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Teach
Yourself

SAP

in **24**
Hours

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SECOND EDITION

SAMS

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Sams Teach Yourself SAP in 24 Hours, Second Edition

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HOUR 20

Reporting Tools in SAP (SAP Query, InfoSet Query, Ad Hoc Query, and QuickViewer)

In the earliest versions of SAP, two tools were delivered for end-user reporting. The ABAP Query was designed for all modules and the Ad Hoc Query was designed exclusively for the Human Capital Management module. Beginning with version 4.6, things have changed. The ABAP Query is now called the SAP Query and its features have been enhanced. Additionally, the Ad Hoc Query tool can now be used with all modules in SAP under the name the InfoSet Query (although in the Human Capital Management module SAP still refers to it as the Ad Hoc Query). Both reporting tools enable you to create reports within your SAP environment and neither requires any technical skills. Additionally, in version 4.6, SAP introduced another tool called the QuickViewer. In this hour, you learn how to create custom reports using these reporting tools, including the necessary configuration and administrative decisions to get you on your way.

Highlights of this hour include

- ▶ Learning the quick and easy steps to configure the query reporting tools
- ▶ Using the SAP Query to create basic and advanced reports
- ▶ Using the InfoSet (Ad Hoc) Query to create reports
- ▶ Using the QuickViewer to create QuickViews

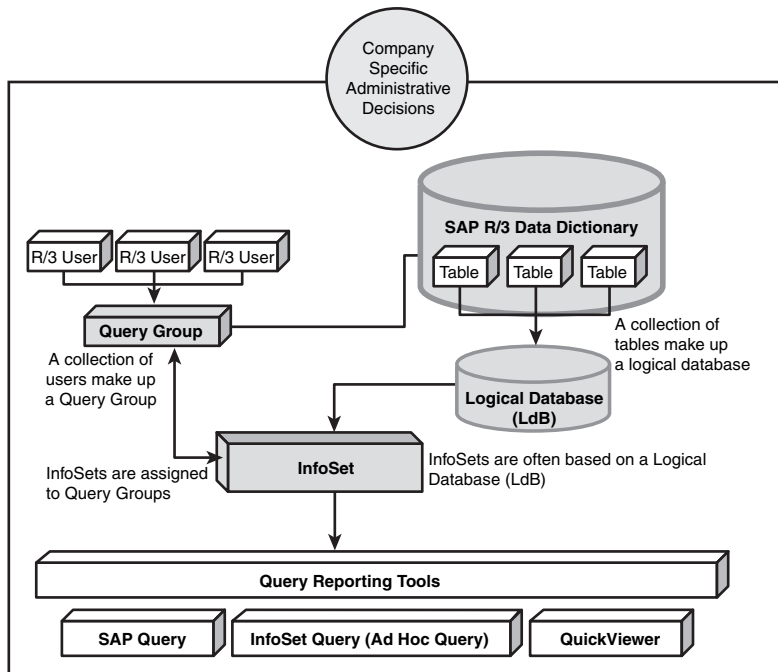
The Structure of the Query Reporting Tools

The query tools (SAP Query, InfoSet/Ad Hoc Query and QuickViewer) are built upon the foundation of three main components:

- ▶ Query Groups (/nSQ03)
- ▶ InfoSets (/nSQ02)
- ▶ Administrative decisions (company specific)

Each of these components permits a user with no technical programming skills to create custom reports. The overview of the query tool structure is depicted in Figure 20.1.

FIGURE 20.1
The SAP family of query reporting tools gives users easy access to the database via Query Groups and InfoSets.



If you think about custom reporting in SAP in layman terms, you picture a programmer sitting down at a terminal and typing lines and lines of ABAP code that go to the core SAP database to collect the information needed for the report. The programmer also has to code to account for security access, output, formatting, and so on. The purpose of the SAP delivered query tools is that all the work is done for you behind the scenes. The use of the three main components holds it all together.

Query Groups

Let's start with the first component, Query Groups (formerly known as User Groups in earlier versions of SAP). The technical definition of Query Groups is a collection of SAP users who are grouped together. A user's assignment to a user group determines which queries he or she can execute or maintain. Additionally, it designates which

InfoSets (data sources) the user can access. Basically, Query Groups permit users to create, modify, and execute reports in a certain area within R/3. For example, you can create a Query Group for the Finance department that includes your Financial users; similarly you create a Query Group for the Human Resources department that contains reports specific to Human Resources. Query Groups are an easy way to group and segregate your reports.

Query Groups are often maintained by the System Administrator. Query Groups are created on the Maintain Query Groups screen, which you can access using the transaction code `/nSQ03`. Users can belong to multiple Query Groups and might, under certain circumstances, copy and execute queries from other Query Groups (only if the permissions are the same). Any user within a user group has authority to execute queries that are assigned to that group, but only users with the appropriate authorization can modify queries or define new ones. Users cannot modify queries from other Query Groups. Although the maintenance of Query Groups is usually a task for your System Administrator, you learn how to create a sample user group later in this section.

InfoSets

InfoSets (formerly known as Functional areas in earlier versions of SAP) are the second component of SAP reporting. InfoSets are created on the Maintain InfoSets screen, which you can access using transaction code `/nSQ02`. The technical definition of InfoSets are areas that provide special views of logical databases and determine which fields of a logical database or data source can be evaluated in queries. Basically, an InfoSet is the data source; it's where you get your data to use in your reports. InfoSets can be built on a variety of sources, but the most common is the use of what is known as a logical database (LdB). Recall that writing reports without Query tools requires a programmer to write code that goes into the main R/3 database and retrieves the records it needs. This is no easy skill. SAP's answer to this issue is the logical database.

Logical databases are rational prearranged groupings of data from multiple related tables that are indexed. In layman's terms, logical databases place all the fields you want to report in an easy container from which you simply select the fields you need to include in your report. An overview of the relationship between these different elements is shown in Figure 20.1. Although the maintenance of InfoSets is usually a task for your System Administrator, you learn how to create a sample InfoSet later in this section.

**By the
Way**

Depending on your SAP authorization privileges, you might need to request assistance from your System Administrator in creating a test Query Group, functional area, and query. It is also possible, if you are working with a newly installed SAP system, that you will receive a message saying you must convert objects first. If you receive this message, contact your System Administrator. He or she will be required to perform a standard administration function to convert the objects before you can proceed.

Administrative Decisions

As you see in just a moment, creating Query Groups and InfoSets is an easy task, but before you do so, you must first review the following administrative decisions to see which best applies to your organization.

- ▶ What is your client/transport strategy?
- ▶ Will you use the standard or global Query Area?

What Is Your Client/Transport Strategy?

