The Least Cost Alloy Additions Program **(TAP)** is used to calculate the least cost combination of alloys required to meet your intermediate or final chemistry working aims. TAP utilizes linear programming techniques to obtain the least cost alloys required.

An unlimited number of grade or alloy specifications can be permanently created and accessed by TAP. The program allows you to specify up to 40 individual restrictions per grade or alloy. A restriction can be a specific material, a certain type of material or an entire file of materials. Restrictions can be expressed as either a fixed weight or a percentage of the preliminary weight.

The program allows the user to designate the elements that will be controlled through metallurgical practice and those which will require a calculation for dilution. If the dilution requires more metal to be added than is possible or practical, the program will display a warning message and compute a minimum pour-off weight.

The TAP program considers only materials that you have indicated are available for use during the intermediate or final additions phase of the heat/charge. The TAP program differs from the Least Cost Charge Design (MIX) program in that it begins with a determined bath weight and a specific chemistry to achieve.

An important feature of TAP is the ability to specify a minimum and or maximum tap weight required. This can improve melting yields and reduce scrap returns.

TAP was designed to interface with various spectrometers, so manual entry of the preliminary test results is usually not necessary.

The TAP program incorporates all of the re-solving features of the MIX program including the ability to change your working aims. Often by changing your aim, especially the upper limit, you are able to reduce the total alloy additions required due to unnecessary dilution. You can also lower the aims if you expect an elemental pickup from the previous heat/charge.

MIX

TAP

INV

ABS Software™
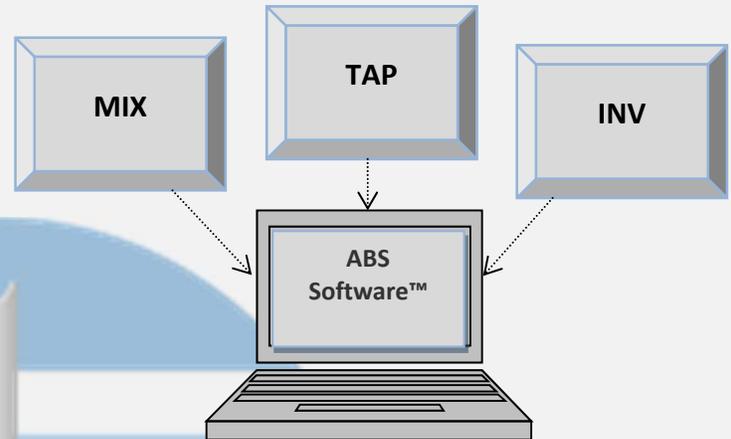
There is no limit to the number of times you can re-solve the solution before accepting the calculation.

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

TAP 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 as well as metric solutions.

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