



EXCEL TO 3FORGE JOURNEY

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The 3forge Advantage Over Excel for a Major Japanese Bank

A High-Stakes Industry with High-Stakes Challenges

In the fast-paced world of financial services, even a small data error can lead to millions in losses. Yet many institutions continue to rely on Microsoft Excel, a tool designed over 30 years ago, to manage their complex financial operations. As the demand for accurate, efficient, and real-time data management grows, the cracks in this outdated approach widen—resulting in catastrophic consequences.

The True Cost of Spreadsheet Errors

Over the years, multiple financial disasters have been traced back to spreadsheet errors, revealing the hidden risks of depending on Excel:

- **Lazard Investment Bank (2016):** During the **\$2.6 billion sale** of SolarCity to Tesla Motors, a double-counting error in Excel led to a **\$400 million valuation mistake**.
- **Goldman Sachs (2014):** In the **\$4 billion sale of Tibco** to Vista Equity, a spreadsheet error resulted in a **\$100 million loss** for shareholders.
- **JP Morgan Chase (2012):** Known as the “London Whale” incident, an Excel error contributed to a **\$6.2 billion trading loss**.

These examples represent just a fraction of the costly errors caused by over-reliance on outdated tools.

Client Background

Our client, one of Japan’s top five banks with operations across over 30 countries, faced significant challenges as its reliance on Excel struggled to keep up with its expanding global operations. The bank used Excel for everything from generating reports to managing trading confirmations and ensuring regulatory compliance. Initially, Excel met the bank’s needs, but as its operations grew, so did the headaches.



The Operational Challenges

As the bank expanded, its reliance on Excel began causing severe issues:

Operational Inefficiencies

The bank’s process of emailing Excel files among team members led to version conflicts, confusion, and productivity losses. When different team members worked with outdated versions, maintaining accurate data became nearly impossible.

Complex Learning Curves

New developers faced a steep learning curve trying to navigate spreadsheets filled with hidden formulas and scattered VBA code with no centralized documentation. Onboarding and training new employees took months due to the unstructured nature of the system.

Data Freshness and Integrity Issues

Without real-time updates, the bank often relied on stale data, jeopardizing the accuracy and timeliness of financial analyses and decisions. The lack of automatic timestamps made it impossible to trace when key updates occurred, further complicating data management.

The Critical Limitations of Excel in Financial Services

The bank's struggle with Excel can be categorized into five main areas:

1. Data Integrity and Security Concerns

- **No Single Sign-On (SSO) or Entitlements:** Fragmented user access controls left the system vulnerable to unauthorized access.
- **Lack of Audit Trails:** Excel provided no robust audit trails, making it difficult to track changes or detect malicious actions.
- **Key Man Risk:** With crucial operations dependent on a few key personnel, the bank faced significant regulatory risks if these individuals left or made errors.



2. Operational Efficiency Challenges

- **No Time Stamps:** Excel's inability to automatically log timestamps made tracking data changes nearly impossible.
- **Challenges Pricing Custom Instruments:** Complex financial instruments were difficult and error-prone to price using Excel.
- **Difficulty Replicating Market Indices:** The limitations of Excel made accurately replicating market indices a challenging and error-prone task.
- **Performance Degradation with Large Datasets:** Excel struggled to handle large datasets, slowing down critical operations.

"The real challenge with Excel is that as it grows, it becomes unmanageable—code changes are hidden, version control becomes a nightmare, and there's no visibility into who's made changes. That's where AMI comes in. With line-by-line tracking, centralized data, and built-in entitlements, switching to 3forge can make sure everyone is working with the same, up-to-date information, and we eliminate those hidden risks that can lead to costly errors."

– Wesly Chan, 3Forge Asia Account Manager

3. Collaboration and Version Control Issues

- **No Real-Time Collaboration:** Excel didn't support simultaneous editing, leading to delays and inconsistencies.
- **Version Control Problems:** Shared through email, Excel files often resulted in multiple conflicting versions, creating data silos and confusion.
- **Inadequate Storage for Code Files:** VBA code hidden in scattered modules and cells made version control impossible and code management difficult.

4. Scalability and Performance Issues

- **Performance Bottlenecks:** Excel's limitations caused slowdowns as data requirements grew, particularly in real-time data processing.
- **Fragmented Data Systems:** Multiple versions and unconnected data silos made scalability a near-impossible task.

