

# Childcare Sage Biometrics Manual

(Childcare and Preschool Management System)

## Version 11.7



The Childcare Sage Biometrics Manual explains how to add fingerprint scanning to the Childcare Sage Timeclock.

### Why You Should Use a Fingerprint Scanner for Timeclock Functions

Using a finger print scanner for signing in and out has many advantages over entering numbers into a keypad:

1. it takes less than a second to sign in and out,
2. users don't have to remember any numbers,
3. children can sign themselves in and out,
4. no one can sign another person in or out using the fingerprint scanner.

Number 4 is very important for 2 reasons:

1. staff members can not sign each other in and out, saving the center money,
2. fingerprint scanning can meet state requirements for physical signatures for adults signing children in and out.

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This Manual explains how to install, setup, and use the M2SYS BioPlugin package with the Childcare Sage Timeclock. Please keep in mind that we have 2 versions of our timeclock, a regular version and a version that supports fingerprint scanning. The timeclock that supports fingerprint scanning is automatically installed when you download the fingerprinting software and files. In this manual, the fingerprinting timeclock is called the FP Timeclock.

According to our research, this is the best biometric scanning solution available. However, there are other solutions available which don't offer the same functionality, and are not integrated into the Childcare Sage. We will only support the M2Sys Bioplugin Package when used with the Childcare Sage, and cannot support any other fingerprint solution.

If you can't find the answer to your questions in this Manual, please check the Childcare Sage Forums on our website, or email or call us.

## Why the M2SYS BioPlugin Package?

After trying numerous fingerprint solutions, we partnered with and integrated the M2SYS BioPlugin package into our Childcare Sage Timeclock.

### Why M2SYS:



Some fingerprint solution packages only pass the id numbers to the timeclock making fingerprint ONLY signing in and out impossible; other packages don't offer responsive customer service in case of a problem, or a complete hardware and software package which makes integration difficult. Only M2SYS offered all of these.

Beyond the software, the fingerprint reader is also very important to ensure reliable operation. The M2-EasyScan fingerprint reader offers an excellent combination of affordability, durability, accuracy, and speed. Plus, it comes with a 2 year warranty.

Unlike many fingerprint scanners on the market, this scanner has a small glass fingerprint scanning area which is durable, suitable for children, and is easily cleaned. Other scanners are not as child friendly because they cover the scanning area with a silicone membrane that children can pick at and scrape off. If this silicone membrane is damaged, the scanner must be replaced.



M2-EasyScan



USB Smartlock Dongle

The M2SYS BioPlugin software consists of 2 parts, the server and the client. The server is the piece that matches the fingerprints, and the client is the piece that captures and sends the fingerprint images to the server for matching. To run, the server requires that a blue USB Smartlock dongle be plugged into the computer that the Bioplugin server is running on. The USB Smartlock for the client software is built into the M2-EasyScan fingerprint scanner.

### Childcare Sage BioPlugin Package

The Childcare BioPlugin package comes with the M2SYS Bioplugin software (server and client), a blue usb smartlock dongle for the bioplugin server, an M2-EasyScan fingerprint scanner, Childcare Sage Fingerprint Registration software, and a fingerprint capable version of our timeclock. The package includes all of the software and hardware to setup up one fingerprinting timeclock. You can setup additional fingerprinting timeclocks by simply purchasing additional fingerprint scanners (please call us for current fingerprint scanner pricing.) To setup multiple fingerprinting timeclocks using one bioplugin package, all of the timeclocks must be networked together via a wired network.

## Adding Fingerprint Scanning to the Childcare Sage Timeclock

The Childcare Sage FP Timeclock is a different program from the regular Childcare Sage Timeclock and is installed with the fingerprinting files. The only difference between the timeclocks is the fingerprint functionality. Please read the Childcare Sage Timeclock Manual to learn how to use the Childcare Sage Timeclock.

In the instructions below the computer with the childcare sage installed on it (the childcare sage database which has the child records in it) is called the main computer, and the computer where the parents/staff/children will be signing in/out is called the timeclock computer. If you have multiple networked timeclock computers, there will be a main timeclock computer (with the timeclock files on it,) and other timeclock computers.

