What is CAESAR II?

CAESAR II is a PC-based pipe stress analysis software program developed, marketed and sold by **COADE** Engineering Software. This software package is an engineering tool used in the mechanical design and analysis of piping systems. The **CAESAR II** user creates a model of the piping system using simple beam elements and defines the loading conditions imposed on the system. With this input, **CAESAR II** produces results in the form of displacements, loads, and stresses throughout the system. Additionally, **CAESAR II** compares these results to limits specified by recognized codes and standards. The popularity of **CAESAR II** is a reflection of **COADE's** expertise in programming and engineering, as well as **COADE's** dedication to service and quality.

System Requirements for CAESAR II

CAESAR II requires Windows 2000 or Windows XP Professional, with a graphics card capable of a 1024x768 resolution. Usually any hardware capable of running these operating systems will be sufficient to run **CAESAR II.** Note, the graphics resolution of 1024x768 is a minimum, barely acceptable. For more efficient usage of the software, higher graphics resolutions are necessary.

For effective use of **CAESAR II**, COADE recommends as a minimum configuration:

- 2+ Ghz processor

- 512+ Mbytes of RAM

- 1280x1024 graphics resolution or better

- 128+ Mbytes of video RAM

- either Windows 2000 or Windows XP Professional (or later). Note, Windows XP Home Edition is not supported!

What are the Applications of CAESAR II?

CAESAR II is most often used for the mechanical design of new piping systems. Hot piping systems present a unique problem to the mechanical engineer—these irregular structures experience great thermal strain that must be absorbed by the piping, supports, and attached equipment. These "structures" must be stiff enough to support their own weight and also flexible enough to accept thermal growth. These loads, displacements, and stresses can be estimated through analysis of the piping model in **CAESAR II**. To aid in this design by analysis, **CAESAR II** incorporates many of the limitations placed on these systems and their attached equipment. These limits are typically specified by engineering bodies (such as the ASME B31 committees, ASME

Section VIII, and the Welding Research Council) or by manufacturers of piping-related equipment (API, NEMA, or EJMA).
CAESAR II is not limited to thermal analysis of piping systems. **CAESAR II** also has the capability of modeling and analyzing the full range of static and dynamic loads, which may be imposed on the system. Therefore, **CAESAR II** is not only a tool for new design but it is also valuable in troubleshooting or redesigning existing systems. Here, one can determine the cause of failure or evaluate the severity of unanticipated operating conditions such as fluid/piping interaction or mechanical vibration caused by rotating equipment.

What Distinguishes CAESAR II From Other Pipe Stress Packages?

COADE treats **CAESAR II** more as a service than a product. Our staff of experienced pipe stress engineers are involved in day-to-day software development, program support, and training. This approach has produced a program, which most closely fits today's requirements of the pipe stress industry. Data entry is simple and straight forward through annotated input screens and/or spreadsheets. **CAESAR II** provides the widest range of modeling and analysis capabilities without becoming too complicated for simple system analysis. Users may tailor their **CAESAR II** installation through default setting and customized databases. Comprehensive input graphics confirms the model construction before the analysis is made. The program's interactive output processor presents results on the monitor for quick review or sends complete reports to a file or printer. **CAESAR II** is an up-to-date package that not only utilizes standard analysis guidelines but also provides the latest recognized opinions for these analyses.
CAESAR II also offers seamless interaction with **COADE**'s CADWorx/PIPE, an AutoCAD based design and drafting system for creating orthographic, isometric and 3D piping drawings. The 2-way-link automatically generates stress analysis models of piping layouts, or creates spectacular stress isometrics in minutes from **CAESAR II** models. **CAESAR II** is a field-proven engineering analysis program. It is a widely recognized product with a large customer base and an excellent support and development record. **COADE** is a strong and stable company where service is a major commitment.