

SKYSOFT SYSTEMS

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inForm™ Access Connector 1.0

Microsoft Access Connector

User's Guide

SKYSOFT SYSTEMS INC.

# Access Connector User's Guide

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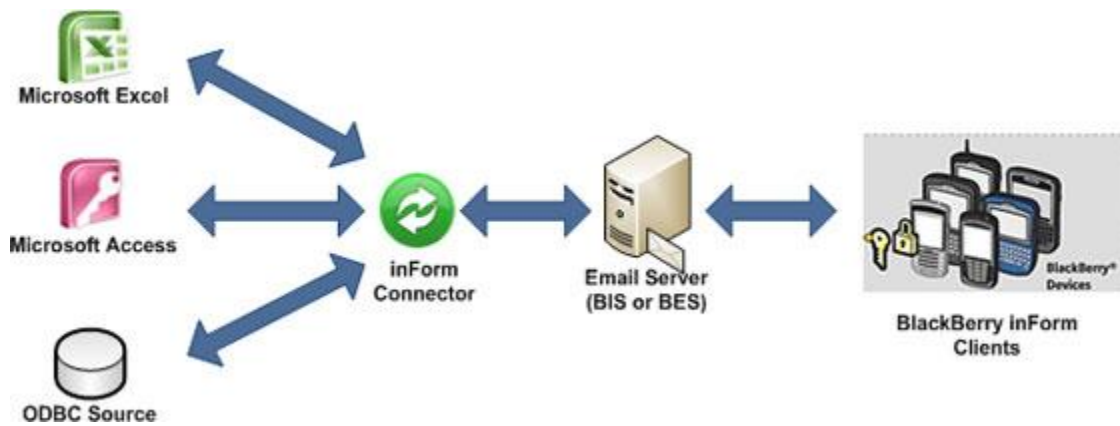


# 1 – inForm Access Connector

## inForm MS Access Connector Overview

The inForm Microsoft Access Connector allows organizations to wirelessly synchronize records between the inForm client on the BlackBerry Smartphone and a Microsoft Access Database.

The Access connector allows for robust data collection application to be created for the BlackBerry when used with the inForm BlackBerry client. In addition, two-way data applications can be created, such as dispatch applications, where records are pushed out to the devices from an Access Database.



**Figure 1 - inForm MS Access Connector**

The Access Connector uses the secure wireless email delivery capabilities of the BlackBerry to seamlessly synchronize records between any number of BlackBerry devices to either a new or existing Access Database. In addition to database synchronization, the Access Connector also creates a user interface to add and modify records based on the same inForm form definition (.mff file) that is used on the BlackBerry.

The purpose of this User's Guide is to help you both get started quickly with the Access Connector and also to provide a reference for your ongoing use of the application. If you have any additional questions or concerns with installing and using the Access Connector, please contact our support team at [support@skysoftsystems.com](mailto:support@skysoftsystems.com).

## System Requirements

- **inForm Device Requirement:** All BlackBerry clients using the Access Connector must first have the inForm application installed. Please visit [www.skysoftsystems.com](http://www.skysoftsystems.com) to obtain the application and license.
- **Access Connector License Requirement:** For each user on the Access Connector, a device license is required. Please visit [www.skysoftsystems.com](http://www.skysoftsystems.com) to obtain your Access Connector Device licenses.
- The access connector runs on any Windows 32 bit system. Windows Vista 64 bit is not officially supported, but may work running under X-86 mode.
- The system must have Microsoft Access installed on it, or be connected via the network to a machine that does have Microsoft Access.
- The RAM and Disk requirements are negligible provided that you are using less than 1000 BlackBerry devices with the solution. For higher capacity requirements, please contact [sales@skysoftsystems.com](mailto:sales@skysoftsystems.com)

## Getting Started

### Important Note

Because the system relies on email transport, there are often two issues that arise when configuring the Connector to be used within the organization:

1. **Email Spam Filters** – Spam/Junk mail filters can flag records coming from/going to the device. If you find that records do not sync between the device and database, this is typically the number one cause of such issues. Please ensure that there are no quarantines.
2. **Time Delays** – When running on BES, data exchange between the devices and servers is almost real-time. However, when running on BIS, there can be a delay between when the BIS server receives an email and relays it to the device. There have been delays observed up to 5 minutes in length. In addition, the POP/SMTP email server you have may introduce delay into the synchronization of records.

