



Summer-Fall 2025 Release

## RELEASE NOTES

# Powering up

As demand grows for cost-efficient, high-performance historical databases and 3forge deployments expand into more critical workflows, this release delivers key performance and feature upgrades and prepares the platform for upcoming AI capabilities.

**The Summer-Fall 2025 release of the 3forge Application Engine reflects two clear trends across our ecosystem: the expanding use of 3forge for mission-critical workflows and increasing pressure to control infrastructure costs.**

As existing users extend 3forge to more critical workflows, expectations around supportability, control, and operability continue to rise. In response, this release strengthens administrative capabilities and introduces finer-grained controls across the platform, spanning backend connectivity through front-end presentation and behavior.

At the same time, firms are seeking to reduce the total cost of ownership of their data infrastructure. Growing adoption of the 3forge Historical Database (HDB) for use cases traditionally handled by incumbent technologies has driven a more formal definition of its performance envelope. This includes large-scale validation tests, such as storing more than 10 trillion rows in a disk-based table, alongside continued functional and performance enhancements to HDB.

In parallel, this release delivers incremental improvements to widely used capabilities, including real-time trees and feed handlers. Enhancements to subscription management, streaming data editing, and market data ingestion from additional sources further increase the flexibility of real-time applications built on 3forge.

Finally, this release includes significant under-the-hood work to support a transition to a more modular, client-driven dependency management model based on Artifactory-hosted plugins. The expanded plugin framework also lays the groundwork for upcoming capabilities, including Model Context Protocol (MCP), which will be delivered on a more frequent and decoupled release cadence.

## Performance updates

- 3forge now supports **concurrency** for increased performance gains by running certain operations in parallel. For instance, it is possible to execute multiple external datasource calls using **DISPATCH** so loops can be used in **CONCURRENT** blocks without halting datamodel processing. The engine intelligently manages execution in a thread-safe manner.
- The JDBC Driver has been optimized so prepared statement-based inserts can exceed 1.7 million rows per second thanks to client-side data preparation that takes advantage of the columnar table structure.
- Projection triggers** now only rebuild if necessary for enhanced performance.
- Snapshots** sent from the Relay to the Center now queue deltas.

## AMI Center updates

- External updates now allows rows to be added/deleted from the target table.
- It is now possible to subscribe to Database Objects (DBOs) so external applications can be notified of data changes that are processed by custom classes in the Center.
- Center replication data control has been refined for tables subscribed to multiple Centers with the addition of the **SrcNameColumn** and **SrcIdColumn** properties to the list of **\_\_ADD\_REPLICATION** options.

## AMI Relay updates

- Bloomberg (B-PIPE) Feed Handler:** 3forge now supports dynamic Bloomberg subscriptions, allowing users to subscribe to and unsubscribe from securities in real time, without requiring a system restart. This enhancement enables seamless, on-the-fly adjustments to market data subscriptions, improving flexibility, reducing downtime, and supporting faster response to changing market conditions.
- Solace Feed Handler:** It is now possible to subscribe to multiple topics in the Solace Feed Handler.
- IBM Message Queue Feed Handler:** now supports both read and browse for messaging.

- When subscribing to a feed, the last specified `WHERE` clause is now used. Previously a new subscription would not carry over the `WHERE` clause from the previous one.
- Feed Handlers now support reading **UTF encoded data**.
- gRPC servers can now handle primary keys.

## AMI Web updates

- The Bloomberg Market Data Feed (B-PIPE Processor)** has been updated for improved performance across multi-user subscription use-cases. Additional performance improvements are also achieved for historical and reference data queries.
- Trees now support cell-editing at the leaf-node level.
- The `SHOW VARS` command can now be used in Web.
- A `location` option has been added to the tree export menu to be consistent with the way tables are exported.
- It is now possible to prevent users from escaping auto-dismissing dialogs.
- It is now possible to configure the number of connection reattempts for a Single Sign-On (SSO) login.
- The email functionality has been improved with now the ability to add email signatures, as well as miscellaneous session-level enhancements.
- Mobile users now benefit from an improved scrolling.
- Temporary layouts are no longer auto-saved, and auto-saved layouts now include the source of a layout.
- The `WebBalancer` component now uses the `3forge_rest/stats` endpoint for health stats.
- When using both `HTTP` and `HTTPS` ports, `HTTP` redirects now also use the secure port.
- It is now possible to disable form buttons programmatically with new methods `amiscript::getAutoDisable`, `isAutoDisabled`, and `resetAutoDisabled`.
- The management of web sessions for users has been improved, notably so that if a user attempts to initiate a new session which would make them exceed the maximum number of concurrent sessions allowed, they will be prompted to choose which existing session it will replace.