With custom-coded ABAP reports written by programmers, the traditional methodology for report creation is as follows: A programmer accesses a development environment where the first draft of the custom report is coded. The report is then transported to a testing client where it is tested. Assuming it passes testing, the report then moves on to your production environment for use. This methodology differs from the strategy often used with the query family of reporting tools. The addition of the query tools to SAP enables end users to create reports in real-time with no technical skills. It is with this in mind that your organization has to make a decision regarding your transport strategy.

The creation of query objects can be performed in any client. However, there are some best practices you should follow. For starters, end users who will be using the query tools often only have user IDs in the live production environment. Therefore, many companies maintain Query Groups live in the production client.

Similarly, InfoSets can be created in any client; however, best practice dictates that InfoSets be treated inline with normal programming methodology. It's best to create InfoSets in a development environment and then transport them to a testing client, where they are tested and then moved on to production for use. The reason why InfoSets are treated differently is because a trained user has the capability to add special coding or programs to InfoSets (outside the scope of this book) that can have

an impact on system resources or functioning and testing them is required in those cases. That leaves the reports (queries) themselves. Unlike custom-coded ABAP reports, query reports are designed to be made real-time in an ad hoc fashion, so the best practice is to create your queries live in your production environment.

Using the Standard or Global Query Area

Query Areas (formerly known as Application Areas in versions earlier than 4.6) contain your ABAP Query elements, queries, functional areas, and Query Groups. There are two distinct Query Areas in SAP: standard and global.

Standard Query Areas

Standard Query Areas are client-specific, which means that they are available only within the client in which they were created. For example, if you created a standard query in the production client, it exists only in the production client. You can transport query objects created in the standard area between multiple clients on the same application server via the Transport Truck function on the main InfoSets screen (SQ02). This bypasses the customary Workbench Organizer.

Global Query Areas

Queries designed in the *global area* are used throughout the entire system and are client independent. In Release 4.6, SAP delivers many of its standard reports in the SAP global Query Area. These queries are also intended for transport into other systems and are connected to the ABAP Workbench.

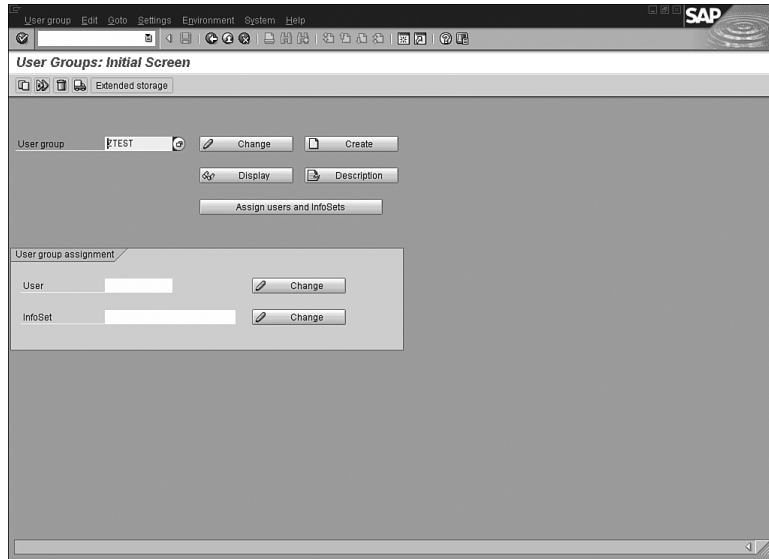
A common best practice is to allow SAP to continue to deliver reports via the global area and for end users to use the standard Query Area to create query-related reports. With your administrative decisions completed, you are ready to begin the configuration.

Creating a New User Group

To create a new user group, perform the following steps:

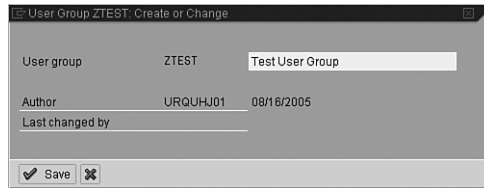
1. Navigate to the Maintain User Group screen using transaction code `/nSQ03`.
2. Ensure that you are in the standard Query Area by following the menu path Environment, Query Areas, and then selecting Standard area (client-specific).
3. Type the user group name that you will be creating, **ZTEST**, and select the Create button (see Figure 20.2).

FIGURE 20.2
SAP Query
Groups are cre-
ated and modi-
fied using User
Groups: Initial
Screen.



4. Type a name for your user group on the User Group ZTEST: Create or Change screen, as shown in Figure 20.3 and select the Save button.

FIGURE 20.3
Enter the name
for your user
group in the
User Group
ZTEST: Create
or Change
screen.



5. A message appears in your SAP GUI status bar stating that the User Group ZTEST has been saved.
6. Select the Assign Users and InfoSets button. Type the SAP user IDs of any users whom you want to include in your test group. Be sure to include your own user ID (see Figure 20.4).
7. Save the entry by selecting the Save button from the toolbar. A message appears in your SAP GUI status bar stating User Group ZTEST saved.

Now that you have created a user group, your next step is to create an InfoSet.

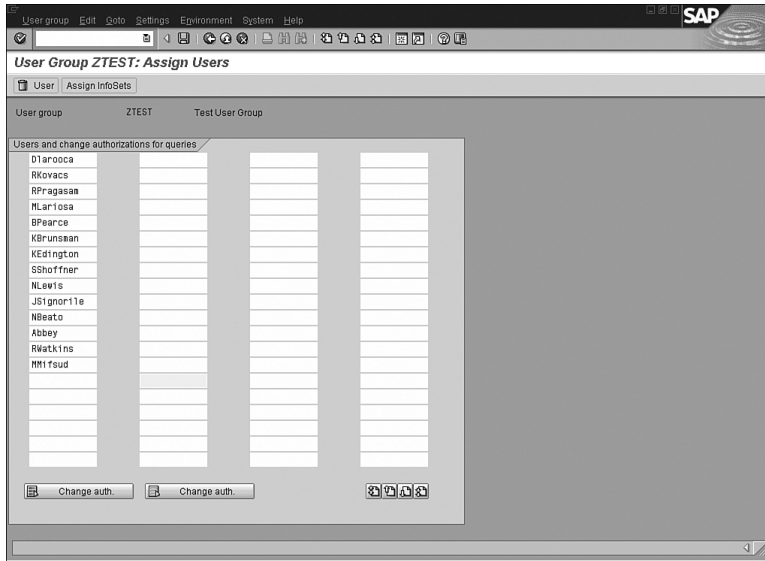


FIGURE 20.4
In your newly created User Group, be sure to add your own user name.

