

## Tall Bridge Shop Floor Data Collection

### Overview

The Shop Floor Data Collection (SFDC) System is an ISV solution. It's primary goal is to record all the time spent on job/work order operations as and when these operations are worked on by shop floor employees. The primary purpose of SFDC is to report progress on jobs/works orders in the factory on a real-time basis in order to enable scheduling modules like Preactor to schedule scenarios and analyse outcomes. The secondary purpose is to account for direct labour and material costs against the jobs as well as managing and controlling the production workforce. These entries are stored in the application's own database. As no man is an island, no database is

either, so an obvious extension to this primary purpose is to post the transactions back to the Enterprise Resource Planning (ERP) System via the SFDC management application.

It is inherent in the design of the SFDC System that it does not provide for the creation and maintenance of the manufacturing jobs or work orders against which all its transactions are recorded. This is the role of (ERP)

systems, and the

SFDC system is not designed to fulfil that role. SFDC makes use of a Windows Service that runs on a continuous basis. The purpose of this service is to keep the data in SFDC in sync with the ERP System. The service downloads updated job information from the ERP System on a scheduled basis. How often this happens is a configurable parameter. The start up screen for the SFDC system is touch screen enabled and is the main point of entry to the application (See Figure 1: Start-up Screen).

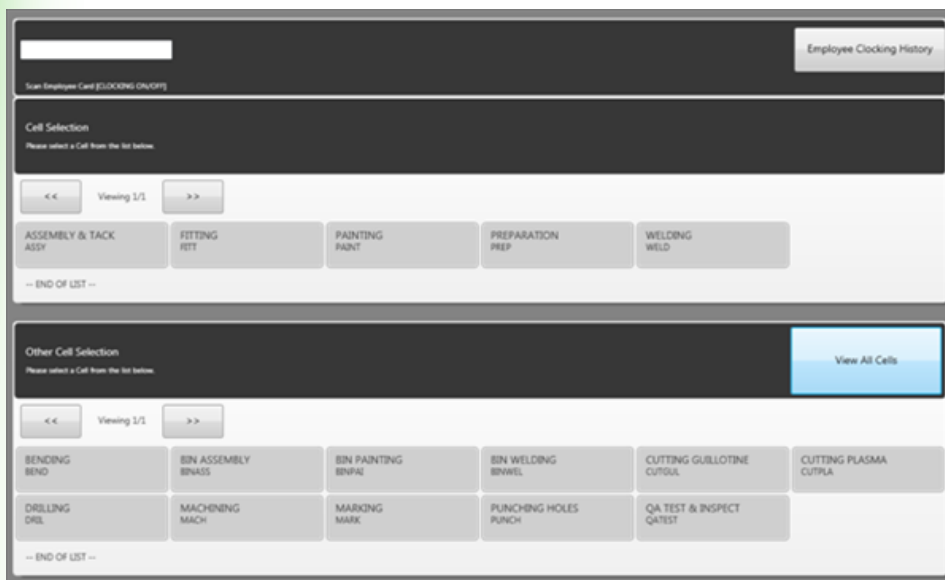





Figure 1: Start-up Screen

### Management Application

The SFDC Management Application completes the triangle. This application is designed to be used by administrative personnel working on a desktop. It provides the functions to configure the SFDC System (i.e. defining cells, work centres, towers, employees and security) and to post information about time spent on operations, the status of operations and the quantities completed back to the ERP system. This application is used to do the following:

-  Configuration of the SFDC Environment (towers, cells, employees, security);
-  Visibility of transactions in the system;
-  Posting of transactions back to SYSPRO;

- Analysis of shop floor information; and
- Production execution planning.

## Functionality

Apart from recording the time spent on a job/works order, a number of other functions have also been built into application, making it worthy of being called an SFDC system. Some of these functions include recording completion of job operations, defects and other quality shortcomings incurred during the manufacturing process, while also recording shortages incurred during production. Information is communicated back to users in a

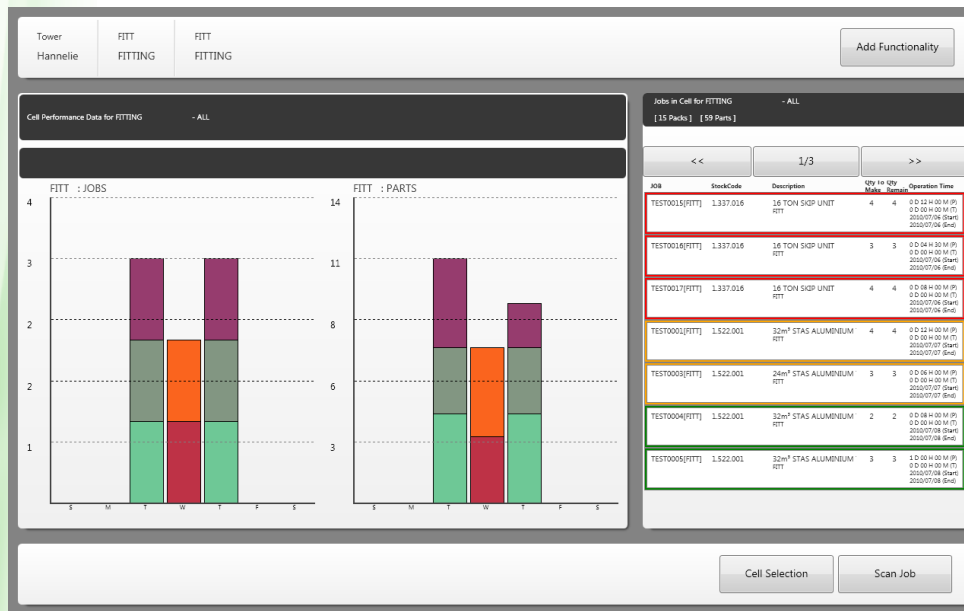


Figure 2: Main Screen

visually-appealing manner and indicate information about the work they have to perform (Red – overdue, yellow – do today and green – due in the future) (See Figure 2: Main Screen). A touch-screen-friendly interface intended to be used on the shop floor, while a separate, keyboard-and-mouse-friendly interface is intended for use in the administration office to execute management and configuration functions (SFDC

Management Application). This system controls time-and-attendance of employees working on the production floor and records time against specific projects that are non-production related. The facilitation of batching work orders eliminates overuse of scanning in short interval operations. There is a generation of bar-coded production process sheets, while electronic drawings/work instructions/production specifications on the shop floor are made available. A dashboard of list of jobs to work on gives an indication whether they are progressing as planned and scanning of specific batch materials to works orders allows for traceability purposes.

## Display Dashboard

All information regarding jobs/works orders can be displayed in a dashboard-type display that is mounted on a wall for all to see. The dashboard will have a refresh interval configured in the SFDC management application. The display can be adjusted via the easy touch screen interface that is inherent to the SFDC system.