## AmiScript and Developer experience

### NEW METHODS AND PROPERTIES

- New properties `ami.web.disable.functions` and `ami.relay.disable.functions` for greater developer control. **NOTE: this introduces a break from prior behavior as the functions `readBinaryFile` and `writeBinaryFile` are now disabled by default in relay and web, so they would need to be explicitly enabled to remain available as in prior releases.**
- Two new AmiScript methods `deleteDatamodel` and `deletePanelWithDm` can be used improve to **LivePivot™** performance.
- More granular **styling options** have been added to form fields, including methods to `set/getIgnoreDefaultStyle`, as well as more sophisticated merging of css style options.
- The `Layout.exec(...)` method now accepts the following options: `when`, `amiscript`, `timeout`, `limit`, `defaultds` options.
- It is now possible to cast to `List` and `Set` from other collections, including `JSON`.
- The `SHOW CPU` command has been added to the admin console.
- It is now possible to use Python-style syntax for `Maps` and `Lists`, including dereferencing.
- Runtime casting for Objects is now available for `negate`, `incrementation`, and `numerical operations`.
- The `onStartupComplete()` callback now fires after user preference callbacks and a datamodel's `onStartup()` callback.
- It is now possible to run executable commands in concurrent blocks.

### OPERATIONAL ENHANCEMENTS

- New developer tools `--netproxy`, `--netlisten`, and `--netconnect` have been added to the `tools.sh` script to improve the review of **web connections**.
- Empty formulas** are now treated as null formulas, and null-iterable for loops are now skipped rather than throwing an error.
- Logging** has been improved across 3forge features including Center replication and datamodel runs.
- The formating of `JSON` objects has also been enhanced.
- The `DIAGNOSE` command now parses `BigDecimal` and `BigInteger` data types.

## Upcoming changes in preview

The following changes marked **DEV** are now available in our **developer preview**. 3forge clients can request access to our preview release by contacting our support team. These changes are normally included in a subsequent release.

### NEW PLUGIN DEPLOYMENT MODEL WITH UPCOMING ARTIFACTORY

**DEV** The **AMI Plugin Library** is now available: datasource adapters, feed handlers, entitlements, and other plugins now conform to this new architecture for increased granularity. New GUI service, web entitlements, and email plugins among others have been added as part of this overhaul. Plugins are still configurable via `local.properties` for backwards compatibility.

### IMPROVED 3FORGE DATA ACCESS

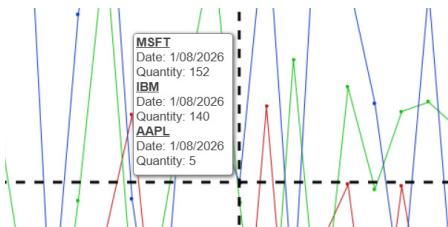
**DEV** New Open Database Connectivity (**ODBC**) API functions have been added to support non-Java (**JDBC**) connectivity.

**DEV** It is now possible to interact with 3forge data sets from MS Office.

**DEV** A new, native Python SQL library with Pandas DataFrame support is now available.

### NEW VISUALIZATIONS

**DEV** **Crosshairs:** a new crosshairs chart has been added. Crosshairs are intersecting vertical and horizontal guide lines that follow the cursor across a chart.



### FEED ENHANCEMENTS

**DEV** The **Solace Feed Handler** now have logging and error handling for message parsing.

**DEV** The **AMPS Feed Handler and AMPS Datasource Adapter** now have full-level parsing of `JSON` responses as `Maps`, not just the first level.

**DEV** The **Bloomberg (B-PIPE) Feed Handler** has been augmented to support bulk and individual subscriptions. Additionally, it has improved reconnect logic and support for reference data, including FIGI, SEDOL, CUSIP, and ISIN.

**DEV** In the **Quanthouse Feed Handler**, it is now possible to change the name of the landing table via a configurable `AmiTableMap` property.

## PERFORMANCE UPDATES

**DEV AMIADB (Historical database):** performance has been improved across queries, index creation, and table lookup.

**DEV AMIADB (Historical database):** joining is now supported in HDB.

**DEV AMIADB (Historical database):** a single partition ID can now support over 2 billion rows. Data can now be added via JDBC using `addBatch()` with support for `fastInsert`.

