



## STH-COMET DOCUMENTATION

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- **retrieve aggregated values**
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## raw values

### retrieve raw values

#### retrieve raw values with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```

**Definition:** Method to retrieve all changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-limit: Entries number for each page.
- fiware-offset: the offset to apply to the requested search of raw context information.

**Return:** From all registered changes of the attribute will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

#### retrieve raw values with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve all changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved the changes of the attribute. Currently, the only supported value is "csv".

**Return:** Setting file with the number of changes of the attribute specified in “fiware-limit” and from all changes registered, certain changes are chosen depending on the value of “fiware-offset”.

---

### retrieve n raw values

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?lastN={{fiware-lastN}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-lastN: Entries number will be returned

**Return:**

The last “n” changes of the attribute.

---

### retrieve n raw values with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-lastN: Entries number will be returned.

**Return:** From last “n” registered changes of the attribute will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

---

### Retrieve n raw values with filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?lastN={{fiware-lastN}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-lastN: Entries number will be returned.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value is “csv”.

**Return:** Setting file with the last “n” registered changes of the attribute.

---

### Retrieve n raw values with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-limit: Entries number for each page.

- fiware-offset: Entries offset number.
- fiware-lastN: Entries number will be returned.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value is "csv".

**Return:** Setting file with the number of changes of the attribute specified in "fiware-limit" and from the last "n" changes registered certain changes are chosen depending on the value of "fiware-offset".

---

## retrieve raw values between two dates

### retrieve raw values between two dates with pagination.

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```

**Definition:** Method to retrieve all changes of an attribute between two dates

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.

**Return:** From all registered changes of the attribute between the two specified dates will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

---

## retrieve raw value between two dates with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve all changes of an attribute between two dates.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is "csv".

**Return:** Setting file with the number of changes of the attribute specified in "fiware-limit" and from all changes registered between the two specified dates, certain changes are chosen depending on the value of "fiware-offset".

---

### retrieve n raw values between two dates

`http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}`

**Definition:** Method to retrieve the last "n" changes of an attribute between two dates.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned.

**Return:** The last "n" registered changes of the attribute between the two specified dates.

---

## retrieve n raw values between two dates with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute between two dates.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.

**Return:** From the last “n” registered changes of the attribute between the two specified dates will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

---

## retrieve n raw values between two dates with filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute between two dates.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.

- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is “csv”.

**Return:** Setting file with the last “n” registered changes of the attribute between the two specified dates.

---

### retrieve n raw values between two dates with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve the last “n” changes of an attribute between two dates.

**Method:** GET

#### Parameters:

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is “csv”.

**Return:** Setting file with the number of changes of the attribute specified in “fiware-limit” and from the last “n” changes registered between the two specified dates, certain changes are chosen depending on the value of “fiware-offset”.

---

### retrieve raw values after a date

#### retrieve raw values after a date with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```



**Definition:** Method to retrieve all changes of an attribute after a date

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.

**Return:** From all registered changes of the attribute after the specified date will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

---

### retrieve raw values after date with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve all changes of an attribute after a date

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is "csv".

**Return:** Setting file with the number of changes of the attribute specified in "fiware-limit" and from all changes registered after the specified date, certain changes are chosen depending on the value of "fiware-offset".

---

### retrieve n raw values after date

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&lastN={{fiware-lastN}}
```

**Definition:** Method to retrieve the last “n” of an attribute after a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-lastN: Entries number will be returned.

**Return:** The last “n” registered changes of the attribute and after the specified date.

---

### retrieve n raw values after date with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&lastN={{fiware-lastN}}
```

**Definition:** Method to retrieve the last “n” of an attribute after a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-lastN: Entries number will be returned.

**Return:** From the last “n” registered changes of the attribute after the specified date will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes

---

### retrieve n raw values after date with filetype

`http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}`

**Definition:** Method to retrieve the last “n” of an attribute after a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-lastN: Entries number will be returned.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is “csv”.

