Application User Manual

Rev: A0

22 Sept 2014

USER'S GUIDE FOR ISL29011 SENSOR PRINTER APPLICATION

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Revision History:

Date	Rev No.	Description	By
22 Sept 2014	A0	Application User manual for ISL29011 printer application	Intersil Corp.

Table of Contents

1 Introduction

This application manual explains the Printer Application of ISL29011 Sensor. Which will calculate the number of pages remaining in the paper tray as well as photo tray by using the proximity count.
This application will be compatible for Windows XP/7/8/8.1 platform.

1.1 Feature:

1. View proximity count as well as paper remaining continuously.

2. Work for two types of tray.
   a) Paper
   b) Photo

   Each tray contains indivisually six type of papers
   Paper Tray:
   a) PaperPoint Typing Paper (60g/m2)
   b) Paper One Copier HSPCP (70g/m2)
   c) Paper One All Purpose (80g/m2)
   d) A'Zone perfectCopy (100g/m2)
   e) A'Zone perfectCopy Nature (160g/m2)
   f) A'Zone perfectCopy (160g/m2)
   Photo Tray:
   a) Photo paper one
   b) Photo paper two
   c) Photo paper three
   d) Photo paper four
   e) Photo paper five
   f) Photo paper six

3. Grid view for the LUT tables.

4. Edit the LUT values for a particular paper type in running application

5. User Compatible modes
   a) Continuous
   b) Once

6. Easier switch from one tray to another tray using radio button

2 Installing the Application

This application is deployed for Windows xp/7/8/8.1 platform. Necessary updates and software upgradations will be provided for the same in final release with concern to Intersil feedbacks.

2.1 Installation files

.exe file provided by intersil for this application.
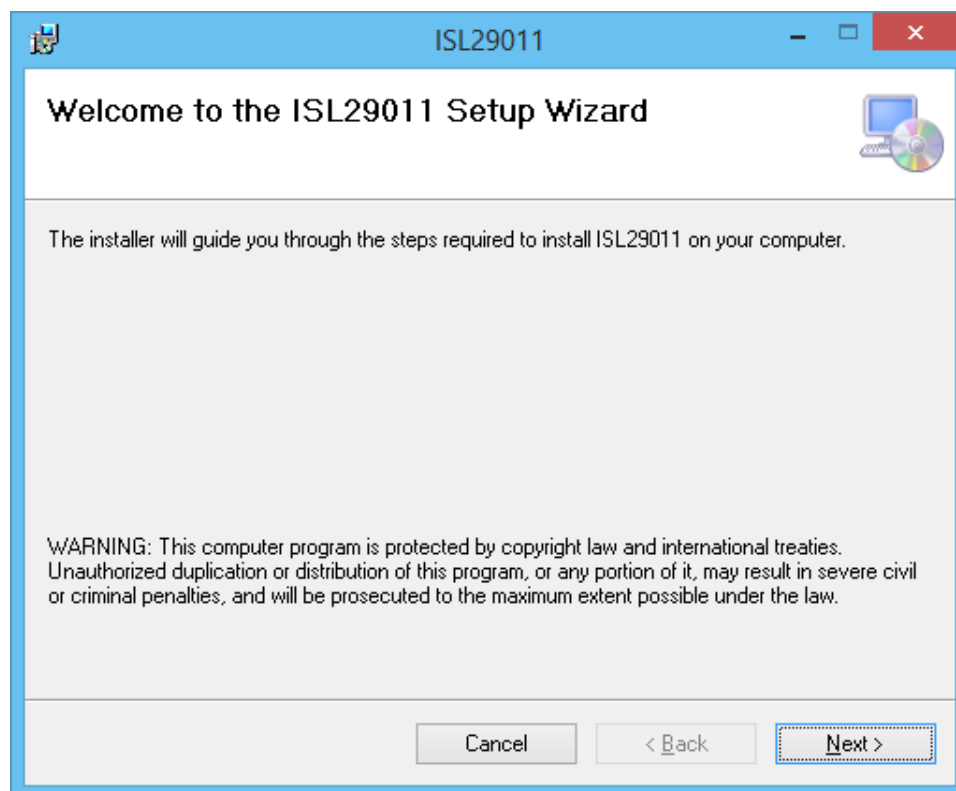
2.2 Installation procedure

2.2.1 Extracting the files

- Log onto host computer running Windows operating system, using an account with local administrator privileges.

- Copy the application package archive (PrinterDemo_isl29011.zip) to anywhere in the hard disk.

