

IRL C/Fortran Interface

Generated by Doxygen 1.8.15

Contents

| | |
|--|-----------|
| 1 C / Fortran IRL Interface | 1 |
| 2 Namespace Index | 3 |
| 2.1 Namespace List | 3 |
| 3 Class Index | 7 |
| 3.1 Class List | 7 |
| 4 File Index | 19 |
| 4.1 File List | 19 |
| 5 Namespace Documentation | 23 |
| 5.1 f_bytebuffer_class Module Reference | 23 |
| 5.1.1 Detailed Description | 23 |
| 5.2 f_cappeddodecahedron_class Module Reference | 24 |
| 5.2.1 Detailed Description | 24 |
| 5.3 f_cappeddodecahedron_doubles3_class Module Reference | 24 |
| 5.3.1 Detailed Description | 25 |
| 5.4 f_constants Module Reference | 25 |
| 5.4.1 Detailed Description | 26 |
| 5.5 f_cutpolygon Module Reference | 26 |
| 5.5.1 Detailed Description | 26 |
| 5.6 f_definedtypes Module Reference | 27 |
| 5.6.1 Detailed Description | 27 |
| 5.7 f_dividedpolygon_class Module Reference | 27 |

| | |
|---|----|
| 5.7.1 Detailed Description | 28 |
| 5.8 f_dodecahedron_class Module Reference | 29 |
| 5.8.1 Detailed Description | 29 |
| 5.9 f_elviraneighborhood_class Module Reference | 29 |
| 5.9.1 Detailed Description | 30 |
| 5.10 f_geometriccuttinghelpers Module Reference | 30 |
| 5.10.1 Detailed Description | 30 |
| 5.11 f_getvolumemoments Module Reference | 30 |
| 5.11.1 Detailed Description | 32 |
| 5.12 f_listedvm_vman_class Module Reference | 32 |
| 5.12.1 Detailed Description | 32 |
| 5.13 f_localizedseparatorlink_class Module Reference | 33 |
| 5.13.1 Detailed Description | 33 |
| 5.14 f_localizerlink_class Module Reference | 33 |
| 5.14.1 Detailed Description | 34 |
| 5.15 f_lviraneighborhood_rectangularcuboid_class Module Reference | 34 |
| 5.15.1 Detailed Description | 35 |
| 5.16 f_objectallocationserver_localizedseparatorlink_class Module Reference | 35 |
| 5.16.1 Detailed Description | 35 |
| 5.17 f_objectallocationserver_localizerlink_class Module Reference | 36 |
| 5.17.1 Detailed Description | 36 |
| 5.18 f_objectallocationserver_planarlocalizer_class Module Reference | 36 |
| 5.18.1 Detailed Description | 37 |
| 5.19 f_objectallocationserver_planarseparator_class Module Reference | 37 |
| 5.19.1 Detailed Description | 37 |
| 5.20 f_planarlocalizer_class Module Reference | 37 |
| 5.20.1 Detailed Description | 38 |
| 5.21 f_planarseparator_class Module Reference | 38 |
| 5.21.1 Detailed Description | 39 |
| 5.22 f_polygon_class Module Reference | 39 |

