

pyCGNS.PAT/Manual Release 4.0.1

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CONTENTS

The module to create and manipulate SIDS/Python trees. PAT has a cgnslib module with functions to create SIDS/Python compliant data structures.

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CGNS.PAT.CGNSLIB

A set of function to manipulate CGNS/Python nodes.

CGNS.PAT.cgnslib.newArbitraryGridMotion (parent, name, valuetype='Null')

Returns a new node representing a ArbitraryGridMotionType t sub-tree (chapter 11.3)

Parameters

- parent CGNS/Python node
- name String
- valuetype String (CGNS.PAT.cqnskeywords.ArbitraryGridMotionType)

If a *parent* is not None, the **new node** is added to the parent children list. If the *parent* has already a child with name RigidGridMotion then only the RigidGridMotionType is created.

```
newAverageInterface(parent, valueType=array('Null',
dtype='|S4'))
```

-AverageInterface node creation -AverageInterface

'newNode:N='newAverageInterface'(parent:N,valueType:CG_K.AverageInterfaceType)'

Returns a new <node> representing a AverageInterface_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name AverageInterface then only the AverageInterfaceType is created. chapter 8.5.2

```
CGNS.PAT.cgnslib.newAxisymmetry (parent, refpoint=array([ 0., 0., 0.]), axisvector=array([ 0., 0., 0.]))
```

-Axisymmetry node creation -Axisymmetry

'newNode:N='newAxisymmetry'(parent:N,refpoint:A,axisvector:A)'

refpoint,axisvector should be a real array. Returns a new <node> representing a CG_K.Axisymmetry_t sub-tree. chapter 7.5 Add DataArray AxisymmetryAxisVector,AxisymmetryReferencePoint are required

```
CGNS.PAT.cgnslib.newBCData(parent, name)
```

-BCData node creation -BCData

'newNode:N='newBCData'(parent:N,name:S)'

Returns a new <node> representing a BCData_t sub-tree. chapter 9.5

```
newBCDataSet(parent, name, valueType=array('Null',
dtype='|S4'))
```

-BCDataSet node creation -BCDataSet

'newNode:N='newBCDataSet'(parent:N,name:S,valueType:CG_K.BCTypeSimple)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a BCDataSet_t sub-tree. chapter 9.4 Add node BCTypeSimple is required

```
newBCProperty(parent, wallfunction=array(`Null',
dtype='|S4'), area=array(`Null',
```

```
dtype='|S4'))
     -BCProperty node creation -BCProperty
     'newNode:N='newBCProperty'(parent:N)'
          Returns a new <node> representing a BCProperty_t sub-tree. If a parent is given, the new <node>
          is added to the parent children list. chapter 9.6
CGNS.PAT.cgnslib.newBase(tree, name, ncell, nphys)
     -Base node creation -Base
     'newNode:N='newBase'(parent:N,name:S,ncell:[1,2,3],nphys:[1,2,3])'
     Returns a new <node> representing a CGNSBase t sub-tree. If a parent is given, the new <node> is added
     to the parent children list, that is to the base list of the parent CGNSTree. Maps the 'cg_base_write' MLL
     chapter 6.2
CGNS.PAT.cgnslib.newBaseIterativeData(parent, nsteps=0, itype='IterationValues')
     -BaseIterativeData node creation -BaseIterativeData
     'newNode:N='newBaseIterativeData'(parent:N,nsteps:I,itype:E)'
     Returns a new <node> representing a BaseIterativeData_t sub-tree. If a parent is given, the new <node> is
     added to the parent children list. chapter 11.1.1 NumberOfSteps is required, TimeValues or IterationValues
     are required
newBoundary(parent, bname, brange, btype=array('Null',
dtype='|S4'), family=None, pttype=array('PointRange',
dtype='|S10'))
     -BC node creation -BC
     'newNode:N='newBoundary'(parent:N,bname:S,brange:[*i],btype:S)'
     Returns a new <node> representing a BC_t sub-tree. If a parent is given, the new <node> is added to the
     parent children list. Parent should be Zone_t, returned node is parent. If the parent has already a child name
     ZoneBC then only the BC_t,IndexRange_t are created. chapter 9.3 Add IndexRange_t required
CGNS.PAT.cqnslib.newCGNS()
     -Tree node creation -Tree
     'newNode:N='newCGNS'()'
     Returns a new <node> representing a CGNS tree root. This is not a SIDS type.
newChemicalKineticsModel(parent, valueType=array('Null',
dtype='|S4'))
     -ChemicalKineticsModel node creation -ChemicalKineticsModel
     'newNode:N='newChemicalKineticsModel'(parent:N,valueType:CG_K.ChemicalKineticsModelType)'
          Returns a new <node> representing a CG K.ChemicalKineticsModel t sub-tree. If a parent is
          given, the new <node> is added to the parent children list. If the parent has already a child name
          ChemicalKineticsModel then only the ChemicalKineticsModelType is created. chapter 10.8 Add
          node ChemicalKineticsModelType is (r)
CGNS.PAT.cgnslib.newConvergenceHistory (parent, name='GlobalConvergenceHistory', it-
                                                     erations=0)
     -ConvergenceHistory node creation -ConvergenceHistory
     'newNode:N='newConvergenceHistory'(parent:N,name:S,iterations:i)'
          Returns a new <node> representing a ConvergenceHistory_t sub-tree. If a parent is given, the
          new <node> is added to the parent children list. chapter 12.3
CGNS.PAT.cqnslib.newCoordinates(parent, name='GridCoordinates', value=None)
     -GridCoordinates_t node creation with name GridCoordinates -Grid
     'newNode:N='newCoordinates'(parent:N,name:S,value:A)'
```

