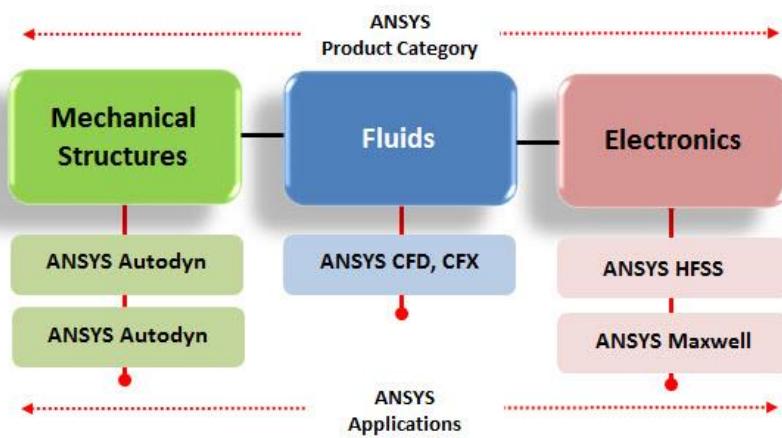


## Ansys & Tekla: structural analysis and BIM made simple

### What is Ansys?

ANSYS is a software application that is used to simulate interactions of all disciplines of physics, structural, vibration, fluid dynamics, heat transfer and electromagnetic for engineers. It enables to simulate tests or working conditions, enables to test in virtual environment before manufacturing prototypes of products. Moreover, Ansys helps in determining and improving weak points, computing life and foreseeing probable problems are possible by 3D simulations in virtual environment. The Ansys product portfolio offers solutions to a variety of application areas.

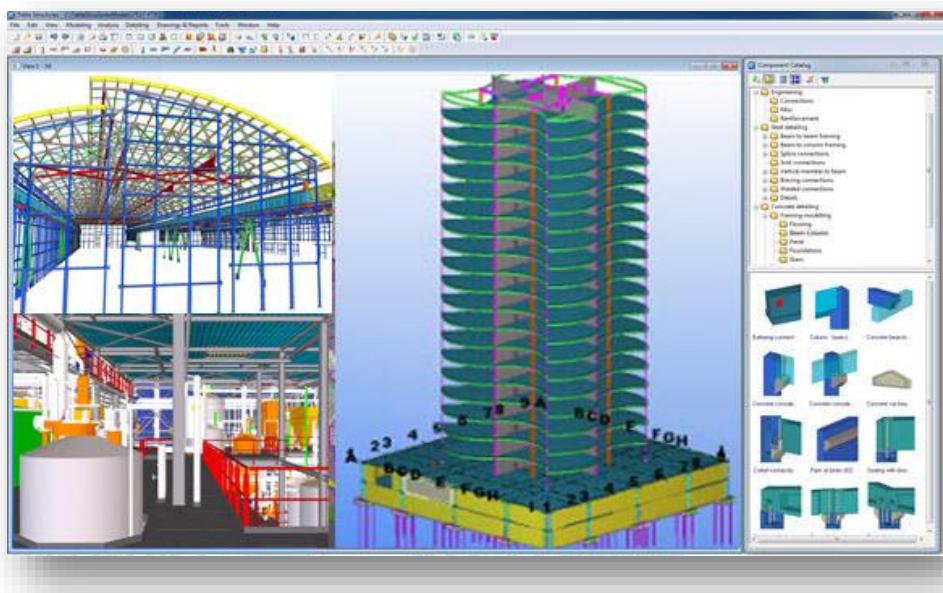


The software with its modular structure gives an opportunity for taking only needed features. It works seamlessly with other engineering software on desktop by adding CAD and FEA connection modules. The usefulness of the application; however, lies in its ability to carry out advanced engineering analyses quickly, safely and practically by its variety of contact algorithms, time based loading features and nonlinear material models.



## What is Tekla?

**Tekla** is building information modelling (BIM) software that is able to model structures that incorporate different kinds of building materials, including steel and concrete. The software allows engineers to design a building structure and its components using 3D modelling, generate 2D drawings and access building information. **Tekla Structures** was formerly known as Xsteel, the foundation of the Unix GUI. The use of the software is predominantly in the construction industry, steel and concrete detailing, precast, and cast in-situ.



The software enables you to create and manage 3D structural models in concrete or steel, and guides them through the process from concept to fabrication.

Tekla is known to support large models with multiple simultaneous users; however, it is relatively expensive, complex and difficult to learn. It competes in the BIM market with AutoCAD, Autodesk Revit, DProfiler and Digital Project, and Trimble Realworks. Modelling scopes within Tekla includes Structural Steel, Cast-in-Place (CIP), concrete, and reinforcing Bar. The transition of Xsteel to Tekla Structures in 2004 added significant more functionality and interoperability. It is often used in conjunction with Autodesk Revit, where structural framing is designed in Tekla and is exported to Revit using the DWG /DXF formats.