- Open the appropriate subdirectory as per the host computer architecture.
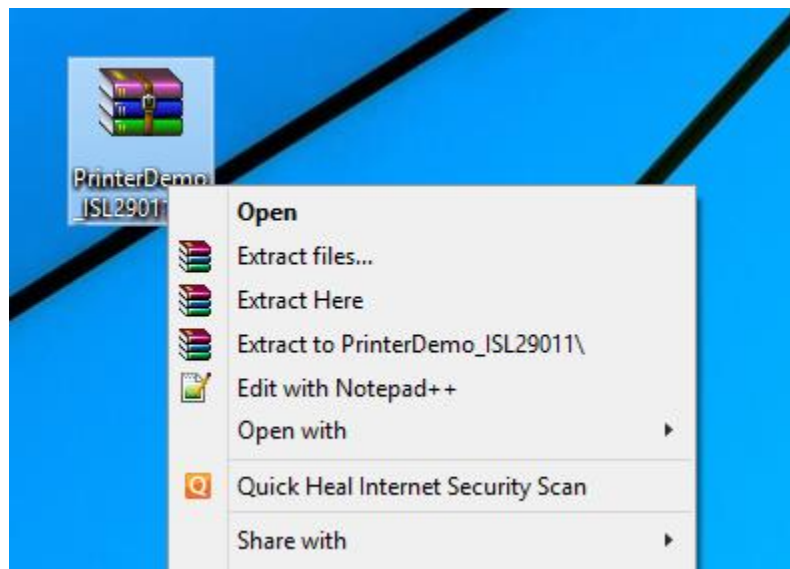
- Install the Application
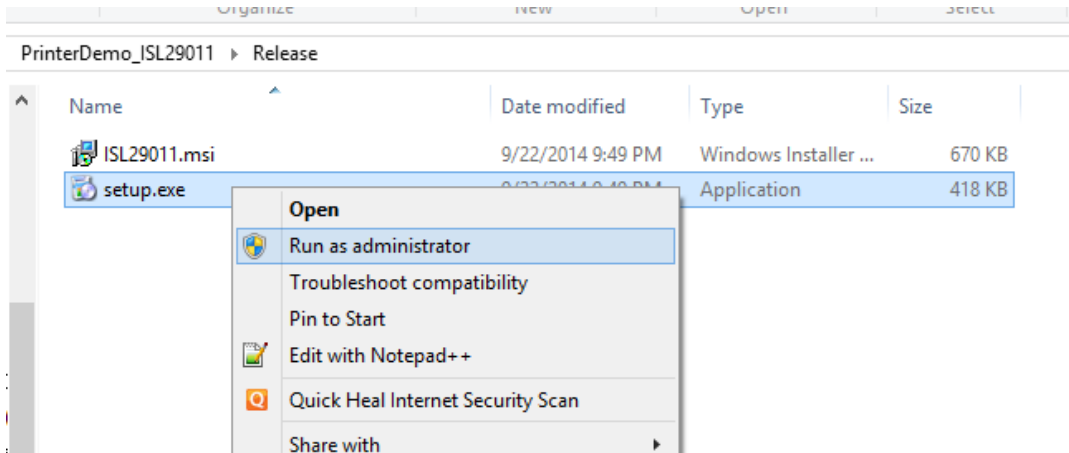
- Press the Next button to continue installation.
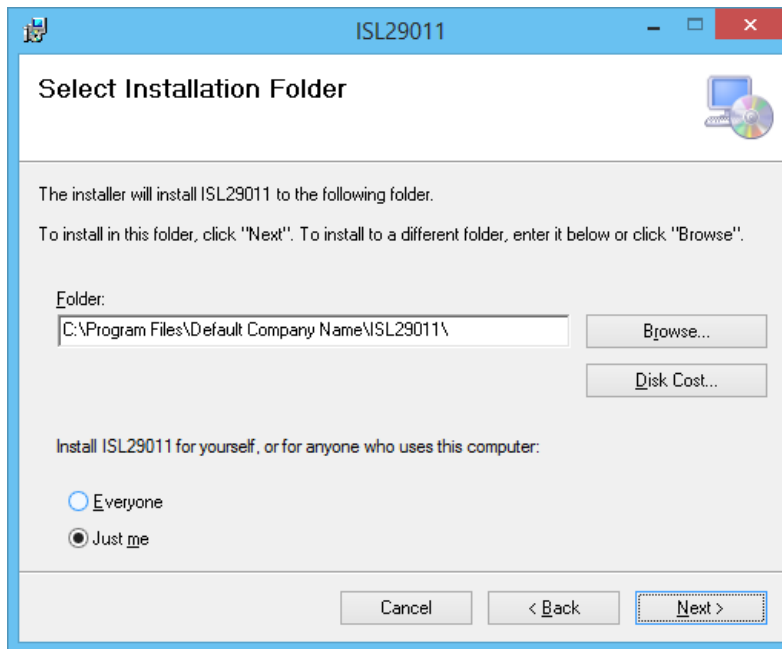
- Choose the appropriate path where we want to install the application.

