



tracerplus

connect

USER GUIDE

Mobile Data Synchronization Tool for
Android, iOS and Windows

TracerPlus Connect Version 10.8
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TracerPlus™ Connect

User Guide

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Version 10.8
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TracerPlus™ Connect

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Chapter 1: Introduction

1.1 What is TracerPlus Connect?

TracerPlus Connect is the simplest way for users to transfer data between their **TracerPlus** enabled mobile devices and many other data sources.

TracerPlus Connect is provided on a trial basis to offer hands-on experience with the **TracerPlus** suite of applications before buying. The 5 record limitation of the trial version is removed after purchase and registration.

1.2 How It Works

TracerPlus Connect is an all-in-one solution that allows for both wireless and batch syncing of data to and from a wide range of data sources, including MySQL, SQL, Oracle, Microsoft Access, Microsoft Excel, text files and many other ODBC compliant databases.

Highlights and Features of TracerPlus Connect

- Support for newer database and field types.
- Automatic licensing of mobile seats.
- Greater flexibility for syncing order.
- Expansive data filtering options.
- Wireless batch mode.
- Real-time data transfer.
- Unattended Windows Service capability.

1.3 TracerPlus Connect Support

As a registered **TracerPlus Connect** user, you receive free email support for **30** days from the date you purchase **TracerPlus Connect**. We encourage all users of **TracerPlus Connect** to visit our Support Center at <https://www.tracerplus.com/support/> for access to general Knowledgebase, frequently asked questions, training videos and other resources intended to speed the learning curve.

Users with Active Support or Maintenance Agreements for their related **TracerPlus Mobile Client** licenses receive unlimited phone and email support of **TracerPlus Connect**.

PTS also provides a series of free training webinars over the course of the year, with regular announcements via email. To begin receiving these announcements, join our [Mailing List](#).

Chapter 2: Installation

2.1 System Requirements

- A Windows PC running Windows Vista/7/8/10/11, or Windows Server 2003/2008/2012/2016/2019.
- Microsoft .NET Framework 4.8 SP1 or greater (You will be prompted for install if required).
- Android, iOS and Windows devices require a Wi-Fi, WAN or Ethernet connection to the same network the PC or Server Connect is being installed to.
- At least one Mobile Device or PC with the **TracerPlus Client** installed (Matching versions of **TracerPlus Connect** and the **TracerPlus Client** are required).

Note: Although not a requirement, we recommend you download and install **TracerPlus Desktop** for full functionality from **TracerPlus Connect**.

2.2 Installation

1. Download **TracerPlus Connect** from www.tracerplus.com or an authorized reseller and install to a PC that will be used to set up and administer the application.
2. When the Install Wizard Completed screen appears you have the option to **Launch Management Studio** upon clicking **Finish**.
3. Proceed to [Chapter 4](#) to learn how to configure a project.

2.3 Uninstalling TracerPlus Connect

In the unlikely event that you would like to remove **TracerPlus Connect**, follow these simple instructions.

1. Exit **TracerPlus Connect** if open and stop the **Sync Service** if running.
2. Open the **Control Panel** window on your PC.
3. Select **Add/Remove Programs** or **Uninstall or Change a Program** (depending on OS).
4. Locate **TracerPlus Connect** and select **Uninstall**.

Chapter 3: Registration

3.1 TracerPlus Connect Licensing Model

Starting In TracerPlus 10.5, the Licensing model for TracerPlus Connect has changed and no longer requires a registration code. **TracerPlus Connect** is now licensed per device that is syncing with the TracerPlus Connect application. This means a valid subscription account, trial account, or perpetual license code must be entered on the handheld that is syncing with the TracerPlus application.

To purchase **TracerPlus Licenses or Subscriptions** or for more information, please contact your authorized reseller or PTS directly at sales@tracerplus.com.

3.1.1 Issuing the Client Seats

TracerPlus Connect can limit the devices that are allowed to perform a synchronization. This can be done using the **Tools->Clients** dialog. By default, any device that initiates a sync will be automatically added to the client list as the devices connect and sync. To manually add clients and control the devices that can connect, turn off the **Auto add new device on first sync** option on the **Tools->Clients** dialog. Devices that are not in the clients list will not be authorized to sync with **TracerPlus Connect**.

Chapter 4: Configuring Synchronization Projects

4.1 Creating a New Project

A **Project** is a grouping of **Profiles** and **Processes**, used to define how data is moved from a data source to a data destination. Follow the steps below to create a new **Project**.

1. In the **File** menu, select **New** or click the **New Icon** on the toolbar.
2. Proceed to [Section 4.2](#) below to learn how to add a **Profile**.
3. To save your project, select **Save** or **Save As** from the **File** menu or click the **Save** icon on the toolbar.
4. To open an existing project, choose **Open** from the **File** menu or click the **Open** icon on the toolbar.

Note: You can also export a TracerPlus Connect project as a single file (**.tce**) which can be used for backup purposes and portability. To export a project, choose **Export** from the **File** menu and select a location to save to.

To import an existing project, choose **Import** from the **File** menu and choose the type of import. Choose **Close Current Project** to close the current project and import to a new project. Choose **Add to Open Project** to add the project to the bottom of your currently opened connect project.

4.2 Adding Profiles

A **Profile** is a grouping of individual data collection processes. A **Profile** is typically set up to perform a discrete set of tasks in which each process is used to perform a specific function. There are two types of profiles, **Sync Profiles** and **Live Profiles**. **Sync Profiles** are used to synchronize data between a source and a destination based on a defined interval or user action. **Live Profiles** create an always connected synchronization, where data is synchronized with the destination immediately.

4.2.1 Creating a Sync Profile

A **Sync Profile** allows data to be synchronized in a batch mode through a wireless or cradled connection. The synchronization moves data between a source and destination based on the **Sync Processes** defined within the **Sync Profile**. When running in a batch environment, the data will be synchronized at timed intervals or user-initiated syncs.

