

The Data Model Diagnostic

A business case for using the Jama Software® Data Model Diagnostic to evaluate data in IBM® DOORS® and moving to a modern requirements management solution to reduce costs, increase traceability, and improve development efficiencies.

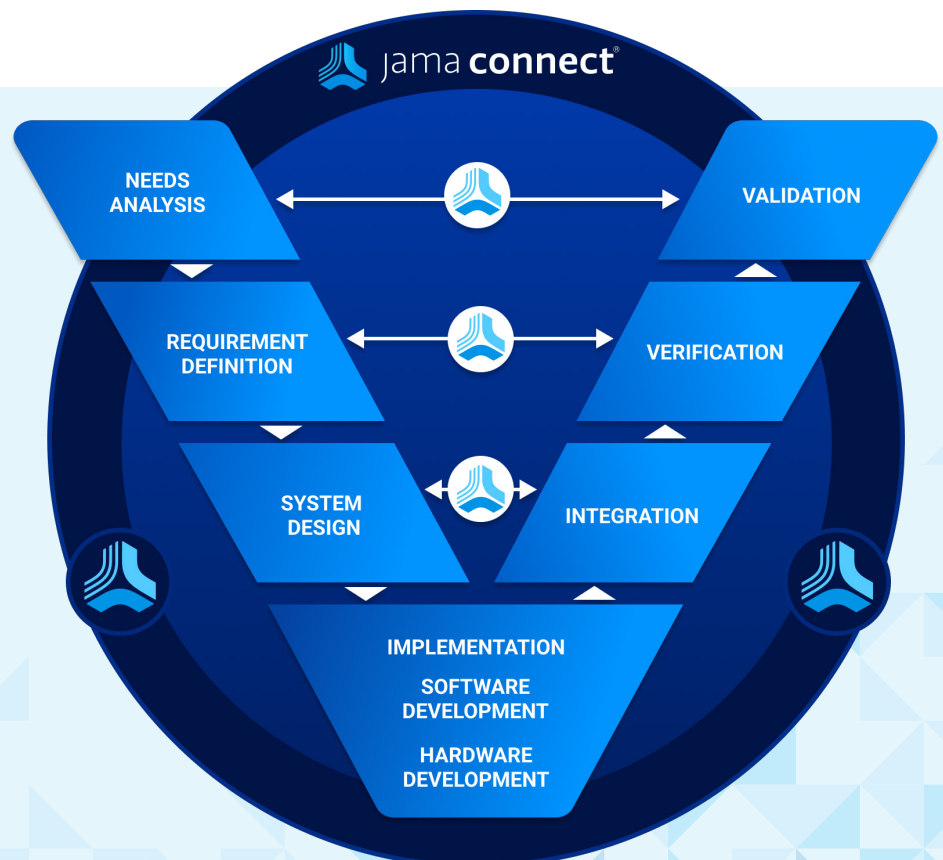
Is your data working for you? A consistent and scalable data model is instrumental for achieving Live Traceability™ and making data readily available across the development lifecycle.

Organizations make investments in software tools to improve their product development process, but they often forget to invest in their data. With the right data model, you can propagate information across systems development in a more seamless manner — enabling the ready availability of relevant data at different stages of the product lifecycle. Having a consistent and accurate data model directly influences **Live Traceability™**.

A proper data model enables you to improve re-use, and reduce costs associated with integration, reporting, and administration. A consistent data model is the best way to maximize the benefits of software tooling, but this can only be achieved by spending time on analysis.

The Data Model Diagnostic

Developed by Jama Software®, the Data Model Diagnostic helps organizations understand data in their legacy tool (IBM® DOORS®), providing analytics that will help determine how to best transform the shape and size of your data and transition it into a model-based framework (Jama Connect®).



Jama Connect enables Live Traceability across the V-Model

Understanding Your Data

SCALE

- Data scale impacts the effectiveness of reporting, analytics, and compliance
- Viable engineering data has huge value but needs to be maintainable
- The value of data can diminish over time and will incur management overhead

COMPLEXITY

- Complexity is a measure of the data structures that requirements are documented with
- Overly complex data leads to increased training costs, higher administration, and increases in the chances of human error
- An organization with low-scale complex data can incur as much overhead as an organization with higher-scale, low complex data

CONSISTENCY

- A consistent data model enables effective reporting
- Allowing engineering teams to choose their own data model could optimize individual project needs, but will increase costs for engineer training and tool integration

COMPLIANCE

- Compliance is the cornerstone measurement for Live Traceability
- Too little traceability makes compliance difficult to achieve
- Too much traceability makes impact analysis unmanageable

Different aspects of your data will influence decisions when moving to a model-based information architecture. Jama Software can analyze your DOORS data and give insights for areas of improvement.