INTERSIL CORPORATION
1001 Murphy Ranch Road
Milpitas, CA 95035 Page 8 of 19 22-Sep-2014
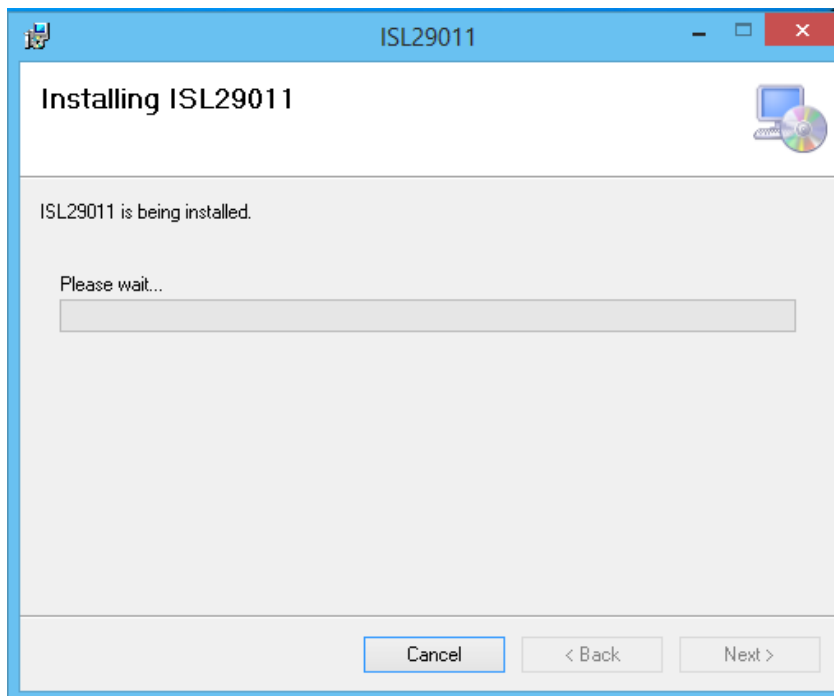
- After successful installation user should be able to find the application tile on the Start screen. Click on the application tile to run it.
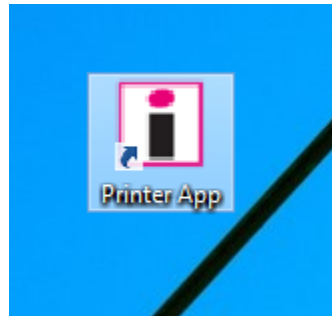
3 Using the Application

- Now Select the Printer App and connect your sensor board with your running printer machine tray and press the connect application.

- Press connect button to run the application.
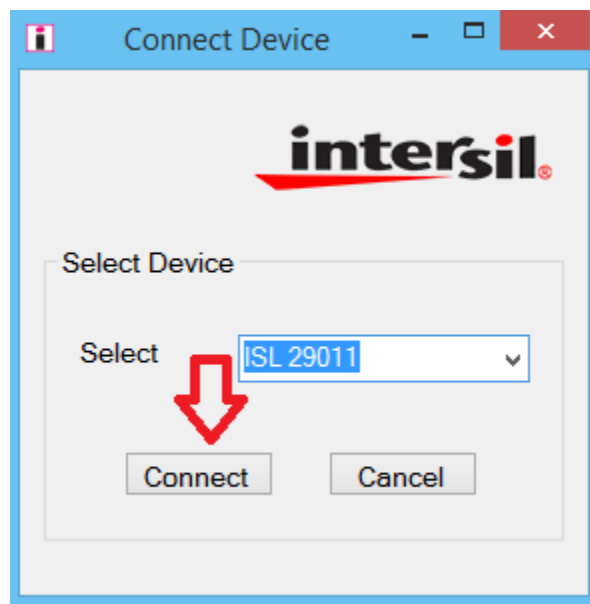
- The below page is the default page

- We can select the paper tray and observe the status for the proximity count value and number of pages remaining in the paper tray of printer.

