PWWPatch Zone version_number_major : 1 name: *str* version_number_minor : 0 number: *int* calc_thickness_noise: boolean is_structured : boolean has_loading_data: boolean has_iblank : boolean float_type : 'single' centered_type : { 'node' geometry_header_length: int 'face'} loading_header_length: int units_string : str geometry : None geometry_type : { 'geometry', loading : None __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* loading_ref_frame : { geometry_info_str: str 'mixed_frame', 'blade_fixed'} geometry_name : str geometry : {StructuredConstantGeometry, geometry_comment : str StructuredPeriodicGeometry, loading_comment : str StructuredAperiodicGeometry} geometry_format_string : [] loading_format_string : [] loading_name : *str* loading : { StructuredConstantLoading, StructuredPeriodicLoading, StructuredAperiodicLoading} zones_with_loading_data : [] Nt : int n_zones : *int* n_zones_with_loading_data : int _update_geometry_info_str() time_steps : (Nt,) array add_StructuredConstantGeometry() add_StructuredPeriodicGeometry() add_StructuredAperiodicGeometry() print_info() add_StructuredConstantLoading() add_StructuredPeriodicLoading() add_StructuredAperiodicLoading() set_units_string() set_geometry_comment() set_loading_comment() write_geometry_file() write_loading_file() read_geometry_file() read_loading_file() add_StructuredZone() _set_string() _read_XYZblock() _read_IBLANKblock() _read_geometry_header() StructuredConstantLoading **StructuredConstantGeometry** _write_geometry_header() _read_geometry_data() _write_geometry_data() _build_geometry_format_string() XYZ_coord: (*3, iMax, jMax*) array pressures: (*iMax, jMax*) *array* loading_vectors: (3, iMax, jMax) array flow_params : (5, iMax, jMax) array normal_coord: (3, iMax, jMax) array _read_loading_header() iblank: (*iMax, jMax*) *array*, optional _write_loading_header() _read_loading_data() _write_loading_data() _build_loading_format_string() _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 iblank: (*Nt, iMax, jMax*) array, optional

PYWOPWOP Class Diagram

Red: functionality not implemented

References on UML / Class Diagrams:

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

UnstructuredZone

_update_geometry_info [TODO]

StructuredPeriodicGeometry	St

StructuredPeriodicLoading

StructuredAperiodicGeometry

Geometry	Structured Constant	Structured Aperiodic	Structured Periodic	
Header reader	✓	✓		
Data reader	✓	✓		
Header writer	✓	✓		
Data writer	✓	✓		
Class to hold data	✓	✓		
StructuredZone "add_XX" method	✓	✓		

Loading	Structured Constant	Structured Aperiodic	Structured Periodic	
Header reader	✓	✓		
Data reader	✓			
Header writer	✓			
Data writer	✓			
Class to hold data	✓	✓		
StructuredZone add_XX" method	✓	✓		

PYWOPWOP Class Diagram		
Author	Fabio Casagrande Hirono	
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