## Downloading and Installing the Application

First, download the application from:

[http://www.skysoftsystems.com/connector/access/inform\\_access\\_connector.msi](http://www.skysoftsystems.com/connector/access/inform_access_connector.msi)

Simply launch the installer to install the connector to the machine, and follow the installation prompts.

## Configuration

### Creating users

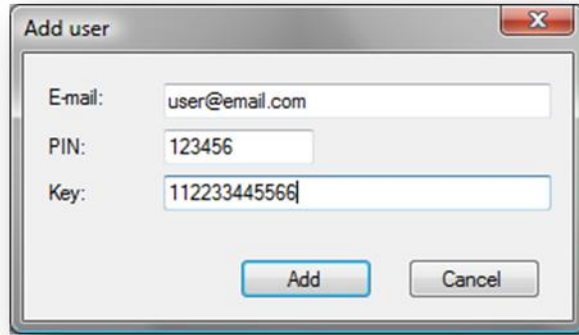
To add your users, you must have the email address connected to their BlackBerry device, their device PIN, and the license key for the user. To obtain the access connector license key please visit [www.skysoftsystems.com](http://www.skysoftsystems.com).

Select the User Icon as illustrated below in Figure 2:



**Figure 2 - Add Users**

This will take you to the user management screen. You then want to add a user by selecting the 'Add' button, and filling out the required information as illustrated in Figure 3



**Figure 3 - Adding a User**

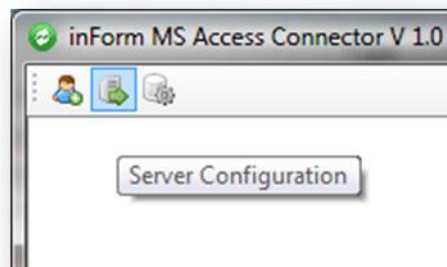
**IMPORTANT NOTE:** If a device has multiple email addresses attached to it, the email address you **MUST** use here is the one that the inForm application uses to send records from the device. You can determine this by loading the form onto the BlackBerry device and trying the 'Email' feature to send a copy of form output to your own email address. You can then determine the email address being used for the BlackBerry device.

### **Configuring the mail server**

The inForm solution relies on the secure email transport of the BlackBerry service (both BIS and BES). Form data is passed to and from the device using the email transport.

The mail server will be a single email account that you will use to securely send and receive data to and from your BlackBerry users. You only need to configure one mail account for the connector, and all forms can be sent to and from this account.

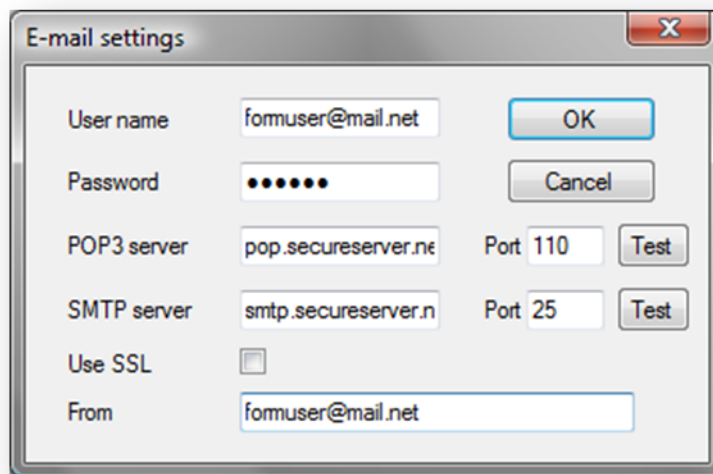
To configure the mail server, select the Server Configuration button from the main screen:



**Figure 4 - mail server configuration**



On the configuration screen, you will want to configure and test the POP and SMTP settings for the account you wish to use on your mail server as illustrated in Figure 5.



**Figure 5 - Configuring the mail server**

Once you think you have configured the mail server correctly test both the POP and SMTP connections by using the 'Test' button.