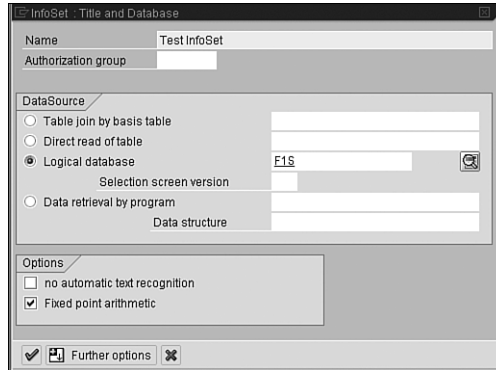
Creating a New InfoSet

To create a new InfoSet, perform the following steps:

1. Navigate to the Maintain InfoSets screen using the transaction code `/nSQ02`.
2. Ensure that you are in the standard Query Area by following the menu path Environment, Query Areas, and then selecting Standard Area (client-specific).
3. Type the InfoSet name that you will be creating, **ZTEST**, and select the Create button.
4. On the InfoSet: Title and Database screen, you are asked to input a description for your InfoSet. In this example, I used the name *Test InfoSet*. As mentioned earlier, you can create InfoSets using a variety of sources. The most common is the logical database. On this screen, select the F1S logical database from the drop-down box to be used as your data source (see Figure 20.5).

FIGURE 20.5

On this screen, select the F1S logical database from the drop-down box.



By the Way

You can create InfoSets from various data sources, including logical databases, tables, table joins, and so on. The best business practice is to use the SAP delivered logical databases as your data source, because they were created for this purpose and there is at least one logical database delivered with your system for each module within SAP including Accounting, Personnel Management, and so on. The F1S database used in this example is the training database that SAP uses in its training classes based on a fictional airline scheduling system. It is best to use this database for your test cases.

5. After entering a name and selecting the appropriate logical database from the drop-down list, F1S, select the green check mark to continue.
6. You are presented with a screen similar to the one shown in Figure 20.6. It lists the tables stored in the logical database F1S.
7. The logical database F1S selected is a test logical database containing three test tables: SPFLI, SBOOK, and SFLIGHT. To take a look at the fields in these tables, use the Expand Sub Tree button listed next to each table name (see Figure 20.7).
8. The next step is to assign fields to the Field groups (shown on the top-right of your screen) within your InfoSet. These field groups appear in your query tools while reporting. Only the fields that you include in your field groups are available for field selection in your query-reporting tools that use this InfoSet as its data source. By default, these field groups are empty (noted exception follows).

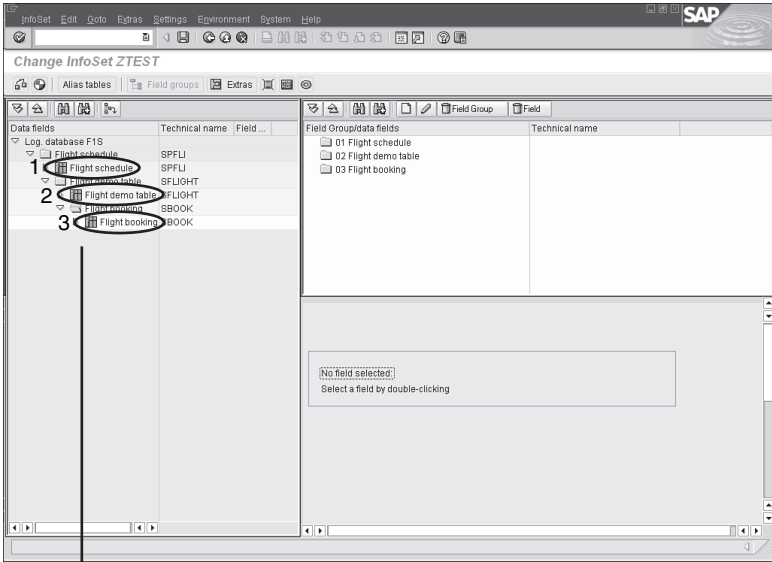


FIGURE 20.6 The Change InfoSet screen displays a list of all tables stored in your InfoSet.

Three tables are contained within the logical database F1S.

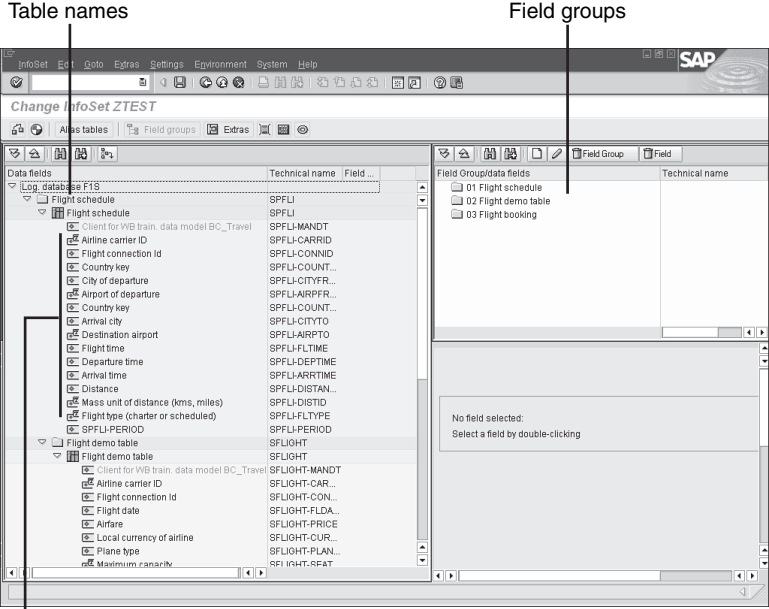


FIGURE 20.7 The Change InfoSet screen with expanded subnodes showing the fields available in each table.

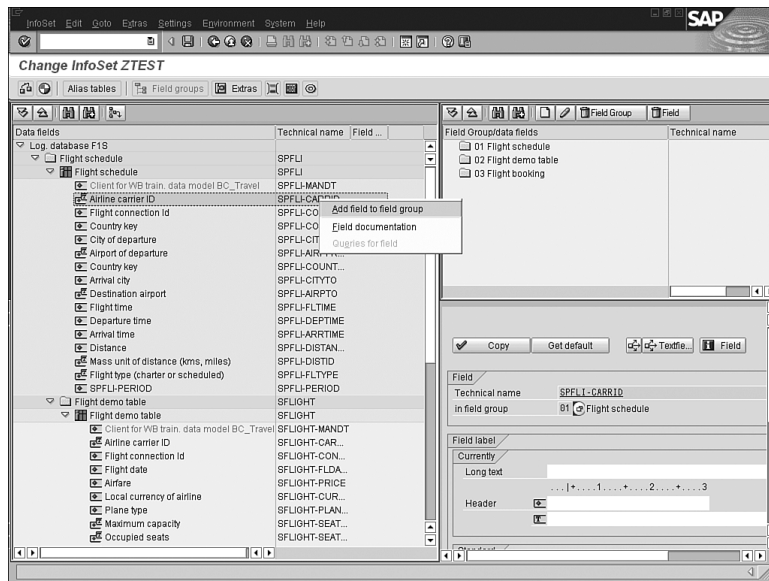
Field names

By the Way

For nearly all modules in SAP, your field groups are empty and you need to manually move fields to them. This is true for all modules with the exception of the Human Capital Management module and the InfoSets that support it. The field groups in this module are created for you with a default set of fields; you can add additional information if required.

