

# People Counter Release Note

Product Information	
Name	People Counter
Release Number	1.0.0
Release Date	June 2016
Support	<a href="https://ez.analog.com/community/embedded-vision-sensing">https://ez.analog.com/community/embedded-vision-sensing</a>

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This package contains release 1.0.0 of the People Counter product for the ADSP-BF70x family of processors on the BLIP. See the product website [www.analog.com/bf-pplctr](http://www.analog.com/bf-pplctr) for information on the latest release.

The People Counter can be used for counting number of people crossing an area with an overhead mounted BLIP sensor.

## About This Release

This is the first release of People Counter. This release is accompanied with the 1.0.6 release of ADVisionSensorController, which is required for installing, configuring the product and uploading the firmware to the BLIP.

At the time of release, the following tool chain(s) were used to build this product.

CrossCore® Embedded Studio 2.1.0

Your feedback is important to us - please help us make this the best product possible. Keep in mind that we are continuing to work on the People Counter and the product may change in the future.

## Release Highlights

This is the first release of this product. The product supports following features

- Counts number of people entering and exiting an area in a specified direction.
- This is an Evaluation release of the People Counter product on BLIP along with accompanied documentation. The application will timeout after 24 hours of running. After timeout period the number of Entries and Exits is 0.
- The product works in two modes, Installation mode and Standalone (Production) mode. In the installation mode, it will communicate to/from the ADVisionSensorController Rel 1.0.6 GUI, running on the host PC. In this mode the user is expected to install the people counter product overhead, configure the system (details of which are in the User's Guide of ADVisionSensorController 1.0.6 Release), and observe the visualization of the results on the UI. Once the system is running, the user can configure the product to run in standalone (production) mode without any communication to the UI.

In the Standalone (aka production) mode BLIP will run without any communication to the GUI running on the host PC.

- The product sends output metadata on three connectivity ports – SPI, UART and WiFi. SPI and UART port shall establish connectivity of BLIP to an external microcontroller and WiFi shall enable BLIP connectivity to Cloud.
- The product outputs the number of entries and number of exits on the SPI port as per the SPI communication protocol. The protocol document is available as part of this release.
- The product outputs entries and exits as string message on the UART port in standalone (production) mode
- The product supports communication to ThingWorx cloud using Gainspan WiFi module. The WiFi can be enabled or disabled during run time.

## Version Compatibility

This is the first release of People Counter.

## Installation Information

The default top level installation path is `C:\Analog Devices\SoftwareModules`. Please note this will be different if an alternate installation path is chosen. Elsewhere in this document this default path is referred to as `<SWM_ROOT>`

This package is installed into `<SWM_ROOT>\PeopleCounter-BF-Rel1.0.0`

Please consult other release notes of any required Board Support Packages (listed in the Prerequisites section below) for any additional installation instructions.

## Contents

The People Counter product directory structure is as follows:

bin

This directory contains the People Counter executable. This dxe should be used along with ADVisionSensorController Release 1.0.6 for installing and configuring the product, uploading the firmware to BLIP.

doc

This directory contains the documentation.

## Prerequisites

In general, the board revision is silk screened on the hardware board and the BOM revision is a label on the back. Where applicable the silicon revision is printed on the processor on the board. Alternatively, view the Revision ID Register via the IDDE's support to view a processor's registers.

Although we expect that all applications will run on future revisions of the listed hardware please note that the stated revision was the one used in testing for this release.

Note: It is recommended that an emulator be used. For more information consult the IDDE documentation and Analog Devices web site for product information.

## Prerequisites for Using the People Counter Real-time Demo

1. The BLIP2 board (at the listed revision or later) mentioned in the table below:

<b>Supported Hardware</b>	<b>Board Rev</b>	<b>BOM Rev</b>	<b>Silicon Rev</b>
ADZS-BF707-BLIP2	2.0	2.2	1.0

## Getting Started

The product should be used along with ADVisionSensorController Rel 1.0.6 to install, configure and run the People Counter product on the ADZS-BF707-BLIP2 board. Detailed information on how to run this product is provided in the ADVisionSensorController Users Guide that can be accessed from the GUI by clicking on Help tab and then selecting GUI User's Guide.

After the ADVisionSensorController and People Counter product are successfully installed, the developer should launch the executable ADVisionSensorController.exe in the folder `<SWM_ROOT>\ADVisionSensorController-PI-Rel1.0.6\GUI\` and then click on the Help Tab to launch the User's Manual and follow instructions there in to setup the BLIP board and run.

## Known Issues and Limitations

### Known Issues

- The People Counter product is being provided with classifiers for installation heights from 9 to 12 ft.
- Sometimes there may be failure detecting children below height of 4 ft.
- People shouldn't loiter or aggregate in the Field of View of the sensor. The sensor should be installed in an area where people are crossing the area under the sensor.
- People who are not completely in the field of view of may not be counted. The sensor must be mounted at a height and with an appropriate lens such that the complete region of crossing is covered in the Field of View.
- When the People counter application is running with WiFi connectivity to Cloud, there is a possibility of disconnection to the WiFi network. In such a scenario the application goes to connection mode where in the people counter analytics is bypassed and the application tries re-establishing connectivity. This is indicated by short blinking of the LED on Blip. If connectivity cannot be established then the application enters Provisioning mode, indicated by long blinking of the LED on Blip. In this phase the GUI freezes. The users have to reconfigure a new network, or the same network to resume the application.

### *Technical Support:*

<https://ez.analog.com/community/embedded-vision-sensing>

[www.analog.com/support](http://www.analog.com/support) (Tools and Processor support)

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