The key fields for the mail server:

- **Username:** The email account user name you wish to use to send and receive data
- **Password:** The password of the mail account
- **POP3 Server and Port:** The server address and port number for the POP connection
- **SMTP Server and Port:** the server address and port number for the SMTP connection
- **Use SSL:** Specifies if SSL must be used to connect to the mail server:
- **From:** The email address that will be seen on the device for records being sent from the server. To keep the configuration simple, we recommend simply using the email account name that is being configured.

**IMPORTANT NOTE:** We recommend creating a new and dedicated email account for the purpose of sending and receiving data using the inForm connector. If you try to use your existing email account you could run into technical issues, as the connector would be required to parse through many emails that are not intended for it when checking the mail

box.

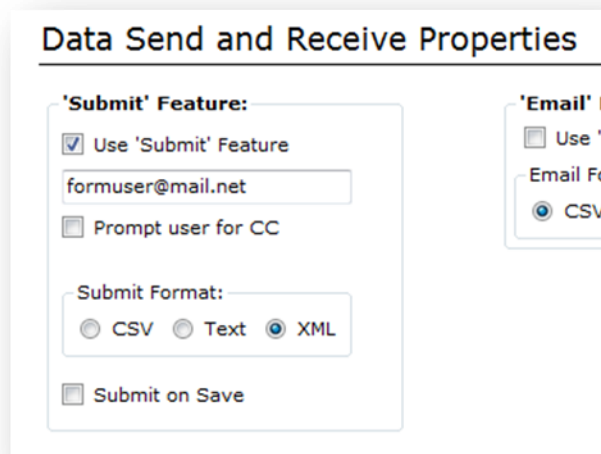
## Preparing the device Form.

Now that you've configured your users and your email server, you're ready to configure the form that you'd like to synchronize your data with.

In order for your form to work with the data connector there are 3 key settings you must enable in your form:

1. You must use the 'Submit' Feature
2. You must select the email address in the submit email that is identical to the email account you configured in the 'Configuring Mail Server' section of this document.
3. You must use the 'XML' format for form submissions.

This setup is illustrated below in Figure 6



The screenshot shows a dialog box titled "Data Send and Receive Properties". It is divided into two main sections: "Submit Feature" and "Email Feature".

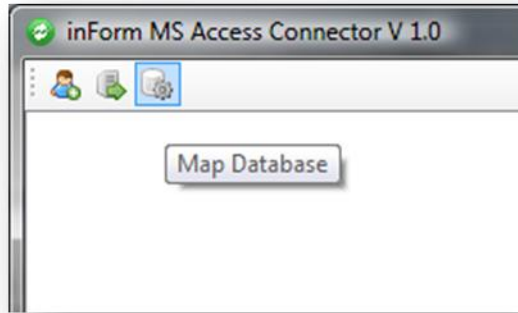
- Submit Feature:**
  - Use 'Submit' Feature
  - formuser@mail.net
  - Prompt user for CC
  - Submit Format:
    - CSV
    - Text
    - XML
  - Submit on Save
- Email Feature:** (partially visible)
  - Use 'E
  - Email For
  - CSV

**Figure 6 - Configuring your Form to use with the Access Connector**

Once you've updated the form, you want to send it to your form user devices using the inForm editor, and also save the resulting .mff file to a location that you can easily access it for the final step, which is the database mapping.

