

PLANTSCAPE SERVER

REPORTS - 2

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SESSION OBJECTIVES

At the end of this section of the course the student will be able to:

- Configure Microsoft Access database tables to link to the PlantScape Server using the ODBC driver
- Configure a PlantScape MS Excel report linked to an Excel spreadsheet that includes MS Excel Data Exchange links
- Configure a PlantScape printer for use with MS Excel reports

REFERENCES

- Knowledge Builder:* Server and Client Configuration Guide→
Using PlantScape Data in Other Applications→
Configuring the PlantScape ODBC Driver Option
- Knowledge Builder:* Server and Client Installation Guide→
Setting up the PlantScape Server→Setting up Microsoft Excel Reports
- Knowledge Builder:* Server and Client Configuration Guide→
Using PlantScape Data in Other Applications→
Using MS Excel Data Exchange
- Knowledge Builder:* Server and Client Configuration Guide→
Configuring Reports→Configuring Custom Reports with MS Excel

Overview

Introduction

In the PlantScape Server Implementation – 1 course we studied standard PlantScape Reports.

We also studied creating custom reports using PlantScape's Free Format Report Writer.

Whilst this Report Writer provides a number of useful facilities it does require users to spend time to learn how to use it if maximum benefit is to be gained.

In order to reduce the learning curve required to produce custom reports PlantScape Server offers a number of ways of interfacing to standard 3rd party packages so that a minimum of PlantScape specific training is required.

In this section we will be studying the PlantScape ODBC driver and MS Excel Reports.

ODBC Driver

Introduction

Open Database Connectivity (ODBC) is a standard set of function calls for accessing data in a database. These calls enable you to set up Structured Query Language (SQL) queries on the database.

ODBC can be used in any client/server architecture regardless of whether the database and client application are resident on the same machine, separated by a network, or even if they are on different machines using different operating systems.

The PlantScape ODBC Driver option enables a user at an ODBC compliant database to open tables of data that are directly linked to data in a PlantScape Server database.

In this way a user of the third party database can configure his/her own reports by querying the PlantScape Server database without having to know the details of its structure.

ODBC Compliant Databases

Some examples of 3rd party database packages that are ODBC compliant are:

- Microsoft Access
- Crystal Reports

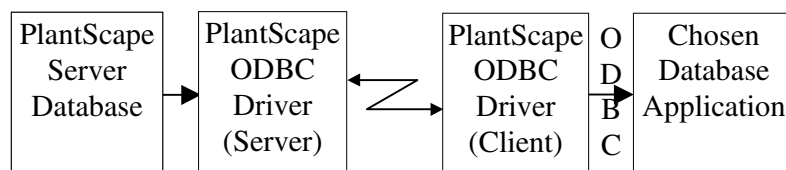
What data can be accessed?

The ODBC driver provides read only access to point data, history files, and events.

Security

Operator Based security is used from the chosen database application to restrict access to the PlantScape Server database.

Schematic



ODBC Driver Schematic

Prerequisites

The following actions need to have been taken before the ODBC Driver option can be used:

- The ODBC Driver option must be installed on the PlantScape Server (check your licence details)
- The PlantScape ODBC Client software (supplied on the PlantScape CD-ROM) and the database application (for example, MS Access) must be loaded on the PC from which the PlantScape Server database will be queried.

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ODBC Driver.....continued

Steps to Configuring ODBC Driver

The configuration procedures may vary according to the client database application that you will use to query the PlantScape Server database.

Application-specific help is usually provided with the client application.

In general, however, the procedures are as follows:

Step	Description
1	<p>Configure a Data Source on the client PC.</p> <p>This same Data Source can be reused every time it is required to query the PlantScape Server database.</p> <p>If it is required to query multiple PlantScape Server databases then it will be necessary to configure a Data Source for each one.</p> <p>Full details on configuring a DSN can be found at:</p> <p><i>Knowledge Builder:</i></p> <ul style="list-style-type: none">Server and Client Configuration Guide→Using PlantScape Data in Other Applications→Configuring the PlantScape ODBC Driver Option→Configuring a Data Source
2	<p>Start up the client application and use the ODBC support provided to connect to the PlantScape Server database.</p> <p>Full details on connecting from Microsoft Access can be found at:</p> <p><i>Knowledge Builder:</i></p> <ul style="list-style-type: none">Server and Client Configuration Guide→Using PlantScape Data in Other Applications→Configuring the PlantScape ODBC Driver Option→Example Use of the PlantScape ODBC Driver and Microsoft Access
3	<p>Query the PlantScape Server database as required using the information supplied in Knowledge Builder.</p>

MS Excel Reports

Introduction

Microsoft Excel Reports enable you to design a custom report using Microsoft Excel.

Microsoft Excel Data Exchange or the PlantScape ODBC Driver can be used to access data in the PlantScape Server database from Microsoft Excel.

This report can then be requested from Station like any other PlantScape report.

The data in the spreadsheet will be updated and a copy saved.

Choosing between MSEDE and ODBC Driver

When creating an MS Excel spreadsheet with links to the PlantScape Server database the user can choose between Microsoft Excel Data Exchange and the ODBC Driver.

Consideration should be given to the following:

- they have different installation requirements, in particular the ODBC Driver can only use Microsoft Excel 97 (ver 8) plus MS Query (ver 2); refer to:
Knowledge Builder: Server and Client Installation Guide→
Setting up the PlantScape Server→
Setting up Microsoft Excel Reports
- Microsoft Excel Data Exchange can access all information in the Server database, the ODBC Driver can only access point, history and event data
- Microsoft Excel Data Exchange can write to the Server database (this is optional and can be disabled)
- the data accessible by the ODBC Driver is based on Operator or Station Based security, whilst Microsoft Excel Data Exchange has no inbuilt security.

For the rest of this section we will assume that MS Excel Data Exchange is to be used.

Installation Reminders!

Whilst MS Excel can be installed by any user who is a member of the Administrators group, the MS Excel Data Exchange option must be installed separately by each user who is going to use it.

Thus for use with MS Excel Reports, the MS Excel Data Exchange option must be installed on the PlantScape Server from the mngr account.

It is recommended that the MS Excel Data Exchange option be installed in Read Only mode, thus inhibiting users from writing values to the PlantScape database.

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MS Excel Reports.....continued

Print the Report?

If the MS Excel Report is to be printed then a Windows NT printer must be created on the PlantScape Server under the `mng_r` account. This printer should be the same physical printer as the report printer defined from Quick Builder in the PlantScape database.

No user interaction with MS Excel

Both MS Excel and MS Excel Data Exchange must be installed from the `mng_r` account in such a way that no user interaction will be required.

This is because MS Excel is not visible when an MS Excel Report is requested, so any prompts generated cannot be responded to.

Create the MS Excel Spreadsheet

Log in as `mng_r` and start MS Excel to ensure that it starts with no user interaction required.

Create the required spreadsheet with database links and save it to the `\honeywell\server\user` directory.

Close the spreadsheet and open it again to ensure that it opens with no errors and no user interaction required.

Configuring an MS Excel Report

Configure an MS Excel report and click on the **Configure** tab to define the following entries:

Microsoft Excel Report

Definition file:

Timeout Period (seconds):

If a report does not manage to complete within the timeout period it will stop and generate an error report file. A report will not complete if the report configuration causes a dialog box to be displayed. Ensure this is not the case before increasing the timeout period. A timeout period of 0 results in the default of 30 seconds being used.

Defaults to the \honeywell\server\user directory

This report can show current, historical or calculated variables derived from the database and user files according to the format in the given definition file.

Request