

DATAHost

Quick Start Guide

DATAHost
Revision 2



Introduction

DATAHost is a real time data collection service (based on the QTech DATRAN real-time telemetry engine) that manages the communications with and storage of data from a QTech DATScan People Counter System (Q48 Remote Dataloggers and PIR sensors).

DATAHost is used to configure with all the site and data requirements for each of the remote Q48 Remote Dataloggers. These remote systems are configured to communicate with the DATAHost on a predefined schedule which is typically daily but may be easily configured for other periods. DATAHost then processes this data and using an ADO ODBC interface and stores the data into an SQL Server database.

Once stored in the SQL Server database, the collected data is available for reporting and analysis. Utilising the QTech DATScan Analyser application, a standard suite of reports may be generated. Alternatively, any SQL reporting application may be used for custom reports and the data may be imported into applications such as Microsoft Excel for further analysis. QTech can provide the technical information to enable data access by third party applications.

Overview

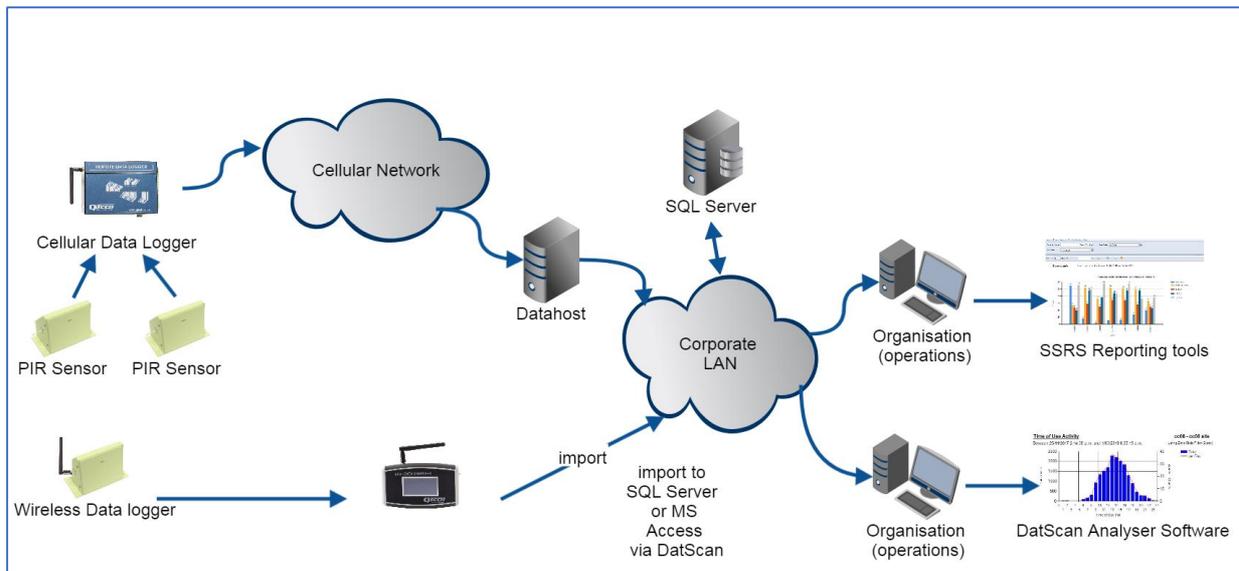


Figure 1

Getting Started

System Requirements

Operating System:	Microsoft Windows Server 2016, 2012 R2, 2008, 2002, Microsoft Windows 7 & 10. The operating system must be installed with Microsoft .NET Framework Version 3.5 or later.
Processor	DATAHost places minimal stress on CPU performance and as such QTech recommends the processor meets or exceeds the minimum requirements for the operating system.
Memory	A minimum of 4GB memory or the minimum requirement for the operating system or SQL Server.
Storage	A minimum of 10GB storage for DATAHost and system data.
SQL Server	A DATAHost database with several years of data is well under 10GB and as such any current versions of Microsoft SQL Server, including the free SQL Server Express, is enough.

Installation Process

There are two components to deploy:

1. DATAHost Services and TBD as installed from the installer.
2. The Database SQL structure.

DATAHost Services

The installer creates an admin account called DataHost which it requires to access out-of-process comms (e.g. database logging or cellular). It also creates holes in the Windows firewall to allow for this communication.

