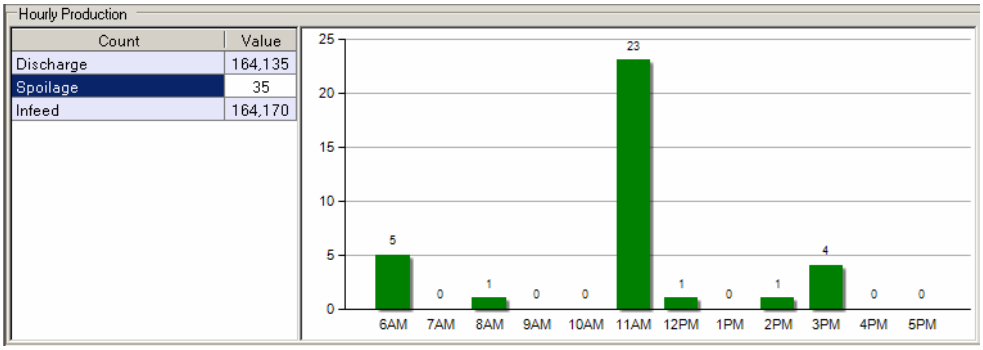
Intelligent Execution

Uncovering the Source of Scrap

by Chris Chandler

Scrap, or spoilage, can be a significant source of lost production efficiency. Not only that, but the real material loss causes a direct reduction in profitibility.

In order to eliminate scrap, you must eliminate events in the production operation that result in the accumulation of scrap. The biggest challenge is often knowing exactly when during the shift the scrap accumulated - shift totals are not enough.



Machine Shift Summary - Hourly Scrap

Getting Value Step-by-Step:

1. Use the *Machine Shift Summary* to identify "when" the scrap occurred.
2. Drill-down into the *Machine Downtime Log* to identify specific events at that time.
3. Improve operating procedures for sustainable scrap reduction.

Acumence analyzes production losses every minute of the day. A quick glance at the hourly scrap totals shown above shows that most scrap was acrued during the 11 AM hour. Now we know "when", but we don't know "why?"

Downtime Machine Log Details

Downtime Description	Date	Time Down	Time Up	Elapsed Time	Root Cause
Trimmer Stopped	02/24/2006	11:32:34	11:32:42	00:00:07	Tooling Replacement
Trimmer Jam	02/24/2006	11:32:22	11:32:33	00:00:11	–
Trimmer Jam	02/24/2006	11:30:35	11:32:18	00:01:42	–
Unloader Jam	02/24/2006	11:28:41	11:30:20	00:01:39	–
Trimmer Jam	02/24/2006	11:17:47	11:19:39	00:01:52	–
Unloader Jam	02/24/2006	11:14:43	11:17:23	00:02:39	–
Reverse Blade	02/24/2006	11:11:54	11:14:28	00:02:34	Tooling Replacement

Machine Downtime Log – Event Details

A scan of events during the same hour reveales a series of jams until tooling was finally replaced. The quality manager, investigating further, found out that the assigned machinist was not properly trained, and no procedures had been provided for the tooling change. As a result, scrap increased until the tooling could be correctly adjusted.

Acumence's Manufacturing BI solution pointed to the exact problem. With this information, the quality manager can put new procedures in placeso that future tooling changes won't have the same result.