# Leapfrog Geo Surface Types

For Leapfrog Geo Version 2021.2

<ul> <li>✓ Geological Models</li> <li>✓ G GM</li> <li>&gt; G Boundary</li> <li>♦ Fault System</li> <li>Eithologies</li> </ul>		
Surface Chronology Output Volumes	<u>O</u> pen	Comments
, Contract volumes	New Deposit       >         New Erosion       >         New Intrusion       >         New Vein       >         New Structural Surface          New Vein System          New Stratigraphy          View All	<ul> <li>From Base Lithology</li> <li>From Other Contacts</li> <li>From Polyline</li> <li>From GIS Vector Data</li> <li>From Structural Data</li> <li>From Points</li> <li>From Offset Surface</li> <li>From Surface</li> </ul>
	<ul> <li>↑ Prioritise</li> <li>(1) Freeze</li> <li>(2) Properties</li> </ul>	

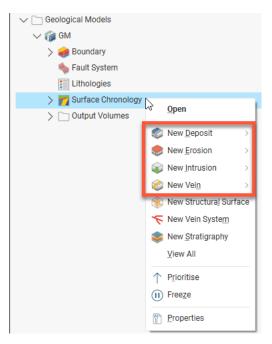
Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
- Vein Surfaces

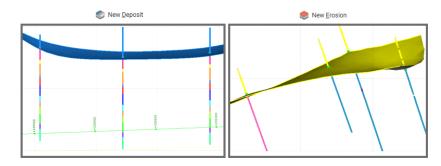
#### Specific Function Surfaces

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

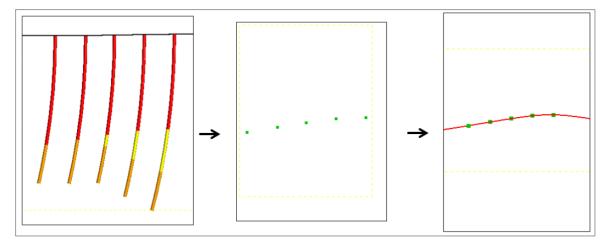
## **Core Contact Surface Types**



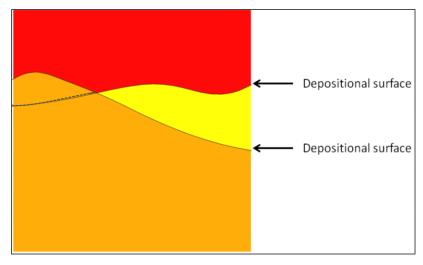
#### **Deposit and Erosion Surfaces**



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

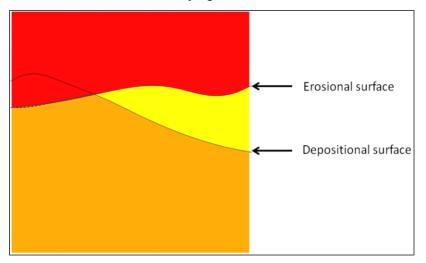


Only ONE contact point per unit per drillhole

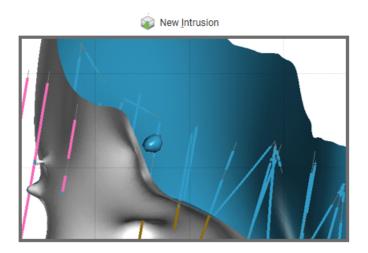


Deposit surface volumes cannot cut into an underlying older unit

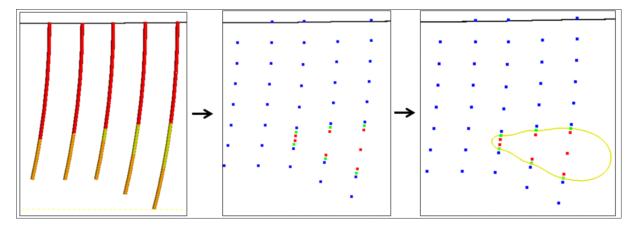
Erosion surface volumes can cut into an underlying older unit



#### **Intrusion Surfaces**

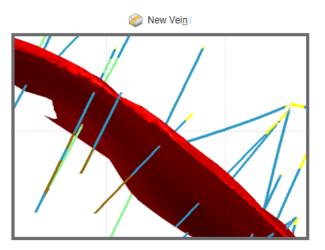


#### One set of contact points - above AND below the unit of interest

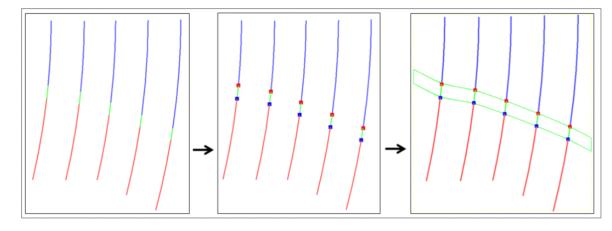


Can have **MULTIPLE** contact points per unit per drillhole Intrusion volumes **enclose** the unit of interest

