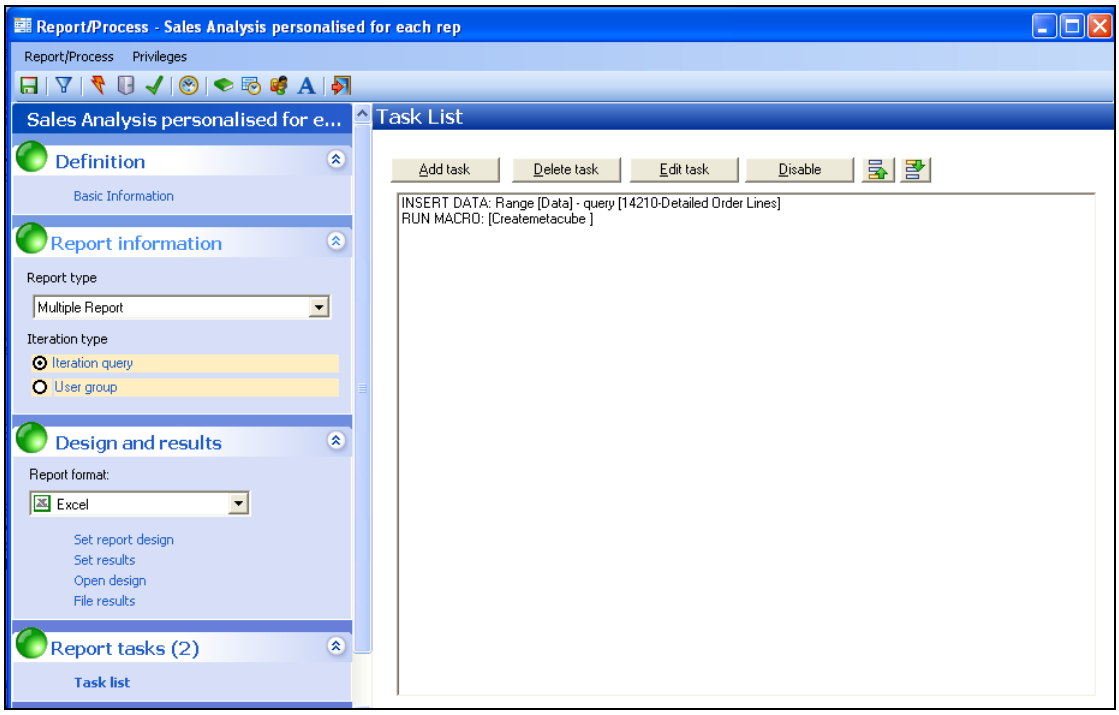
"Sales of @PAR(FirstName) @PAR(LastName).xls"



Modifying queries with filters

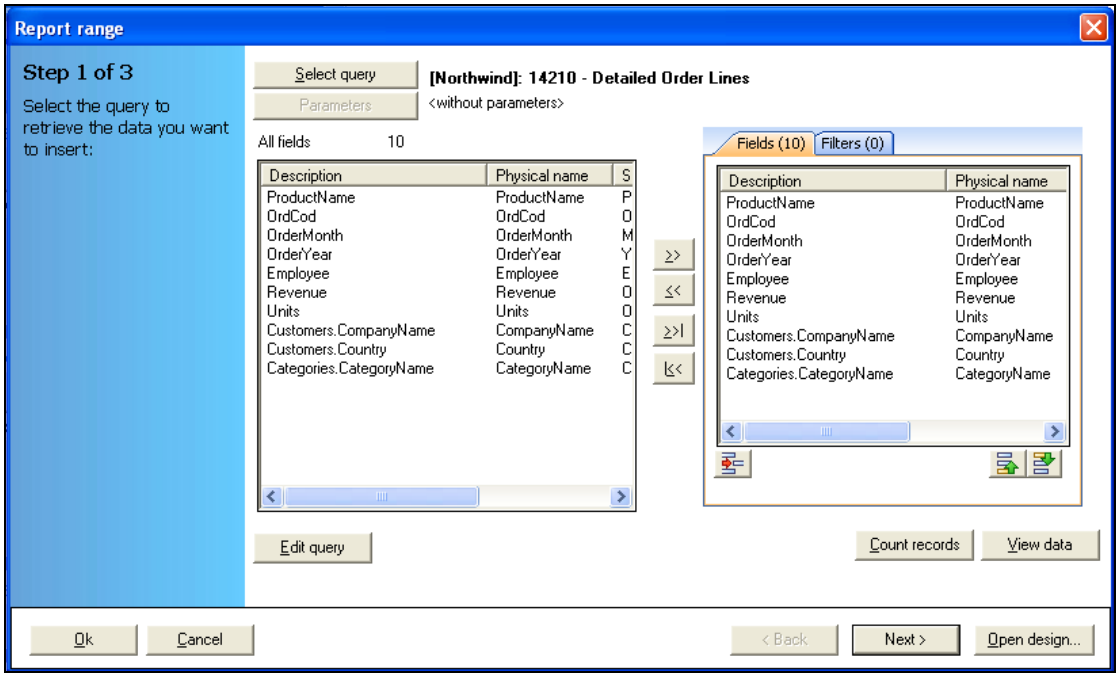
Up to this point, you have created a reporting process that will run once for each salesperson, and you have customized the report delivery mechanism so that each recipient will receive a report with a personalized filename. Now, you must modify the report design so that the data populated in each report is filtered by salesperson. Again, you will reuse the **Detailed order lines** query. But, this time you will add a filter to select the sales corresponding to each salesperson.

Click on the **Task list** option in the **Process tasks** section at left.

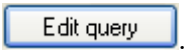


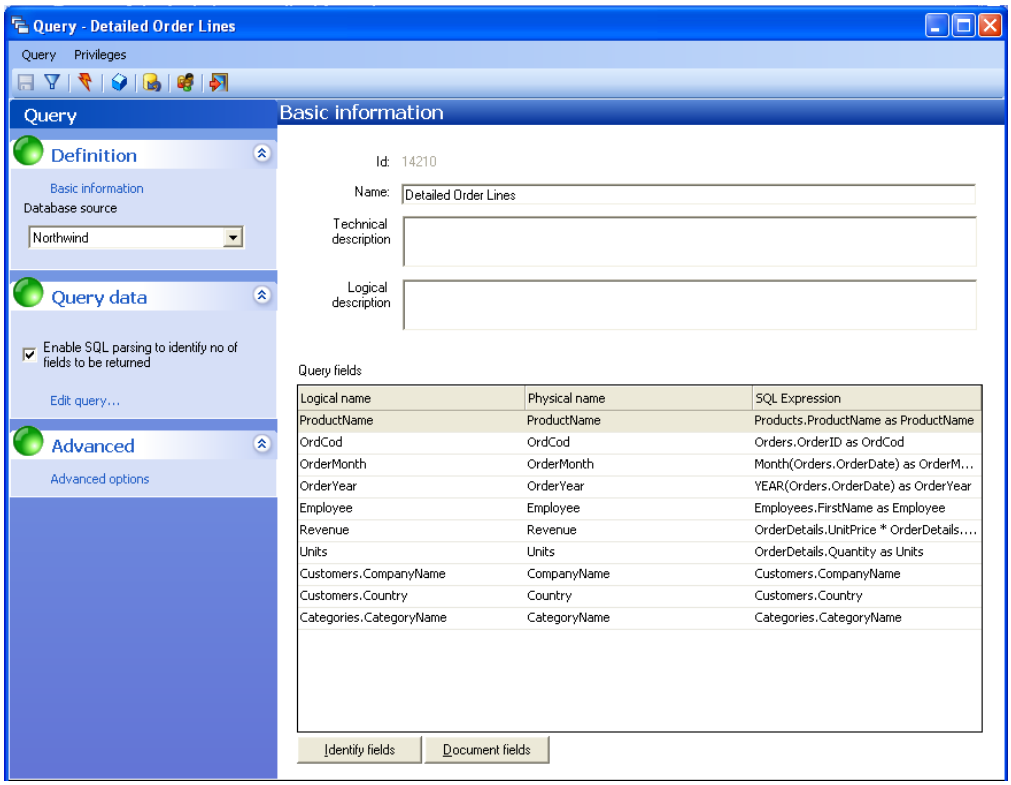
Select the first of the tasks (INSERT DATA type) and press the

button. The task wizard will appear

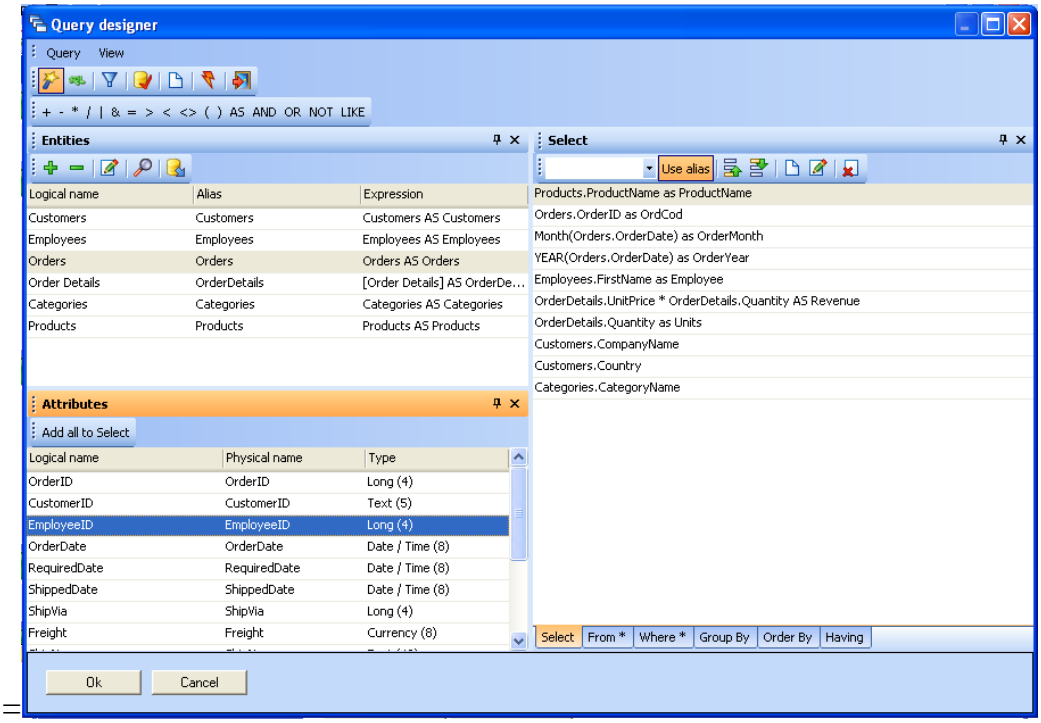


To filter the data by the corresponding addressee for each report generated you will need to add a field to the query: the employee ID corresponding to each order.

Press  . The query editor will be displayed.

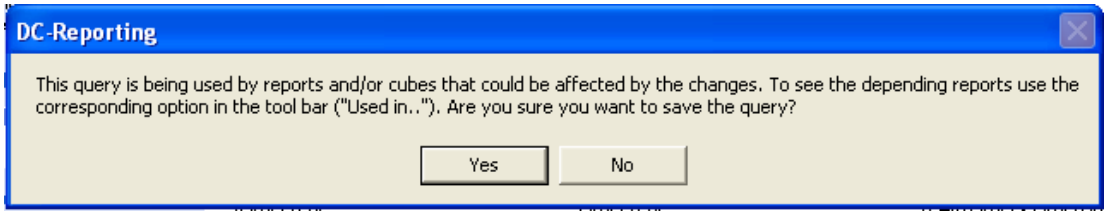


Press **Edit query** and add the **EmployeeID** field from the **Orders** entity



Press Ok and return to the query's main window. Observe that one more field has been added (the IdEmployee) to the ones already existing in the query.