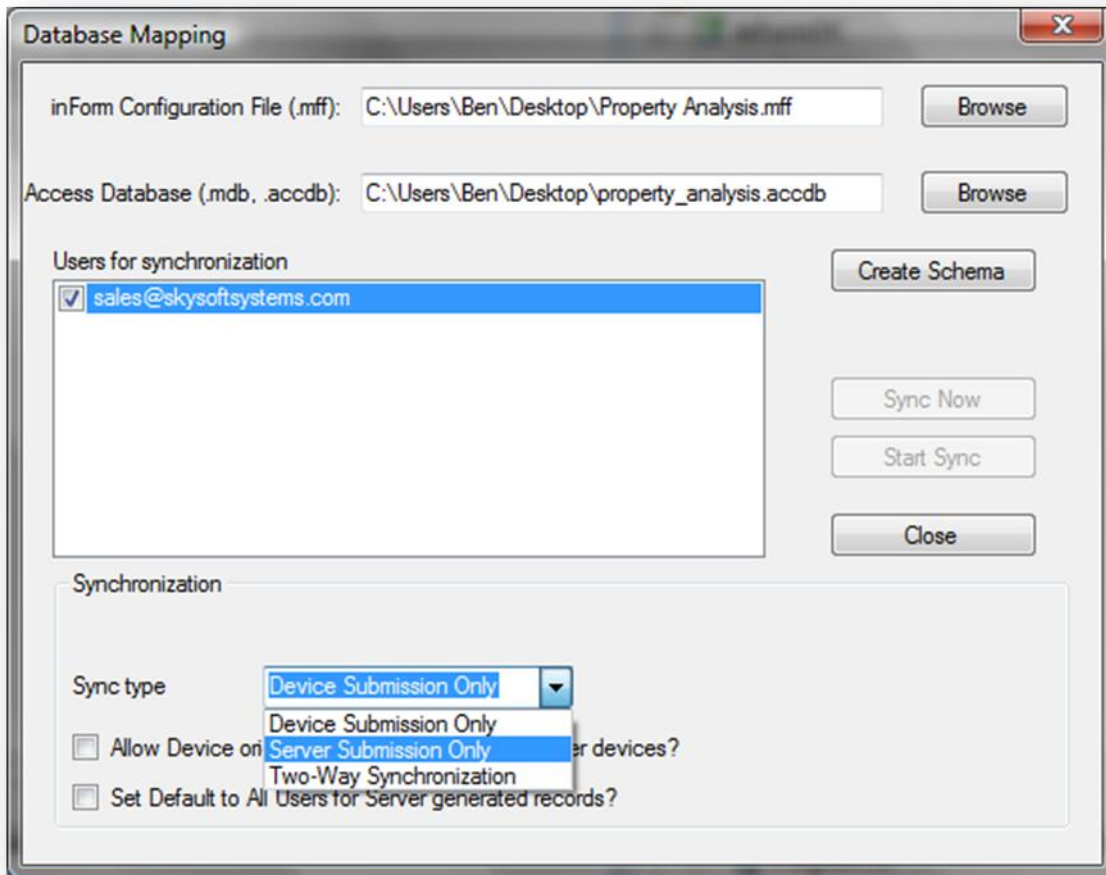
## Mapping the Database

Now that you have configured your users, the mail server, and you've prepared the Form, you're ready to the final step which is to map to the database. To start this process, select the 'Map Database' icon from the main screen as illustrated in the 'Map Database' icon.



**Figure 7 - Map Database Icon**

You will now be given the database mapping screen as illustrated in Figure 8:



**Figure 8 - Database Mapping Screen**

To successfully map the database, please follow the following steps:

1. Select the inForm configuration (.mff) file that you created using the inForm desktop editor. If you do not have the inForm desktop editor, please visit our website . You

can use the file browser to select the .mff file from your computer or a location on the network. (<http://www.skysoftsystems.com>) or contact [sales@skysoftsystems.com](mailto:sales@skysoftsystems.com)

2. Select the Access Database that you would like to synchronize to. You can use the browser to select the database from your computer or a location on the network.
3. Select the configured users you would like to synchronize the form with by checking the checkbox beside that user's email address. This user email address MUST have a BlackBerry device associated with it. This is an important step. You may have some forms you wish to synchronize with some users, and others you do not, so this step is important for determining which users you would like for the particular form that you have designed.
4. Select the Synchronization type:
  - a. **Device Submission Only** – Used for data collection. The server will only look for new records from the devices and insert them into the database.
  - b. **Server Submission Only** – Used for sending records to devices. Useful for forms that involve reference and lookup material.
  - c. **Two-Way Synchronization** – Used for two way applications, such as dispatch and work order applications, where it is required to both send forms to devices and collect results/completed forms.
5. Select Synchronization Options:
  - a. **Allow Device originated records to be sent to other devices** – When set to true, and when using two-way synchronization, this option will take a record sent from one device and send it to the rest of the devices in the form group.
  - b. **Set Default to All Users for Server generated records** – When set to true, this will mean that records entered in the form by default will be sent to all devices. This option applies to Server Submission and Two-Way Synchronization only.
6. Now that you've select your configuration, you're ready to Create the Schema in the target access database – Hit the 'Create Schema' button. You will get a report that the 'Schema was created successfully' and that the 'User Form' was created successfully.