| | |
|---|----|
| 5.22.1 Detailed Description | 40 |
| 5.23 f_polyhedron24_class Module Reference | 40 |
| 5.23.1 Detailed Description | 41 |
| 5.24 f_polyhedron24_doubles3_class Module Reference | 41 |
| 5.24.1 Detailed Description | 42 |
| 5.25 f_r2pneighborhood_rectangularcuboid_class Module Reference | 42 |
| 5.25.1 Detailed Description | 43 |
| 5.26 f_reconstructioninterface Module Reference | 43 |
| 5.26.1 Detailed Description | 45 |
| 5.27 f_rectangularcuboid_class Module Reference | 45 |
| 5.27.1 Detailed Description | 45 |
| 5.28 f_sepvm_class Module Reference | 45 |
| 5.28.1 Detailed Description | 46 |
| 5.29 f_sepvm_doubles3_class Module Reference | 46 |
| 5.29.1 Detailed Description | 47 |
| 5.30 f_serializer Module Reference | 47 |
| 5.30.1 Detailed Description | 48 |
| 5.31 f_tagged_accumlistedvm_vman_class Module Reference | 48 |
| 5.31.1 Detailed Description | 49 |
| 5.32 f_tagged_accumvm_sepvm_class Module Reference | 49 |
| 5.32.1 Detailed Description | 50 |
| 5.33 f_tagged_accumvm_vm_class Module Reference | 50 |
| 5.33.1 Detailed Description | 51 |
| 5.34 f_tet_class Module Reference | 51 |
| 5.34.1 Detailed Description | 51 |
| 5.35 f_tri_class Module Reference | 52 |
| 5.35.1 Detailed Description | 53 |
| 5.36 f_vman_class Module Reference | 53 |
| 5.36.1 Detailed Description | 53 |
| 5.37 f_volumefractionmatching Module Reference | 53 |
| 5.37.1 Detailed Description | 54 |
| 5.38 irl_fortran_interface Module Reference | 54 |
| 5.38.1 Detailed Description | 54 |

| | |
|---|-----------|
| 6 Class Documentation | 55 |
| 6.1 f_iviraneighborhood_rectangularcuboid_class::addmember Interface Reference | 55 |
| 6.1.1 Detailed Description | 55 |
| 6.2 f_r2pneighborhood_rectangularcuboid_class::addmember Interface Reference | 55 |
| 6.2.1 Detailed Description | 55 |
| 6.3 f_planarlocalizer_class::addplane Interface Reference | 56 |
| 6.3.1 Detailed Description | 56 |
| 6.4 f_planarseparator_class::addplane Interface Reference | 56 |
| 6.4.1 Detailed Description | 56 |
| 6.5 f_polyhedron24_class::adjustcaptomatchvolume Interface Reference | 56 |
| 6.5.1 Detailed Description | 56 |
| 6.6 f_polyhedron24_doubles3_class::adjustcaptomatchvolume Interface Reference | 57 |
| 6.6.1 Detailed Description | 57 |
| 6.7 f_cappeddodecahedron_class::adjustcaptomatchvolume Interface Reference | 57 |
| 6.7.1 Detailed Description | 57 |
| 6.8 f_cappeddodecahedron_doubles3_class::adjustcaptomatchvolume Interface Reference | 57 |
| 6.8.1 Detailed Description | 57 |
| 6.9 f_listedvm_vman_class::append Interface Reference | 58 |
| 6.9.1 Detailed Description | 58 |
| 6.10 f_tagged_accumlistedvm_vman_class::append Interface Reference | 58 |
| 6.10.1 Detailed Description | 58 |
| 6.11 f_bytebuffer_class::bytebuffer_type Type Reference | 58 |
| 6.11.1 Detailed Description | 58 |
| 6.12 c_ByteBuffer Struct Reference | 59 |
| 6.12.1 Detailed Description | 59 |
| 6.13 f_bytebuffer_class::c_bytebuffer Type Reference | 59 |
| 6.13.1 Detailed Description | 59 |
| 6.14 f_cappeddodecahedron_class::c_cappeddodecahedron Type Reference | 59 |
| 6.14.1 Detailed Description | 59 |
| 6.15 c_CappedDodecahedron Struct Reference | 60 |