1. In the **Profile Explorer** window, click the **New Profile** icon.
2. Select **Sync Profile** from the **Create New Profile** dialog.
3. Select the **TracerPlus Desktop** project being used for this sync profile in the **Linked TracerPlus Desktop Project** field.
4. Click the **Create Profile** button to create the profile.
5. In the **Profile Configuration** window enter a **Name** for the profile.
6. Proceed to [Section 4.2.1.1](#) below to learn how to add processes to your profile.
7. A profile can be deleted, copied or moved up/down in order using the respective icons in the **Profile Explorer**.

4.2.1.1 Creating a Sync Process

1. In the **Sync Process** List window, click the **Add Process** icon.
2. **Name** the Process.
3. Add a **Comment** to further detail the process.
4. Select a **Source** and **Destination** for the process (See [Section 4.3](#) for more information on selecting a **Source** and **Destination**).
5. Configure **Field Mappings** as needed (See [Chapter 6](#) for more information on defining **Field Mappings**).
6. Repeat steps 1-5 to add additional processes.
7. **Save** your project.
8. A process can be deleted or moved up/down in order using the respective icons in the **Sync Process List** window.
9. A process can be moved to another profile by dragging it to the desired profile.

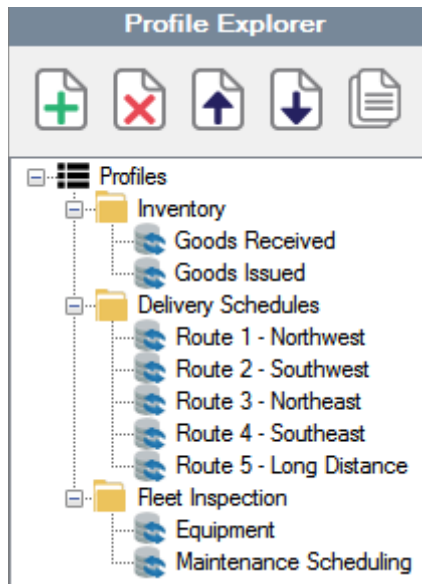
4.2.2 Creating a Live Profile

A **Live Profile** is an always open connection between a **TracerPlus** enabled device and a data destination. In a **Live Profile**, changes made on a device are immediately posted to the data destination in real-time; utilizing the device's built in Wi-Fi or WAN connection. Changes made to the data destination will also be seen immediately by the device.

1. In the **Profile Explorer** window, click the **New Profile** icon.
2. Select **Live Profile** from the **Create New Profile** dialog.
3. Select the **TracerPlus Desktop** project being used for this live profile in the **Linked TracerPlus Desktop Project** field.
4. Click the **Create Profile** button to create the profile.
5. In the **Profile Configuration** window enter a **Name** for the profile.
6. Proceed to [Section 4.2.2.1](#) below to learn how to configure **Live Processes**.
7. A Profile can be deleted, copied or moved up/down in order using the respective icons in the **Profile Explorer**.

4.2.2.1 Configuring a Live Process

1. In the **Session List** window, click a **Session** to configure (This will contain the number of sessions available in your linked **TracerPlus Desktop** project).
2. Add a **Comment** to further detail the process.
3. Select a **Live Datasource** to be used for the process (See [Section 4.3](#) for more information on selecting the **Live Datasource**).
4. Add your **Key Field (s)** using the **Add** icon.
5. Configure **Field Mappings** as needed (See [Chapter 6](#) for more information on defining **Field Mappings**).
6. Repeat steps 1-5 to configure additional sessions.
7. **Save** your project.



Sample Project:

The example to the left displays a project with three profiles containing different sets of processes. Each profile in this example demonstrates how profiles can be managed to address different business processes in your application.

4.3 Configuring Process Data Sources

In a process, a data source will need to be specified. When using a **Sync Profile**, both a **Source** and **Destination** must be configured for each **Process**. In a **Live Profile**, only a **Live Datasource** should be configured for each **Session** being used. See the sections below for configuring each type of **Process**.

4.3.1 Configuring Source and Destination for Sync Profiles

When a sync process is started, the data is transferred *from* the **Source** *to* the **Destination**. This configuration is accomplished via the steps shown below.

1. From the **Source** tab, select a data type from the **Type** drop down.
2. From the **Destination** tab, select a data type from the **Type** drop down.
3. For more information on source and destination types see [Chapter 5](#).
4. Configure field mappings as needed (See [Chapter 6](#) for more info).

4.3.2 Configuring a Live Datasource for Live Profiles

When using a **Live Profile**, TracerPlus enabled devices are always connected to the selected **Live Datasource**. In this type of profile, data will be stored and accessed directly from the **Live Datasource**. This configuration is accomplished via the steps shown below.

1. From the **Live Datasource** section, select a data type from the **Type** drop down.
2. From the **Key Fields** group box, press the **Add** button to add a Key Field for your data source (At least one key field is required).
3. For more information on data types see [Chapter 5](#).
4. Configure field mappings as needed (See [Chapter 6](#) for more info).

Chapter 5: Configuring Data Types

TracerPlus Connect currently supports the transfer of data between four data **Types** (**ODBC**, **Excel**, **Text** and **TracerPlus**). Upon making this choice, additional options are presented based on the data **Type** chosen.

5.1 ODBC Type Settings

Choosing **ODBC** allows you to sync data to and from most ODBC databases including (but not limited to) **SQL Server**, **MySQL**, **Oracle** and **MS Access**. When **ODBC** is selected, the following parameters can be set:

- **ODBC Datasource** – This is a list of available data sources already configured in the **Data Sources (ODBC)** component of your Windows operating system. Select the desired data source here.
- **Schema** – Enter your database Schema name (Optional).
- **Username** – If the database requires a username enter it here.
- **Password** – If the database requires a password enter it here.
- **Login** – Click this button after entering the **Username** and **Password**.
- **Table** – Populated after selecting the **ODBC Datasource** and entering the **Username** and **Password**, this allows you to select the specific table, query, view or stored procedure you want to sync data to and from.
- Configure **Advanced** options as needed (See [Chapter 7](#) for more info).