Creates a new <node> representing a GridCoordinates_t sub-tree with the coordinate DataArray given as argument. This creates both the GridCoordinates_t with GridCoordinates name and DataArray_t with the argument name. Usually used to create the default grid. If the GridCoordinates_t with name GridCoordinates already exists then only the DataArray is created. If a parent is given, the new GridCoordinates_t <node> is added to the parent children list, in all cases the DataArray is child of GridCoordinates_t node. The returned node always is the DataArray_t node. chapter 7.1

CGNS.PAT.cgnslib.newDataArray(parent, name, value=None)

-DataArray node creation -Global

'newNode:N='newDataArray'(parent:N,name:S,value:A)'

Returns a new <node> representing a DataArray_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 5.1

CGNS.PAT.cgnslib.newDataClass(parent, value='UserDefined')

-DataClass node creation -DataClass

'newNode:N='newDataClass'(parent:N,value:A)'

If a parent is given, the new <node> is added to the parent children list. The value argument is a DataClass enumerate. No child allowed. Returns a new <node> representing a DataClass_t sub-tree.

CGNS.PAT.cgnslib.newDataConversion (parent, ConversionScale=1.0, ConversionOffset=1.0)
-DataConversion node creation -DataConversion

'newNode:N='newDataConversion'(parent:N,ConversionScale:r,ConversionOffset:r)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a DataConversion_t sub-tree. chapter 5.1.1

```
newDescriptor(parent, name, value=array(['`],
dtype='|S1'))
```

-Descriptor node creation -Descriptor

'newNode:N='newDescriptor'(parent:N,name:S,text:A)'

No child allowed. Returns a new <node> representing a Descriptor_t sub-tree.

```
CGNS.PAT.cgnslib.newDimensionalExponents (parent, MassExponent=0, LengthExponent=0, TimeExponent=0, TemperatureExponent=0, AngleExponent=0)
```

 $-Dimensional Exponents \ node \ creation \ -Dimensional Exponents$

`newNode: N=' newDimensionalExponents' (parent: N, MassExponent: r, Length Exponent: r, Time Exponent: r, Temperature Exponent: r, Temperatur

