**Sub-headline: A new, practical library of modeling patterns is now available to help teams build consistent and connected knowledge graphs, making it easier to reuse expert work and link data across domains.**

**[CITY, STATE] – [DATE]** – As our projects grow in complexity, so does our data. Teams across design, manufacturing, MRO, and supply chain are building powerful knowledge graphs to capture their domain expertise. A common challenge, however, is ensuring these different models can talk to each other. How do we connect the dots between a component in a design model and its maintenance schedule in a sustainment model?

To help solve this, the Enterprise Modeling team is pleased to introduce the **Enterprise Modeling Pattern Library**. This is a practical resource designed to help engineers and developers model their domains with greater consistency and efficiency.

The goal is to establish a set of common, reusable classes and relations. By using these standardized patterns, the knowledge graphs we build across the company will share a foundational vocabulary, enabling us to ask complex questions that span multiple domains.

**Reusing Expert Work, Not Reinventing It**

A significant amount of technical work already exists in standards like the Basic Formal Ontology (BFO) and the Industrial Ontologies Foundry (IOF) for defining concepts like time, processes, and physical objects. Our modeling patterns package this expert knowledge into easy-to-use guides. They provide a clear, standardized way to represent common scenarios, saving project teams time and ensuring their work aligns with proven best practices.

**Inside a Pattern: A Practical Example**

Each pattern in the library is a concise, 2-to-3 page document designed for direct application. Let's look at a real one: **"Pattern: Components of an Assembly and their Roles."**

The objective of this pattern is to model not just the physical parts of an assembly, but also the *function* or *role* each part plays. For example, a landing gear assembly is a physical object. In the context of an aircraft, it plays the role of a "component." As a spare part, it might play the role of a "product." This distinction is critical for connecting our engineering, supply chain, and MRO data.

The pattern document provides everything you need to apply this logic:

*Caption: Each pattern is a short, structured document. It provides a clear objective, a relatable scenario, and a description of the solution, as seen in this example from the "Assembly and Component" pattern.*

The pattern then provides a clear diagram showing how to connect these concepts. It specifies which classes and relations to use, such as bfo:MaterialArtifact for the physical object, iof:MaterialComponentRole for its role, and hasComponentPartAtAllTimes to link an assembly to its parts.

*Caption: This diagram from the pattern visually separates an object's physical composition from its business role. This common structure is key to connecting different knowledge graphs.*

By using this pattern, a team modeling a fuel pump assembly and a team modeling a cockpit display will do so in a compatible way. This shared structure is what allows us to later query across both models, creating a truly connected digital thread.

**A Library to Support Your Work**

This "Assembly and Component" pattern is just one of many. The library provides foundational patterns for universal concepts like:

* Modeling clock time and calendar days
* Modeling time duration
* Modeling change of location over time
* Modeling representing measurements
* Modeling simple process sequence

We are also using these to build more comprehensive patterns tailored to our specific business areas, including MRO processes, supply chain networks, and manufacturing workflows.

**An Invitation to Collaborate**

This library is a resource built for you, and we see it as a living, collaborative effort. Its success depends on your expertise and feedback.

We invite you to explore the library and use these patterns in your work.

* **Need to model something?** Start by checking the library for a relevant pattern.
* **Have questions?** We are here to help you apply these patterns to your specific project needs.
* **Don't see a pattern you need?** Your feedback is essential for identifying gaps and developing new, useful patterns for everyone.

By working together to adopt this common modeling language, we can significantly improve the connectivity of our enterprise data and enable more powerful, integrated analytics.

**To access the pattern library, ask a question, or schedule a brief consultation, please contact [Your Team's Email Address, e.g.,** [**modeling-coe@ourcompany.com**](https://www.google.com/url?sa=E&q=mailto%3Amodeling-coe%40ourcompany.com)**] or visit our documentation site at [Link to Internal Confluence/SharePoint Site].**