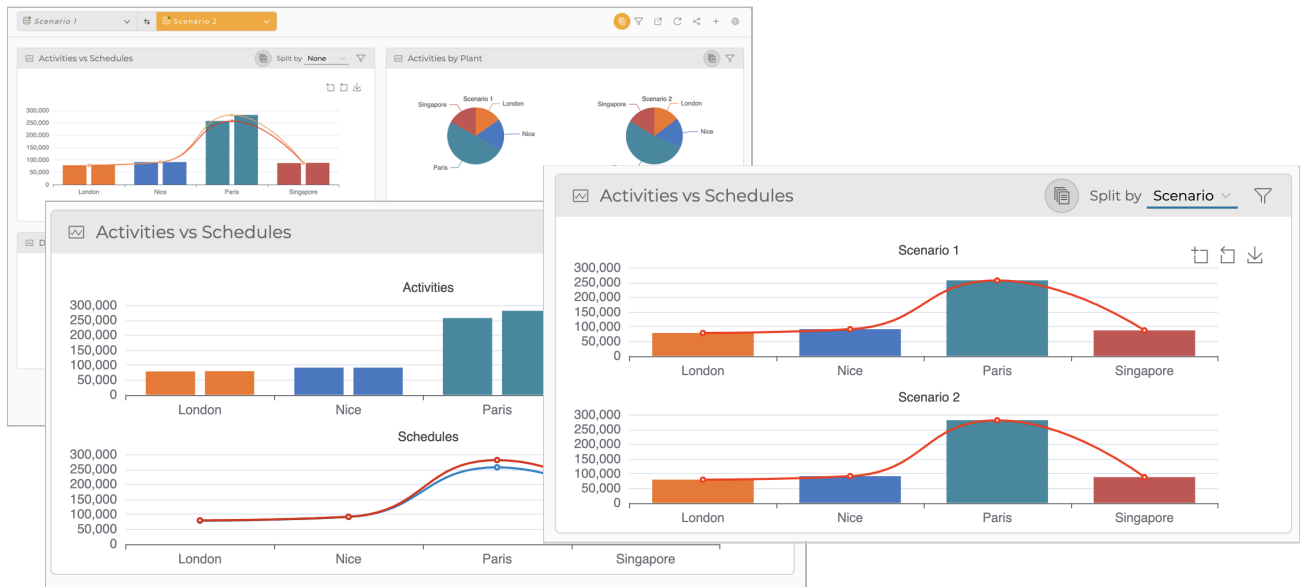# Release Notes
IBM DOC 4.0.2

March 15, 2022

The IBM Decision Optimization Center (DOC) 4.0.2 version is available starting today! Here is a list of the new updates that you will find in it.

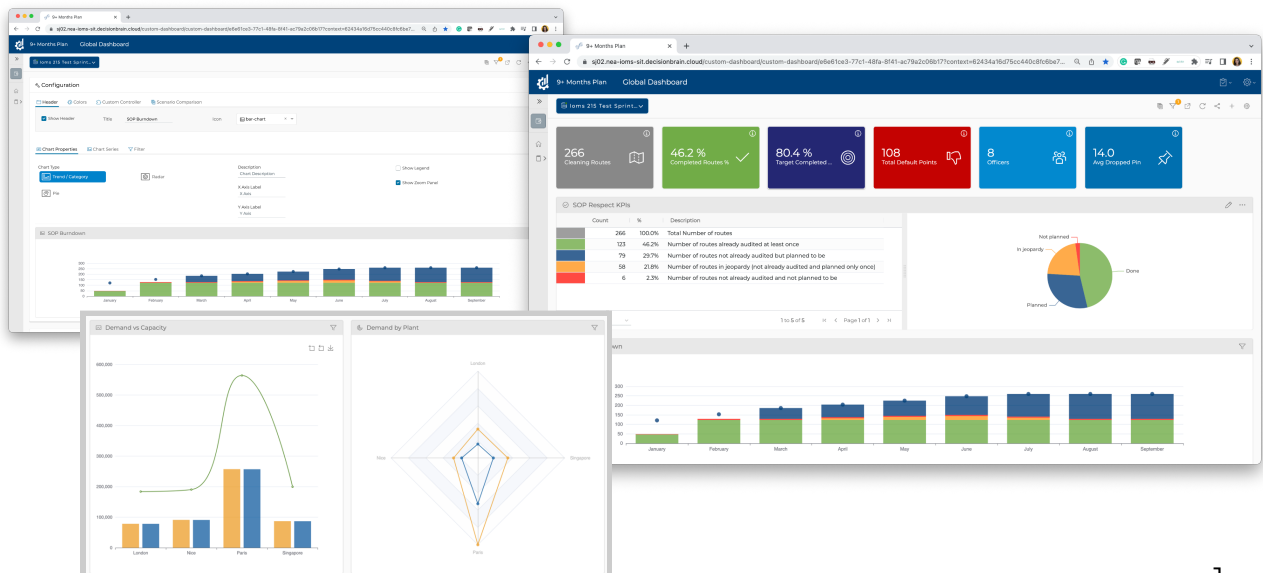**Use out-of-the-box widgets to compare alternative scenarios**

DOC allows for what-if analysis: run alternative solutions and use out-of-the-box and easily configurable widgets to pick the best one.