- Place your cursor on the first field group, Flight Schedule. (You are going to select fields from the left side of the screen from the Flight Schedule table and add them to the Flight Schedule field group.) Place your cursor on a field on the left side of the screen, and right-click the option to Add Field to Field Group (see Figure 20.8).

FIGURE 20.8
The Change InfoSet screen with expanded tables showing the fields available in each table.



- Your newly added field to the Flight Schedule Field group now appears at the top-right side of the screen (see Figure 20.9).
- The next step is to add fields to your selected field group following the procedures outlined previously. Select the field group with your cursor and then move fields from the left side of the screen to the right using the procedure outlined previously. Be sure to add fields to the appropriate field group. For example, you can add the fields in the Flight Schedule Table to the Flight Schedule Field Group, or add fields from the Flight Booking Table to the Flight Booking Field Group.

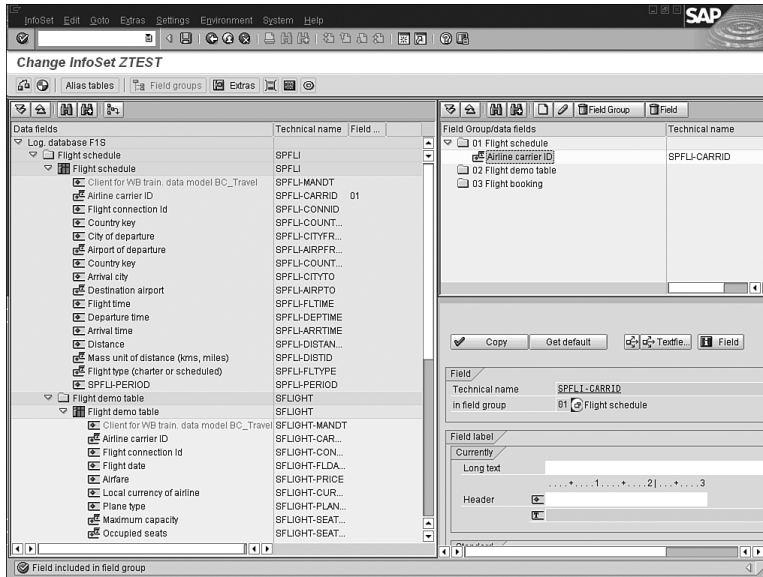


FIGURE 20.9
The Field Group, Flight schedule now has a field in it that is available for reporting with the query family of tools.

12. Now that you have added a series of fields to your field groups, select the Save button from the toolbar. A message appears in the status bar saying that the InfoSet ZTEST was saved.
13. Next, you need to generate the InfoSet by selecting the Generate button (the red beach ball) from the application toolbar. A message appears in the status bar saying that the InfoSet ZTEST generated.

The process of generating your InfoSet determines whether any errors are present in the logic of the configuration of the InfoSet.

Did you Know?

14. The last step is to exit the Maintain InfoSet screen by selecting the green back arrow.

Assigning the InfoSet to Your Query Group

You have now accomplished the first two configuration steps. You have created a Query Group and you have created an InfoSet. The last step before you begin creating reports is to assign the InfoSet to your Query Group. This is an easy, two-step task:

1. From the InfoSet: Initial Screen (transaction code /nSQ02), make sure your InfoSet ZTEST is present in the InfoSet text box and select the User Group Assignment button.
2. From the InfoSet ZTEST: Assign to Query Groups screen, highlight your Query Group name by selecting the gray button to the left of it, and then selecting the Save button.

A message appears in the status bar saying that the assignment of the InfoSet ZTEST was saved.

Did you Know?

Note that some of the SAP screens and SAP Help text still use the “functional area” moniker instead of InfoSet or refer to Query Groups by their old name, User Groups. Just be aware of this. You can also assign the InfoSet to a Query Group by using the Maintain User Groups screen (SQ03) and by selecting the Assign Users and InfoSets button from the toolbar and selecting your InfoSet from a list.

SAP Queries

You create and maintain your SAP queries through the Maintain Queries screen. You can access the Maintain Queries screen by using transaction code /nSQ01.

Unlike Query Groups and InfoSets, which are often maintained by System Administrators, SAP queries are primarily maintained by trained end users (after the configuration steps are complete). Only users with the appropriate authorizations can modify queries or create new ones.

By the Way

Security for managing query reporting is available on a couple of different levels. Besides the user group segregation, there also exists authorization group specifications. Security configurations are very customer specific; contact your systems administrator to learn more about your company's security configuration.

Creating an SAP Query

With the one-time configuration completed, the fun can finally begin. Creating an SAP query is a relatively elementary task. To begin creating your first SAP query, follow these steps:

1. Navigate to the Maintain Queries Initial screen using the transaction code /nSQ01. In version 4.6, a graphical version of the SAP query is available called the Graphical Query Painter. If you have not used the query tool, this will set

as your default. To turn it off and learn to create easy step-by-step reports, follow the menu path Settings > Settings and deselect the Graphical Query Painter check box.

2. The title bar will list the Query Group that you are currently in. For example, your screen might read Query of User Group ZTEST: Initial Screen. (If you are assigned to multiple user groups, you can see a list of the groups by selecting the Shift + F7 key.)
3. It is always a good idea to ensure that you are in the standard Query Area by following the menu path Environment, Query Areas and selecting Standard area (client-specific).
4. In the Query field, type a name for the query you are creating, **ZMYQUERY**, and select the Create button.
5. The InfoSets of User Group ZTEST window will list all the available InfoSets for your Query Group. Select the ZTEST InfoSet followed by the Enter key to proceed.
6. You are now presented with the Create Query Title Format screen, which enables you to save the basic formatting specifications for your query, including the name (title) and any notes you want to store for the query. The only required field is the title (see Figure 20.10).

FIGURE 20.10
You enter the title, format, and processing options for your query on the Create Query Title Format screen.

The further processing options listed here are the same as the options that appear on the selection screens when you execute SAP delivered reports.