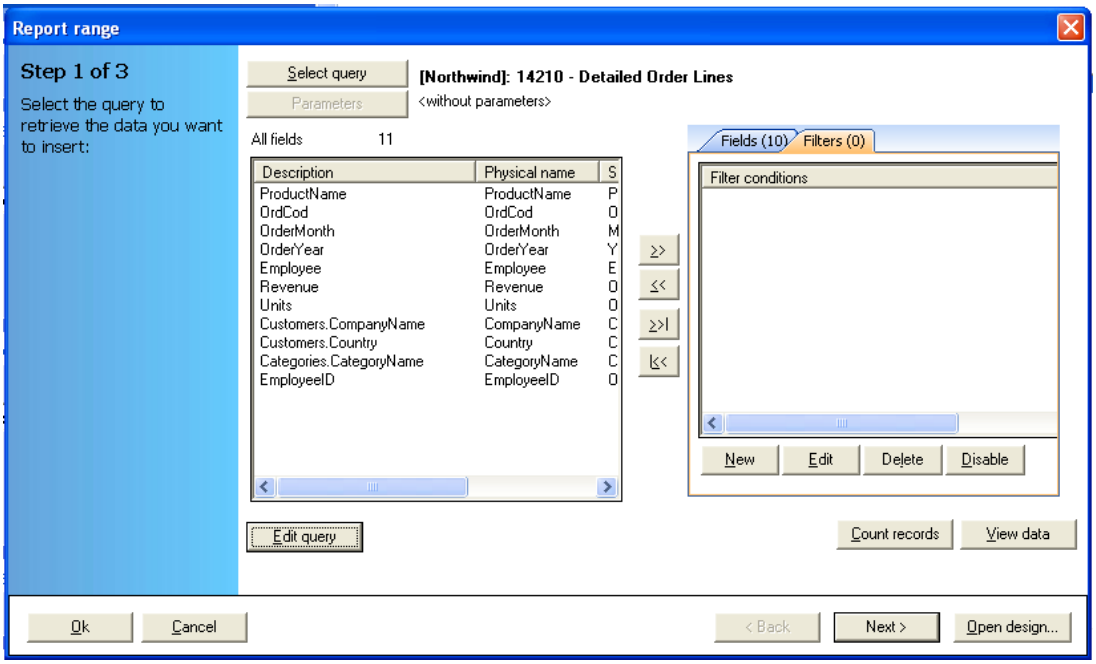
Save the query pressing the button. A notification will appear informing you that the query is used in another report or cube. It is referring to the report created in the previous example. Since no fields returned by the query have been eliminated (rather one has been added), the previous report will remain unchanged. So, answer Yes and press (exit).



Upon returning to the INSERT DATA task wizard please notice that the new field has been added to the available fields (left-hand panel); and that the selected fields have not been altered in any way.

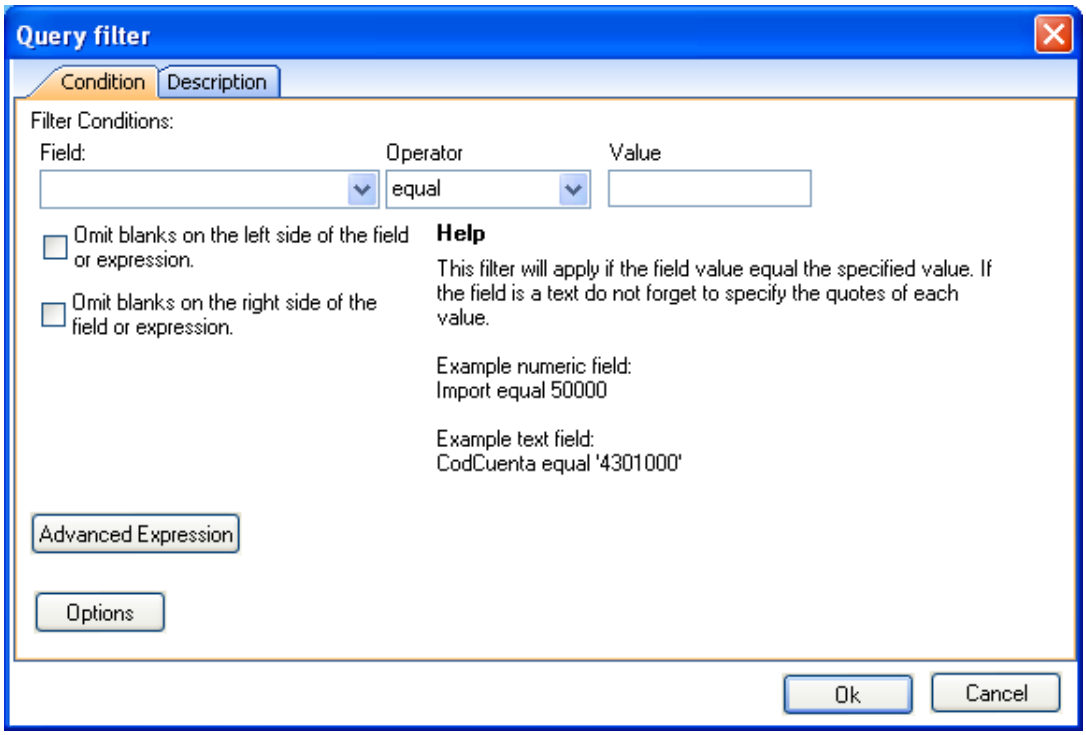
Up to now, we have been focused on the "**Fields**" tab of the wizard, that displays the fields that will appear in the report. The second tab, "**Filters**", provides for adding criteria that modify the behavior of the selected query.

Select the **Filters** tab:



Create a filter that, selects only those sales that correspond to the employee for each of the iterations.

Press to go to the filter creation screen:

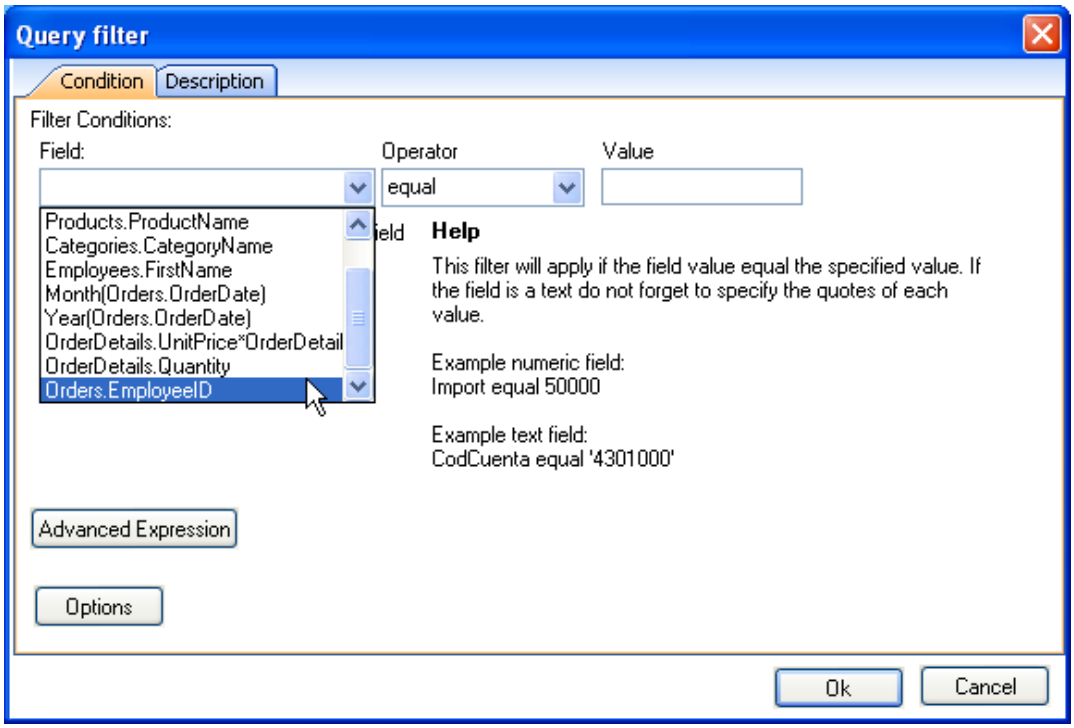


Although this screen allows for defining complex SQL instructions, in most cases users with little or no technical knowledge can create filters, intuitively and without any help, within a few mouse clicks.

Add a filter that selects sales of the employee for whom the current report iteration is being run. In other words:

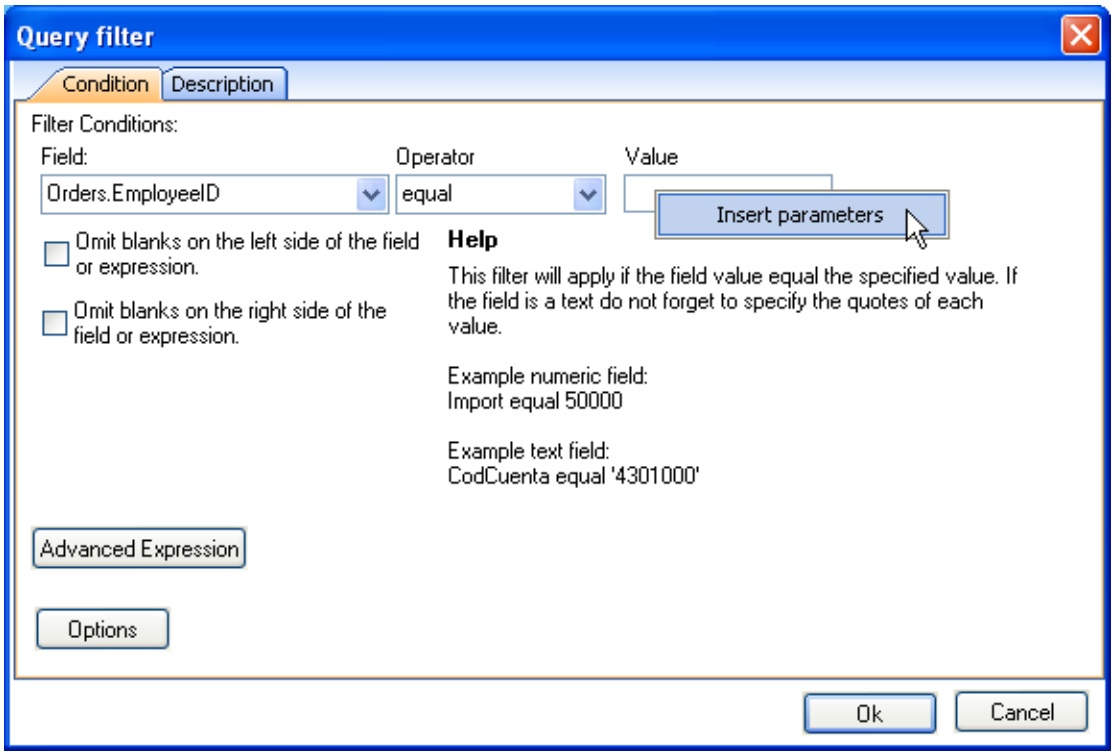
Employee ID = Parameter(IdEmployee)

Select employeeID from the field list returned by the query:

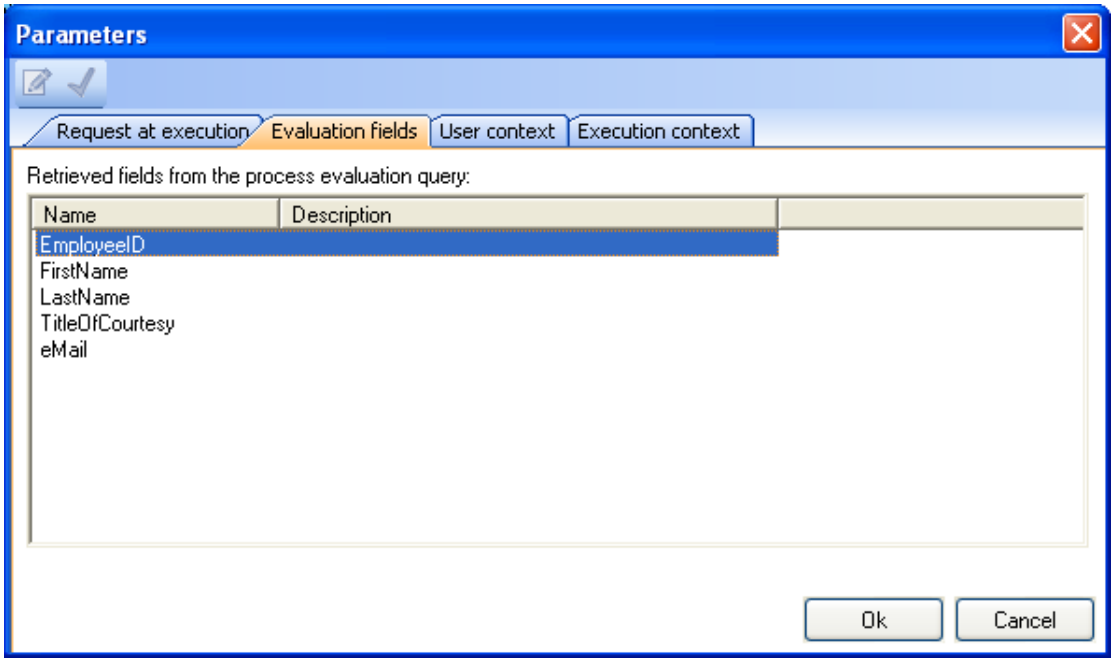


It is not necessary to modify the 'equal' operator. Finally, enter the employee ID corresponding to each iteration by using the **Insert parameter** context menu the same way as you did earlier.

