

Overview

Focus:

Develop Level 2 HMI client/server software for automated steel desulphurization facilities

Country:

China

Desulphurization Facility

Hot Metal Desulphurization

JNE Automation developed the Level 2 HMI client/server software for several automated steel desulphurization facilities in China.

The software was developed using the Delphi programming language and Oracle Database software. The software consists of three components:

1. Level 2 HMI client: provides an interface for the operator to view and edit Level 2 data. It provides the operator with all of the data pertaining to the current injection as it becomes available and all previous injections. The operator can also schedule injections, add and view reagent inventory, and view alarms. The operator may view charts and reports of historical injection data (written using Crystal Reports), and is provided with a tool to create custom reports. This program runs on a workstation.

2. Model: performs the complex calculations required to obtain the precise amount of chemical reagent (magnesium and lime) that the desulphurization process requires, depending on the initial properties and intended steel grade of the hot metal. It is a Windows based program that runs on the server.

3. Transfer Service: performs transfer of data between the Oracle database and the other Level 2/3 Oracle servers in the facility. It is a Windows based program that runs on the server

Rockwell Automation's RSSQL software was used to retrieve current injection data from the PLC and store it in the Oracle database, and to allow the HMI to send the results of the reagent calculation to the PLC.

JNE Automation is working with a local technology provider to test and integrate the software with the desulphurization facilities, as well as providing training to the client with on-site setup and installation support.

