

Schema documentation for measured-1-1-0.xsd

february 17, 2017

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Namespace: "http://gaslab.zib.de/kwpt/measured"

Schema(s)

Main schema measured-1-1-0.xsd

| | |
|------------|-------------------------------------|
| Namespace | http://gaslab.zib.de/kwpt/measured |
| Properties | attribute form default: unqualified |
| | element form default: qualified |
| | version: 1.1.0 |

Element(s)

Element measured

| | |
|-----------|------------------------------------|
| Namespace | http://gaslab.zib.de/kwpt/measured |
| Diagram | |

| | | | | |
|----------------|--|--|----------|--|
| Type | extension of rootBaseType | | | |
| Type hierarchy | <ul style="list-style-type: none">rootBaseType | | | |
| Properties | content: | complex | | |
| Model | gasDay | | | |
| Children | gasDay | | | |
| Instance | <pre><measured interfaceVersion="" source="" validity="" xmlns="http://gaslab.zib.de/kwpt/measured"> <gasDay date="" gasDayLengthInHours="" gasDayStartHourInUTC="">{1,1}</gasDay> </measured></pre> | | | |
| Attributes | QName | Type | Use | |
| | interfaceVersion | interfaceVersionType | required | |
| | | The interface version used. Only the version of this interface is allowed. | | |
| | source | sourceType | required | |
| | | The source system, which created this file (Program name and version). | | |
| | validity | xsd:dateTime | required | |
| | | The time of validity. This is the time when the data was gathered. | | |
| Source | <pre><xs:element name="measured"> <xs:complexType> <xs:complexContent> <xs:extension base="framework:rootBaseType"> <xs:sequence> <xs:element ref="gasDay"/> </xs:sequence> </xs:extension> </xs:complexContent> </xs:complexType> </xs:element></pre> | | | |

Element gasDay

| | | | |
|----------------|--|----------|--|
| Namespace | http://gaslab.zib.de/kwpt/measured | | |
| Diagram | | | |
| Type | extension of gasDayType | | |
| Type hierarchy | <ul style="list-style-type: none">gasDayType | | |
| Properties | content: | complex | |
| Used by | Element | measured | |
| Model | boundaryNode* | | |
| Children | boundaryNode | | |
| Instance | <pre><gasDay date="" gasDayLengthInHours="" gasDayStartHourInUTC="" xmlns="http://gaslab.zib.de/kwpt/measured"> <boundaryNode id="">{0,unbounded}</boundaryNode> </gasDay></pre> | | |

| | | | | |
|------------|---|--|------------|--|
| Attributes | QName | Type | Use | |
| | date | xsd:date | required | |
| | | The date of the gas day. | | |
| | gasDayLengthInHours | gasDayLengthInHoursType | required | |
| | | The length of the gas day. Usually this will be 24 hours. But due to daylight saving it could be 23 or 25 hours. | | |
| | gasDayStartHourInUTC | gasDayStartHourInUtcType | required | |
| | The hour in UTC time when the gas day begins. In winter time it's 5 o'clock and during daylight saving 4 o'clock. | | | |
| Source | <pre><xs:element name="gasDay"> <xs:complexType> <xs:annotation> <xs:documentation>A list of boundary nodes with measured values.</xs:documentation> </xs:annotation> <xs:complexContent> <xs:extension base="framework:gasDayType"> <xs:sequence> <xs:element ref="boundaryNode" minOccurs="0" maxOccurs="unbounded"/> </xs:sequence> </xs:extension> </xs:complexContent> </xs:complexType> </xs:element></pre> | | | |

