

## VUMA-network Q2 2022 Release Notes

April 2022

### 1 New

- Apply the format painter to a multi-selection set
- Custom reference depth splitting
- Custom rock colours
- Customize intake / return / duct colours
- Duct air type
  - - Air type display / converter
  - - Duct summary in the reporter
  - - Duct summary shows the duct specifically added to a stage
  - - Ducts added to their own outputs
  - - Ducts omitted from Tunnel outputs in the reporter
  - - Ducts omitted from Tunnel summary outputs in the reporter
  - - Duct colour mode - toggle between uniform colour, or intake / return colour
- Edit fan inputs via the reporter
  - - Fan configuration
  - - Fan library and variations
  - - Fan speed ratio via the reporter
- Import annotations from another VUMA model
- Match dev. end size to the size of the connected tunnels
- Multi-select branches from the colour histogram
- Multiselect path tool - option to include excluded branches
- Quick view attribute saving
- Record sound whilst recording video (Optionally)
- Reference drawing editor - Delete hatching
- Screenshot tool
- Solve (full) from inside the branch editor
- Split reference drawing according to its closest level
- Unique icons for fans in parallel / series
- Variation's tab - added colour mode, count and hiding option
- Video recording ability
- When saving a quick view, additional information will be stored, incl. the colour mode, text mode, background, visible states of icons, billboards, nodes, excluded branches, text, FR icons, sticky text, node, and branch sizes, etc.

### 2 Updates

- Added check for active stopes / dev ends marked as return to the Evaluate form
- Added check for long intake tunnels to evaluation form (> 500 m)
- Added the fan curve variation to the fan input section [Reporter]
- Adding a new layer via grid - add the visible list
- Adding duct will now be quicker / and no longer connect to no-duct entities

- Added check for (near) vertical tunnels to evaluation checker
- Added friction factor (Atkinsons) to format painter options
- Added magnification window to fan digitiser
- Added stope velocity to histograms
- Added option to delete all fire and rescue icons
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- Age added to Additional Text options
- After changing a multiselect branch type - keep the selection
- Allow multiselecting in the fan dashboard [for copy and paste]
- Allow users to skip NVidia gfx card – [avoid overheating issues on older laptops]
- Allow taking screenshot of hints
- Annotation text padding set to 1 [was 5]
- Billboards will be drawn 33% further from the branch - to avoid obscuring it
- Blast fume legend moved down to the bottom of the graph
- Bounding box will now include the references as well
- Cap maximum fan scale to 10 m (Rendering according to fan diameter)
- Change layer colours by clicking on the colour in the layer grid
- change branch type - change to the last selected fan
- Changed the variation icon
- Chart heat loads dashboard
  - - Added negative rock heat to cooling chart
  - - Split user heat from other heat
  - - Spilt winch heat from other heat
- Chinese translation updates
- Colour mode [Pressure drops per unit length] will now ignore ducts
- Control manager input rounding / display in the reporter
- Darkened the base colour for branches outside of the variations
- Dev ends redraw / grow length button
- Dev end dashboard - Added the month unit
- Dev end dashboard - show duct leakages using massflow
- Do not add 'split' to branch names [branch crossing etc]
- Drawing a new TRA control manager from existing an existing tunnel's node - inherit the size of the connected tunnel
- Duct offset defaults reduced from 20 m to 7 m
- DWG export - export as wireframe with associated layers
- Edit/create layers from inside tunnel form
- Edit dev. end & stope explosives via the reporter
- Enabled editing of the power value of Total Pressure fan curves
- Energy balance - set a custom leakage
- Example model updates
- Fan digitiser - option to show / hide grid lines
- Fan digitiser - delete a point from the list
- Fan summary - split aux fan sub data between stopes and dev ends
- Fan summary [reporter] - sub data + fan size breakdown
- Fire and rescue - save additional path data

- Fire and rescue - use the actual drawn lengths of controls and fans
- Fire & rescue path tool - customize path find performance
- Fixed flows and regulators dashboard now allows for the rapid conversion of a fixed flow to a fixed pressure drop
- Force refresh on air types when it becomes the active page
- Format paint a selection - improved syntax
- Going to unassigned stages from the explorer tab will show all stages
- Help manual updates
- Hints: Result text colour changed
- Histogram - bolded the headings
- Histogram layout updates
- Histograms - add option to limit to the current multi-selection
- Histograms- Made design line thicker
- Histograms - added average values
- Importing rocks from a different Vuma model - include the rock colour as well
- Improved layer updating post creation inside the tunnel form
- Improved rock type colour mode
- Improvement to the reset view [i.t.o. Air types and performance]
- Improvement to the rotate view
- Increased the allowed shock loss area to 10
- Increased the check for exceptionally low flow branches during blasting solve from 0.0001 kgs to 0.01 kg/s
- Max duct velocity added to design criteria + skip ducts option removed
- Moved rename nodes from SaveAs to Tools - Rename
- Moving XYZ of individual layers in a reference
- Multiselect => Add ducts = Performance increase and refactoring
- Placing annotations on a hidden layer - warning added
- Pressure drop column to mass flow balance dashboard
- Re-enabled in-grid editing of level names and depth
- Remove fan leakage column and fan reference density from the reporter
- Removed post solve warnings on DBWB Gaps
- Reporter - fix flows - added column to show if it was marked as a regulating airflow
- Reporter - stope summary - added row for heat load per unit for only rock heat
- Reporter - tree editor - width increased
- Reporter - warn about mismatch in MRBD when using fixed VRT's
- Reporter detail - shape
- Restored the XREF function
- Select similar [by branch type]. Also consider the duct property
- Select similar by library fan type - also consider the fan configuration [# of fans]
- Simplify tool - avoid merging branches with "Connected to start node" flag
- Shortcut [C] will now also work on a multi-selection
- Show the total number of stopes / dev ends in histogram
- Solver - removed the stay-In-front option
- Solving from inside branch editor - Message box indicating the solution state
- Solver dashboard – show # of branch iterations [helpful in optimizing model solving times]
- Speed improvement when moving a big multi-selection sets / large model

