You can use Teamcenter’s BOM management capabilities to understand how product definitions and configurations evolve across an entire product lifecycle. These capabilities allow you to maintain the accuracy of the product’s BOM information, manage engineering changes across multiple configurations, synchronize downstream BOMs and manage BOM changes across product variants.

Teamcenter enables you to relate and consolidate representations that contribute to your product definition as these definitions evolve across the entire product lifecycle. This provides your product teams with total visibility into your as-designed, as-planned, as-built, as-manufactured and as-delivered product configurations.

Teamcenter’s data neutral BOM management tools enable you to structure and link all types of data to your product lifecycle. You can use Teamcenter to consolidate the definition of multiple product offerings by leveraging their commonality, thereby providing a basis for your re-use initiatives. Product teams can use Teamcenter’s BOM markup and rollup capabilities to determine the real-time effect of design changes or configuration selections.

Design teams can also define allowable alternate and substitute parts so that manufacturing teams can select a defined alternative and keep the assembly process going when the primary part is unavailable.

You can use Teamcenter to support traditional BOM business management objectives – such as releasing parts to production – as well as to extend BOM management to other lifecycle activities, including requirements definition, simulation, manufacturing, sourcing and maintenance, repair and overhaul (MRO).

Teamcenter auditing tools facilitate accountability and completeness checking by providing visual feedback about what product information is complete and what information is still in progress.
You can use Teamcenter’s where-used/where-referenced capabilities to make certain that lifecycle stakeholders understand the full impact of proposed design changes.

You can leverage BOM management in conjunction with Teamcenter’s context management capabilities to enable individual product team members to “view” the product configuration within a time or feature-based perspective unique to their task or role. Teamcenter facilitates this by tying product configurations and their definitions to real-world work breakdown structures.

Equally important, Teamcenter enables team members to understand how their “views” and functional roles pertain to views and roles of other teams and lifecycle participants.

**Business challenges**

Turning a product into profitable reality is not easy. You need to coordinate the efforts of many people to meet a common goal. Today’s companies deal with increasing levels of product complexity, including the need to support segmented markets, personalized consumer preferences and rapidly rising technology advances.

Your company needs to coordinate parts, assemblies, subsystems and systems developed, manufactured or supplied by different groups using different software. Coordinating these deliverables forms the basic elements of a product in the terms of its offerings, systems, assemblies and basic parts, as well as its manufacturing. Managing the bill of materials is a critical element for any company.

With increasingly complex products, shorter lead times, and more advanced and varied product offerings, it becomes progressively more difficult to maintain the accuracy of your BOM information. Managing engineering change across configurations, keeping downstream BOMs synchronized and managing BOM changes across variants adds to product complexity.

BOM management is a critical part of designing and manufacturing any product. Your teams need tailored visibility to central product information by role, and extended configuration management beyond the bill of materials to include a richer product definition. This leaves companies struggling to improve their quality and time to market, while reducing development, manufacturing and product lifecycle costs in order to remain competitive.