Leapfrog Geothermal Surface Types

For Leapfrog Geothermal Version 2021.1

✓ ☐ Geological Models		
🗸 🍘 GM		
> 🧀 Boundary		
🍫 Fault System		
Lithologies		
> 📷 Surface Chronology		
> 🗀 Output Volumes	<u>O</u> pen	Comments
	🌮 New <u>D</u> eposit	From Base Lithology
	> New Erosion	From Other Contacts
	₩ New Intrusion >	C Erom Polyline
	诊 New Vei <u>n</u> >	Erom GIS Vector Data
	🐞 New Structural Surface	名 From Structural Data
	🬾 New Vein System	👪 From <u>P</u> oints
	New Stratigraphy	🛒 From Offset Surface
	<u>V</u> iew All	\bigotimes From Surface
	↑ P <u>r</u> ioritise	
	(II) Free <u>z</u> e	
	Properties	

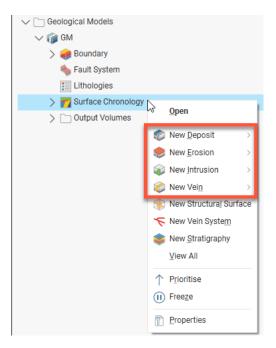
Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
- Vein Surfaces

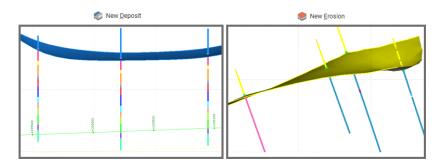
Specific Function Surfaces

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

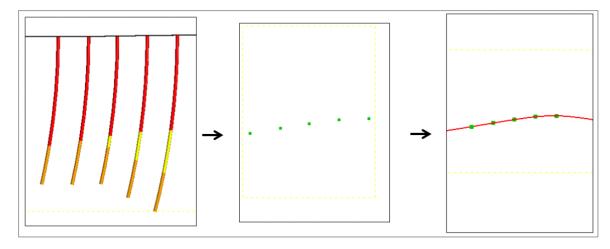
Core Contact Surface Types



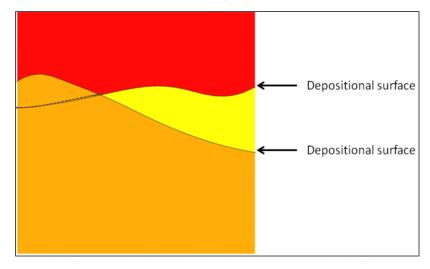
Deposit and Erosion Surfaces



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

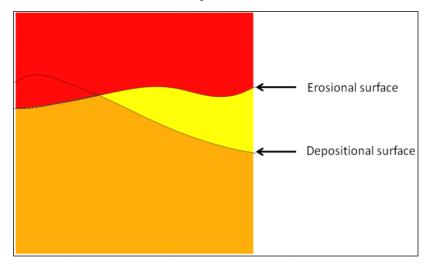


Only ONE contact point per unit per well

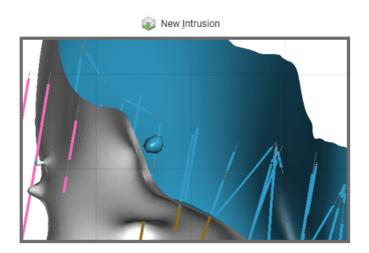


Deposit surface volumes **cannot** cut into an underlying older unit

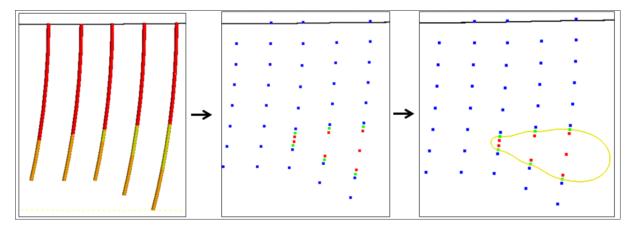
Erosion surface volumes can cut into an underlying older unit



Intrusion Surfaces

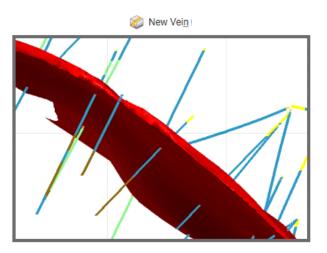


One set of contact points – above AND below the unit of interest

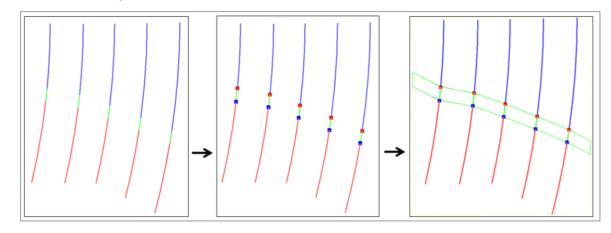


Can have **MULTIPLE** contact points per unit per well Intrusion volumes **enclose** the unit of interest