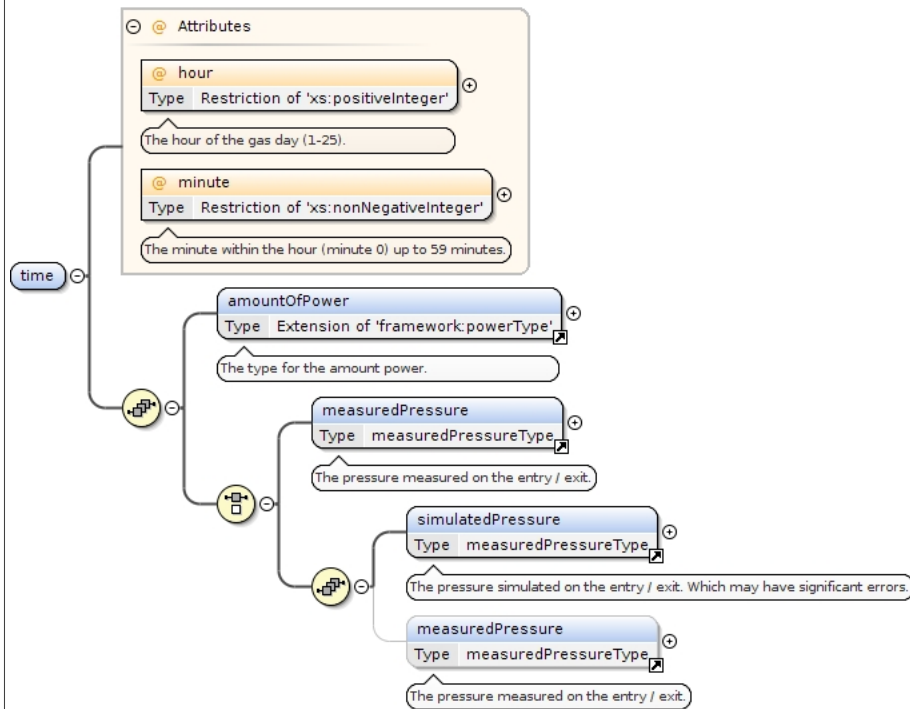
Element boundaryNode

| | | | | |
|-------------|--|---------------------|----------|--|
| Namespace | http://gaslab.zib.de/kwpt/measured | | | |
| Annotations | Measured data for a single boundary node. | | | |
| Diagram | | | | |
| Properties | content: | complex | | |
| Used by | Element | gasDay | | |
| Model | time+ | | | |
| Children | time | | | |
| Instance | <pre><boundaryNode id=" " xmlns="http://gaslab.zib.de/kwpt/measured"> <time hour=" " minute=" ">{1,unbounded}</time> </boundaryNode></pre> | | | |
| Attributes | QName | Type | Use | |
| | id | ambiguousIdentifier | required | |
| Source | <pre><xs:element name="boundaryNode"> <xs:annotation> <xs:documentation>Measured data for a single boundary node.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="time" maxOccurs="unbounded"/> </xs:sequence> <xs:attribute name="id" type="framework:ambiguousIdentifier" use="required"/> </xs:complexType> </xs:element></pre> | | | |

Element time

| | |
|-----------|------------------------------------|
| Namespace | http://gaslab.zib.de/kwpt/measured |
|-----------|------------------------------------|

Diagram



| | | |
|------------|--|--------------|
| Properties | content: | complex |
| Used by | Element | boundaryNode |
| Model | amountOfPower , (measuredPressure (simulatedPressure , measuredPressure{0,1})) | |
| Children | amountOfPower, measuredPressure, simulatedPressure | |

Instance

```

<time hour="" minute="" xmlns="http://gaslab.zib.de/kwpt/measured">
  <amountOfPower dataProcessingInformation="" unit="" value="">{1,1}</amountOfPower>
  <measuredPressure dataProcessingInformation="" unit="" value="">{1,1}</measuredPressure>
  <simulatedPressure dataProcessingInformation="" unit="" value="">{1,1}</simulatedPressure>
  <measuredPressure dataProcessingInformation="" unit="" value="">{0,1}</measuredPressure>
</time>

```

| Attributes | QName | Type | Use | |
|------------|---------------|---|----------|--|
| | hour | restriction of xs:positiveInteger | required | |
| | | The hour of the gas day (1-25). | | |
| | minute | restriction of xs:nonNegativeInteger | required | |
| | | The minute within the hour (minute 0) up to 59 minutes. | | |

