

# GenFEA

**Product Overview**  
2024

# About Us



BIMWERX Limited, headquartered in New Zealand, has been at the forefront of creating innovative software and tools for the Architecture, Engineering, and Construction (AEC) industry since its inception in 2015.

GenFEA stands as a testament to our dedication and enthusiasm, born from years of meticulous development and research. This 'passion project' is now set to revolutionize the industry, thanks to its AI-enhanced features that bring state-of-the-art technological advancements to the global market. With GenFEA, we are poised to make a significant impact, offering groundbreaking solutions that are ready to meet the challenges and demands of the international AEC landscape.



***"It is time for Structural Engineering software to catch up with modern technologies"***

Chris Vorster - Founder and Lead Developer

Structural engineering software has long been characterized by its steep price tags, steep learning curves, and a noticeable lag in integrating modern technological advancements. These barriers not only restrict access for emerging professionals and firms but also stifle innovation by clinging to outdated methodologies and interfaces.

The cost of acquiring licenses often runs into hundreds of thousands of dollars, while mastering these complex tools can consume significant time and resources. Furthermore, many existing solutions are slow to adopt the latest in AI and data analytics, leaving a gap between the potential of current technology and the practical tools available to Engineers.

GenFEA aims to disrupt this status quo. By leveraging the latest in artificial intelligence, offering an intuitive user experience, and ensuring affordability, GenFEA is dedicated to making advanced structural analysis and design tools accessible, user-friendly, and in step with the cutting-edge technologies that define our era.





# What is GenFEA?

GenFEA is the next generation of smart Structural Engineering software. It features a connected workflow that allows for model development, analysis, design, and reporting in a single environment, supporting international standards. Analysis capabilities include:

- Linear Static
- Linear Dynamic
- Response Spectrum
- Linear Modal
- Buckling
- Non-Linear Static
- Non-Linear Dynamic
- P-Delta
- Time-History



Cloud-based, single sign on, floating licensing for single- and enterprise users, together with a web-based license management tool



## Finite Element Analysis

Comprehensive FEA abilities and features. Multiple analyses types and modes in a single model environment



## AI-Driven Design

Integrated AI assistant capable of producing complex designs based on location. Customizable design templates for any design, anywhere



## Automation

Open file format (XLSX), multiple import and export features, internal C# scripting engine, intuitive modelling tools



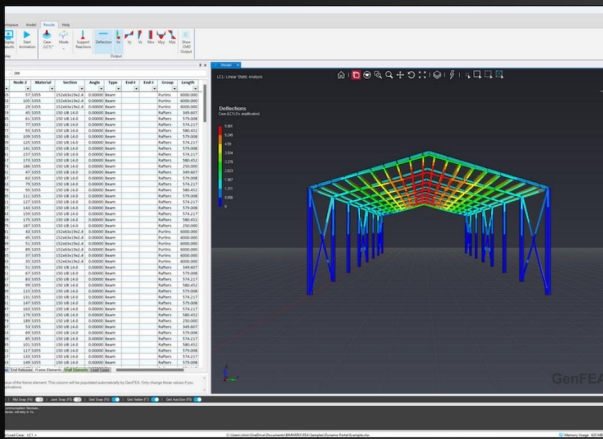
## Design Reports

Comprehensive design report options, connected to analysis results and design outputs

# Features

GenFEA stands out with its user-centric design, featuring a modern UI with dynamic, contextual ribbon menus and dockable tools palettes for a customizable workspace. Its advanced 3D modeling environment enables sophisticated structural visualization.

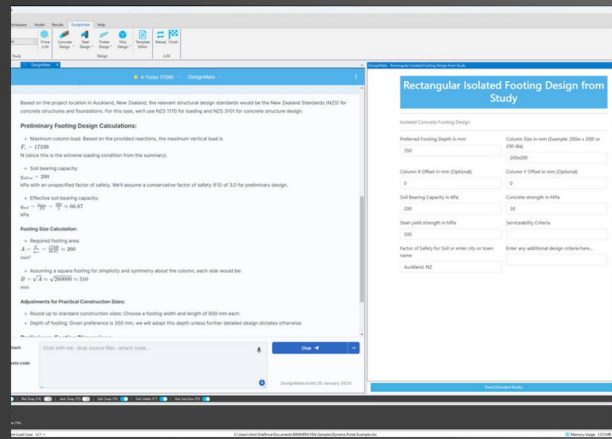
Engineers can benefit from the Custom Section Editor and Properties Calculator for precise design modifications, alongside a customizable Design Template Editor for streamlining project workflows. These features collectively make GenFEA a versatile and efficient tool for today's structural engineering challenges.



## Model Development

### Model Anything

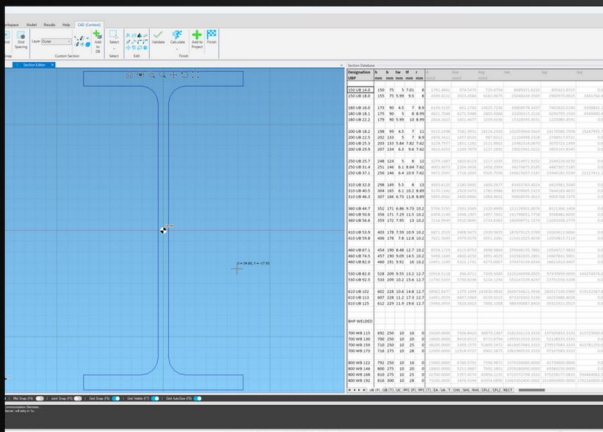
Develop FEA models using a variety of workflows and automation tools



## DesignMate

### AI Design Assistant

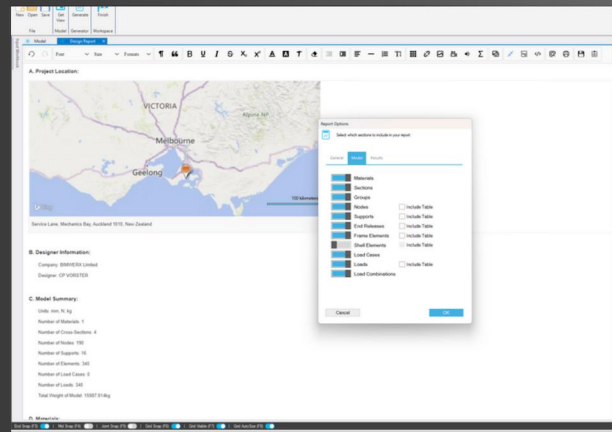
Design Anything to any design standard using DesignMate and customizable design templates



## Section Editor

### Calculate Any Section Shape

Define and calculate parametric- and arbitrary section shapes directly



## Reporting

### Generate Design Reports

Create design reports from analysis and design outputs



# Get In Touch



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