# Changelog

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### Controls enhancements:

- Added Elaborate functionality, allowing top-down tree expansion with new generated node quantities determined by Split arity. Accessible using the e shortcut key on the selected node(s).
- Added Unelaborate functionality that serves as the counter-action to Elaborate, designed to eliminate descendants of the applied node. Accessible using the u or Ctrl+E shortcut keys on the selected node(s).
- Added Uncombine functionality that serves as the counter-action to Combine, effectively eliminating selected nodes and their ancestors, barring the leaves.
   Accessible via the Backspace or Ctrl+U shortcut keys on the selected node(s).
- Improved Delete functionality, to permit deletion of all node types in the tree, including leaves or roots as well. Accessible via delete shortcut key on the selected node(s).
- Added Undo & Redo functionalities to manipulate the history of forest modifications.
  Accessible through Ctrl+Z and Ctrl+Y shortcut keys.
- Added ← and → buttons to create new root nodes on the corresponding side of the tree, accessible via respective arrow keys.

### Visual interpretation

- Enhanced node aesthetics, ensuring nodes extend to the edges of the viewbox, always forming a rectangular forest shape.
- Added Reverse tree option to render the forest in an upside-down format, placing leaves at the top and roots at the bottom, akin to the previous version.
- Added Math tree option to render all forest nodes and preview tree labels in  $L\!\!T_E\!X$  format.

#### User interaction

- Resolved issues with renaming nodes, which can now be confirmed by clicking outside of the node, in addition to pressing Enter or r while editing.
- Introduced a scrolling feature to navigate the webpage in all directions, useful when the tree dimensions exceed screen size.

## Output saving

- Added Save forest feature to enable saving the forest image in .png format.
- Added Save preview feature to enable saving the image of the preview tree in .svg format.