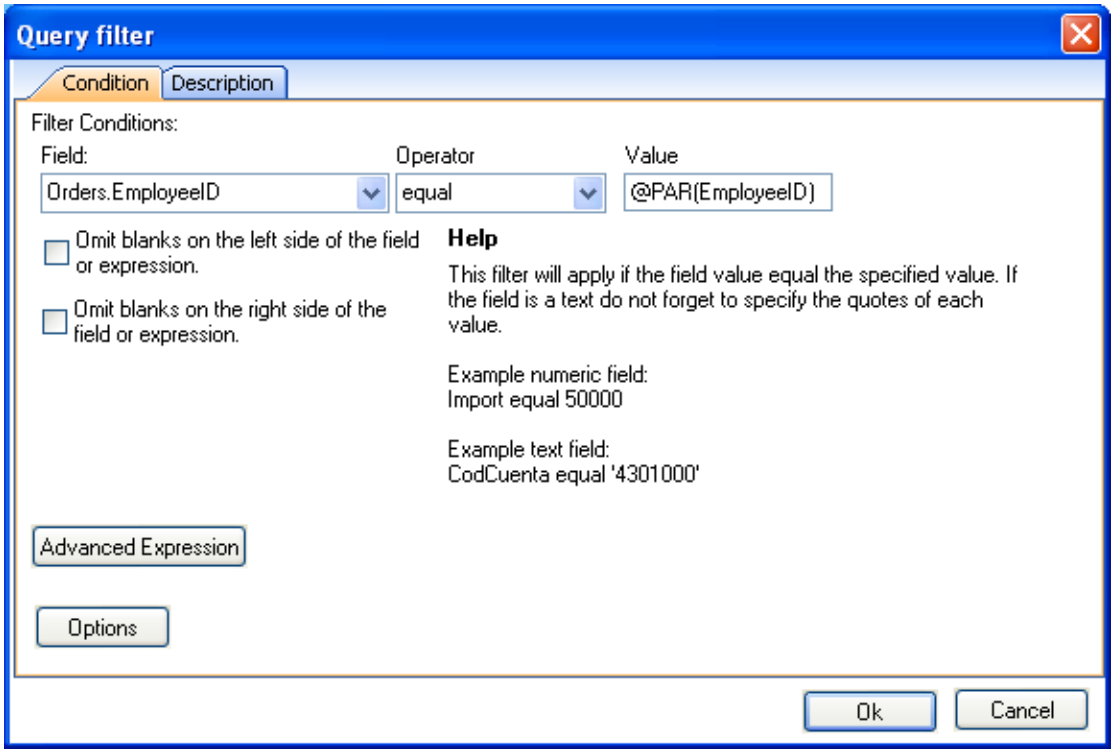
Position the mouse over the value field and right click.



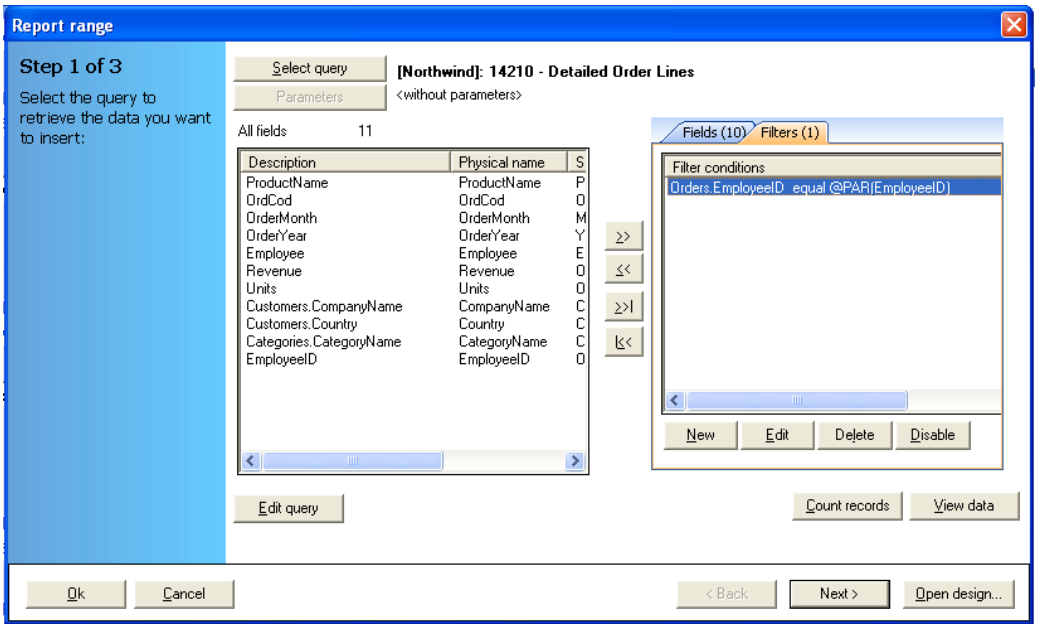
Press Insert parameters and select the **EmployeeID** parameter from the **Evaluation fields** tab:

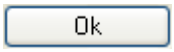


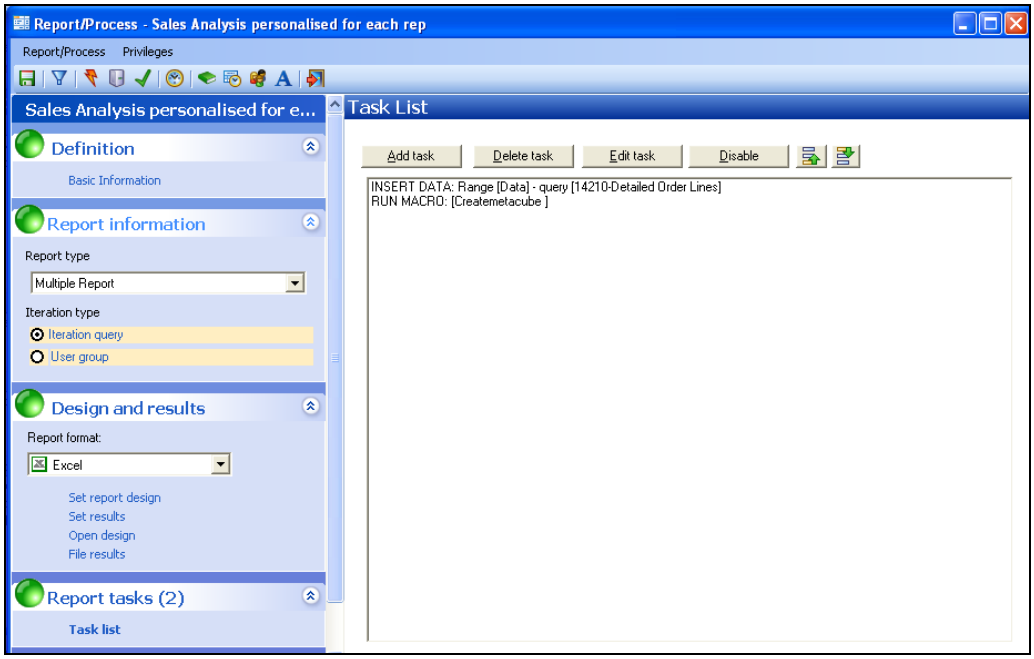
Press Ok, and the **IdEmployee** parameter will appear as a value in the filter:



Press Ok again to save the filter, and the query is now adapted to the requirements of the new report:

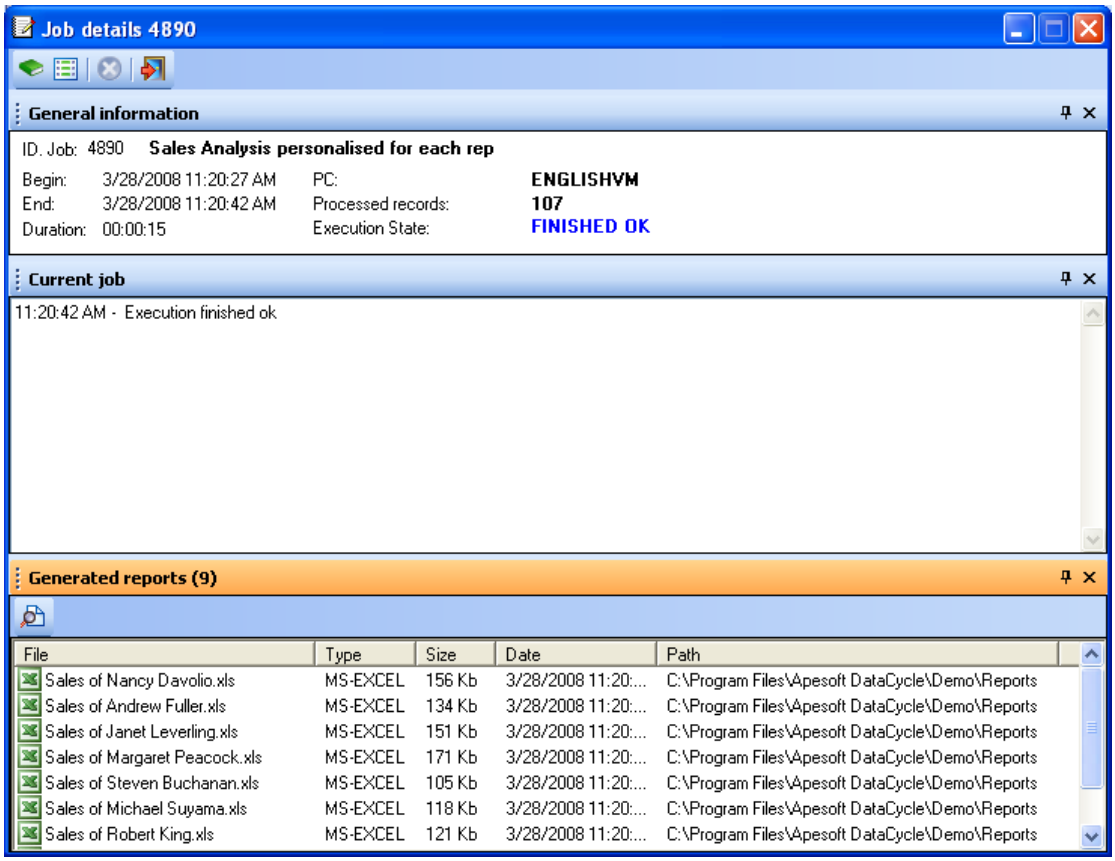


We press  to finish editing the task.