The installer creates a file structure called DATRAN.tbd which includes a draft configuration file for a single cellular Remote Datalogger. Note that the DATAHost .tbd file, although similar to a DATRAN VI.tbd, is not compatible with DATRAN Services. The TBD is automatically installed in the datahost database.

NOTE: The DATAHost Services currently run as “DATRAN7”, which is not part of DATRAN V6.72 or earlier that your organisation may also be running elsewhere.

After the installer has completed, start the following Services in this order:

- TBServer
- QTechComms
- AdoDCMS
- TBdiagService

And then run TBBrowse to see if it has connected to the background Services. If it is not connected, you will see a message saying “No Connection to Server” in red text. If it is connected, you will see the tree structure.

TIP: If TBServer is started as an application e.g. just double clicked, it will show debug information in a command prompt window.

The Database SQL structure

It is assumed that your organisation is already running SQL Database software.

In this Guide, we have used Microsoft SQL Express 2008, although newer versions can be used. A SQL script for installing the DATScan (cellular data logger) database is found within the DATAHost installer folder.

From SQL Server Management Studio create a new database called DATScan. Right click on it and select "New query". Now copy the contents of DATScanDB.sql from the installation folder in to this window and press "Execute".

This script creates the appropriate tables, the eventIds table contents and logging stored procedure. The transactions and siteinfo tables should be empty.

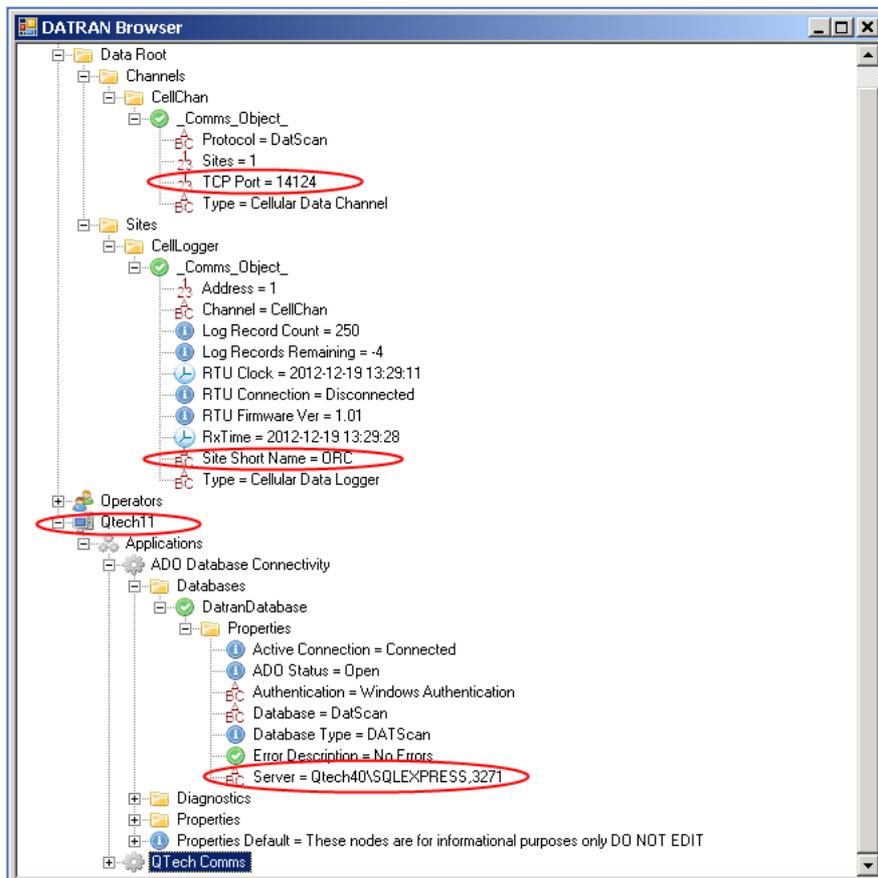
Configuration

This is all done through the DATRAN.tbd file.

Running TBBrowse will allow basic TBD editing (e.g. there is currently minimal dialog box help).

Running TBDiagViewer (Note TBDiagService is required for this) will provide real time diagnostics once you right click and change the display categories to show everything.

