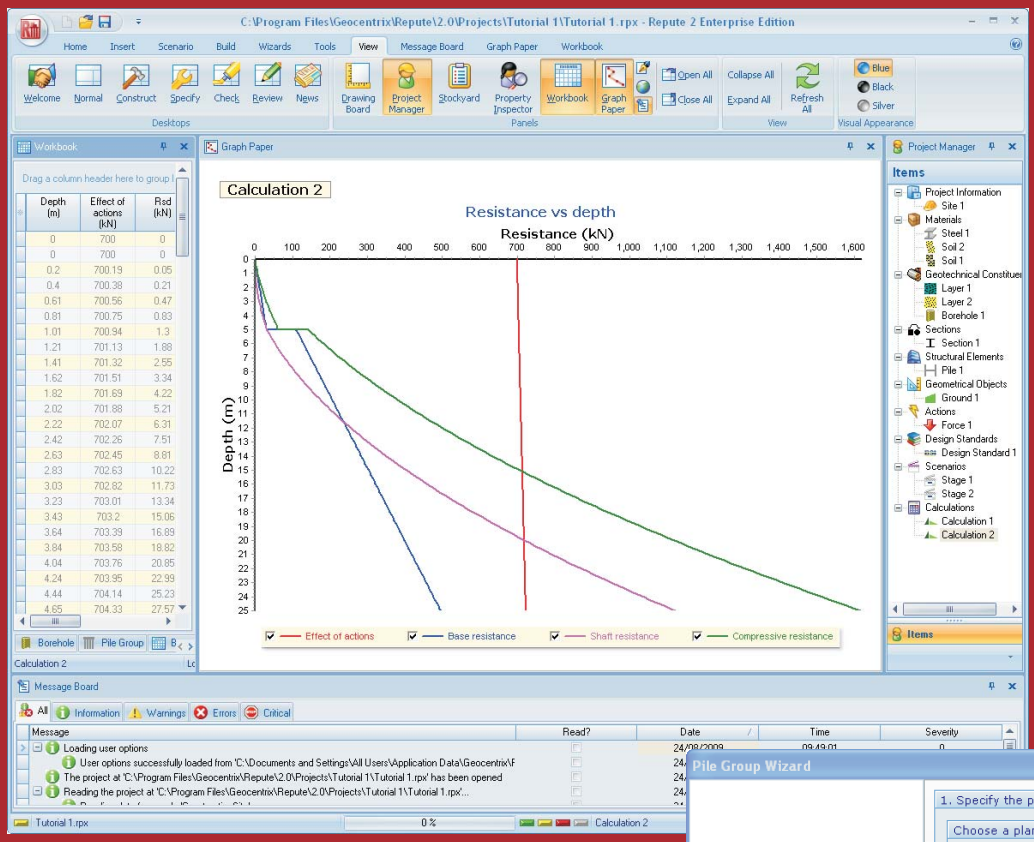
Repute 2

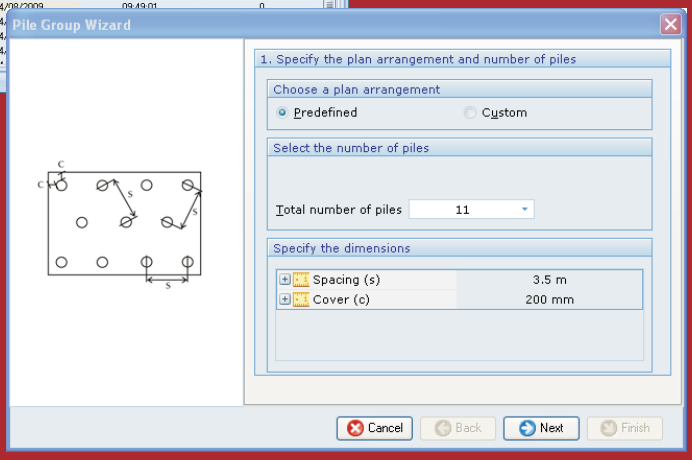
Onshore pile design and analysis

Repute® provides a rich set of tools for designing/analysing onshore piles, including:

- various types of single pile, using current and historical design standards (such as Eurocode 7 & BS 8004)
- pile groups under generalized 3-dimensional loading, using linear or non-linear soil models



Repute was the first design program to deal efficiently with soil non-linearity, avoiding exaggerated stresses and consequential high loads and bending moments at pile-group corners. This lead to greatly improved designs and savings in construction costs. Repute has been used to design foundations for the iconic Wembley Arch and for the world's tallest building, the Burj Dubai. Repute 2 adds the ability to analyse pile groups subject to torque.



Repute's design capabilities have been further extended to cater for ultimate and serviceability limit state design of single piles, to Eurocode 7 and its various National Annexes. Designs can be fine-tuned by changing the algorithms used in the calculations; factors applied to ensure reliability can be adjusted to suit local practice.

Repute's slick user interface makes projects easy to setup and modify. Specialized wizards help to speed up this process and an extensive reporting system provides high-quality printed output.

Repute 2 is available in three editions: **Standard** (for single-pile design), **Professional** (for pile-group analysis), and **Enterprise** (for both).