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a DimensionalExponents_t sub-tree. chapter 4.4

```
CGNS.PAT.cgnslib.newDimensionalUnits(parent, value=['Meter', 'Kelvin', 'Second', 'Radian', 'Kilogram'])
```

-DimensionalUnits node creation -DimensionalUnits

'newNode:N='newDimensionalUnits'(parent:N,value=[CG_K.MassUnits,CG_K.LengthUnits, CG_K.TimeUnits,CG_K.TemperatureUnits, CG_K.AngleUnits])'

If a parent is given, the new <node> is added to the parent children list. new <node> is composed of a set of enumeration types: MassUnits,LengthUnits, TimeUnits,TemperatureUnits,AngleUnits are required Returns a new <node> representing a DimensionalUnits_t sub-tree. chapter 4.3

```
CGNS.PAT.cgnslib.newDiscreteData(parent, name)
```

-DiscreteData node creation -DiscreteData

'newNode:N='newDiscreteData'(parent:N,name:S)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a DiscreteData_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 6.3

CGNS.PAT.cgnslib.newEMConductivityModel (parent, valueType='UserDefined')

-EMConductivityModel node creation -EMConductivityModel

'newNode:N='newEMConductivityModel'(parent:N,valueType:CG_K.EMConductivityModelType)'

Returns a new <node> representing a CG_K.EMConductivityModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name EMConductivityModel then only the EMConductivityModelType is created. chapter 10.9.3 Add node EMConductivityModelType is (r)

CGNS.PAT.cgnslib.newEMElectricFieldModel(parent, valueType='UserDefined')

-EMElectricFieldModel node creation -EMElectricFieldModel

'newNode:N='newEMElectricFieldModel'(parent:N,valueType:CG_K.EMElectricFieldModelType)'

Returns a new <node> representing a CG_K.EMElectricFieldModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list.

If the parent has already a child name EMElectricFieldModel then

only the EMElectricFieldModelType is created. chapter 10.9 Add node EMElectricFieldModelType is (r)

 $\texttt{CGNS.PAT.cgnslib.newEMMagneticFieldModel} \ (\textit{parent}, \textit{valueType} = \textit{`UserDefined'})$

 $-EMMagnetic Field Model \ node \ creation \ -EMMagnetic Field Model$

'newNode:N='newEMMagneticFieldModel'(parent:N,valueType:CG_K.EMMagneticFieldModelType)'

Returns a new <node> representing a CG_K.EMMagneticFieldModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name EMMagneticFieldModel_s then only the EMMagneticFieldModelType is created. chapter 10.9.2 Add node EMMagneticFieldModelType is (r)

CGNS.PAT.cgnslib.newElements (parent, elementstype='UserDefined', elementsconnectivity=None, elementsrange=None)

-Elements node creation -Elements

'newNode:N='newAElements'(parent:N,elementsType:CG_K.ElementType,value:CG_K.ElementConnectivity)'

Returns a new <node> representing a Element_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name Element then only the ElementType,IndexRange_t,ElementConnectivity are created. chapter 7.3 Add node:ElementType,IndexRange_t are required

Add DataArray: ElementConnectivity is required

CGNS.PAT.cgnslib.newFamily(parent, name)

-Family node creation -Family

'newNode:N='newFamily'(parent:N,name:S)'

Returns a new <node> representing a Family_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 12.6

CGNS.PAT.cgnslib.newFamilyBC (parent, valueType='UserDefined')

-FamilyBC node creation -FamilyBC

'newNode:N='newFamilyBC'(parent:N,valueType:CG_K.BCTypeSimple/CG_K.BCTypeCompound)'

Returns a new <node> representing a CG_K.FamilyBC_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name FamilyBC then only the BCType is created chapter 12.8 Add node BCType is required

CGNS.PAT.cgnslib.newFlowEquationSet (parent)

