



# Business To Manufacturing Markup Language

## Batch Markup Language

Version 0500 – March 2011

### Release Notes



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The non-backward compatible changes to B2MML-V0500 from B2MML-V0401 are:

1. Remove the *##any* type from the schemas. This extension method has been superseded by the extended name space method.
2. The “Location” element was changed to “HierarchyScope” to match the change to ANSI/ISA 95.02. The location element definition was kept in the common schema to support backward compatibility in the production schemas.
3. Changed *QA Test* to *Material Test* to match the change to ANSI/ISA 95.02.
4. In *QualificationTestSpecificationType* the element *Name* was changed to *ID* to match the change to ANSI/ISA 95.02.
5. Added *EquipmentLevel* element to *EquipmentType* and *EquipmentClassType* to *ID* to match the change to ANSI/ISA 95.02.
6. Removed *EquipmentElementLevel* from *ProcessSegmentType* (depreciated in Version 4.0).
7. Made the *UnitOfMeasure* and *DataType* elements on *QuantityType*, *ResultType*, and *ValueType* optional. This is not strictly non—backward compatible, because previous schemas are still valid, but if an application was expecting to see these elements in a quantity, result, or value they can now be missing.

Backward compatible changes to B2MML-V0500.

1. Extended the material elements to include the Assembly relationships defined in ANSI/ISA 95.02.
2. Added the Operation objects. These include:
  - a. OperationsCapability
  - b. OperationsDefinition
  - c. OperationsPerformance
  - d. OperationsSchedule

3. Added additional extension types for OperationsCapability, OperationsDefinition, OperationsPerformance, and OperationsSchedule so that there are unique and not combined with the ProductionCapability, ProductDefinition, ProductionPerformance, and ProductionSchedule extension elements. Operations elements type names and extension groups prefixed with “Op”.
4. Addition of *EquipmentModule* and *ControlModule* to the *EquipmentElementLevel* type to support BatchML definitions.
5. Added *EquipmentAssetMapping* element to the B2MML-V0500-Common.xsd to match the new element defined in ANSI/ISA 95.02.
6. Added recursive property types (eg: *PersonPropertyType*, *EquipmentPropertyType*, ...) to all property elements to match the change to ANSI/ISA 95.02.
7. Removed multiple common schema elements in B2MML-V0500-Common.xsd that were only used in the removed maintenance schemas.
8. Put the SegmentResponse element and all subelements in a separate file that is included by the ProductionSchedule and the ProductionPerformance schemas. This removed double duplication that was causing code generation problems in the .NET environment.
9. Added the ChangeStatus elements to the ResponseCriteria element used in transactions. This provides elements that can contain the reason information for an acknowledge, response, or ConfirmBOD message.



1. Added the Batch Production Record schemas.
2. Included the ISA 95.02-2010 definitions of Physical Assets, OperationsDefinition, OperationsPerformance, and OperationsSchedule into the Batch Production Record.
3. Added PhysicalAssetIDs into the Batch Production Record in the same elements that contained an EquipmentID element.