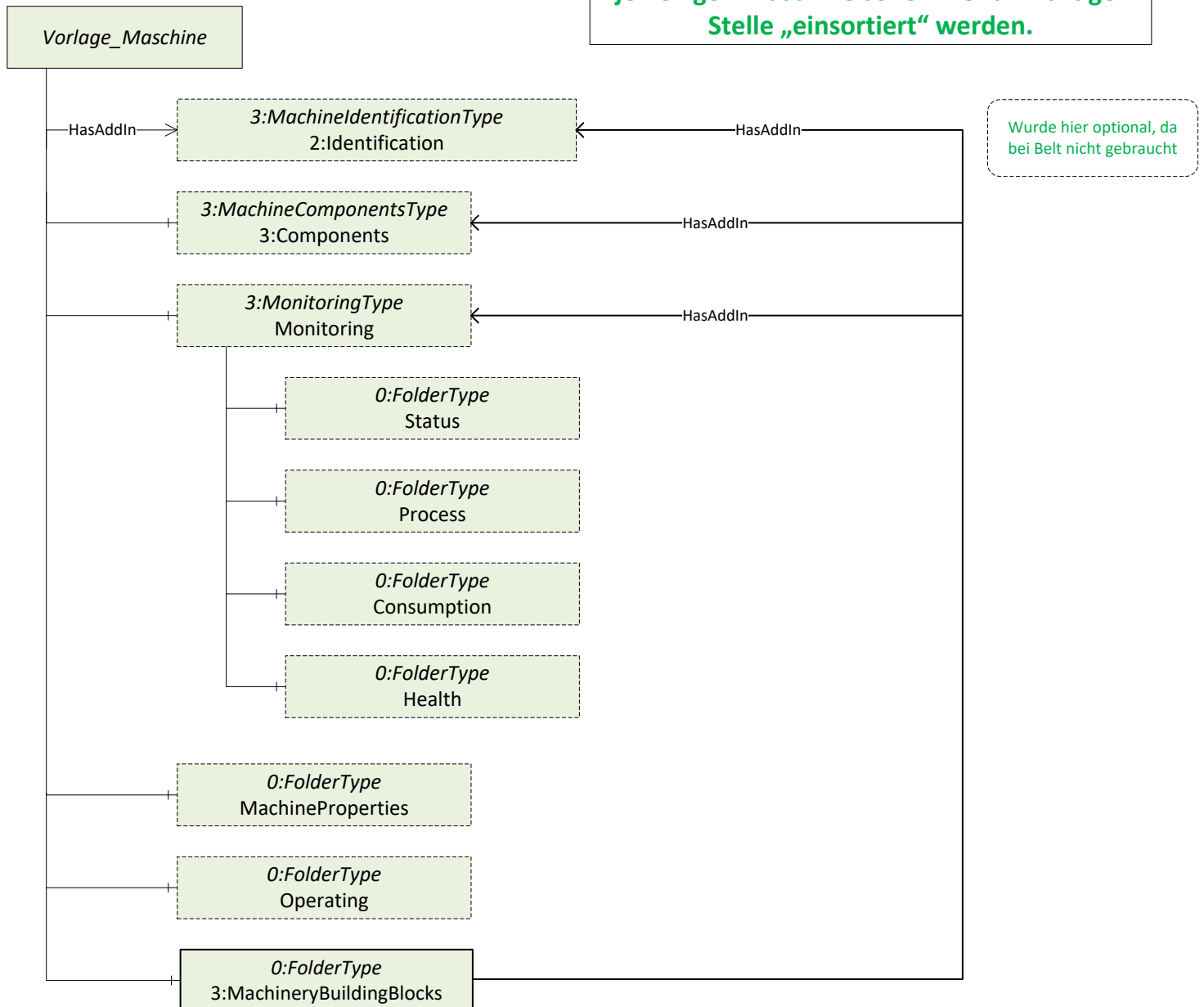


Hierbei handelt es sich um die Vorlage, wie eine jede Maschine strukturiert werden soll. Die entsprechenden Informationen zu der jeweiligen Maschine sollen hier an richtiger Stelle „einsortiert“ werden.



Agenda:

mandatorisch

optional

aus der Vorlage geerbt

In der spezifischen Maschine hinzuzufügen

Kommentare:

Status Parameter dasselbe wie BrakeReleased? → MachineryItemState unter:

ConveyorDrive (m)
ConveyorBrake (m)
Pulley (o)
BeltScale (m)
WeatherStation (m)
Scraper (m)

3:MachineryItemState_StateMachineType
MachineryItemState

3:MachineryItemState_StateMachineType
MachineryItemState

Tragrollen als einzelnes Objekt anlegen!

Hinzufügen der Parameter aus Use Cases 14:

BearingTemperature → Wohin?
SensorNodeId → Wohin?
RotationOfBearing → Wohin?
Vibration kommt ja unter den Sensor → Wohin?

Solution

Using of automatic roller condition monitoring.

- Bearing Temperature from itself (sensors installed in the roller near to the bearing).
- Sensor or Sensor Node ID's for part identification
- Database with connection of Sensor or Sensor Node ID's to the defined installation places of rollers (traceability for each bearing place). Asset Management
- Rotation (sensors installed in the roller)
- Ambient temperature from the weather stations (option).
- Vibration (option)
- Belt speed from belt scale, drive or belt sensor (option)
- Nutzung von Process Values mit entsprechenden Limits und Methoden aufrufen!

Hinzufügen der Parameter aus Use Cases 15:

Humidity → WeatherStation
Precipitation → WeatherStation
CleanlinessLevelOfBelt → Zum Belt?
WarrantyTime → Wohin? Warranty wovon?

