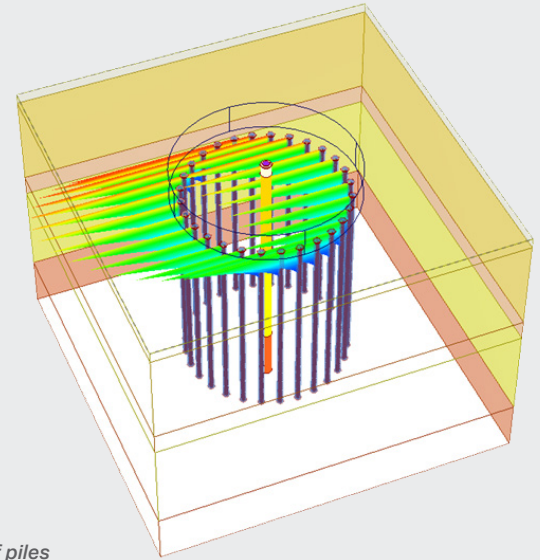


What is RSPile?



RSPile is a general pile analysis software for analyzing driven, axially loaded piles and laterally loaded piles. It is capable of computing the axial capacity for driven piles as well as the pile internal forces and displacements under various loads and soil displacements. *RSPile* can also compute pile resistance forces for use in *Slide2* for enhanced slope stability analysis.



Model and analyze groups of piles

What's New in RSPile

RSPile significantly increases the functionality of the software with the following upgrades:

- **Interface improvements:** *RSPile* has been completely redesigned to allow for the modeling of non-horizontal soil layers using borehole data
- All-new **Group Pile Analysis** option enables quick and easy analysis of pile groups under lateral and axial loads
- The **Cap Designer** allows users to easily define circular, rectangular, or custom-shaped caps
- Additional **lateral and axial soil models** with the ability to plot p-y and t-z curves at each depth along the pile, as well as mobilized soil reaction and slope vs. depth
- New **Concrete Designer** allows for easy design of reinforced concrete and prestressed concrete piles

Integration with Slide2

The compatibility of *RSPile* with *Slide2* is one of its most important features. Pile resistance graphs generated in *RSPile* can be imported into a support type in *Slide2* and used in a slope stability analysis:

- Pile properties are defined in *RSPile*, which computes the mobilized lateral and/or axial resistance along the length of a pile, for a given soil geometry and loading conditions.
- The pile support force used in the *Slide2* analysis is then determined by the location and angle of the slip surface intersection with the pile.

Plans & Pricing

Single (Personal) License: Locked to one computer.

- Ownership (Perpetual): **USD \$995**
Purchased outright
- Lease: **USD \$495/year**
Leased annually. Incl. maintenance & upgrades

Multi (Flexible) License: Installed on any number of machines. The license file sits on the server.

- Ownership (Perpetual): **USD \$1495**
Purchased outright
- Lease: **USD \$995/year**
Leased annually. Incl. maintenance & upgrades

Maintenance Plan

To get the most out of your Ownership License of *RSPile* we recommend the Rocscience Maintenance Plan, purchased annually at 15% of the license cost.

With Maintenance, you get free upgrades to new product versions. You'll never invest in a tool without access to the latest software.

You also get unlimited access to high-quality, timely support from the technical experts at Rocscience.

Contact us at software@rocscience.com

Laterally Loaded Piles

Pile Types

- Cylindrical
- Rectangular
- Pipe
- Typical sections
- Elastic and Plastic
- Reinforced Concrete
- Prestressed Concrete
- Pile with casing/core
- Tapered or non-tapered

Soil Materials

- Elastic
- Soft clay soil
- Submerged stiff clay
- Dry stiff clay
- Sand
- Weak Rock
- User-Defined
- API Method for Sand
- Loess
- Liquefied Sand
- Piedmont Residual Soils
- Strong Rock (Vuggy Limestone)
- Modified Stiff Clay without Free Water
- Silt (Cemented C-Phi Soil)
- Soft Clay with User Defined J
- Hybrid Liquefied Sand
- Massive Rock

Pile Top Loading

- Moment in X and Y
- Shear in X and Y
- Slope in X and Y
- Rotational Stiffness in X and Y
- Deflection in X and Y
- Axial load
- Define any combination of loading
- LRFD combinations

Pile Toe Loading

- Shear Resistance

Lateral Resistance Analysis

- Max Allowable Lateral Displacement
- Ultimate Lateral Resistance
- Both

Additional Loading

- Loading by lateral soil movement
- Transition zone for sliding soil in lateral resistance function
- Lateral Resistance Function (multiple soil movement cases)

Advanced Computation Options

- Stiffness Matrix Calculator
- Pushover Analysis
- Pile Length vs Top Deflection

Group Analysis

- Cap Designer
- Radial, Rectangular, Custom patterns

Output

- Displacement X and Y
- Rotation X and Y
- Beam Shear Force X and Y
- Beam Moment XY and YZ
- Soil Reaction Force X and Y
- Soil Stiffness X and Y
- P-Y curves with depth
- Use any input parameters as random variables

Axially Loaded Piles

Pile Types

- Cylindrical
- Rectangular
- Pipe
- Common sections
- Tapered or non-tapered
- Reinforced Concrete
- Prestressed Concrete
- Elastic or Plastic

Soil Materials

- Elastic
- API Sand
- API Clay
- User-Defined
- Drilled Clay
- Drilled Sand
- Coyle Reese Clay (Driven)
- Mosher Sand

Pile Top Loading

- Axial

Axial Resistance Analysis

- Max Allowable Axial Displacement
- Ultimate Axial Resistance
- Both

Axial Capacity Of Driven Piles

Non-Tapered Pile Types

- Pipe - open and closed end
- Concrete
- H-Pile

Tapered Pile Types

- Timber
- Raymond uniform taper
- Monotube

Soil Materials

- Cohesive/Cohesionless

Adhesion Types

- Adhesion for Cohesive Soils
- Piles Driven Through Soft Clay
- Piles Driven Through Overlying Sands or Sandy Gravel
- Piles Without Different Strata
- User-Defined Adhesion

Calculated Capacities

- Restrike, Driving, Ultimate

Design Considerations

- Long and short-term scour
- Soft compressible soils
- Negative skin friction

Model Definition

- Boreholes to define stratigraphy
- Definition of multiple and pattern piles

Additional Features

- Full 3D FEM pile engine
- P-Y modification factors
- T-Z modification factors
- Q-Z modification factors
- Static and cyclic loading options
- Integration with *Slide2*
- Export to *Slide2*
- Export to Excel
- Info Viewer