| | |
|--|----|
| 6.15.1 Detailed Description | 60 |
| 6.16 c_CappedDodecahedron_doubles3 Struct Reference | 60 |
| 6.16.1 Detailed Description | 60 |
| 6.17 f_cappeddodecahedron_doubles3_class::c_cappeddodecahedron_doubles3 Type Reference | 60 |
| 6.17.1 Detailed Description | 60 |
| 6.18 c_DividedPolygon Struct Reference | 61 |
| 6.18.1 Detailed Description | 61 |
| 6.19 f_dividedpolygon_class::c_dividedpolygon Type Reference | 61 |
| 6.19.1 Detailed Description | 61 |
| 6.20 f_dodecahedron_class::c_dodecahedron Type Reference | 61 |
| 6.20.1 Detailed Description | 61 |
| 6.21 c_Dodecahedron Struct Reference | 62 |
| 6.21.1 Detailed Description | 62 |
| 6.22 c_ELVIRANeighborhood Struct Reference | 62 |
| 6.22.1 Detailed Description | 62 |
| 6.23 f_elviraneighborhood_class::c_elviraneighborhood Type Reference | 62 |
| 6.23.1 Detailed Description | 62 |
| 6.24 c_ListedVM_VMAN Struct Reference | 63 |
| 6.24.1 Detailed Description | 63 |
| 6.25 f_listedvm_vman_class::c_listedvm_vman Type Reference | 63 |
| 6.25.1 Detailed Description | 63 |
| 6.26 c_LocalizedSeparatorLink Struct Reference | 63 |
| 6.26.1 Detailed Description | 63 |
| 6.27 f_localizedseparatorlink_class::c_localizedseparatorlink Type Reference | 64 |
| 6.27.1 Detailed Description | 64 |
| 6.28 f_localizerlink_class::c_localizerlink Type Reference | 64 |
| 6.28.1 Detailed Description | 64 |
| 6.29 c_LocalizerLink Struct Reference | 64 |
| 6.29.1 Detailed Description | 64 |
| 6.30 c_LVIRANeighborhood_RectangularCuboid Struct Reference | 65 |

| | |
|--|----|
| 6.30.1 Detailed Description | 65 |
| 6.31 f_lviraneighborhood_rectangularcuboid_class::c_lviraneighborhood_rectangularcuboid Type Reference | 65 |
| 6.31.1 Detailed Description | 65 |
| 6.32 c_ObjectAllocationServer_LocalizedSeparatorLink Struct Reference | 65 |
| 6.32.1 Detailed Description | 65 |
| 6.33 f_objectallocationserver_localizedseparatorlink_class::c_objectallocationserver_localizedseparatorlink Type Reference | 66 |
| 6.33.1 Detailed Description | 66 |
| 6.34 c_ObjectAllocationServer_LocalizerLink Struct Reference | 66 |
| 6.34.1 Detailed Description | 66 |
| 6.35 f_objectallocationserver_localizerlink_class::c_objectallocationserver_localizerlink Type Reference | 66 |
| 6.35.1 Detailed Description | 66 |
| 6.36 f_objectallocationserver_planarlocalizer_class::c_objectallocationserver_planarlocalizer Type Reference | 67 |
| 6.36.1 Detailed Description | 67 |
| 6.37 c_ObjectAllocationServer_PlanarLocalizer Struct Reference | 67 |
| 6.37.1 Detailed Description | 67 |
| 6.38 c_ObjectAllocationServer_PlanarSeparator Struct Reference | 67 |
| 6.38.1 Detailed Description | 67 |
| 6.39 f_objectallocationserver_planarseparator_class::c_objectallocationserver_planarseparator Type Reference | 68 |
| 6.39.1 Detailed Description | 68 |
| 6.40 f_planarlocalizer_class::c_planarlocalizer Type Reference | 68 |
| 6.40.1 Detailed Description | 68 |
| 6.41 c_PlanarLocalizer Struct Reference | 68 |
| 6.41.1 Detailed Description | 68 |
| 6.42 f_planarseparator_class::c_planarseparator Type Reference | 69 |
| 6.42.1 Detailed Description | 69 |
| 6.43 c_PlanarSeparator Struct Reference | 69 |
| 6.43.1 Detailed Description | 69 |
| 6.44 f_polygon_class::c_polygon Type Reference | 69 |

