

# Concept - New mixin to avoid excessive access to the version store while browsing content

 [MGNLUI-3972](#) - Avoid excessive access to the version store while browsing content CLOSED

## Problem

Most content apps use `info.magnolia.ui.framework.availability.HasVersionsRule` rule for checking whether node has version or not. This rule is executed every time node is selected in content app, meaning Jackrabbit tries to cache calls to version history. While this can be ok for smaller installations, large installations can suffer performance issues because Jackrabbit cache (8MB by default) cannot store all content in its cache and needs to refresh it.

## Goal

Provide solution to avoid excessive access of availability version rule to the version store.

## Proposal

Add new mixin `mgnl:hasVersion` that will be added or removed by `VersionManager`, similar like `VariantManager`, that handles adding and removing `mgnl:hasVariants` mixin.

## Pros & cons

-  very easy to implement
-  very easy to check whether node has versions
-  no need to store information about versions in any cache / class / etc.
-  proven solution by personalization
-  removing versions other way that using `VersionManager` can lead to inconsistencies
-  complicated update task? (adding mixin to already versioned nodes)

## Implementation

Should be pretty straightforward, adding and removing of the mixin will be handled by `VersionManager`, plus rewriting the `HasVersionRule` action to check for mixin instead of getting all versions from version store.

## Update task and its solution

Needs to be verified, if such expensive update task would "kill" Magnolia on update or not. If yes, we would then need to run such task later (after update, via scheduler?) to ease load on the instance.

## Summary

Update task:

- test on a large data set (use scheduler job in case of "failed" update process)
- make it defensive (add option to `magnolia.properties` that will disable the task)
- crawl `mgnlVersion` workspaces if possible and try to find base node

Other:

- Add mixin to the `NodeTypes` class
- Implement in `VersionManager` (this is the only place where Magnolia allows to create versions)
- Adjust UI action