Note: To create a new Windows data source, see [APPENDIX A](#).

5.2 SQL Server Type Settings

Choosing **SQL Server** allows you to sync data to and from a SQL Server database. This can also be accomplished using the **ODBC Type** described above, however there are some speed improvements when using the **SQL Server** type. When **SQL Server** is selected, the following parameters can be set:

- **Server** – The SQL Server data source specified by IP address or host name.
- **Database** – The database instance required for the sync process.
- **Schema** – Enter your database Schema name (Optional).
- **Authentication** – The user authentication type to use to access the SQL Server database.
- **Username** – If the database requires a username enter it here.
- **Password** – If the database requires a password enter it here.
- **Login** – Click this button after entering the **Username** and **Password**.
- **Table** – Populated after selecting the **ODBC Datasource** and entering the **Username** and **Password**, this allows you to select the specific table, view or stored procedure you want to sync data to and from.
- Configure **Advanced** options as needed (See [Chapter 7](#) for more info).

Chapter 5: Configuring Data Types

5.3 Microsoft Excel Type Settings

Choosing **Excel** allows you to sync your data to and from a Microsoft Excel spreadsheet. When **Excel** is selected, the following parameters can be set:

- **Excel Workbook** – Click the **Folder** icon and select the Excel workbook you wish to sync data to or from.
- **Worksheet** – Populated after selecting your **Excel Workbook**, this allows you to select the specific sheet within the workbook to sync the data to or from.
- **Advanced** – After clicking the **Advanced** button, you can set the **Start Row** in which the data synced should start in the excel sheet. This is useful if you have column names and want to start on row 2.

Note: When syncing data to an excel sheet, the workbook must be closed for the process to run properly.

5.4 Text File Type Settings

Choosing **Text** allows you to sync data to and from a text file in a configurable format. When **Text** is selected, the following parameters can be set:

- **Select Folder** – Click the **Folder** icon and specify the folder where your text file resides.
- **Filename** – Populated after a folder is selected, this will display all .txt files found in the specified directory. Select the text file you wish to sync data to or from.
- **Create File** – If the text file does not exist, you can enter the name here and click this button to create the file. This file can be named with a **.txt** or **.csv** file extension.
- Configure **Advanced** options to specify the type of delimiter, set file uniqueness and define field attributes (See [Chapter 7](#) for more info).

5.5 TracerPlus Type Settings (Batch sync profiles only)

Choosing **TracerPlus** allows you to transfer data to or from your Windows Mobile/CE or Android device. This includes both session and dropdown data. When **TracerPlus** is selected, the following parameters can be set:

- **Session** – Select a session from the **Session** drop down. If a **TracerPlus Desktop Project** has been linked to the profile, the session names from that project are populated in this list. If you have not linked a **TracerPlus Desktop** project, this dropdown list is populated with default **TracerPlus Session** names.
- **Table** – Select **Session Data** from the **Table** drop down to transfer session data for the selected session. If syncing to a drop down field, select the drop down field from this **Table** list.
- Configure **Advanced** options as needed (See [Chapter 7](#) for more information).

Chapter 5: Configuring Data Types

5.6 Salesforce Type Settings (Batch sync profiles only)

Choosing **Salesforce** allows you to sync data to and from your **Salesforce** online data account. When **Salesforce** is selected, the following parameters can be set:

- **Use Sandbox Environment** – Enable this to test your Salesforce data syncing in a sandbox environment vs. a production environment.
- **Username** – This is your Salesforce username.
- **Password** – This is your Salesforce user password.
- **Login** – Click this button after entering the **Username** and **Password**.
- **Table** – Populated after selecting the **Salesforce Datasource** and entering the **Username** and **Password**, this allows you to select the specific table you want to sync data to and from.

5.7 Active Directory Type Settings (Live profiles only)

Choosing **Active Directory** allows you to authenticate users for TracerPlus access. When **Active Directory** is selected, the following parameters can be set:

- **Domain** – The IP Address or host name of the Active Directory domain to authenticate with.
- Configure **Advanced** options as needed (See [Chapter 7](#) for more info).

5.8 Custom Endpoint Type Settings (Batch sync profiles only, and only destination)

Choosing **Template** allows you to sync data to a number of different destinations. These currently include SMTP Email servers and HTTP servers. When the **Template** destination is selected, the following parameters can be set.

- **Report** – This is the template file that defines the layout of the data that will be sent to the Endpoint. This file is an XML document that describes the layout of the generated template. The configuration options for this are described in the **TracerPlus Print User Guide**.
- **Sender** – The Sender field is used to select where the generated template file will be sent when tags are read. The Sender currently includes sending the template to an SMTP or HTTP Server. To add senders to this list, click on the **Endpoints** button and follow the steps in **Section 5.8.1** below.

5.8.1 Endpoints

An Endpoint is a location in which the generated template can be sent. These include HTTP web servers or an SMTP mail server. The Configurations are detailed below.

SMTP Server

After selecting SMTP Server as an Endpoint, the generated template will be sent in an Email to the configured SMTP Server. The settings for the SMTP server depend on the settings required for the SMTP Server being used.

Chapter 5: Configuring Data Types

- **Host** – The Host or Address of the SMTP Server.
- **Port** – The listening port of the SMTP Server.
- **Username** – The username for a valid account of the SMTP Server.
- **Password** – The password of the user.
- **Sender** – The Email account from which the Email will be sent from.
- **Recipient(s)** – A comma separated list of Email addresses the email will be sent to.
- **Subject** – The Subject of the Email.

URL

The URL Endpoint option will make a web request to a URL when the template is generated and sent to the Endpoint. This allows a user to send web service requests to a server in a customized format such as JSON using standard web verbs such as GET, POST, PUT, etc.