There are 4 different ways that a center can setup the Childcare Sage FP Timeclock: (each computer has a list of files/programs that will be on it)

**All files mentioned below are on the Childcare Sage Bioplugin Downloads webpage that you open from the download area of your account on our website. The files are:**

Childcare Sage:	Timeclock Link:	M2SYS BioPlugin Hybrid Server:	M2SYS BioPlugin Hybrid Client:	Childcare Sage BioPlugin Server Integration Files:	Childcare Sage BioPlugin Client Integration Files:
Childcare Sage	TC Link	M2SYS Server	M2SYS Client	Sage Server Files	Sage Client Files

**1) there is only 1 computer used for both the childcare sage and the fingerprint timeclock:**

**main computer:** Childcare Sage, M2SYS Server, M2SYS Client, Sage Server Files, Sage Client Files

**2) there is a main childcare sage computer and a separate networked fingerprint timeclock computer:**

**main computer:** Childcare Sage

**timeclock computer:** M2SYS Server, M2SYS Client, Sage Server Files, Sage Client Files

**3) there is a main childcare sage computer and a separate NON-Networked timeclock computer:**

**main computer:** Childcare Sage

**timeclock computer:** M2SYS Server, M2SYS Client, Sage Server Files, Sage Client Files

**usb drive:** TC Link

**4) there is a main childcare sage computer and multiple separate networked fingerprint timeclock computers:**

**main computer:** Childcare Sage

**main timeclock computer:** M2SYS Server, M2SYS Client, Sage Server Files, Sage Client Files

**all timeclock computers:** M2SYS Client (you need a fingerprint scanner for each timeclock computer.)

Before installing the Fingerprint Scanning Package, please setup the timeclock following the step by step directions in the Timeclock manual that correspond to your center's setup (separate networked timeclock, etc.) After you install and setup the timeclock, follow the steps below depending on which files/programs should go onto each computer from the list above.

### Installing the M2SYS Server

To install the M2SYS Server, click and run **M2SYS BioPlugin Hybrid Server** from our website. After running the file, do the following:

1. Click "Next" to proceed through the first two dialog screens
2. Read and accept the License Agreement
3. Click "Install"

The M2SYS BioPlugin Hybrid Server software will now be installed. You need to reboot the timeclock computer to finish the installation.

### Installing the M2SYS Client (\*\* if you have a 64-bit version of windows, click on the 64-bit client file \*\*)

To install the M2SYS Client, click and run **M2SYS BioPlugin Hybrid Client** from our website. After running the file, do the following:

1. Click "Next" to proceed through the first two dialog screens
2. Read and accept the License Agreement
3. Click "Install"

The M2SYS BioPlugin Client software will now be installed. Connect the USB M2-EasyScan fingerprint scanner to the computer when prompted at the end of the installation. You need to reboot the timeclock computer to finish the installation.

**Install the Sage Server Files**

Click and run **Childcare Sage v10.12 BioPlugin Server Integration Files** from our website.

**Install the Sage Client Files**

Click and run **Childcare Sage v10.12 BioPlugin Client Integration Files** from our website.

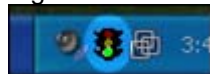
**Activating the M2SYS Client**

The BioPlugin Client license is built into the M2-EasyScan scanner. If the License Activation box appears when Microsoft Windows starts, plug the fingerprint scanner into a USB port.

**Setting Up the M2SYS Server**

After finishing the installations and rebooting, you will see a new "Traffic Light" icon in your system tray (bottom right of Microsoft Windows- figure 1.) This is the M2SYS Service Assistant, which shows you the status of the BioPlugin Hybrid Fingerprint Server and also lets you stop and start the Server software.

Figure 1:



**Server Setup**

Before the M2SYS Server will be able to run, you will need to "point" the server to the fingerprint database.

Figure 2:



1. Click the Start Button on the timeclock computer
2. Click Control Panel
3. If you see "Pick a category" at the top of the Control Panel window, click the Switch to Classic View link on the left
4. Double click the M2SYS BioPlugin Server entry (figure 2) from the Control Panel list to open the BioPlugin Server Preferences box (figure 3.)

**Setting the Database Configuration and Matching Threshold**

The Connection String under the Database tab of the BioPlugin Server Preferences (figure 3) points the server to the fingerprint database. The location of the fingerprint database is specified in the:

";Data Source=C:\ccsagetimeclock\ccsagefp.mdb;" part of the connection string.

