

An InterfaceType_t label has been defined to specify the geometric information required for generalizations of the GridConnectivity_t node (for example for turbomachinery multi-row boundary conditions). The InterfaceType_t node is an optional child of the GridConnectivity_t node. It's presence is flagged by the new GridConnectivity_t enumeration GeneralizedAbutting.

The GridConnectivityType_t node adds an enumeration value to become:

```
GridConnectivityType_t := Enumeration(  
Null,  
Overset,  
Abutting,  
Abutting1to1,  
GeneralizedAbutting,  
UserDefined ) ;
```

Node Attributes

Name: GridConnectivityType
Label: GridConnectivityType_t
DataType: c1
Dimension: 1
Dimension Values: Length of string
Data: Abutting, Abutting1to1, or Overset
Children: InterfaceType
Cardinality: 0,1

The new InterfaceType_t node becomes:

```
InterfaceType_t := Enumeration(  
Null,  
AverageAll,  
AverageTheta,  
AverageI | J | K,  
UnsteadyI | J | K,  
UserDefined ) ;
```

Node Attributes

Name: InterfaceType
Label: InterfaceType_t
DataType: c1
Dimension: 1
Dimension Values: Length of string
Data: Null, AverageAll, AverageTheta, AverageI, AverageJ, AverageK, UnsteadyI, UnsteadyJ, UnsteadyK, UserDefined
Children: none
Cardinality: 0,1

The enumerations imply the following:

AverageAll – implies that the entire interface plane values are averaged before communicating with the adjacent boundary.

AverageTheta – implies that the data is averaged in the theta coordinate direction before communicating with the adjacent boundary. The application is responsible for determining how to perform the theta average.

AverageI | J | K – implies that the data is averaged in I | J | K grid index before communicating with the adjacent boundary. This is useful for grids that are aligned with the circumferential direction.

UnsteadyI | J | K – implies that the grids are moving relative to each other along the I | J | K direction. The application is responsible for determining the instantaneous location and interpolation factors in the unsteady direction. (Typically done using the instantaneous time and relative rotation rates, or by an instantaneous interpolation.)