

# 3forge Elevates Enterprise Efficiency: Introducing Automated Report Scheduling, Micro Dashboards, and PINs-Powered Version Control

Q4, 2022 witnessed the successful launch of The Historical Database (HDB), positioning the 3forge platform as a comprehensive solution for constructing full-stack enterprise applications. Our clients have leveraged HDB to store substantial volumes of data (petabytes/trillions of records) within the 3forge ecosystem, a testament to its effectiveness. Building on the success and critical role HDB plays in our client deployments, we're pleased to announce several feature enhancements that raise our platform to new heights.

3forge's latest release enables users and third-party applications to launch multiple dashboards simultaneously. By using layouts in the URL along with specific data elements, our micro dashboard concept optimizes dashboard real-estate, allowing user access to diverse dashboards at the same time. Control all open dashboards effortlessly with our new session management web UI.

One standout innovation is our headless session concept. This feature streamlines the creation of automated reports, aligning it with the simplicity of building real-time dashboards on 3forge. Set up a dashboard, schedule report runs, designate recipients, and finally, deploy the dashboard into a headless session for automated, non-stop operation. This advancement marks a significant stride in automating the report generation and distribution process.

Addressing a long-standing issue within the Drag-And-Drop GUI builder sector, we've innovatively dealt with inadvertent actions causing lasting changes to the dashboard. Our solution, the PINs concept, ensures that manual/scripted modifications are not stored permanently in the dashboard unless the PIN is pressed, thereby keeping inadvertent changes out of the dashboard's change history.

Every enhancement in our latest release reflects the ongoing evolution of the 3forge platform. Each feature, big or small, is designed with the intent of simplifying complex application development. While the highlights are mentioned above, they only represent a fraction of the platform's enhanced capabilities, and we encourage you to explore the many other features in this release below.

## AMI Web

- Amiscript autocomplete is now case-insensitive
- Allow date and dateRange field to have go back N days and disable future dates options
- In-use callbacks are now displayed first
- Support resolution scaling for all windows in AMI
- Add onClick() callback to Tab
- Chart legends are now sorted alphabetically, case-insensitive
- When a data model is created, datamodel-er will now focus on it
- Added yyyy/MM/dd and dd/MM/yyyy format under user settings
- Support case where its just 1 user pref panel being imported
- Still send doubleclick callback on divider even if locked
- Include integer values as group by options in the heatmap
- If whole number, set decimals to zero
- LAYOUT url param
- Transient objects DRI now start with "%"
- /portal/portal.jsp is now /3forge
- Support datamodel wizard preview for hdb tables
- Invalid formulas no longer prevent visualizations from running. Now shows warning/errors icons with information
- Add a url to log out
- Introduce micro title bar
- Improved navigation in amiscript docs
- Add FormColorGradientPickerField
- Add more date format options in User Settings
- Introduce tab arrangement
- Support period in column names
- Introduce crontab to datamodel
- Added HH:MM[:SS][day|month|day] syntax to crontab
- Add cell flashing to table
- Introduce headless sessions
- Support multiple sessions per user and headless.txt session
- Support for accessing layouts directly via url (micro dashboard)Add WHERE, WHEREs to datamodel onComplete() callback
- Add support for selectRowsRange to TablePanel
- Add ways to create custom alert dialogs
- Add logging/exceptions to realtime trees and improve error handling for realtime trees
- OAuth Plugin Add refreshToken endpoint
- OAuth Plugin Add better error handling if refresh\_token doesn't exist
- Add new feature ability to change max warnings and info messages in the AmiWebWarningDialog
- Update setLabelTooltip is now a override field
- Add quoteOrNull or doubleQuoteOrNull for logging purposes to identify null vs empty string
- Add support for jsonbuilder adding float lists

## AMI Web (Continued)

- Add support for SLO single logout for OAuth and adding properties: oauth.logout.redirect.uri  
oauth.logout.endpoint oauth.single.logout.enabled
- Add logging to debug variables portlet
- Update makePushDraggable js in utils.js minor logic changes
- Add AmiWebGuiAdapter\_GuiTools and methods: \_\_GUITOOLS.fetch(String url,Map option,long timeout), callbacks: onInit(Map metadata), onError(Map metadata), and onResponse(long id, Map request, Map response, String mimeType, Bytes responseBytes) and improve SimpleEventReaper
- Update utils.js draggable to take into account empty spacing
- Added three Amiscript methods to Binary toBase64, toText, toText(charset)
- Update tabs support tabs drag and drop
- Adding amiscript method to TablePanel → snapToRow