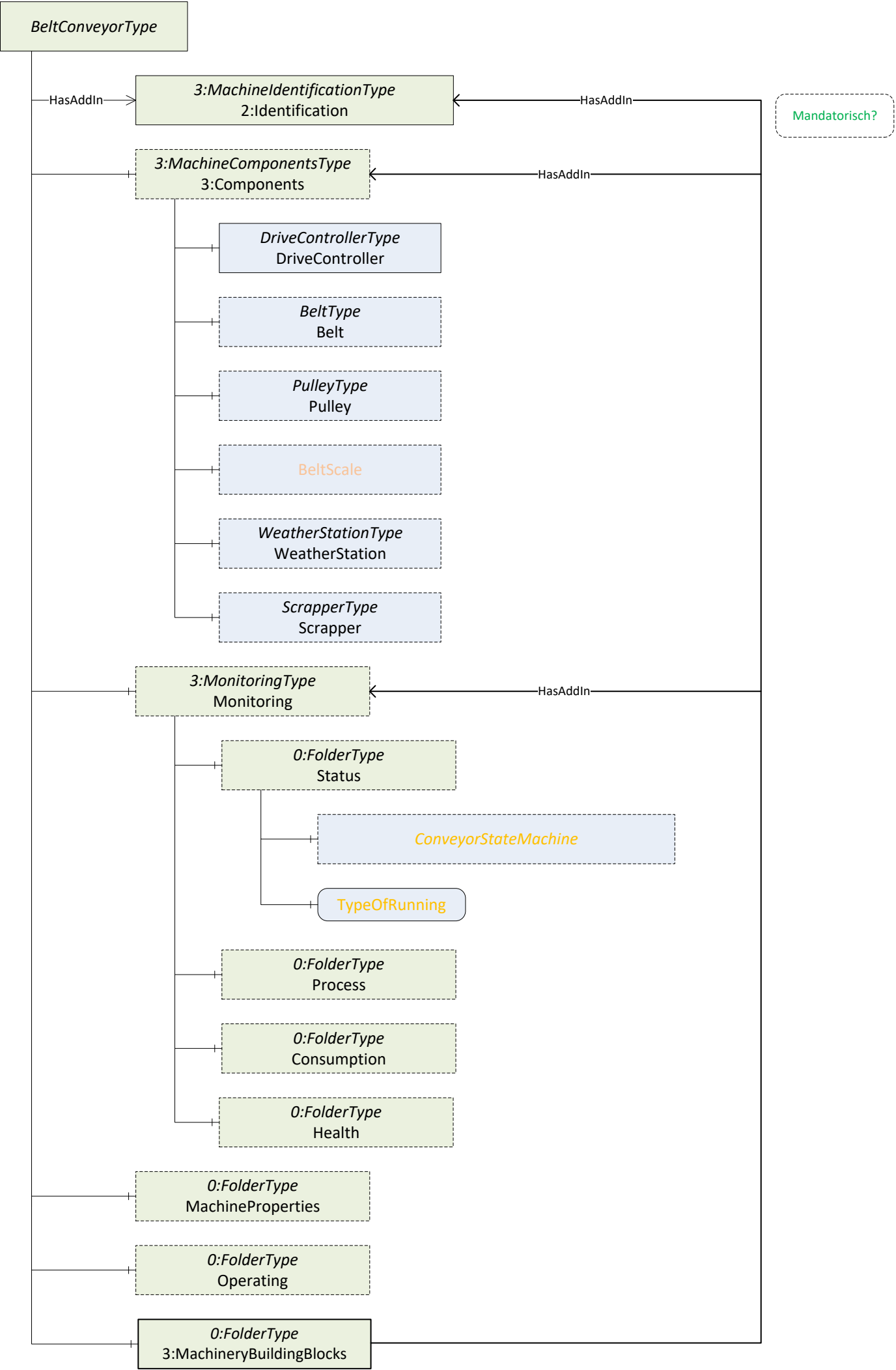
Solution

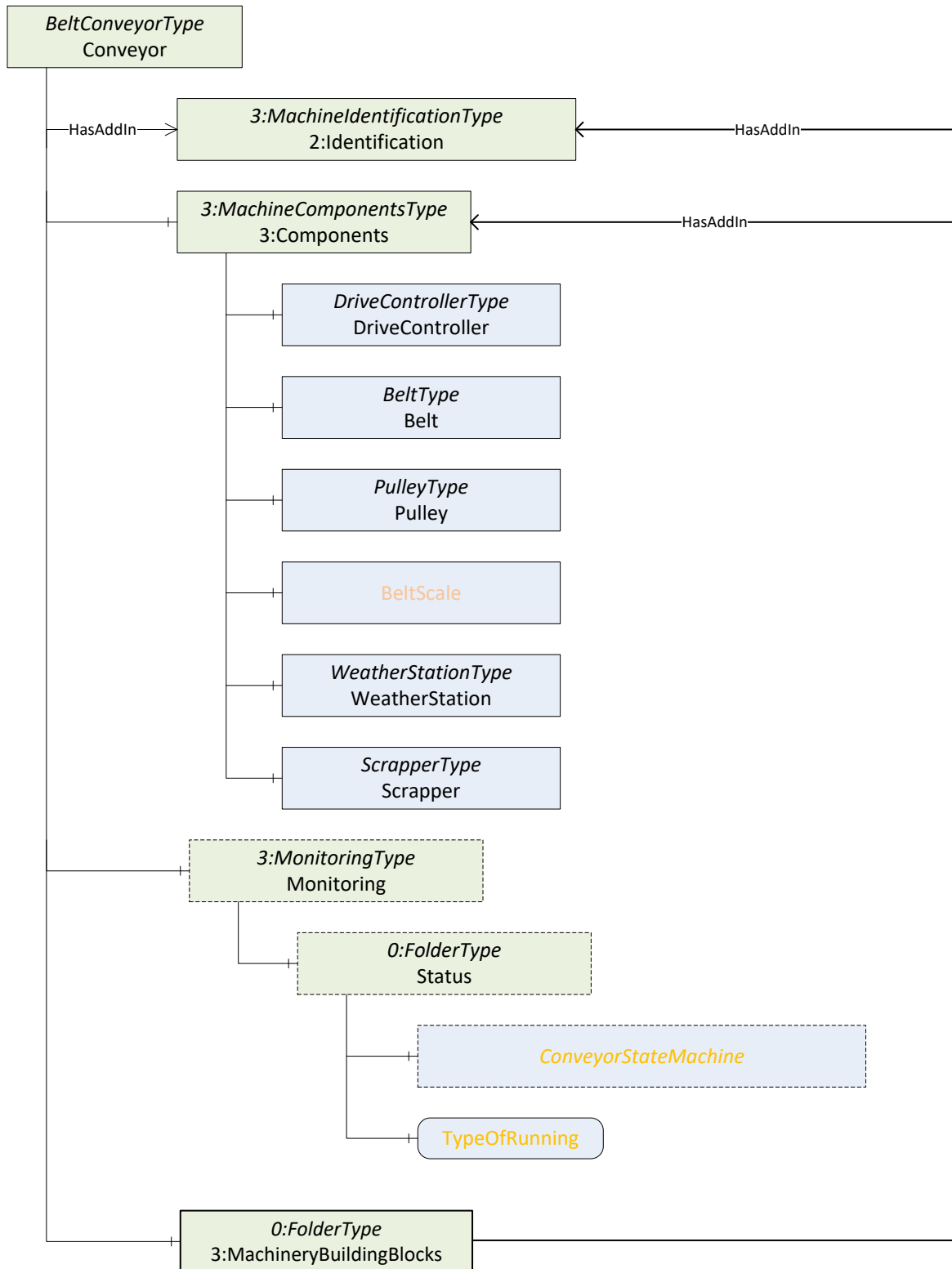
Using of automatic roller condition monitoring together with asset management functions.

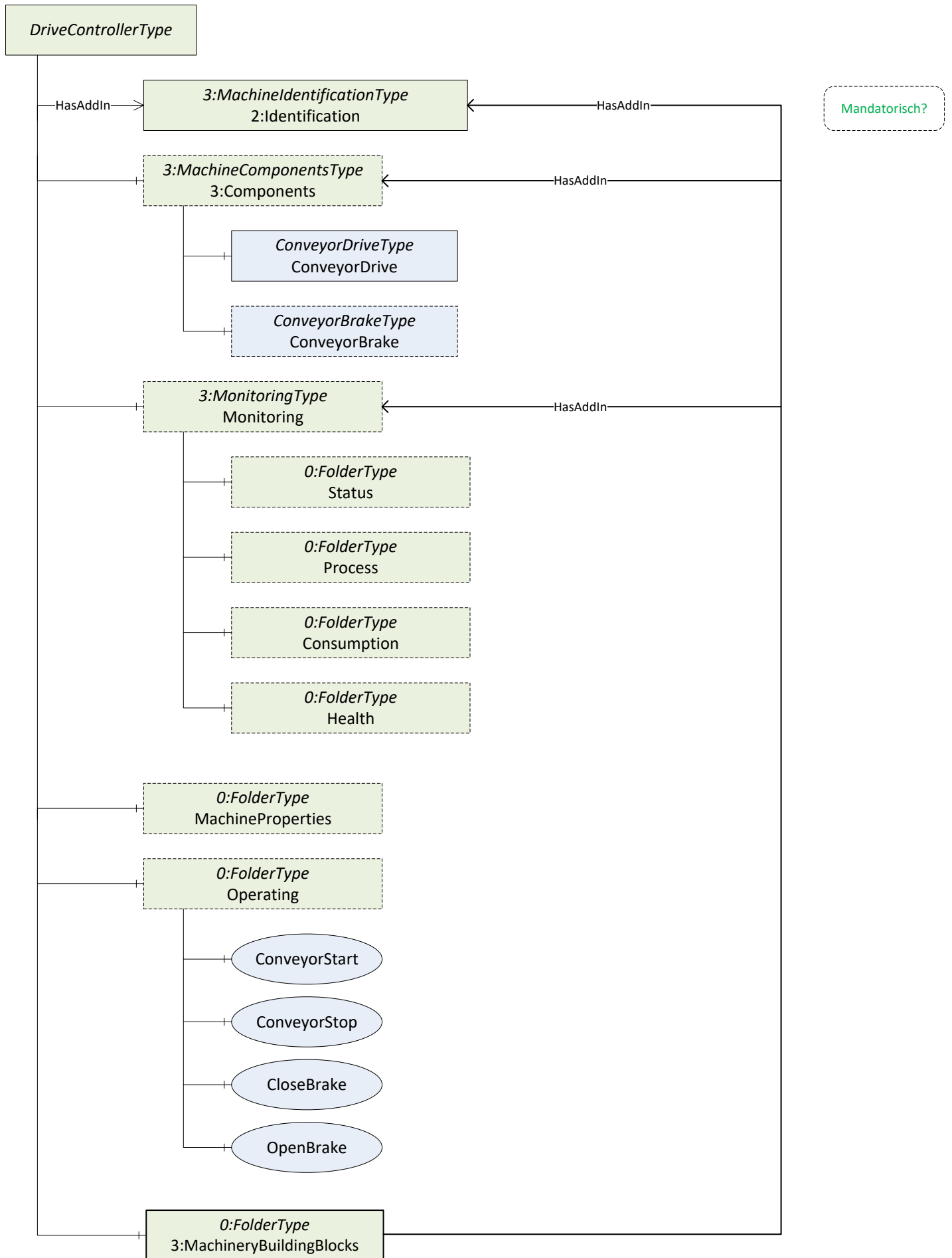
- Bearing temperature from itself (sensors installed in the roller near to the bearing).

Using of automatic roller condition monitoring together with asset management functions.

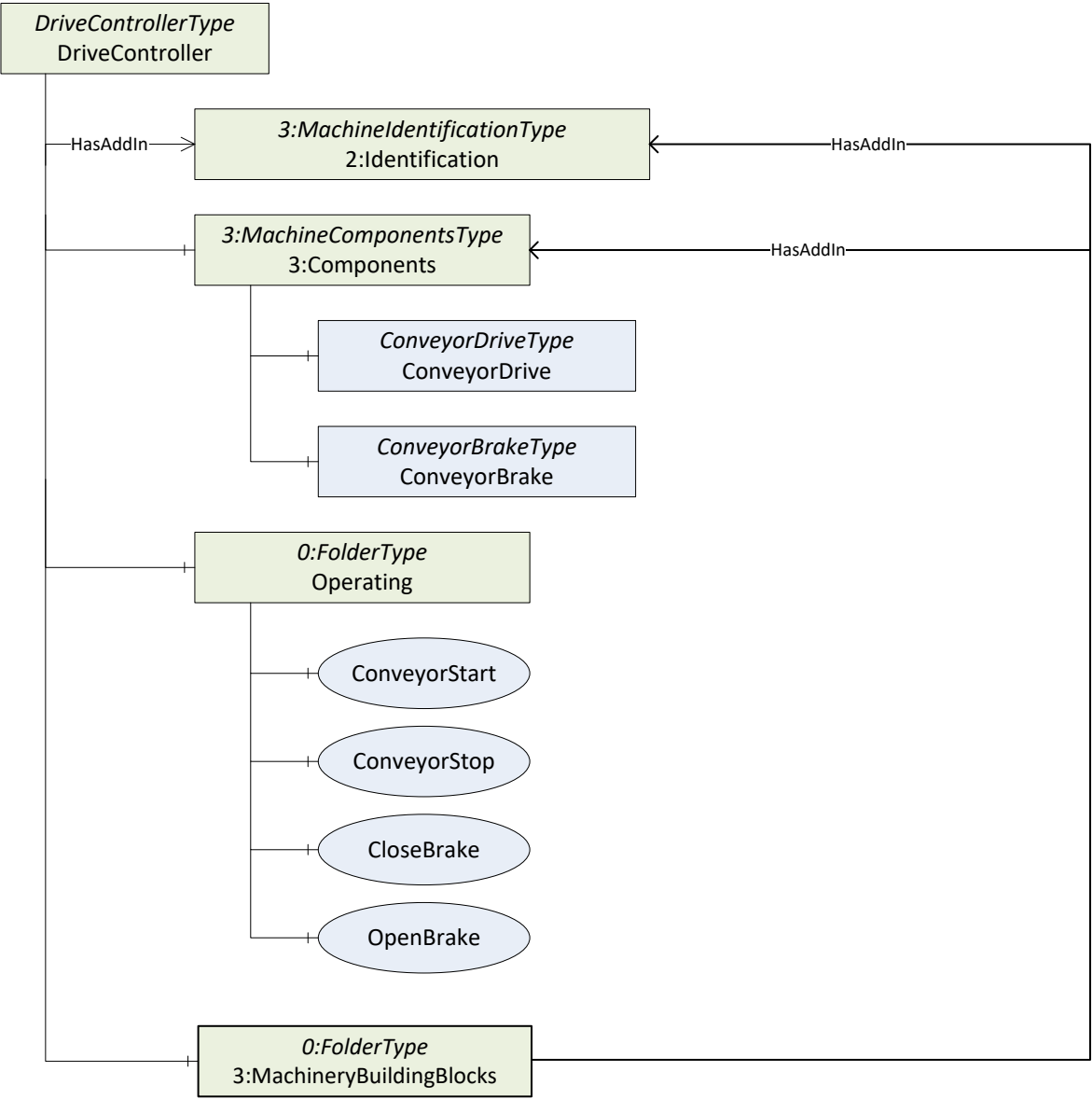
- Bearing temperature from itself (sensors installed in the roller near to the bearing).
- Roller, Sensor and Sensor Node ID's for exact part identification
- Database with connection of Sensor or Sensor Node ID's to the defined installation places of rollers (traceability for each bearing place).Asset Management
- Rotation (sensors installed in the roller)
- Ambient temperature from the weather stations.
- Precipitation, Humidity from weather stations.
- Vibration (option) (Vibration)
- Belt speed from belt sensor or drive
- Belt Tensile Force from the belt winch
- Radial load (sensors installed in the roller = option)
- Maximum allowed radial load
- Capacity from the belt scale (Belt capacity)
- Cleanliness level of the belt from the Belt Cleaner System
- Target utilization time
- Warranty time Asset Management