- **URL** – The web server to use in the request.
- **Method** – The web server verb to use in the request. This allows REST type requests to be made with the generated template.
- **Content Type** – The Content type refers to the content of the data which is transferred to the HTTP server in the body. This is sometimes referred to as the MIME type of the HTTP request. Typically, this will need to be set to the expected type of the URL you are using as the End Point. Common values for this include application/json for JSON encoded data, or application/xml when sending a generated XML document to the URL.
- **Username** – If required, the username of the web server.
- **Password** – If required, the password of the web server username from above.
- **Logged in user** – when enabled, this uses the current logged in Windows user to access the web server. This can be used when connecting to a Microsoft IIS web server that requires Active Directory credentials.

Chapter 6: Source and Destination Field Mappings

Once the **Source** and **Destination** have been chosen, the next step in configuring your **Process** is to map your specific data fields in your **Source** to specific fields in your **Destination**. As data is transferred row by row, the source field data is transferred to the destination field data for each record. Mapping a particular source field to a corresponding destination field provides you with a high level of control over the placement of your data.

The **Field Mappings** are presented in two columns with a variable amount of rows. Each row represents a map between the source on the left, and the destination on the right.

6.1 Field Names

The presented field names for the source and destination datasets can be retrieved from the assigned data set. The method for importing the field names varies based on the **Data Type** you choose.

- **ODBC & SQL Server** – Field names are automatically retrieved from the table selected.
- **TracerPlus** – By default, the field names are generic (Field 1, Field 2, Field 3, etc.). However, specific field names can be populated by associating a **TracerPlus Desktop Project** (.tpp) to the **Sync** or **Live Profile**. Refer to [Section 4.2](#) for more information on this process.
- **Excel** – The field mappings for Excel files can only be associated with the column name of the selected worksheet and cannot be changed. Since Excel uses letters to define each column of data, **TracerPlus Connect** displays the **Field Mapping** as **A, B, C, D**, etc..
- **Text** – Text files will initially populate the field mapping grid with generic field names (i.e. Field 1, Field 2, Field 3, etc.). Field names can be modified by clicking the **Advanced** button for your **Text** source or destination. See [Section 7.3.4](#) for more information on customizing text fields.

6.2 Mapping Source and Destination Fields

Each field is individually configurable by clicking the field in the field mappings grid and selecting from the presented dropdown menu.

The Field Mappings Toolbar

Fields and rows can be modified by using the **Field Mappings Toolbar**. These tools can be used to move and delete individual fields, remove entire rows, reset mappings or clear the entire field mapping list.

- **Add Field** – This adds an additional field to the mapping for both the **Source** and **Destination**.
- **Remove Field** – If a particular field is selected, it removes it from the mapping and shifts all fields up. To remove an entire row, select the row from the left hand column.
- **Move Up/Down** – If a particular field is selected, it moves the field up or down in order. To move the entire row, select the row from the left hand column.
- **Reset Mappings** – This resets the field mappings to the default state.
- **Clear Mappings** – This removes all field mappings.

6.3 Advanced Field Mapping Options

Clicking the **Advanced** checkbox in the field mappings area will expose some additional settings. If you have the **UpdateExisting** or **UpdateExistingAppendIfNotFound** option set (See [Chapter 7](#)), you can choose what happens with data when it is synced from the Source to the Destination. The options are described below.

- **Overwrite** – This is the default behavior. If the “**Advanced**” checkbox is not selected, all source fields will overwrite their respective destination fields. Please note that these field mapping options are retained even if the advanced checkbox is un-enabled.
- **Sum** – This option adds the source field data value to the destination field data during a sync. This option only works with numeric values.
- **Subtract** – This option subtracts the source field data value from the destination field data value during a sync. This option only works with numeric values.
- **Do Nothing** – This option does nothing to the field during a sync.
- **Do Nothing When Null** – This option will do nothing to the destination field’s data if the source field’s data is blank or null.

Chapter 7: Advanced Configuration Options

7.1 Setting Options for Source Data (Available for Sync Profiles Only)

Options are available for setting properties on your defined source data such as removing data after a successful sync or filtering what data gets sent to the destination.

7.1.1 Delete After Transfer

Select this checkbox to delete the transferred data from the source upon successful sync. This option is ignored if there is any error during the sync process. It is also unavailable in Trial Mode.

7.1.2 Source Filtering

Located in the **Options** tab of the **Source** settings, adding a **Source Filter** allows you to control which data is synced to the **Destination**. A typical use for this is sending data to the **Destination** based on a location. To setup **Source Filtering**, follow the steps below.

1. Click the **Add** button to create a new filter.
2. Select a field to filter on from the **Field** drop down.
3. Select a **Comparison Type**:
 - a. **Equals (=)** – Data is only synced when it matches the entered **Value**.
 - b. **Not Equal (<>)** – Data is only synced when it does not match the entered **Value**.
 - c. **LIKE** – Data is only synced when it is similar to the entered **Value**.
 - d. **NOT LIKE** – Data is only synced when it is not similar to the entered **Value**.
 - e. **Greater Than (>)** – Data is only synced when it is greater than the entered **Value**.
 - f. **Greater Than or Equal to (>=)** – Data is only synced when it is greater than or equal to the entered **Value**.
 - g. **Less Than (<)** – Data is only synced when it is less than the entered **Value**.
 - h. **Less Than or Equal to (<=)** – Data is only synced when it is less than or equal to the entered **Value**.
4. Select the type of filter to be used from the **Type** drop down:
 - a. **Static** - This allows the user to set a pre-defined filter to use for the sync process. This cannot be changed at the time of sync.
 - b. **Dynamic** – This is a changeable filter that is driven from the connected device. This allows you to set the filter at the time of sync. See the **TracerPlus Desktop** manual for more information on setting up **Dynamic** filters.
5. Enter a **Value** that you want the filter to match.
6. To remove a filter, highlight the filter and click the **Remove** button.

Chapter 7: Advanced Configuration Options

Note: The **AND/OR** radio buttons located at the right side of the **Source Filtering** window are only applicable when more than one filter has been configured. This option can narrow results to a more specific set of data by either requiring all conditions to be met (**AND**) or at least one of the conditions be met (**OR**).