-FlowEquationSet node creation -FlowEquationSet

'newNode:N='newFlowEquationSet'(parent:N)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a CG_K.FlowEquationSet_t sub-tree. chapter 10.1

CGNS.PAT.cgnslib.newFlowSolution (parent, name='{FlowSolution}', gridlocation=None)
-Solution node creation -Solution

'newNode:N='newSolution'(parent:N,name:S,gridlocation:None)'

Returns a new <node> representing a FlowSolution_t sub-tree. chapter 7.7

newGasModel(parent, valueType=array('Ideal', dtype='|S5'))

-GasModel node creation -GasModel

'newNode:N='newGasModel'(parent:N,valueType:CG_K.GasModelType)'

Returns a new <node> representing a CG_K.GasModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name GasModel then only the GasModelType is created. chapter 10.3 Add node GasModelType is required

CGNS.PAT.cgnslib.newGeometryReference(parent, name='{GeometryReference}', value-Type='UserDefined')

-GeometryReference node creation -GeometryReference

'newNode:N='newGeometryReference'(parent:N,name:S,valueType:CG_K.GeometryFormat)'

Returns a new <node> representing a CG_K.GeometryFormat_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name CG_K.GeometryReference then only the .GeometryFormat is created chapter 12.7 Add node CG_K.GeometryFormat_t is (r) and GeometryFile_t definition not find but is required (CAD file)

newGoverningEquations(parent, valueType=array('Euler', dtype='|S5'))

-GoverningEquations node creation -GoverningEquations

'newNode:N='newGoverningEquations'(parent:N,valueType:CG K.GoverningEquationsType)'

Returns a new <node> representing a CG_K.GoverningEquations_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name GoverningEquations then only the GoverningEquationsType is created. chapter 10.2 Add node GoverningEquationsType is required

CGNS.PAT.cgnslib.newGravity(parent, gvector=array([0., 0., 0.]))

-Gravity node creation -Gravity

'newNode:N='newGravity'(parent:N,gvector:A)'

Returns a new <node> representing a Gravity_t sub-tree. If a parent is given, the new <node> is added to the parent children list. gvector should be a real array chapter 12.10 Add DataArray GravityVector is required

CGNS.PAT.cgnslib.newGridConnectivity1to1(parent, name, dname, window, dwindow, trans)

-GridConnectivity1to1 node creation -Grid

'newNode:N='newGridConnectivity1to1'(parent:N,name:S,dname:S,window:[i*],dwindow:[i*],trans:[i*])'

Creates a ZoneGridConnectivity1to1_t sub-tree. If a parent is given, the new <node> is added to the parent children list, the parent should be a Zone_t. The returned node is the GridConnectivity1to1_t chapter 8.2

CGNS.PAT.cgnslib.newGridConnectivityProperty(parent)

-GridConnectivityProperty node creation -GridConnectivityProperty

'newNode:N='newGridConnectivityProperty'(parent:N)'

Returns a new <node> representing a GridConnectivityProperty_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 8.5

CGNS.PAT.cgnslib.newGridCoordinates(parent, name)

-GridCoordinates node creation -Grid

'newNode:N='newGridCoordinates'(parent:N,name:S)'

Returns a new <node> representing a GridCoordinates_t sub-tree. If a parent is given, the new <node> is added to the parent children list.

CGNS.PAT.cgnslib.newGridLocation(parent, value='CellCenter')

-GridLocation node creation -GridLocation

'newNode:N='newGridLocation'(parent:N,value:CG_K.GridLocation)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a GridLocation_t sub-tree. chapter 4.5

CGNS.PAT.cgnslib.newIntegralData(parent, name)

-IntegralData node creation -IntegralData

'newNode:N='newIntegralData'(parent:N,name:S)'

Returns a new <node> representing a IntegralData_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 12.5

CGNS.PAT.cgnslib.newOrdinal(parent, value=0)

-Ordinal node creation -Ordinal

'newNode:N='newOrdinal'(parent:N,value=i)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a Ordinal_t sub-tree. chapter 6.3

