Leapfrog Works Surface Types

For Leapfrog Works Version 2024.1

 Geological Models GM GB Boundary Fault System Lithologies 		
> 7 Surface Chronology > Output Volumes	<u>O</u> pen	Comments
,		From Base Lithology
	New Erosion	From Other Contacts
	New Intrusion	From Polyline
	🗼 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
	View All	From Surface
	↑ Prioritise	
	(II) Freeze	
	Properties	

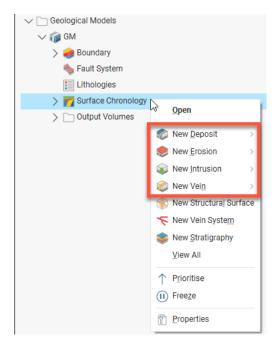
Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
- Vein Surfaces

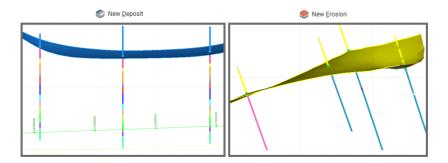
Specific Function Surfaces

- <u>Structural Surfaces</u>
- Offset Surfaces
- Vein System Surfaces
- Stratigraphic Sequences

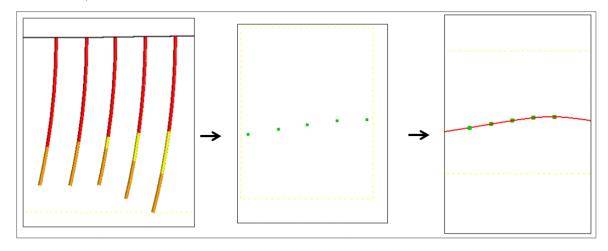
Core Contact Surface Types



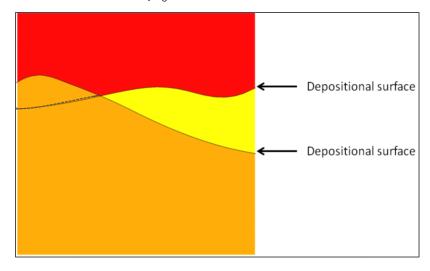
Deposit and Erosion Surfaces



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

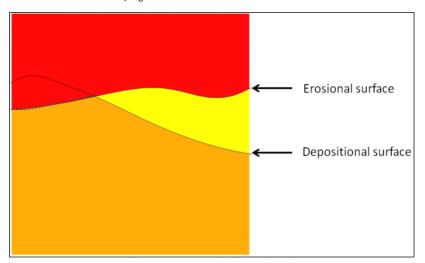


Only ONE contact point per unit per borehole

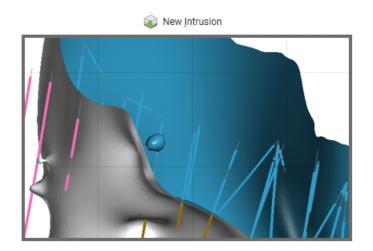


Deposit surface volumes **cannot** cut into an underlying older unit

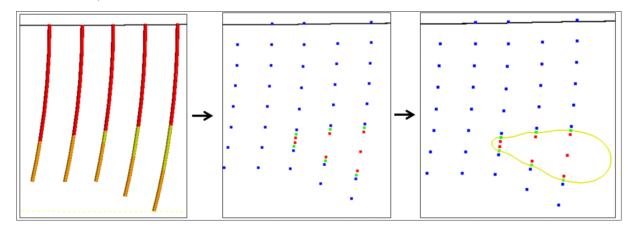
Erosion surface volumes **can** cut into an underlying older unit



Intrusion Surfaces

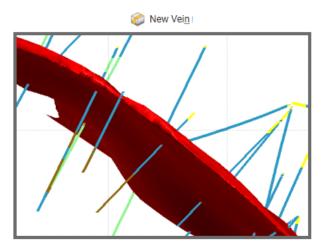


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One set of contact points - above AND below the unit of interest
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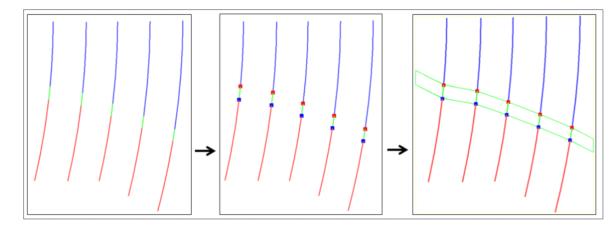