7. After entering a title, select the Save button on the toolbar. To navigate to the next screen in the SAP query-creation process, select the next screen (white navigational arrow) button from the application toolbar. You can use these navigational arrows to navigate between the different screens of the SAP Query.
8. A screen will appear listing all the field groups available within your InfoSet (in this example, you can see Flight Schedule [SPFLI], Flight Demo Table [SFLIGHT], and Flight Booking [SBOOK]). Place a check mark next to all field groups that you want to include fields from in your report. Select the next screen (white navigational arrow) button from the application toolbar.
9. A Select Field screen will appear (see Figure 20.11), giving you a list of all the available fields within the Field Groups you selected. Place a check mark next to all fields that you want to include in your report. You can use the Page Up and Page Down arrows to navigate between all the fields. Select the next screen (white navigational arrow) button from the application toolbar to continue.

FIGURE 20.11
You can use the Page Up and Page Down arrows to navigate between all the fields.



10. You are now presented with the Selections screen, which lists all the fields that you have selected. You can now add any of the fields to the selection screen that appears when you execute your report. This enables you to specify your report output when the report is executed. You can add any fields you want to

the Selection screen by placing a check mark next to each field. This is the last screen in the basic query sequence; to continue, select the Basic List button from the application toolbar.

- The Basic List screen shows you a list of the selected fields that you want to include for your report. For each field, you can specify the Line and Sequence number as you want them to appear on your report. Additionally, you can use this screen to indicate sort order, totals, and counts, if needed. Start by entering the Line and Sequence numbers like the ones displayed in Figure 20.12.

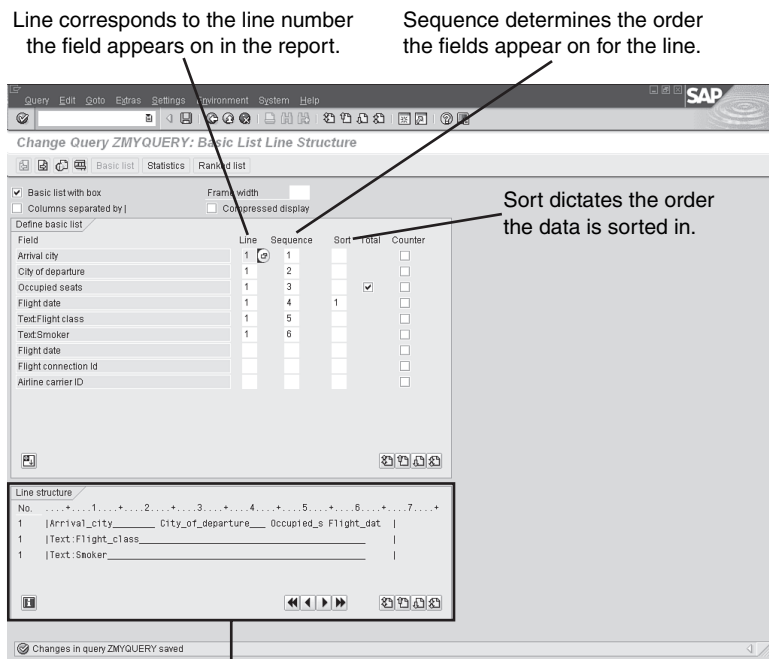


FIGURE 20.12 Basic output options are defined on the SAP Query Basic List screen.

- For this basic SAP Query example, you will proceed directly to the report. Select the F8 button from the application toolbar to execute the report.
- You are presented with the report's selection screen. The selection screen gives you an opportunity to specify any criteria for the output of your report. Select the Execute button again to display the report. Your report output should appear similar to Figure 20.13. (The output of the report corresponds to the specification entered in the basic list screen.)

FIGURE 20.13
In version 4.6 and higher, your report displays in the SAP list viewer, as shown in the picture.

Arrival city	Depart. city	z.Occupied	Flight date	Flight class	Smoker
NEW YORK	FRANKFURT	3	02/28/1995	Business class	Non-smokers
NEW YORK	FRANKFURT	3		First class	Non-smokers
NEW YORK	FRANKFURT	3		Economy class	
NEW YORK	FRANKFURT	2		First class	Non-smokers
NEW YORK	FRANKFURT	2		Business class	Non-smokers
FRANKFURT	ROM	1	04/28/1995	Economy class	Non-smokers
FRANKFURT	SAN FRANCISCO	1	06/06/1995	Business class	Non-smokers
SAN FRANCISCO	FRANKFURT	2	11/17/1995	Economy class	Non-smokers
SAN FRANCISCO	FRANKFURT	2		Business class	Non-smokers

Advanced SAP Queries

You have created a basic query using the SAP Query tool. Before you start investigating the more advanced options available in ABAP Query, it's a good idea to try creating a few queries using different InfoSets (based on different logical databases). To do this, you need to start from the section "Creating a New InfoSet" earlier this hour, select a different logical database, and then assign it to your Query Group.

When you become familiar with the SAP Query tool, you will want to try some of its more advanced options. To investigate the advanced options available for processing your queries, follow these steps:

1. Navigate to the Maintain Queries Initial screen using the transaction code /nSQ01 and select one of your existing queries.
2. Select the Modify button followed by the Basic list button on the application toolbar from the Basic List screen.
3. You can use the next screen (white navigational arrow) button from the application toolbar to navigate to the additional seven screens that house the more advanced functions of the SAP Query. These include
 - ▶ **Grouping, sorting, and subtotaling**—You can group, sort, and subtotal your SAP data onto reports and modify your subtotal texts. For example, you can create a report listing all open purchase orders and their amounts grouped by vendor and location with custom-named subtotals; see Figure 20.14.
 - ▶ **Manipulating colors and texts**—You can manipulate the colors and text styles of the different data presented on reports. For example, your report can contain subtotals in yellow, group totals in green, and individual line items in boldface red text.

- ▶ **Alter the column widths, add colors, hide leading zeros**—You can manipulate the layout of the report output to be used in interfaces or flat file transfers; see Figure 20.15.