7. To verify, you can now open the target Access Database and view the table that was created for your form, as well as the user form that is used for entering records.
8. You are now ready to synchronize your data with the device – please move to the next section.

## **Synchronizing data with the BlackBerry devices**

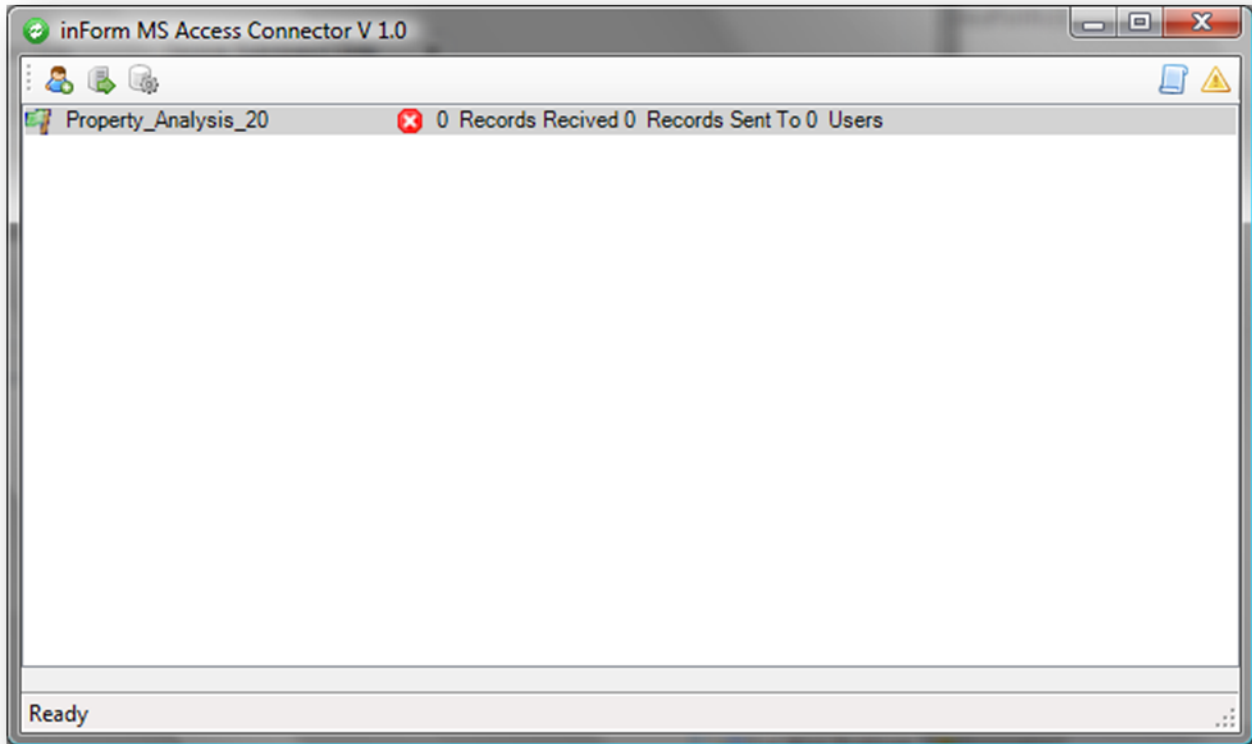
Now that you have completed the steps in all the prior sections of this document, you are ready to start synchronizing:

1. Hit the 'Start Sync' button on the Database Mapping Screen.
2. Close the window but hitting the 'Close' button.

### **Synchronization Status Screen**

You will now see the status screen as illustrated in Figure 9. The form name will be displayed along with the current synchronization status.

The inForm connector will continue running on the server if you minimize the window. In this event, you will see the inform connector icon in the status tray.