Access an expanded and improved library of out-of-the-box UI components

DOC out-of-the-box components allow business analysts and product owners to create custom web-based user interfaces without writing a single line of code. Based on our users' feedback, we keep expanding and improving the library of ready-to-use components.
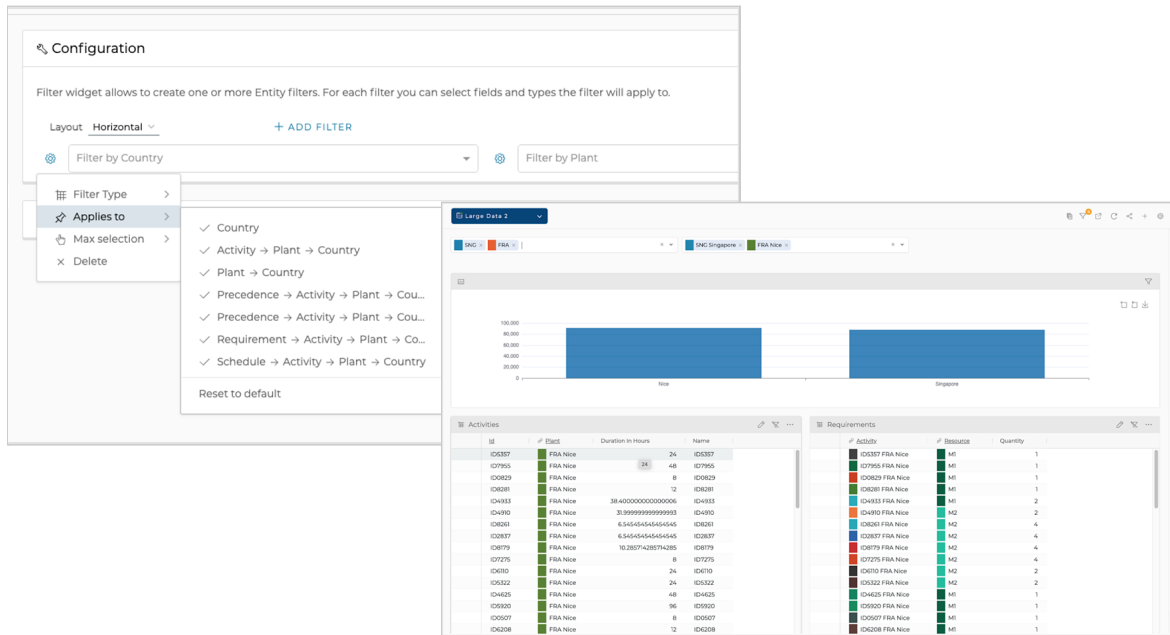In this new version, we included a new Radar chart, and icons in the KPIs, and improved the widgets configurators.

Filter your dashboards in a click

Being able to filter data and dashboards across key dimensions is a must-have feature for most business applications.
DOC provides out-of-the-box filtering capabilities ready to be configured with no need for coding.

Improved Data Edition, feels like working on Excel!

Users need to be able to heavily edit data on the fly, without having to export and reimport a scenario to excel.
DOC provides advanced data edition capabilities, Excel-like: bulk edition, copy-paste, drag and drop the corner of a cell, tab navigation, …

Use "Computed Fields" to compute KPIs on the fly

Compute KPIs and data fields on the UI without burdening the data model. Computed fields are implemented by annotating them with @Formula (with an expression in SQL or JPQL) in the JDL model.

- Read-only field
- Integrated into the out-of-the-box GeneTables
- Can be queried, aggregated, sorted and filtered, and compared

Monitor JVM resource usage in Prometheus

Enable the JVM Monitoring in Prometheus. Monitor the amount of resource (memory, …) used by the JVM in DOC and DBOS applications.

Benefit from the migration to Angular 13

IBM DOC 4.0.2 has been migrated to the new Angular version (13). Amongst the pros of this migration:

- Faster build times (up to 68%)
- Lighter application bundles
- Removed View Engine rendering (Ivy only)
- Removed compatibility with old Internet Explorer 11

Security Improvements

As usual, this new version of DOC incorporates dependency upgrades to address the latest known vulnerabilities. It also introduces a security guide in the documentation.