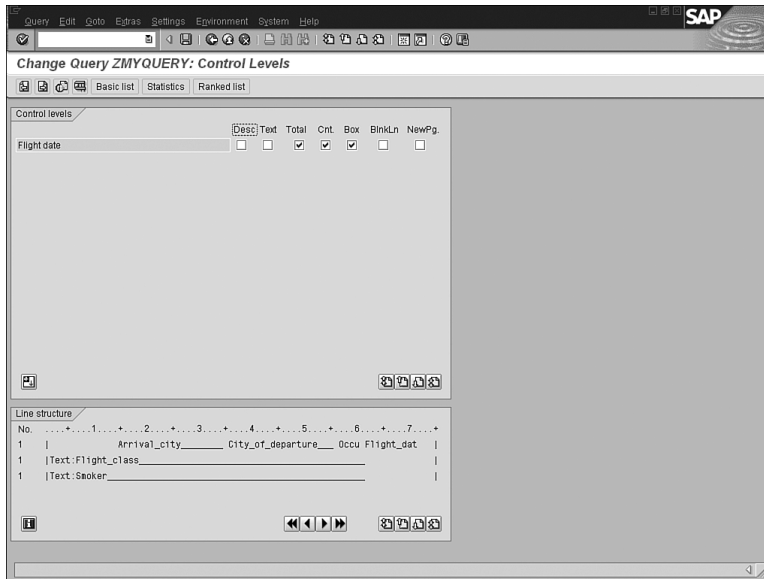


FIGURE 20.14
The Control Levels screen enables you to do sorting and subtotalling, as well as special formatting in your SAP Query report.

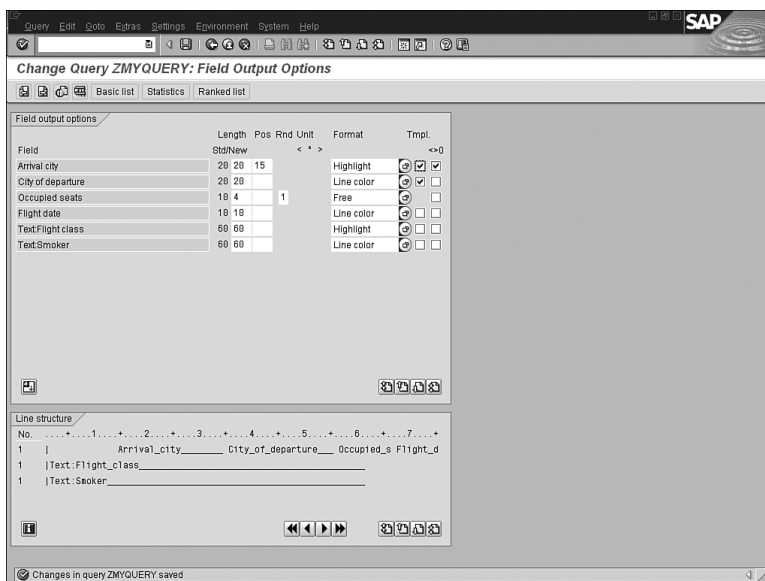
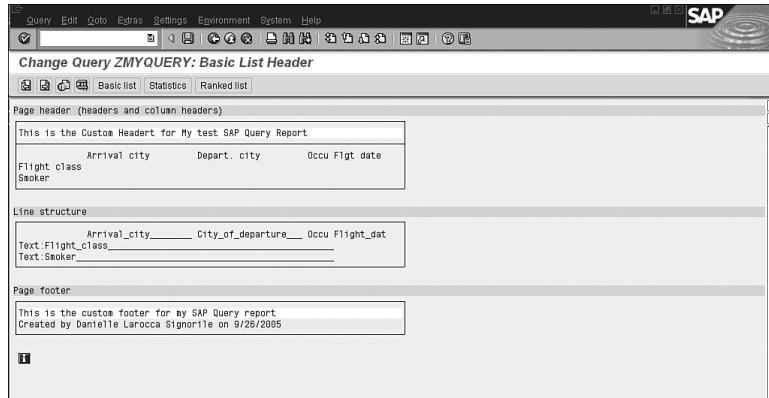


FIGURE 20.15
The Field Output Options screen enables you to vary the column width of your fields to prepare text spaced or delimited extract files or can be used simply to make your report output look better.

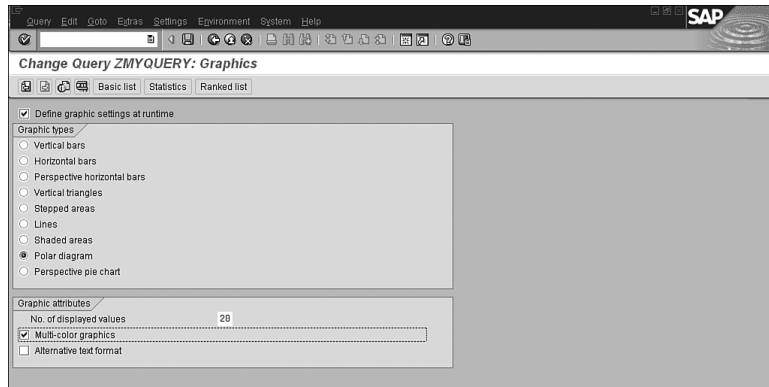
- ▶ **Custom headers and footers**—You can create custom headers and footers to be shown on each page of your printed reports. Your report can include the name of the report and the date and time it was created at the top of each printed page of the report; see Figure 20.16.

FIGURE 20.16
You can use special symbols to insert the current date, time, and page numbers in your custom headers and footers.



- ▶ **Charts and graphics**—You can include graphics and create charts of your SAP data on reports. You can create a bar graph displaying the open items currently available in your warehouse in comparison to the items sold; see Figure 20.17.

FIGURE 20.17
Charts appear in full color using SAP business graphics.



You can also create calculated fields in your queries to be used in your SAP Query reports. Calculated fields can be used to include variables that are not currently stored by SAP. Examples include a calculated field to store an invoice amount multiplied by a discount percentage or a calculated field to change output based on a number you enter on the Reports Selection screen. You can also create advanced calculated fields using “if-then” type logic. This is performed by using the local fields function on the Select Fields screen.

**Did you
Know?**

Understanding the InfoSet (Ad Hoc) Query

Unlike the SAP Query, which is a complete reporting solution tool, the InfoSet Query is designed for basic users to retrieve simple single-use lists of data from your R/3 database. Using this tool, (all query information) including the selection criteria is available on a single screen. In version 4.6, the Human Capital Management module-reporting tool, called the Ad Hoc Query, was combined with the technology of the SAP Query and made available for all modules. It's now called the InfoSet Query (although it is still referred to as the Ad Hoc Query when executed for HR reporting). This section refers to it as the InfoSet (Ad Hoc) Query; the functionality is the same regardless of its name.

Unlike the SAP Query (with the seven basic screens and seven advanced screens), all query information—including the selection criteria for InfoSet Query reporting—is available on a single screen.

You can use the InfoSet (Ad Hoc) Query to quickly answer simple questions, such as how many employees earn more than \$100,000 annually, or to create a comprehensive report for printing or downloading to your PC. The InfoSet (Ad Hoc) Query is designed so that users can pose questions to the SAP system and receive real-time answers. Other sample questions you might pose using an Ad Hoc Query include

- ▶ How many employees are over the age of 40?
- ▶ Which invoices are charged to cost center 1234?
- ▶ How many widgets are available for delivery on 9/26/2007?