Changes required for a new DATScan system are numbered in order in red in the image below:

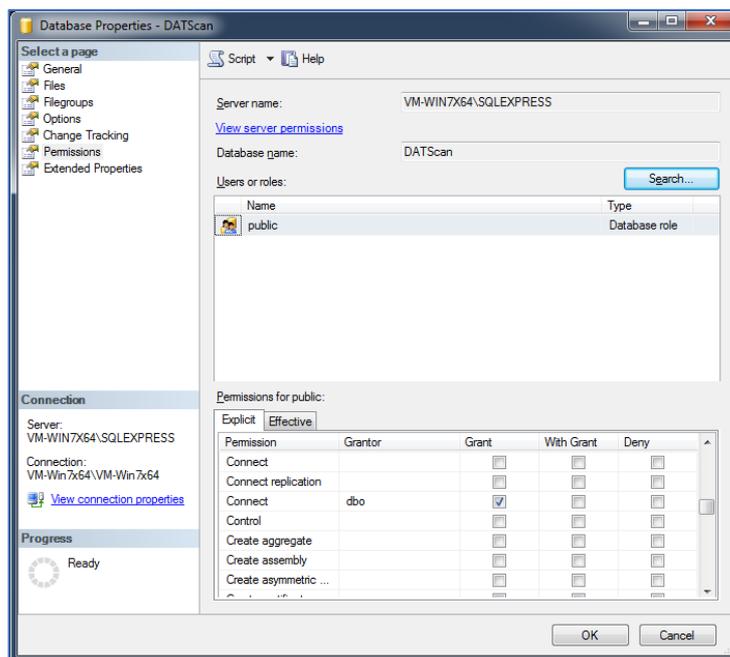


1. The computer node will need to be renamed (F2 in browser) otherwise ADO won't pick up the database configuration.

2. The Database Server needs to be renamed. Once this has been done ADO needs to be restarted from Control Panel. If successful you should see the ADO status being Open/Connected.
3. The Comms Object Site Short Name is used for creating new sites in the database. This should only be a few (less than 5) chars the I/O point number gets appended before the data is logged. Note: If you have several sites, you need different names for each site.
4. The TCP Port is probably fine using this as a default. But you may have to allow this on the Windows Firewall if a connection cannot be established (this may not be an issue as the installer will have already added QComms to the exception list).
5. (and 5.) The Comms Object Site Short Name and Site Address is used for creating new sites in the database. This should only be a few (less than 5) characters as the I/O point number gets appended before the data is logged.

TIP: As a test of the TCP connection/Port open etc, from a remote computer's command prompt enter: telnet [ip addr of DATAHost PC] 14124. The diagnostics viewer will report Socket Connection from 192.168.x.x

NOTE: Check that User has permission to access to the DATScan database. In the SQL Server Management studio, choose the DATScan database -> Properties -> Permissions:



The User must have permissions for connect and execute, insert, update, delete.

TIP: If we were having issues using the windows authentication you could try using SQL authentication, we can change the authentication to sql authentication as shown in the image below:



Troubleshooting

Issues with authentication

Change the Value of “Authentication” to “sql server authentication”, then add a node “Login” and set the value to the SQL username configured, add another node “Password” and set the value to the SQL password. This should resolve the windows authentication issues with domain accounts.

TIP: In the domain controller could be issues with starting DataHost services. In this case, you need to check that user was created and has permissions for login as service.

Service registration

If services of DataHost don’t register in a system, it can be done manually:
Command prompt run -> service name setup install username password.

Install

- > TBServer.exe setup install .\DataHost DataHost
- > TBdiagService.exe setup install .\DataHost DataHost
- > AdoDCMS.exe setup install .\DataHost DataHost
- > QTechComms.exe setup install .\DataHost DataHost

Uninstall

- > service name setup uninstall

Add firewall rules:

- > netsh firewall set allowedprogram "C:\Program Files (x86)\Qtech\DataHost\TBServer.exe" "Data Host Server" ENABLE SUBNET
- > netsh firewall set allowedprogram "C:\Program Files (x86)\Qtech\DataHost\TBdiagService.exe" "Data Host Diags" ENABLE SUBNET
- > netsh firewall set allowedprogram "C:\Program Files (x86)\Qtech\DataHost\AdoDCMS.exe" "Data Host Database Support" ENABLE SUBNET
- > netsh firewall set allowedprogram "C:\Program Files (x86)\Qtech\DataHost\QTechComms.exe" "Data Host Comms" ENABLE SUBNET

Additional Information and Support

If you have problems or need more information try the following:

- Visit the QTech web site for additional application notes or User Guides.
- Refer to the troubleshooting section if one is present in a User Guide.
- Contact the support desk via email (techsupport@qtech.co.nz) or phone 03 366 3713.

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