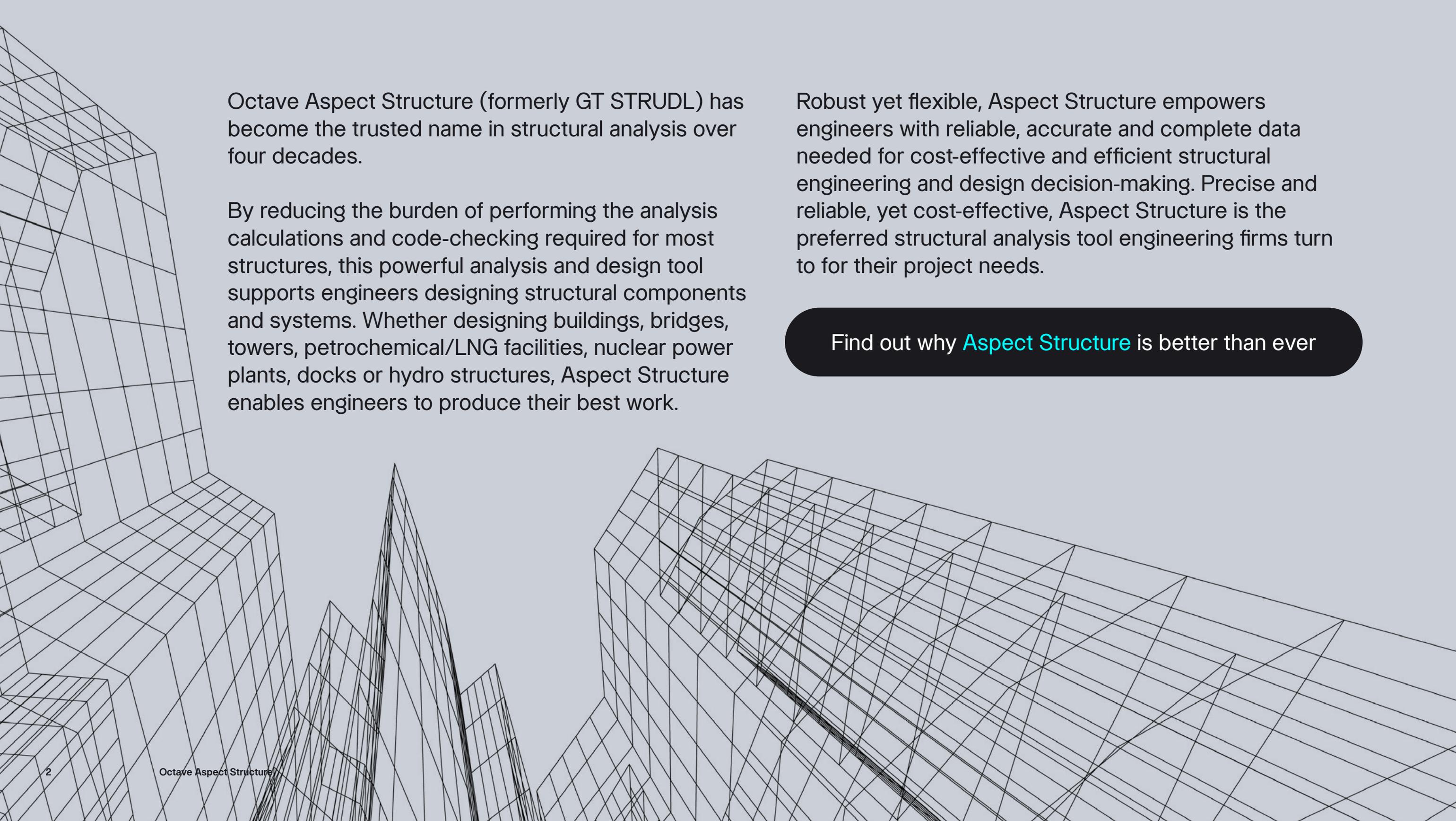




Octave Aspect Structure

EBOOK

The proven interoperable structural analysis and design tool. Now more advanced and easier to use than ever, Aspect Structure delivers structural engineers the power and performance they demand.



Octave Aspect Structure (formerly GT STRUDL) has become the trusted name in structural analysis over four decades.

