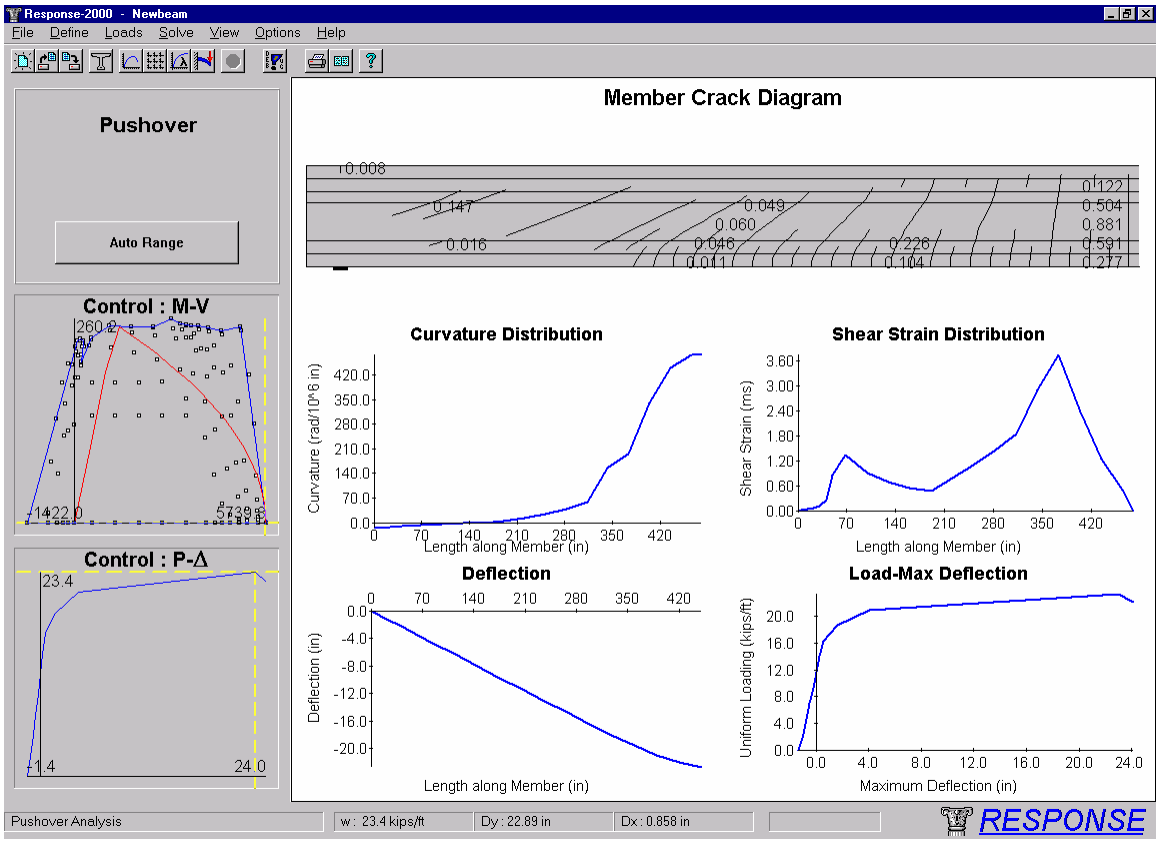
This is the second option in the top list of three buttons. Click “ok” and select the “Solve | Member Response” option.

This analysis will calculate an entire Moment-Shear interaction diagram and determine the load-deflection properties and crack diagram for the entire 40 foot half span of the beam. The analysis on an inexpensive 400 MHz Pentium II takes about 60 seconds to complete. As the analysis continues, the growing M-V interaction diagram will be shown on the control plots. Periodically, the 9 plots will also update showing the sectional behaviour at the location of the crosshairs on the control plots. The transition from flexural failures under positive moment at the right of the interaction diagram gives way to shear failures at the top of the interaction diagram and then back to flexural failures under negative moment at the left side. By clicking on the little squares on the plot, any of the integration points may be examined so see how the beam is behaving at that load combination.

When the analysis is complete, the screen will change to the deflection page as shown below. The top diagram is the predicted crack pattern at failure for the entire 40 foot section of beam. The bearing support plate at the left bottom can be seen, and the right side represents the midspan of the beam. Estimated crack widths are shown in inches. In the top control plot at the left is the M-V interaction diagram as well as the applied loading for this beam shown in red. For a uniformly distributed load, such as this, the majority of the loading is a parabola, with the load cut down to zero near the support due to non-sectional load resistance methods. The explanation for the shape of