Source

```

<xs:element name="time">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="amountOfPower" />
      <xs:choice>
        <xs:element ref="measuredPressure" />
        <xs:sequence>
          <xs:element ref="simulatedPressure" />
          <xs:element ref="measuredPressure" minOccurs="0" />
        </xs:sequence>
      </xs:choice>
    </xs:sequence>
  </xs:complexType>
  <xs:attribute name="hour" use="required">
    <xs:annotation>
      <xs:documentation>The hour of the gas day (1-25).</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:positiveInteger">
        <xs:maxInclusive value="25" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="minute" use="required">
    <xs:annotation>
      <xs:documentation>The minute within the hour (minute 0) up to 59 minutes.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:element>

```

```

<xs:simpleType>
  <xs:restriction base="xs:nonNegativeInteger">
    <xs:maxInclusive value="59"/>
  </xs:restriction>
</xs:simpleType>
</xs:attribute>
</xs:complexType>
</xs:element>

```

Element amountOfPower

| Namespace | http://gaslab.zib.de/kwpt/measured | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|----------|------|-----|--|---------------------------|--------------------------|----------|--|--|--|--|--|------|-----------|----------|--|--|----------------------------|--|--|-------|------------|----------|--|--|------------|--|--|
| Annotations | The type for the amount power. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | extension of powerType | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type hierarchy | <ul style="list-style-type: none">unitType<ul style="list-style-type: none">powerType | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Properties | content: | complex | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Used by | Element | time | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attributes | <table><thead><tr><th>QName</th><th>Type</th><th>Use</th><th></th></tr></thead><tbody><tr><td>dataProcessingInformation</td><td>processedInformationType</td><td>optional</td><td></td></tr><tr><td></td><td colspan="3">This type supports additional information to the amount of power. This may be useful to assign processing information to the data.</td></tr><tr><td>unit</td><td>powerUnit</td><td>required</td><td></td></tr><tr><td></td><td colspan="3">A power unit (no default).</td></tr><tr><td>value</td><td>xsd:double</td><td>required</td><td></td></tr><tr><td></td><td colspan="3">The value.</td></tr></tbody></table> | QName | Type | Use | | dataProcessingInformation | processedInformationType | optional | | | This type supports additional information to the amount of power. This may be useful to assign processing information to the data. | | | unit | powerUnit | required | | | A power unit (no default). | | | value | xsd:double | required | | | The value. | | |
| QName | Type | Use | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| dataProcessingInformation | processedInformationType | optional | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | This type supports additional information to the amount of power. This may be useful to assign processing information to the data. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| unit | powerUnit | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A power unit (no default). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| value | xsd:double | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | The value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Source | <pre><xs:element name="amountOfPower"> <xs:annotation> <xs:documentation>The type for the amount power.</xs:documentation> </xs:annotation> <xs:complexType> <xs:complexContent> <xs:extension base="framework:powerType"> <xs:attribute name="dataProcessingInformation" type="prog:processedInformationType"> <xs:annotation> <xs:documentation>This type supports additional information to the amount of power. This may be useful to assign processing information to the data.</xs:documentation> </xs:annotation> </xs:attribute> </xs:extension> </xs:complexContent> </xs:complexType> </xs:element></pre> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Element measuredPressure

| Namespace | http://gaslab.zib.de/kwpt/measured | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|----------|------|-----|--|---------------------------|--------------------------|----------|--|--|---|--|--|------|--------------|----------|--|--|-------------------------------|--|--|-------|------------|----------|--|--|------------|--|--|
| Annotations | The pressure measured on the entry / exit. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | measuredPressureType | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type hierarchy | <ul style="list-style-type: none">unitType<ul style="list-style-type: none">pressureType<ul style="list-style-type: none">measuredPressureType | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Properties | content: | complex | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Used by | Element | time | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attributes | <table><thead><tr><th>QName</th><th>Type</th><th>Use</th><th></th></tr></thead><tbody><tr><td>dataProcessingInformation</td><td>processedInformationType</td><td>optional</td><td></td></tr><tr><td></td><td colspan="3">Any processing information can be stored.</td></tr><tr><td>unit</td><td>pressureUnit</td><td>required</td><td></td></tr><tr><td></td><td colspan="3">A pressure unit (no default).</td></tr><tr><td>value</td><td>xsd:double</td><td>required</td><td></td></tr><tr><td></td><td colspan="3">The value.</td></tr></tbody></table> | QName | Type | Use | | dataProcessingInformation | processedInformationType | optional | | | Any processing information can be stored. | | | unit | pressureUnit | required | | | A pressure unit (no default). | | | value | xsd:double | required | | | The value. | | |
| QName | Type | Use | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| dataProcessingInformation | processedInformationType | optional | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Any processing information can be stored. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| unit | pressureUnit | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A pressure unit (no default). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| value | xsd:double | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | The value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Source | <pre><xs:element name="measuredPressure" type="measuredPressureType"> <xs:annotation> <xs:documentation>The pressure measured on the entry / exit.</xs:documentation> </xs:annotation> </xs:element></pre> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Element simulatedPressure