| | |
|--|----|
| 6.44.1 Detailed Description | 69 |
| 6.45 c_Polygon Struct Reference | 70 |
| 6.45.1 Detailed Description | 70 |
| 6.46 f_polyhedron24_class::c_polyhedron24 Type Reference | 70 |
| 6.46.1 Detailed Description | 70 |
| 6.47 c_Polyhedron24 Struct Reference | 70 |
| 6.47.1 Detailed Description | 70 |
| 6.48 f_polyhedron24_doubles3_class::c_polyhedron24_doubles3 Type Reference | 71 |
| 6.48.1 Detailed Description | 71 |
| 6.49 c_Polyhedron24_doubles3 Struct Reference | 71 |
| 6.49.1 Detailed Description | 71 |
| 6.50 c_R2PNeighborhood_RectangularCuboid Struct Reference | 71 |
| 6.50.1 Detailed Description | 71 |
| 6.51 f_r2pneighborhood_rectangularcuboid_class::c_r2pneighborhood_rectangularcuboid Type Reference | 72 |
| 6.51.1 Detailed Description | 72 |
| 6.52 c_RectangularCuboid Struct Reference | 72 |
| 6.52.1 Detailed Description | 72 |
| 6.53 f_rectangularcuboid_class::c_rectangularcuboid Type Reference | 72 |
| 6.53.1 Detailed Description | 72 |
| 6.54 c_SepVM Struct Reference | 73 |
| 6.54.1 Detailed Description | 73 |
| 6.55 f_sepvm_class::c_sepvm Type Reference | 73 |
| 6.55.1 Detailed Description | 73 |
| 6.56 c_SepVM_doubles3 Struct Reference | 73 |
| 6.56.1 Detailed Description | 73 |
| 6.57 f_sepvm_doubles3_class::c_sepvm_doubles3 Type Reference | 74 |
| 6.57.1 Detailed Description | 74 |
| 6.58 c_Tagged_AccumListedVM_VMAN Struct Reference | 74 |
| 6.58.1 Detailed Description | 74 |
| 6.59 f_tagged_accumlistedvm_vman_class::c_tagged_accumlistedvm_vman Type Reference | 74 |

| | |
|--|----|
| 6.59.1 Detailed Description | 74 |
| 6.60 c_Tagged_AccumVM_SepVM Struct Reference | 75 |
| 6.60.1 Detailed Description | 75 |
| 6.61 f_tagged_accumvm_sepvm_class::c_tagged_accumvm_sepvm Type Reference | 75 |
| 6.61.1 Detailed Description | 75 |
| 6.62 f_tagged_accumvm_vm_class::c_tagged_accumvm_vm Type Reference | 75 |
| 6.62.1 Detailed Description | 75 |
| 6.63 c_Tagged_AccumVM_VM Struct Reference | 76 |
| 6.63.1 Detailed Description | 76 |
| 6.64 f_tet_class::c_tet Type Reference | 76 |
| 6.64.1 Detailed Description | 76 |
| 6.65 c_Tet Struct Reference | 76 |
| 6.65.1 Detailed Description | 76 |
| 6.66 f_tri_class::c_tri Type Reference | 77 |
| 6.66.1 Detailed Description | 77 |
| 6.67 c_Tri Struct Reference | 77 |
| 6.67.1 Detailed Description | 77 |
| 6.68 f_vman_class::c_vman Type Reference | 77 |
| 6.68.1 Detailed Description | 77 |
| 6.69 c_VMAN Struct Reference | 78 |
| 6.69.1 Detailed Description | 78 |
| 6.70 f_tri_class::calculateandsetplaneofexistence Interface Reference | 78 |
| 6.70.1 Detailed Description | 78 |
| 6.71 f_polygon_class::calculateandsetplaneofexistence Interface Reference | 78 |
| 6.71.1 Detailed Description | 78 |
| 6.72 f_dividedpolygon_class::calculateandsetplaneofexistence Interface Reference | 79 |
| 6.72.1 Detailed Description | 79 |
| 6.73 f_tri_class::calculatecentroid Interface Reference | 79 |
| 6.73.1 Detailed Description | 79 |
| 6.74 f_polygon_class::calculatecentroid Interface Reference | 79 |