Achieving a model-centric view to your engineering data is the first step towards **Model Based Systems Engineering (MBSE)** and the fastest way of enabling Live Traceability across your entire organization.

Understanding the Business Case

Ignoring that there is a problem simply increases the time and cost it takes to establish consistency. The Data Model Diagnostic will provide a business case justification for improving your data model that can be leveraged across the enterprise. The diagnostic will showcase why moving from a legacy data ecosystem to a more consistent, scalable, and compliant data model can directly influence proper decision-making. This enables the enterprise to manage the organization's data in an efficient manner and get relevant buy-in from all stakeholders.

PROJECT ESTIMATED SAVINGS

| | |
|--|--------------------------|
| Estimated Project Budget | \$10,000,000 |
| Scale Reduce redundant data | \$373,298 |
| Complexity Simplify information architecture | \$1,191,382 |
| Consistency Harmonize information architecture | \$492,010 |
| Total Project Savings | \$2,056,690 (21%) |

In this no-cost, guided process, our team of experts will:

- Help you automate the analysis of the existing documents to determine the most common object definitions upon which to base a consistent data model going forward.
- Convey the benefits of moving to a model-based, requirements management solution which will help to ensure compliance is maintained.

There are four factors to consider when you want to refine your data model

SCALABILITY

Maximum savings by reducing scale estimated at 10% of project costs

Scale converted to an index to influence other savings calculations

| | |
|------------------------------------|-------------|
| Soft deleted objects | 7880 |
| Objects in stale modules | 3500 |
| Percentage of redundant data | 37% |
| Max savings | 10% |
| Max savings | \$1,000,000 |
| Reduction of redundant data | \$373,298 |

COMPLEXITY

Maximum savings by reducing consistency estimated at 30% of project costs, spread between the four benefits listed below

| | |
|--------------------------------------|-----------|
| Complexity index | 5.96 |
| Maximum savings | 20% |
| Complexity reduction | 60% |
| Savings by reducing complexity | \$373,298 |

CONSISTENCY

Maximum savings by reducing consistency estimated at 30% of project costs, spread between the four benefits listed below

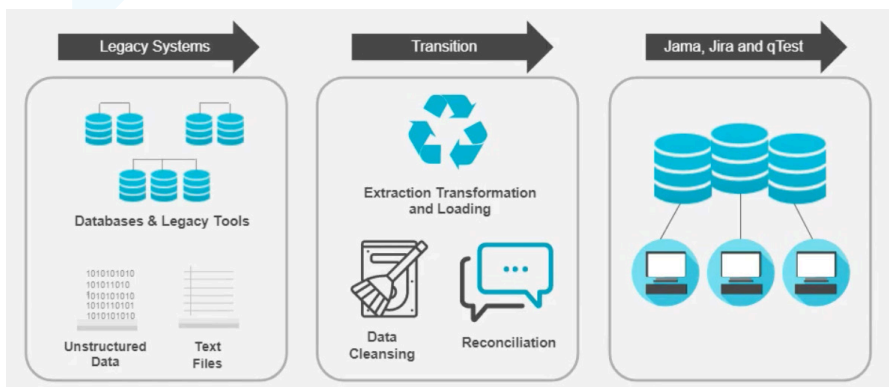
| | |
|---|------------------|
| Consistency index | 8.36 |
| Max savings due to requirements quality | 12% |
| Max savings due to integration costs | 8% |
| Max saving due to consistent reporting | 5% |
| Max savings to administration | 5% |
| Proportion of the total saving we save | 16% |
| Savings for consistency | |
| Reuse and training | \$196,804 |
| Integration costs | \$131,202 |
| Reporting | \$82,001 |
| Administration | \$82,001 |
| Total Savings | \$492,010 |

COMPLIANCE

Measuring and monitoring live traceability is instrumental in achieving compliance.

The first step is to baseline current process performance and to focus efforts on traceability. Since Live Traceability spans the entire product development process, this is a data management concept that needs to be understood and is required by industry standards.

With the **Traceability Diagnostic**, your organization can quickly estimate the traceability debt. Learn more about the **Traceability Diagnostic** [here](#).



Rockwell Automation consolidated from 170 unique IBM DOORS attributes to 10 when migrating to Jama Connect.

[Watch this webinar](#) to learn why and how Rockwell Automation decided to migrate from IBM DOORS and successfully move to Jama Connect.

If you are interested in learning more, please contact us to request a free diagnostic to report on the shape and consistency of your requirements data model.