#### **Vein Surfaces**



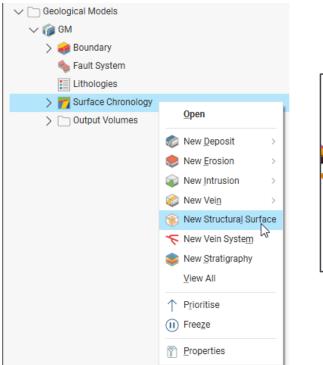
Two sets of contact points - above AND below the unit of interest

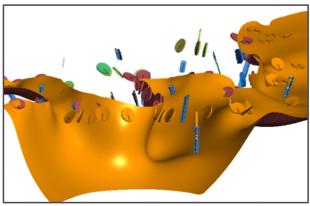


Creates a Hanging wall (HW) set AND Footwall (FW) set of contact points

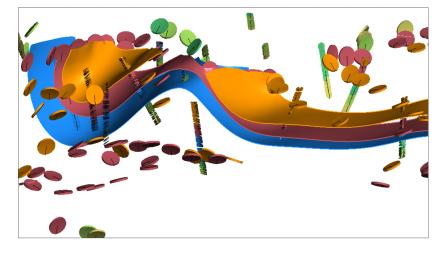
## **Specific Function Surfaces**

#### Structural Surfaces



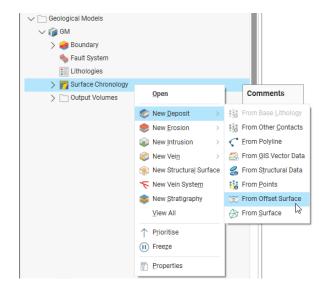


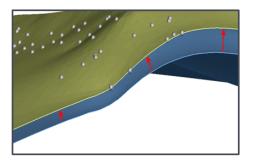
Incorporates non-contact structural data with on-contact data (drilling data, surface mapping)



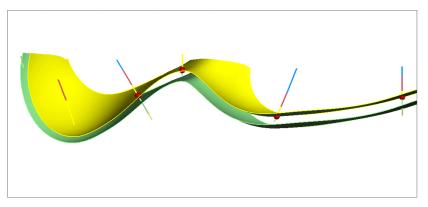
Can be used for a Deposit, Erosion or Intrusion contact type

### **Offset Surfaces**



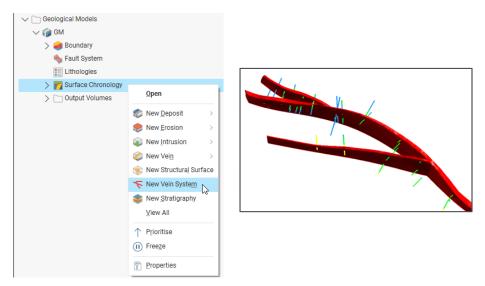


Maintains **consistent offset** while **honouring** contact points - for stratigraphy with common deformation

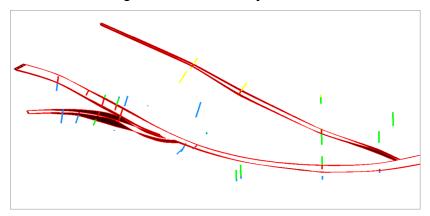


Can be used for a Deposit or Erosion contact type

### Vein System Surfaces

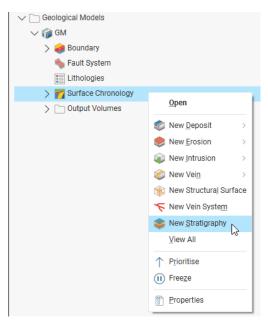


Combines individual veins into a single interconnected system of veins

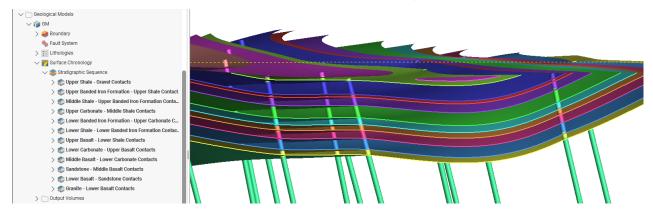


Can be used for a Vein contact type

#### Stratigraphic Sequences



Generates multiple surfaces in a stratigraphic sequence in a single pass



Can be used for a Deposit or Erosion contact type