5. Organizational Resistance and Regulatory Risks

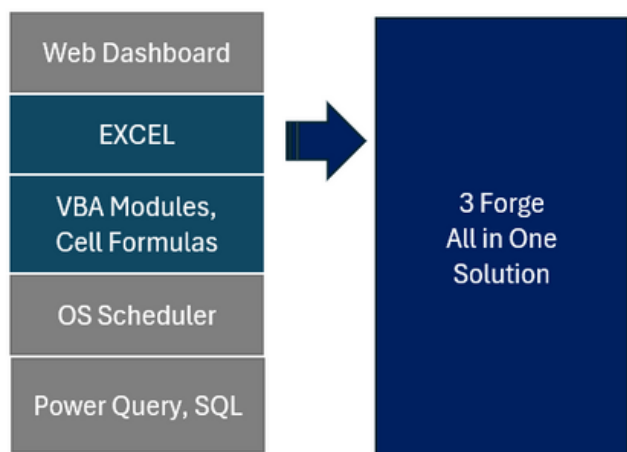
- **Cultural Resistance to Change:** Long-time users resisted moving away from Excel due to job security concerns, slowing the adoption of more efficient systems.
- **Cost of Regulatory Fines:** Sticking with Excel proved costly for many institutions, with some incurring significant fines for non-compliance.

3forge's AMI Solution: A Game Changer for the Bank

Faced with these growing issues, the bank turned to 3forge's AMI platform—a comprehensive data management solution designed to tackle Excel's shortcomings head-on. The results were transformative.

1. Centralized Data Management

- **Unified Data Integration:** AMI consolidated data from all sources into a single, unified platform, eliminating the version conflicts caused by scattered Excel files.
- **Real-Time Data Access:** All users gained access to consistent, up-to-date data, ensuring decisions were always based on the latest information.
- **Precise Time Stamps:** Every transaction and update were automatically timestamped down to the millisecond, providing accurate historical tracking.



2. Enhanced Security and Compliance

- **Role-Based Access Controls and SSO:** The platform integrated seamlessly with existing SSO systems, providing granular access controls and ensuring data security.
- **Comprehensive Audit Trails:** Detailed logs tracked every change, enabling full transparency for compliance and regulatory audits.
- **Encryption and Data Integrity Checks:** AMI's robust encryption features reduced the risk of unauthorized access and breaches.

Feature	3forge's Solution	Excel's Challenge
Data Management	Centralized, real-time data management with built in scheduler	Limited data integration and manual updates typically.
Security and Compliance	Advanced security features and detailed audit trails	Basic security with no audit trails.
Scalability	Scalable to handle large and complex data up to Petabyte scale	Performance issues with large datasets. Row and Column limits.
Collaboration	Real-time collaboration and workflow management	Difficult version control and limited sharing.
Automation	Comprehensive automation and real-time data updates	Limited automation capabilities.

3. Scalability and Performance

- **Efficient Large-Scale Data Operations:** AMI handled massive datasets and complex calculations without slowing down, allowing the bank to scale operations seamlessly.
- **Scalable Architecture:** The platform expanded effortlessly as the bank's data needs grew, ensuring consistent performance without bottlenecks.

4. Improved Collaboration and Version Control

- **Real-Time Multi-User Collaboration:** Teams could now collaborate in real-time, eliminating delays and reducing the risk of inconsistencies.
- **Integrated Source Control:** AMI's integration with Git and other source control systems enabled robust version management for code, solving the scattered VBA code issue.
- **Centralized Data Access:** Stakeholders now had access to synchronized data, enhancing decision-making and eliminating conflicting versions.

5. Automation and Real-Time Capabilities

- **Automated Market Index Replication and Pricing:** Pre-built modules automated complex calculations, streamlining processes that were previously manual and error prone.
- **Fully Automated Workflows:** Routine tasks such as data updates and report generation were fully automated, freeing up staff to focus on strategic analysis.
- **Real-Time Data Refreshes:** With automated real-time updates, reports and analyses were always based on the most current information available.

Results and Impact

The switch to 3forge's AMI platform resulted in significant improvements:

- **50% Reduction in Reporting Time:** Automated workflows and real-time data access allowed the bank to generate and validate financial reports twice as fast.
- **Significant Error Reduction:** Centralized data management reduced errors, leading to more accurate financial reports and analysis.
- **Enhanced Regulatory Compliance:** AMI's detailed audit trails and controlled access features ensured the bank met all regulatory requirements, protecting it from costly fines.

Client Testimonials

"The transition to 3forge's platform has revolutionized our data management processes. We have now eliminated errors and have vastly improved the efficiency of our reporting workflows," said a Senior Data Analyst at the bank.

Conclusion

The shift from Excel to 3forge's AMI platform was a transformative change for the bank. With real-time data integration, enhanced security, and streamlined workflows, the bank is now equipped to operate effectively in a complex and dynamic financial environment. The case for moving away from outdated tools like Excel is clear: in today's fast-paced financial landscape, relying on 30-year-old technology is a risk no institution can afford.