| | |
|---|----|
| 6.74.1 Detailed Description | 79 |
| 6.75 f_polygon_class::calculatenearestptonsurface Interface Reference | 80 |
| 6.75.1 Detailed Description | 80 |
| 6.76 f_tri_class::calculatenormal Interface Reference | 80 |
| 6.76.1 Detailed Description | 80 |
| 6.77 f_polygon_class::calculatenormal Interface Reference | 80 |
| 6.77.1 Detailed Description | 80 |
| 6.78 f_dividedpolygon_class::calculatenormal Interface Reference | 81 |
| 6.78.1 Detailed Description | 81 |
| 6.79 f_tri_class::calculatesign Interface Reference | 81 |
| 6.79.1 Detailed Description | 81 |
| 6.80 f_polygon_class::calculatesign Interface Reference | 81 |
| 6.80.1 Detailed Description | 81 |
| 6.81 f_dividedpolygon_class::calculatesign Interface Reference | 82 |
| 6.81.1 Detailed Description | 82 |
| 6.82 f_dividedpolygon_class::calculatesurfacearea Interface Reference | 82 |
| 6.82.1 Detailed Description | 82 |
| 6.83 f_tri_class::calculatevolume Interface Reference | 82 |
| 6.83.1 Detailed Description | 82 |
| 6.84 f_polygon_class::calculatevolume Interface Reference | 83 |
| 6.84.1 Detailed Description | 83 |
| 6.85 f_rectangularcuboid_class::calculatevolume Interface Reference | 83 |
| 6.85.1 Detailed Description | 83 |
| 6.86 f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_type Type Reference . . | 83 |
| 6.86.1 Detailed Description | 84 |
| 6.87 f_cappeddodecahedron_class::cappeddodecahedron_type Type Reference | 84 |
| 6.87.1 Detailed Description | 84 |
| 6.88 f_listedvm_vman_class::clear Interface Reference | 84 |
| 6.88.1 Detailed Description | 84 |
| 6.89 f_tagged_accumlistedvm_vman_class::clear Interface Reference | 84 |

| | |
|--|----|
| 6.89.1 Detailed Description | 85 |
| 6.90 f_dodecahedron_class::construct Interface Reference | 85 |
| 6.90.1 Detailed Description | 85 |
| 6.91 f_tet_class::construct Interface Reference | 85 |
| 6.91.1 Detailed Description | 85 |
| 6.92 f_tri_class::construct Interface Reference | 85 |
| 6.92.1 Detailed Description | 86 |
| 6.93 f_polygon_class::construct Interface Reference | 86 |
| 6.93.1 Detailed Description | 86 |
| 6.94 f_polyhedron24_class::construct Interface Reference | 86 |
| 6.94.1 Detailed Description | 86 |
| 6.95 f_dividedpolygon_class::construct Interface Reference | 86 |
| 6.95.1 Detailed Description | 87 |
| 6.96 f_polyhedron24_doubles3_class::construct Interface Reference | 87 |
| 6.96.1 Detailed Description | 87 |
| 6.97 f_cappeddodecahedron_class::construct Interface Reference | 87 |
| 6.97.1 Detailed Description | 87 |
| 6.98 f_rectangularcuboid_class::construct Interface Reference | 87 |
| 6.98.1 Detailed Description | 88 |
| 6.99 f_sepvm_class::construct Interface Reference | 88 |
| 6.99.1 Detailed Description | 88 |
| 6.100 f_cappeddodecahedron_doubles3_class::construct Interface Reference | 88 |
| 6.100.1 Detailed Description | 88 |
| 6.101 f_rectangularcuboid_class::construct_2pt Interface Reference | 88 |
| 6.101.1 Detailed Description | 89 |
| 6.102 f_dividedpolygon_class::constructfrompolygon Interface Reference | 89 |
| 6.102.1 Detailed Description | 89 |
| 6.103 f_planarseparator_class::copy Interface Reference | 89 |
| 6.103.1 Detailed Description | 89 |
| 6.104 f_bytebuffer_class::dataptr Interface Reference | 89 |