**Figure 9 - Sync Status Screen**

Some notes about the Screen Synchronization screen

- a. The Status update for records sent, received will not update until you open and close the application. This is not a reliable way to view the status of your records. We are working to improve this in subsequent releases of the product
- b. To stop the synchronization of a particular form, press the red stop icon. You will see that the status flag on the left changes color from green (running) to red (stopped). You can resume the synchronization by pressing the green sync button that took the place of the red icon.
- c. You can view the sync logs and the system log by clicking the icons in the top right hand corner of the main screen. These logs are useful for determining what types of issues you may be having if records are not syncing to the devices.
- d. If you wish to delete a form and no longer synchronize it, right click on the row, and select the 'delete' option.

# Using Microsoft Access and Understanding how Synchronization Works

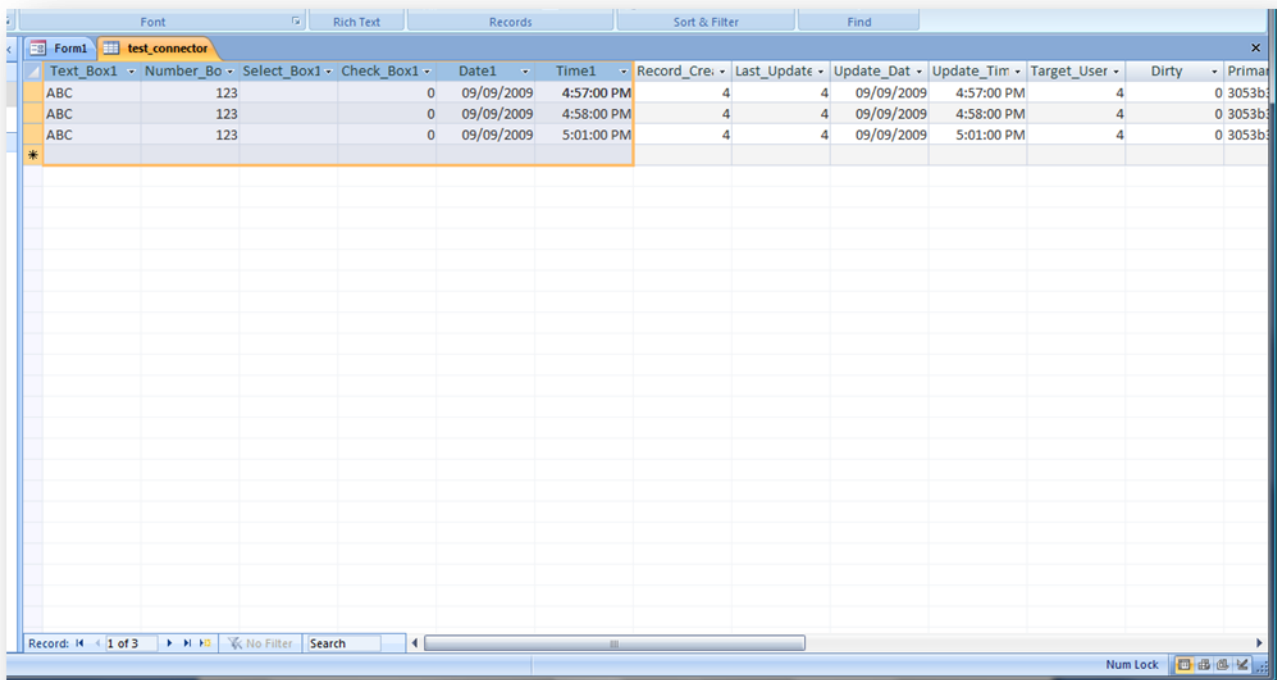
The Access structures created by the connector within your Microsoft Access file are the main table and a user form.

## The main table

The main table consists of two types of fields:

- a. The fields that you created for data entry and display on the device
- b. Control fields used by the application.

