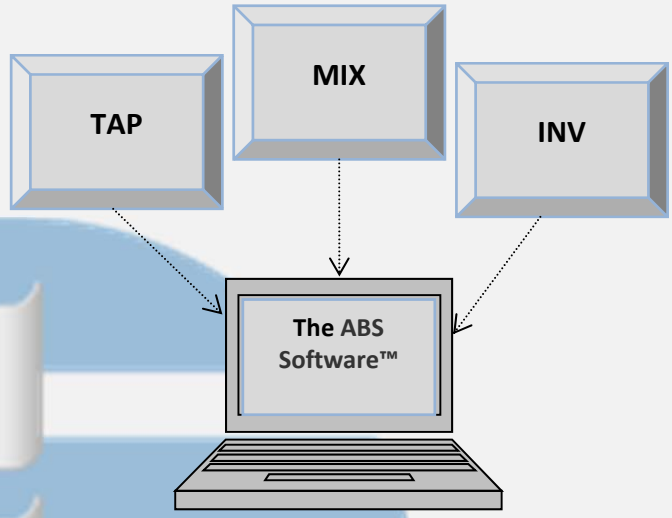
ABS Software™

MIX
Least Cost Charge Design

The Least Cost Charge Design Program ***(MIX)*** uses linear programming techniques to obtain the least costly combination of raw materials required to meet your desired chemistry working aims. Two versions of the MIX program are available. They are Batch and Melter/Holder.

Batch Version: The standard or Batch version is for melting operations that essentially melts the charge and pours the entire heat, leaving only a small or no liquid heel for the next charge.

Melter/Holder Version: The Melter/Holder version was developed for clients utilizing a melter/holder type of operation. This version contains all of the features and capabilities of the Batch version, plus the added capability to calculate a charge for a holding furnace that is utilizing liquid metal from up to three on-line melters. The Melter/Holder version also has provisions for calculating a melter/holder back charge.



An unlimited number of grade or alloy specifications can be permanently created and accessed by MIX. The program allows you to specify up to 45 individual restrictions per grade or alloy. A restriction can be a specific material, a type of material or an entire file of materials. Restrictions can be expressed as either a fixed weight or a percentage of the design weight. Restrictions help you standardize the raw material inputs used to make your grades/alloys.

The MIX program will search through your inventory and prepare a list of the qualified candidates for the charge. The program then determines the optimum solution from as many as 2,200 material candidates.

The MIX program can solve for a single heat/charge or for a campaign of heats/charges. MIX calculates material requirements for either a cold charge (no metal exists in the furnace) or a hot charge (hot metal heel exists in the furnace). MIX distinguishes between available and committed inventory when calculating blends to ensure that previously reserved materials are not over committed.

After the optimum solution is calculated, the program provides a selection of Re-solve Options. One option allows you to change the restrictions and recalculate the solution *(there is no limit to the number of re-solves you can perform).* Another option will display the shadow prices showing the cost disadvantage for those materials considered for the charge but, for cost reasons, were not chosen.

Also, if you have raw materials that you believe should have been used in the solution but were not, MIX will tell you why those materials were not chosen.

When a solution meets all physical, chemical and operational requirements, MIX can reserve the materials and quantities, excluding them from further consideration.

MIX contains numerous setup options to customize the procedural flow of the program for your particular operating environment. Provisions are available for calculating optimum unit weight solutions and the system can be set up to work in either Imperial or Metric units.

The MIX program is a powerful tool that is very easy to operate and contains numerous help facilities for inexperienced users. MIX reflects refinements and improvements, implemented since 1975, and it is designed to meet most every client's needs.

Metal Brokers/Scrap Dealers: A specially developed MIX program is available for Metal Brokers and Scrap Dealers which contains all of the features and capabilities of the standard melt shop version, with the exception of heel processing. This version also contains a profit worksheet feature (not available on the standard melt shop version) which calculates and reports the costing and blend profitability information to assist in decision making. The blend profit can be calculated by either Gross Sales Price or Elemental Price. Both blended and unblended profit values and percentages are computed and reported.

833 W. Lincoln Highway, Suite 310
Schererville, IN 46375
Ph: (219) 864-0044 Fax: (219) 864-0045
Email: ABS@tmsinternational.com