StructurePoint is a software company that provides concrete design solutions. Formerly the engineering software group of the Portland Cement Association (PCA), StructurePoint (SP) is located in Chicago and does business all around the world with clients in North America, the Middle and Far East. SP has representatives in India, Thailand, Saudi Arabia, Lebanon and the UAE. Formerly PCA products, the SP product line include design and analysis software for reinforced concrete beams, columns, mats, walls, slab systems, and frame analysis. These six programs make up the SP Suite. The software programs can be purchased as the Suite or individually to meet your specific needs over a large business computer network or as single standalone serving one laptop.

The SP Suite has the capability to design an entire concrete structure from foundation to roof. These programs are based on the methods, equations, and procedures found in ACI 318 and CSA 23.3 in English and Metric units. Due to the schedule of updating the concrete codes, the five code driven software are given a major upgrade every three years along with annual updates. The SP suite is designed to allow the user to work quickly, simply and accurately. In essence, you can get to a final design solution fast with confidence and little training and wasted time.
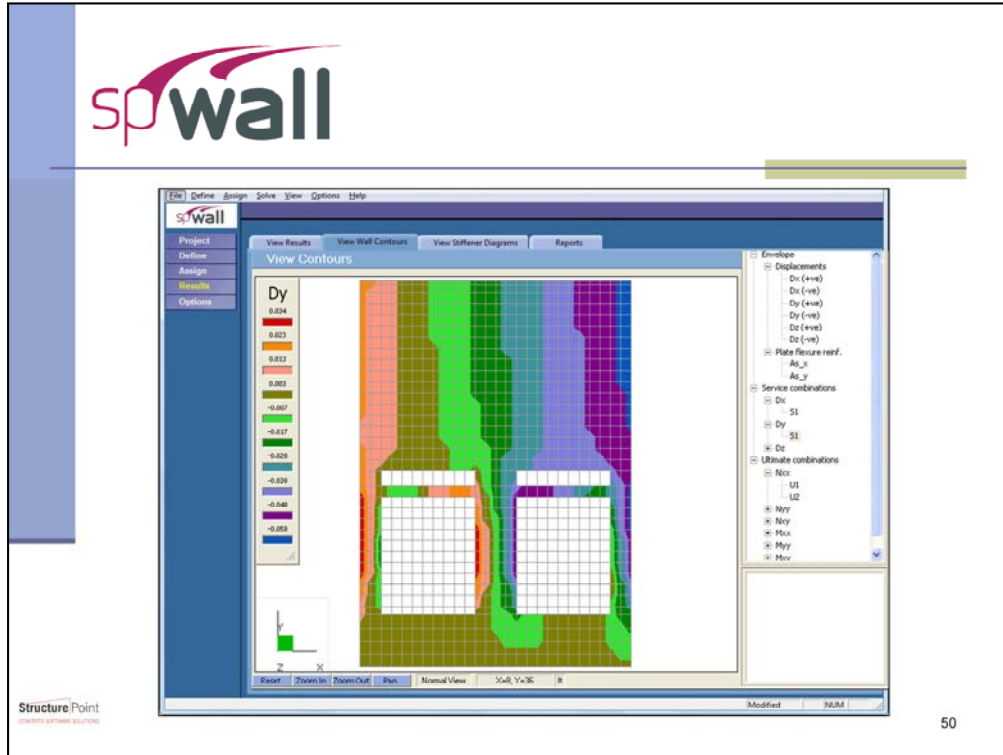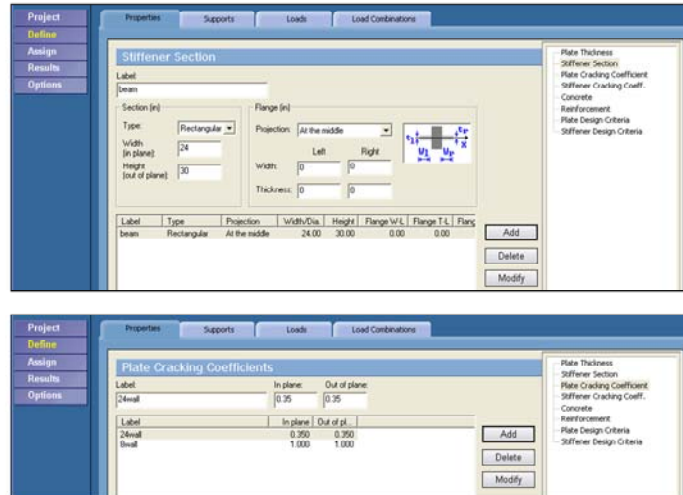
Use of the StructurePoint software can be found in many publications regarding reinforced concrete design and analysis.

spWall is used for the design and analysis of reinforced concrete walls, tilt-up walls, and precast architectural and load-bearing panels. Design provisions in accordance with ACI 318 and CSA A23.3 standards. The program allows for any number of openings and stiffeners, variable design parameters, variable thicknesses, and strength properties. The program uses the finite element method to solve the wall systems and has the capability to account for second order effects.