Example: Route Accounting

Different delivery lists are sent to different devices wirelessly using a central master delivery list. This is accomplished by setting a filter using the field in the database designating the driver's name, a **Comparison Type** of equals (=) and a **Value** of one of the driver's names that appears in the database.

Different Processes are created for each driver, with the Job List database as the source and the **TracerPlus Mobile Client** as the destination. The resulting sync profile then sends data to different devices simultaneously from a common Job List data table and each device receives different information based on the filtering.

7.2 Setting Post Type Options (Available for Sync Profiles Only)

The **Post Type Options** allow you to control how the data is posted to your destination. The options available are **Append**, **Overwrite**, **UpdateExisting**, **UpdateExistingAppendIfNotFound** or **DeleteExisting** and are explained below.

- **Append** – This takes the synced data and adds it to the existing data in your **Destination**.
- **Overwrite** – This takes the synced data and overwrites any existing data in your **Destination**.
- **UpdateExisting** – This takes synced data and updates rows in your **Destination** based on the Update Fields chosen. This does not add any new data if a row is not found.
- **UpdateExistingAppendIfNotFound** – This takes synced data and updates rows in your **Destination** based on the Update Fields chosen. This will also add any data rows not found in the **Destination**.
- **DeleteExisting** – This takes synced data and deletes rows in your **Destination** based on the Update Fields chosen. Data that does not match is ignored.

Note: When selecting one of the two **UpdateExisting** options, you need to specify fields in which to update the row based on. In most cases, this is set to a key field(s) in your **Destination**. Fields can be added and removed by using the **Add** and **Remove** buttons.

Note: When selecting **Overwrite**, you have the ability to add **Destination Filtering**. If used, you can specify a filter definition to use when deciding which rows in your destination to be overwritten. Rows that match this filter will be deleted. If a filter is not specified, then all rows in the **Destination** will be overwritten.

7.3 Data Type Advanced Options

Additional settings are available by clicking the **Advanced** buttons in the **Source** and **Destination**. Different options will appear based on the selected **Data Type**.

Chapter 7: Advanced Configuration Options

7.3.1 ODBC Advanced Options

In this area you can specify the file path to save signature and image data along with custom database date/time formatting. See below for the settings available in this section.

- **Binary File Path** – This field provides the ability to set a custom save path for binary files such as images and signatures transferred during the synchronization. The default location for this binary path is **C:\Program Files\PTS\TracerPlus Connect 10\Bin**. This path will be ignored if data is posting directly to an image or blob type field in a database.
- **Custom Database Formats:**
 - **Date** – Set a custom format for syncing date fields.
 - **Time** – Set a custom format for syncing time fields.
 - **Treat DATE types as STRING** – This allows your date/time data to be treated as a string instead of a date/time data type.
 - **Treat Numeric types as STRING** – This allows your numeric data to be treated as a string instead of a number data type.
 - **Convert signatures to JPEGs** – When enabled, converts signatures captured from a .bmp to a .jpg file.

7.3.2 SQL Server Advanced Options

In this area you can specify the file path to save signature and image data along with custom database date/time formatting. See below for the settings available in this section.

- **Binary File Path** – This field provides the ability to set a custom save path for binary files such as images and signatures transferred during the synchronization. The default location for this binary path is **C:\Program Files\PTS\TracerPlus Connect 10\Bin**. This path will be ignored if data is posting directly to an image or blob type field in a database.
- **Custom Database Formats:**
 - **Date** – Set a custom format for syncing date fields.
 - **Time** – Set a custom format for syncing time fields.
 - **Treat DATE types as STRING** – This allows your date/time data to be treated as a string instead of a date/time data type.
 - **Convert signatures to JPEGs** – When enabled, converts signatures captured from a .bmp to a .jpg file.

7.3.3 Excel Advanced Options

In this area, you can specify the data starting row and the file path for signature and image data. See below for the settings available in this section.

Chapter 7: Advanced Configuration Options

- **Binary File Path** – This field provides the ability to set a custom save path for binary files such as images and signatures transferred during the synchronization. The default location for this binary path is **C:\Program Files\PTS\TracerPlus Connect 10\Bin**.
- **Start Row** – This option allows you to control the row on which the data transfer begins. This is especially useful in cases where users have particular information in a header or column title row.
- **Auto-detect column data types** – When enabled, this feature uses a sample of the Excel data to appropriate a data type. This will not work if you use mixed data types in the same column.
- **Convert signatures to JPEGs** – When enabled, converts signatures captured from a .bmp to a .jpg file.

7.3.4 Text File Advanced Options

In this area, you can specify the type of delimiter to use, set file uniqueness and define field attributes. See below for the settings available in this section.

- **Delimited** – Sets the type of delimiter to use.
 - **Tab** – Data fields are separated by a tab.
 - **Semicolon** – Data fields are separated by a Semicolon (;).
 - **Comma** – Data fields are separated by a Comma (,).
 - **Space** – Data fields are separated by a single space.
 - **Other** – Data fields are separated by the character of your choice.
 - **Text Qualifier** – Surrounds each field of data with an Apostrophe (') or Quote (").
- **Fixed Width** – Each field is separated by a set width and is defined in the **Text File Fields** section.
- **Static File Suffix** – Appends the value defined here to the text file name.
- **Create Unique File Suffix** – Creates a unique file for each data sync. This is based on a **FileCounter** or **DateTime** and is appended to the file name.
- **Text File Fields** – Define field names and **Fixed Width** settings here. Fields can be added, removed or moved up/down using the navigation bar buttons.
 - **Name** – Specify a field name for each field. This is useful when mapping fields.
 - **Width** – Specify the width to be used for each field and is used with the **Fixed Width** option.
 - **Alignment** – Data can be aligned to the **Left** or **Right** when using the **Fixed Width** option.
- **Binary File Path** – This field provides the ability to set a custom save path for binary files such as images and signatures transferred during the synchronization. The default location for this binary path is **C:\Program Files\PTS\TracerPlus Connect 10\Bin**.
- **Convert signatures to JPEGs** – When enabled, converts signatures captured from a .bmp to a .jpg file.

