## **PWWPatch** Zone Red: functionality not implemented version\_number\_major : 1 name: *str* version\_number\_minor : 0 number: *int* is\_structured : boolean geometry : None has\_iblank : boolean loading : None float\_type : 'single' calc\_thickness\_noise: boolean centered\_type : { 'node' 'face'} has\_loading\_data: boolean units\_string : str header\_length: *int* geometry\_type : { 'geometry', \_\_str\_\_() \_set\_string() geometry\_time\_type : { 'constant', 'periodic', 'aperiodic'} loading\_time\_type : { 'constant', 'periodic', 'aperiodic'} StructuredZone loading\_data\_type : { 'surf\_pressure', 'surf\_loading\_vector', iMax: *int* 'flow\_params' jMax: *int* geometry\_info\_str: str loading\_ref\_frame : { 'ground\_fixed', 'mixed\_frame', geometry\_name : str 'blade\_fixed'} geometry : {StructuredConstantGeometry, StructuredPeriodicGeometry, geometry\_comment : str StructuredAperiodicGeometry} loading\_comment : str loading\_name : *str* geometry\_format\_string : [] loading\_format\_string : [] zones\_with\_loading\_data : [] Nt : int n\_zones : *int* n\_zones\_with\_loading\_data : int \_update\_geometry\_info\_str() add\_StructuredConstantGeometry() add\_StructuredPeriodicGeometry() add\_StructuredAperiodicGeometry() print\_info() set\_units\_string() set\_geometry\_comment() add\_StructuredConstantLoading() add\_StructuredPeriodicLoading() set\_loading\_comment() add\_StructuredAperiodicLoading() write\_geometry\_file() write\_geometry\_file() write\_loading\_file() read\_geometry\_file() read\_loading\_file() add\_StructuredZone() \_set\_string() \_read\_XYZblock() \_read\_IBLANKblock() \_read\_geometry\_header() \_write\_geometry\_header() \_read\_geometry\_data() \_write\_geometry\_data() \_build\_geometry\_format\_string() StructuredConstantLoading **StructuredConstantGeometry** \_read\_loading\_header() \_write\_loading\_header() \_read\_loading\_data() \_write\_loading\_data() \_build\_loading\_format\_string() XYZ\_coord: (*3, iMax, jMax*) *array* pressures: (*iMax, jMax*) *array* loading\_vectors: (3, iMax, jMax) array normal\_coord: (3, iMax, jMax) array flow\_params : (5, iMax, jMax) array iblank: (*iMax, jMax*) *array*, optional \_update\_n\_zones() **StructuredAperiodicGeometry** StructuredAperiodicLoading pressures: (*Nt, iMax, jMax) array* loading\_vectors: (*Nt, 3, iMax, jMax*) *array* flow\_params : (*Nt, 5, iMax, jMax*) array XYZ\_coord: (*Nt, 3, iMax, jMax*) array normal\_coord: (Nt, 3, iMax, jMax) array Nt : float iblank: (*Nt, iMax, jMax*) array, optional

**PYWOPWOP Class Diagram** 

UnstructuredZone

StructuredPeriodicGeometry

**StructuredAperiodicGeometry** 

References on UML / Class Diagrams:

**StructuredPeriodicLoading** 

https://www.visual-paradigm.com/g
uide/uml-unified-modeling-languag
e/uml-class-diagram-tutorial/

https://www.tutorialspoint.com/um
l/uml\_class\_diagram.htm

Loading	Structured Constant	Structured Aperiodic	Structured Periodic	
Header reader	✓	✓		
Data reader	✓			
Header writer	✓			
Data writer	✓			

Class to hold

StructuredZone "add\_XX" method

PYWOPWOP Class Diagram					
Author	Fabio Casagrande Hirono				
Date	07 Nov 2022				

		<u> </u>		
Geometry	Structured Constant	Structured Aperiodic	Structured Periodic	
Header reader	✓	✓		
Data reader	✓	✓		
Header writer	✓	✓		
Data writer	<b>✓</b>	<b>✓</b>		
Class to hold data	<b>✓</b>	✓		
StructuredZone "add_XX" method	✓	<b>✓</b>		