# Central Christian Church Check-In Wizard

# **Administrator Guide**

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# Arena Community Documentation Arena 2009.2



# **Revision History**

Version	Date	Editor(s)	Description
1.0.0	3/3/2009	Nick Airdo	Initial Version w/contributions by Jason Offutt
1.1.0	5/18/2009	Nick Airdo	Added support for Attendance Type "Membership Required for Check-In" linked to Tags. Also added a section on how to enable multiple, upcoming (future) service check-in and added an Other Things to Consider section with details about SQL jobs we run.
1.2.0	10/19/2009	Jason Offutt & Nick Airdo	Updating documentation for Check-In Wizard v1.2.0.
1.2.1	5/21/2010	Nick Airdo	Adding a dependencies section

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### **Release Notes**

#### v1.2.0

- Added support for "At Kiosk" and "At Location" printing.
- Added support for print labels via Reporting Services.
- New Feature: Application Logging Will log information for each attendee and detail which Occurrences the system attempts to match them to.
- New Feature: Room Balancing New extended attribute to denote whether or not an Attendance Type is "Room Balancing". If an Attendance Type is flagged for room balancing and has multiple locations tied to it, the system will now check attendees into the room with the smallest head-count.
- Added support for Maximum People on Locations.
- Ctrl+Shift+R hot-key activates Family Registration page.
- Option to display room/location name on standard check-in label nametag.

#### v1.1.0

- Added support for Attendance Type "Membership Required for Check-In".
   Attendance Types linked to Tags which have 'membership required' will now only match if the person is a member of the tag.
- Bug fix for installations that do not have the GradePromotionDate org setting.

#### v1.0.3

Optimized/simplified last change

#### v1.0.2

• Fixed bug in DateUtils.dll (GetFractionalAge) having to do with people having birthdays on or around the current day.

#### v1.0.1

• Now includes the SQL scripts in the zip file.

#### v1.0.0

• Initial version - works with Arena 2008.3



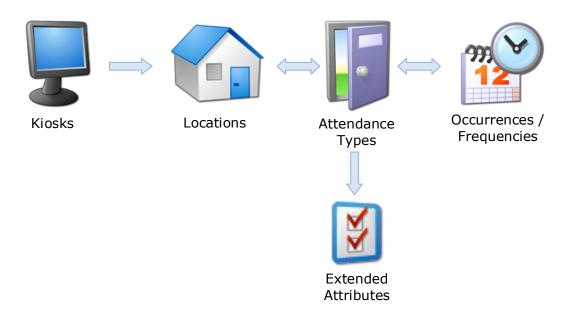
### Introduction

The Central Christian Church Check-In Wizard is purely a web-based application. It uses much of the existing Arena system and basically adds a few new attributes to the Arena Check-in Attendance Types. These new, extended attributes are: the ability level, last name criteria, and special-needs flag. A firm understanding of Arena's Kiosks, Locations, and Attendance Types is still needed to successfully use the Check-In Wizard.

For example, to set up a "centralized" check in system where multiple kiosks at a campus can be used to check children into the appropriate class, the following **must** be done.

- 1. Register each kiosk using Arena's Check-In application.
- 2. For each kiosk, select all the appropriate Locations.
- 3. Define the needed Attendance Types and tie each to the appropriate location.
- 4. If needed, define an Extended Attribute (custom) for each Attendance Type.
- 5. Setup the necessary Occurrences or Frequencies for each Attendance Type.

The following diagram depicts the relationship between kiosks, locations, attendance types, and occurrences.



In order for the system to function properly, each of these pieces must be properly configured or defined.

### **Check-In Wizard Overview**

### **How It Works**

As long as the check-in start time has begun, the Check-In Wizard matches children to a particular classroom (a.k.a. an Occurrence of an Attendance Type) based on the following:

1. The grade of the child matches the Attendance Type min/max grade **or** the age of a child matches the Attendance Type min/max age.

NOTE: as of version 1, a single Attendance Type cannot be used to match either based on grade or age. Instead, two separate Attendance Types must be used – one matching by grade the other matching by age.

- 2. The gender of the child matches the Attendance Type (if the Attendance Type has one gender designated).
- 3. The child's ability level, last name and special needs flag match those settings on the Attribute Type's Extended Attributes (Figure 1).
- 4. Additionally, if the Attendance Type "requires membership" then the child must also be a member of the tag that is linked to the Attendance Type.<sup>1</sup>
- 5. Matches are made *from the bottom to the top*. As soon as a matching classroom is found the matching process stops.

