

## Case Study: LTV Copperweld

### Market

Manufacturer of Structural Steel Tubing

Annual Revenues  
\$200 million

### Problem

LTV - Copperweld was constantly forced into a position of borrowing convertible raw materials from various production runs to meet spikes in demand in another production line. Copperweld's Materials Resource Planning (MRP) system did not support visualization of the stock outs or inventory fluctuations that resulted from these practices. Consequently, Copperweld suffered from inaccurate raw material inventory levels and periodic shortages of vital materials in several production runs.

### Solution

Working directly with Copperweld IT Executives and Production staff, Ultra Consultants designed a Raw Materials Pipeline Model. Utilizing a custom application and Microsoft SQL Server, this model extracted raw materials inventory data, pipeline data, finished goods orders and forecasts from the operational systems. Detailed conversion/precedence rules, and exceptions to rules, were acquired from the operational system and interviews with the master scheduler. These rules allowed the Raw Materials Pipeline Model to simulate raw-material consumption into the future.

Furthermore, Ultra Corporation technicians designed a Decision Support System (DSS) and reporting writer, using Cognos, to allow fast, graphical use of the

information generated from the Raw Materials Pipeline Model.

### Benefits

- Stock-out reduced significantly by giving suppliers longer lead times
- Scrap was reduced by nearly 2%
- Raw materials inventory reduced by 40%