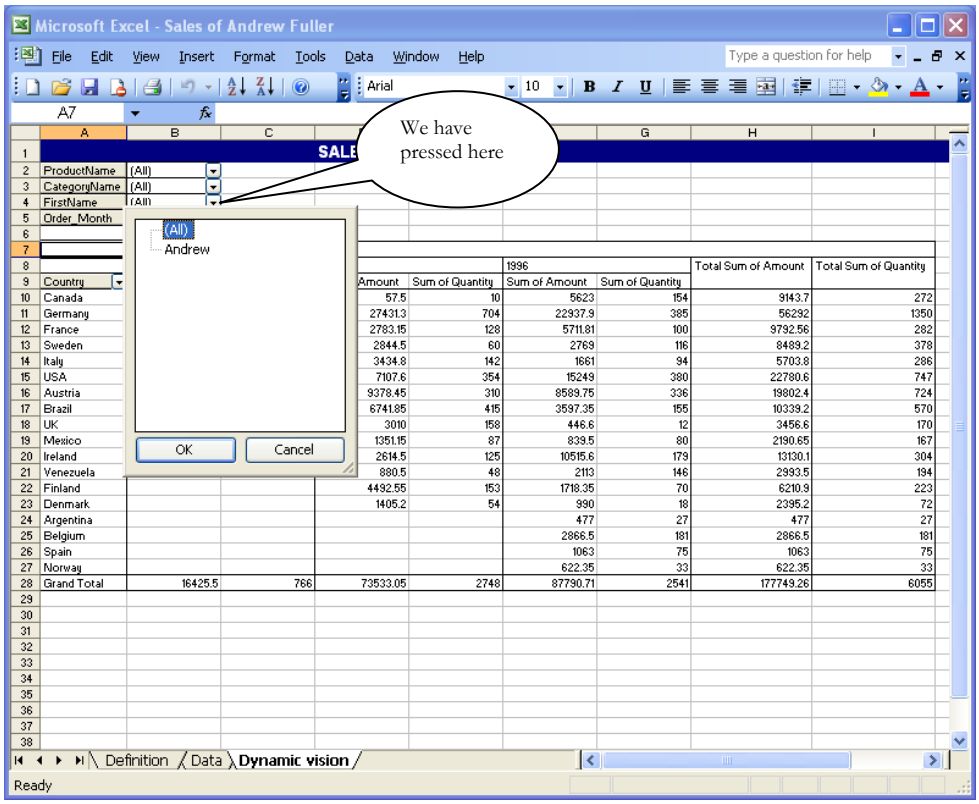


Now, save ( ) and launch the report process by pressing the icon

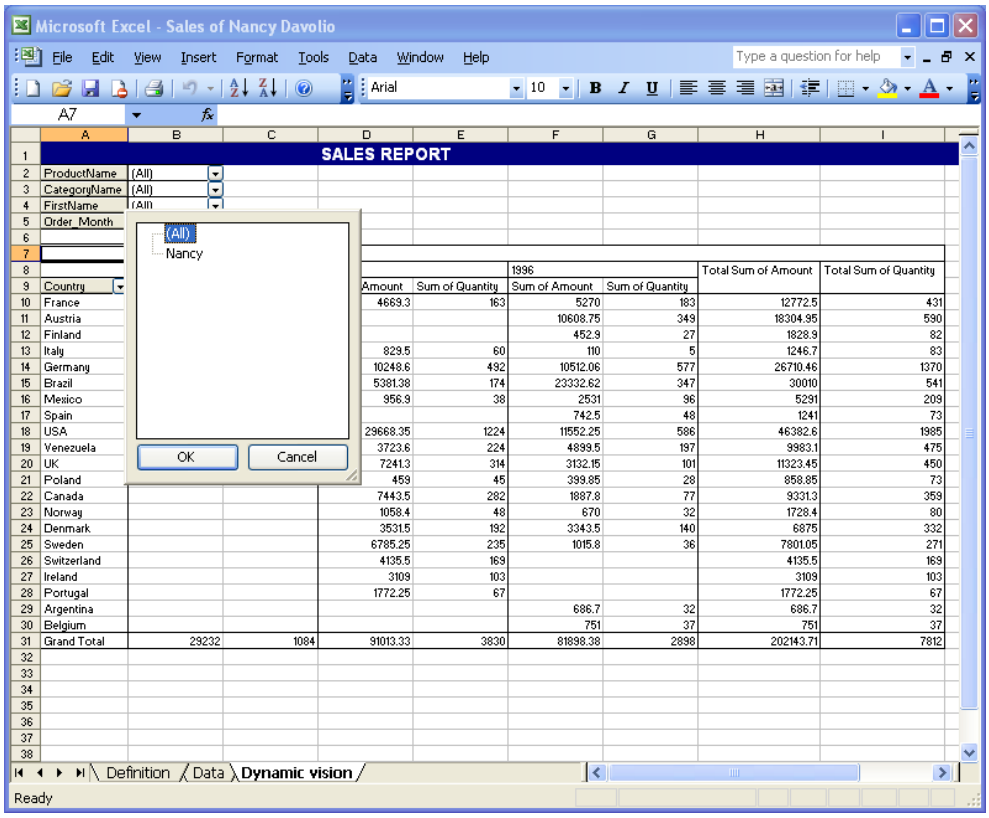
The monitor indicating report progress will appear (it will take a few minutes to finish, as it generates reports for about 10 salespeople). When it finishes a file for each salesperson will have been generated:



Open the **Sales of Andrew Fuller Sales.xls** file, and from within Microsoft Excel, click on the arrow corresponding to FirstName. Only **Andrew** should appear.



Similarly, the **Sales of Nancy Davolio.xls** file shows only those sales relevant to Nancy.



Conclusions

Parameterization in DataCycle has two interesting advantages:

- With very little effort it allows for generating several structurally identical reports with data specific to each report recipient.

- Since the parameters are defined with data queried from the organization's information system maintenance of the parameters is more or less transparent to the report designer.

This unique feature of DataCycle Reporting can provide significant cost savings to many areas of the organization with regard to the generation and maintenance of reports.

Chapter

6

Scheduling and delivery via electronic mail

What remains is to deliver the report automatically to the interested parties

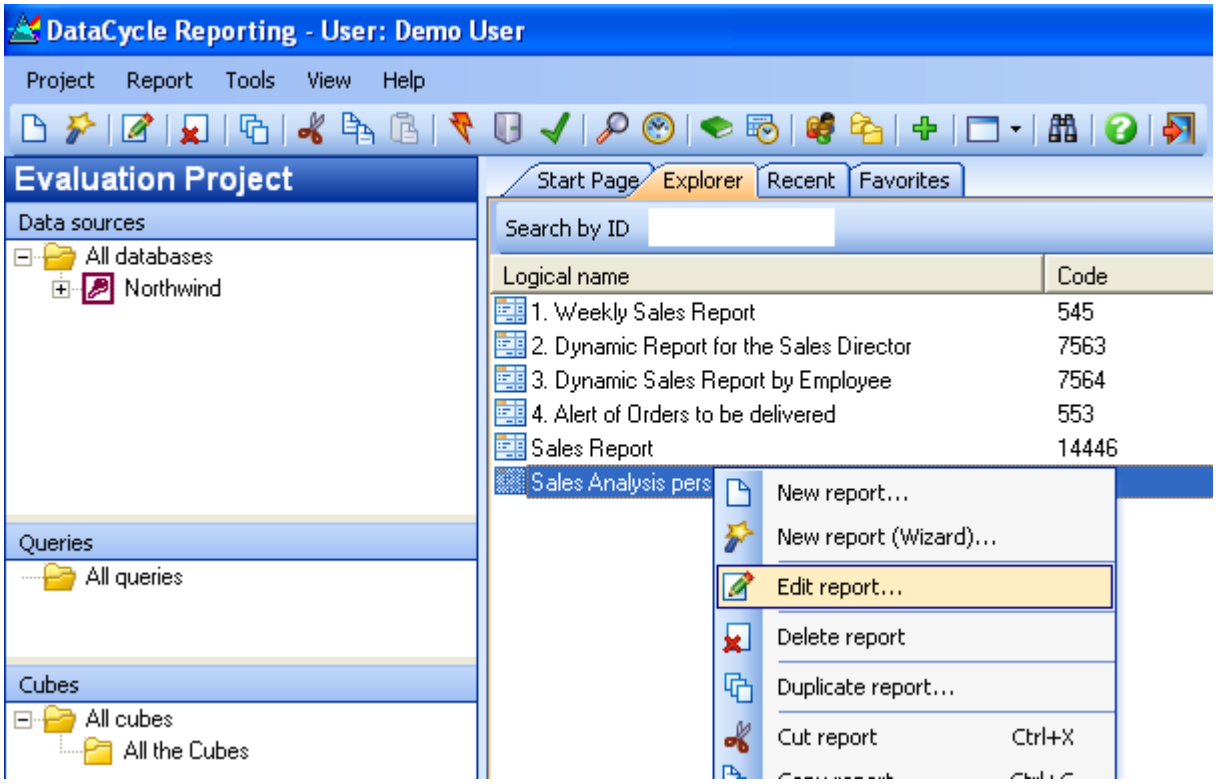
Until now we have only designed and generated reports. In this chapter we will send them to the interested parties.

DataCycle Reporting provides everything you will need to automate report delivery, and email customization. In this chapter you will schedule execution and delivery of the personalized reports designed in the previous chapter. They will be sent to each salesperson in ZIP compressed format to minimize the delivery time.

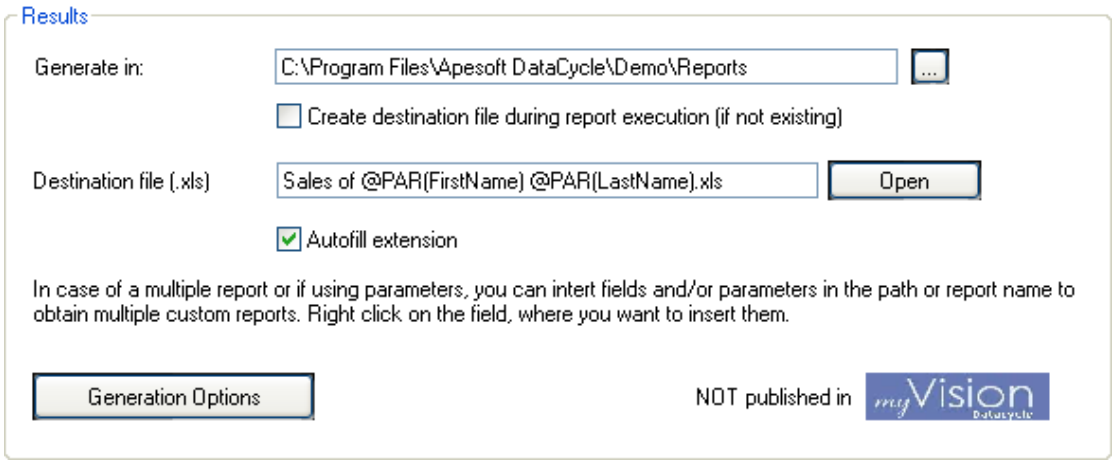
Note: This example shows how to send mail via a MAPI profile. DataCycle Reporting can also send email via SMTP or Lotus Notes.

Configuring email delivery

The objective of this section is to modify the Sales Analysis report filtered by salesperson from the previous chapter. Select and edit the report design:



Click on the **Set Results** option from the **Design and Results** section at left.