CGNS.PAT.cgnslib.newOversetHoles(parent, name, hrange)

-OversetHoles node creation -OversetHoles

'node:N='newOversetHoles'(parent:N,name:S,hrange:list)'

Creates a OversetHoles_t sub-tree. the parent should be a Zone_t. If a parent is given, the new <node> is added to the parent children list. chapter 8.6 Add PointList or List(PointRange) are required

CGNS.PAT.cgnslib.newPeriodic (parent, rotcenter=array([0., 0., 0.]), ratev=array([0., 0., 0.]), trans=array([<math>0., 0., 0.]))

-Periodic node creation -Periodic

'newNode:N='newPeriodic'(parent:N,rotcenter=A,ratev=A,trans=A)'

Returns a new <node> representing a Periodic_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name Periodic then only the RotationCenter,RotationAngle,Translation are created. rotcenter,ratev,trans should be a real array. chapter 8.5.1 Add DataArray RotationCenter,RotationAngle,Translation are required

CGNS.PAT.cgnslib.newPointList(parent, name='PointList', value=[])

-PointList node creation -PointList

'newNode:N='newPointList'(parent:N,name:S,value:[])'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a IndexArray t sub-tree. chapter 4.6

CGNS.PAT.cgnslib.newPointRange(parent, name='PointRange', value=[])

-PointRange node creation -PointRange

'newNode:N='newPointRange'(parent:N,name:S,value:[])'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a IndexRange_t sub-tree. chapter 4.7

CGNS.PAT.cgnslib.newReferenceState (parent, name='ReferenceState')

-ReferenceState node creation -ReferenceState

'newNode:N='newReferenceState'(parent:N,name:S)'

Returns a new <node> representing a ReferenceState_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 12.1

CGNS.PAT.cgnslib.newRigidGridMotion (parent, name, valueType='Null', vector=array([0., 0.]))

-RigidGridMotion node creation -RigidGridMotion

 $`newNode: N=' \textit{newRigidGridMotion'} (parent: N, name: S, valueType: CG_K. RigidGridMotionType, vector: A)' \\$

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a CG_K.RigidGridMotion_t sub-tree. If the parent has already a child name RigidGridMotion then only the RigidGridMotionType is created and OriginLocation is created chapter 11.2 Add Node RigidGridMotionType and add DataArray OriginLocation are the only required

CGNS.PAT.cgnslib.newRind(parent, value)

-Rind node creation -Rind

'newNode:N='newRind'(parent:N,value=A)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a Rind t sub-tree. chapter 4.8

CGNS.PAT.cgnslib.newRotatingCoordinates (parent, rotcenter=array([0., 0., 0.]), ratev=array([0., 0., 0.]))

-RotatingCoordinates node creation -RotatingCoordinates

'newNode:N='newRotatingCoordinates'(parent:N,rotcenter=A,ratev=A)'

Returns a new <node> representing a RotatingCoordinates_t sub-tree. If a parent is given, the new <node> is added to the parent children list. rotcenter, ratev should be a real array. chapter 7.6 Add DataArray RotationRateVector, RotationCenter are required

newSimulationType(parent, stype=array(`NonTimeAccurate', dtype='|S15'))

-SimulationType node creation -SimulationType

'newNode:N='newSimulationType'(parent:N,stype=CG_K.SimulationType)'

If a parent is given, the new <node> is added to the parent children list. Returns a new <node> representing a SimulationType_t sub-tree. chapter 6.2

-ThermalConductivityModel node creation -ThermalConductivityModel

 $`newNode: N=' \textit{newThermalConductivityModel'} (parent: N, value Type: CG_K. ThermalConductivityModel Type)'$

Returns a new <node> representing a CG_K.ThermalConductivityModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name ThermalConductivityModel then only the ThermalConductivityModelType is created. chapter 10.5 Add node ThermalConductivityModelType is required

