Leapfrog Geothermal Surface Types

For Leapfrog Geothermal Version 2021.2

✓ ☐ Geological Models		
🗸 🍘 GM		
> 🥡 Boundary		
🍫 Fault System		
Lithologies		
> 📅 Surface Chronology		
> 🗀 Output Volumes	<u>O</u> pen	Comments
	🏀 New Deposit 💦 🔷 🔿	From Base Lithology
	New Erosion >	From Other Contacts
	i New Intrusion →	C Erom Polyline
	诊 New Vei <u>n</u> >	🛃 From <u>G</u> IS Vector Data
	🐞 New Structural Surface	🛃 From S <u>t</u> ructural Data
	✓ New Vein System	From Points
	New Stratigraphy	🛒 From Offset Surface
	⊻iew All	\bigotimes From Surface
	↑ P <u>r</u> ioritise	
	II Freeze	
	Properties	

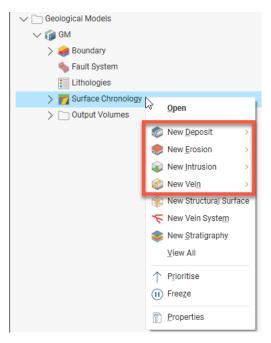
Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
- Vein Surfaces

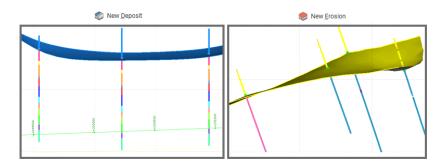
Specific Function Surfaces

- Structural Surfaces
- Offset Surfaces
- Vein System Surfaces
- Stratigraphic Sequences

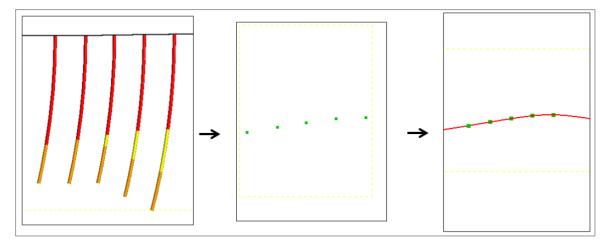
Core Contact Surface Types



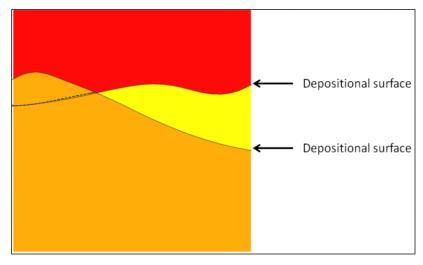
Deposit and Erosion Surfaces



One set of contact points - above OR below the unit of interest

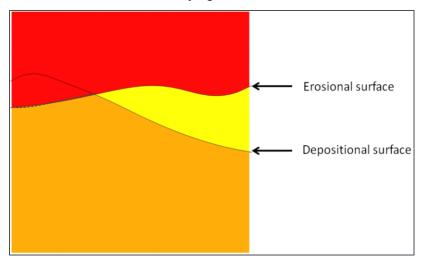


Only ONE contact point per unit per well

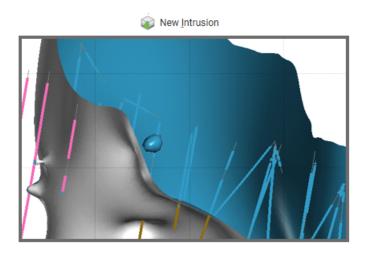


Deposit surface volumes cannot cut into an underlying older unit

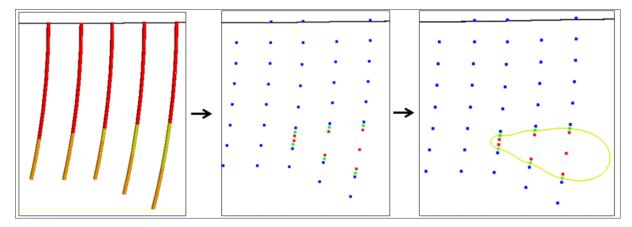
Erosion surface volumes can cut into an underlying older unit



