



## ADAPT-MAT® Foundation Design Software

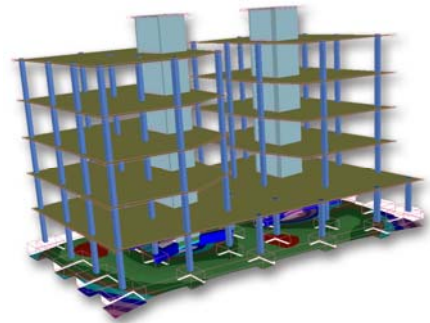
*Flexible and powerful foundation design tool with integrated load takedown*

ADAPT-MAT is a versatile three-dimensional (3D) Finite Element (FEM) Analysis and Design software for any configuration of conventionally reinforced or post-tensioned foundation system. It can model, analyze and design any combination of two-way mat (raft) slabs, individual footings, pile caps or grade beams. Areas of the foundation can be supported by soil springs with different stiffness or discrete point (pile) supports. ADAPT-MAT carries out required code checks and calculates required reinforcement. Models are quickly and easily generated by importing and automatically converting a DWG/DWF file, by extracting smart BIM objects from a Revit Structure model, or by using ADAPT's native modeling tools.

ADAPT-MAT can run as a stand-alone application or together with ADAPT-Edge to provide fully integrated structural analysis results for your multilevel concrete structure and foundation system. When working with ADAPT-Edge and MAT together, all reactions from the gravity and lateral analysis of the concrete superstructure are automatically applied to the ground level columns and walls, saving time and reducing the need for unnecessary data entry.

### Applications:

- Mat foundations for steel or concrete buildings
- Pile supported foundations (pile caps)
- Spread footings
- Grade beams
- Tower foundations (transmission or wind turbine)
- Tank foundations
- Industrial (machinery foundations)



### Key Modeling Capabilities:

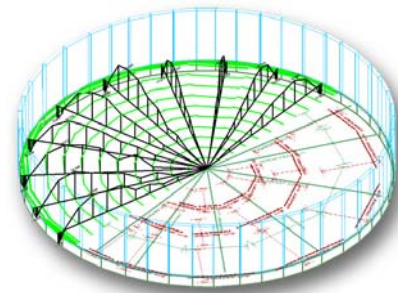
- Represents 3D model of foundation and structural elements above and below slab, leading to more accurate stiffness model
- Mild-reinforced or post-tensioned concrete
- Handles any geometry or loading condition (gravity & lateral)
- Include any combination of pile or soil support in same model
- Model compression and/or tension soil properties
- Supports any user-defined configuration of base reinforcing
- Import and easily convert DWG and DXF files into 3D model
- Bi-directional integration with Revit Structure
- Imports geometry and loads from CSI's ETABS

### Supported Design Codes:

- ACI-318 (1999, 2005, 2008 & 2011)
- IBC 2006, 2009 & 2012
- British-BS8110 (1997)
- Canadian-A23.3 (1994 & 2004)
- Australian-AS3600 (2001)
- Brazilian-NBR6118 (2003)
- Indian IS456 (2005 reprint)
- European EC2 (2004)

### Key Design Features:

- Performs code check for reinforcement and post-tensioning
- Generates all required reinforcement and its disposition in slab
- Calculated reinforcement checked against base rebar
- Integrated punching shear analysis and design
- Clearly shows locations where stress due to PT is exceeded
- User can easily modify all generated reinforcement



**ADAPT Corporation**  
Redwood City, CA, USA

**ADAPT International**  
Kolkata, India

**ADAPT Latin America**  
Miami, FL, USA

**ADAPT Europe**  
Perugia, Italy