RIFT TD

VERSION 3.0.3.4

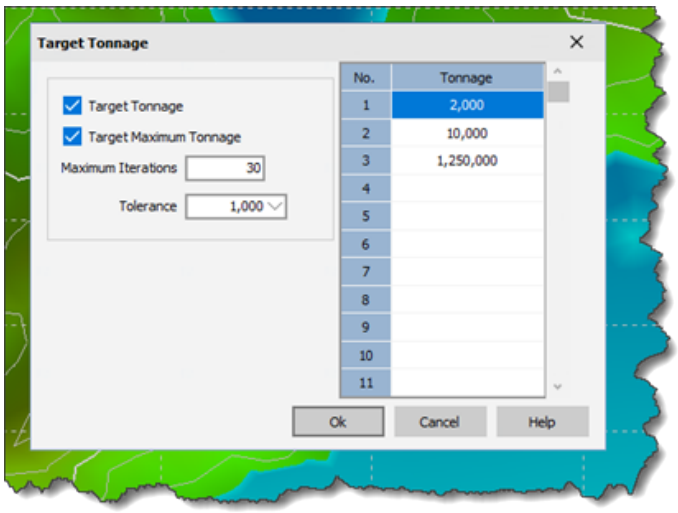
AUGUST 2017

ENHANCEMENTS

Rift TD, **Version 3.0.3**, is a major version release. Features include:

- **NEW -** Targeted/maximum deposition tonnage
- **ENHANCED -** Additional run modes
- **ENHANCED -** Significant deposition run performance improvement
- **NEW -** Generate model boundary strings
- **NEW -** Generate deposition (value) boundary strings
- **NEW -** Export strings to DXF
- **NEW -** Boundary triangle audit tool
- **NEW -** Node grid tool
- **Enhanced -** Result Detail View
- **Enhanced -** Significant Node Identification performance improvement

TARGETED/MAXIMUM DEPOSITION TONNAGE



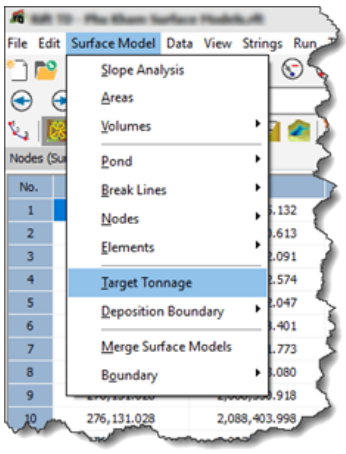
Rift TD, **Version 3.0**, allows you to specify target tonnages and, optionally, a maximum deposition tonnage.

Deposition takes place using raise data. However, If target tonnages is active, **Rift TD** iterates through the raise data to seek the target tonnages entered on the **Target Tonnage Dialog**.

Deposition stops once the maximum deposition tonnage is reached (if target maximum tonnage is active).

Iteration is controlled using a specified tolerance and maximum Iteration count.

Click Surface Model > Target Tonnage to open the **Target Tonnage Dialog**.



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ADDITIONAL RUN MODES

Rift TD Version 3.0 introduces two additional run modes:

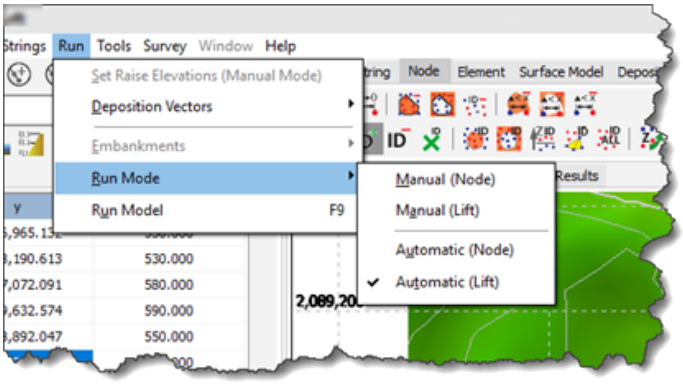
- Automatic (Lift)
- Manual (Lift)

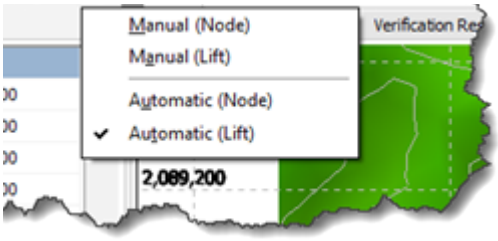
When applied, DTM graphics are updated once per deposition lift, which may improve deposition performance significantly, particularly for models with a large number of deposition vectors. Benchmarking indicates performance improvements of up to 83% when compared to Version 2.0.

You can assign run modes using the:

- Menu (Run > Run Mode); or the
- Run tool-button run mode selector.

By default, new models are assigned the new Automatic (Lift) run mode.





PERFORMANCE IMPROVEMENT

Rift TD, **Version 3.0**, has major performance improvements to:

- File operations
- Vector generation
- Embankment generation
- String toe point generation
- Deposition surface load times
- Deposition model run times

Deposition run benchmark tests against version 2.0 and 1.2, including a comparison of the new Automatic Lift run mode.

