DTCC Toner Inventory System

System Guide

(Team Name)

Dustin, Shane, Tyler

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Installation/Setup

The DTCC Toner Inventory System is a console based application based in an IDE environment with a menu driven system. This means that the setup for this system will involve having the source code for the base program as well as selecting the up-to-date printer and toner csv files from the file explorer.

This Toner Inventory System was developed using an Eclipse IDE using JDK 10.0.1. To begin the installation of the system, a java IDE must be installed. Recommendations include IDE’s such as Eclipse or InteliJ IDEA. These can be installed from <https://www.eclipse.org/ide/> (Eclipse Foundation) , as well as <https://www.jetbrains.com/idea/> (JetBrains). Once selected IDE is installed, be sure to have current JDK <https://www.oracle.com/technetwork/java/index.html> (currently JDK 12) installed.

With the IDE of choice downloaded, source code for the DTCC Toner Inventory System can be obtained from a shared github repository at <https://www.github.dtcc.edu> . After logging in with your username and password you will need permission or access from the development team to access and download said files. Once access has been given the source files can be downloaded from the overview section in the details tab or the repository section as a .zip. After unzipping the source files they can be exported to a project folder of choice. The source files should be located in the src of created project folder.

Once source files are located in its own project folder, it can be started and ran as a java application. This should prompt a file browser to select the most up to date csv files for the most recent inventory listings. After selecting your csv files you are ready to use the DTCC Toner Inventory System.

Maintenance

When maintenance is needed for the DTCC Toner Inventory System or additional features would like to be added, it is good to know the ins-and-outs of the program and the source code files. This section of the documentation will into the details of these files and their respective classes should a DTCC tech or developer would like to edit or make changes.

General Classes

The general classes of the DTCC Toner Inventory System are split up into four separate classes. The overall structure of these four classes is rather simple and the UI currently focuses on a console-based menu-driven interface. These classes also interact with three different CSV files within similar directories, but the core of the functionality resides within these classes.

The general classes have been separated into respective source files that should be located in the project src folder. These files are Driver.java, Printer.java, and Toner.java. The core of the system functionality and framework for the program resides in the Driver.java file with the Driver class. The Printer and Toner classes house the framework for the Printer and Toner data types, which are manipulated within the Driver class. Unlike many other programs that divide functionality among various classes in order to maintain organization, practically all of the DTCC Toner Inventory System’s functionality resides within the single Driver class. This class performs many actions for the program such as parsing the given or selected csv files, creating the file browser to select said files, and code to utilize a menu-driven console-based UI system which allows the user to select a desired functionality and have the program carry it out. Depending on the option the user picks the program may ask for parameters for the user to input which are established in the Toner and Printer classes. In order to verify the functionality of all major functions (primarily concerning the Driver.java class), a class titled JunitTests.java was created, and it holds all of the JUnit tests that simulate each individual function through a number of scenarios. This should be in the same directory as the other 3 .java files.

Given the size of this program, these attributes are what you need to focus on when performing maintenance on the system. The core efforts should be placed on the driver class, and the console-based menu-driven UI should be maintained throughout maintenance to allow the user to interact with the program. Additionally, if the printer and/or toner classes are to be changed, it is important to carry those changes through to the driver class as well.