| | |
|-------------|--|
| Namespace | http://gaslab.zib.de/kwpt/measured |
| Annotations | The pressure simulated on the entry / exit. Which may have significant errors. |

| Diagram | <p>The diagram illustrates the structure of the <code>measuredPressureType</code>. It is a complex type that extends <code>framework:pressureType</code>, which in turn extends <code>framework:unitType</code>. The <code>unitType</code> has an attribute <code>unit</code> of type <code>pressureUnit</code>. The <code>pressureType</code> has an attribute <code>value</code> of type <code>xsd:double</code>. The <code>measuredPressureType</code> has an attribute <code>dataProcessingInformation</code> of type <code>prog:processedInformationType</code>. A <code>simulatedPressure</code> element is shown using the <code>measuredPressureType</code>.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------|------|-----|--|--|---------------------------------------|----------|--|--|---|--|--|-------------------|---------------------------|----------|--|--|-------------------------------|--|--|--------------------|-------------------------|----------|--|--|------------|--|--|
| Type | <code>measuredPressureType</code> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type hierarchy | <ul style="list-style-type: none">• <code>unitType</code><ul style="list-style-type: none">• <code>pressureType</code><ul style="list-style-type: none">• <code>measuredPressureType</code> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Properties | content: complex | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Used by | Element time | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attributes | <table><thead><tr><th>QName</th><th>Type</th><th>Use</th><th></th></tr></thead><tbody><tr><td><code>dataProcessingInformation</code></td><td><code>processedInformationType</code></td><td>optional</td><td></td></tr><tr><td></td><td colspan="3">Any processing information can be stored.</td></tr><tr><td><code>unit</code></td><td><code>pressureUnit</code></td><td>required</td><td></td></tr><tr><td></td><td colspan="3">A pressure unit (no default).</td></tr><tr><td><code>value</code></td><td><code>xsd:double</code></td><td>required</td><td></td></tr><tr><td></td><td colspan="3">The value.</td></tr></tbody></table> | QName | Type | Use | | <code>dataProcessingInformation</code> | <code>processedInformationType</code> | optional | | | Any processing information can be stored. | | | <code>unit</code> | <code>pressureUnit</code> | required | | | A pressure unit (no default). | | | <code>value</code> | <code>xsd:double</code> | required | | | The value. | | |
| QName | Type | Use | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <code>dataProcessingInformation</code> | <code>processedInformationType</code> | optional | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Any processing information can be stored. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <code>unit</code> | <code>pressureUnit</code> | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A pressure unit (no default). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <code>value</code> | <code>xsd:double</code> | required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | The value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Source | <pre><xs:element name="simulatedPressure" type="measuredPressureType"> <xs:annotation> <xs:documentation>The pressure simulated on the entry / exit. Which may have significant errors.</xs:documentation> </xs:annotation> </xs:element></pre> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Complex Type(s)