Press

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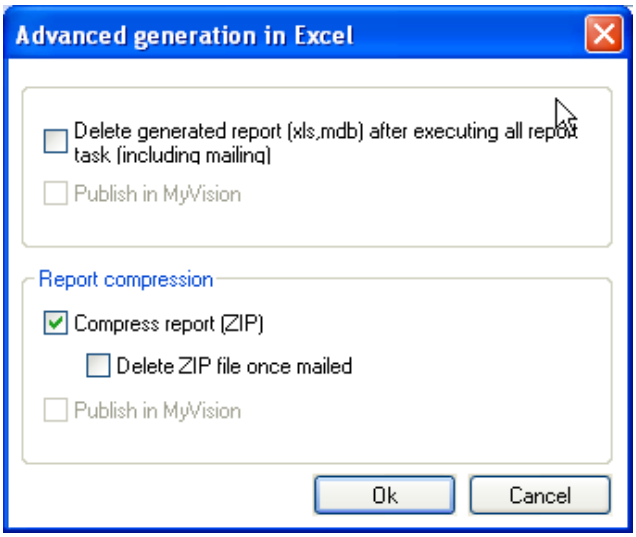
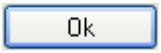
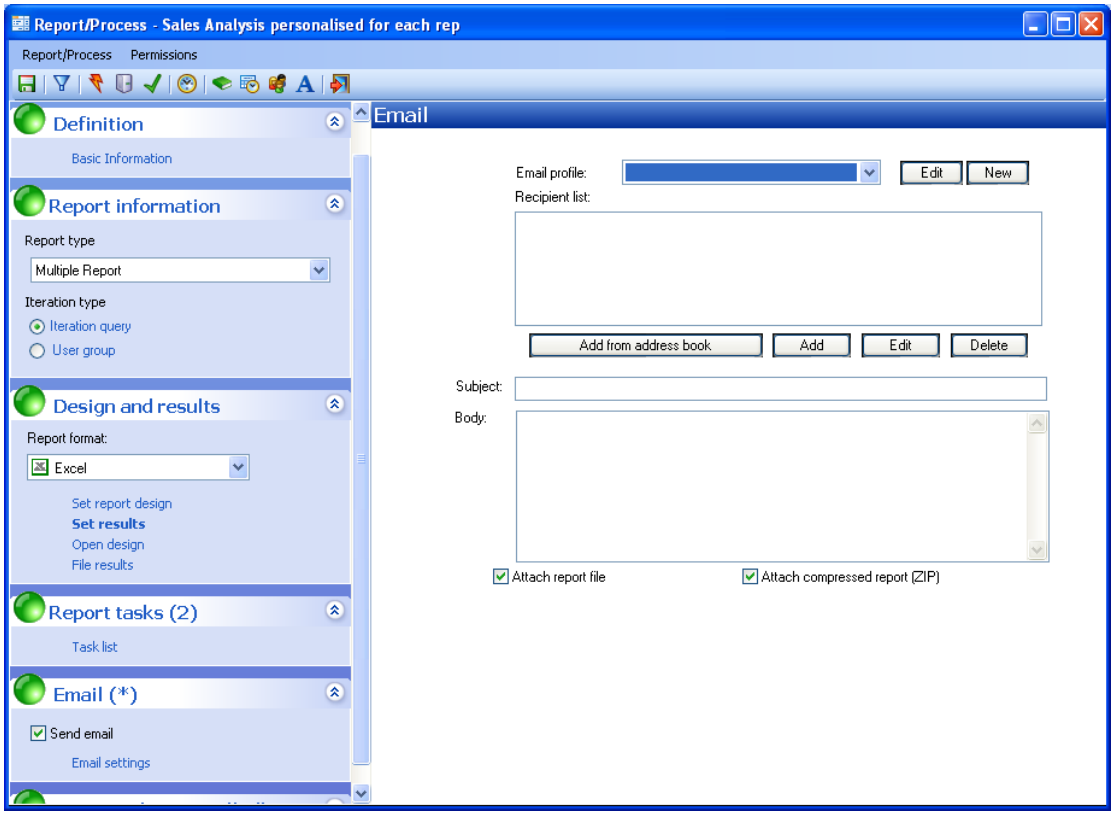


Check the box indicating that resulting report will be compressed into a ZIP file.

Press  to return to the main report editing window, and check the **Send email** box the **Email** section at left.

Upon selecting the **Send email** box the email configuration options are activated:

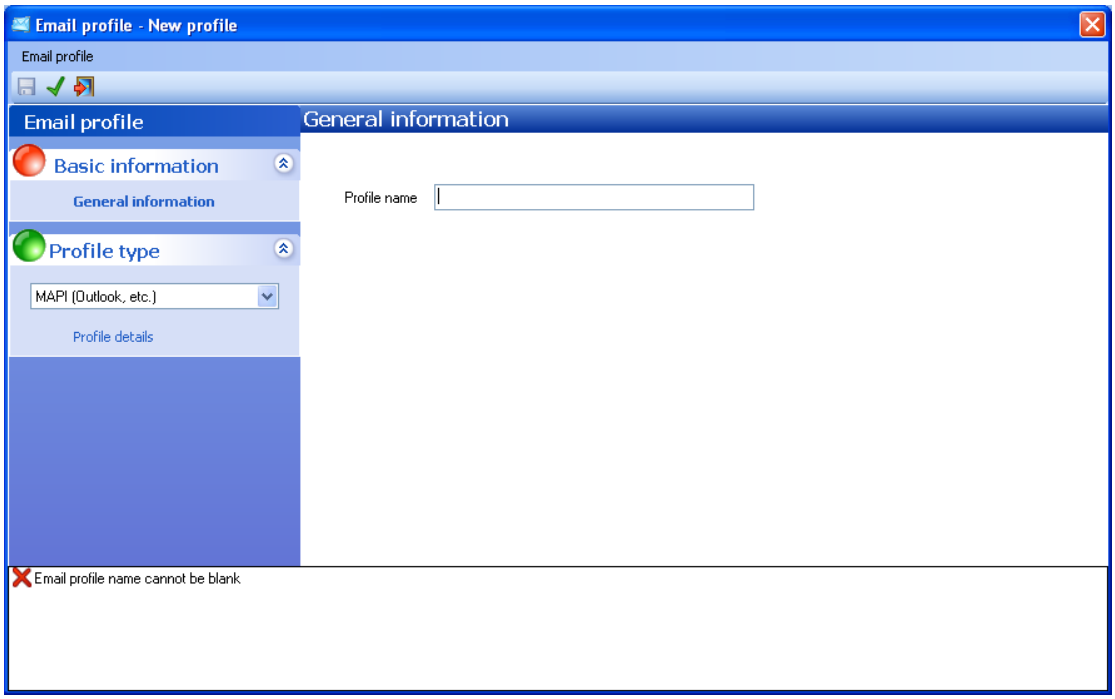


Now, select the **EMail Profile** with which to send the messages.

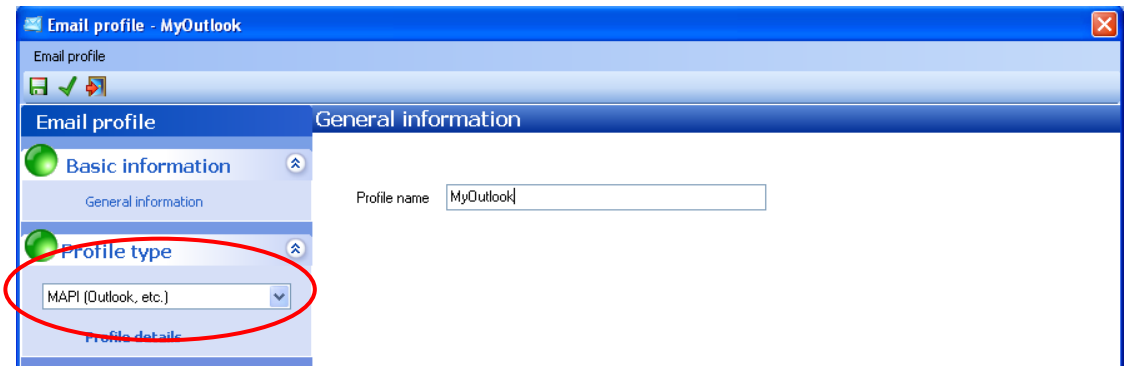
To select a profile it must first be configured. This step is normally done when first installing DataCycle Reporting, and will usually be handled by technical personnel. However, if you are fairly familiar with email, and have access to your organization's email system this is a simple task, done only once.

The following procedure may vary depending on how your email system is configured, but it will be similar to the one below. For the purposes of this example Outlook is the mail client. (It could also be configured with SMTP).

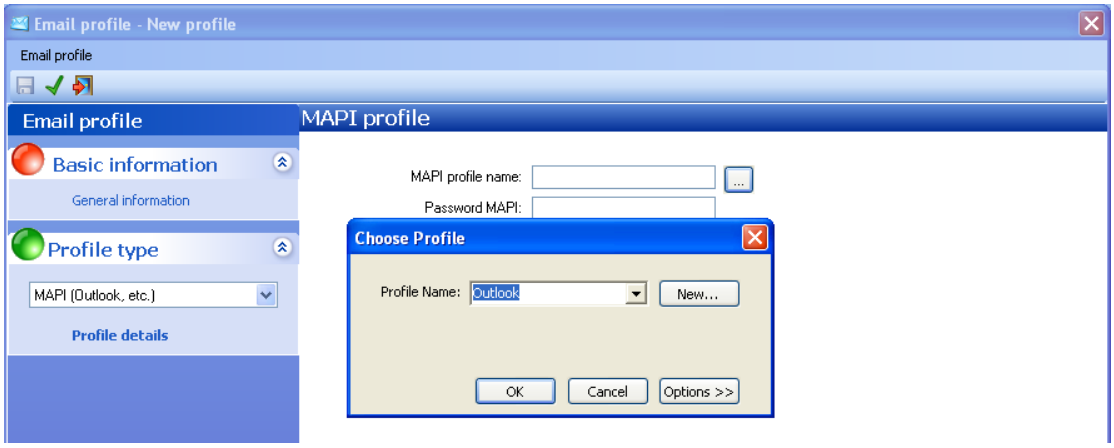
- As no Profile has been created we will press the New button. A profile creation screen will open:



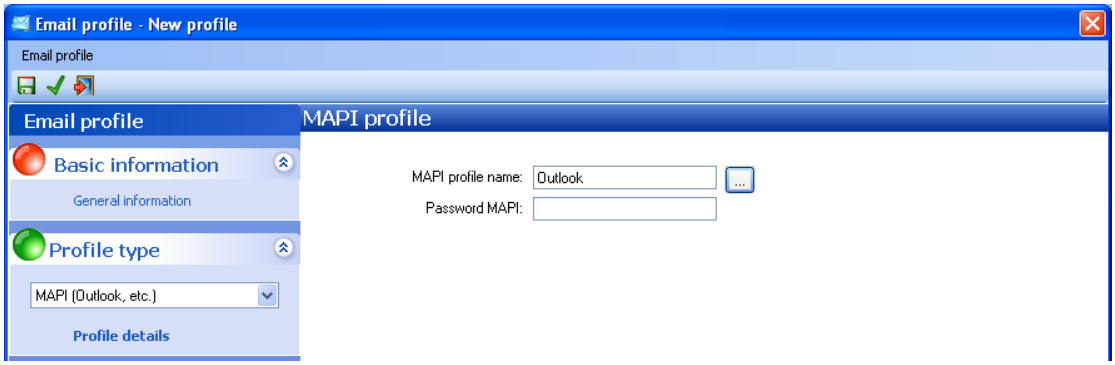
- Enter a Profile Name, and select one of the mail profiles configured in your Operating System - in our example MAPI (Outlook).



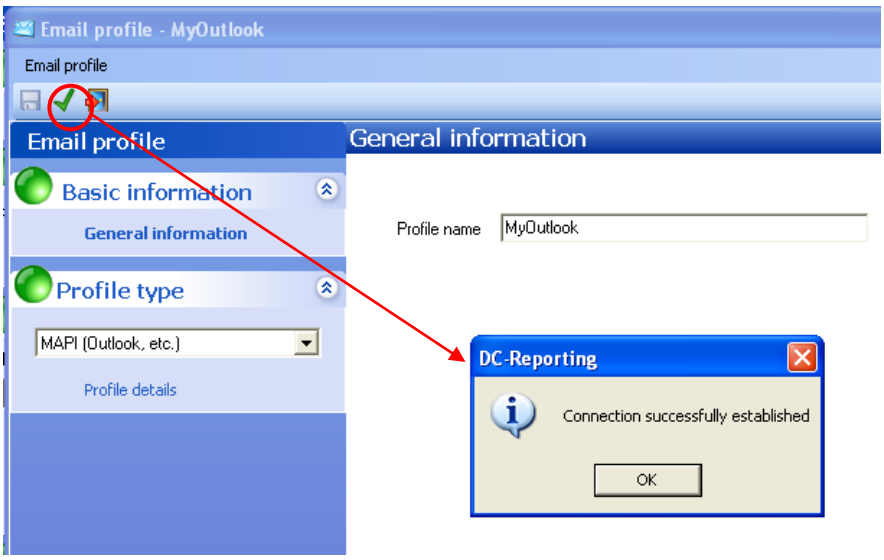
Click on "**Profile details**".



- Press Ok, and the Mail Profile creation screen will look like this:

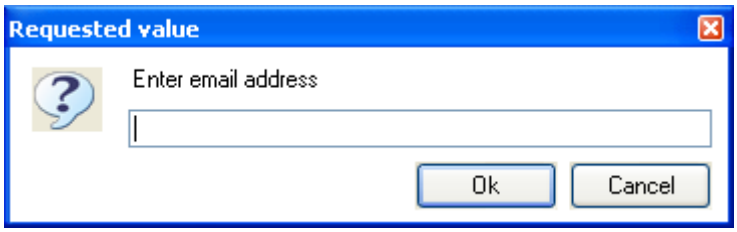


- Test the connection and press save .