spWall functions very similarly to spMats due to the similar method of solution. Defining properties, assigning properties, and viewing the results are all identical to spMats.
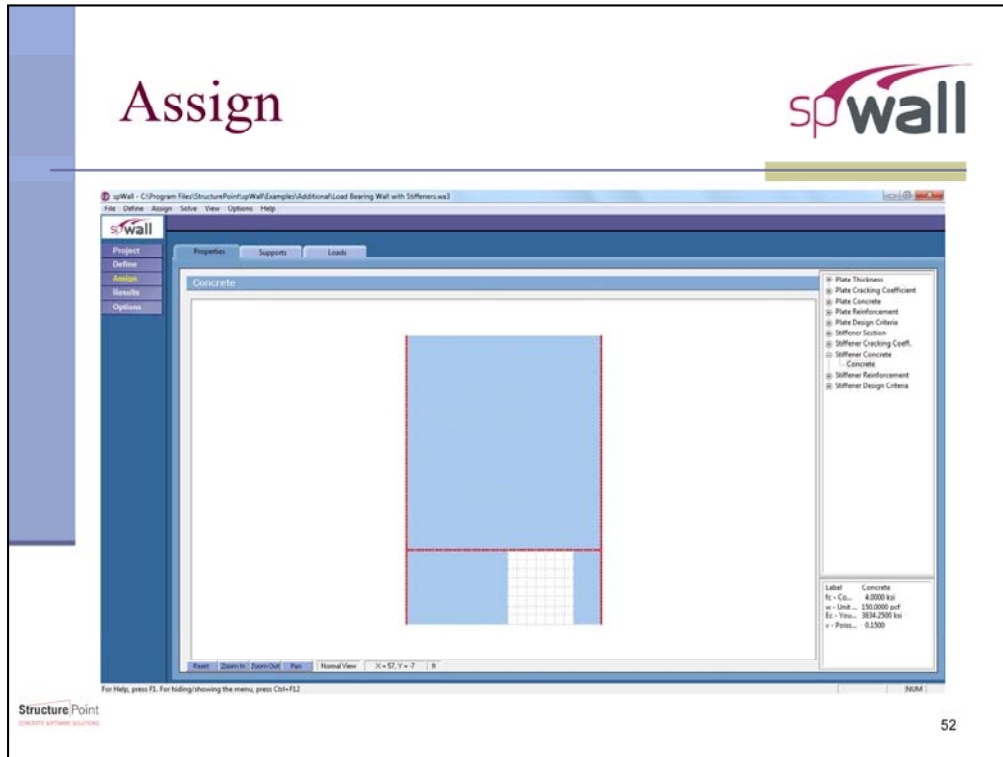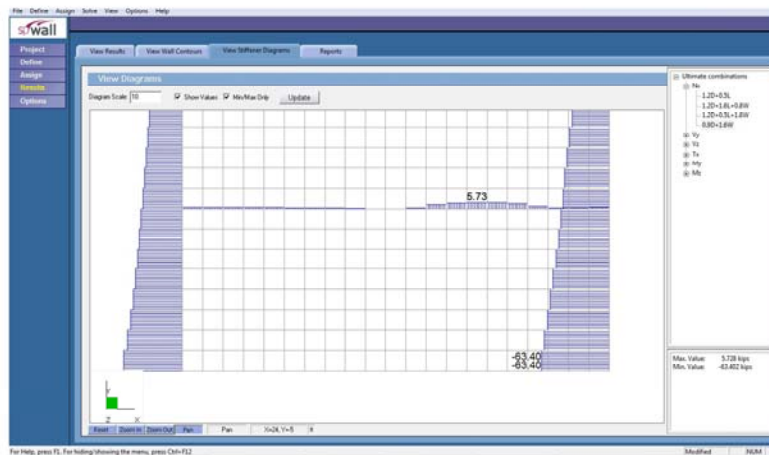
After setting up a meshing system, spWall allows the user to input properties of the wall, properties of wall stiffeners if applicable, supports, and loads. The wall can be designed as either a standard reinforced wall or a precast wall. With both options the user can choose between using a single or double curtain of reinforcing. This reinforcing is allowed to have either uniform or variable cover in relation to the wall faces.

The assignment of these definitions takes the form of graphically assigning the properties in the same way as in spMats.

Using the FEM, spWall determines the forces acting throughout the system. These results are reported both graphically as seen here and numerically in a text file. Similar to spMats, spWall produces contour maps for quick checks of required internal forces, required reinforcing, and deflections. The program also provides the user with values for the wall's provided shear strength.

The program designs the steel reinforcing based on the user inputs for design parameters. If the model is unable to produce a reinforcing design that meets the design criteria the model will still run and all the results are available as well as the contour maps. The program flags these failed elements in the required steel reinforcing contour maps.

StructurePoint would be glad to hear from you and receive your feed back as well as answer any questions regarding the program features, capabilities, price, and licensing options