A sample table is illustrated below:



The screenshot shows a Microsoft Access form titled 'Form1 - test\_connector'. The form displays a table with the following data:

Text_Box1	Number_Bo	Select_Box1	Check_Box1	Date1	Time1	Record_Cre.	Last_Update	Update_Dat	Update_Tim	Target_User	Dirty	Primar
ABC	123	0		09/09/2009	4:57:00 PM	4	4	09/09/2009	4:57:00 PM	4	0	3053b
ABC	123	0		09/09/2009	4:58:00 PM	4	4	09/09/2009	4:58:00 PM	4	0	3053b
ABC	123	0		09/09/2009	5:01:00 PM	4	4	09/09/2009	5:01:00 PM	4	0	3053b

Figure 10 - Main Access Table

The following control fields are created by the inform connector:

- **Record\_Creator:** The creator of the record. This links to the user table which is also created in the database. Indicates if the record was created by one of the form users, mobile device, or the form.
- **Last\_Updated\_By:** The device or server that last updated the record.

- **Update\_Date:** The date of the last update
- **Update\_Time:** The time of the last update
- **Target\_User:** The target user for the form to be sent to. This can be one or all users. This is an important field that you must remember to fill out when creating records on the server side. If you are using the form to create records, the option is given to you.
- **Dirty:** This field is a Boolean field to indicate if the record is new. This is an important field if you are going to create records on the server side. If you set this to 1, then the connector knows it is a new record that needs to be sent to devices when two-way mode is being used.
- **Primary\_Key:** This is the globally unique key for the record. Since the key includes the originating device PIN, it is ensured that this record shall be globally unique no matter who/when created the record.
- **RID:** The record ID used by Microsoft Access to uniquely identify the record.

### The user form

The user form provides a convenient way to both review records submitted from devices, but also for creating records to be used in a dispatch scenario (sending records to individuals or groups) The user form is illustrated in Figure 11

The screenshot shows a user form titled 'test\_connector'. It features a blue header bar with the text 'test\_connector'. Below the header, there are several input fields arranged in a list:

- Text\_Box1:** A text input field containing the value 'ABC'.
- Number\_Box1:** A numeric input field containing the value '123'.
- Select\_Box1:** A dropdown menu.
- Check\_Box1:** A checkbox that is currently unchecked.
- Date1:** A date input field containing the value '09/September/2009'.
- Time1:** A time input field containing the value '16:57'.
- Target User:** A dropdown menu containing the email address 'sales@skysoftsystems.com'.

Figure 11 - User Form

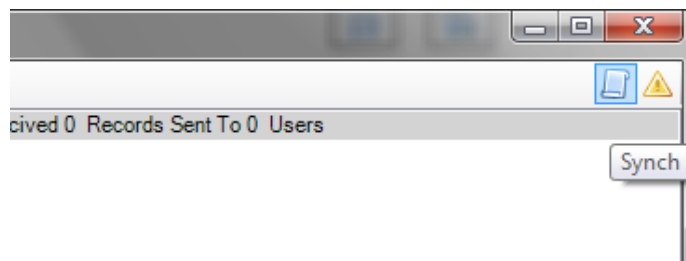
When using the user form in Two way, or Server submission mode, records are automatically sent to the target users once they are created (as the Dirty bit is set to 1).