- Splash screen - will stop being topmost after 2 seconds
- Stage lines - render as black
- Support for extended Cyrillic characters [303 new characters added]
- The active reference drawing will be in bold and larger font [useful when selecting or converting]
- To save a bit of real estate, labels on the explorer bar [right] was replaced with images only
- Toggle the sound recording option state when making a recording
- (Un)-mark a fan as a duct fan within the fan branch editor
- Update the explorer bar when solving
- User option [Inside display settings] - to either reset branch lengths after splitting [default] - or to make use the custom user defined length.
- Variation colour modes - Ignore branches marked as ducts [Ages]
- Variations - changed the sorting of user heat and friction to be descending - to have the highest values in red
- Warn when adding layers without saving first
- When changing branch names using the multiselecting context menu - don't force the visibility of the text
- When converting a reference - choose to use the drawing layer as layer 1, or the default layer as set
- When converting ref lines [single] it will join irrespective
- When disconnected branches -preserve the original angle
- When saving blast fumes - default to the current network name and folder

### 3 Bug fixes

- Adding levels from the context menu whilst in imperial mode
- Adding thermal sub-data, then editing it in the reporter prior to saving
- Additional error handling when adding new layers via the grid
- Assigning the default layer 2 to reference conversions
- Cancelling drawing on an empty model
- Chart histograms - dev end reject colour mode.
- Control >> cooler font display
- Copy blast datapoints from the graph - inconsistency with the graph display
- Copying datapoints from the blast graph without a selected branch
- Copy and paste between models - ensure newly created layers were not visible
- Create layers from levels - ensure visible post creation
- Dev. end display issue
- Deleting XREFs files
- Dragging branches whilst in split view mode
- Duct tool - remembering the last layer
- Duplicated ids when running the branch crossing tool / copy and paste
- DWG imports: Hatch & region entity reading & conversions
- Editing the one-way flow door via the reporter
- Editing multiple coolers via the dashboard
- Editing vehicles via the dashboard (post sorting)
- Fan branch editor - graph render bug [invalid resistance curve]
- Fan digitizer - magnifier not working on the secondary screen
- Fix to fan graph rendering (with fan points in the wrong order)

- Fix to ignored low flow count and display
- Fixed colour ranges [Imperial mode]
- Fire - Cease fire event
- Fire - Fume production constant conversion
- fire solving - saving the fume production constant up to 4 decimals
- Format painting from dev end to a tunnel
- Format painting of rock properties
- Gfx - dev end profile [stub] rendering
- Graphics device selection [laptops with dedicated gfx cards]
- Hints - Show equivalent tunnel ages
- Histogram colours [candace]
- Histograms - rounding issue
- Importing rocks from a different Vuma model
- Length variation - avoid rounding errors
- Level grid - proper sorting on depth column
- Loading the initial graph [histogram]
- Marking a selection as excluded - Solve state not updated
- Maximizing the fan dashboard
- Memory leak during reference editing
- Missing text when creating a new fan
- Node size slider (Display settings)
- Ramp creation
- Reference flickering
- Reporter - editing of Dev end vent option & direction [Dark theme]
- Reporter - Reef rock type display for longwall stopes and room and pillar stopes
- Reporter - summaries -tunnel lengths
- Setting focus back to the engine after going to help = about
- Setting the active reference
- Side panels - icon orientation + missing tooltips
- Slow update when changing branch scaling
- Solving with a special stage branch
- Staging models - viewing only the selected branches in the reporter
- Sticky text alignment - condition property
- Updating level depth display when switching between SI and US units
- Updating level grid values after changing the reference depth
- Updating solution explorer when switching between SI and US units
- Variations - multi-select based on user defined heat
- Warning added when exceeding the max number of stages
- Welcome screen recent file list
- When changing branch type - remember the isduct settings
- When deleting a reference layer - the invisible layers reappear.
- When renaming a reference layer - the invisible layers reappear