

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)`

[\[source\]](#)