

# Namespace YW.SERVICE.PC\_COMPONENT

## Interfaces

### [IColumnChanger](#)

Column 변경을 위한 기능들

### [IColumnGetter](#)

### [IComponentGetter](#)

### [IComponentSetter](#)

### [IGirderChanger](#)

Girder 변경을 위한 기능들

### [IGirderGetter](#)

### [ISlabChanger](#)

Slab 변경을 위한 기능들

### [ISlabGetter](#)

## Enums

### [Topic](#)

# Interface IColumnChanger

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

Column 변경을 위한 기능들

```
public interface IColumnChanger : IService<IColumnChanger>, IServiceMarker
```

## Inherited Members

[IService<IColumnChanger>.WithOptions\(CallOptions\)](#) ,  
[IService<IColumnChanger>.WithHeaders\(Metadata\)](#) ,  
[IService<IColumnChanger>.WithDeadline\(DateTime\)](#) ,  
[IService<IColumnChanger>.WithCancellationToken\(CancellationToken\)](#) ,  
[IService<IColumnChanger>.WithHost\(string\)](#)

## Methods

### Add\_anchor(CuboidDirection, Vector2)

```
UnaryResult Add_anchor(CuboidDirection direction, Vector2 pos)
```

## Parameters

**direction** CuboidDirection

**pos** Vector2


## Returns

UnaryResult

### Add\_bracket\_chin(Guid, PositionOnRect, PositionOnRect)

```
UnaryResult Add_bracket_chin(Guid bracket_id, PositionOnRect start, PositionOnRect end)
```

## Parameters

**bracket\_id** [Guid](#)

**start** PositionOnRect

**end** PositionOnRect

## Returns

UnaryResult

## Add\_connection\_rebar(PositionOnRect)

UnaryResult **Add\_connection\_rebar**(PositionOnRect line\_base)

## Parameters

**line\_base** PositionOnRect

## Returns

UnaryResult

## Add\_cross\_tie(Vector2, Vector2)

UnaryResult **Add\_cross\_tie**(Vector2 start, Vector2 end)

## Parameters

**start** Vector2

**end** Vector2

## Returns

UnaryResult

## Add\_insert(CuboidDirection, Vector2)

UnaryResult **Add\_insert**(CuboidDirection direction, Vector2 pos)

### Parameters

**direction** CuboidDirection

**pos** Vector2

### Returns

UnaryResult

## Add\_main\_rebar(PositionOnRect)

UnaryResult **Add\_main\_rebar**(PositionOnRect line\_base)

### Parameters

**line\_base** PositionOnRect

### Returns

UnaryResult

## Change\_bracket(Guid, RectangularDirection?, double?)

UnaryResult **Change\_bracket**(Guid bracket\_id, RectangularDirection? placement = **null**, double? offset = **null**)

### Parameters

**bracket\_id** [Guid](#)

**placement** RectangularDirection?

offset [double](#)?

Returns

UnaryResult

## Change\_bracket\_chin(Guid, PositionOnRect?, PositionOnRect?)

```
UnaryResult Change_bracket_chin(Guid chin_id, PositionOnRect? start = null, PositionOnRect?  
end = null)
```

Parameters

chin\_id [Guid](#)

start PositionOnRect

end PositionOnRect

Returns

UnaryResult

## Change\_bracket\_chin\_body\_mass(Guid, double?, double?, double?)

```
UnaryResult Change_bracket_chin_body_mass(Guid chin_id, double? add_upper_length = null,  
double? add_under_length = null, double? height = null)
```

Parameters

chin\_id [Guid](#)

add\_upper\_length [double](#)?

add\_under\_length [double](#)?

height [double](#)?

## Returns

UnaryResult

## Change\_bracket\_chin\_rebar(Guid, double?, Rebar?, Rebar?)

```
UnaryResult Change_bracket_chin_rebar(Guid chin_id, double? spacing = null, Rebar? top_spec = null, Rebar? middle_spec = null)
```

## Parameters

chin\_id [Guid](#)

spacing [double](#)?

top\_spec Rebar

middle\_spec Rebar

## Returns

UnaryResult

## Change\_bracket\_chin\_stirrup\_area(Guid, Guid, IEnumerable<double>?)

```
UnaryResult Change_bracket_chin_stirrup_area(Guid chin_id, Guid stirrup_area_id, IEnumerable<double>? spacings = null)
```

## Parameters

chin\_id [Guid](#)

stirrup\_area\_id [Guid](#)

spacings [IEnumerable](#) <[double](#)>

## Returns

UnaryResult

## Change\_bracket\_chin\_stirrup\_group(Guid, Rebar?, double?, double?)

```
UnaryResult Change_bracket_chin_stirrup_group(Guid chin_id, Rebar? spec = null, double? out_edge = null, double? in_edge = null)
```

### Parameters

chin\_id [Guid](#)

spec Rebar

out\_edge [double](#)?

in\_edge [double](#)?