The InfoSet (Ad Hoc) Query is a very helpful tool that your functional users can use to retrieve important, comprehensive information in a quick-and-easy fashion.

**By the
Way**

Your System Administrator can control access rights to the InfoSet Query using Roles or SAP Query User Groups. Exactly one SAP Query User Group must be assigned to a role (an InfoSet must be associated with the User Group), although the user does not need to be listed in the User Group. If users want to save their reports, they need authorization object S_QUERY, field ACTVT, value 2; otherwise, they can only create and execute reports.

Like SAP queries, InfoSet (Ad Hoc) queries are built on the foundation of Query Areas, Query Groups, and InfoSets. Earlier in this hour, you created an InfoSet based on the test logical database F1S, which corresponds to SAP's test system. You can use the same data source used in earlier examples for creating an InfoSet (Ad Hoc) Query or you can create a new InfoSet using an HR logical database. The following example uses the one created earlier in the chapter.

Creating an InfoSet (Ad Hoc) Query

When the one-time configuration is completed, Creating an InfoSet query is a relatively elementary task. To begin creating your first InfoSet (Ad Hoc) query, follow these steps:

1. You can access the InfoSet query in three ways: through an application-specific role using the Easy Access menu, using the SAP Query (transaction SQ01) and then selecting the InfoSet Query button, or by using transaction code /nPQAH.
2. You are prompted to select your Query Group and InfoSet (data source) from a dialog box and then to press Enter. The main screen of the InfoSet (Ad Hoc) Query appears in Figure 20.18.
3. The main screen contains three areas: the actual InfoSet from which you select and choose your fields, the sample report display, and the Selection screen values.
4. To start creating your report, simply check the Output box next to each field you want to appear in the report. In this example, I selected only a few fields; see Figure 20.19.
5. Next, choose fields for the Selection screen by marking each field's Selection check box.
6. The Selections section works just as a standard Selection screen does, by enabling you to input values to specify your reporting output.

- After selecting all the fields that you want to include, press the F8 key to execute the report. By default, your report displays in the SAP ALV grid from which you can easily drag and drop the columns and/or manipulate the look of the output.

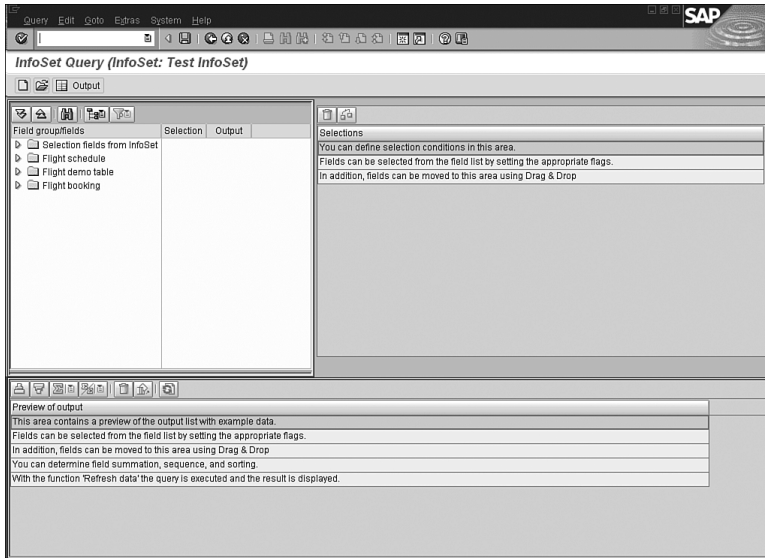


FIGURE 20.18
The main screen of the InfoSet (Ad Hoc) Query.

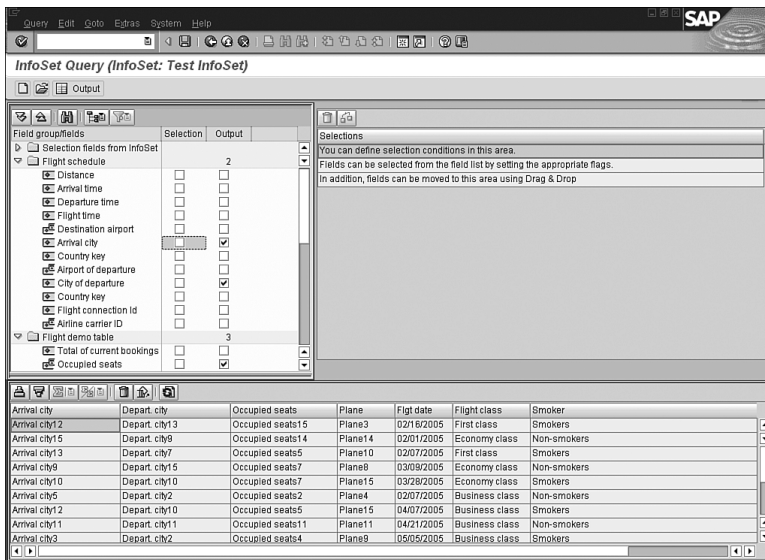


FIGURE 20.19
The three main areas of InfoSet (Ad Hoc) Query each perform a different function.

**Did you
Know?**

The difference between reporting using the test logical database F1S and the Human Capital Management (HCM) module is that data in the HCM module is displayed by InfoType and not by table name. This makes it easier for the end users.

Understanding the QuickViewer

Unlike the SAP Query, which is a complete reporting solution tool, the SAP QuickViewer Tool delivered with a 4.6 system is a “what-you-see-is-what-you-get” utility for quick collection of data from your R/3 system. To define a report with the QuickViewer, you simply enter texts (titles) and select the fields and options that define your QuickView. Unlike with SAP Query, whereby you create *queries*, you create *QuickViews*. QuickViews are not queries and they cannot be exchanged among users. The good news is that they can be converted to queries to be used with SAP Query.

Like with the InfoSet (Ad Hoc) Query, you can use the QuickViewer to quickly answer simple questions.

**By the
Way**

In contrast to using SAP Query and InfoSet (Ad Hoc) Query, you do not need to configure User Groups and InfoSets to use QuickViewer. However, if they have already created, you can use them. Users simply select a data source (table, data-base view, table join, logical database, or InfoSet) when building their QuickView.

Like SAP queries, InfoSet (Ad Hoc) queries are built on the foundation of Query Areas, Query Groups, and InfoSets. Earlier in this hour, you created an InfoSet based on the test logical database F1S, which corresponds to SAP’s test system. You can use the same data source used in earlier examples for creating a QuickView or you can create a new InfoSet using an HR logical database. The following example uses the one created earlier in the chapter.

