



## PROJECT BRIEF

*We Can Take You There!™*

# SCA Recycling Single Stream Control System

**Description:** Bulk Handling Systems (BHS) is one of the leading manufacturers of recycling processing equipment in the world. SCA, a BHS customer in the United Kingdom, installed a single-stream recycling system in their facility; single-stream systems allow recyclers to mix all recyclables (including glass) in one bin. Since many of BHS's customers are located outside of the US, remote service and support is critical to their success. Concept Systems worked closely with BHS to help ensure that success sorted to the top.

One of the first steps in this project was to determine the most suitable PLC platform – Allen-Bradley or Siemens. BHS typically uses Allen-Bradley, but that was not necessarily the right solution for SCA. To assist with this, Concept Systems provided BHS a detailed matrix with weighted scores for key aspects, including customer knowledge of each platform, hardware lead times, and local support. Concept Systems and BHS completed the matrix together and BHS determined that Siemens was a right fit for SCA. Concept Systems quickly got to work with system design, and subsequently, and ordering parts. Siemens and its local distributor helped greatly with the tight project schedule.

With the end customer across an ocean, Concept Systems, while unique in its approach to engage who would normally be considered a competitor, felt it was extremely important to engage a local integrator for local support and future upgrades. Using a process similar to the one outlined above Concept Systems interviewed several qualified local integrators to find the best match for Concept Systems, BHS, and SCA. BHS and Concept Systems remotely support more complex system issues through a Virtual Private Network (VPN) firewall device.

Once on the VPN, remote supporters can edit the PLC or Human Machine Interface (HMI) as needed. The Siemens platform allows for broadcasting the touch screen HMI via a web page. This allows others to see what the end user sees and to control the HMI through a standard web browser. PLC edits are easily accomplished via the VPN as well.

SCA's UK-based recycling plant operates on 230V, 50Hz AC, unlike the US's 110V, 60Hz standard. Concept Systems configured and tested the system with the UK power settings at our US facility. This drastically reduced setup time and was an added benefit of selecting the Siemens platform.

Concept Systems focused on the end customer's needs during every stage of this project. From determining the appropriate platform to providing a qualified local integrator for ongoing support, Concept Systems helped sort it all out!



### Results:

- Determined PLC platform based on customer needs
- Selected UK integrator for post-startup support
- Incorporated Siemens' Totally Integrated Automation solution

### Technologies/Platforms

#### Used:

- Siemens S7-300 and S7-200 PLCs
- Siemens WinCC Flexible SIMATIC MP-377 and TP-177 Touch screens
- Siemens Micromaster 440 drives
- Siemens ET200 I/O modules
- SonicWall VPN Firewall
- Profibus for I/O and drive communication
- Ethernet for PLCs, HMIs, and remote support

### Services Provided:

- Control Engineering and Design
- PLC/HMI/Drive Programming
- Electrical Enclosure Design & Manufacture
- Start-up & Commissioning
- Remote Support

### REGIONAL OFFICES

Albany, Oregon  
Denver, Colorado

Seattle, Washington  
Charlotte, North Carolina