### Returns

UnaryResult

## Change\_bracket\_concrete(Guid, double?, double?, double?)

```
UnaryResult Change_bracket_concrete(Guid bracket_id, double? thickness = null, double? inside_length = null, double? outside_length = null)
```

### Parameters

bracket\_id [Guid](#)

thickness [double](#)?

inside\_length [double](#)?

outside\_length [double](#)?

### Returns

UnaryResult

Change\_bracket\_front\_back\_main(Guid,  
IEnumerable<double>?, bool?, double?, double?, Rebar?,  
Rebar?, Rebar?)

```
UnaryResult Change_bracket_front_back_main(Guid bracket_id, IEnumerable<double>? spacings =  
null, bool? is_sole = null, double? left_extension = null, double? right_extension = null,  
Rebar? base_spec = null, Rebar? top_spec = null, Rebar? sub_spec = null)
```

## Parameters

bracket\_id [Guid](#)

spacings [IEnumerable](#) <[double](#)>

is\_sole [bool](#)?

left\_extension [double](#)?

right\_extension [double](#)?

base\_spec Rebar

top\_spec Rebar

sub\_spec Rebar

## Returns

UnaryResult

Change\_bracket\_left\_right(Guid, IEnumerable<double>?,  
bool?, double?, double?, Rebar?, Rebar?, Rebar?)

```
UnaryResult Change_bracket_left_right(Guid bracket_id, IEnumerable<double>? spacings = null,  
bool? is_sole = null, double? left_extension = null, double? right_extension = null, Rebar?  
base_spec = null, Rebar? top_spec = null, Rebar? sub_spec = null)
```



## Parameters

bracket\_id [Guid](#)

spacings [IEnumerable](#) <[double](#)>

is\_sole [bool](#)?

left\_extension [double](#)?

right\_extension [double](#)?

base\_spec Rebar

top\_spec Rebar

sub\_spec Rebar

## Returns

UnaryResult

Change\_bracket\_stirrup(Guid, RectangularCorner?, Rebar?, double?, double?, double?, double?, double?)

```
UnaryResult Change_bracket_stirrup(Guid bracket_id, RectangularCorner? opening = null,
Rebar? spec = null, double? covering_thickness = null, double? start_angle = null, double?
start_length = null, double? end_angle = null, double? end_length = null)
```

## Parameters

bracket\_id [Guid](#)

opening RectangularCorner?

spec Rebar

covering\_thickness [double](#)?

start\_angle [double](#)?

start\_length [double](#)?

end\_angle [double](#)?

end\_length [double](#)?

Returns

UnaryResult

## Change\_bracket\_stirrup\_area(Guid, int?, double?, double?)

```
UnaryResult Change_bracket_stirrup_area(Guid bracket_id, int? count = null, double?  
start_padding = null, double? end_padding = null)
```

Parameters

bracket\_id [Guid](#)

count [int](#)?

start\_padding [double](#)?

end\_padding [double](#)?

Returns

UnaryResult

## Change\_column\_size(double?, double?, double?, double?)

```
UnaryResult Change_column_size(double? width = null, double? depth = null, double? height =  
null, double? chamfer = null)
```

Parameters

width [double](#)?

depth [double](#)?

height [double](#)?

chamfer [double](#)?

Returns

UnaryResult

## Change\_concrete\_hardware\_spec(LiftingAnchor?, Insert?)

```
UnaryResult Change_concrete_hardware_spec(LiftingAnchor? anchor = null, Insert? insert = null)
```

Parameters

**anchor** LiftingAnchor

**insert** Insert

Returns

UnaryResult

## Change\_connection\_rebar(double?, Rebar?)

```
UnaryResult Change_connection_rebar(double? upper_length = null, Rebar? spec = null)
```

Parameters

**upper\_length** [double](#)?

**spec** Rebar

Returns

UnaryResult

## Change\_connection\_rebar\_guide(double?, double?, double?, double?)

```
UnaryResult Change_connection_rebar_guide(double? width = null, double? height = null, double? x = null, double? y = null)
```

### Parameters

**width** [double](#)?

**height** [double](#)?

**x** [double](#)?

**y** [double](#)?

### Returns

UnaryResult

## Change\_connection\_rebar\_position\_on\_rect(PositionOnRect, RectangularDirection?, double?)

```
UnaryResult Change_connection_rebar_position_on_rect(PositionOnRect origin_line_base, RectangularDirection? line_base = null, double? distance_from_center = null)
```

