USER GUIDE

Mobile Data Synchronization Tool for Android, iOS and Windows

TracerPlus Connect Version 10.3
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TracerPlus™ Connect

User Guide

TracerPlus Connect
Version 10.3
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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

- Microsoft .NET Framework 3.5 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 3: Registration for registration and trial instructions.

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).
Chapter 3: Registration

Chapter 3 describes the limitations of the trial version of TracerPlus Connect, the licensing model and the registration process.

3.1 TracerPlus Connect in Trial Mode

TracerPlus Connect is available as a trial application; this allows potential users to test the functionality of the software without purchasing. Trial limitations include:

- Data transfer is limited to five records per synchronization process.
- The Delete After Transfer feature is disabled (e.g. data cannot be removed from a data set after a successful synchronization).

3.2 TracerPlus Connect Licensing Model

TracerPlus Connect is licensed per seat; a seat is the connection between TracerPlus Connect and a device licensed with the TracerPlus Client. The device can be registered with a Perpetual License or with a Subscription license. If using Perpetual Licenses, when placing orders for TracerPlus Connect, specify the number of seat licenses that you require, this is equal to the number of devices you want to use with TracerPlus Connect. Subscription users can simply purchase a subscription for each device being used which includes the seats for Connect.

3.2.1 TracerPlus Connect Primary and Satellite Installations (Perpetual License Only)

TracerPlus Connect is installed as either a Primary or Satellite installation. The primary installation is the only installation capable of license administration and should be the first installed. Administration includes the issuing and retiring of seat licenses purchased allowing your mobile devices to sync data with TracerPlus Connect. A satellite installation is only capable of syncing data. This type of installation is commonly used in locations where your mobile devices cannot communicate directly with the Primary installation.

The number of installations available to you is equal to the number of seat licenses purchased. This consists of a single primary installation and the balance in Satellite installations.

Example: The purchase of a 3 Seat License of TracerPlus Connect enables you to sync with up to 3 mobile devices and allows for the installation of one Primary and two Satellites.

3.3 Registering TracerPlus Connect (Perpetual License Model)

TracerPlus Connect is an application that requires registration for full functionality. In a perpetual licensing model, TracerPlus Connect requires that the connecting devices have registered versions of the TracerPlus Client. If either of these criteria is not met, TracerPlus Connect runs in trial mode.
Chapter 3: Registration

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

### 3.3.1 Registering the Primary License of TracerPlus Connect

1. After purchase, a confirmation email is sent including a **Redemption Link**.
2. Note the **Redemption Link** that corresponds to the TracerPlus Connect Primary license.

**Note:** This confirmation email contains a Redemption Link for this Primary installation as well as your Satellite installations. Please be sure to select the correct Redemption Link when making your request.

3. Navigate to **Tools->Registration** in TracerPlus Connect and enter the above **Redemption Link** to the **Redeem Code** field.
4. Click the **Key** button to register the software. You should receive a **Registration Successful** Prompt and a registration code should now show in the **Registration Code** field.

**Note:** If you do not have an internet connection you can register manually by clicking the **Redemption Link** you wish to register and completing the **Software Registration** form to request a registration code.

### 3.3.2 Issuing the Client Seats

After registration has been completed for both TracerPlus Connect and the TracerPlus Client, the device seats must be issued for each device syncing to TracerPlus Connect. By default, the issuing of seats is done automatically as the devices connect. To manually issue seats and control the devices that can connect, turn off the **Issue Device Seats Automatically** option on the **Tools->Registration** screen. After registration, devices that are not in the device list will not be authorized to sync with TracerPlus Connect.

**Note:** In certain instances, it is necessary to manually issue seats. This could include re-issuing seats in the case of a device replacement, or when testing. To issue seats manually, enter the **Device ID** into the **Issue Device** field of the **Tools->Registration** form, and click **Issue**.

### 3.3.3 Permanently Retiring Client Seats

If you wish to permanently remove a device from the table of assigned devices, you can retire the device. Retiring a device allows a new device to be issued in its place. This action cannot be undone, and should only be used if a device needs to be permanently replaced. To retire a device, open the **Tools->Registration** form, right-click the **Device ID** in the assigned devices table and select **Retire**. This is useful in instances where a device is no longer available to your installation (e.g. damaged, stolen, lost, etc.).

### 3.3.4 Registering Satellite TracerPlus Connect Licenses

To install a satellite copy of TracerPlus Connect, please follow the steps described in **Section 3.3.1** above, selecting a **Redemption Link** corresponding to one of the provided Satellite licenses. After satellite registration is complete, the seat licenses must be exported from the **Primary Installation** and...
imported into the Satellite Installation(s). This is necessary so that the Satellite Installation(s) has a valid list of device seats, allowing the devices to sync with these Satellite(s).

3.3.4.1 Import/Export of Seat License files

To Export the license file from your Primary Installation:

1. Launch the Primary Installation of TracerPlus Connect.
2. Select Tools→Registration and select the Export tab.
3. Click the Export button.
4. Select a location and filename for the Export file, and click Save.

To Import the license file to your Satellite installation:

1. Launch the Satellite Installation(s) of TracerPlus Connect.
2. Select the Tools→Registration menu option.
3. Verify that this Satellite Installation(s) is properly registered as discussed above.
4. Select the Import tab.
5. Click the Import button, and locate the previously created Export file.
6. Select the file, and click Open.

3.4 Registering TracerPlus Connect (Subscription Model)

In a subscription licensing model, TracerPlus Connect requires that the Connect software has been registered and that the connecting devices have been logged in to with an active subscription account. If either of these criteria is not met, TracerPlus Connect runs in trial mode.

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

A subscription model only allows for one user to be logged in per device at any given time meaning the same user can’t be logged into two different devices at the same time.
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.
Chapter 4: Configuring Synchronization Projects

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.
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 Template 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.
• **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

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 \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.

7.3.2 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 \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.

- **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 \Program Files\PTS\TracerPlus Connect 10\Bin.
Chapter 7: Advanced Configuration Options

- **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.

- **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).

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.

- **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.
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.

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 Synchronizing 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.

9.2.2 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 (.tcproj) 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 .tcproj 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.
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.