| | |
|---|----|
| 6.104.1 Detailed Description | 90 |
| 6.105 f_dividedpolygon_class::dividedpolygon_type Type Reference | 90 |
| 6.105.1 Detailed Description | 90 |
| 6.106 f_dodecahedron_class::dodecahedron_type Type Reference | 90 |
| 6.106.1 Detailed Description | 90 |
| 6.107 f_elviraneighborhood_class::elviraneighborhood_type Type Reference | 91 |
| 6.107.1 Detailed Description | 91 |
| 6.108 f_r2pneighborhood_rectangularcuboid_class::emptyneighborhood Interface Reference | 91 |
| 6.108.1 Detailed Description | 91 |
| 6.109 f_lviraneighborhood_rectangularcuboid_class::emptyneighborhood Interface Reference | 91 |
| 6.109.1 Detailed Description | 92 |
| 6.110 f_listedvm_vman_class::erase Interface Reference | 92 |
| 6.110.1 Detailed Description | 92 |
| 6.111 f_bytebuffer_class::F_ByteBuffer_dataPtr Interface Reference | 92 |
| 6.111.1 Detailed Description | 92 |
| 6.112 f_bytebuffer_class::F_ByteBuffer_delete Interface Reference | 92 |
| 6.112.1 Detailed Description | 93 |
| 6.113 f_bytebuffer_class::F_ByteBuffer_getSize Interface Reference | 93 |
| 6.113.1 Detailed Description | 93 |
| 6.114 f_bytebuffer_class::F_ByteBuffer_new Interface Reference | 93 |
| 6.114.1 Detailed Description | 93 |
| 6.115 f_bytebuffer_class::F_ByteBuffer_resetBufferPointer Interface Reference | 93 |
| 6.115.1 Detailed Description | 94 |
| 6.116 f_bytebuffer_class::F_ByteBuffer_setSize Interface Reference | 94 |
| 6.116.1 Detailed Description | 94 |
| 6.117 f_cappeddodecahedron_class::F_CappedDodecahedron_adjustCapToMatchVolume Interface Reference | 94 |
| 6.117.1 Detailed Description | 94 |
| 6.118 f_cappeddodecahedron_class::F_CappedDodecahedron_construct Interface Reference | 94 |
| 6.118.1 Detailed Description | 95 |
| 6.119 f_cappeddodecahedron_class::F_CappedDodecahedron_delete Interface Reference | 95 |