### Parameters

**origin\_line\_base** PositionOnRect

**line\_base** RectangularDirection?

**distance\_from\_center** [double](#)?

### Returns

UnaryResult

## Change\_main\_rebar(Guid, RectangularDirection?, double?, double?, double?, bool?, bool?)

```
UnaryResult Change_main_rebar(Guid id, RectangularDirection? line_base = null, double? distance_from_center = null, double? top_extension = null, double? bottom_extension = null, bool? has_sleeve = null, bool? has_terminator = null)
```

### Parameters

**id** [Guid](#)

**line\_base** RectangularDirection?

**distance\_from\_center** [double](#)?

**top\_extension** [double](#)?

**bottom\_extension** [double](#)?

**has\_sleeve** [bool](#)?

**has\_terminator** [bool](#)?

### Returns

UnaryResult

## Change\_main\_rebar\_group(double?, Rebar?, Sleeve?, Terminator?)

```
UnaryResult Change_main_rebar_group(double? edge = null, Rebar? rebar = null, Sleeve? sleeve = null, Terminator? terminator = null)
```

### Parameters

**edge** [double](#)?

**rebar** Rebar

**sleeve** Sleeve

**terminator** Terminator

## Returns

UnaryResult

## Change\_stirrup\_arrangement(double?, double?, double?, int?)

```
UnaryResult Change_stirrup_arrangement(double? top_spacing = null, double? mid_spacing = null, double? low_spacing = null, int? sleeve_count = null)
```

## Parameters

**top\_spacing** [double](#)?

**mid\_spacing** [double](#)?

**low\_spacing** [double](#)?

**sleeve\_count** [int](#)?

## Returns

UnaryResult

## Change\_stirrup\_cross(Guid, Vector2?, Vector2?, Rebar?, LeftRight?, double?, double?, LeftRight?, double?, double?)

```
UnaryResult Change_stirrup_cross(Guid id, Vector2? start = null, Vector2? end = null, Rebar? spec = null, LeftRight? start_direction = null, double? start_angle = null, double? start_length = null, LeftRight? end_direction = null, double? end_angle = null, double? end_length = null)
```

## Parameters

**id** [Guid](#)

**start** Vector2?

`end` Vector2?

`spec` Rebar

`start_direction` LeftRight?

`start_angle` [double](#)?

`start_length` [double](#)?

`end_direction` LeftRight?

`end_angle` [double](#)?

`end_length` [double](#)?

## Returns

UnaryResult

## Change\_stirrup\_hoop(RectangularCorner?, Rebar?, double?, double?, double?, double?)

```
UnaryResult Change_stirrup_hoop(RectangularCorner? opening = null, Rebar? spec = null,  
double? start_angle = null, double? start_length = null, double? end_angle = null, double?  
end_length = null)
```

## Parameters

`opening` RectangularCorner?

`spec` Rebar

`start_angle` [double](#)?

`start_length` [double](#)?

`end_angle` [double](#)?

`end_length` [double](#)?

## Returns

UnaryResult

## Remove\_anchor(CuboidDirection, Vector2)

UnaryResult **Remove\_anchor**(CuboidDirection direction, Vector2 pos)

### Parameters

**direction** CuboidDirection

**pos** Vector2

### Returns

UnaryResult

## Remove\_bracket\_chin(Guid)

UnaryResult **Remove\_bracket\_chin**(Guid chin\_id)

### Parameters

**chin\_id** [Guid](#)

### Returns

UnaryResult

## Remove\_connection\_rebar(PositionOnRect)

UnaryResult **Remove\_connection\_rebar**(PositionOnRect line\_base)

### Parameters

**line\_base** PositionOnRect



## Returns

UnaryResult

## Remove\_cross\_tie(Guid)

```
UnaryResult Remove_cross_tie(Guid id)
```

## Parameters

**id** [Guid](#)

## Returns

UnaryResult

## Remove\_insert(CuboidDirection, Vector2)

```
UnaryResult Remove_insert(CuboidDirection direction, Vector2 pos)
```

## Parameters

**direction** CuboidDirection

**pos** Vector2

## Returns

UnaryResult

## Remove\_main\_rebar(Guid)

```
UnaryResult Remove_main_rebar(Guid id)
```

## Parameters

## Returns

UnaryResult

# Interface IColumnGetter

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public interface IColumnGetter : IService<IColumnGetter>, IServiceMarker
```

## Inherited Members

[IService<IColumnGetter>.WithOptions\(CallOptions\)](#) ,  
[IService<IColumnGetter>.WithHeaders\(Metadata\)](#) ,  
[IService<IColumnGetter>.WithDeadline\(DateTime\)](#) ,  
[IService<IColumnGetter>.WithCancellationToken\(Cancellation\\_token\)](#) ,  
[IService<IColumnGetter>.WithHost\(string\)](#)

## Methods

### Get\_component\_info()