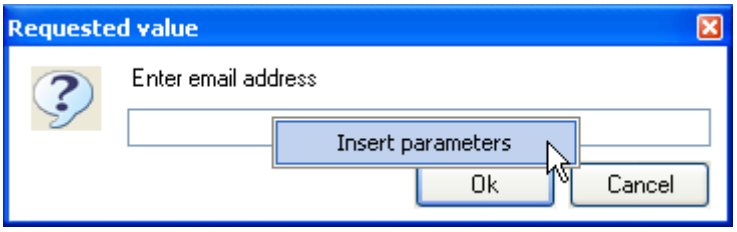
Press OK and to return to the report, and to continue configuring the mail delivery options.

Now back in the main **Email settings** window enter the address(es) to which the reports will be sent. Press Add:

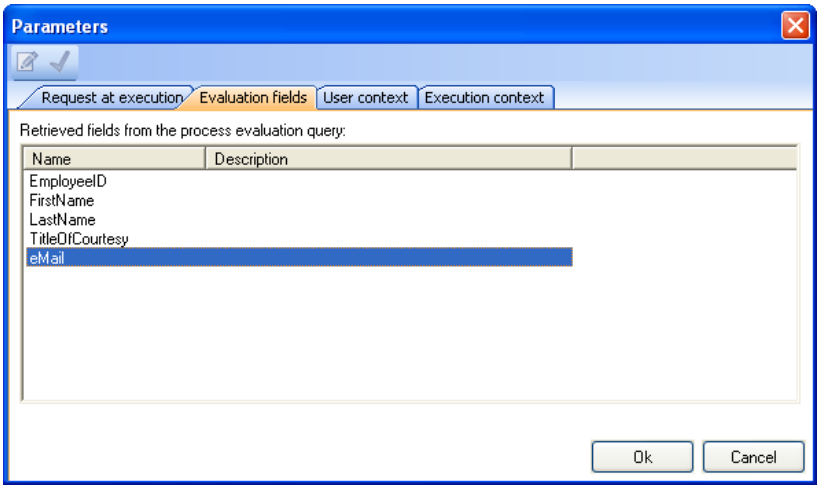


At this point, you could manually enter a fixed email address. But, since this is a multiple report generation and delivery process you will need to enter a parameter that receives the email address values corresponding to each salesperson for each of the iterations:

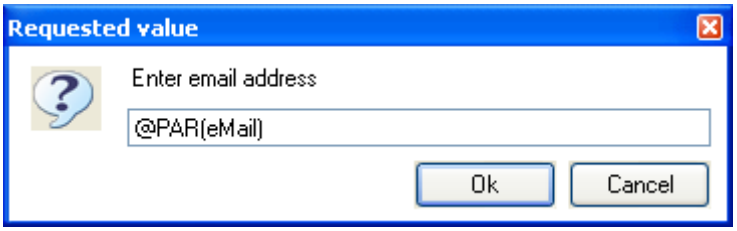
Right click



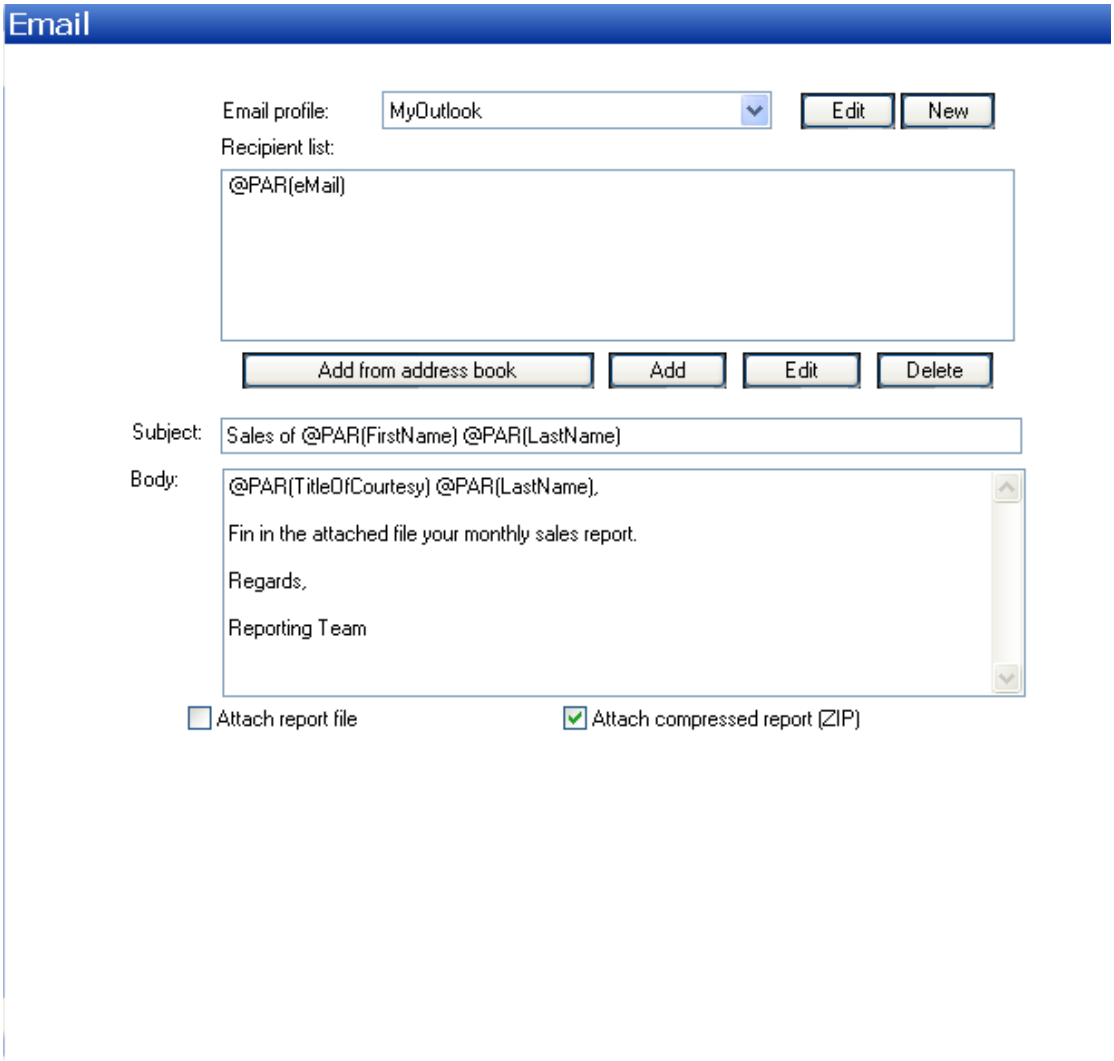
Press the Insert parameter option, and select the eMail field from the **Evaluation fields** tab



When the report process is executed, the eMail parameter will appear as a value in the mail address:



Please complete the title and body of the message similarly, using parameters from the **Evaluation fields** tab to configure the following message:



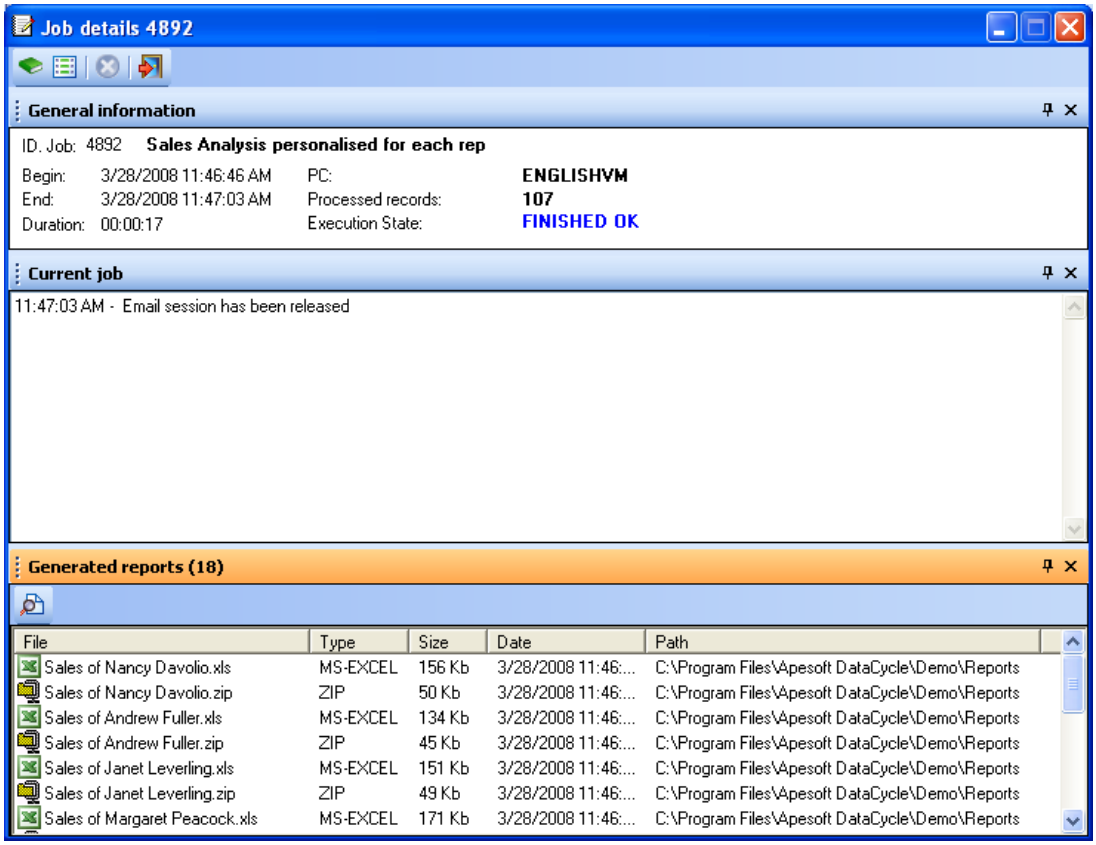
Please notice the check box at the bottom of the message indicating that the report will be attached in ZIP compressed format as opposed to the original, uncompressed Excel file format.

Final result

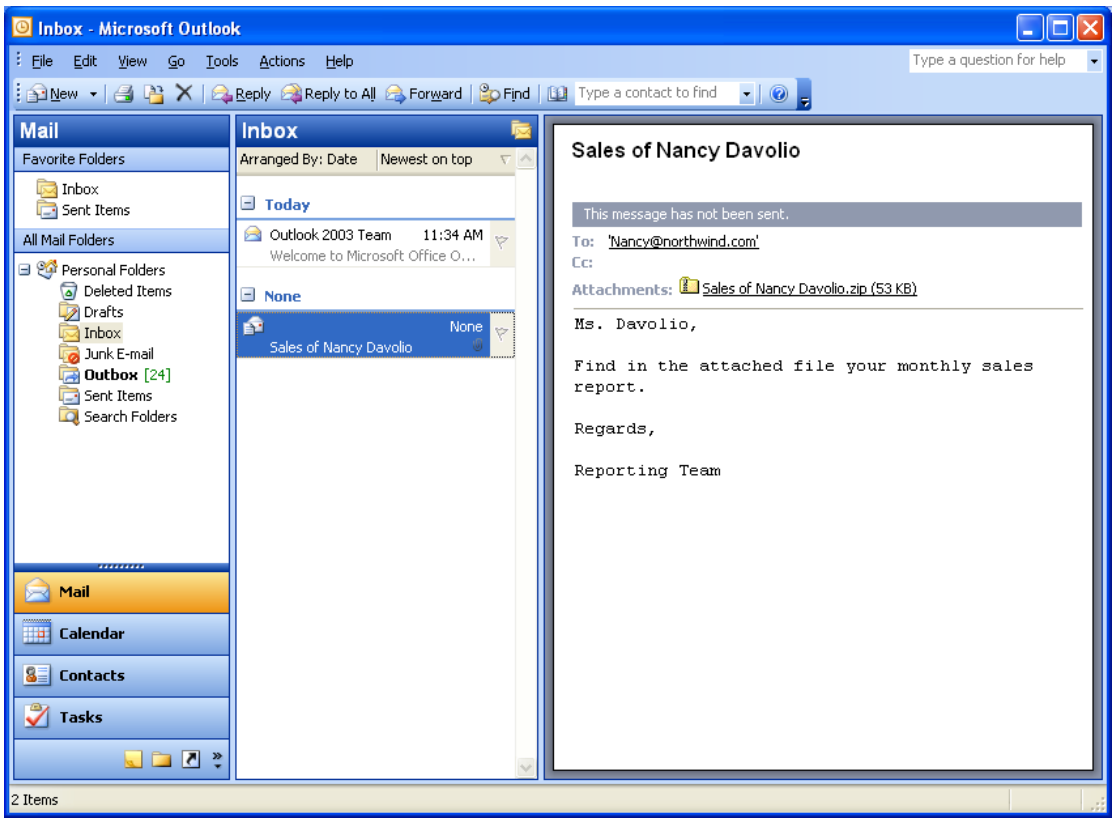
Once report delivery has been configured, save the process (icon) and launch it by pressing the button on the report toolbar.