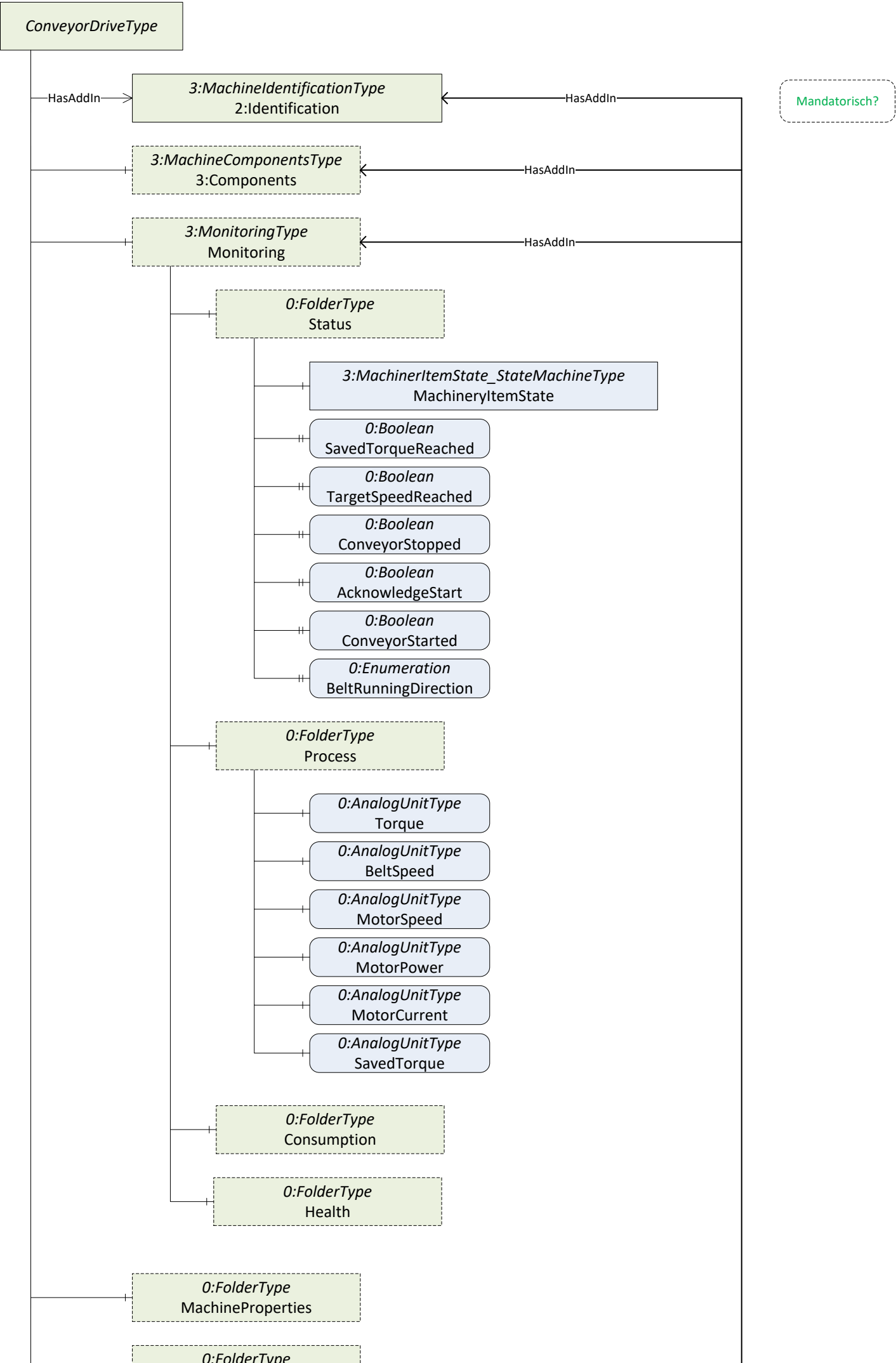


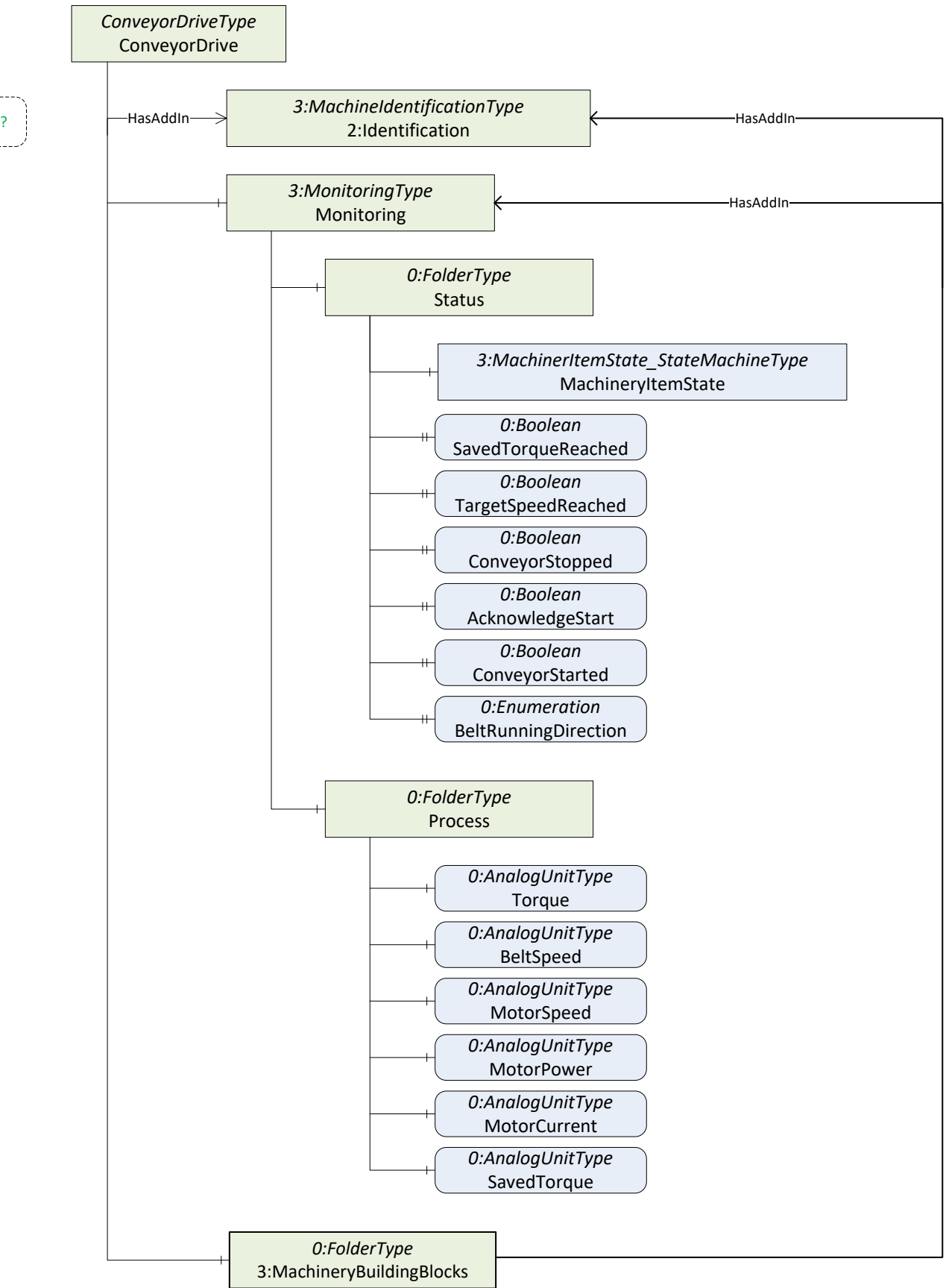




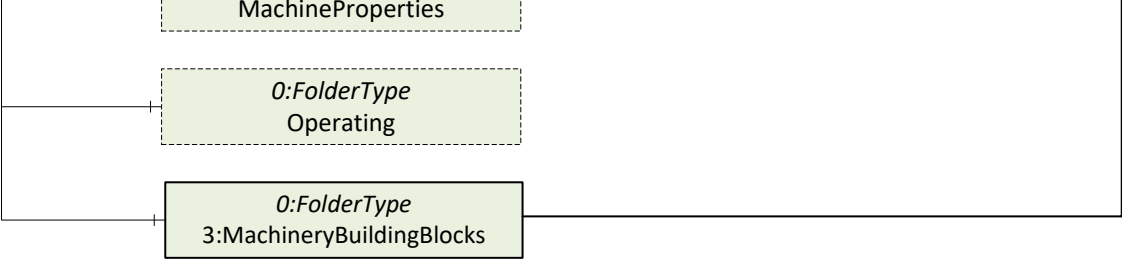
?