Figure 3:

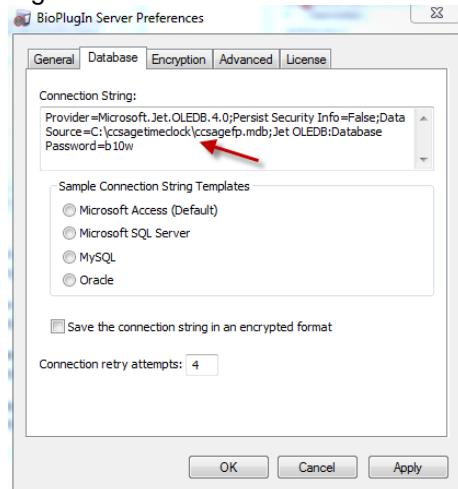
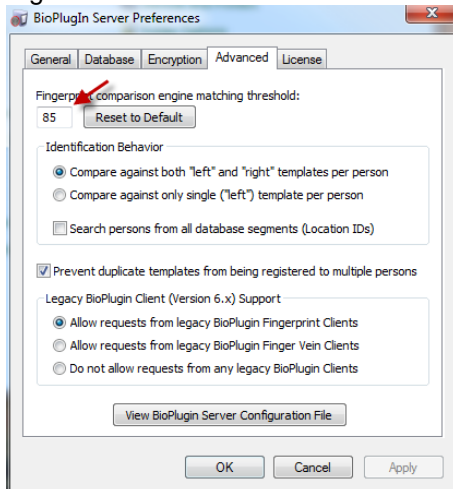


Figure 3a:



Please choose and follow the steps for the scenario that you have:  
(you should only change the section: ";Data Source= C:\Program Files\BioPlugin\Database.mdb;" to:)

**1) same computer for Timeclock and Childcare Sage:**

;Data Source=c:\ccsagetimeclock\ccsagefp.mdb;

**2) networked separate Timeclock computer:**

;Data Source=c:\ccsagetimeclock\ccsagefp.mdb;

**3) non-networked separate timeclock computer:**

;Data Source=c:\ccsagetimeclock\ccsagefp.mdb;

**4) networked multiple Timeclock computer:**

a) computer with timeclock files on it: ;Data Source=c:\ccsagetimeclock\ccsagefp.mdb;

b) client timeclock computers without the actual timeclock files on them: ;Data Source= X:\ccsagefp.mdb;  
(X is the mapped drive letter to the ccsagetimeclock folder on the computer in a) above)

By default, the Fingerprint comparison engine matching threshold (figure 3a) is set to 100. This requires a perfect match to identify a fingerprint (exact same finger position, tilt, etc.) and often requires a parent of staff member to scan their fingerprint 2 times to sign in or out. A higher number is required when you have many people using the fingerprint system (30,000 and up.) Since a childcare center will have at most 1,000 users, we recommend that you set the threshold to 85 to keep good accuracy while only needing 1 scan.

### Setting Up the Timesheet Loader

The steps below are also in the Timeclock manual:

If you have a separate timeclock computer, you need to setup the timesheet loader (figure 4) to point to the computer with the timeclock files on it or to the Timeclock Link.

Please open the Timesheet Loader setup tab from the System Setup screen opened from the Setup Menu of the Childcare Sage and choose the scenario that you have below:

**networked separate timeclock computer:**

change the TimeClock Directory and the FingerPrint Database Dir to: X:\

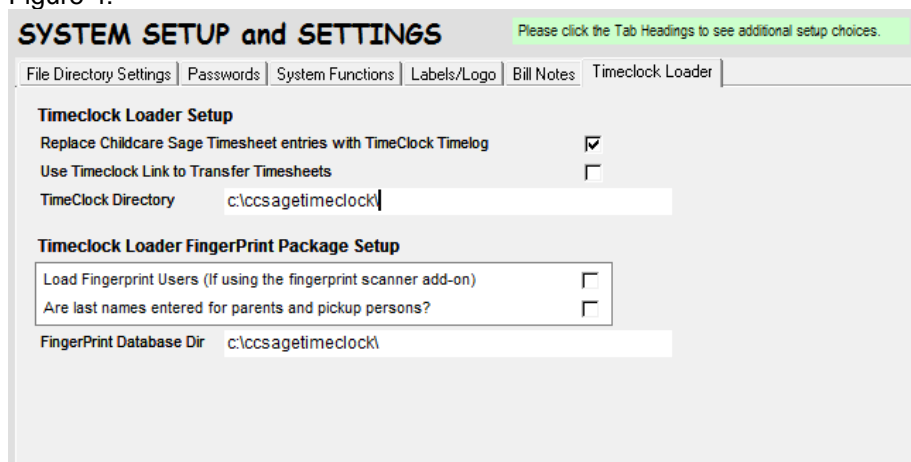
(X is the mapped network drive that points to the ccsagetimeclock folder on the timeclock computer)

