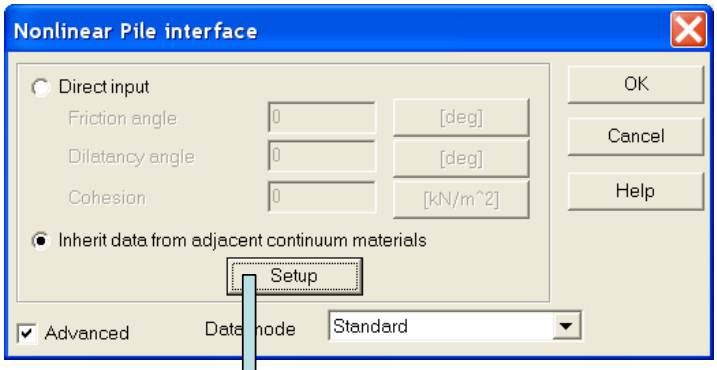
Window 2-653: Strength parameters inherited from adjacent continuum

If ◎ **Inherit data from continuum materials** is set ON then user may use a single pile interface material for all pile interface elements along the pile independently on number of different soil layers (for instance pile installed in the layered subsoil). By pressing the button **Setup** one gets the access to the sorted (by numbers) list of materials for continuum and may set multipliers for $tan(\phi)$, $tan(\psi)$ and c to be used to compute plastic parameters in the pile interface adjacent to that material. This list is shown in the figure below



Contact properties

	Material	Model	Original continuum strength parameters			Standard Interface data			Piles interface data				
			Phi [deg]	c [kN/m^2]	Psi [deg]	tg(Phi) mult.	c mult.	tg(Psi) mult.	tg(Phi) mult.	c mult.	tg(Psi) mult.	Tensile bearing capacity qt [kN/m^2]	Compressive bearing capacity qc [kN/m^2]
1	concrete	Elastic	0	0	0	0.6	0.6	0.6	0.6	0	0	0	1e+038
2	dense sand	Mohr-Coulomb	30	20	0	0.6	0.6	0.6	0.6	0	0	0	1e+038
3	Clay	HS-small strai	30	0	0	0.6	0.6	0.6	0.6	0	0	0	1e+038

Remarks:

1. Multipliers to be set for pile interface are highlighted by yellow color
2. The current values of plastic parameters for models designed for continuum are listed in cells `Original continuum strength parameters`; if a given model is described by means of friction angle, cohesion and dilatancy angle (like M-C model, Cap, D-P or HS-small) then these original strength parameters are placed in non-editable cells `Standard interface data` (filled by a gray color); for other models (like `Elastic`) user must set the reference strength parameters (in this case cells are white and can be edited)
3. The friction angle for the interface is computed as $tan(\phi^{interface}) = tan(\phi^{soil}) \times \text{multiplier}^{\tan(\phi)}$; same procedure is applied to the dilatancy angle and cohesion
4. Setting current pile interface strength parameters is made in the calculation module at each time step (note that strength parameters for continuum models may vary in time)
5. This list is common for all pile interface materials (including pile foot interfaces)

Window 2-653

Related Topics

- *theory: PILE INTERFACE*