```
UnaryResult<ComponentInfo?> Get_component_info()
```

#### Returns

UnaryResult<ComponentInfo>

### Get\_data()

```
UnaryResult<Column?> Get_data()
```

#### Returns

UnaryResult<Column>

### Get\_factor()

```
UnaryResult<Column?> Get_factor()
```

## Returns

UnaryResult<Column>

## Get\_geo()

```
UnaryResult<Column?> Get_geo()
```

## Returns

UnaryResult<Column>

## Get\_publisher\_port()

```
UnaryResult<ushort> Get_publisher_port()
```

## Returns

UnaryResult<[ushort](#)>

# Interface IComponentGetter

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public interface IComponentGetter : IService<IComponentGetter>, IServiceMarker
```

## Inherited Members

[IService<IComponentGetter>.WithOptions\(CallOptions\)](#)[↗](#) ,  
[IService<IComponentGetter>.WithHeaders\(Metadata\)](#)[↗](#) ,  
[IService<IComponentGetter>.WithDeadline\(DateTime\)](#)[↗](#) ,  
[IService<IComponentGetter>.WithCancellationToken\(CancellationToken\)](#)[↗](#) ,  
[IService<IComponentGetter>.WithHost\(string\)](#)[↗](#)

## Methods

### Get\_component\_info()

```
UnaryResult<ComponentInfo?> Get_component_info()
```

#### Returns

UnaryResult<ComponentInfo>

### Get\_data()

```
UnaryResult<Component?> Get_data()
```

#### Returns

UnaryResult<Component>

### Get\_factor()

UnaryResult<Component?> Get\_factor()

## Returns

UnaryResult<Component>

## Get\_geo()

UnaryResult<Component?> Get\_geo()

## Returns

UnaryResult<Component>

## Get\_publisher\_port()

UnaryResult<ushort> Get\_publisher\_port()

## Returns

UnaryResult<[ushort](#)>






# Interface IComponentSetter

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public interface IComponentSetter : IService<IComponentSetter>, IServiceMarker
```

## Inherited Members


[IService<IComponentSetter>.WithOptions\(CallOptions\)](#)  ,  
[IService<IComponentSetter>.WithHeaders\(Metadata\)](#)  ,  
[IService<IComponentSetter>.WithDeadline\(DateTime\)](#)  ,  
[IService<IComponentSetter>.WithCancellationToken\(CancellationTokentoken\)](#)  ,  
[IService<IComponentSetter>.WithHost\(string\)](#) 

## Methods

### Clear()

```
UnaryResult<bool> Clear()
```

### Returns

UnaryResult<[bool](#)  >

### Set\_component(Component, ComponentInfo)

```
UnaryResult<bool> Set_component(Component factor, ComponentInfo info)
```

### Parameters

**factor** Component

**info** ComponentInfo

### Returns

UnaryResult<[bool](#)>



# Interface IGirderChanger

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

Girder 변경을 위한 기능들

```
public interface IGirderChanger : IService<IGirderChanger>, IServiceMarker
```

## Inherited Members

[IService<IGirderChanger>.WithOptions\(CallOptions\)](#) ,  
[IService<IGirderChanger>.WithHeaders\(Metadata\)](#) ,  
[IService<IGirderChanger>.WithDeadline\(DateTime\)](#) ,  
[IService<IGirderChanger>.WithCancellationToken\(CancellationTokentoken\)](#) ,  
[IService<IGirderChanger>.WithHost\(string\)](#)

## Methods

### Add\_back\_anchorage\_rebar(int, double?, double?)

```
UnaryResult Add_back_anchorage_rebar(int floor, double? distance_from_start = null, double?  
distance_from_end = null)
```

## Parameters

floor [int](#)

distance\_from\_start [double](#)?

distance\_from\_end [double](#)?

## Returns

UnaryResult

### Add\_closed\_stirrups\_group\_area(params DoubleRange[])

```
UnaryResult Add_closed_stirrups_group_area(params DoubleRange[] ranges)
```

## Parameters

**ranges** DoubleRange[]

## Returns

UnaryResult

## Add\_front\_anchorage\_rebar(int, double?, double?)