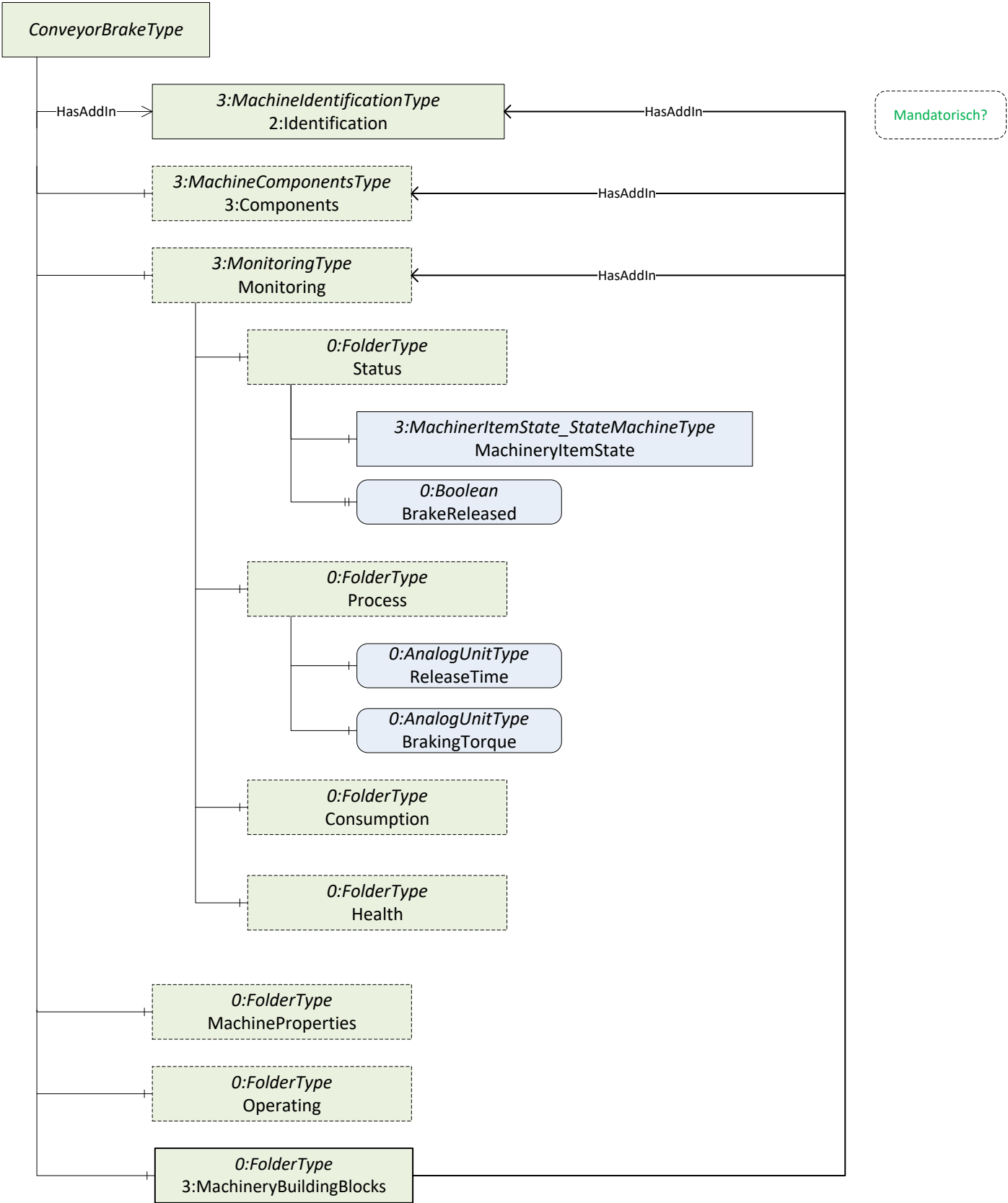


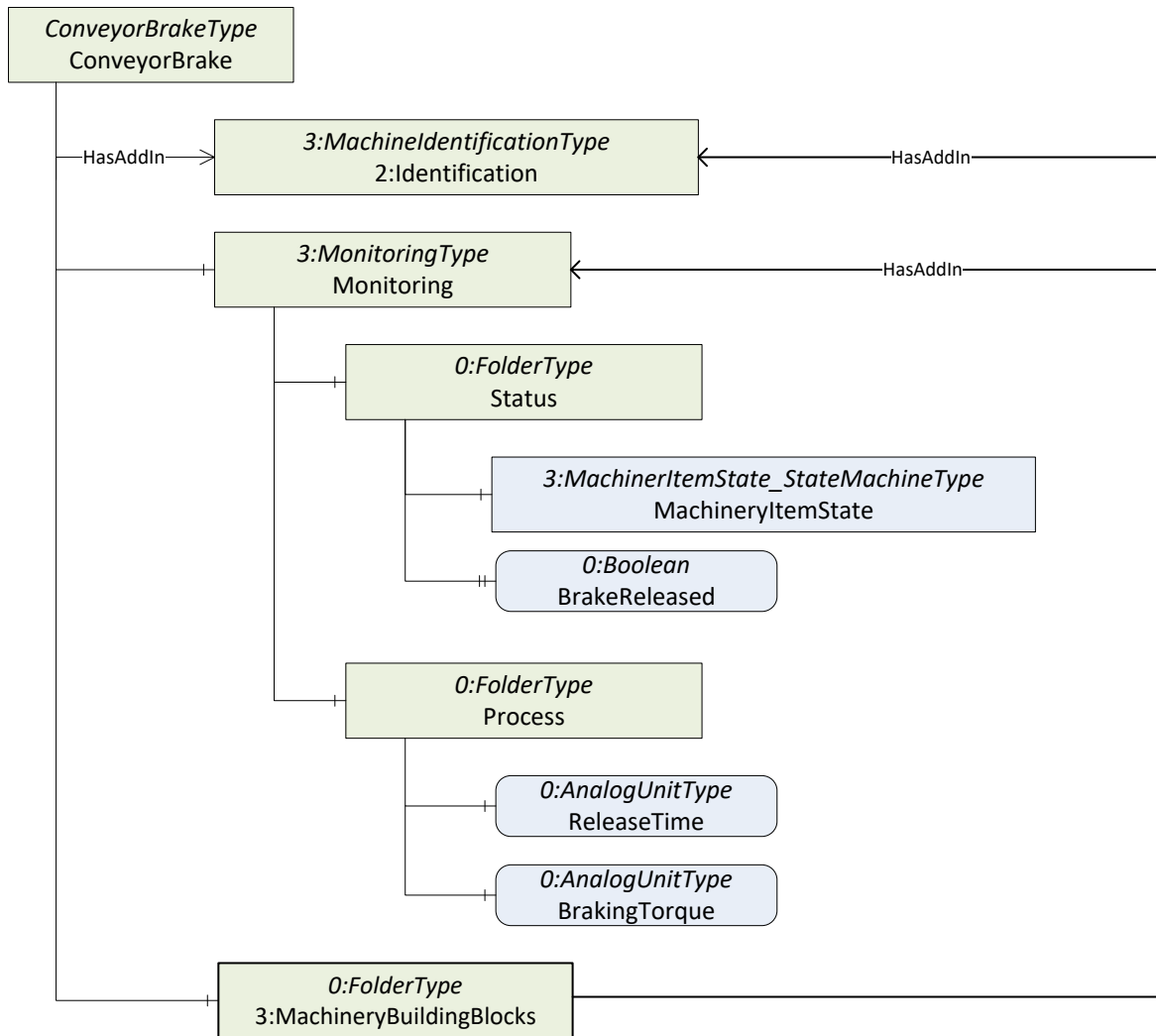


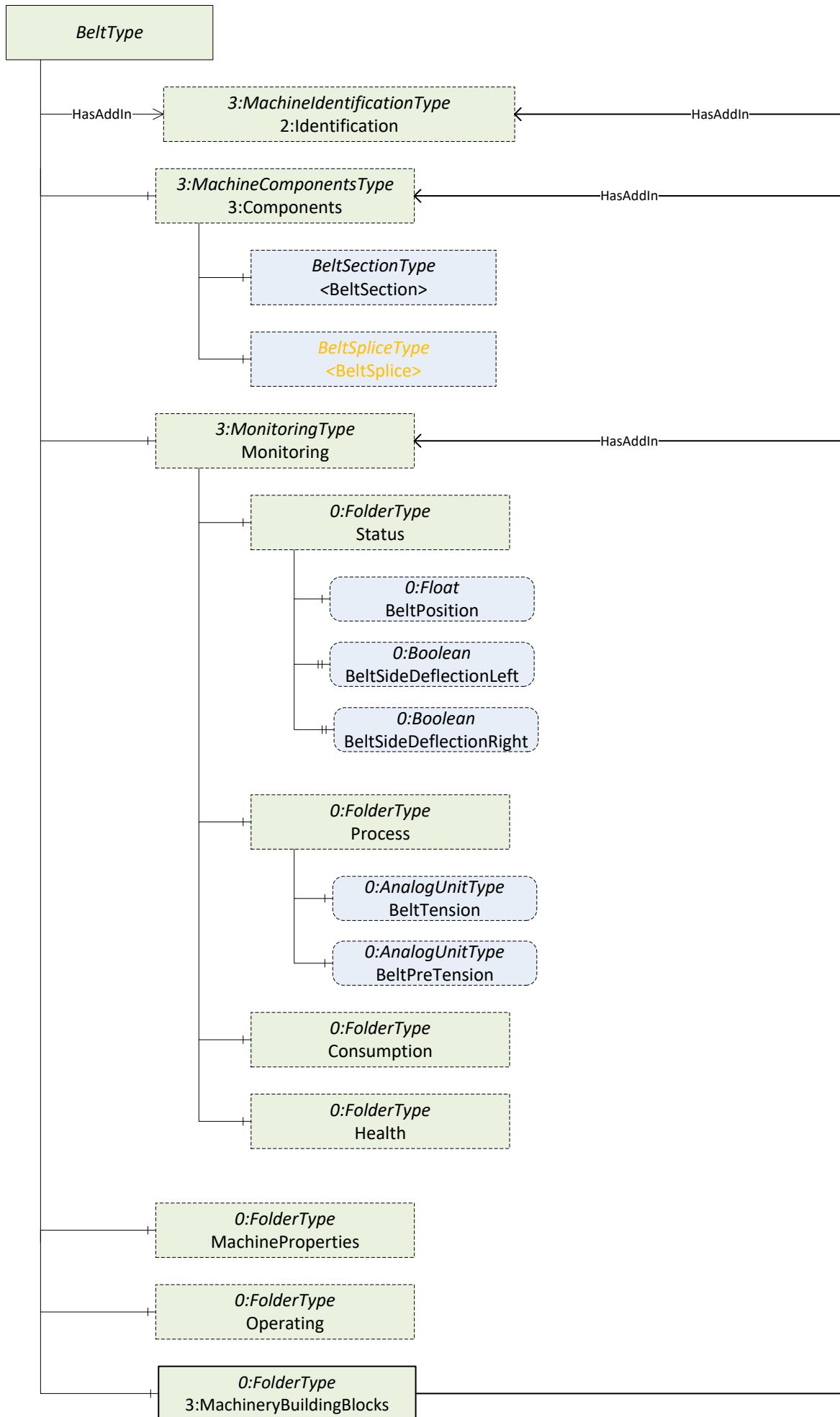


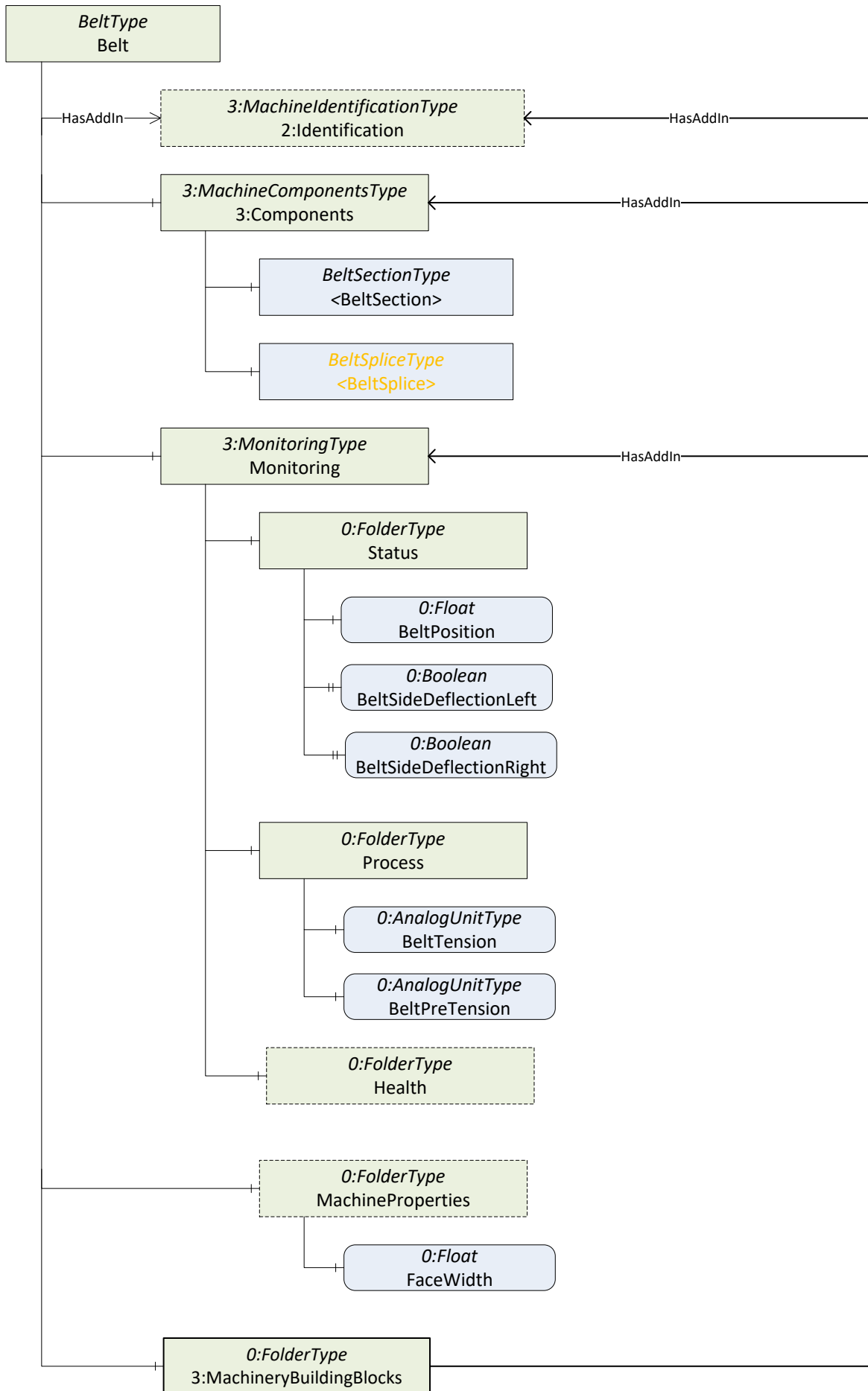
Values for BeltRunningDirection:
1. FromTailToHead
2. FromHeadToTail
3. undefined