## AMI Center/AMIDB/AMIHDB

- Added USE maxOptimizeSeconds to historical tables. Better logic on combining partitions. Fixed index isOptimized flag
- Honor PRIORITY when starting up timers and triggers
- Add logging for HDB
- Add use rowVar="..." to amiscript trigger
- Support triggers referencing HDB
- CREATE METHOD supports multiple methods declared at once, necessary to allow forward references. SHOW METHOD for custom methods shows body content

## AMI Script

### TablePanel

- TablePanel::setHiddenColumns(...)
- TablePanel::clearFilters()
- TablePanel::getColumnByld(String id)
- TablePanel::snapToRow(int rowNum)

## AMI Center/AMIDB/AMIHDB

### TablePanelColumn

- TablePanelColumn::hideColumn()
- TablePanelColumn::showColumn()
- TablePanelColumn::isVisible()
- TablePanelColumn::setFilter(String values ....)
- TablePanelColumn::setFilter(boolean isKeep,boolean isPattern,List values)
- TablePanelColumn::getFilter()

### Panel

- Panel::addPanel(...) for non-transient panels

# AMI Center/AMIDB/AMIHDB

## Session

- Session::getBrowserZoom()
- Session::getDashboardStyleSet()

## ChartPanelLayer

- ChartPanelLayer::getSelected()

## Layout

- Layout::OnAmiJsCallBackInTitleBar

## ChartPanel

- ChartPanel::onSelected callback

## TreePanel

- TreePanel::getColumnsWithSort()
- TreePanel::getColumnsFilter()
- TreePanel::getColumnSorting(String ... columnName)
- TreePanel::getColumnLocation(String columnName)
- TreePanel::moveColumnsTo(Integer pos, String ... columnNames)

## ChartPanelLegend

- ChartPanelLegend::getWidth()
- ChartPanelLegend::getTitle()
- ChartPanelLegend::getHeight()
- ChartPanelLegend::getReferencedSeries()

## HeatmapPanel

- HeatmapPanel::getRatio()
- HeatmapPanel::getStickyness()

## FilterPanel

- FilterPanel::getFormatExpression()
- FilterPanel::getColorExpression()
- FilterPanel::getSortExpression()

## TimeField and TimeChooserField

- Added getHourOfDay[start|end] and isPm[StartEnd] to amiscript for TimeField and TimeChooserField

## Static Methods

- formatNumberCompact(...)

## Look and Feel

- Allow color customizations for loading bar
- Allow color customizations for calendar that affects dateRange, date, dateTime field
- Add border radius to the scrollbar and the option to hide arrows; allow styling on the tiny square at the intersection of horizontal and vertical scrollbar
- Allow color and size customization to tab's bottom border
- Change Datamodeler descriptions and icons
- Window/tab/dividers default location icon
- New icon on the micro titlebar
- Multiple sessions page

# Adapters

- KX adapter now allows user to override column types for multiple tables with configuration set in local.properties
- Optimize amps fh, added performance logging
- Added sftp datasource adapter
- Add AmiWebOAuthPlugin with a clean and extendable interface
- Update OAuth plugin add oauth.session.check.period
- Update FH Plugins to support renaming the target AmiTableName for feed/topic/subscription, add property: <feedId>.props.amiTTableMap=srcTable=AmiTTable,...
- Update Finsemble adapter support fdc3 Amiscript methods: getOrCreateChannel, broadcast, broadcastChannel, addContextListener, addContextListenerChannel, Callbacks: onContext, onGetChannel, onInitFdc3
- Add onLogin and onLogout to AmiWebDataFilter
- Add support for KX Feedhandler types J F array of longs and array of doubles
- Add better debugging to KX Feedhandler, add debug property log's schema when starting subscription
- Add support for roles and properties **oauth.ami.roles.field oauth.ami.default.role.field oauth.ami.roles.enabled and role subproperties: oauth.ami.role.[attribute]= ...** to OAuth plugin
- Update SSO plugin to be able to handle logout requests
- Update AMI Kx Feedhandler to support Dates that are Strings ex 2022-02-22
- Update the REST Datasource adapter to add a debug option
- Update Amps adapter add reconnect logic and property reconnect\_interval\_ms

## Misc

- Add callbacks to support Finsemble
- Handle primitives in custom amiscript classes
- Admin console added showPanels + showLogins + killHeadlessSession
- Support Java 17
- Allow comments (#) in access.txt
- Add exec(..) to admin console (f1.port)

If you have any questions about these new features or would like a demo, please email [info@3forge.com](mailto:info@3forge.com).