```
UnaryResult Add_front_anchorage_rebar(int floor, double? distance_from_start = null, double?  
distance_from_end = null)
```

## Parameters

**floor** [int](#)

**distance\_from\_start** [double](#)?

**distance\_from\_end** [double](#)?

## Returns

UnaryResult

## Add\_interferes(params ContourPolygon<ChamferRectangle, Segment3D>[])

```
UnaryResult Add_interferes(params ContourPolygon<ChamferRectangle, Segment3D>[] source)
```

## Parameters

**source** ContourPolygon<ChamferRectangle, Segment3D>[]

## Returns

UnaryResult

## Add\_rebar(Guid, RectangularDirection, double)

```
UnaryResult Add_rebar(Guid id, RectangularDirection line_base, double distance_from_center = 0)
```

## Parameters

**id** [Guid](#)

**line\_base** RectangularDirection

**distance\_from\_center** [double](#)

## Returns

UnaryResult

## Add\_u\_stirrup\_group\_area(params DoubleRange[])

```
UnaryResult Add_u_stirrup_group_area(params DoubleRange[] ranges)
```

## Parameters

**ranges** DoubleRange[]

## Returns

UnaryResult

## Change\_back\_anchorage\_rebar(Rebar?, double?)

```
UnaryResult Change_back_anchorage_rebar(Rebar? spec = null, double? anchorage_length = null)
```

## Parameters

`spec` Rebar

`anchorage_length` [double](#)?

## Returns

UnaryResult

Change\_back\_anchorage\_rebar\_group\_spacing(double?, double?, double?, double?)

```
UnaryResult Change_back_anchorage_rebar_group_spacing(double? floor_1 = null, double? floor_2 = null, double? floor_3 = null, double? floor_4 = null)
```

## Parameters

`floor_1` [double](#)?

`floor_2` [double](#)?

`floor_3` [double](#)?

`floor_4` [double](#)?

## Returns

UnaryResult

Change\_boolean(double?, double?, double?, double?, double?, double?)

```
UnaryResult Change_boolean(double? left_width = null, double? left_height = null, double? left_chamfer = null, double? right_width = null, double? right_height = null, double? right_chamfer = null)
```

## Parameters

left\_width [double](#)?

left\_height [double](#)?

left\_chamfer [double](#)?

right\_width [double](#)?

right\_height [double](#)?

right\_chamfer [double](#)?

## Returns

UnaryResult

## Change\_cap\_bar(Rebar?, double?, double?, double?, double?)

```
UnaryResult Change_cap_bar(Rebar? spec = null, double? start_length = null, double?  
start_angle = null, double? end_length = null, double? end_angle = null)
```

## Parameters

spec Rebar

start\_length [double](#)?

start\_angle [double](#)?

end\_length [double](#)?

end\_angle [double](#)?

## Returns

UnaryResult

## Change\_cap\_bar\_group(double?, double?, double?, double?)

```
UnaryResult Change_cap_bar_group(double? spacing = null, double? start_min_padding = null,  
double? end_min_padding = null, double? interfere_padding = null)
```

## Parameters

spacing [double](#)?

start\_min\_padding [double](#)?

end\_min\_padding [double](#)?

interfere\_padding [double](#)?

## Returns

UnaryResult

## Change\_chin\_shape(Guid, double?, double?, double?, double?)

```
UnaryResult Change_chin_shape(Guid id, double? height = null, double? upper_length = null,  
double? under_length = null, double? chamfer = null)
```

## Parameters

id [Guid](#)

height [double](#)?

upper\_length [double](#)?

under\_length [double](#)?

chamfer [double](#)?

## Returns

UnaryResult

# Change\_closed\_stirrup\_area(Guid, double?, double?, double?)

```
UnaryResult Change_closed_stirrup_area(Guid id, double? spacing = null, double?  
start_padding = null, double? end_padding = null)
```

## Parameters

id [Guid](#)

spacing [double](#)?

start\_padding [double](#)?

end\_padding [double](#)?

## Returns

UnaryResult

# Change\_closed\_stirrups(Guid, Rebar?, RectangularCorner?, int?, double?, double?, double?, double?)

```
UnaryResult Change_closed_stirrups(Guid stirrups_id, Rebar? spec = null, RectangularCorner?  
opening = null, int? create_count = null, double? start_hook_angle = null, double?  
start_hook_length = null, double? end_hook_angle = null, double? end_hook_length = null)
```

## Parameters

stirrups\_id [Guid](#)

spec Rebar

opening RectangularCorner?

create\_count [int](#)?

start\_hook\_angle [double](#)?

start\_hook\_length [double](#)?

end\_hook\_angle [double](#)?

`end_hook_length` [double](#)?

Returns

UnaryResult

## Change\_concrete\_pocket\_eccentricity(double)

UnaryResult `Change_concrete_pocket_eccentricity`([double](#) eccentricity)

Parameters

`eccentricity` [double](#)

Returns

UnaryResult

## Change\_concrete\_pocket\_length(double?, double?)

UnaryResult `Change_concrete_pocket_length`([double](#)? front = `null`, [double](#)? back = `null`)

Parameters

`front` [double](#)?

`back` [double](#)?

Returns

UnaryResult

## Change\_concrete\_pocket\_section(double?, double?, double?, double?, double?, double?, double?)



