

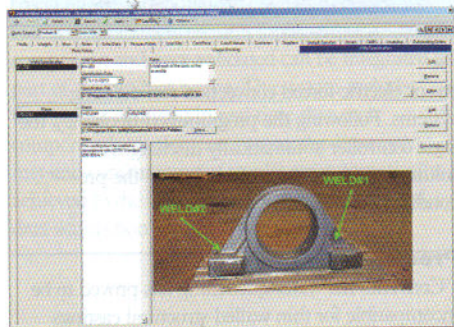
Constant approach to software development

The development schedule at Synchro ERP is described as relentless. Presented here is a selection of recent innovations to interest casting manufacturers.

A decade ago, Synchro ERP Ltd introduced a different business model, whereby all modules, upgrades, developments and support would be included in the cost of each user license. The company's growth places its software as the global leader of choice for the cast metal manufacturer, including Heat Treatment Log, Furnace Log, Weld Log, Least Cost Mix and Synchro SF APP - Shop Floor, which is scheduled for release in October 2013.

Heat treatment

The ability to track the heat treatment of castings to a predefined oven and heat treatment type is provided by Heat Treatment Log. Individual characteristics of each heat treatment cycle are stored, including start time, end time, cooling method etc. Castings are linked to the cycle from the casting number register part number and cast metal heat or works order number.



Weld Log software.

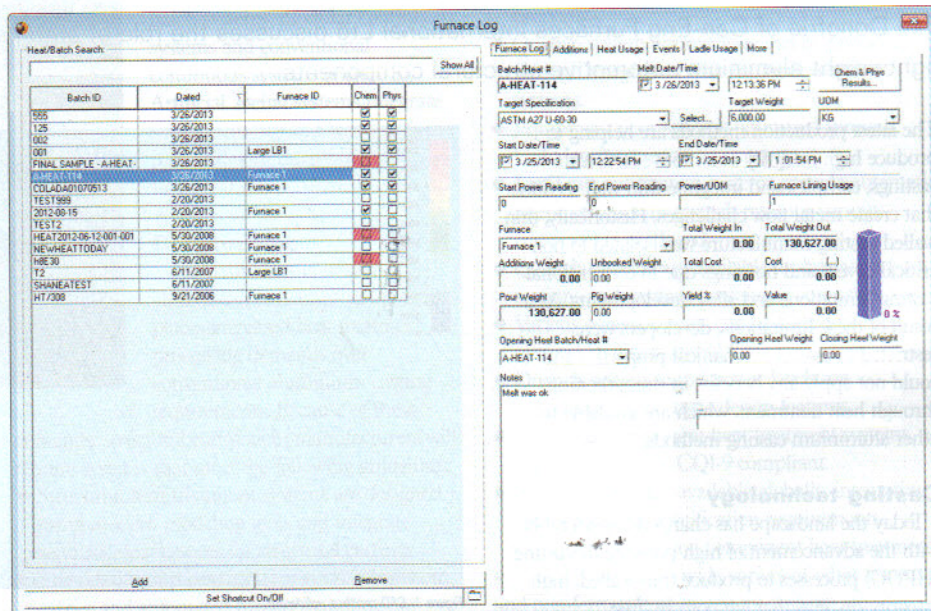
Furnace management

Furnace management is an important aspect of running the foundry and the 'Furnace Profiles' is the location in which the initial furnace information is entered. There is no limit to the number of furnaces that can be managed within Synchro ERP:

- Module integration with the system materials.
- A full furnace registry, with comprehensive information.
- A ladle register is also included, with lining life graphics.
- Forecast and enter details for future 'heats/melts' and to edit 'heats/melts' during and after production.
- Plan well in advance once the melt make-up is known.
- Allows the foundry to build up a history of furnace usage and running details that can then be used for the production of reports and managing the furnace life.
- Information entered into the Furnace Log screen is entered automatically when a 'HT/#' is added to the 'Batch# List'.
- Four colour code system.

In the red section, batch/heat details provides the user with access to chemical and physical results.

The green section gives power usage for that furnace for a specific heat and details of furnace lining usage. If the furnace usage is calculated in



Typical example of the Synchro ERP Furnace Log in use.

hours, by entering the number of hours the furnace took to complete the melt into the 'Furnace Lining Usage' box, this figure will be automatically deducted from the lining life under the 'Furnace Profile' sub-command.

The yellow section displays heel weight information relating to the furnace and heat selected from the drop down menu. If a heel weight has been entered as a default in the furnace profile, this will automatically be entered into the 'Opening Heel Weight' field. This can be edited, however. It is possible to adjust the materials inventory direct from the actual quantities recorded in the log.

Welding

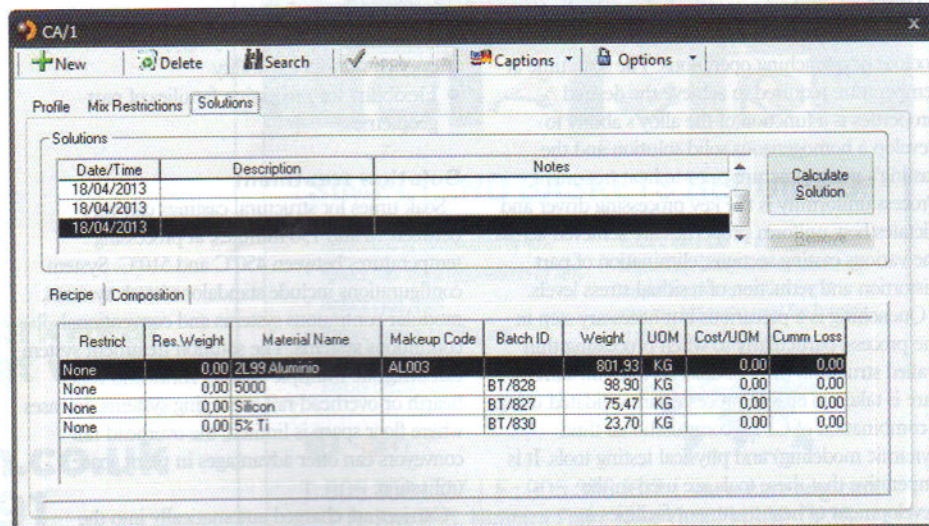
Weld Log software has the ability to track welding carried out on a casting (ID/serial number), by job number or part number. This will record the welder's name, position of the weld on the casting,

type or welding rods used, batch(es) of weld rod, quantity (and weight) of rods used. A weld map or multiple maps if tracked by job or part, can also be attached to show visually where each weld occurred. The welder will have access to the welding specifications stored against the part to ensure the weld falls within one of the specifications.

Inventory analysis

The Least Cost Mix facility makes use of available inventory analysis and existing furnace heel analysis to meet a given material specification with the least cost. Inventory and heel analysis in addition to target specifications are already an intrinsic part of Synchro ERP. This facility will close the loop and provide automated and semi-automated recipe suggestions and analysis corrections.

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The Least Cost Mix facility.