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REPUTE 2 SPECIFICATION

ENGINEERING CAPABILITES

ULTIMATE LIMIT STATE
- Longitudinal ULS calculation
- Undrained calculations (-method)
- Drained calculations (-method and methods based on K_s x tan)
- Fleming's load vs displacement analysis
- Various design standards, including Eurocode 7, BS 8004, and custom
- National Annexes for UK and Ireland
- Full customization of α, β, bearing capacity algorithm, K_s, δ, and shrinkage

SERVICEABILITY LIMIT STATE
- Linear and non-linear continuum analysis via boundary element method
- BEM calculation engine based on PGroupN version 2, used under exclusive licence from Geomarc
- BEM engine handles up to 350 piles with up to 50 elements per pile (total of 8000 degrees of freedom)
- Caters for piles of varying lengths, diameters, rakes, and moduli
- Full 3-dimensional loading (inc. torsion)
- Various soil models including linear elastic, linear-elastic/perfectly-plastic, and hyperbolic
- Handles up to 50 layers (homogeneous or Gibson profile within each layer)
- Randolph's analysis provides estimate of settlement for single piles
- Fleming's load-displacement analysis

STOCKYARD ITEMS
- Project information: amendment, construction site, & party
- Geotechnical constituents: borehole, ground water table, rigid & soil layers, SPT, & standing water table
- Structural elements: augered, bored, H, & square piles, plus pile group
- Geometrical objects: observation point, ordnance datum, & plane ground
- Actions: combination of actions, force, & moment
- Algorithms/standards: see above
- Scenarios: construction stage
- Calculations: see above
- Steels: Corus Advance™ 275 & 355, S235-450, & custom
- Concretes: C8/10-C50/60; C25-C50, & custom
- Materials: chalk, clay, coarse silt, cohesive fill, custom cohesive and granular soils, granular fill, gravel, organic soil, river soil, rock, sand, & silt
- Bearing piles: Corus UKBP™ range
- Sections: circular, custom & rectangular

RE/X USER INTERFACE

Ribbon interface simplifies program navigation by organizing commands into logical groups separated by tabs.

Drawing Board provides a scaled drawing of the scenario in separate cross-section, elevation, & plan views.

Project Manager displays all the components of the project in a logically grouped tree for easy navigation.

Stockyard contains over 100 ready-to-use engineering items that can be included in the project via drag & drop.

Property Inspector provides quick-access to the properties of all items, synchronized with the Drawing Board.

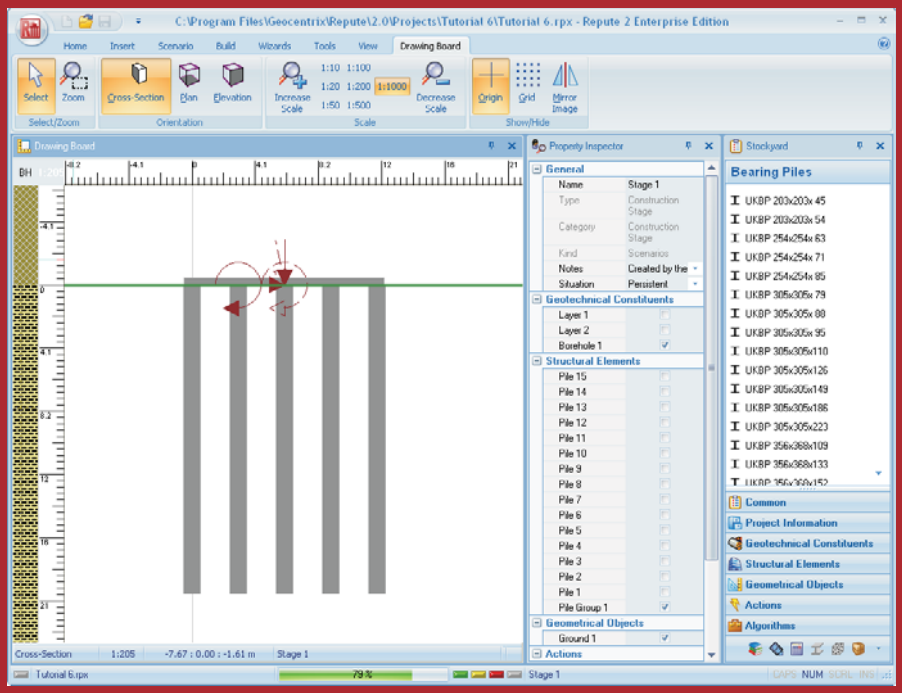
Workbook tabulates the results of all calculations and provides advanced sorting, grouping, and filtering options.

Graph Paper shows results in graphical format with options to alter every aspect of the graph's content and visual layout.

Message Board collects and automatically filters all program-generated messages for easy viewing.

Reporter summarizes key details of the project in highly customizable and easily printable reports

Browser provides convenient access to the Internet with links to commonly-used program information.



TUTORIALS
- H-pile in clay and sand
- Fleming's hyperbolic analysis
- Single pile design to Eurocode 7
- Pile group in clay and sand
- Non-linear analysis of pile group in stiff clay overlying rock
- Asymmetric pile group under 3D loading

DOCUMENTATION
- 70+ page Quick-start Guide*
- 50+ page User Manual*
- Comprehensive Reference Manual
- Printed* and electronic versions

TECHNICAL SUPPORT
- 30 days free technical support
- Free program updates from website
- Ongoing telephone/fax/email support available via annual support agreement

SYSTEM REQUIREMENTS
- Microsoft® Windows® XP/Windows Vista/Windows 7
- Adobe® Acrobat® Reader
- 70Mb (approx.) free space on hard disk

Repute 2 was developed with the support of Corus, Atkins, and Stent Foundations

corus ATKINS Stent