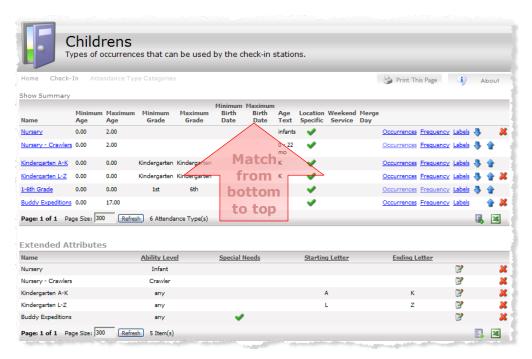


Figure 1- Attendance Types with Extended Attributes listed below.



<sup>1</sup> as of version 1.1.0

### **What Check-in Looks Like**

The flow of a family check in will look something like the following:

**Pre Check-in** – count down until check-in start time



Step 1



**Step 2** – if searching by phone

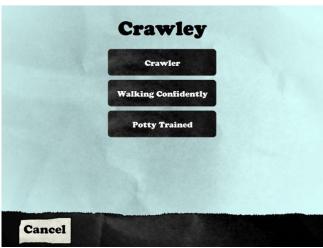




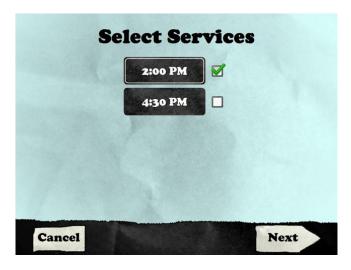
**Step 3** – if the family has more than one child



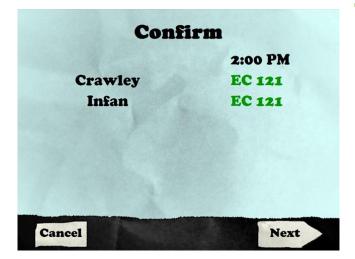
**Step 4** – if the child is not already at the maximum ability level, the parent can record the child's ability level. Ability levels lesser than the child's current level are not shown.



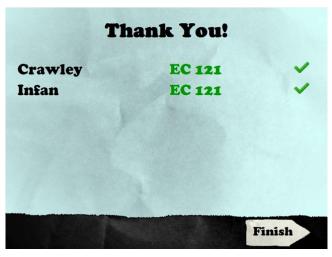
**Step 5** – if there are multiple services (attendance type occurrences) in the system



## Step 6



# Step 7



# **Managing the Check-in System**

### Setting Up a New "Class"

A "class" is simply an Attendance Type which occurs with a certain frequency (Ex., Sunday at 9am) in a particular location.

### **Attendance Type**

To set up a new class, create an Attendance Type as you normally would by specifying the class name, an age or grade range, a gender preference and a primary location as shown in Figure 2.

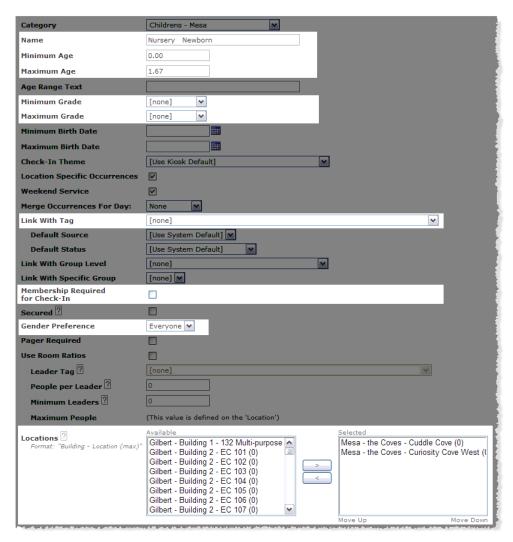


Figure 2 - standard Arena Attendance Type

As of v1.1.0 if you want to limit a particular Attendance Type to only people who are "registered" you can use the **Link With Tag** and check the **Membership Required for Check-In** checkbox. This is quite useful if you require that people pre-register for your Vacation Bible School (VBS) classes and only want registered kids to be able to check-in.



### **Extended Attributes**

Next, if needed, create an Extended Attribute for the Attendance Type as shown in Figure 3.