```
UnaryResult Change_concrete_pocket_section(double? width = null, double? height = null,  
double? left_first_slope_width = null, double? left_first_slope_height = null, double?  
right_first_slope_width = null, double? right_first_slope_height = null, double?  
left_last_slope_width = null, double? right_last_slope_width = null)
```

## Parameters

width [double](#)?

height [double](#)?

left\_first\_slope\_width [double](#)?

left\_first\_slope\_height [double](#)?

right\_first\_slope\_width [double](#)?

right\_first\_slope\_height [double](#)?

left\_last\_slope\_width [double](#)?

right\_last\_slope\_width [double](#)?

## Returns

UnaryResult

## Change\_concrete\_size(double?, double?, double?)

```
UnaryResult Change_concrete_size(double? width = null, double? height = null, double?  
chamfer = null)
```

## Parameters

width [double](#)?

height [double](#)?

chamfer [double](#)?

## Returns

UnaryResult

## Change\_end\_piece\_height(Guid, double)

```
UnaryResult Change_end_piece_height(Guid id, double height)
```

### Parameters

id [Guid](#)

height [double](#)

### Returns

UnaryResult

## Change\_end\_piece\_shape(Guid, double?, double?, double?, double?)

```
UnaryResult Change_end_piece_shape(Guid id, double? height = null, double? upper_length = null, double? under_length = null, double? chamfer = null)
```

### Parameters

id [Guid](#)

height [double](#)?

upper\_length [double](#)?

under\_length [double](#)?

chamfer [double](#)?

### Returns

UnaryResult

## Change\_front\_anchorage\_rebar(Rebar?, double?)

```
UnaryResult Change_front_anchorage_rebar(Rebar? spec = null, double? anchorage_length = null)
```

### Parameters

**spec** Rebar

**anchorage\_length** [double](#)?

### Returns

UnaryResult

## Change\_front\_anchorage\_rebar\_group\_spacing(double?, double?, double?, double?)

```
UnaryResult Change_front_anchorage_rebar_group_spacing(double? floor_1 = null, double? floor_2 = null, double? floor_3 = null, double? floor_4 = null)
```

### Parameters

**floor\_1** [double](#)?

**floor\_2** [double](#)?

**floor\_3** [double](#)?

**floor\_4** [double](#)?

### Returns

UnaryResult

## Change\_girder\_size(double)

UnaryResult `Change_girder_size`(double length)

## Parameters

`length` [double](#)

## Returns

UnaryResult

## Change\_left\_slab\_area(params DoubleRange[])

UnaryResult `Change_left_slab_area`(params DoubleRange[] ranges)

## Parameters

`ranges` DoubleRange[]

## Returns

UnaryResult

## Change\_rebar(Guid, RectangularDirection?, double?, Girder RebarSpecType?, Rebar?)

UnaryResult `Change_rebar`(Guid rebar\_id, RectangularDirection? line\_base = null, double? distance\_from\_center = null, GirderRebarSpecType? type = null, Rebar? self\_spec = null)

## Parameters

`rebar_id` [Guid](#)

`line_base` RectangularDirection?

`distance_from_center` [double](#)?

`type` GirderRebarSpecType?

`self_spec` Rebar

Returns

UnaryResult

## Change\_rebar\_spec(Rebar?, Rebar?, Rebar?, Rebar?)

```
UnaryResult Change_rebar_spec(Rebar? under = null, Rebar? upper = null, Rebar? middle_upper  
= null, Rebar? skin = null)
```

Parameters

`under` Rebar

`upper` Rebar

`middle_upper` Rebar

`skin` Rebar

Returns

UnaryResult

## Change\_right\_slab\_area(params DoubleRange[])

```
UnaryResult Change_right_slab_area(params DoubleRange[] ranges)
```

Parameters

`ranges` DoubleRange[]

Returns

UnaryResult

## Change\_stirrup\_edge(double?, double?, double?, double?, double?, double?)

```
UnaryResult Change_stirrup_edge(double? out_edge = null, double? out_left_edge = null,  
double? out_right_edge = null, double? in_edge = null, double? in_left_edge = null, double?  
in_right_edge = null)
```

### Parameters

out\_edge [double](#)?

out\_left\_edge [double](#)?

out\_right\_edge [double](#)?

in\_edge [double](#)?

in\_left\_edge [double](#)?

in\_right\_edge [double](#)?

### Returns

UnaryResult

## Change\_u\_stirrup(Guid, Rebar?, double?, double?)

