

Insanely Fast.
Boundlessly Capable.

CIVIL NX **HYPER-S** Analysis Engine

Experience a new era of civil engineering analysis with CIVIL NX.
With unmatched performance and specialized features, stay one
step ahead and move remarkably faster.

How much faster? Incomparable!

Analysis Scenario

Steel Composite Bridge Nonlinear Time
History Analysis Performance Criteria

CIVIL NX



22 hours

CIVIL NX HYPER-S
Analysis Engine



6 hours

Up to 6x Faster

Incomparable Analysis Performance

Experience up to 6x faster analysis per model on average with
CIVIL NX powered by the HYPER-S engine. Faster analysis not
only saves engineers' time but also improves design outcomes.

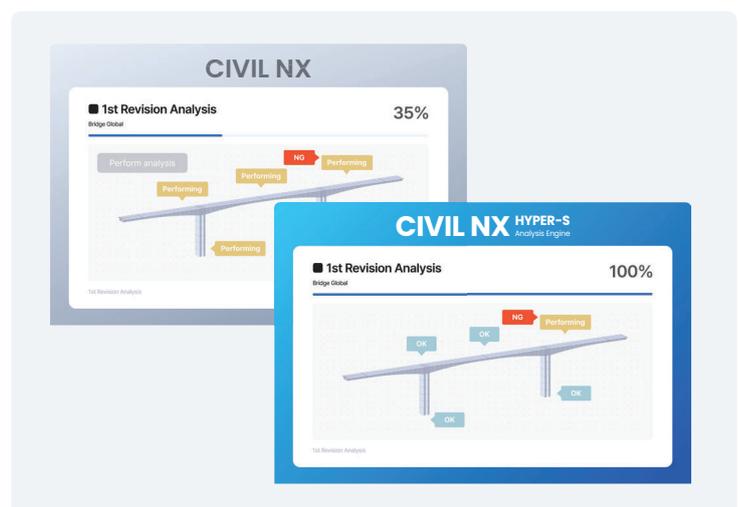
Enjoy the freedom to explore more design alternatives and reach
the optimal structural solution with confidence and ease.

Re-Analyze Only What Changed

Smarter Re-Analysis for Faster Decisions

CIVIL NX powered by the HYPER-S engine allows you to
select and analyze only the load cases you want. Now,
small changes or simple errors no longer require
re-analyzing the entire model. If you modify a moving load,
rerun the moving load analysis. If you find an error during
the construction stage, rerun the construction stage
analysis.

The burden of analyzing the entire model for even small
changes is eliminated, increasing verification speed and
flexibility for engineers.

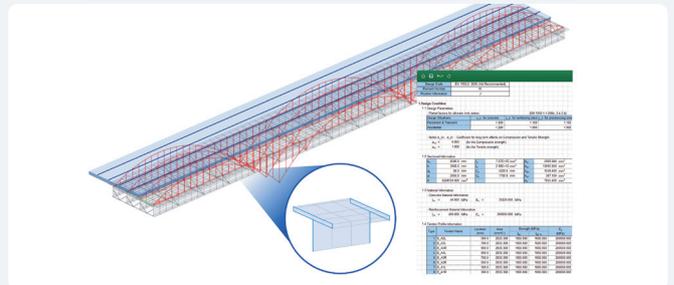


Insanely Fast. Boundlessly Capable.

Boundless Capabilities of CIVIL NX powered by HYPER-S

Virtual Beam Design

Combine plate and beam behavior into one composite girder model. Virtual Beam Design lets you review and design girders without rebuilding your structure, while preserving accurate load distribution and irregular geometry representation.

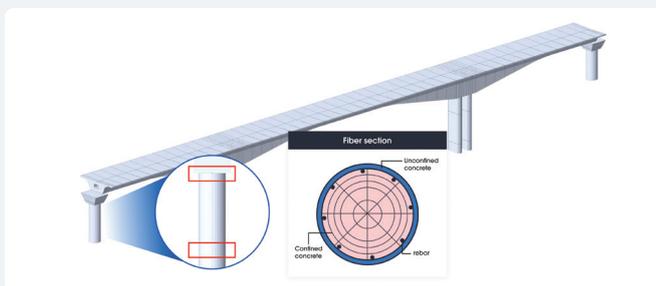
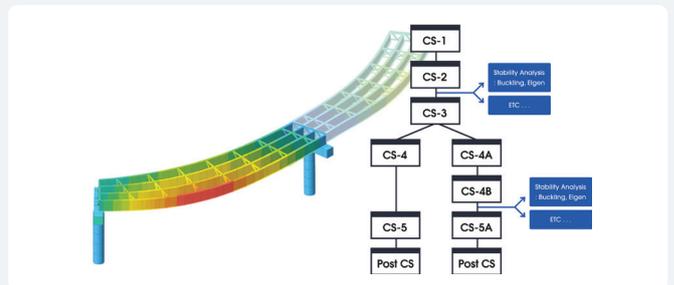


Curved Rail Structure Interaction

Automatically generate a 3D track-structure coupling model that accounts for curvature, alignment, and multi-track layouts. CIVIL NX captures the nonlinear interaction between rail and structure, delivering more accurate rail stress predictions than linear approximations.

Buckling Analysis with Construction Stage

Evaluate structural stability at every construction stage without creating separate models. CIVIL NX applies buckling analysis directly within staged construction, helping you detect instability risks earlier and reduce modeling effort.