Benchmark tests indicate performance improvements of up to 84% when comparted to Version 2.0. This increases to more than 99% for a large single deposition point model when compared to Version 1.2.

Figures 1 and 2 illustrate Version 3.0 deposition model benchmark results relative to Versions 1.2 and 2.0.

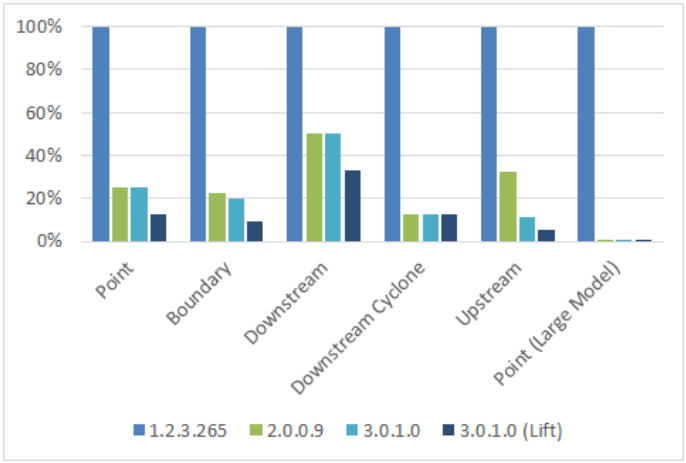


Figure 1: Run Time Relative to Version 1.2

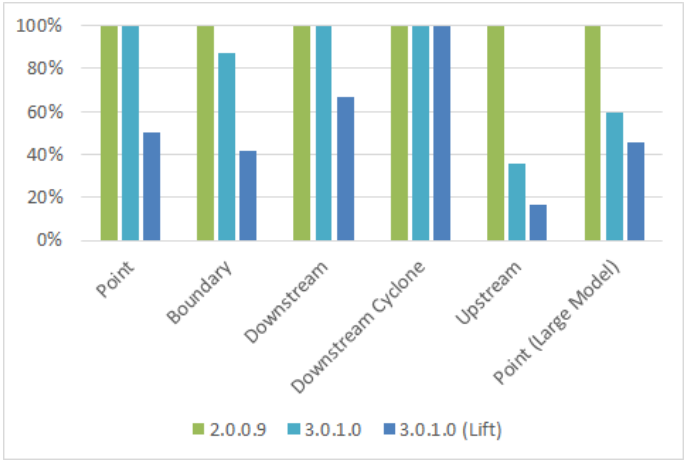


Figure 2: Run Time Relative to Version 2.0

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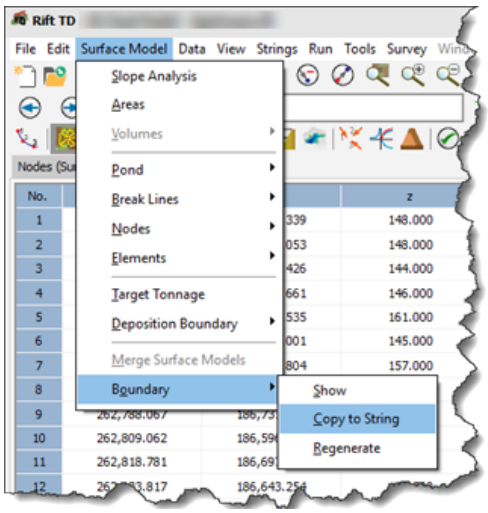
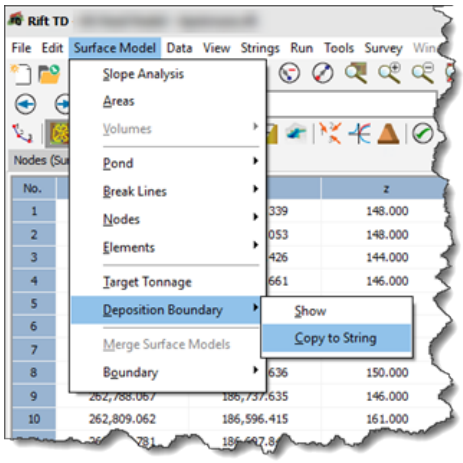
GENERATE MODEL BOUNDARY STRINGS



Rift TD, **Version 3.0**, introduces the ability to copy the model boundary to the string data type. Click Surface Model > Boundary > Copy to String.

The model boundary is used to generate a string, or strings, that are copied to the string data type.

GENERATE DEPOSITION (VALUE) BOUNDARY STRINGS



Rift TD, **Version 3.0**, introduces the ability to copy the deposition/value boundary to the string data type; click Surface Model > Deposition Boundary > Copy to String.

Rift TD generates a boundary around the deposition (value) surface and uses it to generate a string, or strings, that are copied to the string data type.