**non-networked separate timeclock computer:**

change the TimeClock Directory and the FingerPrint Database Dir to: F:\

(F is the drive letter assigned to the USB drive which has the Timeclock Link (timeclocklink.mdb) file on it)

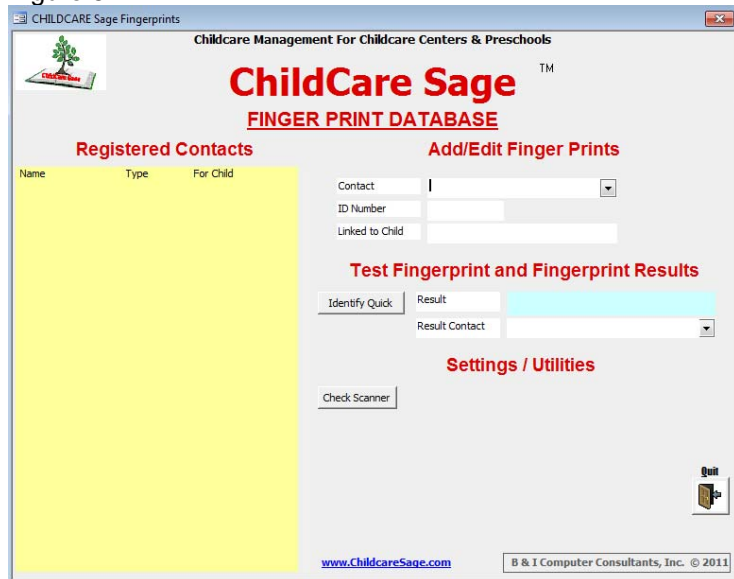
Figure 4:



If the M2SYS Server is installed on a different computer than the M2SYS Client, go into the Setup screen of the Childcare Sage Timeclock program and set the Server location.

## Using the Childcare Sage Fingerprint Database

Figure 5:



The Childcare Sage Finger Print Database stores fingerprints for the BioPlugin Server and lets you register, update, and delete users. All users are imported from the Childcare Sage. Users include Active Children, Staff members, and the parents and pickup persons for Active Children. Only users who have an ID number are transferred to the finger print database. (Master ID for the child and staff, ID Number for parents and pickup persons.)

The screen is broken into 2 halves, the left half shows registered contacts, and the right half displays functions. If the contact is a parent or pickup person, the associated child is shown in the “For Child” column.

The default **password** to open the Fingerprint Database is: password  
The change the password, click the B & I Software logo at the bottom of the screen.

### Add/Edit Finger Prints

When a contact is selected from the Add/Edit Finger Prints area (figure 6), either the Register button appears (if the contact selected is not listed in the Registered Contacts area)(figure 7), or the Update and Delete buttons appear (if the contact has been registered)(figure 8.) If the contact/user selected is a parent or pickup person, the associated child is displayed in the Linked to Child box.

Figure 6: Contact/User Selector

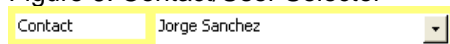


Figure 7: Select Unregistered User

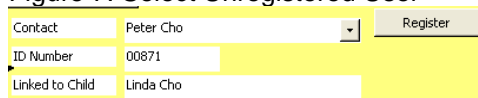
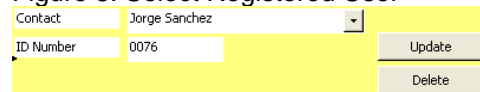


Figure 8: Select Registered User



**Register:** Runs the BioPlugin registration program that records the selected user’s fingerprint (figures 9-11)

Figure 9: Select finger to scan

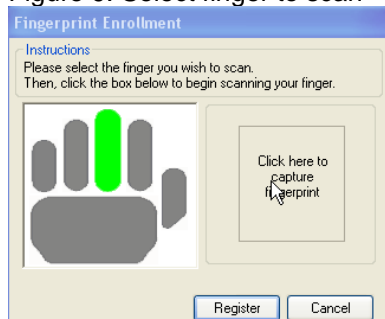


Figure 10: Scan finger 3 times

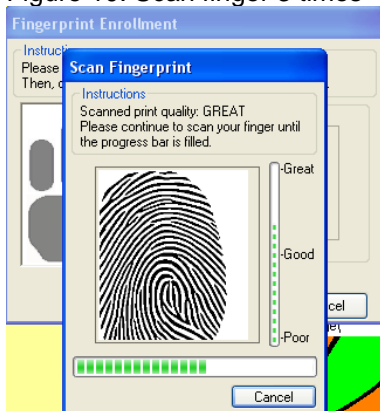


Figure 11: Register scan



Figure 10 can require more than 3 scans depending on the quality of each scan. After each scan, lift up your finger for a second and then place it back onto the scanner.