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22-Sep-2014

PrinterDemo-ISL29011

Tray Type: Paper Tray   Save LUT

Paper Type: PaperPoint Typing Paper (60g. ▾)

Edit Paper Type
Type: PaperPoint Typing Paper (6

Edit

Paper No.	PaperPoint Typing Paper (60g/m2)	Paper One Copier HSPCP (70g/m2)	Paper One All Purpose (80g/m2)	A'Zone perfectCopy (100g/m2)	A'Zone perfectCopy Nature (160g/m2)	A'Zone perfectCopy (160g/m2)
0	602	297	297	296	269	298
1	926	911	928	937	997	850
2	993	950	1004	1006	1053	950
3	1024	984	1025	1036	1075	984
4	1045	1010	1050	1055	1090	1010
5	1054	1022	1069	1067	1102	1022
6	1066	1025	1077	1073	1119	1025
7	1072	1037	1085	1075	1122	1037
8	1074	1048	1093	1080	1131	1048
9	1076	1054	1134	1086	1134	1054
10	1085	1058	1179	1089	1140	1058
20	1112	1082	1225	1131	1200	1082
30	1145	1113	1279	1171	1274	1113
40	1174	1138	1332	1219	1360	1138
50	1210	1171	1390	1268	1450	1171
60	1250	1210	1455	1319	0	1210
70	1288	1244	0	1373	0	1244
80	1329	1268	0	1435	0	1268
90	1382	1297	0	0	0	0
100	1424	1351	0	0	0	0

Mode Selection
◉ Continous   ○ Once

Start   Stop

Tray Type
◉ Paper Tray   ○ Photo Tray

3   Capture   Refill

Paper Type: PaperPoint Typing Paper (60g/m2)

Paper Tray Status
Count   1410
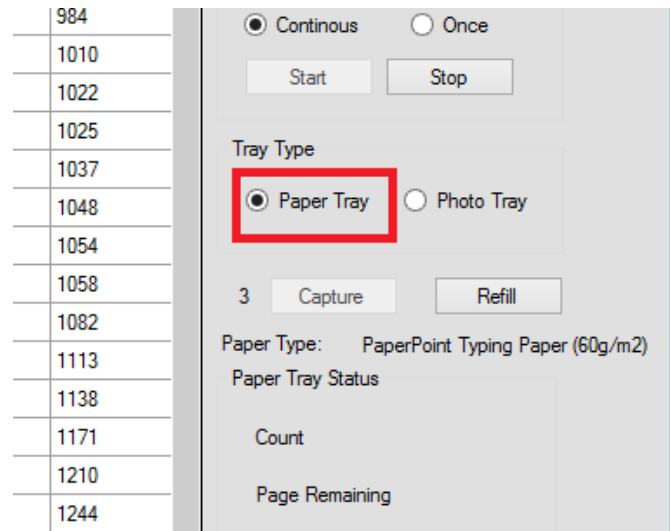Page Remaining   97

Photo Tray Status
Count
Page Remaining

- We can choose the photo tray and observe the current status of proximity value and number of pages remaining similar to paper tray.
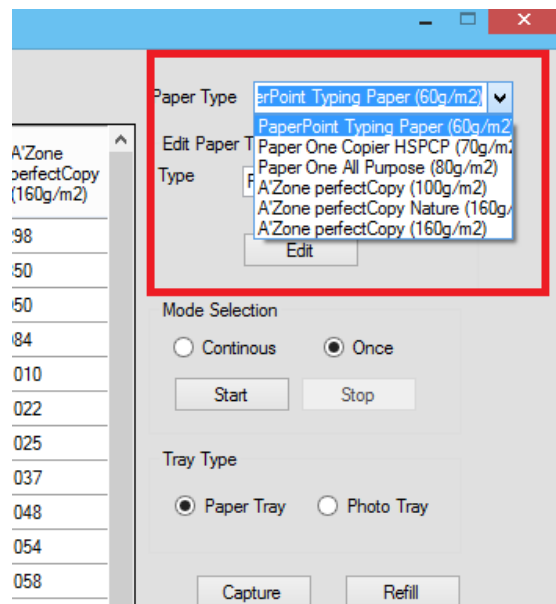
4   Set the configuration