**Return:** Setting file with the last “n” registered changes of the attribute after the specified date.

### retrieve n raw values after date with pagination and filetype

`http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateFrom={{fiware-dateFrom}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}`

**Definition:** Method to retrieve the last “n” of an attribute after a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateFrom: The starting date and time from which the raw context information is desired.
- fiware-lastN: Entries number will be returned.

**Return:** Setting file with the number of changes of the attribute specified in “fiware-limit” and from the last “n” changes registered after the specified date, certain changes are chosen depending on the value of “fiware-offset”.

---

## retrieve raw values before a date

### retrieve n raw values before date with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve the last “n” registered changes before a date

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is “csv”.

**Return:** Setting file with the number of changes of the attribute specified in “fiware-limit” and from the last “n” changes registered before the specified date, certain changes are chosen depending on the value of “fiware-offset”.

---

### retrieve n raw values before date with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&lastN={{fiware-lastN}}
```

**Definition:** Method to retrieve the last “n” registered changes before a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.

- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired
- fiware-lastN: Entries number will be returned.
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.

**Return:** From the last “n” registered changes of the attribute before the specified date will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes

### retrieve n raw values before date with filetype

`http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}&filetype={{fiware-filetype}}`

**Definition:** Method to retrieve the last “n” registered changes before a date.

**Method:** GET

#### Parameters:

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired
- fiware-lastN: Entries number will be returned.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is “csv”.

**Return:** Setting file with the last “n” registered changes of the attribute before the specified date.

### retrieve n raw values before date

`http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&lastN={{fiware-lastN}}`

**Defintion:** Method to retrieve the last “n” registered changes before a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired.
- fiware-lastN: Entries number will be returned

**Return:** The last “n” changes of the attribute before the specified date.

---

### retrieve raw values before date with pagination

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}
```

**Definition:** Method to retrieve all registered changes before a date.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.

**Return:** From all registered changes of the attribute before the specified date will choose the number of changes specified in "fiware-limit" and depending on the value of "fiware-offset" will return certain changes.

---

### retrieve raw values before date with pagination and filetype

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?dateTo={{fiware-dateTo}}&hLimit={{fiware-limit}}&hOffset={{fiware-offset}}&filetype={{fiware-filetype}}
```

**Definition:** Method to retrieve all registered changes before a date of an attribute.

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-dateTo: The final date and time until which the raw context information is desired
- fiware-limit: Entries number for each page.
- fiware-offset: Entries offset number.
- fiware-filetype: file format will be saved all changes of the attribute. Currently, the only supported value and file type is "csv".

**Return:** Setting file with the number of changes of the attribute specified in "fiware-limit" and from all changes registered before the specified date, certain changes are chosen depending on the value of "fiware-offset".

---

## aggregated values

### retrieve aggregated values

#### retrieve aggregated values

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?aggrMethod={{fiware-method}}&aggrPeriod={{fiware-period}}
```

**Definition:** Method to retrieve aggregated value of an attribute based on "fiware-method" with a resolution defined in "fiware-period".

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-method: The aggregation method. The STH component supports the following aggregation methods: **max** (maximum value), **min** (minimum value), **sum** (sum of all the samples) and **sum2** (sum of the square value of all the samples) for numeric attribute values and **occur** for attributes values of type string. Combining the information provided by these aggregated methods with the number of samples, it is possible to calculate probabilistic values such as the average value, the variance as well as the standard deviation.
- fiware-period: Aggregation period or resolution. A fixed resolution determines the origin time format and the possible offsets. The STH component supports the following aggregation periods: **month**, **day**, **hour**, **minute** and **second**.

**Return:** If the type is String then returns the number of samples and for each value that

has been registered the number of times it appears in the samples.  
If the type is numerical then returns the number of samples of the attribute and depending on the value of "fiware-method" will calculated a value from all samples.

