

## CHAPTER 18

# System Tables

### About this chapter

This chapter describes the **system tables**, several special tables found in every Adaptive Server Anywhere database. These system tables describe all the tables and columns in the database. The database server automatically updates the system table as the database structure is changed.

### Contents

<b>Topic</b>	<b>Page</b>
The SYSCATALOG table	288
The SYSCOLUMNS table	289
Other system tables	290

## The SYSCATALOG table

The first system table lists all the tables in the database.

❖ **To view the contents of the SYSCATALOG table for the sample database:**

- 1 Type the following command:

```
SELECT *  
FROM sys.syscatalog
```

The first screen of tables lists some of the system tables found in Adaptive Server Anywhere.

- 2 Scroll through the Interactive SQL data window a few times, you will see the tables that make up the company database.

The owner of the system tables

The owner of the system tables is the special user ID, **SYS** and the owner of the company tables is **dba**. In addition, there is a set of views owned by the special user ID **DBO**, which provide an emulation of the Sybase SQL Server system catalog; these tables are not discussed in this section.

Recall that **dba** is the user ID you used when connecting to the database from Interactive SQL. So far, you have simply typed the table names **employee** and **department**; SQL looked in **SYSCATALOG** for tables with those names created by **dba**. In this example, by typing **SYS.SYSCATALOG** you specified that **SYSCATALOG** was created by the user ID **SYS**. Note the similarity to the way column names are qualified, such as **employee.emp\_id**.

Other columns in the system table

The other columns in this table contain other important information. For example, the column named **Ncols** is the number of columns in each table, and the column named **tabletype** identifies the table as a permanent table (also called a **base table**) or a view.

## The SYSCOLUMNS table

Another important system table is called **SYSCOLUMNS** describing all the columns in all the tables in the database. To see the contents of this table, type the command:

```
SELECT *  
FROM sys.syscolumns  
WHERE tname = 'employee'
```

This command lists all the columns in the **employee** table. If you look at the columns to the right, you can see from the **Coltype** column that some columns in the **employee** table contain **character** information; others contain **integer** and **date** information.

## Other system tables

There are several other system tables in the database that will not be described in the tutorial. You can find out their names by examining **SYS.SYSCATALOG** and look at them if you want.

↪ For a full description of each of the system tables, see "System Tables" on page 771 of the book *Adaptive Server Anywhere Reference Manual*.