Vein Surfaces



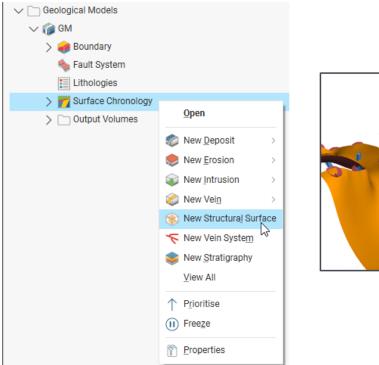
Two sets of contact points - above AND below the unit of interest

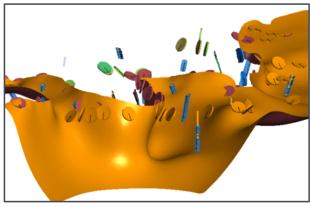


Creates a Hanging wall (HW) set AND Footwall (FW) set of contact points

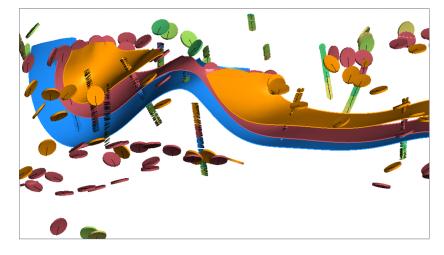
Specific Function Surfaces

Structural Surfaces



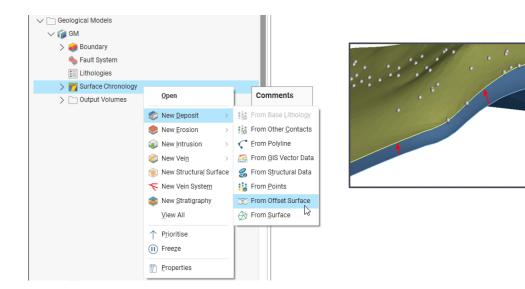


Incorporates **non-contact** structural data with on-contact data (drilling data, surface mapping)

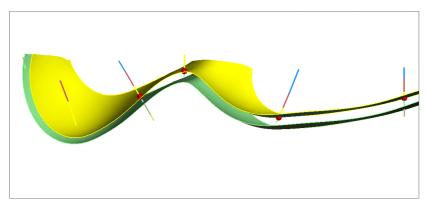


Can be used for a Deposit, Erosion or Intrusion contact type

Offset Surfaces

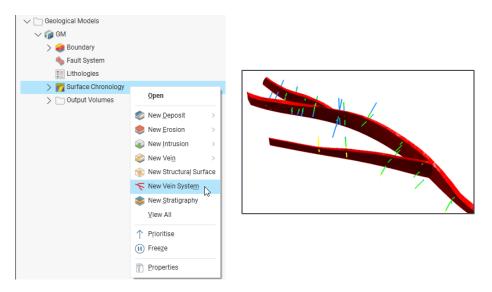


Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation

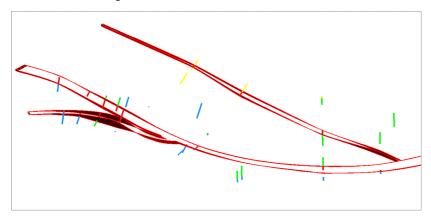


Can be used for a **Deposit** or **Erosion** contact type

Vein System Surfaces

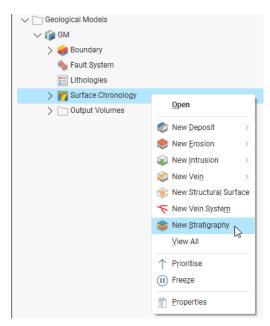


Combines individual veins into a single interconnected system of veins

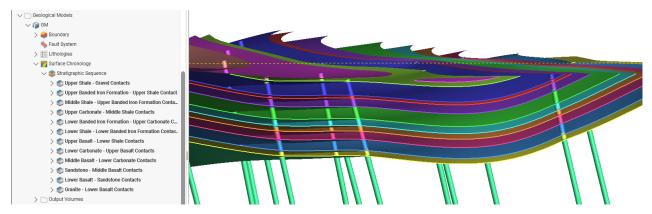


Can be used for a Vein contact type

Stratigraphic Sequences



Generates multiple surfaces in a stratigraphic sequence in a single pass



Can be used for a **Deposit** or **Erosion** contact type