## Summary

Jointed Rock Masses (Shear strength of jointed rock masses): Most rock masses, exhibit non-linear shear strength/ normal stress failure envelopes, Jointed Rock Masses evaluates this non-linear shear strength envelope for a range of input parameters.

What makes this module special?

- **Deterministic and Probabilistic Analysis:** A probabilistic analysis lets you take variations in material properties and other parameters into account.
- **Graphical output:** Analysis results displays various graphs.
- **Analysis results grouped on a Calcsheet**: For printing or sending to PROKON Calcpad. Various settings are available to include input and design diagram and tabular result.

Detailed Description

Most rock masses, some granular soils and some dense sands, exhibit non-linear shear strength/ normal stress failure envelopes. PROKON's Jointed Rock Masses evaluates this non-linear shear strength envelope for a range of input parameters. The analysis output may consist of instantaneous cohesion and friction values or the actual shear strength for a given normal stress. Both deterministic and probabilistic modes are supported.
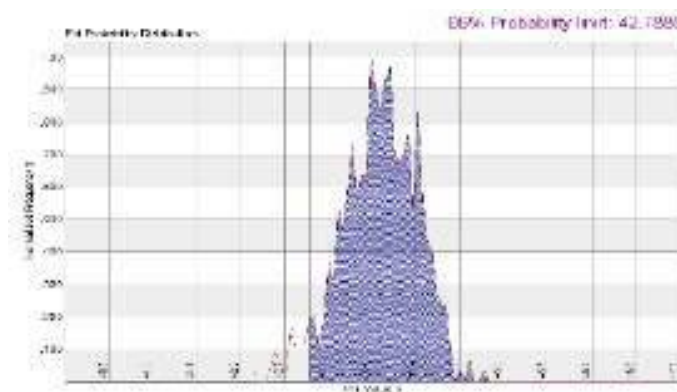
Theory used in this module

Except for the Pile Bearing module, all modules can perform deterministic analyses as well as a probabilistic analysis. With a probabilistic analysis you can consider variations in material properties and other parameters.

Distribution types that can be applied to material properties in a probabilistic analysis include uniform, triangular, exponential, normal, log normal and beta distributions. You can set the number of analysis iterations to perform and the required probability limit.

RockRJ :
Input Tables

	Mean/ Best est.	PD	Standard Devision	Min.	Max.
Normal Stress σ	30	Normal	1.5	28	32
Compressive strength σi	70	Normal	2		
Basic friction angle ϕ (deg)	17	Normal	1		
Joint Roughness coefficient	20	Normal	1		

Shear Stress vs Normal Stress