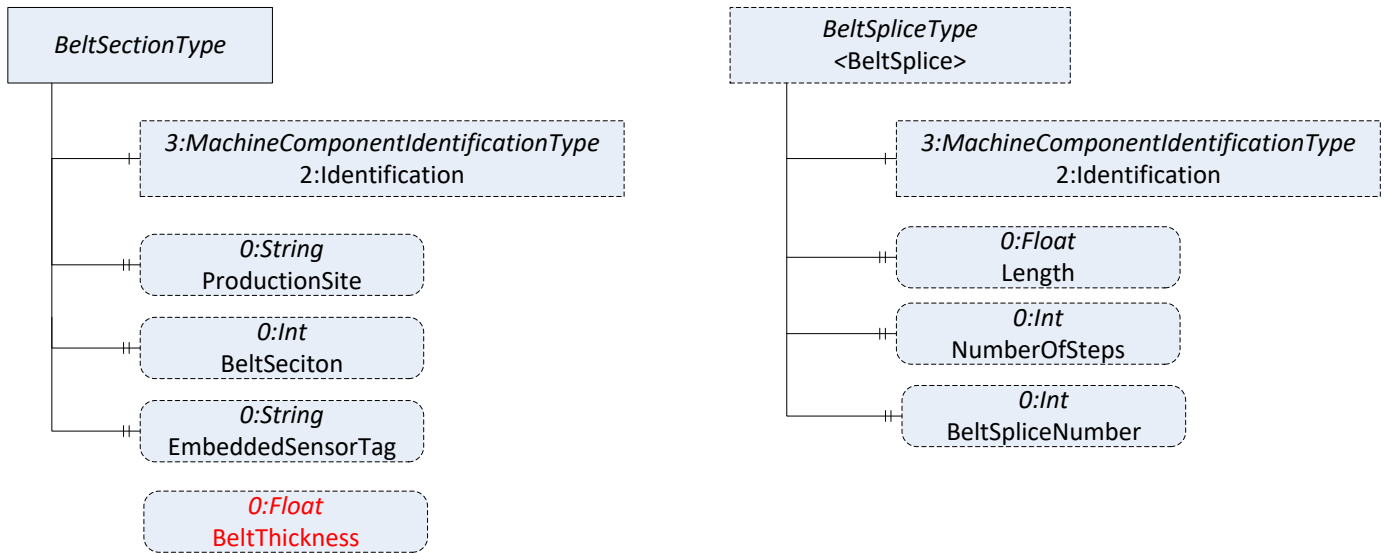






Kommentare:
→ Verschleißzustand (auch beim Belt) muss man abbilden können

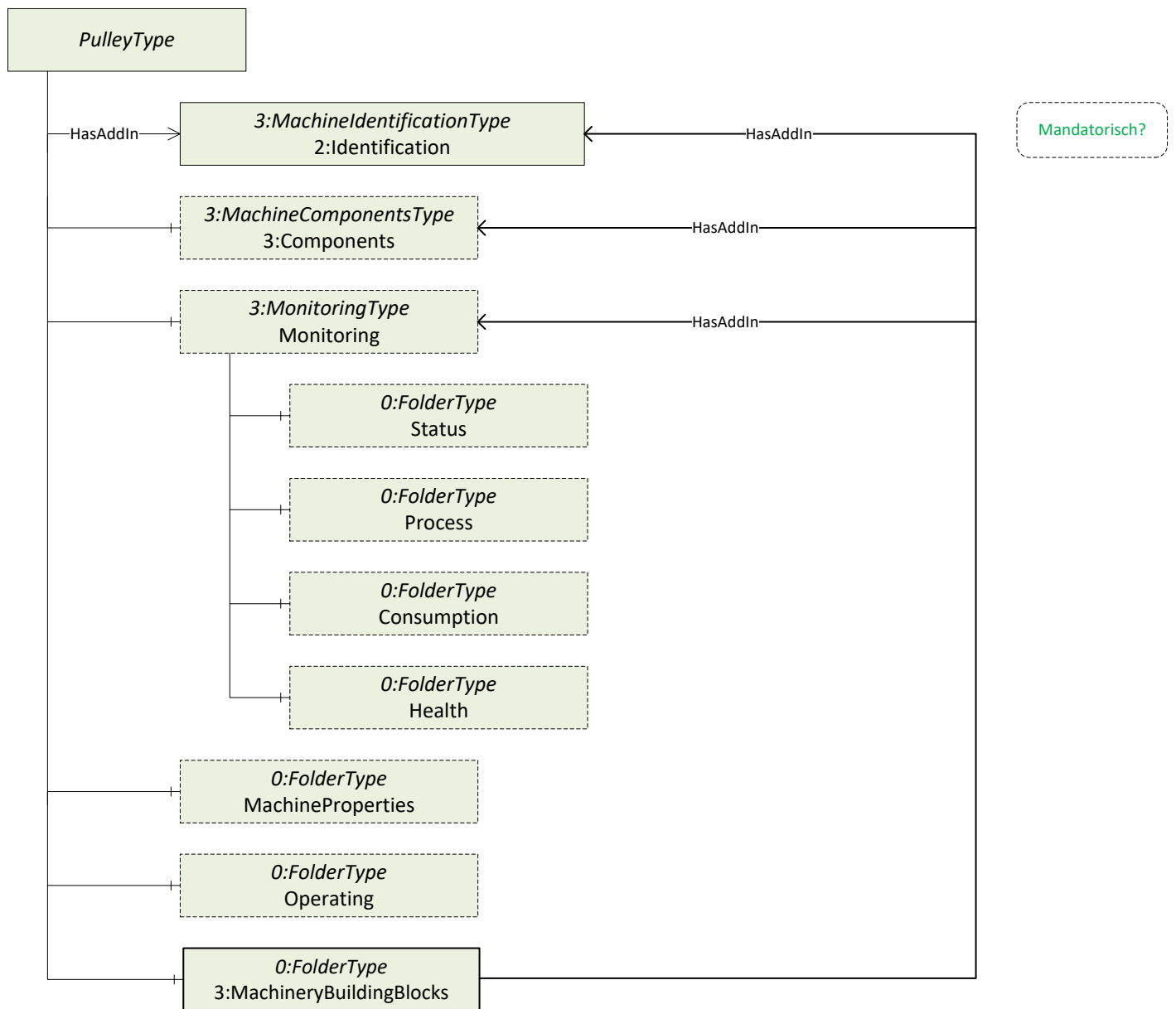
Dicke des Gurtes wird gemessen.
→ Gurtdicke

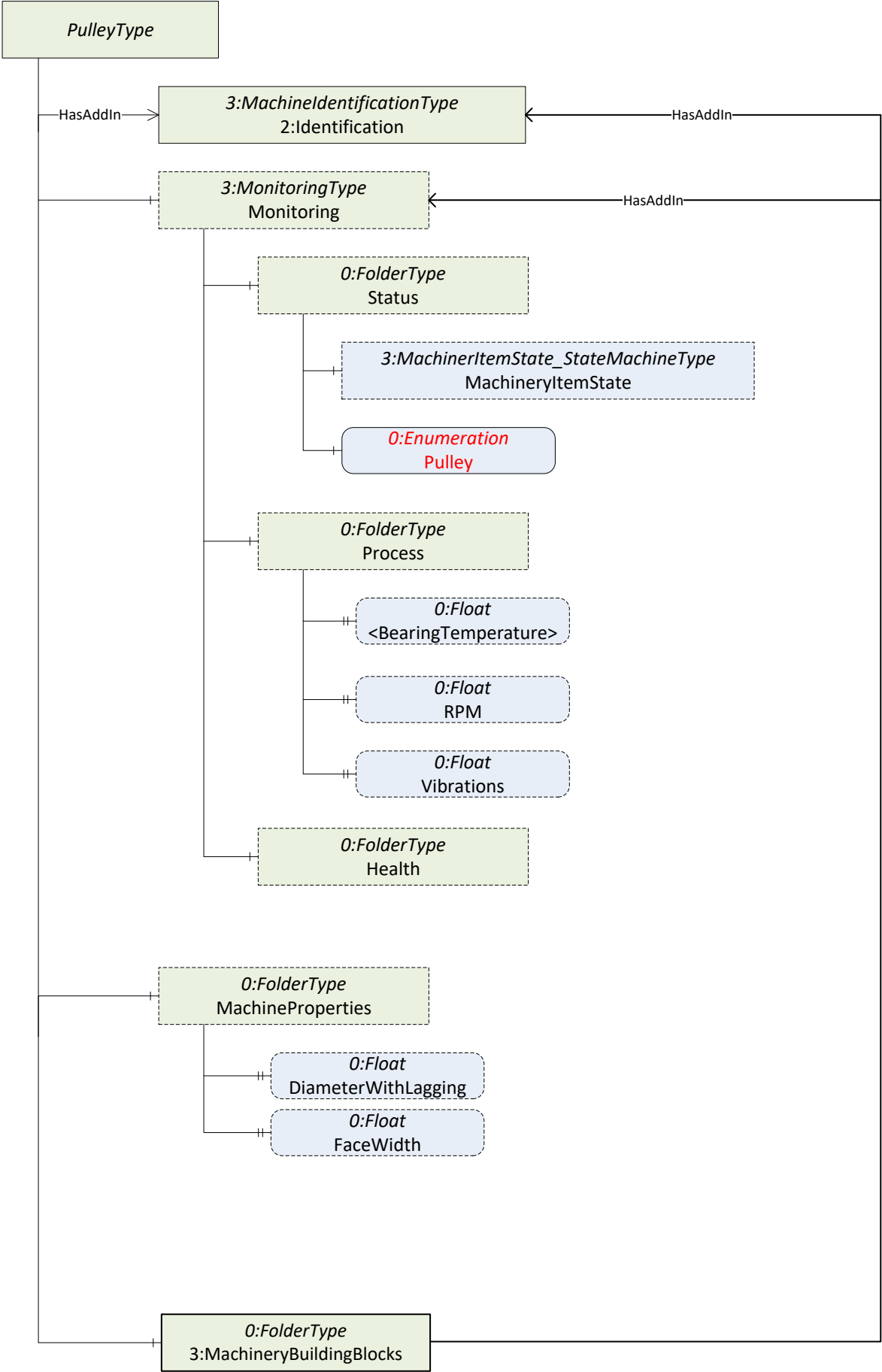


Dicke des Gurtes wird gemessen.
 → Gurtdicke
 (BeltThickness)
 Hierbei handelt es sich um den verschleißzustand des Gurtes

Datum, wann diese Messung durchgeführt wurde muss noch hinzugefügt werden!

Man kann bei der Implementierung die jeweiligen BeltSections und BeltSplices mit Referenzen in verbindung stellen.





Enumeration:

Head
Tail
Drive
Discharge
Snub
Bend
TakeUp
TurnOver
Tripper
Other

Aus dieser Liste können 1 bis x Werte ausgewählt werden. Da muss ich noch schauen, wie das umsetzbar ist.

Propertie mit dem Namen „State“
Datentyp ist NodeID

ValueRank Array (eindimensional)