---

### retrieve aggregate values between two dates

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?aggrMethod={{fiware-method}}&aggrPeriod={{fiware-period}}&dateFrom={{fiware-dateFrom}}&dateTo={{fiware-dateTo}}
```

**Definition:** Method to retrieve aggregated value of an attribute between two dates based on "fiware-method" with a resolution defined in "fiware-period".

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-method: The aggregation method. The STH component supports the following aggregation methods: **max** (maximum value), **min** (minimum value), **sum** (sum of all the samples) and **sum2** (sum of the square value of all the samples) for numeric attribute values and **occur** for attributes values of type string. Combining the information provided by these aggregated methods with the number of samples, it is possible to calculate probabilistic values such as the average value, the variance as well as the standard deviation.
- fiware-period: Aggregation period or resolution. A fixed resolution determines the origin time format and the possible offsets. The STH component supports the following aggregation periods: **month**, **day**, **hour**, **minute** and **second**.
- dateFrom: The starting date and time from which the aggregated time series information is desired.
- dateTo: The final date and time until which the aggregated time series information is desired.

**Return:** If the type is String then returns the number of samples and for each value that has been registered the number of times it appears in the samples.  
If the type is numerical then returns the number of samples of the attribute and depending on the value of "fiware-method" will calculated a value from all samples.

---



### retrieve aggregate values after date

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?aggrMethod={{fiware-method}}&aggrPeriod={{fiware-period}}&dateFrom={{fiware-dateFrom}}
```

**Definition:** Method to retrieve aggregated value of an attribute before a date based on "fiware-method" with a resolution defined in "fiware-period".

**Method:** GET

**Parameters:**

- url: Link to the service will be consulted.
- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-method: The aggregation method. The STH component supports the following aggregation methods: **max** (maximum value), **min** (minimum value), **sum** (sum of all the samples) and **sum2** (sum of the square value of all the samples) for numeric attribute values and **occur** for attributes values of type string. Combining the information provided by these aggregated methods with the number of samples, it is possible to calculate probabilistic values such as the average value, the variance as well as the standard deviation.
- fiware-period: Aggregation period or resolution. A fixed resolution determines the origin time format and the possible offsets. The STH component supports the following aggregation periods: **month**, **day**, **hour**, **minute** and **second**.
- dateFrom: The starting date and time from which the aggregated time series information is desired.

**Return:** If the type is String then returns the number of samples and for each value that has been registered the number of times it appears in the samples.

If the type is numerical then returns the number of samples of the attribute and depending on the value of "fiware-method" will calculate a value from all samples

---

### retrieve aggregate values before date

```
http://{{url}}:{{port-sth}}/STH/v1/contextEntities/type/{{fiware-type}}/id/{{fiware-entity}}/attributes/{{fiware-attr}}?aggrMethod={{fiware-method}}&aggrPeriod={{fiware-period}}&dateTo={{fiware-dateTo}}
```

**Definition:** Method to retrieve aggregated value of an attribute after a date based on "fiware-method" with a resolution defined in "fiware-period"

**Parameters:**

- url: Link to the service will be consulted.

- port-sth: Port to connect with the service.
- fiware-type: Type of the entity.
- fiware-entity: ID of the entity which will be consulted in the service.
- fiware-attr: ID of the attribute which will be consulted.
- fiware-method: The aggregation method. The STH component supports the following aggregation methods: **max** (maximum value), **min** (minimum value), **sum** (sum of all the samples) and **sum2** (sum of the square value of all the samples) for numeric attribute values and **occur** for attributes values of type string. Combining the information provided by these aggregated methods with the number of samples, it is possible to calculate probabilistic values such as the average value, the variance as well as the standard deviation.
- fiware-period: Aggregation period or resolution. A fixed resolution determines the origin time format and the possible offsets. The STH component supports the following aggregation periods: **month**, **day**, **hour**, **minute** and **second**.
- dateTo: The final date and time until which the aggregated time series information is desired.

**Return:** If the type is String then returns the number of samples and for each value that has been registered the number of times it appears in the samples.

If the type is numerical then returns the number of samples of the attribute and depending on the value of "fiware-method" will calculate a value from all samples