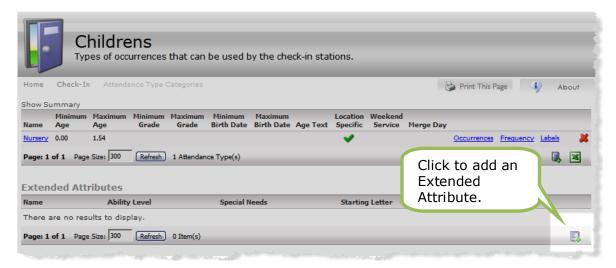


Figure 3 - new, custom Extended Attribute List

Specify whether or not the class is for special needs children, optionally choose one or more ability levels, and specify a last name range if desired. As of v1.2.0, if you check the Room Balancing checkbox, each location specified for the Attendance Type will be used to automatically keep the class size balanced.

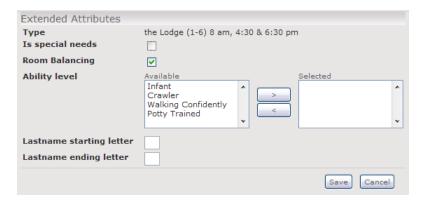


Figure 4 - Extended Attributes for an existing Attendance Type

Now, children who have matching values will be eligible to attend this class.

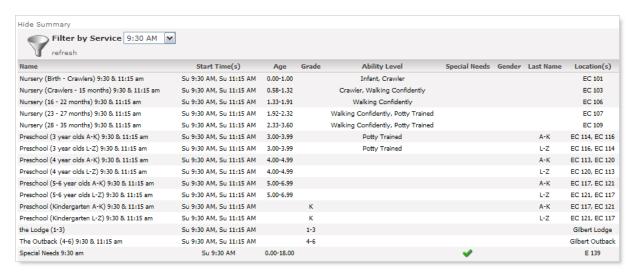
Lastly, configure a frequency for occurrences of the Attendance Type.



### **Realistic Classroom Setup**

The following depicts our actual classroom configuration for the 9:30am service on our Gilbert campus.

As you examine each row, remember that children are **matched from the bottom to the top**.



Note that the Special Needs class covers a very broad age range, but because the Special Needs flag is set to true, only those kids who's Special Needs flag (person attribute) is true will be matched to that classroom.

Note how several of the records have a second location listed. The second location is the alternate and is **only used** if the **primary location** is **closed**.

Note how the **age ranges in the first two rows overlap**. The second row will match children older than 7 months who are either crawling or walking and place them in room EC 103, while even children older than 7 months who are not crawling would be matched to the first row and be placed in room EC 101.



# **Check-in For Multiple, Upcoming (Future) Services**

If your church is like ours you might want to allow parents to check their children for multiple services (such as the 9am service **and** the 11am service). We allow this primarily for the people who sit for one service and serve on campus for the second one.

In order for the check-in system to know about the future occurrences, we simply run an additional SQL Job using the standard core\_sp\_generate\_active\_occurrences procedure as described in the SQL Server Agent Jobs section (pg 25).

In the scenario where a child has been checked into multiple classes, with our custom Print Label provider we print only one set of labels, however our "attendance label" includes a note indicating that the child is staying for two services. (See the Default Attendance Label section for details.)



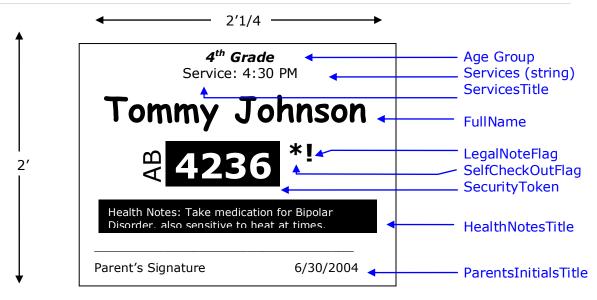
### **Standard Check-in Labels**

The Check-In Wizard comes with a default component for printing check-in labels to label printers in the classrooms or (as of v1.2.0) at the kiosks as well as an alternative provider that will work with Reporting Services. The Check-In Wizard's printing functionality can be replaced by another community created component or your own by implementing our IPrintLabel provider. Refer to the Central Christian Church Check-In Wizard Developer Guide for additional details on creating new providers.

The default printer labels are a set of three labels (a nametag, a claim card, and an attendance label) and are shown below. This default provider also uses the default Security Code provider to generate the security token shown below.

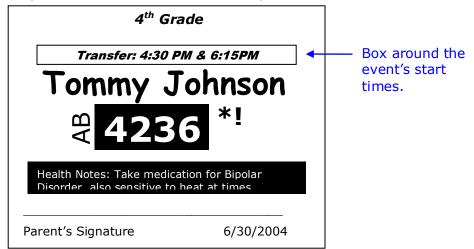
Parts of the label can be customized. See Organization Settings - Cccev Check-in Labels (pg 21) for details.

### **Default Attendance Label**

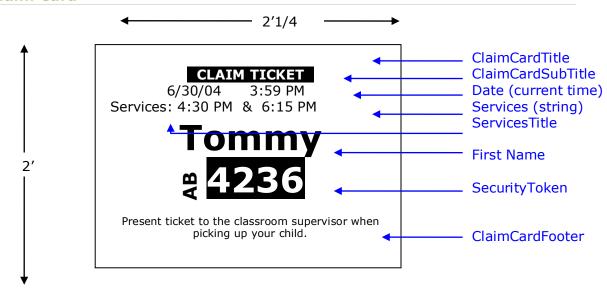




If attending multiple services, the attendance label prints like this:

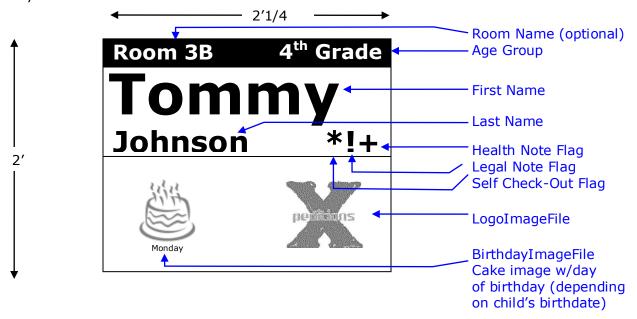


### **Claim Card**



### **Nametag**

A name tag is to be printed as shown below. If the child's birthday is in the upcoming week, the regular logo is to be replaced with a birthday cake logo and the day of the birthday.



# **Reporting Services Attendance Label**

The Reporting Services provider (added in v1.2.0) will work with the print labels included with Arena's Check-In system out of the box. It integrates this functionality by passing the OccurrenceAttendanceID created when an attendee checks into the system to Arena Check-In's Reporting Services report. Creating a custom label is as easy as copying the default Arena label and modifying it to fit your ministry needs.

To take advantage of this print provider, once the entire system has been installed replace the value of the Organization setting called "Cccev.PrintLabelDefaultSystemID" with the ID of the appropriate "CheckIn Print Label System" lookup called "CCCEV RS Print Label Provider".

Additionally, you'll need to set up some Labels that are tied to each Attendance Type. From the Attendance Type List module, clicking on the "Labels" link will bring up the list of Labels associated with that Attendance Type.





When creating a new Label tied to an Attendance Type will allow you to tell the Check-In Wizard whether you with to use the Kiosk's Default Printer or if the print job should go to the Location's Default Printer.

Attenuance Type	the Lodge (1-6) 6 am, 4:30 & 6:30 pm
Report Name	ChildTag ✓
Report Type	Will print out once per person, attendance type, and printer.
Select Printer	○ New   Existing
Printer Name	[Use Kiosk's Default Printer]
<b>Printer Description</b>	
Print Landscape	Yes ○ No
Update Cancel	

# **Installation & First Time Setup**

Unzip the CccevCheckinWizardPackage.zip to your desktop. You will use the items inside the zip during the instructions below. Also note the items listed in the Dependencies section of the Appendix.

### **Pre Module Installation Steps**

To install the Wizard you will need to execute the two SQL scripts found in the SQL folder:

- 1. cust\_cccev\_ckin\_install\_tablesAndProcs.sql Execute this script first. It adds the required tables and stored procedures.
- 2. cust\_cccev\_ckin\_install\_data.sql this script creates the necessary default data (Lookups, Person Attributes, Organization Settings, etc) used by the Check-in system.
- 3. As the Global Admin, go to the Person Attributes "Check-In" group and grant the proper roles view/edit access to the following new attributes:
  - a) Ability Level
  - b) Special Needs?
  - c) Self Check-out?

### **Check-In Wizard Module Installation Steps**

- 1. Import the CheckinWizard\_Page.xml as a child page under your main Arena Check-In page.
- 2. Add the ~/UserControls/Custom/Cccev/Checkin/misc/BlankTemplate.ascx template (installed during the previous step) to your Template list under Administration. You can call it "Check-in Wizard Blank Template"
- 3. Next, change the Check-In Wizard page to use that new blank template.
- 4. Make a note of this pageID as you will point your kiosks to this page later.
- 5. This is a not a redundant step: import the CheckInWizard\_Page.xml modules under your Arena **Modules** area. Doing this will define additional modules that were not automatically defined during step 1.
- 6. (Optional) Setup the modules discussed in the section called *Other Custom Administrative Modules* (pg 26).

There are many configuration settings to help you control the behavior of the check-in system to match your church's needs, however the system has many default values so you can get your system working without a lot of additional configuration.



Setting	Description
Ability Level Attribute	You will set this to be the Person Attribute that
,	holds a person's ability level.
Ability Level Lookup Type	Set this to be the Lookup Type that contains all
, , , , , , , , , , , , , , , , , , , ,	the ability levels you want to use in the Check-in
	system.
Allow Scan By Phone	This controls whether or not you can search by
,	phone number.
Asynchronous Timeout Error	The message to display if the client browser
Message	(kiosk) is unable to contact the server.
Auto Cancel/Confirm	Controls whether or not the system will perform
	auto-cancel and auto-confirm if the user stops
	interacting with the kiosk.
Auto Refresh Time (Long)	Time in seconds for the page to reload/reset if
	left inactive.
Auto Refresh Time (short)	Time in seconds for the system to auto
	cancel/confirm if no response is received.
Background Image Relative Path	Relative path for the init screen's background
	image.
Bad Kiosk Message	Message to display if an unregistered kiosk
	attempts to access/use the Check-In Wizard.
CSS Relative Path	Relative path to custom CSS file for Check-In
	module.
Event is Closed Message	Message that is displayed on the kiosk when
	there are no open/active check-in occurrences.
Family Registration Page	Page setting to integrate High Desert Church's
	Family Registration Module into the Check-In
	Wizard. If this setting is pointed at a page in
	Arena, pressing Ctrl + R from within the Wizard
	will redirect to the configured page.
Ignore Check-In Start	If checked, this setting will allow members to
	check into services whose check-in start time has
	not occurred yet. Useful if members need to
	check their children into the service that they are
	attending as well as the service that they are
Look About House	volunteering at.
Look Ahead Hours	Number of hours the check-in system should look
Look Abond Minutes	ahead for occurrences.
Look Ahead Minutes	Combined with the previous setting, the number
	of minutes the check-in system should look ahead for occurrences.
Max Ability Level Age	Once a child reaches this age, the ability level
Max Ability Level Age	selection screen will not be shown and the child
	will be automatically recorded at the max ability
	level.
Maximum Age	Maximum age of a child who can check in.
Maximum Grade	Maximum age of a child who can check in.
Minimum Phone Number Length	Minimum number of digits that must be typed for
Thin in those Hamber Length	a valid phone number search.
No Eligible People for Check-in	Message to display when there are no family
The Englisher copie for Check in	members eligible for check-in.



Setting	Description
No Registered Occurrences Message	Message to show when no occurrences are available to check in.
Relationship Type List	Allowable relationship types to check in. If the head of household has any relationships of these types, the associated people will be shown on the family member selection screen.
Require Attendee Abilities	Flag to control whether or not Ability Levels are used by the check-in system.
Scan Now Message	Text to show when check-in has started.
Search By Phone Message	Text to show on the search by phone button.
Special Needs	Set this to the person attribute that denotes whether or not a person has special needs.
Unavailable Occurrences Message	Message to display if no matching classroom was found for a child.



# **Organization Settings**

There are a couple of categories of organization settings that are used by the Check-In Wizard. Each category and its corresponding settings are detailed below for your reference.

### **Cccev Check-In Wizard**

These settings are used by the Check-In Wizard Module to control how labels are printed and how security codes are determined.

Setting	Description
Cccev.PrintLabelDefaultSystemID	Lookup ID that points to printer label provider class.
Cccev.SecurityCodeDefaultSystemID	Lookup ID for CheckIn Security Code provider class.
GradePromotionDate	Used to determine the date which children are promoted to the next grade level (mm/dd). Default 6/1.

### **Cccev Check-in Labels**

These settings control some of the properties of the standard check-in labels which are used by the default supplied IPrintLabel provider, CccevPrintLabel.

Setting	Description
Cccev.AttendanceLabelTitle	The title to use on the Attendance label
Cccev.BirthdayImageFile	Image (.bmp) to use on the Nametag label to indicate a person's birthday occurs that week. E.g., "C:\Inetpub\wwwroot\images\cake.bmp"
Cccev.ClaimCardFooter	Text to use on the footer of the Claim Card. E.g., "Present this ticket when picking up your child."
Cccev.ClaimCardTitle	The title to use on the Claim Card label. E.g., CLAIM TICKET
Cccev.DisplayRoomNameOnNameTag	Set to "true" to print the room name on the nametag; otherwise set to "false"
Cccev.HealthNotesAttributeID	The attribute ID (string type attribute) that holds a person's health notes.
Cccev.HealthNotesTitle	Text to use in front of any health notes on the Attendance label.
Cccev.LegalNotesAttributeID	The attribute ID (string type attribute) that holds a person's legal/custody details.
Cccev.LogoImageFile	Logo (.bmp) to use on the Nametag label. E.g., "C:\Inetpub\wwwroot\images\logo.bmp"
Cccev.ParentsInitialsTitle	Text to use on the Attendance label where a parent can sign. E.g.,  Par
	ent's Signature
Cccev.SelfCheckOutAttributeID	The attribute ID (yes/no type attribute) that indicates whether or not a person is allowed to self check-out.
Cccev.ServicesLabel	Text to use in front of the services/occurrence times. E.g., "Services:"



### **Configuring the Ability Level Lookup Type**

The installation script adds four default lookup values (ability levels) to the Ability Level Lookup Type, but these can be renamed or removed to suite your needs. They are optionally defined to Attendance Type Extended Attributes to determine which children should be matched to the Attendance Type.

Ability Level Lookup Type Values	Description
Infant	Newborns who really do nothing more than look cute.
Crawler	Little ones who have learned the art of hand-knee locomotion.
Walking Confidently	Children who need to be more closely monitored.
Walking and Potty Trained	Children who need less monitoring and know when to get to the bathroom.

# Person Attributes: Ability Level, Special Needs, Self Check-Out

The installation script adds three new person attributes to the "Check-in" attribute group: Ability Level, Special Needs, and Self Check-Out. Each is described below.

Attribute	Description
Ability Level	A lookup value which is intended to hold the child's current ability level such as infant, crawler, walking confidently, etc. The ability levels are used in the Attendance Type's Extended Attributes to match children to the right classroom. They can be changed to suite the needs of your church as described in the previous section.
Special Needs	A yes/no flag that indicates whether the child is a "special needs" child (learning disability, autism, etc.) This attribute is used in the Attendance Type's Extended Attributes to match children to the right classroom.
Self Check-Out?	A yes/no flag that indicates whether or not the child is able to check themselves out without their parent. This value is only used by the default check-in label provider.



Once configured, the administrators with the proper role will see these new attributes when viewing a child's record in Arena.

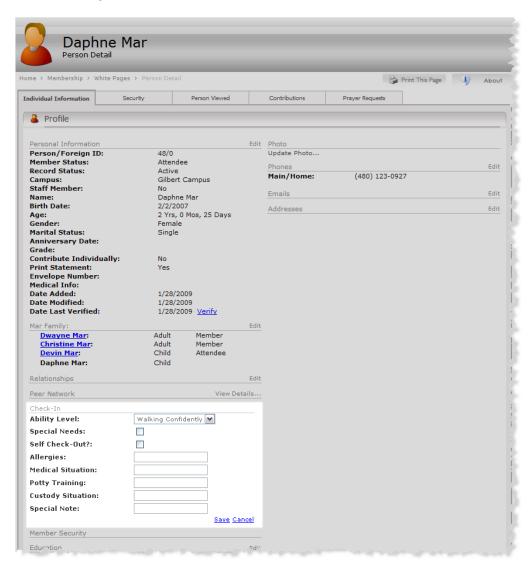


Figure 5 - Person Details showing Check-in Person Attributes

### **Locations Setup**

The default print provider prints a set of three check-in labels in the classroom or at the kiosk; therefore a printer must be defined in each Location. This also means you will need to define your printers on your Arena server (unless you have a remote print server in the classroom attached to the printer). As of v1.2.0, if you name the printer "[Kiosk]" the labels will print at the kiosk.



Figure 6 - Location Details with local zebra printer

Alternatively, if you define the printers on a remote server, you will use the standard "\\<server\_name>\<printer\_share\_name>" notation in the printer name of the location details panel.

Note: Generally speaking, this sort of remote print configuration will be much slower performing than if you defined the printers locally on the server.

### **Kiosk Setup**

In order to register your kiosk for use with the Check-In Wizard, you will need to run the Arena standard check-in application at least once. This will register the system's information as an item in the Arena Kiosk list.

Once the system is defined there you can bind the kiosk to your locations as needed. If you are operating in a multi campus environment, this is where you control which kiosks are used for the check-in locations of each campus.

Lastly, configure Internet Explorer to run in kiosk mode and point it to the Arena page which holds the Check-In Wizard module as such:

 ${\tt C:\Program\ Files\Internet\ Explorer\iexplore.exe\ -k\ http://arena/default.aspx?page=9999}$ 



# **Other Things to Consider**

As mentioned earlier, we have a few other things to help manage the system. They are detailed in this section.

## **SQL Server Agent Jobs**

### **Create occurrences (2 hours future)**

This job creates the future occurrences that are needed for the Sunday morning and Saturday/Sunday night services. We only run it Sunday morning every 30 minutes from 7 to 9:30 AM and then on Saturday and Sunday night from 4 to 5 PM.

```
declare @TwoHoursFromNow datetime
set @TwoHoursFromNow = DATEADD( mi, 120, getdate() )
```

exec core\_sp\_generate\_active\_occurrences @TwoHoursFromNow, 30, 'OccurrenceGenerator2'

### **Check-in Reset Security Codes**

This job resets the numeric portion of our default Security Code provider (the records in the cust\_cccev\_ckin\_security\_code table) by running the cust\_cccev\_ckin\_sp\_update\_security\_code\_clearAssignDate procedure on Friday at 5 PM.



### **Other Custom Administrative Modules**

This section documents various supporting custom modules which are useful in administering the Check-In system.

# **Attendance Type List Summary**

This module provides a summary view of Attendance Types and associated Extended Attributes. You'll want to place this module at the top of your standard Attendance Types page (pageID 1432).

Using the "Show Summary" link, an alternate view shows the essential Attendance Type criteria along with the classroom locations as shown in Figure 8.

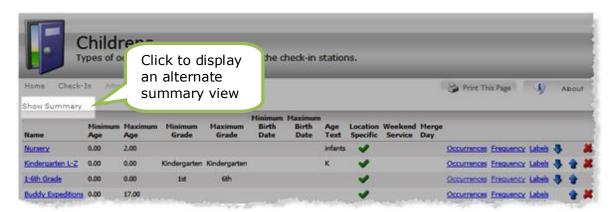


Figure 7 - Show Summary link

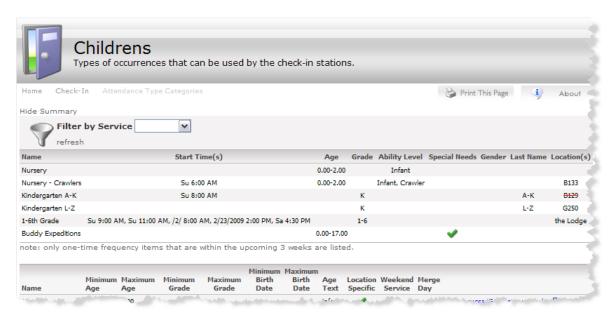


Figure 8 - Consolidated view of Attendance Types, Extended Attributes, and Locations

The summary can also be filtered by the frequency start time. Locations which are closed will appear with a red line though them.



### **Occurrence Type Attribute List**

The Occurrence Type Attribute List shows an ordered list of all corresponding Extended Attributes for the *ordered* list of Attendance Types. You'll want to place this module at the bottom of your standard Attendance Types page (pageID 1432).

Using this module you create the extended attributes (ability level, special needs, last name range) for a particular Attendance Type.

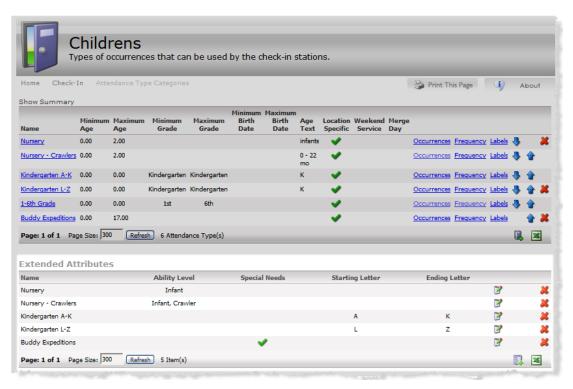


Figure 9 - Occurrence Type Attribute List (Extended Attributes) Module

#### **Move Attendance**

The move attendance module is nice to have if you have the need to move all the attendance records from one occurrence to another (when you want to delete the old attendance types/occurrences but don't want to lose the attendance records tied to them).

You'll typically want to put this module on the Attendance Occurrence page (pageID 1115). It appears as a small "Move Attendance" button as shown in Figure 10.



Figure 10 - Attendance Occurrence page with the Move Attendance module

After pressing the button you can then select the new, target Attendance Type and its corresponding Occurrence to designate where you want to move the attendance records.





### **Test Printer Labels**

This utility module lets test label printing to one or more printers at the same time. Once you've selected some printers, you can print a single "test" label, individual parts of the label set, or if you provide a personID you can print an actual label set using your configured IPrintLabel provider.

You can install this page and module (TestPrinterLabels\_Page.xml) underneath your main Arena Check-in tab.

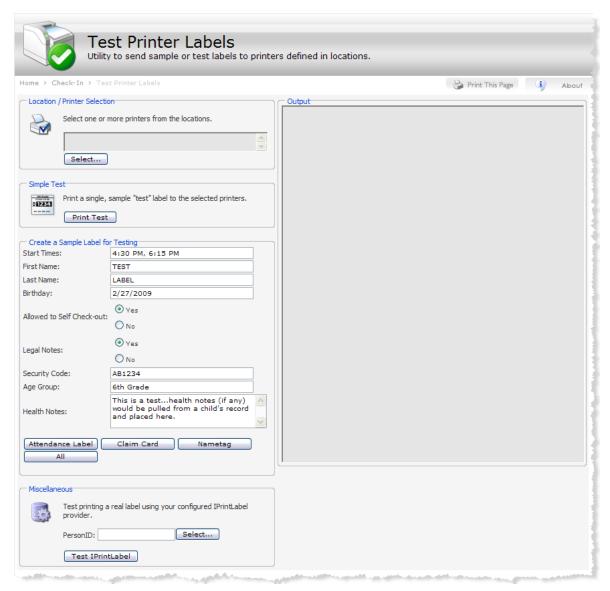


Figure 11 - the Test Printer Labels module

# **Appendix**

### **Arena Dependencies**

The following Arena configurations are required in order for the system to work

1. Set the "GradePromotionDate" Organization setting

### **Defining New Custom IPrintLabel Providers**

- 1. Edit the "CheckIn Print Label System" Lookup Type and add your own lookup. Put the value of your namespace and fully qualified classname into the respective fields. Make note of the ID of this new lookup.
- 2. Change the value in the PrintLabelDefaultSystemID Organization setting to be the ID of the new lookup.

### **Defining New Custom Security Code Provider**

- 1. Edit the "CheckIn Security Code System" Lookup Type and add your own lookup. Put the value of your namespace and fully qualified classname into the respective fields. Make note of the ID of this new lookup.
- 2. Change the value in the SecurityCodeDefaultSystemID Organization setting to be the ID of the new lookup.

### Logging

As of v1.2.0, the attendance type (class) matching process can be logged to the database for troubleshooting purposes. To enable logging, change the value of the IsEnabled qualifier of the Cccev App Log Type -> Check-in lookup to true. The  $cust\_cccev\_applog$  table will hold an entry for each child being checked in to the system as seen in this example:

Attendee: 78829 - Maddox White Attempting match: 6:30 PM (24) the Lodge (1-6) 8 am, 4:30 & 6:30 pm Attempting match: 6:30 PM (24) the Lodge (1-6) 8 am, 4:30 & 6:30 pm Attempting match: 6:30 PM (155) Preschool - Kindergarten 6:30 pm Attempting match: 6:30 PM (154) Preschool - 3, 4, 5 & 6 year olds 6:30 pm Attempting match: 6:30 PM (95) Nursery (19 - 35 months) 4:30 & 6:30 pm - Matched Age, Grade, Gender - FOUND MATCH!

#### Reference

See the <u>Central Christian Church Check-In Wizard Developer's Guide</u> for additional details not covered in this manual.