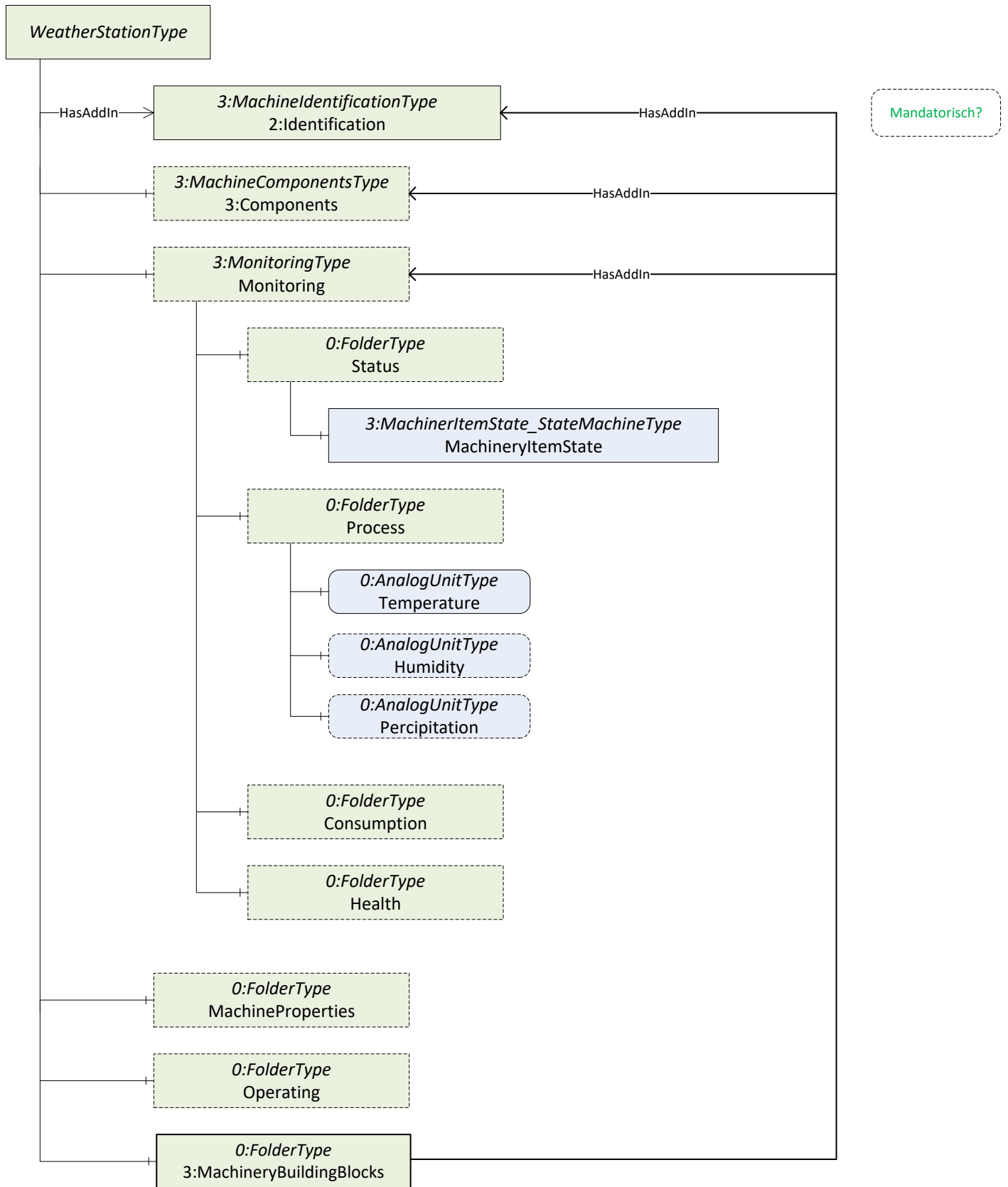
Alternative:
Int16 Array

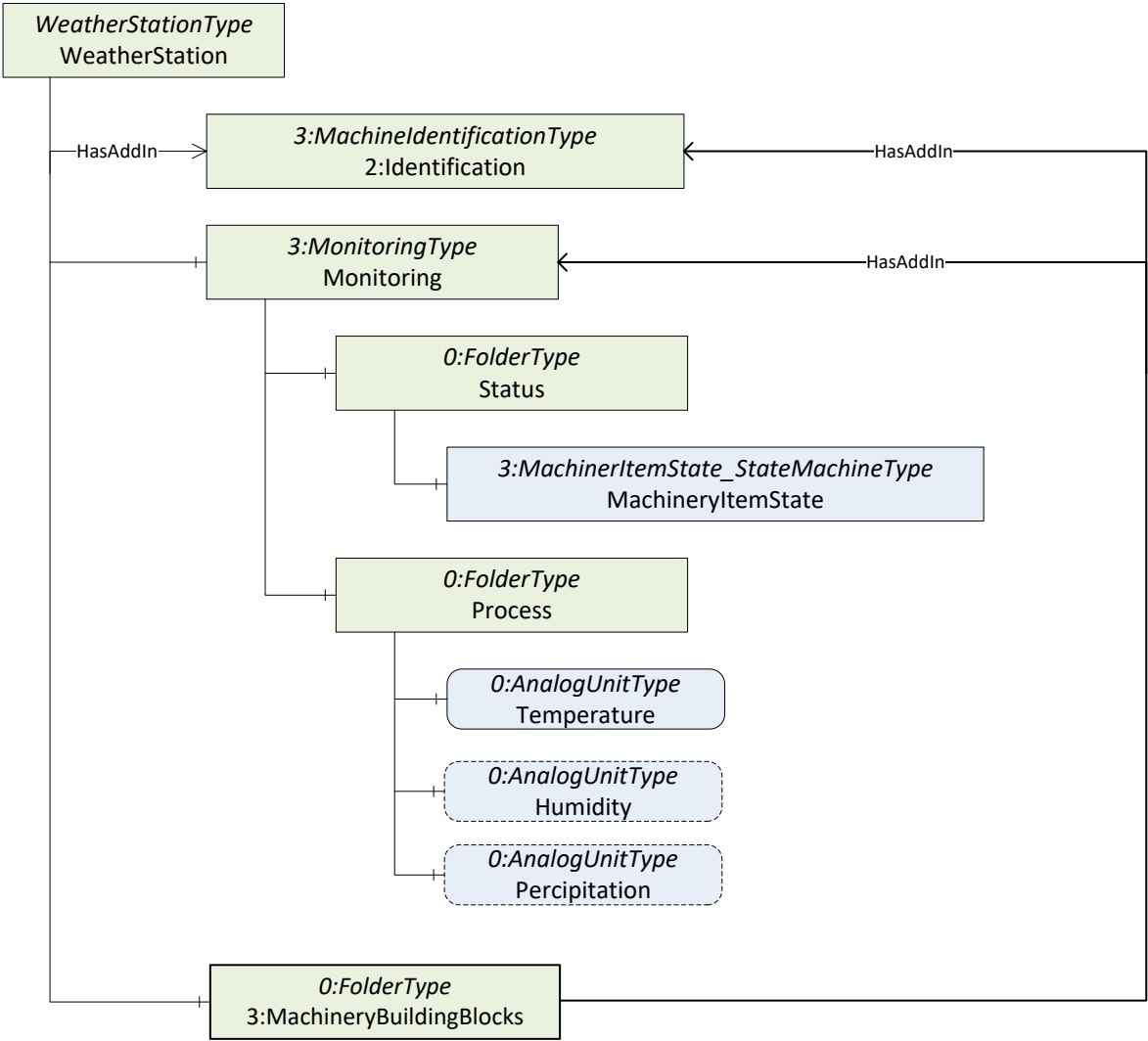
Kommentare:

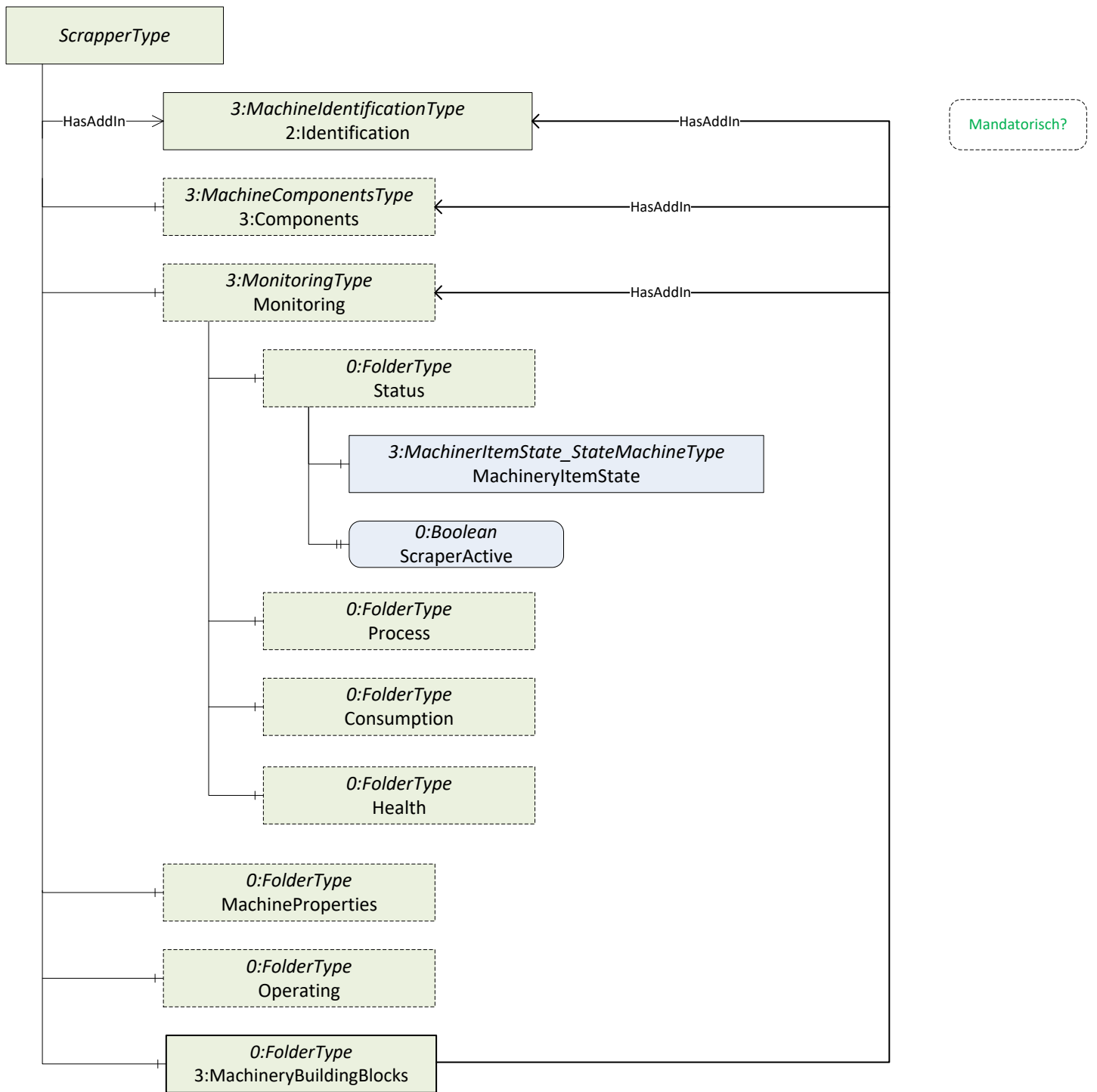
→ Verschleißzustand (auch beim Belt) muss man abbilden können
ggf. interessant in einer neuen version der Spec da noch kein standardisierter Prozess

Info für zukünftige Arbeit:

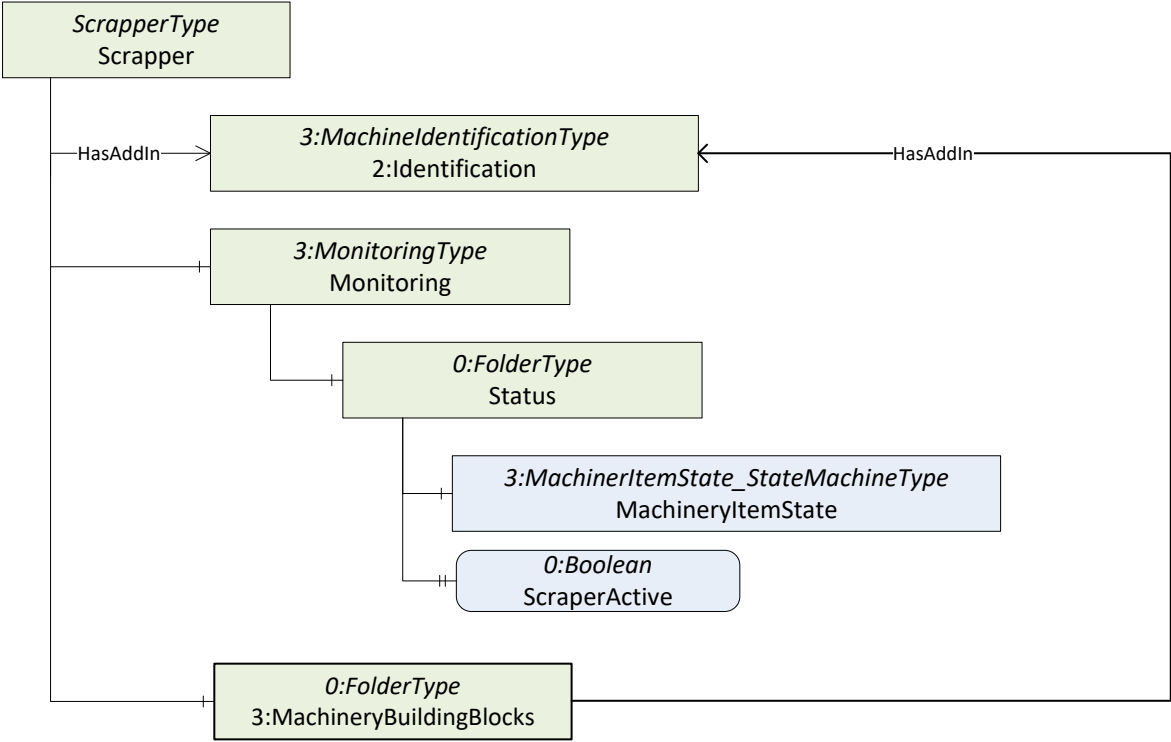
- Parameter WrapAngle
- Drehmoment (im Falle von Antriebstrommeln)

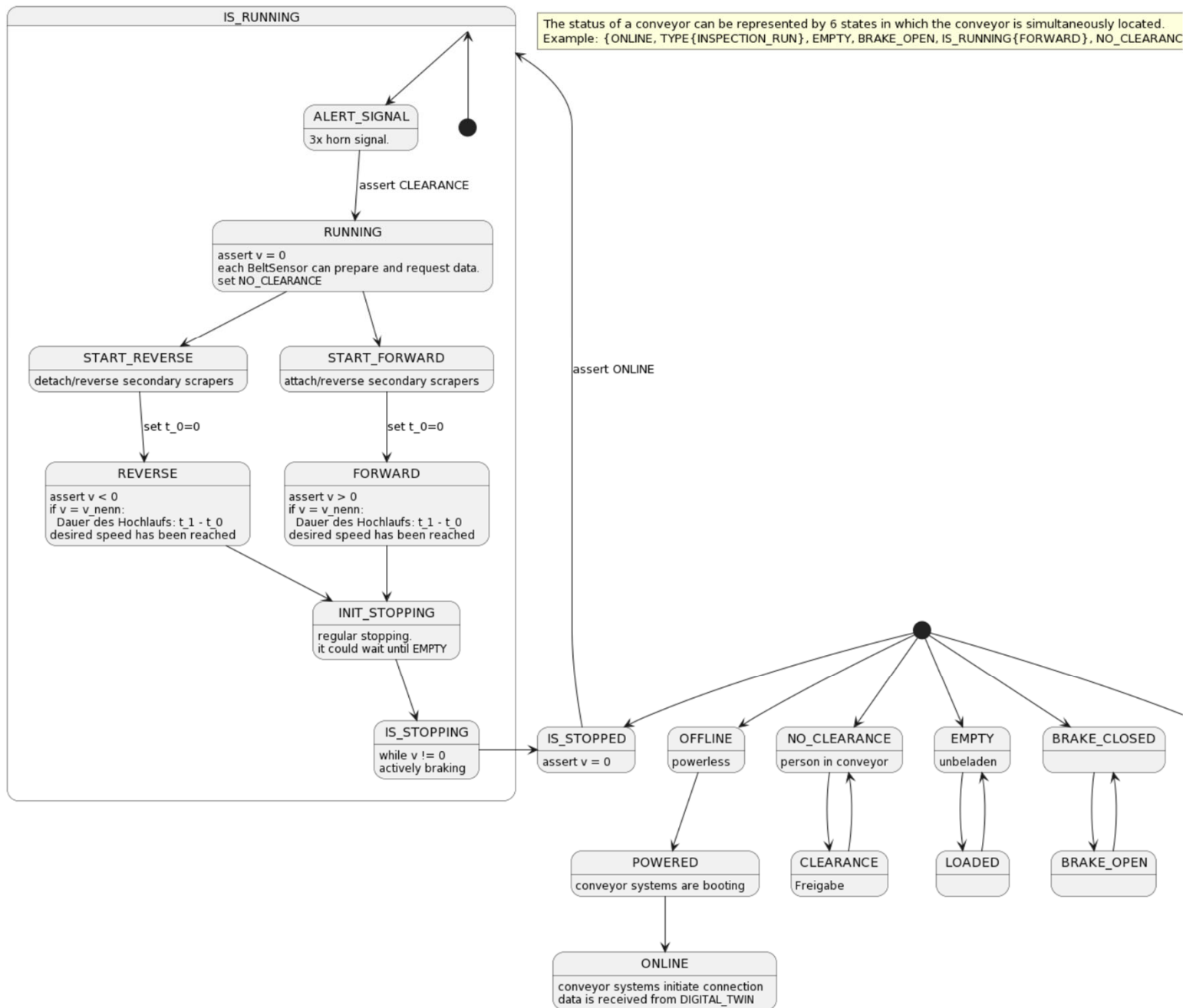






?

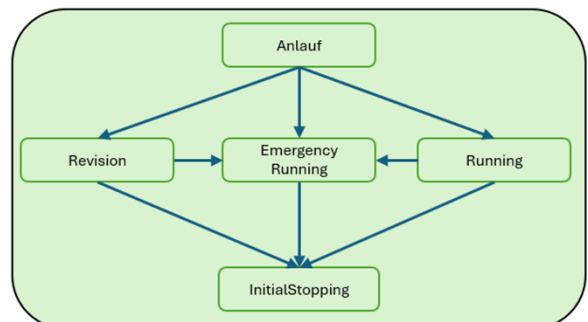
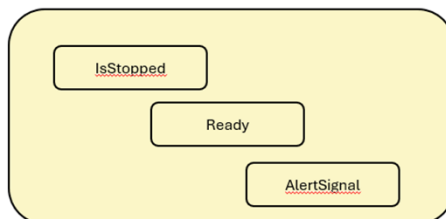
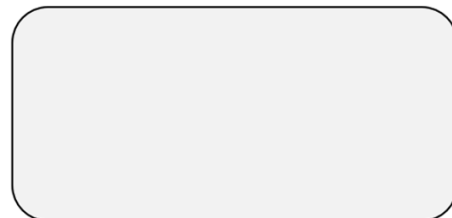
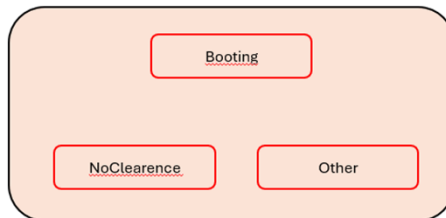
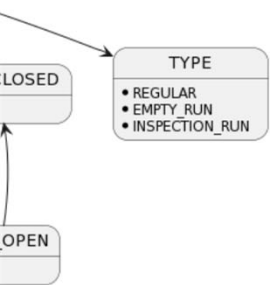
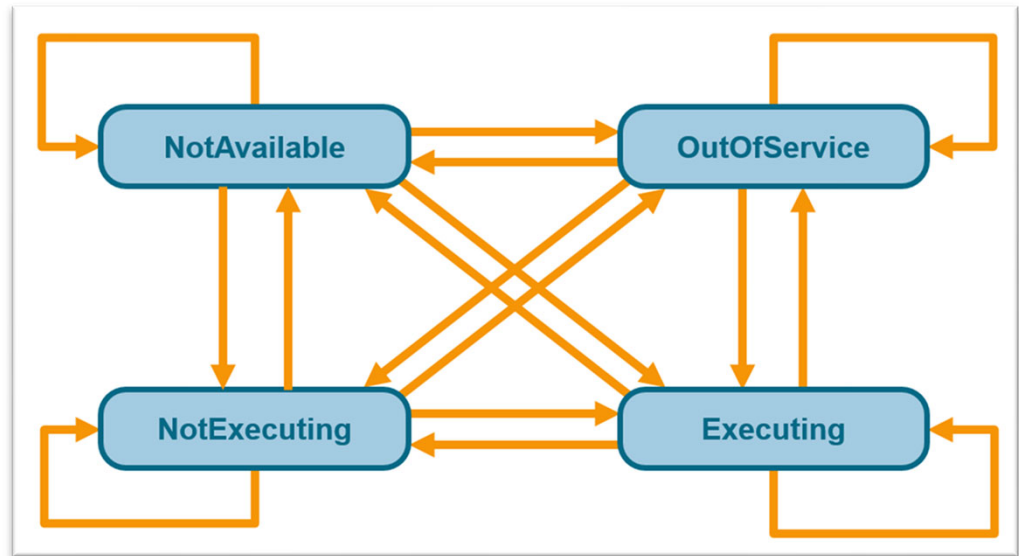




Executing	NotExecuting	OutOfService	NotAvailable
- ReverseRunning - ForwardRunning - InitialStopping	- Alert_Signal - IsStopped - Ready(Online) - BrakeClosed	- Booting - NoClearance	- Offline

located.
CLEARANCE}

Not available		The unit is not available and does not perform any activity*. (e.g. Switched Off, in Energy Saving Mode)
Out of Service		The unit is not functional and does not perform any activity*. (e.g. Error, Blocked)
Not Executing		The unit is available & functional and is not performing any activity*. It waits for an action from outside to start or restart an activity*.
Executing		The unit is available & functional and is actively performing an activity* (pursues a purpose)



Was hier fehlt:
Type (Regular, EmptyRun, InspectionRun)

→ MultiStateValueDiscreteType in den Status-Ordner, der den Zustand festlegt?

Empty, Loaded

→ ist das nicht schon im oberen MultiStateValueDiscreteType drin?

Online

→ steckt das nicht schon in der StateMachine?