```
UnaryResult Change_u_stirrup(Guid id, Rebar? spec = null, double? angle = null, double?  
length = null)
```

### Parameters

id [Guid](#)

spec Rebar

angle [double](#)?

length [double](#)?

## Returns

UnaryResult

## Change\_u\_stirrup\_group(double)

```
UnaryResult Change_u_stirrup_group(double distance_to_girder_height)
```

## Parameters

distance\_to\_girder\_height [double](#)

## Returns

UnaryResult

## Change\_u\_stirrups(Guid, int?, double?, double?)

```
UnaryResult Change_u_stirrups(Guid id, int? create_count = null, double? left = null, double? right = null)
```

## Parameters

id [Guid](#)

create\_count [int](#)?

left [double](#)?

right [double](#)?

## Returns

UnaryResult

## Change\_u\_stirrups\_area(Guid, double?, double?, double?)

```
UnaryResult Change_u_stirrups_area(Guid id, double? spacing = null, double? start_padding = null, double? end_padding = null)
```

## Parameters

id [Guid](#)

spacing [double](#)?

start\_padding [double](#)?

end\_padding [double](#)?

## Returns

UnaryResult

## Change\_wire\_active(Guid, bool)

```
UnaryResult Change_wire_active(Guid id, bool active)
```

## Parameters

id [Guid](#)

active [bool](#)

## Returns

UnaryResult

## Change\_wire\_group(Wire?, int?, int?, double?)

```
UnaryResult Change_wire_group(Wire? spec = null, int? col_count = null, int? row_count = null, double? bottom_covering_thickness = null)
```

## Parameters



spec Wire

col\_count [int](#)?

row\_count [int](#)?

bottom\_covering\_thickness [double](#)?

Returns

UnaryResult

## Clear\_closed\_stirrup\_group\_area()

```
UnaryResult Clear_closed_stirrup_group_area()
```

Returns

UnaryResult

## Clear\_interferes()

```
UnaryResult Clear_interferes()
```

Returns

UnaryResult

## Clear\_u\_stirrup\_group\_area()

```
UnaryResult Clear_u_stirrup_group_area()
```

Returns

UnaryResult

## Remove\_back\_anchorage\_rebar(int, double)

UnaryResult `Remove_back_anchorage_rebar`(`int` floor, `double` distance\_from\_start)

### Parameters

`floor` [int](#)

`distance_from_start` [double](#)

### Returns

UnaryResult

## Remove\_closed\_stirrups\_group\_area(params DoubleRange[])

UnaryResult `Remove_closed_stirrups_group_area`(`params` DoubleRange[] ranges)

### Parameters

`ranges` DoubleRange[]

### Returns

UnaryResult

## Remove\_front\_anchorage\_rebar(int, double)

UnaryResult `Remove_front_anchorage_rebar`(`int` floor, `double` distance\_from\_start)

### Parameters

`floor` [int](#)

`distance_from_start` [double](#)

### Returns

UnaryResult

## Remove\_interferes(params ContourPolygon<ChamferRectangle, Segment3D>[])

UnaryResult **Remove\_interferes**(**params** ContourPolygon<ChamferRectangle, Segment3D>[] source)

### Parameters

**source** ContourPolygon<ChamferRectangle, Segment3D>[]

### Returns

UnaryResult

## Remove\_rebar(Guid)

UnaryResult **Remove\_rebar**(Guid rebar\_id)

### Parameters

**rebar\_id** [Guid](#)

### Returns

UnaryResult

## Remove\_u\_stirrup\_group\_area(params DoubleRange[])

UnaryResult **Remove\_u\_stirrup\_group\_area**(**params** DoubleRange[] ranges)

### Parameters

**ranges** DoubleRange[]

Returns

UnaryResult






# Interface IGirderGetter

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public interface IGirderGetter : IService<IGirderGetter>, IServiceMarker
```

## Inherited Members

[IService<IGirderGetter>.WithOptions\(CallOptions\)](#)  ,  
[IService<IGirderGetter>.WithHeaders\(Metadata\)](#)  ,  
[IService<IGirderGetter>.WithDeadline\(DateTime\)](#)  ,  
[IService<IGirderGetter>.WithCancellationToken\(Cancellation.Token\)](#)  ,  
[IService<IGirderGetter>.WithHost\(string\)](#) 

## Methods

### Get\_component\_info()

```
UnaryResult<ComponentInfo?> Get_component_info()
```

#### Returns

UnaryResult<ComponentInfo>

### Get\_data()

```
UnaryResult<Girder?> Get_data()
```

#### Returns

UnaryResult<Girder>

### Get\_factor()

```
UnaryResult<Girder?> Get_factor()
```

## Returns

UnaryResult<Girder>

## Get\_geo()

```
UnaryResult<Girder?> Get_geo()
```

## Returns

UnaryResult<Girder>

## Get\_publisher\_port()

```
UnaryResult<ushort> Get_publisher_port()
```

## Returns

UnaryResult<[ushort](#)>

# Interface ISlabChanger

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

Slab 변경을 위한 기능들

```
public interface ISlabChanger : IService<ISlabChanger>, IServiceMarker
```