CGNS.PAT.cgnslib.newThermalRelaxationModel(parent, valueType)

-ThermalRelaxationModel node creation -ThermalRelaxationModel

 $`newNode: N=' \textit{newThermalRelaxationModel'} (parent: N, value Type: CG_K. ThermalRelaxationModel Type)'$

Returns a new <node> representing a CG_K.ThermalRelaxationModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name ThermalRelaxationModel then only the ThermalRelaxationModelType is created. chapter 10.7 Add node ThermalRelaxationModelType is (r)

newTurbulenceClosure(parent, valueType=array(`EddyViscosity', dtype='|S13'))

-TurbulenceClosure node creation -TurbulenceClosure

'newNode:N='newTurbulenceClosure'(parent:N,valueType:CG_K.TurbulenceClosureType)'

Returns a new <node> representing a CG_K.TurbulenceClosure_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name Turbulence-Closure then only the ViscosityModelType is created. chapter 10.5 Add node TurbulenceClosureType is (r)

newTurbulenceModel(parent, valueType=array('OneEquation_SpalartAllmaras', dtype='|S27'))

-TurbulenceModel node creation -TurbulenceModel

'newNode:N='newTurbulenceModel'(parent:N,valueType:CG_K.TurbulenceModelType)'

Returns a new <node> representing a CG_K.TurbulenceModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name TurbulenceModel then only the TurbulenceModelType is created. chapter 10.6.2 Add node TurbulenceModelType is (r)

CGNS.PAT.cgnslib.newUserDefinedData(parent, name)

-UserDefinedData node creation -UserDefinedData

'newNode:N='newUserDefinedData'(parent:N,name:S)'

Returns a new <node> representing a UserDefinedData_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 12.9

newViscosityModel(parent, valueType=array('SutherlandLaw', dtype='|S13'))

-ViscosityModel node creation -ViscosityModel

'newNode:N='newViscosityModel'(parent:N,valueType:CG_K.ViscosityModelType)'

Returns a new <node> representing a CG_K.ViscosityModel_t sub-tree. If a parent is given, the new <node> is added to the parent children list. If the parent has already a child name Viscosity-Model then only the ViscosityModelType is created. chapter 10.4 Add node ViscosityModelType is (r)

CGNS.PAT.cgnslib.newZone (parent, name, size=(2, 2, 2), ztype='Structured', family='')
-Zone node creation -Zone

'newNode:N='newZone'(parent:N,name:S,size:(I*),ztype:CG K.ZoneType)'

Returns a new <node> representing a Zone_t sub-tree. If a parent is given, the new <node> is added to the parent children list. Maps the 'cg_zone_write' MLL chapter 6.3

$\label{lem:newZoneGridConnectivity} newZoneGridConnectivity (parent, name, ctype=array(`Null', dtype='|S4'), donor='`)$

-GridConnectivity node creation -Grid

'newNode:N='newZoneGridConnectivity'(parent:N,name:S,ctype:S)'

Creates a ZoneGridConnectivity_t sub-tree with a sub-node depending on the type of connectivity. This sub-node is returned. If a parent is given, the new <node> is added to the parent children list, the parent should be a Zone_t. chapter 8.1

CGNS.PAT.cgnslib.newZoneIterativeData(parent, name)

-ZoneIterativeData node creation -ZoneIterativeData

'newNode:N='newZoneIterativeData'(parent:N,name:S)'

Returns a new <node> representing a ZoneIterativeData_t sub-tree. If a parent is given, the new <node> is added to the parent children list. chapter 11.1.2

CHAPTER TWO

CGNS.PAT.SIDS

All the CGNS/SIDS structures using CGNS.PAT as API.

CHAPTER THREE

CGNS.PAT.CGNSKEYWORDS

CGNS.PAT.cgnskeywords

CHAPTER FOUR

CGNS.PAT.CGNSERRORS

CGNS.PAT.cgnserrors

PYTHON MODULE INDEX

С

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