7.3.5 TracerPlus Advanced Options (Sync Profiles Only)

In this area, you will be able to set the **Records per message**. By default, this is set to 10. Depending on the **Data Type**, setting this value higher can decrease the time it takes for the sync process to complete. Setting this value lower can also help with **Timeout Errors** during sync.

7.3.6 Active Directory Advanced Options (Live Profiles Only)

In this area, you can specify the user permissions when accessing your TracerPlus sessions. This allows you to give access to specific sessions on the handheld based on Active Directory Groups.

- **Groups or Usernames** – Add Active Directory **Users or Groups** to this list to specify which user or group has access to the selected sessions.
- **Permitted Sessions** – After adding Groups or Users to the Groups or Users list box, use the **Permitted Sessions** to turn on or off access to specific sessions using the checkboxes.

Chapter 8: Mobile Device and Application Specific Sync Settings

These settings are integrated into the **TracerPlus Client** application on the device and are exclusively configured within **TracerPlus Desktop**. Settings include the defining of **Hosts**, enabling **Live Sessions**, setting **Sync Timers** and configuring **Sync Conditions**. For more detailed instructions, see the [TracerPlus Desktop User Guide](#).

The options below are configured by navigating to **Connect** on the project navigation bar in the **TracerPlus Desktop** application.

8.1 Hosts

A host is a PC or Server that is running the **TracerPlus Connect** software. This allows a mobile device to connect to a specific **TracerPlus Connect** installation. To add a host, click the **Add** button and configure the settings below. A host can be removed by highlighting the row and clicking the **Remove** button.

- **ID** – Auto populated with a unique value, this **Host ID** is referenced when configuring **Live Sessions** (see [Section 8.2](#) below) and the **DoSync** (see [Section 9.2.1](#)) button action.
- **Host Name/IP Address** – This is set to the IP Address or PC Host Name of the PC or Server on which **TracerPlus Connect** is running.
- **Port** – The network port is used along with the **Host Name/IP Address** to make a connection to **TracerPlus Connect**. By default, **TracerPlus Connect** uses port **4403** for the Management Studio and port **4404** for the Sync Service (see [Chapter 11](#) for more information on setting up the Sync Service).
- **Scan QRCode** – When enabled, any sync button configured for the selected **Host ID** will prompt the user to scan a **TracerPlus Connect** QR Code. This QR code can be found above the **Profile Explorer**, or by using the Task menu.
- **Save Host** – When enabled, the QR Code that is scanned to initiate a sync will be saved so that the next time a user clicks this sync button, they will not be prompted to scan a **TracerPlus Connect** QR Code.

8.2 Live Sessions

Live Sessions allow the sessions in your **TracerPlus Desktop** project to operate in a live, real-time mode. To add a **Live Session**, click the **Add** button and configure the settings below. A **Live Session** can be removed by highlighting the row and clicking the **Remove** button.

- **Enabled** – Enables the selected session for **Live Mode**.
- **Session** – The **Session** from your project to be used in **Live Mode**.
- **Host ID** – The **ID** of the host defined in the **Hosts** (see [Section 8.1](#) above) section.
- **Profile ID** – The **Live Profile** to use as configured in **TracerPlus Connect**.

8.3 Sync Timers

Sync Timers allow setting of a time period at which a device sends or receives data without user interaction. The timer starts when TracerPlus is first opened and resets when TracerPlus is closed on the mobile device.

Chapter 8: Mobile Device and Application Specific Sync Settings

- **Enabled** – When enabled, this timer is active whenever TracerPlus is running on the device.
- **Interval** – The Interval defines how often this sync timer triggers while TracerPlus is running. This value is measured in seconds.
- **Host ID** – The **Host ID** identifies which host is used for the sync initiated by the timer. The **Host ID** refers to the ID as configured in the [Hosts Tab](#).
- **Profile ID** – The **Profile ID** identifies which **TracerPlus Connect** profile should be used for the sync initiated by the timer.

8.4 Sync Conditions

Sync Conditions define the conditions that need to be met to allow a synchronization to occur. Two condition types can be set, **DateTime** and **Database Count**. These are used to control either a **Timed Sync** or a sync initiated by a **DoSync** button action.

DateTime Condition

The **DateTime** condition enables a sync to only run before or after the specified time. If a specific window of time is required, that can be accomplished by using two unique **DateTime** Conditions; one specifying the earliest start time (**After**) and one specifying the latest start time (**Before**).

- **Before/After** – Select whether the time evaluation should be before or after the specified time.
- **Time** – Enter the time to use in this evaluation.
- **Message** – A custom message to display when a sync condition fails and the sync will not run.

Database Count Condition

The **Database Count** Condition controls when a synchronization can occur based on a session record count.

- **Session** – Select the project session to use for the record count evaluation.
- **Records** – Select the operator to use for the record count evaluation.
- **Value** – Select the value for the record count evaluation.
- **Message** – A custom message to display when a sync condition fails and the sync will not run.

Name

This is the name of the Sync condition. The user can rename a Sync condition rule here.

Profile ID

The Profile ID identifies which **TracerPlus Connect** profile should be used for the sync initiated by the timer.

8.5 Sync Feedback

Sync Feedback allows users to enable the Sync Progress dialog on the **TracerPlus Mobile Client**.

Display Sync Progress

Check **Display Sync Progress** to enable the displaying of a syncing progress dialog.

Chapter 8: Mobile Device and Application Specific Sync Settings

Auto close sync progress in

The amount of time the sync progress window remains open after a completed sync. After a successful sync, the user can also select the **Close** button. Setting this to “0” forces the user to close the sync dialog.

Chapter 9: Synchronizing Data

Once your **Profiles** have been configured, you are ready to synchronize your data. Data synchronization can be triggered using device sync settings described in [Chapter 8](#).

9.1 Synchronize Tab

Click the **Synchronize** tab to open the Synchronization screen. This screen contains two main sections; the **Profile Summary** tab section and the **Activity Monitor**.

