

# Google Authenticator

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## Overview

Google Authenticator supports the use of OATH HOTP such as used with the Swivel **Token**, and software tokens with a valid **Seed** can be used to authenticate Swivel users. Google Authenticator uses HMAC-SHA1 seeds.

Currently Swivel is not compatible with the Authenticator Time Based OATH TOTP token as Swivel tokens use a 30 second refresh, and Google Authenticator uses a 60 second refresh.

## Prerequisites

Swivel 3.9.6

Google Authenticator

## Configure the Swivel User

For configuring the seeds on the Swivel server see **Token**. Configuring a software token is similar to configuring a hardware token.

Swivel uses a Hexadecimal **seed**, to generate a valid seed see **seed**.

## Configure the Google Authenticator App

Convert the Hexadecimal **seed** ((A-Z, 0-9) into Base32 (A-Z, 2-7 and = for padding), for Google. Google enforces a minimum seed length of 16 characters or 80-bits. The following online tool can be used for converting the seed:

<http://www.darkfader.net/toolbox/convert/>

Example:

Base16 seed: e0b10ee3a4bb2598c0575539529f33 (used by Swivel)

Base 32 seed: 4CYQ5Y5EXMSZRQCXKU4VFHZZT (used by Google Authenticator)

Number base converter			
QuickSelect	Characters		Base
Hexadecimal (%16) lowercase	0-9 a-z	C	16
Base32 (%32) UPPERCASE	A-Z 2-7	C	32
Custom characters			
<input checked="" type="checkbox"/>	Immediate mode. Automatically convert. Can be slow for non-base-2 <sup>n</sup> conversions.		
<input checked="" type="checkbox"/>	Padding fix. Align conversion at the left of the input. Useful for 2 <sup>n</sup> base conversions only (e		

Download the Google Authenticator from the appropriate app store.

On the Google Authenticator App select Set up account, then Enter key provided

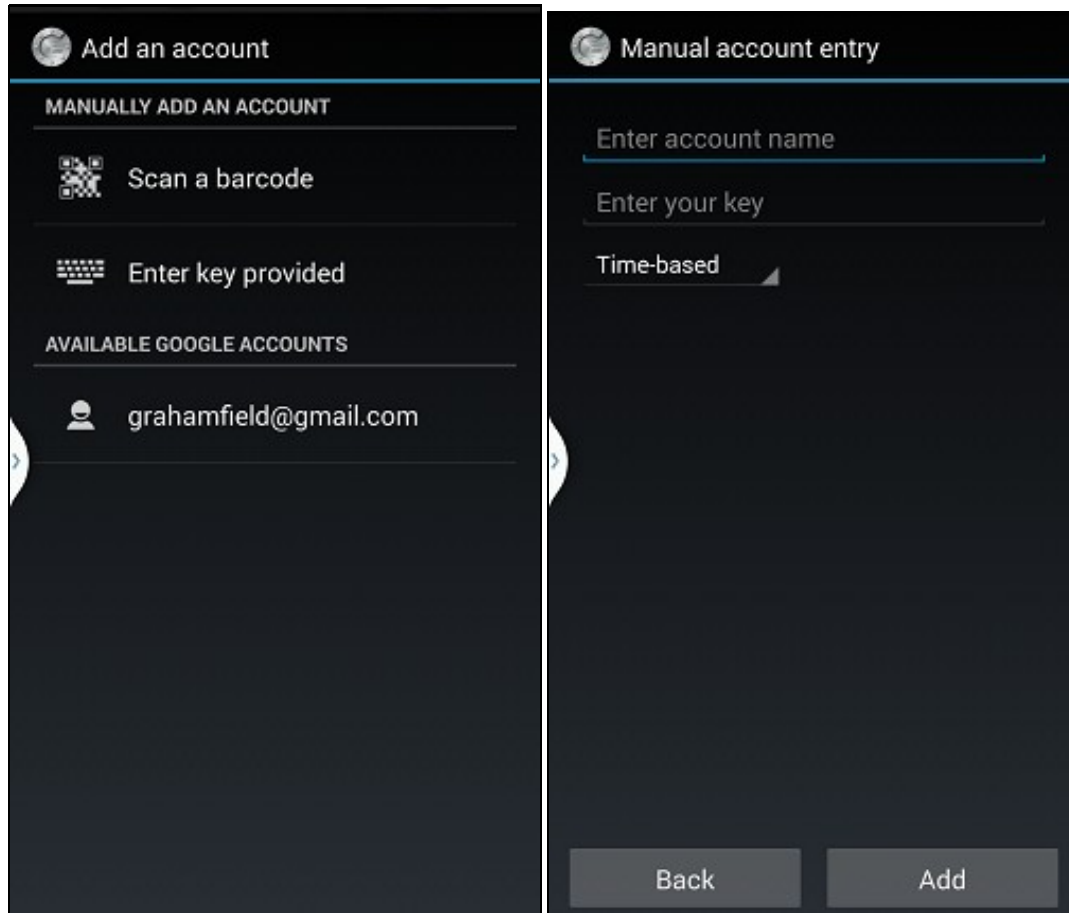
**Enter account name** The Swivel user name