As in the previous chapter, the report progress monitor will appear. (It will take a few minutes to finish, as it generates reports for about 10 salespeople).

Notice how the monitor shows the report compression task as indicated above:



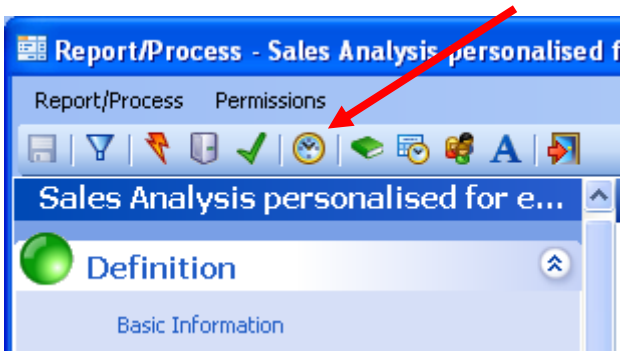
The message that each salesperson receives (in Outlook) will be as follows. Logically, the first name and last name shown on the title and body will vary for each of them.



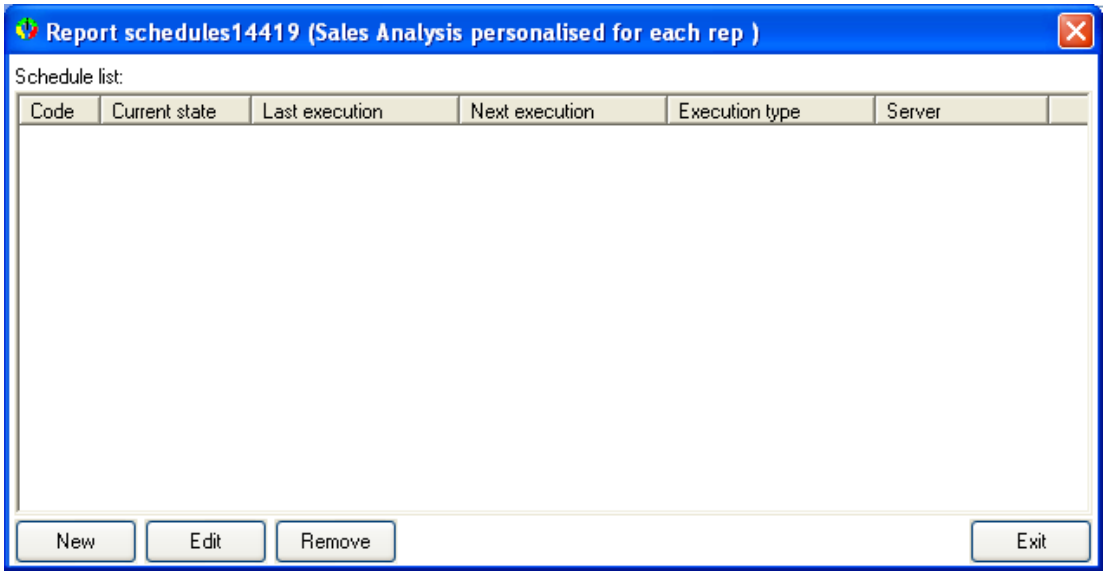
Scheduling

The only thing left is to schedule the report for execution at off-peak hours, so as not to interfere with higher priority activities.

Click on the scheduling icon:



The report scheduling window appears:



Press

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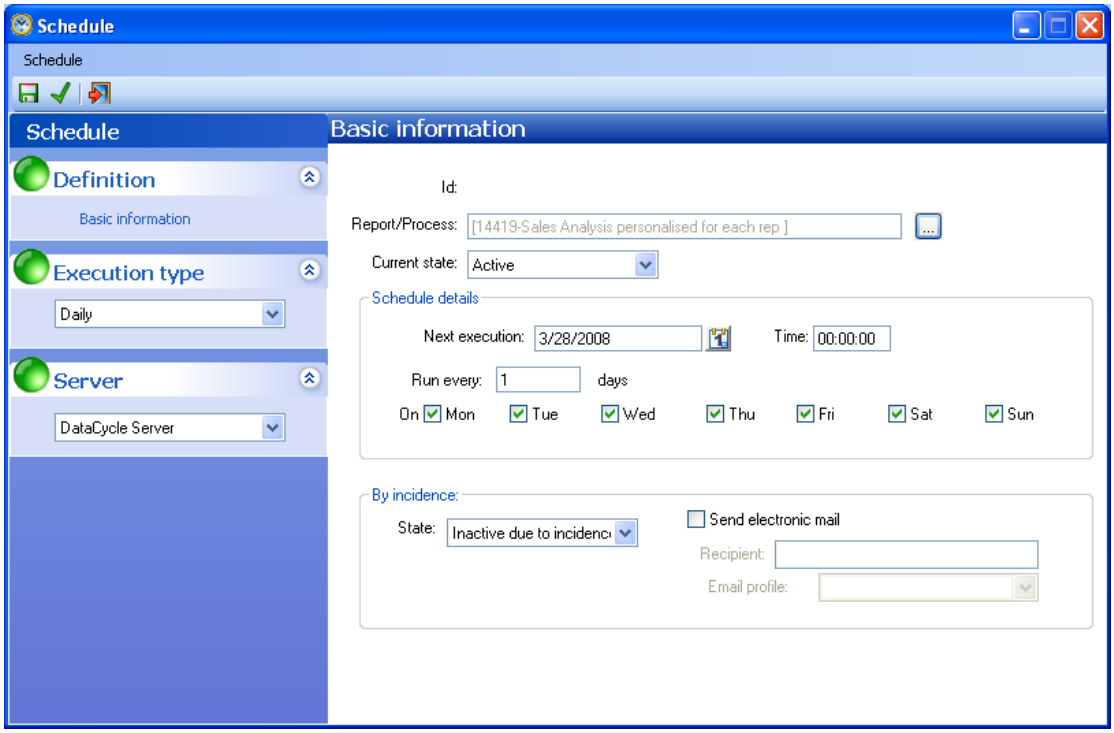
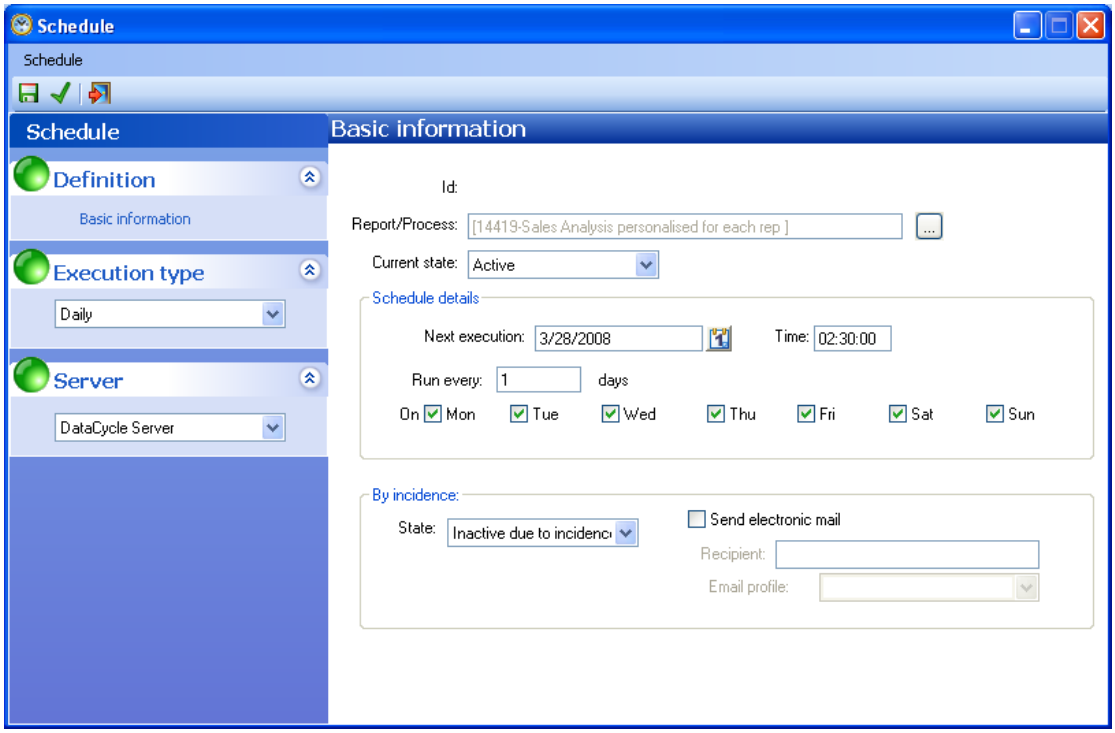


Enter the following values to program execution of the report each night at 2:30 AM.



Save the schedule by pressing the button.

From now on, this report will automatically execute every night at half past two.

Note: Checking this operation is somewhat more complex than the previous cases. You must have the **DataCycle Server**, **DCServer.exe** program operating and indicate that the following execution take place at a time close to the current time. You will see that within a

few seconds of the indicated time (there will always be a slight delay) the report will automatically execute, and the report delivery via email will be carried out.

Conclusions

Another practical example of the use of parameterization in DataCycle has been shown. In this case: email delivery and personalization of reports for each recipient.

Scheduling report distribution via email to multiple users is so easy that you can surely imagine any number of practical applications that DataCycle can offer your company.

Chapter

7

Licenses Management

How to activate your product license

DataCycle Reporting has two operation modes: DEMO, for evaluating the product for a limited time, and FULL, once you have purchased and activated the product in your PC/Server.

There is only one installer, both for DEMO and FULL mode. When DCR is installed in a new PC/Server, DEMO mode is enabled by default. You will have up to 30 days to activate your installation, in case you have purchased DCR. Meanwhile, you will have access to all DCR features, without any limitation.

Each time DCR runs in DEMO mode, the user is informed about how many days left to expirate the DEMO period. Once DEMO mode expires, DCR cannot be used again until you activate the FULL operational mode.

Activation Code

DCR FULL mode requires an Activation Code. This code is different for each PC/Server, since specific hardware parameters are used.

> DCServer component does not require any Activation Code.

Therefore, you will need a new Activation Code:

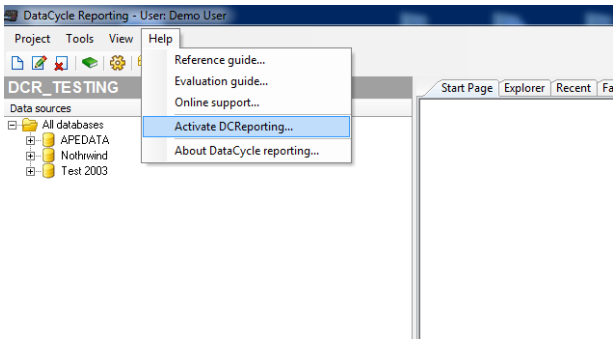
- Each time you install DCR in a new PC
- When you replace the PC/Server.
- If you change the CPU.