4.1   Paper Tray:

- Select the radio button as a Paper tray

- Choose the Paper Type to fill the LUT table according to the proximity count and press Edit button.
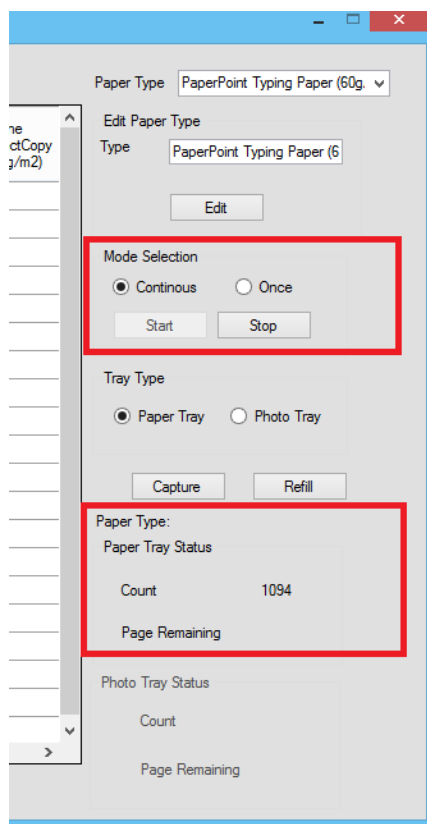
- Now we can edit only that particular column and save it after the edit complete, similarly we can edit the other values of the LUT table and save it.

- After the save LUT we are ready to run the application. And select the mode in which we want to operate it like continuous and once.
- If we select continuous now press start to enable the sensor to display the count value on the screen. And stop it if we finished our all operation.
- Similarly if we select once mode only the start button will be enable it will stop automatically.

- Now remove one paper from the paper tray and press the capture button. This step will be repeat three times and internally algorithm will calculate the slope of paper.
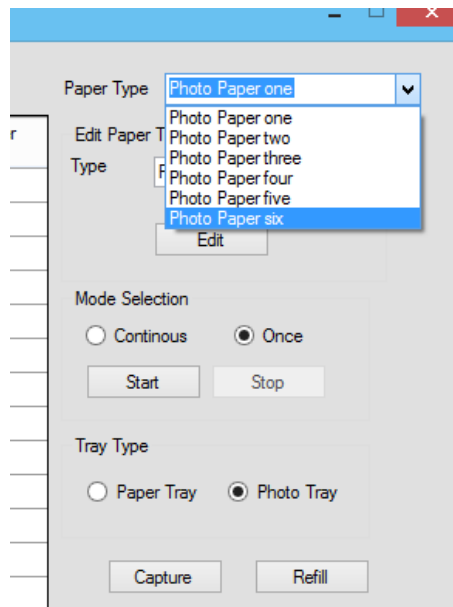- Now we can able to see the number of remaining pages in the paper tray.

- If we want to refill our paper tray then all the above steps we have to follow again to get the remaining paper count value.
- If we chooses once mode we have to press the capture button manually three times because it takes reading one time automatically. After three capture it starts to display the number of pages same as continuous mode.

4.2 Photo Tray:

- Select the radio button as a Photo tray
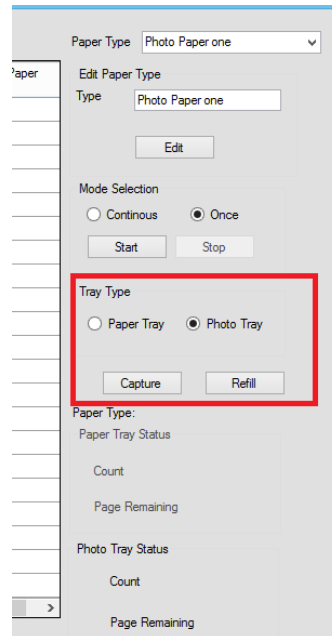
- Choose the Photo Type to fill the LUT table according to the proximity count and press Edit button.

- Now we can edit only that particular column and save it after the edit complete, similarly we can edit the other values of the LUT table and save it.

- After the save LUT we are ready to run the application. And select the mode in which we want to operate it like continuous and once.
- If we select continuous now press start to enable the sensor to display the count value on the screen. And stop it if we finished our all operation.
- Similarly if we select once mode only the start button will be enable it will stop automatically.

- Now remove one paper from the paper tray and press the capture button. This step will be repeat three times and internally algorithm will calculate the slope of paper.
- Now we can able to see the number of remaining pages in the photo tray.

- If we want to refill our photo tray then all the above steps we have to follow again to get the remaining photo count value.
- If we chooses once mode we have to press the capture button manually three times because it takes reading one time automatically.

NOTE :

- All the LUT values in a column will be in ascending order (from top to bottom) and the row will be minimum to maximum(depends on paper thickness)
- Replace maximum height by 0 at the end of each column when filling the LUT table (We replace maximum height by 0 for algorithm calculation in next release we will make it user convenient)