If the fingerprint you are trying to scan has already been registered, the Result box (figure 12) will indicate that and the scan will not be registered.

Figure 12:



Update: Runs the BioPlugin update program that rescans and re-records the selected user's fingerprints. Generally update is used if the user cannot Sign in/out using the fingerprint reader, or if the user's fingerprint has changed (cut, scarred, etc.)

Delete: Deletes the selected user's fingerprint records.

### Test Fingerprint and Fingerprint Result

This area gives you fingerprint status feedback, and lets you identify a user, or verify that the system can identify a user.

All system messages during fingerprint functions (User Registered, Fingerprint Not Found, User Deleted, etc) are displayed in the Result box.

Identify User: checks a user's identity and verifies that the system can recognize a user. If a user is listed in the Registered Contacts column, but the system cannot identify the user in the Result Contact box, please Update that user's fingerprints. Figure 14 appears when you click Identify User and the fingerprint scanner begins to flash. Once a fingerprint is read, figure 15 appears.

Figure 13:

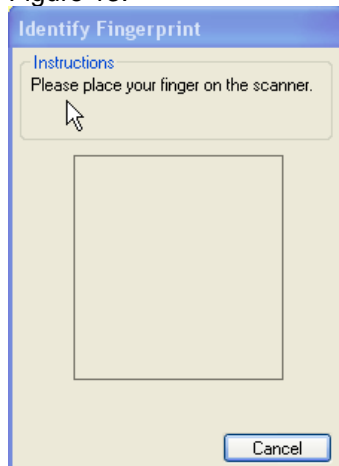


Figure 14:



Check Scanner: Makes sure that the fingerprint scanner is connected and working properly.

## Using the Childcare Sage Timeclock program with Fingerprint Scanning

The Childcare Sage BioPlugin Package adds fingerprint scanning capability to let users sign in and out on the timeclock using their fingerprint. Using the fingerprint scanning functionality is a simple as:

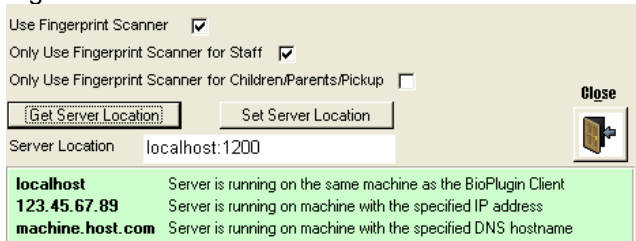
1. use the Fingerprint Database to Register users,
2. enable fingerprint scanning in the Timeclock Setup screen,
3. run the Childcare Sage Timeclock,
4. click Start Scanning,
5. have the user scan their finger.

## Setting Up Fingerprint Scanning in the Timeclock

Fingerprint scanning is enabled on the Setup screen of the timeclock. To open the setup screen:

1. click the Childcare Sage Logo at the bottom left of the Timeclock keypad screen, figure 17,
2. type in the Editor password,
3. click Setup from the bottom of the Edit Timesheets screen.

Figure 15:



Use Fingerprint Scanner: Turns on fingerprint scanning in the timeclock (the BioPlugin software must be installed, registered, and working for the scanning to work.)

Only Use Fingerprint Scanner for Staff: Controls whether staff can sign in/out using their ID number with the keypad, or if they can only sign in/out using the fingerprint scanner. Only Use Fingerprint Scanner for Children/...: same as above, but for children.

Get Server Location: displays the entered location of the Server in the Client setup.

Set Server Location: sets the location of the Server in the Client setup to the value in Server Location.

**If you have multiple timeclock computers, you must network all of them together, and you must put the network name of the main timeclock computer in the Server Location (figure 15) and click Set server location.**

## Using Finger Scanning in the Timeclock

Figure 16 shows the timeclock in fingerprint scanning mode. The Scan Fingerprint box captures the fingerprint and enters the User's ID number behind the scenes in the same way a user would enter their own ID number.

Figure 16:

