



Ministry Pass

Plugin Documentation

Overview

Ready to start producing mobile friendly check-in and event experiences that will reduce lines and provide WOW moments? Then Triumph's Ministry Pass service is just what you've been looking for. Ministry Pass leverages the power of Rock and applies it to mobile passes. Not only is all your data available for placement on the pass, but you get the leverage technologies like Lava to personalize these passes.

Unlike many of Triumph's other plugins, Ministry Pass requires a monthly service plan. This is needed for two reasons:

While the customer experience is all handled on your Rock server, the passes are generated and signed on the Triumph server. This is done to reduce the complexity of the hosting requirements and enable future features like dynamically updatable passes. Updating a pass that is already deployed to a mobile device requires communications to Apple, as well as the mobile device. Centralizing these communications on the Triumph server simplifies the solution for you and increases the reliability of updates. The monthly service plan helps to pay for this infrastructure.

The Ministry Pass service represents a significant investment in development. That said, we're only getting started. There are several other features we'd like to add. Having a monthly service plan helps to fund this ongoing development.

The Ministry Pass service today provides Apple Wallet Passes. Apple was the first to develop mobile passes and maintains a large lead in both deployments and features. Google recently released (Summer of 2018) a pass service. While not as robust as the Apple options, we do plan to add support for Google passes soon (another reason we need a monthly service). That doesn't mean that Android users are out in the cold. There is a free app for Android that fully supports the Apple passes. You can read more about the app in the *Distributing Passes* section below.

Licensing Policy

We prefer to spend our time working on ministry features vs licensing code. Currently, there is no check for a current license. Use of this plugin is on the honor system. If you stop your subscription, you must discontinue use and remove your passes or update the Rock security to prevent it from working.

You'll need to create an Apple Developer Account (free for non-profits) to download a digital certificate to create passes. Don't worry we'll walk you through the process (only takes a couple of minutes). We also provide a testing certificate, so you can get started right away.

NOTE: You will need a working knowledge of Lava when creating Ministry Passes. We provide some basic recipes for you in this guide but having a basic understanding of Lava will serve you well.

Attention was made to provide tested Lava samples below. Please thoroughly test your passes before using them in live use cases. Please report any issues so that they can be updated.

Use Cases

So, what can passes be used for? Well, the sky's the limit, but here are a few ideas:

- **Children's Check-in** – Using passes as a part of children's check-in is a natural fit. Passes can greatly speed up the check-in process while making the experience feel simple and secure. Using the relevant locations feature will ensure that the passes show up on the device's home screen when they are on campus.
- **Events** – Deploying passes as tickets to an event can make the entry experience feel polished while moving people through the lines. Configuring check-in to only allow individuals in a specific group (loaded through event registration) can ensure entry to only those who have registered.
- **Summer Camp** – Providing passes for each child attending camp can ensure a quick check-in on the day of camp. You can also craft your passes to have relevant information like the child's bus number and counselor's name. Configuring check-in to print labels for their bags can also ensure their luggage gets on the right bus. Be sure to use the Pass Type of 'Boarding Pass' with the Transit Type of 'Bus' for extra points!

These are just a few ways that you can use passes. We can't wait to see what else you come up with!

What About Droids?

While the initial release of Ministry Pass is targeting Apple Passes, this doesn't mean Android users are left out. Wallet Pass (<https://walletpasses.io/>) is a free app that enabled full Apple Pass support on Android devices.

We do hope to add support for Google Pay Passes soon.

Getting Started

You'll need to complete two steps before you can deploy your first pass. Each is covered below in details.

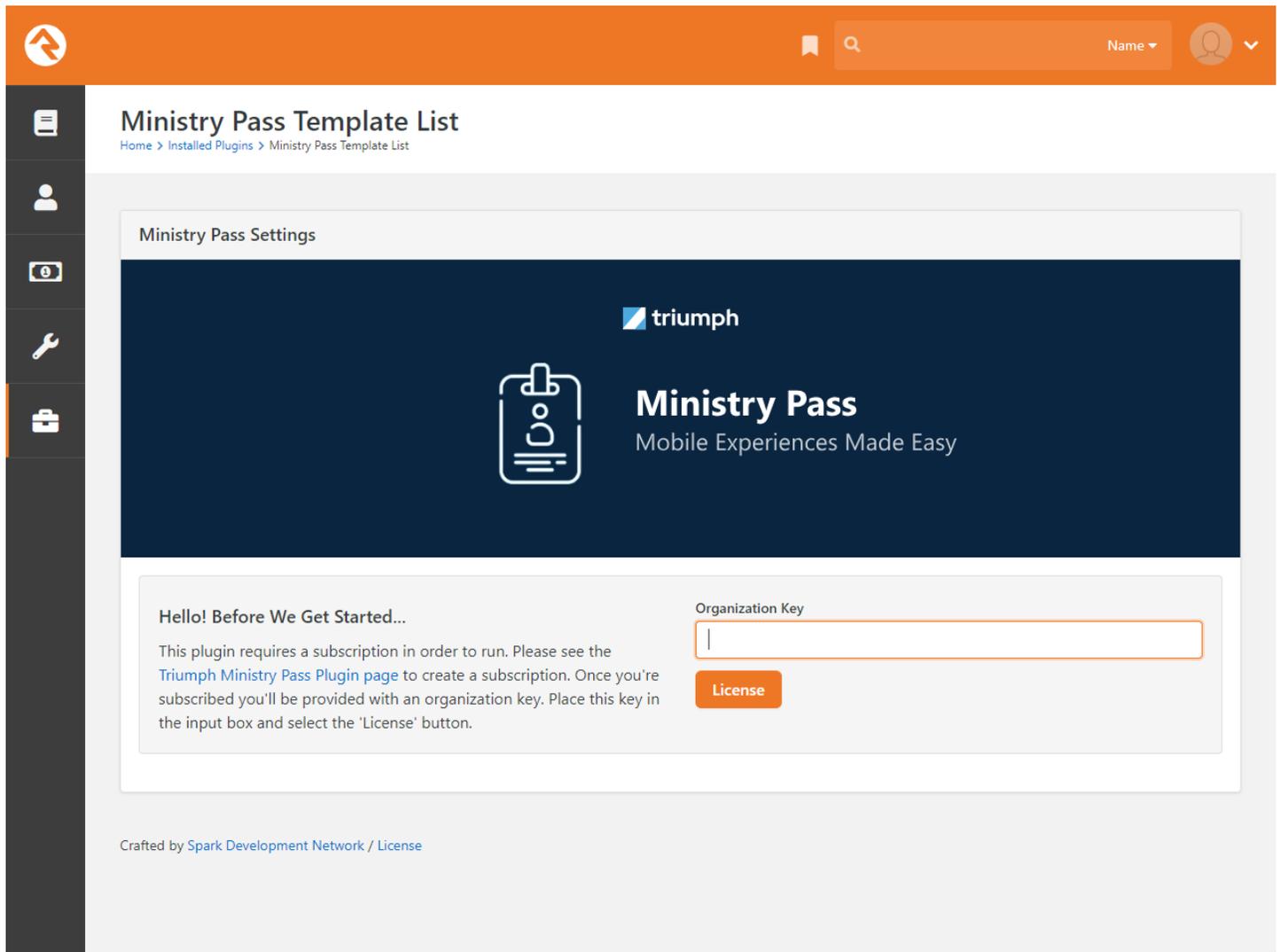
STEP 1: Sign-up for Ministry Pass

The first step is to head over to the Triumph website (<https://triumph.tech/ministrypass#packages>) and sign-up for one of the services. Here you'll select your package based on the size of your church, register, and set

up your payment. You'll then have access to the organization key you'll need to link your account to your Rock server.

STEP 2: Download Plugin

With the service in place, you're ready to install the free plugin from the Rock Shop. Once installed, you'll need to paste in the organization key from Step 1 above. You'll now be able to create pass templates and start getting to work.



The screenshot shows a web application interface for the 'Ministry Pass Template List'. The top navigation bar is orange with a home icon, a search bar, and a user profile dropdown. The left sidebar is dark grey with icons for home, user, settings, and a highlighted 'Ministry Pass' icon. The main content area has a title 'Ministry Pass Template List' with a breadcrumb trail 'Home > Installed Plugins > Ministry Pass Template List'. Below the title is a 'Ministry Pass Settings' section. This section features a dark blue background with the Triumph logo and the text 'Ministry Pass Mobile Experiences Made Easy'. Below this, there is a light grey box containing a 'Hello! Before We Get Started...' message and an 'Organization Key' input field with a 'License' button. The footer of the page reads 'Crafted by Spark Development Network / License'.

Pass Templates

Passes are generated from templates you create. These templates determine the look of the pass (colors, icons, etc.) as well as the fields that will be displayed on the pass. You'll want to create a new template for

each use-case. For example, you'll create a template for passes used for check-in and a different template for each event. As you'll see, creating templates is easy.

Template List

On the first screen you'll see a list of all the templates currently configured.

Ministry Pass Template List

Home > Installed Plugins > Ministry Pass Template List

Ministry Pass Settings

triumph

Ministry Pass
Mobile Experiences Made Easy

Template List

Name	Description	Is Active
Children's Check In	This is a demonstration of Ministry Pass.	✓

50 500 5,000 1 Ministry Pass Template

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Template Details

When you pick a template from the list, you will see the template details page. At the top you can edit the template configuration. Below you will see a list of people who have downloaded a template. You can manually add people to the list. Clicking the download icon next to the template allows you to view the pass.

This is great for testing. Simply email the pass to your mobile device (or click the download link on your mobile device) and you can see what the pass will look like.

IMPORTANT: It's a great idea to test your pass on several individuals before you go live.

Navigation: Home > Installed Plugins > Ministry Pass Template List > Ministry Pass Template Detail

Ministry Pass Template Detail

Children's Check In

Template Name: Children's Check In

Description: This is a demonstration of Ministry Pass.

Edit

Ministry Passes

Name	Status	Last Updated	
Admin Admin	Uploaded	6/21/2023 5:38:13 PM	
Ted Decker	Uploaded	6/22/2023 9:57:02 AM	

50 500 5,000 2 Ministry Passes

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Pass Types

The first thing you'll want to determine is the type of pass to create. Apple has defined five different types of passes. Below are descriptions from Apple's documentation. The two primary card types you'll use are Event Tickets and Generic (generic is probably a bad name for this, instead think 'Blank Slate'.)

- **Boarding** - This pass style is appropriate for passes used with transit systems such as train tickets, airline boarding passes, and other types of transit. Typically, each pass corresponds to a single trip with a specific starting and ending point.
- **Coupons** - This pass style is appropriate for coupons, special offers, and other discounts.
- **Event Tickets** - This pass style is appropriate for passes used to gain entry to an event like a concert, a movie, a play, or a sporting event. Typically, each pass corresponds to a specific event, but you can also use a single pass for several events as in a season ticket.
- **Store Cards** - This pass style is appropriate for store loyalty cards, discount cards, points cards, and gift cards. Typically, a store identifies an account the user has with your company that can be used to make payments or receive discounts. When the account carries a balance, show the current balance on the pass.
Note: Ministry Pass does not currently have logic to support the feature set of store cards.
- **Generic** - This pass style is appropriate for any pass that doesn't fit into one of the other more specific styles—for example, gym membership cards, coat-check claim tickets, and metro passes that carry a balance.

Let's walk through each of the tabs of the template builder to discuss what is possible and how templates work.

Fields that support Lava are noted with the **Lava** label.

General Tab

The General tab contains all the required fields for a pass. Below are details of each field.



Ministry Pass Template Detail

Home > Installed Plugins > Ministry Pass Template List > Ministry Pass Template Detail

Children's Check In

Name *

Active



Description

This is a demonstration of Ministry Pass.

Apple Pass Information

General

Fields

Additional Images

Barcode

Relevance Fields

Pass Type *

- Generic
- Boarding Pass
- Coupon
- Event Ticket
- Store Card

Background Color

Label Color

Foreground Color

Organization Name ⓘ

Logo Text ⓘ

Pass Description ⓘ

A demonstration of Ministry Pass.

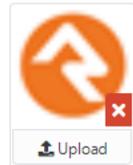
Icon

The required icon is displayed when a pass is shown on the lock screen and by apps such as Mail when showing a pass attached to an email.

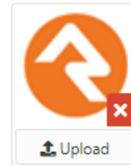
Standard Size: 29 x 29 pxs

Retina Size: 58 x 58 pxs

Standard Size *



Retina *



Save

Cancel

- **Pass Type** – The type of Apple pass to generate.
- **Background Color** – The background color to use for the pass.
- **Label Color** – The color of the label text that appears above each field.
- **Foreground Color** – The font color to use for the fields.
- **Organization Name** – This name appears in various places on the pass. It also shows as the title when the pass displays on the home screen. [Lava](#)
- **Logo Text** – This text will display next to the logo at the top of the pass. Not all pass types support this option. Also, longer text may not display correctly, so keep it short. [Lava](#)
- **Pass Description** – This text shows up on the back of the pass near the top. [Lava](#)
- **Icons** – The icons used when showing the pass on the home screen.

Fields Tab

Now the rubber hits the road. Fields make up a large part of the font of the pass. Which zones are available depends on the type of pass you select. Notes at the top give you tips about which to use.

Lava really shines when used with fields. In fact, it's almost required as you'll want to personalize each pass to the individual. Below are some sample Lava templates to help you get the juices flowing.



Name ▾



Ministry Pass Template Detail

Home > Installed Plugins > Ministry Pass Template List > Ministry Pass Template Detail

Children's Check In

Name *

Active



Description

This is a demonstration of Ministry Pass.

Apple Pass Information

General

Fields

Additional Images

Barcode

Relevance Fields

The pass style determines the maximum number of fields that can appear on the front of a pass:

- In general, a pass can have up to three header fields, a single primary field, up to four secondary fields, and up to four auxiliary fields.
- Boarding passes can have up to two primary fields and up to five auxiliary fields.
- Coupons, store cards, and generic passes with a square barcode can have a total of up to four secondary and auxiliary fields, combined.

The number of fields displayed on the pass also depends on the length of the text in each field. If there is too much text, some fields may not be displayed.

Header Fields

Header fields contain highly salient information, and they are the only field that is visible when the passes are stacked up in Wallet, so use them sparingly.

Label	Type	Alignment	Value
-------	------	-----------	-------

No Items Found



Auxiliary Fields

Auxiliary fields are the least important of the fields.

Label	Type	Alignment	Value
-------	------	-----------	-------

No Items Found



Back Fields

Space on the front of the pass is at a premium, so the number of fields is limited, and the contents of fields must be brief. In contrast, the back of the pass can have as many fields as needed and the contents of fields can be much longer. If there is too much content fit on the screen at once, let the users scroll through it on the back. As the contents of each field on the back gets longer, the field's font size is reduced.

The back of the pass gives you a place to put information that is too long to fit on the front of the pass, including extra information that isn't as important and general information that may be helpful for your users. Examples of back-field information includes terms and conditions, the full address of a venue, your customer service phone number, and the URL for your website.

Label	Type	Alignment	Value
-------	------	-----------	-------

No Items Found



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Field Detail ✕

Label *

Field Type *

Standard
 Date Time
 Number
 Barcode

Field Text Alignment *

Unspecified
 Left
 Center
 Right
 Natural

Value i *

Save
Cancel

Individual's Name

We won't insult you by describing what this does.

```

{{ Person.FullName }}

```

Person Attribute

Maybe you'd like to add their first visit date.

```

{{ Person | Attribute:'FirstVisit' }}

```

Group Member Attribute from a Specific Group

This could be a common one when working with event registration. It's common that the registrant would be added to a group, and a group member attribute could be populated during the registration.

```

{%- assign groupMember = Person | Group:'212' | First -%} {{ groupMember |
Attribute:'Organization'}}

```

PRO TIP: While the fields on the front of the pass need to be very short, you can fit gobs of fields on the back of the pass.

Additional Images

Below are the details of the additional images you can provide for your passes. Be sure to note which pass types support the various images.

Ministry Pass Template Detail

Home > Installed Plugins > Ministry Pass Template List > Ministry Pass Template Detail

Children's Check In

Name * Active

Description

Apple Pass Information

General Fields **Additional Images** Barcode Relevance Fields

For the most up to date guide on images for Apple Passes see the [Wallet Developer Guide](#).

Logo

Generic Boarding Pass Coupon Event Ticket Store Card

The logo image is displayed in the top left corner of the pass, next to the logo text. The allotted space is shown below; in most cases it should be narrower.

Standard Size: 160 x 50 ppx
Retina Size: 320 x 100 ppx

Standard Size 

Retina 

Strip

Coupon Event Ticket Store Card

The strip image is displayed behind the primary fields. If you specify a strip image, do not specify a background image or a thumbnail.

Standard Size: 375 x 98 ppx for event tickets, 375 x 144 px for gift cards and coupons
Retina Size: 750 x 196 ppx for event tickets, 750 x 288 px for gift cards and coupons

Standard Size 

Retina 

Footer

Boarding Pass

The footer image is displayed near the barcode.

Standard Size: 286 x 15 ppx
Retina Size: 572 x 30 ppx

Standard Size 

Retina 

Background

Generic

The background image is displayed behind the entire front of the pass. The image is cropped slightly on all sides and blurred. Depending on the image, you can often provide an image at a smaller size and let it be scaled up, because the blur effect hides details. This lets you reduce the file size without a noticeable difference in the pass.

Standard Size: 180 x 220 ppx
Retina Size: 360 x 440 ppx

Standard Size 

Retina 

Thumbnail

Generic Event Ticket

The thumbnail image is displayed next to the fields on the front of the pass. The aspect ratio should be in the range of 2:3 to 3:2, otherwise the image is cropped.

Since this image is typically customized for each pass we have provided you with space to provide a Lava template.

Standard Size: 90 x 90 ppx
Retina Size: 180 x 180 ppx

Thumbnail Image URL

Thumbnail Retina Image URL

- **Logo** – This is the image that shows at the top of the pass. We highly recommend that you add this image to your passes.
- **Strip** – This is a background image that displays behind the primary fields.
- **Footer** – Small image that is displayed near the barcode.
- **Background** – Only the Generic pass type supports this image. Note that the image will be blurred to the point that it's barely recognizable. Think of it more as a texture than an image.
- **Thumbnail** – This is an image that is displayed next to the fields on the pass. Usually this is a dynamic image (like the person's photo) so we've provided you with editor fields for your Lava. Below is an example Lava template that will display the person's photo. [Lava](#)

```
{%- if Person.Photoid != null -%}
{{ 'Global' | Attribute:'PublicApplicationRoot' | ReplaceLast:',' }}{{ Person.PhotoUrl
}}&Width=180
{%- endif -%}
```

Barcodes

The barcode tab allows you to adjust the settings for the barcode on the front of the pass. For the most part, the fields are self-explanatory. But we've added a few notes below.

Ministry Pass Template Detail

[Home](#) > [Installed Plugins](#) > [Ministry Pass Template List](#) > [Ministry Pass Template Detail](#)

Children's Check In

Name * **Active**

Description

Apple Pass Information

[General](#) [Fields](#) [Additional Images](#) **[Barcode](#)** [Relevance Fields](#)

Show Barcode

Barcode Value ?

Barcode Alternate Text ?

Barcode Type *
 None Qr Pdf 417 Aztec Code 128

Barcode Encoding

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- **Barcode Value** – This is the text that will be encoded into the barcode. You'll most likely want this to be the individual's alternate id which is used by Rock's check-in. The Lava for that is below. [Lava](#)
- **Barcode Alternate Text** – This is the text that is shown directly under the barcode. Some people repeat the barcode text here, but we recommend keeping it blank. This keeps the barcode looking clean and simple, and also increases security by hiding the alternate id. [Lava](#)

```
{{ Person | GetPersonAlternateId }}
```

Relevance Fields

Now is when it gets fun! The relevance fields determine when the pass should be enabled and disabled and when it should be show on the individual's home screen.

Ministry Pass Template Detail

Home > Installed Plugins > Ministry Pass Template List > Ministry Pass Template Detail

Children's Check In

Name *

Active

Description

This is a demonstration of Ministry Pass.

Apple Pass Information

General
Fields
Additional Images
Barcode
Relevance Fields

Relevant Date ⓘ

Expiration Date ⓘ

Relevant Points in Space

Passes let your users take some action in the real world, so accessing them needs to be easy and fast. Wallet makes relevant passes immediately accessible by integrating them with the lock screen. To take advantage of this feature, add information about where and when your pass is relevant. A pass's relevancy can be based on the time and/or the place in which the user can use the pass. For example, a gym membership is relevant at the gym, while a boarding pass is relevant at the time the flight begins boarding.

Locations

A pass can have up to ten relevant locations. Only the top ten locations below will be used.

	Latitude	Longitude	Message	
≡	38.228056	-85.54525	{{ Person.NickName }}, great to see you this week!	✕

+

Beacons

You can also provide relevancy information using iBeacons. A pass is relevant when the device is brought into proximity of an iBeacon with a matching UUID. You can add up to ten unique beacon UUIDs to the pass. Beacons can optionally include relevancy text, as well as the major and minor Bluetooth identifiers. The system uses the relevancy text from the most-specific matching beacon (the beacon matching the most of the UUID, minor, and major identifiers). A pass can have up to ten relevant beacons. Only the top ten beacons below will be used.

ProximityUuid	Major	Minor	Message
No Items Found			

+

Additional Details

Pass style	Relevant date	Relevant locations	Relevance
Boarding pass	Recommended: Include the relevant date unless the pass is relevant for an extended period of time, such as for a month-long bus pass.	Optional: Interpreted with a large radius.	Relevant if the date <i>and</i> any location matches. Without a relevant date, pass is relevant if the location matches.
Coupon	Not supported.	Required if relevance information is provided. Interpreted with a small radius.	Relevant if any location matches.
Event ticket	Recommended. Include the relevant date unless the pass is relevant for an extended period of time, such as for a multi-day event.	Optional. Interpreted with a large radius.	Relevant if the date <i>and</i> any location matches. Without a relevant location, relevant if the date matches.
Generic	Optional.	Required if relevance information is provided. Interpreted with a small radius.	Relevant if the date <i>and</i> any location matches. Without a relevant date, relevant if any location matches.
Store card	Not supported.	Required if relevance information is provided. Interpreted with a small radius.	Relevant if any location matches.

When the location is interpreted with a small radius, the current location must be on the order of a hundred meters or closer; with a large radius, on the order of a thousand meters or closer. In both cases, the exact relevance radius is an implementation detail and may change.

Save
Cancel

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Last updated: 10/

Triumph Tech

- **Relevant Date** – Determines when the pass will be enabled. Before this date the barcode will be greyed out, and the pass will not show on the individuals home screen.
- **Expiration Date** – This is the date the pass will no longer be usable. Both dates are optional.
- **Locations** – The locations field allow you to define up to 10 geo-points (latitude/longitude). When the pass holder is near those points, the pass and provided message will be displayed on the individual's device home screen. This makes it convenient to access the pass. The message does accept Lava, so be sure to personalize it with at least their name. **Lava**
- **Beacons** – Another way to make the passes geo-aware is to use beacons. Beacons are small devices that broadcast a radio signal that mobile devices can detect. When the device is in-range, the pass can respond and pop-up an alert. This feature is also limited to 10 beacons. You can configure multiple beacons to work together and represent a single master beacon.

Not Enough Locations? You can elect to make the latitude and longitude dynamic using Lava using the values below. This will make the individual's home campus one of the locations.

Latitude: `{{ Person | Campus | Property:'Location.GeoPoint.Latitude' }}`

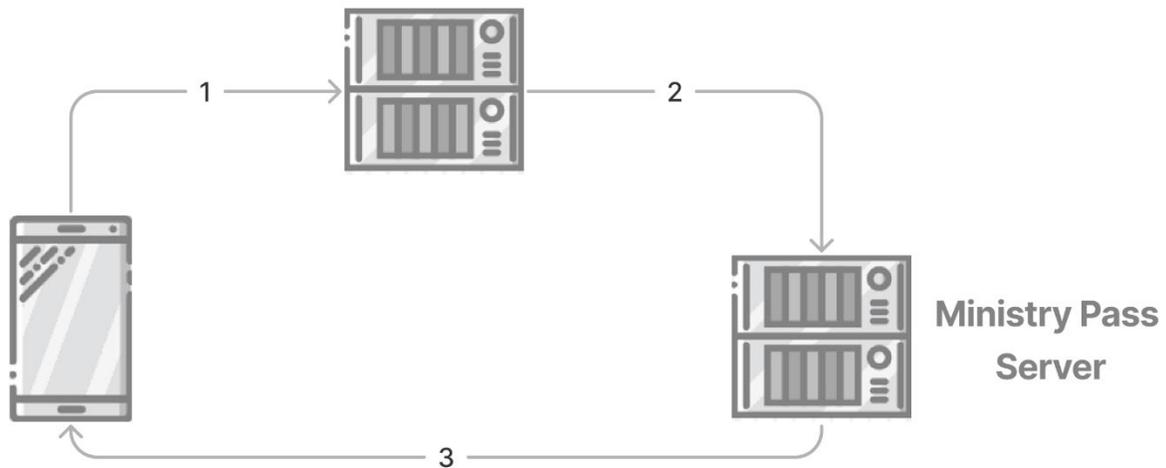
Longitude: `{{ Person | Campus | Property:'Location.GeoPoint.Longitude' }}`

Message: Welcome to the `{{ Person | Campus | Property:'Name' }}` campus.

Distributing Passes

Not only have we made the process of creating a mobile pass easy, it's also simple to distribute these passes using all of Rock's website and communication tools. Before we jump to the examples, let's start with an overview of how a pass is created.

Organization's Rock Server



1. To download the pass, the individual will click a link which will take them to the organization's Rock server. The link should look something like:
<http://rocksolidchurchdemo.com/GetMinistryPass.ashx?PassTemplateId=1&PersonKey=a12ca199-d86a-42ea-892d-3043331aa4de>

Note the two parameters passed:

- **PassTemplateId** – This is the template that should be used to create the pass.
 - **PersonKey** – This is a unique key for the person. This key represents the Guide of a PersonAlias record for the individual.
2. When the person clicks the link, your Rock server will merge the individual's data with the template and upload the results to the Ministry Pass server. It will then redirect to the Ministry Pass server to generate the actual pass.
 3. The Ministry Pass server will respond back to the individual with the pass file.

All this activity is transparent to the individual requesting the pass. As far as they know, they clicked a link and a pass is returned.

Now, about that link you need to create for the individual to create the pass... it's not very friendly, is it? Well don't worry, we created a simple Lava filter to make it easier to use. For example, on a web page you could simply use:

```
{{ CurrentPerson | GetMinistryPassUrl:1 }}
```

In this case the number at the end (in blue) represents the template to use. Much better, right?! Now that we know the gory details, let's look at where we can use these links.

REMEMBER: Keep in mind that in the end you want the individual to get the pass to their mobile device. Downloading the pass to their desktop could work (they could email it to their mobile device), but it's not as friendly as sending the pass directly to the phone.

Linking on a Webpage

We've already covered this a bit above, but adding the Lava below to an HTML block on a webpage would allow the currently logged in individual to download their pass.

```
<a href="{{ CurrentPerson | GetMinistryPassUrl:1 }}">Your Pass Link</a>
```

Sending in an Email

The same basic logic works inside of an email. The only difference is that the input variable for the individual (in red) changes from 'CurrentPerson' to just 'Person'. CurrentPerson would represent the currently logged in person which would be the person creating the email.

```
Hi {{ Person.NickName }}! Please download your pass for tomorrow's event.  
<a href="{{ Person | GetMinistryPassUrl:1 }}">Your Pass Link</a>
```

Sending in a SMS

Sending the link in an SMS message works the exact same as the email example above. Links in SMS messages though tend to look bad if they're really long. One trick you can add to shorten your links is to employ Rock's shortening capabilities. So, while the Lava above for email would work, you could use:

```
{{ Person.NickName }} , here's your pass for the event!  
<a href="{{ Person | GetMinistryPassUrl:1 | CreateShortLink }}">
```

In this case, instead of getting a link in the message that looks like:

<http://rocksolidchurchdemo.com/GetMinistryPass.ashx?PassTemplateId=1&PersonKey=a12ca199-d86a-42ea-892d-3043331aa4de>

It will look like:

<http://rocksolidchurchdemo.com/ZVUGNBS>

For more information on how the shortening feature works, see the links below:

- <https://www.rockrms.com/Rock/BookContent/14#shortlinks>
- <https://www.rockrms.com/lava/filters/other-filters#createshortlink>

Sending from a Workflow

There's a lot of use cases in which sending from a workflow would make sense. For instance, consider:

- Workflows can easily be launched after a registration is complete. Sign-up for an event... BAM... send a text message with your pass.
- A workflow can be launched after completing the Family Pre-Registration block. You finish pre-registering for weekend service childcare... BAM... we text your pass to check-in.
- Using the workflow entry block, you could create a form that would allow someone to request a pass. Once they provide their First Name, Last Name, Email and Mobile Phone you could text them a pass immediately to their phone. Assuming you had accurate information in Rock, it would match to their record. If not, a new record would be created.

The Lava for creating the link in for the SMS action would change somewhat based on how you setup your workflow. But if the workflow attribute for the person was, say, 'Requester', the Lava would look like:

```
{{ Person.NickName }} , here's your pass for the event!
```

```
{{ Workflow | Attribute:'Requester','Object' | GetMinistryPassUrl:1 | CreateShortLink }}
```

Consider a Landing Page

In the examples above, the links in the email and SMS messages go directly to the pass itself. That's a quick solution, but the individual may not fully understand what a pass is or how to use it. It's a good idea to have the link take them to a landing page where they can find out more about the pass and how to use it.

When using a landing page, be sure that the link you provide automatically logs in the individual so the page knows who is currently logged in. Something like:

```
{%- assign token = Person | PersonTokenCreate -%}  
{%- assign url = 'https://rocksolidchurchdemo.com/pass?rckipid=' | Append:token %}  
{{ Person.NickName }}, here's your pass for the event! Just add this pass to your phone  
to check-in at the conference next week. See you soon!  
{{ url | CreateShortLink }}
```

On the page you could decide to:

- Check if they are running iOS and automatically redirect them to the pass.
- Check if they are running Android, if so, add a link for them to download the WalletPass app.
- If they are not on a mobile device you, might put the URL to download the pass into a QR code on the screen. You could then instruct them to scan the QR code from their mobile device, which would load the pass (Apple now has QR coding support built into the native camera app).

These are just a few ideas of the experiences you can create for your attendees.

Scanning Passes

In many cases you'll want to scan the barcode on the pass for check-in. Rock's check-in capabilities make this simple. You will need a barcode reader to do this, however. There are a couple of things you should know about barcode readers before your first scan.

Barcode Types

There are two primary types of barcodes 1D (single dimension) and 2D (two dimension). Single dimension barcodes are what you often see at the store. They have a single dimension (lines up and down).



Two-dimension barcodes typically have a series of boxes. Your familiar with these if you've ever scanned a QR code (admit it, you've done it at least once).



You'll want to make sure you purchase a scanner that can read the type of barcode that you use on your pass. Two-dimension barcode readers are more expensive as they rely on a camera in the reader to scan the code (they do typically have red lights and some lasers for lighting and aiming, but it's the camera doing the work).

Reading Media

Scanning a barcode printed on paper is easy. Reading a code presented on a mobile device screen is a different story. You'll want to make sure that the reader you purchase is able to read a code from a device screen. These types of readers typically use cameras for the task instead of the old school laser.

Recommendations

While there are numerous readers on the market that will work well with mobile passes, we have found the Zebra DS457 fixed mount scanners to work very well.



You'll often find this exact model from Motorola. In 2014 Zebra purchased Motorola's scanning business. You'll also sometimes see the same model from Symbol. Turns out Motorola owned Symbol...

Either way the scanner works well and can be flush mounted to a surface, or you can purchase a moveable arm stand (Symbol part 20-60136-02R) or a wall bracket (Zebra KT-145344-01).



BUYERS TIP: Often these readers do not come with a cable. Be sure to read carefully to see if it is included. If not, you'll most likely want to purchase Zebra part CBL-58926-04 USB Cable Assembly, 9-Pin Female Straight Scanner Connector, Straight Cable, 6' Length.

NOTE: The barcode scanner will need to scan the barcode and return a line feed. Most barcode readers can be configured to supply the line feed through configuration. Often, this configuration is completed by scanning a series of barcodes. See Appendix B for the configuration on the Zebra DS457.

What About iPad Check-in

Rock's check-in can't natively use the iPad's built in camera for reading barcodes (not sure that would be a great user experience if it did.). You can connect the barcode reader above to an iPad using a Lightning to USB 3 Camera Adapter. Thanks Apple for ~~requiring~~ making an adapter for everything. Be sure to get the adapter that also has a Lightning port for charging. The barcode reader will drain your iPad's battery quickly.



PRO TIP: If you're not using iT1 Source for all your tech buying, you're missing out. Not only do they have *excellent* service and prices, they're also huge supporters of the Rock Community. Reach out to Justin Westrich for your next order: justin.westrich@it1.com.

Appendix A – Further Reading

The creation of passes can be more art than science. This is because Apple has provided so many options and limitations. For instance, where fields can be placed will depend on the pass type, device type and the amount of content you provide. To go deeper into the world of Apple Passes, we recommend the following reading list:

- PassKit Website
<https://developer.apple.com/documentation/passkit>
- Apple Wallet Developers Guide
https://developer.apple.com/library/archive/documentation/UserExperience/Conceptual/PassKit_PG/index.html

Appendix B – Setting Up Scanner for Carriage Returns

This configuration only works with the DS457 scanner. See the scanner's documentation for other models.

Setup DS457 Barcode Scanner



1



Set Factory Defaults

2



**Enable Mobile Phone/Display Mode
(3)**

Send ENTER Key after scanning:

3



<DATA> <SUFFIX 1>
(1)