

Basic Retail Receipt Printing Flowchart

Introduction

This application note illustrates the flow of a very basic retail transaction with and without Star SDK functionality. The example used is Star's ETB function, a status command that returns a digit to the POS application indicating if a receipt printed successfully or not. The charts in this document are intended to assist developers new to the POS industry with understanding the flow of a generic retail scenario.

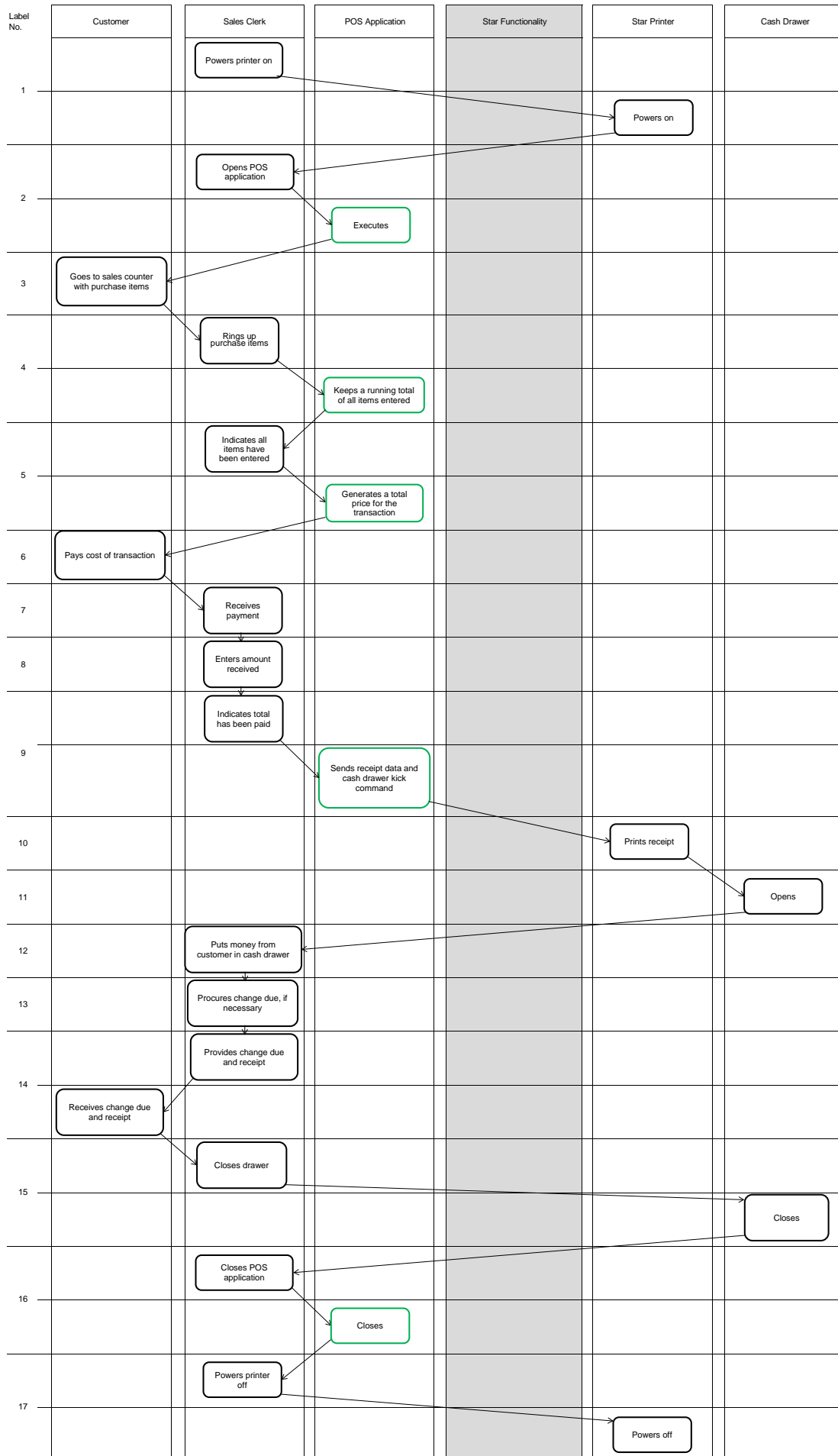
ETB is just one method to improve customer experience at the point of sale. Star offers an entire range of SDKs covering environments from Android, iOS, Windows, Linux, Mac, and more that are all packed with easy-to-implement Star Printer functionality. Visit our [Developers Page](#) to download them for free.