9.1.1 Profile Summary

The **Profile Summary** section organizes your **Profiles** in a tabbed format. This screen allows you to view the current processes defined in the selected profile, enabled status, any comments set and the Last Sync information.

9.1.2 Activity Monitor

The **Activity Monitor** provides information about syncs as they are being performed as well as the current status of the **Sync Server**.

Sync Activity

This screen displays information during a sync as it occurs. It also displays any real-time clients currently connected. Information provided includes the client address, **Profile** and **Process** names and the progress of the sync. To cancel a sync while in progress, right-click the sync in the Activity table and click **Cancel**.

Server Status

This tab shows cumulative statistics tallied since the server connection was last started.

9.2 Synchronizing Using the TracerPlus Client

In most cases, the syncing of data is not performed while the device is cradled, but over a Wireless or Ethernet network connection. The synchronizations are triggered by the mobile device or PC; either by button action or a timed sync.

9.2.1 Data Synchronization by Button Action

To initiate a sync via a button action, a **DoSync** button is required on the form. Additional information on how to configure a **DoSync** button can be found in the [TracerPlus Desktop](#) user guide.

9.2.1.1 Scanning a Sync Barcode (QR Code)

If you have enabled the option to scan a QR code to sync described in [Chapter 8](#), the QR Code under the Profile Explorer can be clicked on to open the QR Code Dialog window. The following settings are available on this pop-up dialog:

Chapter 9: Synchronizing Data

- **Host Address** – Defaulted to current IP Address of this PC. Can be modified to use a different IP Address or host name.
- **Save QR Code** – Allows you to save the current QR code which can then be sent to other users to scan and sync to this instance of TracerPlus Connect.

Once this barcode is scanned by a TracerPlus Client, it will attempt to make the connection to this instance of TracerPlus Connect and sync any processes defined by the **Profile ID** specified for your **DoSync** button.

Note: The Sync Barcode can also be accessed by navigating to **View→Sync Barcode** or by pressing the **F5** key on your keyboard.

9.2.2 Data Synchronization by Sync Timers

To automatically initiate a sync on a specified interval, a **Sync Timer** must be configured in the **TracerPlus Desktop** project. Additional information on how to configure a **Sync Timer** can be found in the [TracerPlus Desktop](#) user guide.

Note: When performing either manual or timed syncs initiated from the client side to the **TracerPlus Connect Management Studio**, the **Studio** must be open and the **Server** must be running. An Alternative to leaving the **TracerPlus Connect Management Studio** running is using the **TracerPlus Connect Sync Service** discussed in [Chapter 11](#).

Chapter 10: Application Preferences

The **Preferences** dialog box contains sections for additional configuration of the **TracerPlus Connect Management Studio** and the **TracerPlus Connect Sync Service**. This dialog can be opened using **Tools**→**Preferences**.

10.1 TracerPlus Connect Management Studio Settings

Default Project Location

Use this field to set the **Default Sync Project Location** for saving and opening **TracerPlus Connect** projects.

Start Sync Server on Application Startup

This checkbox toggles whether the **TracerPlus Connect Sync Server** starts automatically when the **TracerPlus Connect Management Studio** is launched.

Sync Server Port

This field sets the port to be used for syncs using the **TracerPlus Connect Management Studio**. The default setting for this port is **4403**.

Sync Server Logging Level

This dropdown sets the level of detail that is recorded in the **TracerPlus Connect Management Studio Event Log**. See [Section 10.4](#) for more information on logging choices.

10.2 TracerPlus Connect Sync Service Settings

Active Connect Project (.tcproj)

Use this field to set the **TracerPlus Connect** project to use for the [TracerPlus Connect Sync Service](#). Click the **Use Current Project** button to select the currently opened project.

Sync Service Port

This field sets the port to be used for syncs using the **Windows Service**. The default setting for this port is 4404.

Sync Service Logging Level

This dropdown sets the level of detail that is recorded in the **TracerPlus Connect Event Log**. See [Section 10.4](#) for more information on logging choices.

Service Start Delay Time (Seconds)

Upon starting the service, you can set a delay in seconds of when the service should start connecting to the database allowing the database service to fully start before the Connect Sync Service starts.

10.3 General Network Settings

Encrypt Data

Check the **Encrypt Data** checkbox in order to encrypt sensitive data with 128 bit AES encryption.

Read Timeout

Sets the client timeout value. This value specifies how long the client will remain connected with no server activity.

10.4 Event Logging Options

TracerPlus Connect provides event log files for both the **TracerPlus Connect Management Studio** and the **TracerPlus Connect Sync Service**. Event logging provides system administrators with important information by recording any network failures or other errors that may occur during the syncing process. The level of reporting can be set by choosing from a series of options ranging from no reporting, to extremely detailed.

To view the event log, select **View** from the Menu and then select **Event Log**. To access the log archive, click the **Open Log File** button.

- **None** – If **None** is selected, no information is logged.
- **CriticalError** – If **Critical Error** is selected, only errors relating to significant sync problems or connection loss are recorded.
- **Error** – If the **Error** level is selected, the event log records all instances of both significant and smaller errors.
- **Warning** – If **Warning** is chosen, additional information regarding network issues which did not cause transmission errors is added to the event log.
- **Info** – If **Info** is selected, all primary connection and syncing events are logged. This includes all successful data transfers.
- **Verbose** – If **Verbose** logging is chosen, all syncing actions taken by **TracerPlus Connect** will be logged in detail.

Chapter 11: TracerPlus Connect Sync Service

The **TracerPlus Connect Sync Service** offers users the ability to run **TracerPlus Connect** as a **Windows Service**. The primary advantage of the Sync Service is the ability to perform syncs without the need to log in to the host PC.

11.1 Setting up the TracerPlus Connect Sync Service

To set up the **Sync Service**, a **TracerPlus Connect Project** must first be configured as described in [Chapter 4](#). After your **TracerPlus Connect Project** file is saved, follow the steps below to designate that project as the active project for the Sync Service.