In other case, you **will not need** a new Activation Code:

- Upgrading DCR version
- Uninstalling and reinstalling DCR in the same PC
- Installing already other ApeSoft products, as DataCycle ScoreCard, DataCycle Planning, Dashboard kit, or MyVision
- Replacing HW components, except from CPU

Activation Code Request

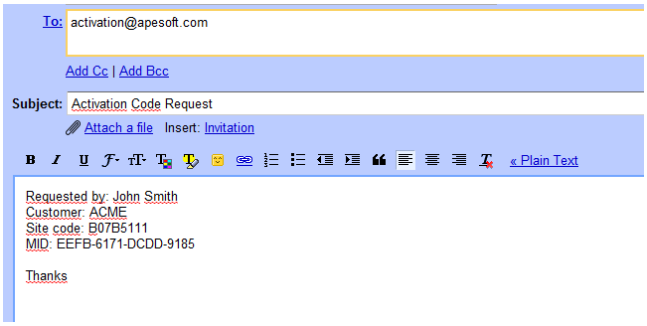
1. Run DCR, and open Activation Form:



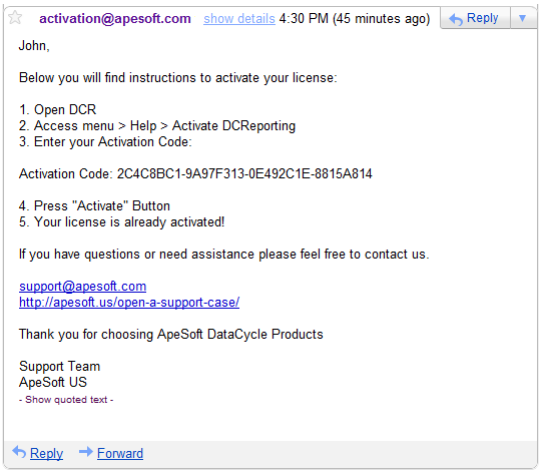
2. DCR fills automatically fields "*Site Code*" and "*MID*". "*Activation code*" is empty when DEMO mode is enabled

3. To request an Activation Code, send an email to activation@apesoft.com, including the following data:

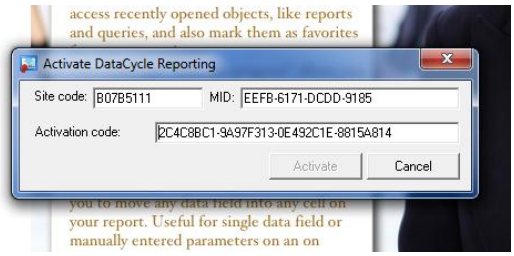
- Requested by: your full name
- Customer: your company name
- Site code & MID: provided by DCR in Activation Form



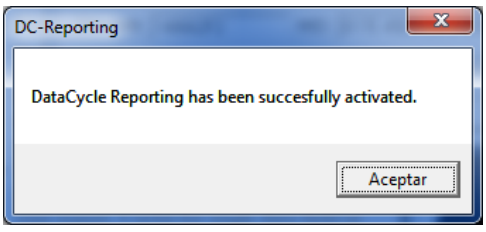
4. Within 8h working time (business days from 9:00 to 18:00), you will receive an Activation Code for your PC/Server



5. Enter the Activation Code in the Activation Form:



6. Your DCR installation has been succesfully activated (FULL mode)

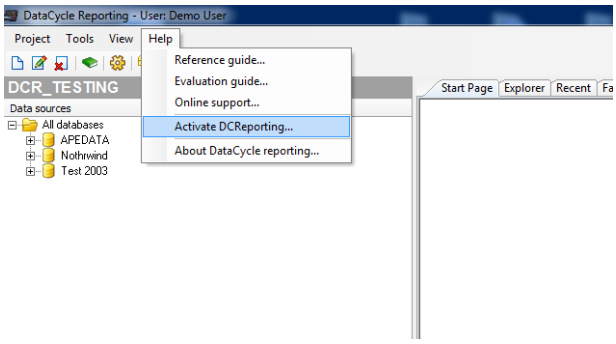


Transfer License

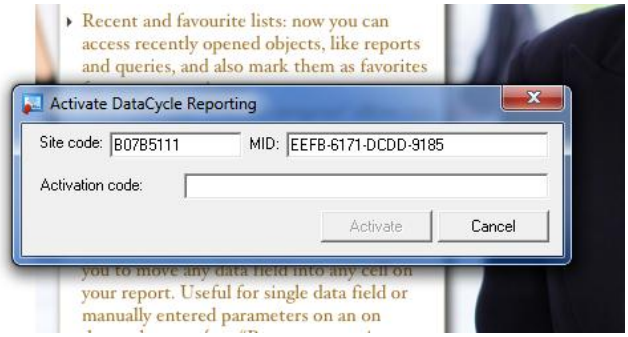
In case you need to switch your PC/Server where an activated version of DCR is running, follow next steps:

1. Install DCR in the new PC/Server.

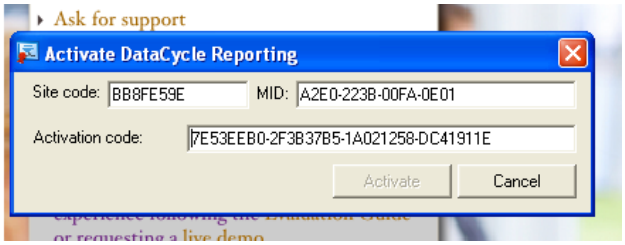
2. Run DCR in the new PC/Server, and open Activation Form:



3. DCR fills automatically fields "*Site Code*" and "*MID*". "*Activation code*" will be empty, since DEMO mode is enabled

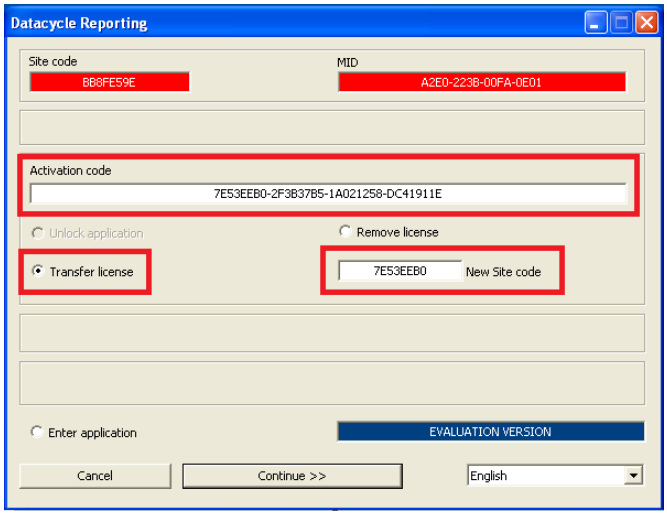


4. Open DCR in the old PC/Server, Copy the Activation code, and close DCR

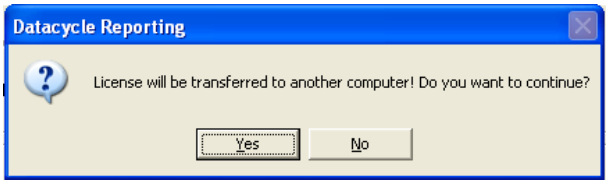


5. In the same old PC/Server, right-click DCR icon, hold <Shift> key, and select "*Open*". A Form to transfer and remove license will be shown

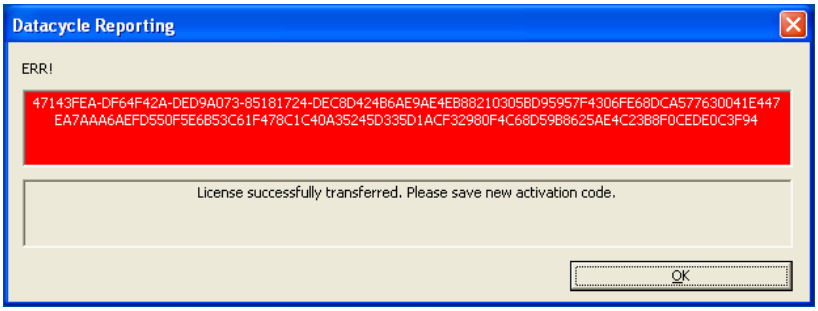
6. Enter Activation Code from old PC/Server, Site code from NEW PC/Server, select "Transfer license", and press "Continue >>"



7. Answer "Yes" in the following pop-up:



8. Copy de whole string shown in the next window. Is the new Activation Code for new PC/Server



9. From this step, DCR in the old PC/Server has become de-activated. If there are any DEMO days left, DCR will be available. If not, only Activation Form will be accessible.

10. Enter the new Activation Code from point 8, in DCR from new PC/Server. Copy the whole string.

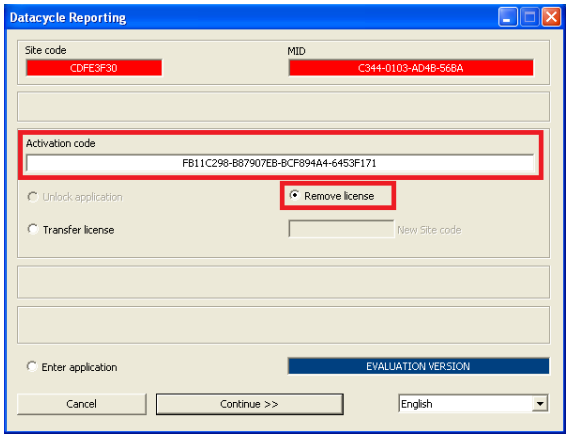
11. DCR in the new PC/server is already activated

Remove License

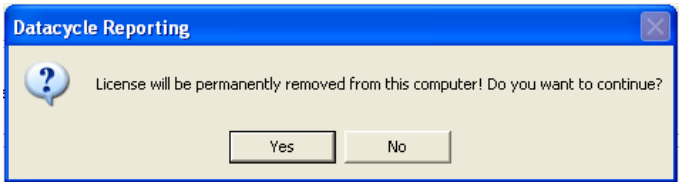
In case you need to just uninstall DCR, follow next steps for free your license, in order to be used in the future. In that moment, the new DCR installation must be activated following the activation Code request described above

1. Right-click DCR icon, hold <Shift> key, and select "*Open*". A Form to transfer and remove license will be shown

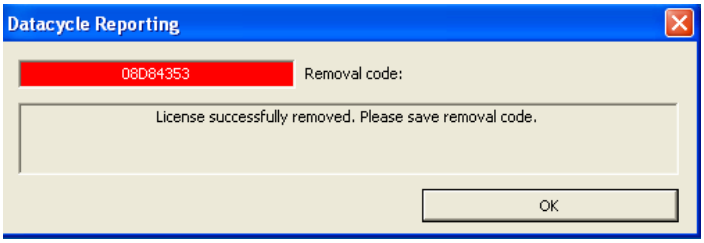
2. Enter Activation Code from old PC/Server, select "Remove license", and press "Continue >>"



3. Answer "*Yes*" in the following pop-up:



4. DCR has been deactivated. If there are any DEMO days left, DCR will be available. If not, only Activation Form will be accessible.



5. **VERY IMPORTANT:** in order to REMOVE your license in the Apesoft's Activacion Code Manager, send an email to activation@apesoft.com, including the following data:

   - Requested by: your full name
   - Customer: your company name
   - Removal code: [removal code provided by the previous form].

Chapter

8

Conclusions

Thank you for evaluating our product!

Writing an evaluation guide is a great injustice for the technical team developing any product, as it must be limited to include only the main characteristics of the solution, and those which are fairly easy to implement in any evaluation environment.

We sincerely hope that we may soon have the opportunity to show you how to do the following with DataCycle Reporting.

- Generate HTML directly from the reports and upload them to Web.
- Generate reports joining information from multiple databases.
- Easily resolve the majority of financial and accounting reports with a single one template structure.
- Generate graphically rich, interactive dashboards, and balanced scorecards.
- Generate reports with the current, and estimated short-term situation.
- Create alerts: reports executed only when a critical business event occurs, such as for example sales not meeting forecasts.
- Integrated with JDEdwards, AS/400, Baan, Oracle, data dictionaries

In short, we sincerely hope that you have enjoyed evaluating this product; and that this guide responds to any questions or concerns you may have had regarding report generation with DataCycle. We hope that you will see the advantages of introducing DataCycle Reporting into your business operations just as many other companies and organizations have done.

ApeSoft's Technical Team