

## Material Report

The Material Report function of Structural Desktop (SDT) is a very useful and powerful tool. The ability to have a member and element take-off at any time gives Structural Desktop users a quick summary of the model and its progression. The most useful aspect of the material report is its use for preliminary and final estimating. Below we will detail how the material report can be used to the greatest effect.

The Material Report function generates a file and opens a window over your AutoCAD session with a notepad-like editor to let you see the report. The first part of the file at the top is intended to be a brief overview of the model, the Preliminary Identification Report. This details how many of each type of member there are in your model, and reveals members or elements that are missing data. The Preliminary identification Report is most useful at the start of your project and can be accessed as often as you wish to verify that you have assigned properties to all the members and elements. You can pop this part of the report up to check on the progress of assigning properties to members.

After the model has been analyzed and designed for project bidding, the material report can be used to make an accurate Bill of Materials for the project. In order to get an accurate report, the members need to be adjusted from their analytical lengths to their true-cut lengths, and we provide a variety of methods to accomplish this. The Change Parameters dialog boxes can be used for members, elements, double tees, or joists; also, all the basic AutoCAD commands such as trim, stretch, or extend are available to adjust the lengths of members.

The Final Material report consists of the Preliminary Identification Report at the top and the Bill of Materials that follows. The Preliminary Identification Report details each different type (such as wide flanges or channels), the total lengths of each type, the number of members that have not been identified, and the number of valid elements giving their total volume and weight. When you are ready to view the Bill of Materials, the Preliminary section can be easily deleted when you bring the file into your favorite word processor.

The Bill of Materials creates a detailed report and summary of the members and elements. Members are sorted as to type, variant within that type, and length within that variant. Each report sums and separates all the members of each type of a certain length, followed by a second report that combines and totals the lengths of each type. Members and elements are separated as to type of Material (steel, concrete, etc) and concrete is reported both in terms of lengths of prismatic members and total yards of concrete in members and elements.

The report is intended to be accurate to within an eighth of an inch for each individual member, but it is only as accurate as you make your model. The report can be edited using any document program, or copied and pasted within your word-processor-of-choice. It can be used for final bidding, or actual detailing of the steel. The Material Report has many uses and can be of great help in assisting you to put all your projects on the fast track.