1. Open the **TracerPlus Connect Management Studio** then select **Tools**→**Preferences**.
2. Select the project file to use for the Sync Service in the **Active Connect Project (.tproj)** text box. You can use the **Use Current Project** button to automatically select the current project open in Management Studio. Please make sure that this project is in a location accessible to the sync service.
3. Enter the port that your network will use for the **Sync Service**. The default is **4404**.
4. Select the appropriate level of event logging for the **Sync Service**. For more information on event logging, see [Section 10.4](#).
5. Click **OK**.

The Sync Service is integrated into the **Windows Service** environment. These applications do not have a user interface and any user messages are written to the **TracerPlus Connect Event Log**. These Services can be automatically started when the computer is booted and does not require a logged in user in order to run.

11.2 Starting and Stopping the TracerPlus Connect Sync Service

The **TracerPlus Connect Sync Service** is set to run automatically as the default, and will start up upon re-boot. In addition, a checkbox starting the Service is available during the installation of **TracerPlus Connect**. Although the service can be considered “always on”, no sync operations are performed unless a file path to a properly configured **.tproj** is set.

Note: If changes are made to the configuration of the **Sync Project** being used by the Sync Service, a restart of the Sync Service is required in order for the Sync Service to recognize the changes.

The **TracerPlus Connect Sync Service** can be manually started or stopped by navigating to the Start/Stop Service link located in the Windows Start menu. The service can also be restarted by right-clicking the **TracerPlus Connect Tray Monitor** located in the Windows System Tray.

Chapter 12: Viewing Data within TracerPlus Connect

The **TracerPlus Connect Data Viewer** provides a simple, read-only view of the source and destination data. The **Data Viewer** provides a set of tabs with all available **Profiles** contained in the **TracerPlus Connect** project. The active tab displays a selectable grid containing a list of all **Processes** included in the selected **Profile**.

This grid provides a quick option for selecting a **Process** to view the source and destination data. Once a process is highlighted, the data for that process is displayed in the **Source/Destination Data** tabs below. Click the **Refresh** button to update the data in this table.

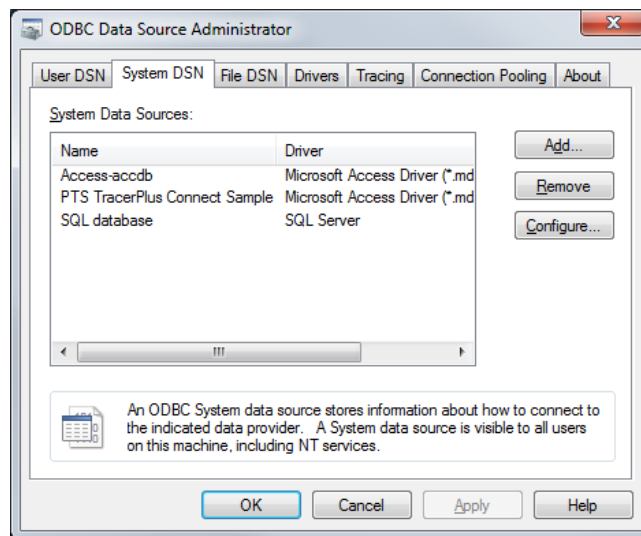
Appendix A: Connecting to an Existing Database

A.1 Creating a New Data Source Name to Connect to an Existing ODBC Database

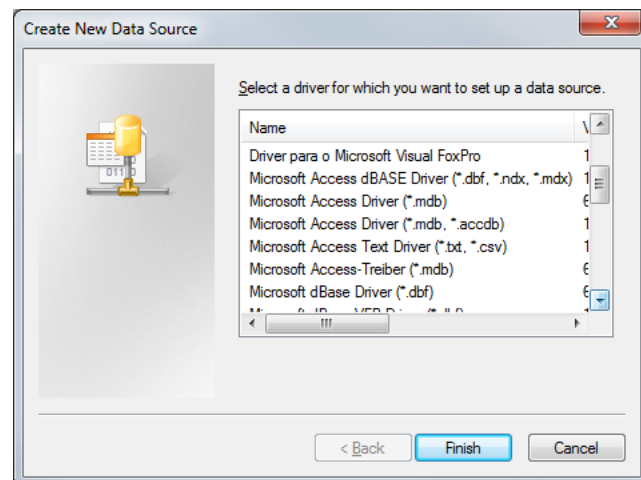
1. Navigate to and open the Control Panel window.
2. Select the **Administrative Tools** icon.

Note to users of 64 bit Windows PCs: Users must use the 32 bit ODBC admin tool. Rather than locating this panel as described above, navigate to the **C:\Windows\SysWOW64** folder and double click the **odbcad32.exe** file. Then proceed to **Step 4** listed below.

3. Double click the **Data Sources (ODBC)** icon.



4. Select the **System DSN** tab, and click the **Add** button.



Appendix A: Connecting to an Existing Database

5. Select the appropriate driver based on the database type you wish to use. If the desired driver is not present, consult your database user guide on how to install the proper driver.
6. Click **Finish**.
7. This will open the database **Configuration** window. Enter the relevant information about your DSN, and select the database file. The method for selecting the database will vary based on which type you are using. Refer to the built in Windows Help or your database user guide for additional information.
8. After completing the configuration, Click **OK** to close the **ODBC Data Source Administrator** control panel.
9. The database is now configured and will appear in the **ODBC Datasource** dropdown in **TracerPlus Connect**. If the database name is not visible, click the **Refresh Button** to update the dropdown list.

A.2 Using the TracerPlus Sample Database File

TracerPlus Connect is pre-configured with a sample database connection to Microsoft Access (.mdb). This file is automatically included in the **ODBC Datasource** dropdown for the ODBC data type and listed as **TracerPlus Connect Sample**. Its default location is: **C:\Program Files\PTS\TracerPlus Connect 10\Data**. For 64 bit PCs, the location is **C:\Program Files(x86)\PTS\TracerPlus Connect 10\Data**.