Complex Type `measuredPressureType`

| | |
|-------------|---|
| Namespace | <code>http://gaslab.zib.de/kwpt/measured</code> |
| Annotations | This type supports additional information to the pressure. This may be useful to assign processing information to the data. |

| | | | | |
|----------------|--|---|----------|--|
| Diagram | | | | |
| Type | extension of pressureType | | | |
| Type hierarchy | <ul style="list-style-type: none">• unitType<ul style="list-style-type: none">• pressureType<ul style="list-style-type: none">• measuredPressureType | | | |
| Used by | Elements measuredPressure, simulatedPressure | | | |
| Attributes | QName | Type | Use | |
| | dataProcessingInformation | processedInformationType | optional | |
| | | Any processing information can be stored. | | |
| | unit | pressureUnit | required | |
| | | A pressure unit (no default). | | |
| | value | xsd:double | required | |
| | The value. | | | |
| Source | <pre><xs:complexType name="measuredPressureType"> <xs:annotation> <xs:documentation>This type supports additional information to the pressure. This may be useful to assign processing information to the data.</xs:documentation> </xs:annotation> <xs:complexContent> <xs:extension base="framework:pressureType"> <xs:attribute name="dataProcessingInformation" type="prog:processedInformationType"> <xs:annotation> <xs:documentation>Any processing information can be stored.</xs:documentation> </xs:annotation> </xs:attribute> </xs:extension> </xs:complexContent> </xs:complexType></pre> | | | |

Namespace: ""

Attribute(s)

Attribute amountOfPower / @dataProcessingInformation

| | |
|-------------|--|
| Namespace | No namespace |
| Annotations | This type supports additional information to the amount of power. This may be useful to assign processing information to the data. |
| Type | processedInformationType |

| | | |
|------------|--|---------------|
| Properties | content: | simple |
| Facets | maxLength | 1024 |
| Used by | Element | amountOfPower |
| Source | <pre><xs:attribute name="dataProcessingInformation" type="prog:processedInformationType"> <xs:annotation> <xs:documentation>This type supports additional information to the amount of power. This may be useful to assign processing information to the data.</xs:documentation> </xs:annotation> </xs:attribute></pre> | |

Attribute measuredPressureType / @dataProcessingInformation

| | | |
|-------------|---|----------------------|
| Namespace | No namespace | |
| Annotations | Any processing information can be stored. | |
| Type | processedInformationType | |
| Properties | content: | simple |
| Facets | maxLength | 1024 |
| Used by | Complex Type | measuredPressureType |
| Source | <pre><xs:attribute name="dataProcessingInformation" type="prog:processedInformationType"> <xs:annotation> <xs:documentation>Any processing information can be stored.</xs:documentation> </xs:annotation> </xs:attribute></pre> | |

Attribute time / @hour

| | | |
|-------------|--|----------|
| Namespace | No namespace | |
| Annotations | The hour of the gas day (1-25). | |
| Type | restriction of xs:positiveInteger | |
| Properties | use: | required |
| Facets | maxInclusive | 25 |
| Used by | Element | time |
| Source | <pre><xs:attribute name="hour" use="required"> <xs:annotation> <xs:documentation>The hour of the gas day (1-25).</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:positiveInteger"> <xs:maxInclusive value="25"/> </xs:restriction> </xs:simpleType> </xs:attribute></pre> | |

Attribute time / @minute

| | | |
|-------------|---|----------|
| Namespace | No namespace | |
| Annotations | The minute within the hour (minute 0) up to 59 minutes. | |
| Type | restriction of xs:nonNegativeInteger | |
| Properties | use: | required |
| Facets | maxInclusive | 59 |
| Used by | Element | time |
| Source | <pre><xs:attribute name="minute" use="required"> <xs:annotation> <xs:documentation>The minute within the hour (minute 0) up to 59 minutes.</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:nonNegativeInteger"> <xs:maxInclusive value="59"/> </xs:restriction> </xs:simpleType> </xs:attribute></pre> | |

`</xs:attribute>`

Attribute `boundaryNode` / `@id`

| | | |
|------------|--|--------------------------|
| Namespace | No namespace | |
| Type | ambiguousIdentifier | |
| Properties | use: | required |
| Facets | minLength | 1 |
| | maxLength | 22 |
| | pattern | [a-zA-Z]{1}[a-zA-Z0-9_]* |
| Used by | Element | boundaryNode |
| Source | <code><xs:attribute name="id" type="framework:ambiguousIdentifier" use="required"/></code> | |