

Design

Contents

- [OSDesign](#)

`class openstaadpy.os_analytical.osdesign.OSDesign`

[\[source\]](#)

Bases: [object](#)

`AssignDesignCommand(design_ref_id: int, design_command_name: str, design_command_value: str, member_ids: List[int])`

[\[source\]](#)

Assign a design command to specified members in a design brief.

Parameters:

- `design_ref_id` (`int`) – Design brief reference ID.
- `design_command_name` (`str`) – Name of the design command.
- `design_command_value` (`str`) – Value for the design command.
- `member_ids` (`list of int`) – List of member numbers.

Returns:

0 if successful, -1 otherwise.

Return type:

`int`

Examples

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> ref_id = staad_obj.Design.CreateDesignBrief(1001)
>>> result = staad_obj.Design.AssignDesignCommand(ref_id, "CHECK CODE",
```

AssignDesignGroup(*design_ref_id*: int, *design_group_name*: str, *design_group_value*: str, *same_as_member*: int, *member_ids*: list / int) [\[source\]](#)

Assign physical members to a design group using a design command.

Parameters:

- **design_ref_id** (int) – Design brief reference ID.
- **design_group_name** (str) – Name of the design group.
- **design_group_value** (str) – Value for the design group.
- **same_as_member** (int) – Reference member for the group.
- **member_ids** (list of int) – List of member numbers.

Returns:

0 if successful, -1 otherwise.

Return type:

int

Examples

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> ref_id = staad_obj.Design.CreateDesignBrief(1001)
>>> result = staad_obj.Design.AssignDesignGroup(ref_id, "scSteelGroup",
```

AssignDesignParameter(*design_ref_id*: int, *design_param*: str, *design_param_value*: str, *member_ids*: list / int) [\[source\]](#)

Assign design parameters to a specified design brief.

Parameters:

- **design_ref_id** (int) – Design brief reference ID.
- **design_param** (str) – Name of the design parameter.
- **design_param_value** (str) – Value for the design parameter.
- **member_ids** (list of int or int) – List of member numbers.

Returns:

0 if successful, -1 otherwise.

Return type:

int

Examples

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> ref_id = staad_obj.Design.CreateDesignBrief(1001)
>>> result = staad_obj.Design.AssignDesignParameter(ref_id, "BEAM", "1")
```

CreateDesignBrief(*design_code*: int)

[\[source\]](#)

Create a new design brief with the specified design code.

Parameters:

design_code (*int*) – Design code index.

Returns:

Reference ID of the created design brief.

Return type:

int

Example

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> ref_id = staad_obj.Design.CreateDesignBrief(1001)
```

GetDesignBriefCode(*design_ref_id*: int)

[\[source\]](#)

Get the design code for a specified design brief.

Parameters:

design_ref_id (*int*) – Design brief reference ID.

Returns:

Design code.

Return type:

int

Examples

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> ref_id = staad_obj.Design.CreateDesignBrief(1001)
>>> result = staad_obj.Design.GetDesignBriefCode(ref_id)
```

GetMemberDesignParameters(*design_ref_id*: int, *member_no*: int)

Get the design parameters for a specified member in a design brief. [\[source\]](#)

Parameters:

- ***design_ref_id*** (int) – Design brief reference ID.
- ***member_no*** (int) – Member number.

Returns:

Dictionary containing:

***status* : int**

Return code from COM (0 success, -1 failure or other).

***count* : int | None**

Number of parameters available for the member (from COM object's Count property) or None.

***_raw* : COM object**

Original COM object (StaadPro.MembSteelDgnParams).

***parameters* : dict[str, list]**

Mapping of parameter name -> [value, unit, description, default]. If any component is unavailable it is set to None. Parameter names are returned exactly as provided by COM.

Return type:

dict

Examples

```
>>> from openstaadpy import os_analytical
>>> staad_obj = os_analytical.connect()
>>> brief_id = 1
>>> params = staad_obj.Design.GetMemberDesignParameters(brief_id, 1)
```

[__init__\(staadObj\)](#)

[\[source\]](#)