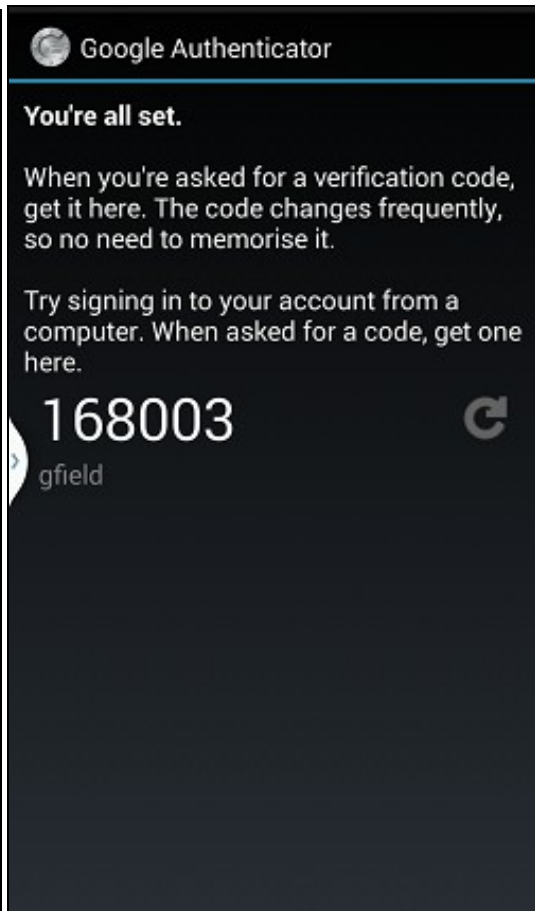
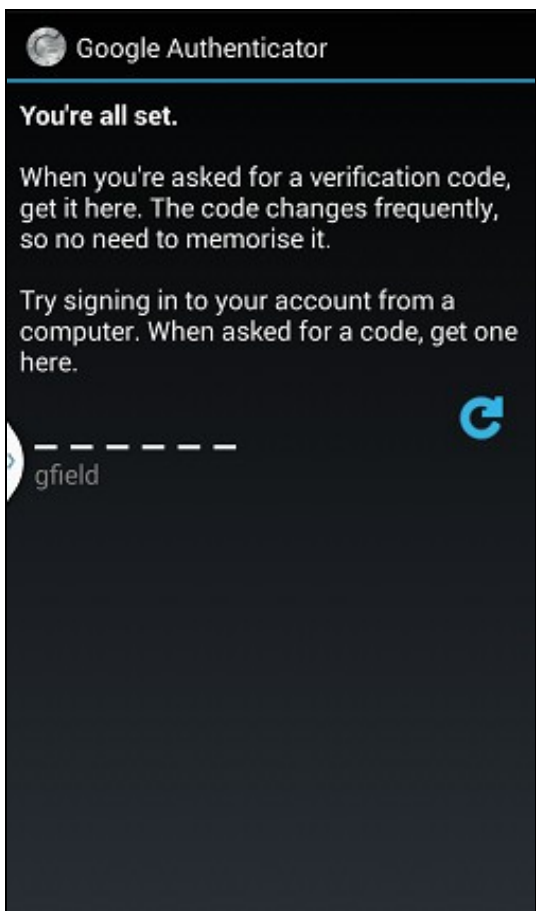
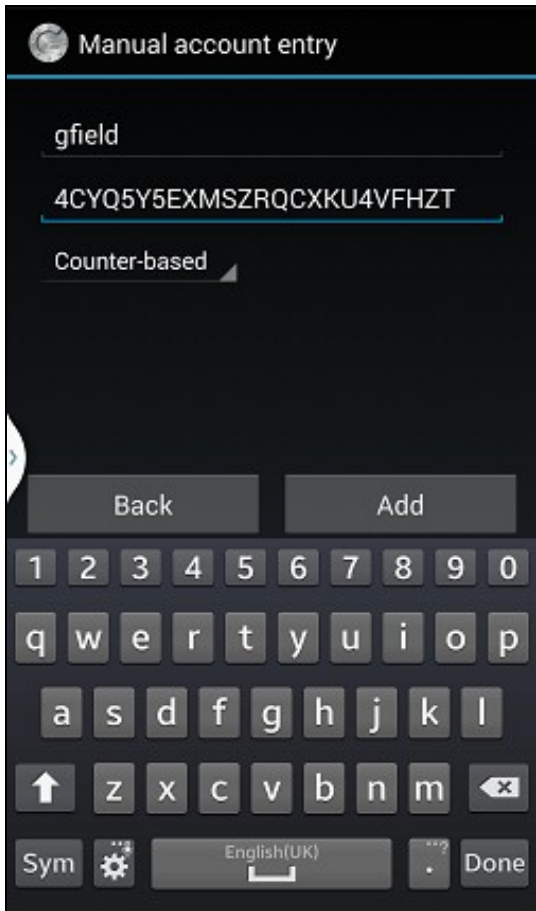
**Enter your key** The seed

**Time-based** change to **Counter-based**

Select Add

Then synchronise the token (see [Token](#))





**Testing**

**Known Issues**

**Troubleshooting**