Can have **MULTIPLE** contact points per unit per borehole Intrusion volumes **enclose** the unit of interest

Vein Surfaces



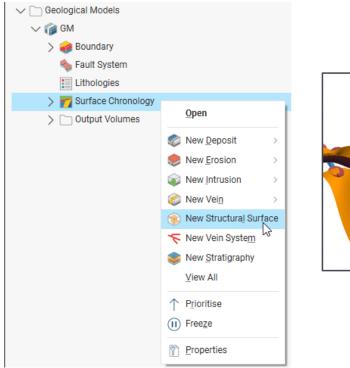
 $\ensuremath{\mathsf{Two}}\xspace$ sets of contact points – above $\ensuremath{\mathsf{AND}}\xspace$ below the unit of interest

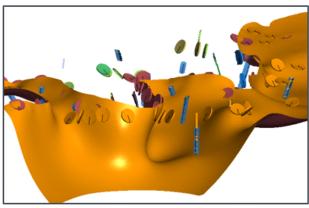


Creates a Hanging wall (HW) set AND Footwall (FW) set of contact points

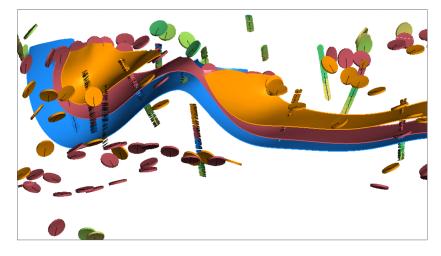
Specific Function Surfaces

Structural Surfaces



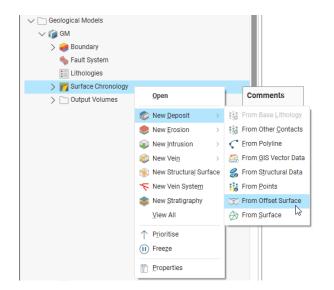


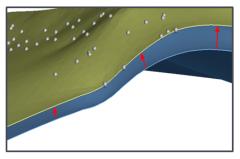
Incorporates non-contact structural data with on-contact data (drilling data, surface mapping)



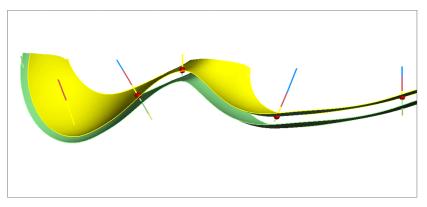
Can be used for a Deposit, Erosion or Intrusion contact type

Offset Surfaces



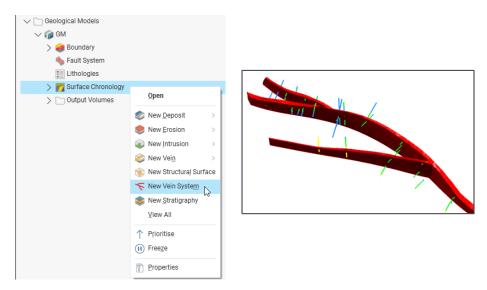


Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation

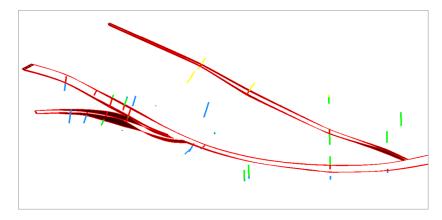


Can be used for a **Deposit** or **Erosion** contact type

Vein System Surfaces

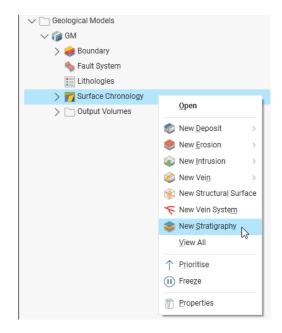


Combines individual veins into a **single interconnected system** of veins

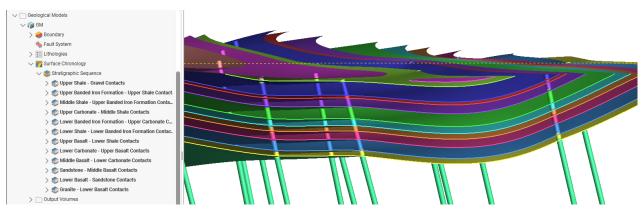


Can be used for a Vein contact type

Stratigraphic Sequences



Generates **multiple** surfaces in a stratigraphic sequence in a **single pass**



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