## Troubleshooting

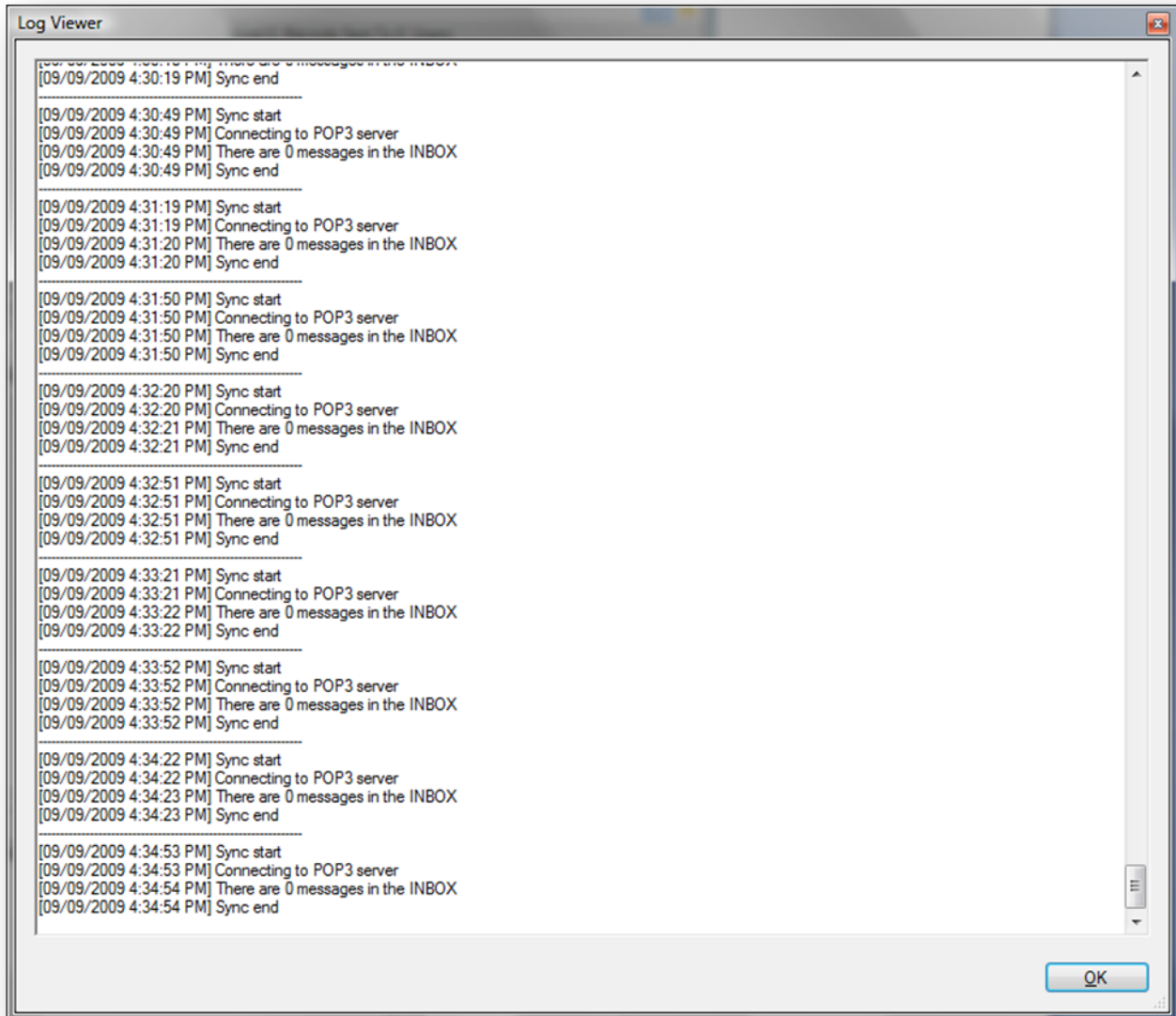
### Application logs

Your primary source of troubleshooting the connectors is to view the two main application logs, accessed from the top right hand corner of the main application window as illustrated in Figure 12.



**Figure 12 - Application Logs**

The Synch Log will show you all of the checks done to the target mailbox as well as database server, and will indicate if there are any problems. When you open the log, it will show you a history up to the most recent log entry, as illustrated in



**Figure 13 - Viewing the Sync Log**

The other log, the application log, will show any major system issues or starting/stopping of the application.

### **Email issues and the Connector**

Because the system relies on email transport, there are often two issues that arise when configuring the Connector to be used within the organization:

1. Email Spam Filters – Spam/Junk mail filters can flag records coming from/going to the device. If you find that records do not sync between the device and database, this is typically the number one cause of such issues. Please ensure that there are no quarantines.

2. Time Delays – When running on BES, data exchange between the devices and servers is almost real-time. However, when running on BIS, there can be a delay between when the BIS server receives an email and relays it to the device. There have been delays observed up to 5 minutes in length. In addition, the POP/SMTP email server you have may introduce delay into the synchronization of records.

## **Further Assistance**

If you have completed reviewing this user reference guide and still have issues getting the Access Connector functioning properly, please email [support@skysoftsystems.com](mailto:support@skysoftsystems.com) with details about your particular issue.