Basic Retail Transaction without Star Functionality

Actors	Description
Customer	Brings purchase items to the Sales Clerk, gives money to the Sales Clerk, receives receipt and change from the Sales Clerk
Sales Clerk	Uses POS Application, enters item numbers, generates sale total, receives money from the Customer, prints a receipt, opens the cash drawer, provides change due to the Customer, provides the printed receipt to the Customer
POS Application	Stores all product item numbers, opens a transaction when the Customer wants to pay, generates a running total of items as they are scanned by the Sales Clerk, sends receipt data to the Printer, sends drawer kick command to the Printer, handles payment from Customer, closes the transaction
Printer	Receives print data from the POS Application, receives drawer kick command from the POS Application, prints a receipt, sends drawer kick command to the Cash Drawer to open it
Cash Drawer	Receives drawer kick command from the Printer, opens, closes

Label	Scenario
1	Sales Clerk powers Printer on
2	Sales Clerk opens POS Application
3	Customer gives purchase items to Sales Clerk
4	Sales Clerk enters purchase item data into POS Application
5	Sales Clerk generates the total cost for the purchase
6	Customer gives money to Sales Clerk
7	Sales Clerk receives money from Customer
8	Sales Clerk enters the amount of money received into POS Application
9	Sales Clerk closes the transaction in POS Application
10	Printer prints receipt data received from POS Application
11	Cash Drawer opens from drawer kick received from Printer
12	Sales Clerk puts money received from Customer in Cash Drawer
13	Sales Clerk procures change due from Cash Drawer
14	Sales Clerk provides receipt and change due to Customer
15	Sales Clerk closes Cash Drawer
16	Sales Clerk closes POS Application
17	Sales Clerk powers Printer off

Retail Transaction Without Star Functionality



Basic Retail Transaction with Star ETB (Status) Functionality

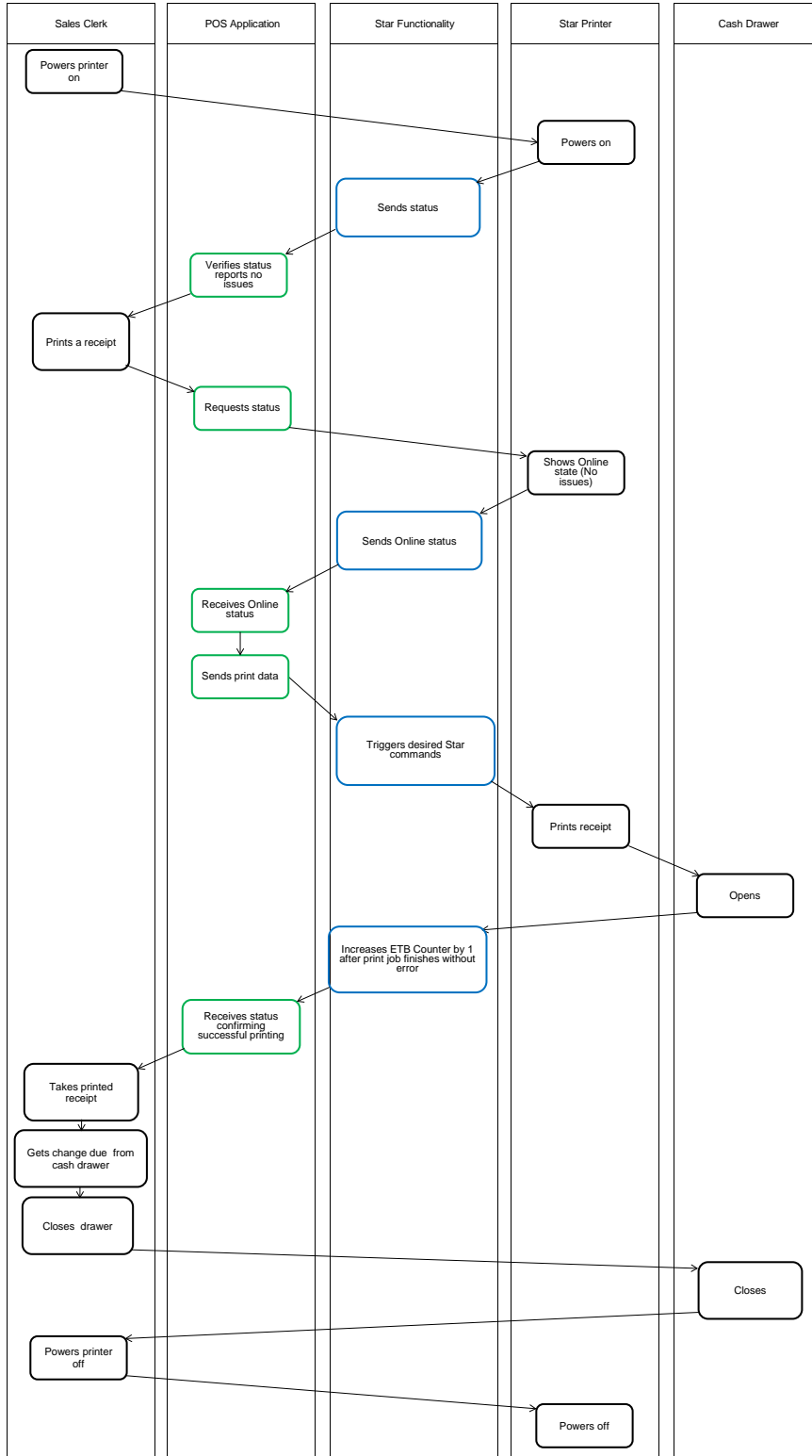
Stakeholders	How Concerns are Resolved
Customer	Customer now receives the correct receipt
Sales Clerk	Store Clerk can feel confident that the receipt was printed perfectly