## AMISCIPT AND DEVELOPER EXPERIENCE

**DEV** AmiScript now offers **Flame threads** to analyze performance bottlenecks, especially in multi-threaded or CPU-intensive systems.

**DEV** The look & feel of field editors has been enhanced. **JSON mode** has also been added for differ screen.

**DEV** AmiScript now have a new **Web session console method** `amiWebConsole`. `diagnoseSessions()`. It describes various data-related elements in a Web session such as datamodels, feeds, processors, etc.

**DEV** Also added is the method `isSanitized()` to verify if an SQL clause is sanitized (e.g: `WHERE`). This method gives developers **more freedom to define their own SQL clauses** while protecting against SQL injections.

**DEV** **JavaScript error messages** like `oops` popup, loading bar stripes, or webserver down now support custom colors.

**DEV** Users can now upload a **custom loading splashscreen animation** (.gif files) instead of the default 3forge one.

**DEV** The public `web_resources` directory can be accessed without being logged in.

**DEV** **Transient menu items** can now be created programatically. Menu items can now also be set transiently.

**DEV** It is now possible to programatically `get/set/reset` a **scroll panel's** `innerMinHeight`, `innerMaxHeight`, `innerMinWidth`, and `innerMaxWidth` properties.

**DEV** Layouts have a new `onWarning()` callback triggered when a warning is raised.

**DEV** A new AmiScript method `getContext()` was added. It returns the **context** that the method runs in.

**DEV** Another new method `systemNano()` was added. It returns the **system time in nanoseconds**, which can be used for time comparisons, but not absolute time.

**DEV** The new method `session::getDashboardResource(dri)` returns a specified dashboard resource.

**DEV** The method `waitMillis()` now also exists in the Web.

**DEV** AmiScript editor supports new keyboard

shortcuts (F3/F12) for **jumping to code**.

**DEV** A new VisualStudio VS keyboard mode was added, and autocomplete for Amiscript was improved. A new callback method `onUploadStart()` was added to upload fields. Support for in-cell images was added.

**DEV** **Form range sliders** now have two new AmiScript methods for step-size: `FormRangeSliderField::setStep()` and `FormRangeSliderField::getStep()`.

**DEV** **3D charts** have been improved notably with an upgrade of the `3d.js` library. Menu appearance were also enhanced.

**DEV** **Trees** created using the `asTable()` method will automatically show group display if group sorting is set.

**DEV** A new AmiScript function `parseListOfMaps()` added which will **parse a list of Maps** and return the data as a table. It is also now possible to cast Lists, Maps, List-of-Maps, Map-of-Lists, and singletons to Maps.

**DEV** The immutable `CONST` data-type was added to create **constant variables**. The syntax is `CREATE VAR CONST`.

**DEV** **Date objects** now follow the ISO8601 formatting standard with ultraFast parsing supported Date columns are now supported for `PersistEngine="TEXT"`.

**DEV** A new aggregate function `mode(value)` was added. It returns the value that occurs the most (or the first occurrence in multimode scenarios).

**DEV** **Data Export:** Microsoft Outlook items (.msg files) can now be exported.

**DEV** The FAST persist engine now supports tables with over 128 columns.

**DEV** **Administration:** keystore file and password properties were added for the f1 console and AMIDB console.

## UI UPDATES

**DEV** It is now possible to have **fixed column width for tree panels**.

**DEV** It is now possible to search through **multicheck boxes** to retrieve a specific option in a long list.

**DEV** There is now a hide mode for search bars for a streamlined layout.

**DEV** A new **Problems** panel was added to the Data Modeler to streamline access to the list of issues.

**DEV** Greater support has been added for **FlexSheet**, the lightweight JavaScript Spreadsheet Component support. It is now possible to adjust row height and colum width.

**DEV** Several chart improvements for better user experience are included. For instance **chart formulas** can now have help tooltips. Chart axis can now bleed into corners. Border thickness of charts is now customizable. In addition multi-dividers now support `hoverover`.



## About 3forge

3forge is a technology innovator specializing in real-time data streaming and enterprise application development.

Headquartered in New York with offices in major financial centers worldwide, 3forge provides an application engine that gives engineers a complete foundation for building high-performance enterprise systems while accelerating the creation of custom business logic.

Its integrated development environment, optimized scripting language, and unified stack streamline the development of complex, data-intensive applications. Trusted by leading buy-side and sell-side firms, 3forge connects to virtually any data source and transforms fragmented workflows into unified, responsive systems built for reliability, performance, and ease of use. For more information, contact [info@3forge.com](mailto:info@3forge.com)

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