EXPORT STRINGS TO DXF

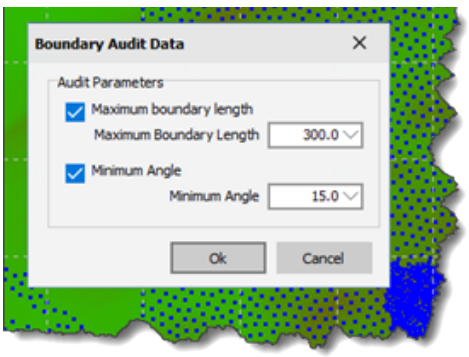
Rift TD, **Version 3.0**, exports strings when exporting data to a DXF, placing them in a “Strings” layer.

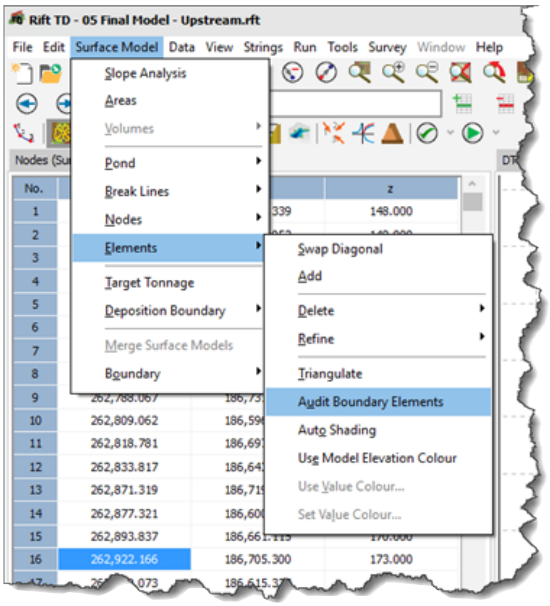
The additional string features introduced in this version allow you export the model and deposition boundary strings to a DXF file.

BOUNDARY TRIANGLE AUDIT TOOL

Rift TD, **Version 3.0**, introduces a **Perimeter Triangle Audit Tool** to remove narrow perimeter triangles.

Click Surface Model > Elements > Audit Boundary Elements.





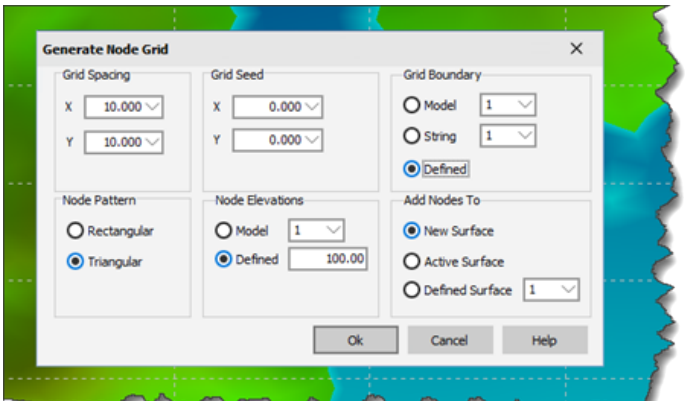
Input comprises:

- Maximum boundary length: The maximum length of a boundary element side.
- Minimum angle: The minimum angle in a boundary element.

Check the audit criteria, enter the audit values, and click OK.

Rift TD deletes boundary/perimeter triangles that do not meet the audit criteria.

NODE GRID TOOL



Rift TD, **Version 3.0**, introducers a powerful **Node Grid Generation tool**. The tool allows you to generate nodes within a boundary and copy them to a surface. The boundary is defined:

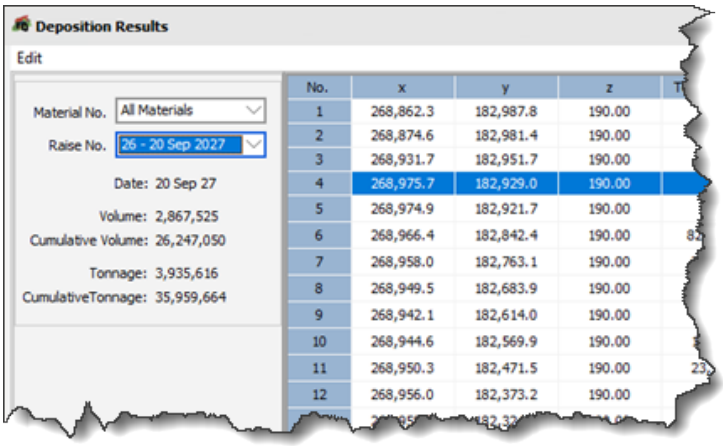
- by a defined surface;
- by a string; or
- is fully defined by the user on the DTM View.

You can generate nodes in either a rectangular or equilateral triangular pattern.

Node elevations are either specified or obtained from a defined surface model.

Note that the nodes are not automatically incorporated into the surface.

IMPROVED RESULT DETAIL VIEW



Version 3.0 improves the Result Detail View to make it easier to navigate and view detailed deposition vector results; click View > Result Detail.

Use the Material No. and Raise No. Drop-down boxes to view results for a specific material and/or raise.