Actors	Description
Customer	Brings purchase items to the Sales Clerk, gives money to the Sales Clerk, receives receipt and change from the Sales Clerk
Sales Clerk	Uses POS Application, enters item numbers, generates sale total, receives money from the Customer, prints a receipt, opens the cash drawer, provides change due to the Customer, provides the printed receipt to the Customer
POS Application	Stores all product item numbers, opens a transaction when the Customer wants to pay, generates a running total of items as they are scanned by the Sales Clerk, sends receipt data to the Printer, sends drawer kick command to the Printer, handles payment from Customer, closes the transaction
Star ETB Status	Star Printer maintains internal counter that increases by 1 digit when print jobs finish printing correctly; ETB data is transmitted to POS Application to confirm if the print job succeeded and failed
Printer	Receives print data from the POS Application, receives drawer kick command from the POS Application, prints a receipt, sends drawer kick command to the Cash Drawer to open it
Cash Drawer	Receives drawer kick command from the Printer, opens, closes

Refer to These Additions in Chart Below

Scenario
Receipt data is sent to Printer from POS Application
POS Application sends ETB command to Printer and waits for reply
Printer increases ETB Counter by 1 if receipt printed successfully and sends status data to POS Application
POS Application confirms ETB Counter was increased by 1
POS Application moves to next procedure

Retail Transaction With Star ETB (Status) Functionality





Star Micronics is a global leader in the manufacturing of small printers. We apply over 50 years of knowhow and innovation to provide elite printing solutions that are rich in stellar reliability and industry-respected features. Offering a diverse line of Thermal, Hybrid, Mobile, Kiosk and Impact Dot Matrix printers, we are obsessed with exceeding the demands of our valued customers every day.

We have a long history of implementations into Retail, Point of Sale, Hospitality, Restaurants and Kitchens, Kiosks and Digital Signage, Gaming and Lottery, ATMs, Ticketing, Labeling, Salons and Spas, Banking and Credit Unions, Medical, Law Enforcement, Payment Processing, and more!

High Quality POS Receipts, Interactive Coupons with Triggers, Logo Printing for Branding, Advanced Drivers for Windows, Mac and Linux, Complete SDK Packages, Android, iOS, Blackberry Printing Support, OPOS, JavaPOS, POS for .NET, Eco-Friendly Paper and Power Savings with Reporting Utility, ENERGY STAR, MSR Reading, *future*PRNT, StarPRNT... How can Star help you fulfill the needs of your application?

Don't just settle on hardware that won't work as hard as you do. Demand everything from your printer. Demand a Star!

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