Dynamic Shred:

Dynamic Shred is a complete package with the following modules Dynamic Production System (DPS) and Dynamic Shred Control (DSC). DPS is your plant information system and DSC is your control system; together they maximize your productivity, efficiency, profitability and quality while minimizing your operating conversion costs. DPS enhances DSC as you are able to fine tune the system to improve the operating efficiency of the shredder. The two systems combined offer the following improvements:

- Return on Investment is typically 2 to 3 Months.
- Increase on production up to 20%.
- Increase operating efficiency.
- Decrease operating conversion costs.
- Increase the quality of Ferrous and Non Ferrous end product.

A quote from one of our customers “It is the best system on the market”

Each module can be installed separately and does not rely on each other plus can be incorporated into your current environment.

DSC (Dynamic Shred Control)

DSC is an automation system which analyzes the critical information from the Mill Motor to automatically maximize the feeding of shredder.

- Achieves full box shredding.
- Reduces downtime.
- Increases efficiency.
- Improves consistency.

Ferrex has invested time and research to develop an algorithm resulting to one of the most advanced on the market. Implementation time consist of a site survey followed by an implementation and configuration that lasts one week.

DPS (Dynamic Production System)

DPS is easy to implement data collection system that provides both operators and supervisors with real-time feedback of their manufacturing process. DPS is also a very powerful reporting tool. Reports can easily be generated providing useful information such as the Key Performance Indicators (KPI’s) for a given manufacturing line, as well as Overall Equipment Effectiveness (OEE), Productivity by Operator or Shift, and other important manufacturing metrics. From the feedback DPS is able minimize the consumables wear and with DSC maximize efficiency, productivity, profitability and quality.

DPS has three main functions.

1. Gather production data
2. Keep an accurate way of tracking delays
3. Reporting delay and production information
4. Tracking the performance of the shredder.
Production gathering

- AMPS (need to get the amps tight and consistent)
- Mill Motor Running time
- TPH / Total Tons
- Equipment Running Time
- Bearing Temperatures
- Hydraulic information

Delay Tracking

A delay is tracked by monitoring the mill motor amps. When the mill motor amps drop below 1.25X the motor idle current for 30 seconds a delay is triggered.

The pulpit operator will then have to make a selection on DPS on what caused the delay.

Delay Analysis

The delay analysis section can be used to determine what is causing the most delays at each facility. They can be sorted out by area and occurrences. The delays can be assigned different categories. The category is used when calculating the efficiency of the shift. For example:
- Hammer Change – Scheduled Delay
- Infeed chute Plug – Non Scheduled

The advantages of DPS

- Real time update on production
- Accurate reporting tool
- Equipment Monitoring (preventative maintenance guide) Able to maximize the wear on consumables.
- Wear part monitoring
- Key Performance Indicators (Able to monitor improvements)
- Assist on where improvements are required
- Available to be viewed on a Blackberry device
- All data is stored and saved on a database separate to the PLC

Production Recipes

The system allows the users to input recipes so that when production values are entered into the system it has the ability to automatically calculate Ferrous, Non Ferrous production. For example:
1 ton of infeed = .65Tons Ferrous
= .35Tons of Dirt

DPS Management and Reporting

The main dashboard will show:
- Current Shift Production data
- Current Shift Delays
- Equipment monitoring information
- Delay Analysis (able to identify bottlenecks in the process to decide where to spend your capital investments)
- Messages
- Real Time graphing function

Equipment Monitoring

DPS has the ability to track real time running hours for every piece of equipment which is being controlled by a PLC. This running time can be used in developing a preventative maintenance program.

Consumption Reports

DPS comes complete with a consumption report which can track the usage and costs for the following:
- Electricity Usage (KWHrs/Ton)
- Water Usage (Litres or Gallons/Ton)
- Cost of Electricity per ton
- Wear Part Usage and costs per ton
- Overall consumable costs per ton (conversion costs)

RDL Mobile

DPS has a mobile module which allows the users to monitor production, wear part usage, equipment status such as bearing temperatures, and reports right from their smart phone.