## Inherited Members

[IService<ISlabChanger>.WithOptions\(CallOptions\)](#) ,  
[IService<ISlabChanger>.WithHeaders\(Metadata\)](#) ,  
[IService<ISlabChanger>.WithDeadline\(DateTime\)](#) ,  
[IService<ISlabChanger>.WithCancellationToken\(CancellationToken\)](#) ,  
[IService<ISlabChanger>.WithHost\(string\)](#)

## Methods

Change\_eps(IEnumerable<double>?, double?, double?)

```
UnaryResult Change_eps(IEnumerable<double>? widths = null, double? between_distance = null,  
double? chamfer = null)
```

## Parameters

**widths** [IEnumerable](#) <[double](#)>

**between\_distance** [double](#)?

**chamfer** [double](#)?

## Returns

UnaryResult

## Change\_lattice(double?, double?, double?, Rebar?, Rebar?, bool?)

```
UnaryResult Change_lattice(double? add_height = null, double? bottom_edge = null, double?  
spacing = null, Rebar? side_spec = null, Rebar? middle_spec = null, bool? is_split = null)
```

### Parameters

add\_height [double](#)?

bottom\_edge [double](#)?

spacing [double](#)?

side\_spec Rebar

middle\_spec Rebar

is\_split [bool](#)?

### Returns

UnaryResult

## Change\_pocket(double?, double?)

```
UnaryResult Change_pocket(double? front_length = null, double? back_length = null)
```

### Parameters

front\_length [double](#)?

back\_length [double](#)?

### Returns

UnaryResult



## Change\_slab\_size(double?, double?)

UnaryResult **Change\_slab\_size**(double? length = null, double? height = null)

### Parameters

length [double](#)?

height [double](#)?

### Returns

UnaryResult

## Change\_wire\_group(Guid, Wire?, int?, double?)

UnaryResult **Change\_wire\_group**(Guid group\_id, Wire? spec = null, int? count\_from\_center\_pos = null, double? spacing = null)

### Parameters

group\_id [Guid](#)

spec Wire

count\_from\_center\_pos [int](#)?

spacing [double](#)?

### Returns

UnaryResult

## Change\_wire\_mesh\_rebar\_area(Guid, double?, double?, double?)

UnaryResult **Change\_wire\_mesh\_rebar\_area**(Guid area\_id, double? start\_padding = null, double?

```
end_padding = null, double? spacing = null)
```

## Parameters

area\_id [Guid](#)↗

start\_padding [double](#)↗?

end\_padding [double](#)↗?

spacing [double](#)↗?

## Returns

UnaryResult

## Change\_wire\_mesh\_rebar\_group(Guid, WireMesh)

```
UnaryResult Change_wire_mesh_rebar_group(Guid group_id, WireMesh spec)
```

## Parameters

group\_id [Guid](#)↗

spec WireMesh

## Returns

UnaryResult

# Interface ISlabGetter

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public interface ISlabGetter : IService<ISlabGetter>, IServiceMarker
```

## Inherited Members

[IService<ISlabGetter>.WithOptions\(CallOptions\)](#)[↗](#) , [IService<ISlabGetter>.WithHeaders\(Metadata\)](#)[↗](#) ,  
[IService<ISlabGetter>.WithDeadline\(DateTime\)](#)[↗](#) ,  
[IService<ISlabGetter>.WithCancellationToken\(CancellationToken\)](#)[↗](#) ,  
[IService<ISlabGetter>.WithHost\(string\)](#)[↗](#)

## Methods

### Get\_component\_info()

```
UnaryResult<ComponentInfo?> Get_component_info()
```

#### Returns

UnaryResult<ComponentInfo>

### Get\_data()

```
UnaryResult<Slab?> Get_data()
```

#### Returns

UnaryResult<Slab>

### Get\_factor()

```
UnaryResult<Slab?> Get_factor()
```

## Returns

UnaryResult<Slab>

## Get\_geo()

```
UnaryResult<Slab?> Get_geo()
```

## Returns

UnaryResult<Slab>

## Get\_publisher\_port()

```
UnaryResult<ushort> Get_publisher_port()
```

## Returns

UnaryResult<[ushort](#)>

# Enum Topic

Namespace: [YW.SERVICE.PC\\_COMPONENT](#)

Assembly: yw.service.pc-component.interface.dll

```
public enum Topic
```

## Fields

```
COLUMN_CHANGES = 1
```

```
COMPONENT_CHANGES = 0
```

```
GIRDER_CHANGES = 2
```

```
SLAB_CHANGES = 3
```