

1 Change log Energy ADE 0.8.0 → 0.9.0

1.1 General changes between version 0.8.0 and 0.9.0

In version 0.9.0, all enumeration items start with a **small letter**

1.2 Energy ADE Code and Building Physics Module

1.2.1 ADEElement *_AbstractBuilding*

Property in 0.8.0	Property in 0.9.0
<i>refurbishmentMeasureOnBuilding[0..*]</i>	<i>refurbishmentMeasure[0..*]</i>
<i>buildingMainConstruction[0..1]</i>	<i>aggregatedBuildingConstruction[0..1]</i>

1.2.2 *ThermalZone*

Property in 0.8.0	Property in 0.9.0
<i>boundedBy[1..*]</i>	<i>boundedBy[0..*]</i>

1.2.3 *ThermalBoundary*

Property in 0.8.0	Property in 0.9.0
<i>refurbishmentMeasureOnThermalBoundary[0..1]</i>	<i>refurbishmentMeasure[0..*]</i>

1.2.4 *EnergyPerformanceCertification*

Property in 0.8.0	Property in 0.9.0
<i>certificationRating</i>	<i>rating</i>
<i>certificationName</i>	<i>name</i>

1.2.5 *RefurbishmentMeasure*

Property in 0.8.0	Property in 0.9.0
<i>dateOfRefurbishment</i>	<i>date</i>
<i>levelOfRefurbishment</i>	<i>level</i>
<i>descriptionOfRefurbishment</i>	<i>description</i>

1.2.6 *WeatherStation*

New class in version 0.9.0

1.3 Energy System Module

The Energy Systems part of the data model changed significantly between version 0.8.0 and 0.9.0. The following classes are new in version 0.9.0

- ***AbstractEnergySystem*** as common super class for all Energy System classes. The attributes of *AbstractEnergySystem* are deleted in the derived classes
- ***EnergyFlow*** to replace the class *FinalEnergy*
- ***EnergySource*** and ***EnergyDemand*** as sub-classes of *EnergyFlow*

1.3.1 EnergyConversionSystem

In version 0.9.0 the class is renamed to **AbstractEnergyConversionSystem** and is made abstract. The properties *production* and *installationDocument* have been deleted

1.3.2 _SolarEnergySystem

In version 0.9.0 the class is renamed to **AbstractSolarEnergySystem**

1.3.3 PhotovoltaicThermalSystem

Property in 0.8.0	Property in 0.9.0
<i>eta0: Decimal[0..1]</i>	<i>opticalEfficiency: Scale[0..1]</i>
<i>a1: Decimal[0..1]</i>	<i>linearHeatLossCoefficient: Decimal[0..1]</i>
<i>a2: Decimal[0..1]</i>	<i>quadraticHeatLossCoefficient: Decimal[0..1]</i>

1.3.4 MechanicalVentilation

Property in 0.8.0	Property in 0.9.0
<i>heatRecovery: Boolean</i>	<i>hasHeatRecovery: Boolean</i>

1.3.5 EnergyDistributionSystem

In version 0.9.0, the class is renamed to **AbstractEnergyDistributionSystem** and made abstract.

1.4 Material and Construction Module

No changes in the corresponding classes between version 0.8.0 and 0.9.0

1.5 Occupant Behaviour Module

1.5.1 Facilities

In version 0.9.0, **Facilities** is a city object, i.e. derived from **_CityObject**

1.6 Supporting classes

In version 0.9.0, the abstract base class **_Schedule** is renamed to **AbstractSchedule**, and **_TimeSeries** is renamed to **AbstractTimeSeries**

1.6.1 TimeValuesProperties

In version 0.9.0 a new attribute *thematicDescription: CharacterString[0..1]* is introduced.

2 Change log Energy ADE 0.9.0 → 1.0

2.1 Energy ADE Core Module

For supporting the modularization, a number of abstract base classes have been introduced in version 1.0:

- **AbstractThermalZone** as base class of *ThermalZone*
- **AbstractUsageZone** as base class of *UsageZone*

2.1.1 FloorArea

Property in 0.9.0	Property in 1.0
<i>type: OfficialAreaReferenceValue</i>	<i>type: FloorAreaTypeValue</i>

2.1.2 EnergyDemand

In version 1.0, *EnergyDemand* is no longer derived from *EnergyFlow*. The *EnergyFlow* properties *energyAmount* and *energyCarrierType* (renamed to *energyCarrierType*) are explicitly defined as *EnergyDemand* properties.

2.2 Building Physics Module

2.2.1 ThermalOpening

Property in 0.9.0	Property in 1.0
<i>area: Area</i>	<i>area: Area[0..1]</i>
<i>construction: AbstractConstruction</i>	<i>construction: AbstractConstruction[0..1]</i>

2.3 Energy Systems

2.3.1 SolarThermalSystem

Property in 0.9.0	Property in 1.0
<i>eta0: Decimal[0..1]</i>	<i>opticalEfficiency: Scale[0..1]</i>
<i>a1: Decimal[0..1]</i>	<i>linearHeatLossCoefficient: Decimal[0..1]</i>
<i>a2: Decimal[0..1]</i>	<i>quadraticHeatLossCoefficient: Decimal[0..1]</i>