By reducing the burden of performing the analysis calculations and code-checking required for most structures, this powerful analysis and design tool supports engineers designing structural components and systems. Whether designing buildings, bridges, towers, petrochemical/LNG facilities, nuclear power plants, docks or hydro structures, Aspect Structure enables engineers to produce their best work.

Robust yet flexible, Aspect Structure empowers engineers with reliable, accurate and complete data needed for cost-effective and efficient structural engineering and design decision-making. Precise and reliable, yet cost-effective, Aspect Structure is the preferred structural analysis tool engineering firms turn to for their project needs.

Find out why [Aspect Structure](#) is better than ever

A singular solution

Comprehensive and robust

Save valuable time and energy otherwise wasted by switching between different software tools. Engineers will have everything needed at their fingertips, in one robust package, including beam and finite element analysis (FEA).

Cost-effective and efficient

Maximizing engineering efforts while reducing administrative costs is easy to do with a single, comprehensive solution that handles all the design and analysis requirements. Aspect Structure keeps the focus on the project, not managing expensive, disconnected software programs.

Reliable for the real world

Be fully confident in the integrity of your designs. Using Aspect Structure's complete range of design codes - including AISC, ACI, Canadian, Euro, Indian, Chinese, and NF codes - enables engineers to validate the viability and integrity of their project work.



A dependable solution for five decades

Delivering outstanding results since 1974

Today's structural engineers trust Aspect Structure as the fastest and most accurate structural analysis solution available. With a reputation as the go-to tool used for even the most challenging projects, engineers know their design and analysis efforts are in safe hands.

Developed with a proud academic heritage

Aspect Structure's original name was GT STRUDL. Here's why:

GT → Georgia Tech, the university that originally developed the program.

STRUDL → **Structural Design Language**, the programming language created by MIT in 1969 for structural analysis, and used by the leading analysis tools.

The best Aspect Structure yet

Offering multi-core, hyper-threaded, 64-bit functionality, today's Aspect Structure is as easy to use as any other software tool. Taking full advantage of modern computing environments, it delivers the same powerful levels of analysis while enabling engineers to work in the way that matches their methods.



Easier to use than ever

Find new ways to work

With an improved graphical user interface and new CAD interface complementing the traditional command interface and parametric model wizards, engineers can work exactly the way they want – to fit a project approach, or meet personal work preferences.

Familiar means fast

Data sheets are presented in Excel-style spreadsheets, so data and results can be reviewed in a familiar format. Switching between interfaces is not required: users pick the one they need, build the model and apply the loads. Automatically generated loads can be applied graphically to the structure, saving more time.

Customize it how you want it

For user customization, Aspect Structure operates like an application programming interface, so you don't have to be an experienced programmer - you just have to understand the well-known STRUDL input language. This makes creating tools and data interoperability easy.



Adaptable to every project

Flexible to every project

Aspect Structure was designed to meet the highly diverse requirements of structural engineering. Any structure, made of any material, can be analyzed, from fabric structures to nuclear power station cooling towers.

Create templates

When working in a single location or project where loads, load combinations or other factors remain constant, users can create and run a standard template, improving efficiency by eliminating time-consuming administrative work.

Fast-track better models

Parametric model wizards built into the software help engineers build very complex models in seconds. Whether it's an FEA model of a tank, a simple beam, truss, or frame, or a space frame analysis, Aspect Structure can handle it.



Get the benefits of interoperability

Leverage CAD modelling

Aspect Structure offers data interoperability with most CAD and modelling packages. The CAD Modeler tool allows Aspect Structure to be run inside a CAD environment. Rather than calculating geometry using spreadsheets, users build complex structures, assign loads and perform the analysis by leveraging common CAD tools.

Compatible with leading platforms

Natively interoperable with Octave Forte 3D (formerly Smart 3D), Aspect Pipe Stress (formerly CAESAR II) and Forte StructureWorx (formerly CADWorx Structure), structural data-rich models created outside Aspect Structure can still leverage its power. Exchanging data via CIS/2 and GTI files reduces work duplication, saves time and ensures data accuracy.

Fluid and functional with third-party tools

Aspect Structure's capabilities can be expanded through compatibility with third-party software – for example Aspect Structure can author a native Dimensional Solutions' Mat 3D file with geometry and support reactions enabling the design of rigid foundation elements.



About Octave

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Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets— for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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