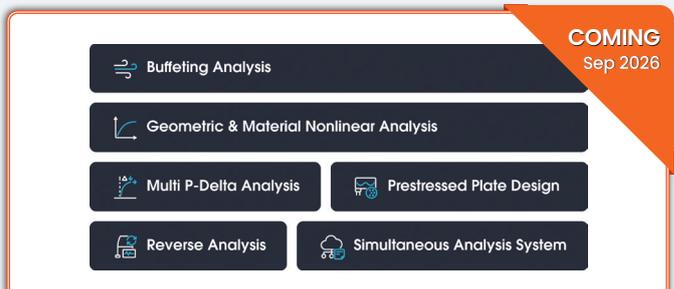


Pushover Analysis Using Fiber Hinge Type

Simulate nonlinear structural behavior using fiber-based hinge modeling. CIVIL NX captures distributed plasticity and post-yield response more realistically than concentrated hinge methods, giving you more reliable performance assessments.

Advanced Analysis +

CIVIL NX powered by the HYPER-S engine, advances your analysis and design capabilities. It enables high-end features such as Multi P-delta and Buffeting analysis, global localization design standards, and an AI Assistant, setting a new standard in engineering. Be part of the evolution toward a more powerful CIVIL NX. Coming this September.



The Best of MIDAS, All in One

Driving Workflow Innovation MIDAS API!

Application Programming Interface

Built on OpenAPI, CIVIL NX integrates seamlessly with the tools structural engineers use daily. Third-party plugins for MS Excel and Grasshopper eliminate repetitive pre- and post-processing tasks, allowing you to focus on core engineering work. Connect your Excel workflows to CIVIL NX to automatically generate and modify models, and import analysis results directly into your spreadsheets. You can also explore custom functions using Python, JavaScript, or other languages to personalize the workflow to your needs.

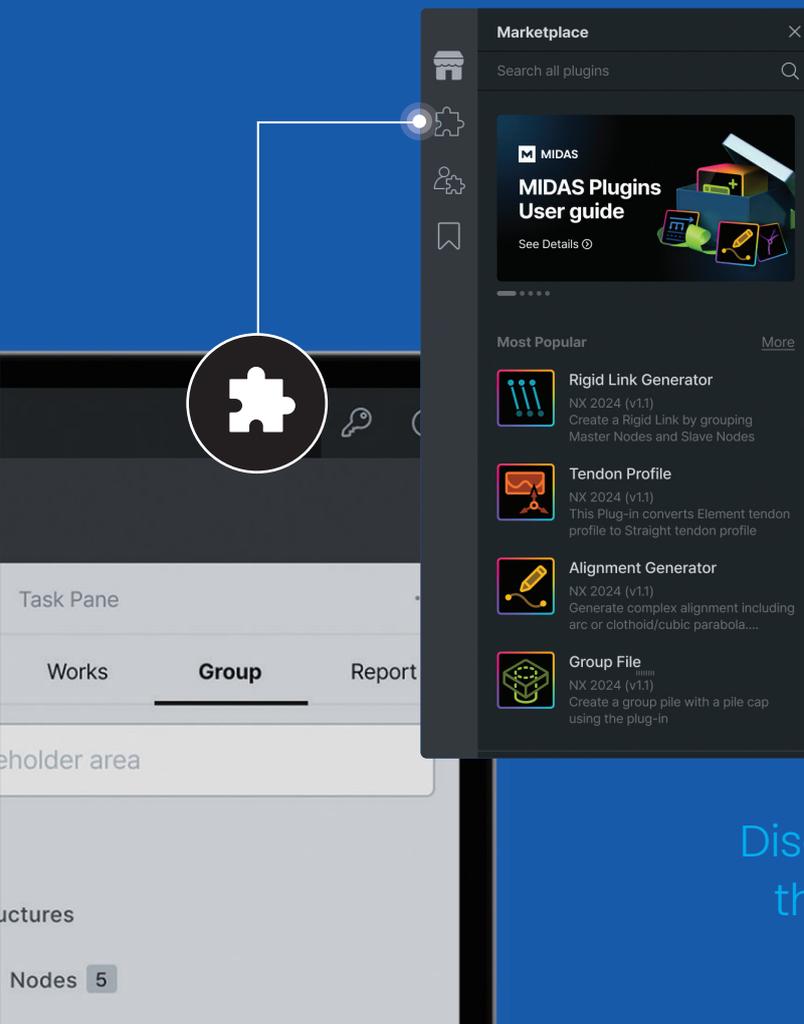
All Your Design Process,
One Seamless Experience.



Plug-in

Supercharge your modeling process with ready-to-use plugins like Alignment Generator and Tendon Profile. These powerful tools save you time by automating repetitive tasks and eliminating the need to manually convert geometric data from CAD or Excel to CIVIL NX.

Anyone can create custom plugins tailored to their specific needs and share them on the Marketplace. With MIDAS plugins, you can extend your capabilities and unlock new levels of productivity.



Discover a Variety of Plugins
through the Marketplace

CIVIL NX HYPER-S

Analysis Engine

**Your Civil Engineering Journey,
Where Excellence Meets Service**



For questions and more information, please contact us at
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MIDAS SITE

MIDAS Site provides you all the information about MIDAS products and help you make your purchase decisions.

MIDAS SUPPORT

MIDAS Technical Service provides optimal solutions based on thousands of real customer service cases.

MIDAS ACADEMY

MIDAS Academy delivers personalized educational programs based on your specific needs. Let MIDAS be your guide to maximum efficiency by focusing on the education that is most relevant to you.

MIDAS ACCOUNTS

Effortlessly manage your licenses with MIDAS Accounts. Gain comprehensive oversight of your licenses and usage, enabling you to efficiently manage your resources.