RSPile 1.0

rocscience
software tools for rock and soil

WHAT IS RSPILE?

RSPile is a program for the calculation of the axial load capacity of driven piles and the analysis of piles under lateral loading. Pile resistance functions can be imported from *RSPile* into *Slide* for slope stability analyses.

WHY CHOOSE RSPILE?

- Import of pile resistance graphs into *Slide* for slope stability analysis
- Analysis of both Laterally Loaded Piles and Axially Loaded Piles
- Lateral Resistance Function (multiple soil movement cases)
- Wide variety of pile top loading options
- Extensive results viewing and report generation capabilities (Info Viewer, export to Excel)
- Section database for H-Piles and other common types

PRICES & LICENSING

Personal License: Locked to one computer.

- Personal Perpetual: **USD $595** Purchased outright.
- Personal Lease: **USD $295/year** Leased annually. Includes maintenance and upgrades.

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

- Flexible Perpetual: **USD $895** Purchased outright.
- Flexible Lease: **USD $595/year** Leased annually. Includes maintenance and upgrades.

Maintenance can be purchased annually for our Perpetual Licenses at 15% of the license cost. With Annual Maintenance you will receive free upgrades and technical support. Contact us at **software@rocscience.com**!
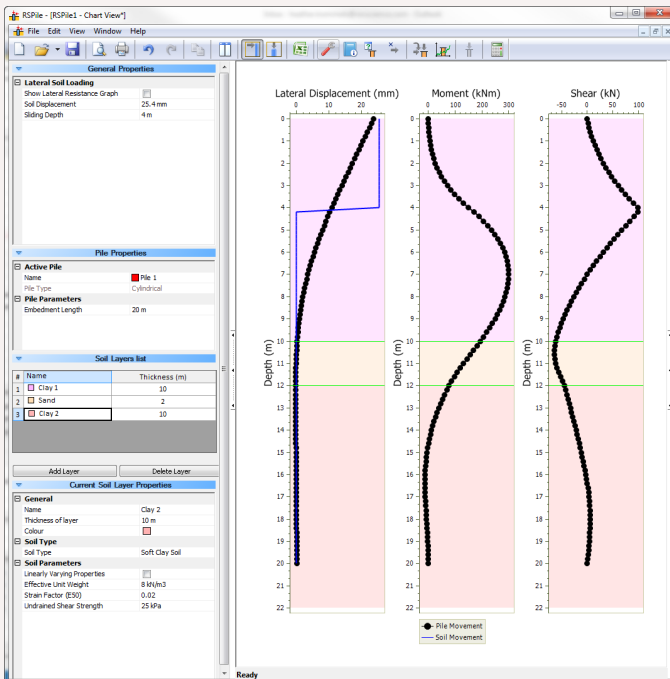
Lateral Displacement, Moment, and Shear Graphs from RSPile
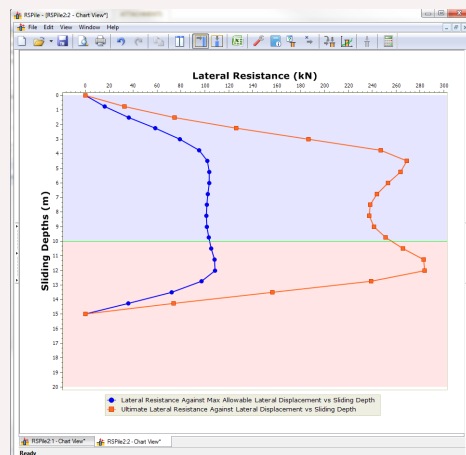
Lateral Resistance Graph

Technical Specifications

LATERALLY LOADED PILES

PILE TYPES
- Cylindrical
- Rectangular
- Pipe
- Common sections
- Tapered or non-tapered
- Elastic or Plastic

SOIL MATERIALS
- Elastic
- Soft clay soil
- Submerged stiff clay
- Dry stiff clay
- Sand
- Weak Rock
- User-Defined

PILE TOP LOADING
- Shear and Moment
- Shear and Slope
- Shear and Rotational Stiffness
- Shear and Displacement
- Moment and Displacement
- Moment and Slope
- Moment and Rotational Stiffness
- Rotational Stiffness and Slope
- Rotational Stiffness and Displacement

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)

ADDITIONAL FEATURES
- p-y modification factors
- Export to Excel
- Export to *Slide*
- Info Viewer

AXIALLY LOADED PILES

PILE TYPES
- Cylindrical
- Rectangular
- Pipe
- Common sections
- Tapered or non-tapered
- Elastic or Plastic

SOIL MATERIALS
- Elastic
- API Sand
- API Clay
- User-Defined

PILE TOP LOADING
- Axial

AXIAL RESISTANCE ANALYSIS
- Max Allowable Axial Displacement
- Ultimate Axial Resistance
- Both

ADDITIONAL FEATURES
- t-z modification factors
- Q-z modification factors
- Axial Resistance Graph (multiple sliding depths)
- Export to Excel
- Export to *Slide*
- Info Viewer

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
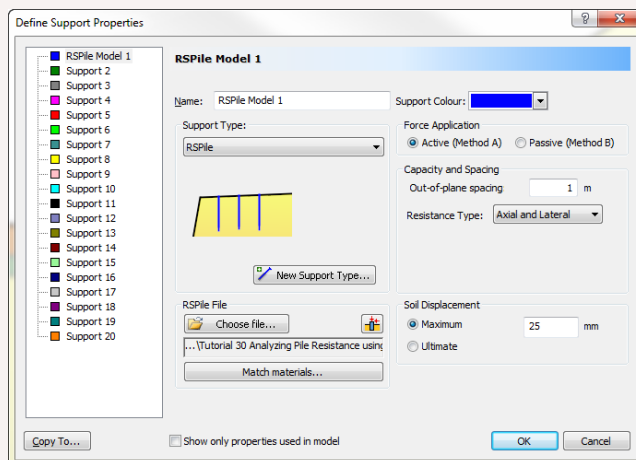- User Defined Adhesion

CALCULATED CAPACITIES
- Restrike, Driving, Ultimate

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

ADDITIONAL FEATURES
- Export to Excel
- Info Viewer

Read RSPile files directly in Slide