Creating a QuickView

After the one-time configuration is completed, Creating a QuickView is also a relatively elementary task. To begin creating your first QuickView, follow these steps:

1. Like the SAP Query explained earlier, QuickViews can be run in Basis or Layout (Graphical) mode. In Basis mode, the system automatically renders the report from parameters. In Graphical mode, a user can tweak the report’s interface via a visual tool. Like the SAP Query, QuickViews are easier to work with in Basis mode.

2. You can access SAP R/3 QuickViewer in three ways: by using transaction SQVI, by using the QuickViewer button on the main screen of the SAP Query (transaction SQ01), or by using an application-specific role from the Easy Access menu.
3. On the main screen, enter a name for your QuickView followed by the Create button. You will be prompted to select a data source. For this example, I use the F1S data source.
4. There are three main tabs that you use to specify your QuickView. The QuickViewer appears in Figure 20.20.

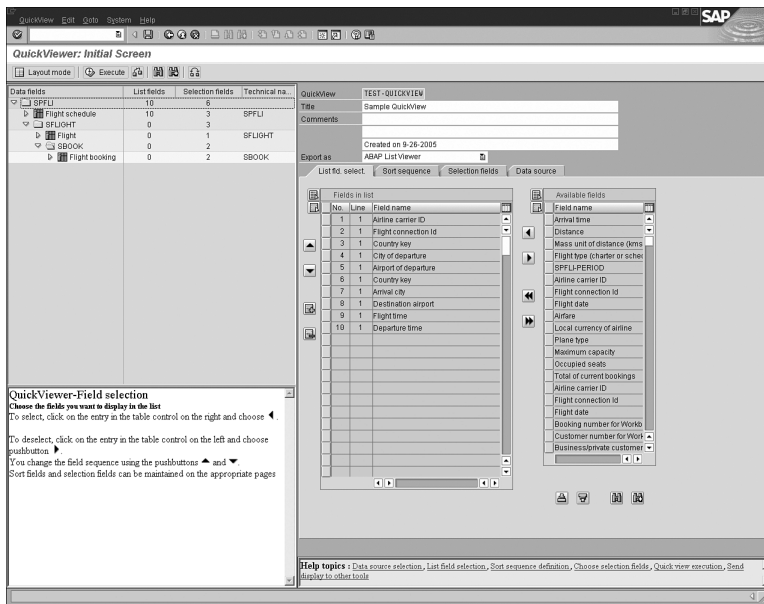


FIGURE 20.20
The main screen of the QuickViewer.

5. The first tab is your list of output fields. Simply select fields listed in the Available Fields column and select the arrow keys to move them to the output column. The second tab enables you to dictate the sort sequence for your selected fields. The third tab enables you to indicate selection fields for specifying your final output.
6. Note in the middle of the screen that you have different Export options for your QuickView. Select one from the drop-down box and then select the Execute button to see the Reports Selection screen. You can further specify your selections. Next, select the Execute button to see your completed QuickView.

***Did you
Know?***

If you have created a QuickView and you want to convert it to an SAP Query report, simply follow these three quick steps:

1. Navigate to the main screen of the SAP Query (SQ01).
2. Follow the menu path Queries > Convert QuickViews.
3. Select your QuickView from the drop-down box and press the Enter button. You are prompted to type a name for the query; press Enter again to convert the QuickView.

The Query family of tools contains a toolbar with functions to assist you in further processing your data, including

- ▶ Currency conversions
- ▶ Sums and totals
- ▶ Sorting
- ▶ Graphics generation
- ▶ Easy download options
- ▶ Expert mode options (increased report complexity)

Summary

In this hour, you reviewed how to perform the configuration necessary for the query tools and how to use each query tool. The skills learned in this hour might be the most meaningful to you as an end user because they will empower you with the skills to extract data from your own SAP system. Keep in mind that trial and error is usually the best method for getting accustomed to working with queries in SAP. To this end, seek to “test” your queries in nonproduction systems.

You have also read how to create Ad Hoc queries, truly valuable to those who otherwise must rely on the system administration and programming staff to generate reports from the system. Using the simple InfoSet tool, you can pose complex questions and enjoy the output you need in just minutes. You also have the capability to perform further analysis of the data within the query or by saving or downloading the report to a local spreadsheet.

Q&A

Q *Do users or System Administrators generally regulate the creation of Query Groups, InfoSets, and queries?*

A The use of different tools in SAP largely depends on the customer. In general, Query Groups and InfoSets are maintained by your company’s technical users, although the creation of queries varies. In some organizations, users see it as a great means of creating their own reports without seeking the assistance of

the technical users. On the other hand, depending on your company's security configuration, the creation of queries and QuickViews might be restricted to technical or super functional users only.

Q *What are the three main components of the Query family?*

A Query Groups, InfoSets, and administrative decisions (which are company specific) are the three main components of the Query family.

Q *When creating InfoSets in the Human Capital Management module, what is different about the configuration?*

A Unlike all other modules, the Field groups that are automatically created in your InfoSet contain fields based on InfoTypes automatically without the users having to add them.

Q *Out of the three query tools, which is the most robust reporting tool with the most features?*

A The SAP Query is the most robust.

Q *Does security restrict access in Query reporting?*

A There are several ways that security can influence the availability of data in Query reporting. Security depends on your company's security configuration, but if you use logical databases, the security is built-in and uses your standard security profile when determining what data you have access to.

Workshop

The workshop is designed to help you anticipate possible questions, review what you've learned, and begin thinking ahead to putting your knowledge into practice. The answers to the quiz that follows can be found in Appendix A, "Quiz Answers."

Quiz

1. What is the transaction code to access the Create Users screen?
2. What is the transaction code to access the Create InfoSets screen?
3. What is the transaction code to access the Create SAP Queries screen?
4. Are global Query Areas client-dependent or independent?
5. Name three different components of SAP queries.

6. What does a Query Area include?
7. What are the two different Query Areas?
8. What must you always do after creating or modifying an InfoSet?
9. What is the transaction code to access the QuickViewer?
10. In which R/3 application modules is the InfoSet (Ad Hoc) Query available?

Exercises

1. Make a cheat sheet of the transaction codes for each of the query reporting tools.
2. Create a new Query Group in the standard area called ZTEST2.
3. Create a new InfoSet in the standard area ZTEST2.
4. Open InfoSet ZTEST2 and peruse the different tables and fields available within it.
5. Assign the InfoSet ZTEST2 to the Query Group ZTEST2.
6. Create a new SAP query in the standard area called ZMYQUERY2 using the InfoSet ZTEST2.
7. Create a new InfoSet (Ad Hoc) Query called ZAHQUERY2.
8. Create a new QuickView called ZQVQUERY2.