Intrusion Surfaces

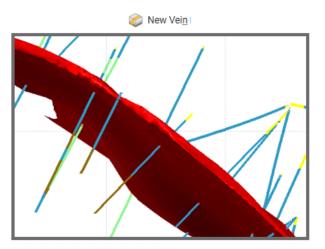


One set of contact points - above AND below the unit of interest

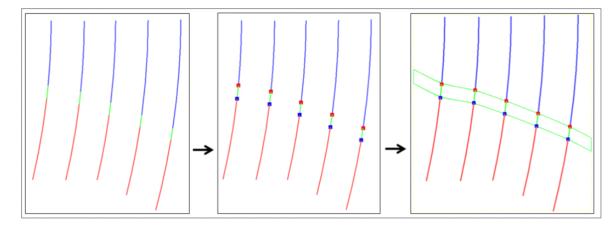


Can have **MULTIPLE** contact points per unit per well Intrusion volumes **enclose** the unit of interest

Vein Surfaces



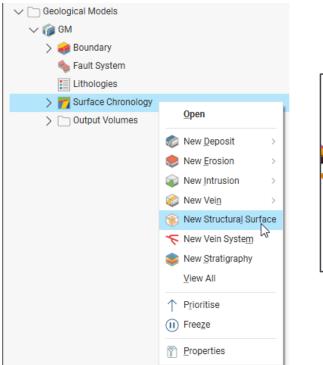
Two sets of contact points - above AND below the unit of interest

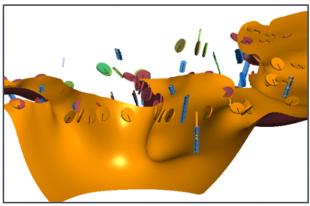


Creates a Hanging wall (HW) set AND Footwall (FW) set of contact points

Specific Function Surfaces

Structural Surfaces



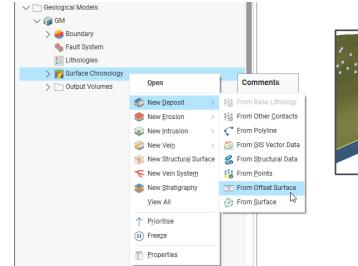


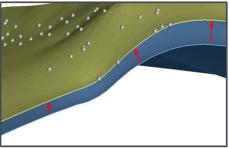
Incorporates non-contact structural data with on-contact data (drilling data, surface mapping)



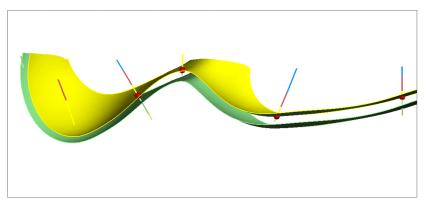
Can be used for a Deposit, Erosion or Intrusion contact type

Offset Surfaces



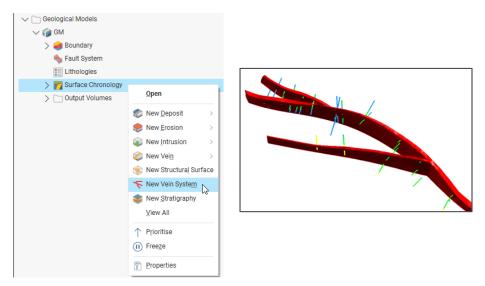


Maintains **consistent offset** while **honouring** contact points - for stratigraphy with common deformation

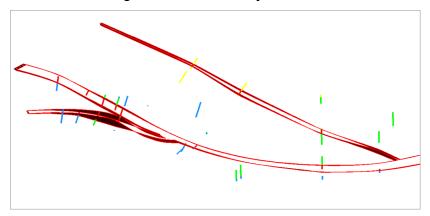


Can be used for a Deposit or Erosion contact type

Vein System Surfaces

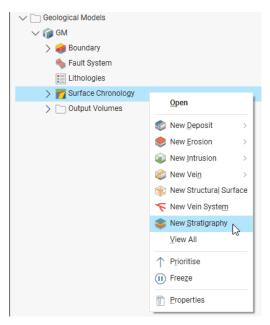


Combines individual veins into a single interconnected system of veins

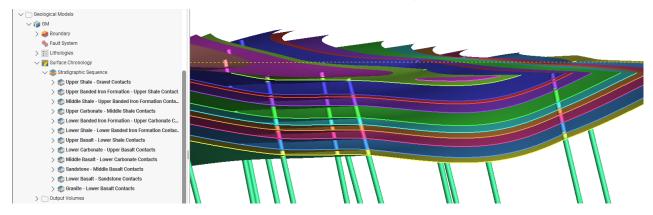


Can be used for a Vein contact type

Stratigraphic Sequences



Generates multiple surfaces in a stratigraphic sequence in a single pass



Can be used for a Deposit or Erosion contact type