| | |
|---|----|
| 6.119.1 Detailed Description | 95 |
| 6.120 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_adjustCapTo↔</code> MatchVolume Interface Reference | 95 |
| 6.120.1 Detailed Description | 95 |
| 6.121 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_construct</code> Interface Reference | 95 |
| 6.121.1 Detailed Description | 96 |
| 6.122 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_delete</code> Interface Reference | 96 |
| 6.122.1 Detailed Description | 96 |
| 6.123 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getBoundingPts</code> In- terface Reference | 96 |
| 6.123.1 Detailed Description | 96 |
| 6.124 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getData</code> Interface Reference | 96 |
| 6.124.1 Detailed Description | 97 |
| 6.125 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getPt</code> Interface Ref- erence | 97 |
| 6.125.1 Detailed Description | 97 |
| 6.126 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_new</code> Interface Ref- erence | 97 |
| 6.126.1 Detailed Description | 97 |
| 6.127 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setData</code> Interface Reference | 97 |
| 6.127.1 Detailed Description | 98 |
| 6.128 <code>f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setPt</code> Interface Ref- erence | 98 |
| 6.128.1 Detailed Description | 98 |
| 6.129 <code>f_cappeddodecahedron_class::F_CappedDodecahedron_getBoundingPts</code> Interface Reference | 98 |
| 6.129.1 Detailed Description | 98 |
| 6.130 <code>f_cappeddodecahedron_class::F_CappedDodecahedron_getPt</code> Interface Reference | 98 |
| 6.130.1 Detailed Description | 99 |
| 6.131 <code>f_cappeddodecahedron_class::F_CappedDodecahedron_new</code> Interface Reference | 99 |
| 6.131.1 Detailed Description | 99 |

| | |
|--|-----|
| 6.132 f_constants::F_Constants_setMinimumSurfaceAreaToTrack Interface Reference | 99 |
| 6.132.1 Detailed Description | 99 |
| 6.133 f_constants::F_Constants_setMinimumVolumeToTrack Interface Reference | 99 |
| 6.133.1 Detailed Description | 100 |
| 6.134 f_constants::F_Constants_setVolumeFractionBounds Interface Reference | 100 |
| 6.134.1 Detailed Description | 100 |
| 6.135 f_constants::F_Constants_setVolumeFractionToleranceForDistanceFinding Interface Reference | 100 |
| 6.135.1 Detailed Description | 100 |
| 6.136 f_dividedpolygon_class::F_DividedPolygon_calculateAndSetPlaneOfExistence Interface Reference | 100 |
| 6.136.1 Detailed Description | 101 |
| 6.137 f_dividedpolygon_class::F_DividedPolygon_calculateNormal Interface Reference | 101 |
| 6.137.1 Detailed Description | 101 |
| 6.138 f_dividedpolygon_class::F_DividedPolygon_calculateSign Interface Reference | 101 |
| 6.138.1 Detailed Description | 101 |
| 6.139 f_dividedpolygon_class::F_DividedPolygon_calculateSurfaceArea Interface Reference | 101 |
| 6.139.1 Detailed Description | 102 |
| 6.140 f_dividedpolygon_class::F_DividedPolygon_construct Interface Reference | 102 |
| 6.140.1 Detailed Description | 102 |
| 6.141 f_dividedpolygon_class::F_DividedPolygon_constructFromPolygon Interface Reference | 102 |
| 6.141.1 Detailed Description | 102 |
| 6.142 f_dividedpolygon_class::F_DividedPolygon_delete Interface Reference | 102 |
| 6.142.1 Detailed Description | 103 |
| 6.143 f_dividedpolygon_class::F_DividedPolygon_getBoundingPts Interface Reference | 103 |
| 6.143.1 Detailed Description | 103 |
| 6.144 f_dividedpolygon_class::F_DividedPolygon_getLocalizer Interface Reference | 103 |
| 6.144.1 Detailed Description | 103 |
| 6.145 f_dividedpolygon_class::F_DividedPolygon_getNumberOfPts Interface Reference | 103 |
| 6.145.1 Detailed Description | 104 |
| 6.146 f_dividedpolygon_class::F_DividedPolygon_getNumberOfSimplicesInDecomposition Interface Reference | 104 |
| 6.146.1 Detailed Description | 104 |

| | |
|--|-----|
| 6.147 f_dividedpolygon_class::F_DividedPolygon_getPlaneOfExistence Interface Reference | 104 |
| 6.147.1 Detailed Description | 104 |
| 6.148 f_dividedpolygon_class::F_DividedPolygon_getPt Interface Reference | 104 |
| 6.148.1 Detailed Description | 105 |
| 6.149 f_dividedpolygon_class::F_DividedPolygon_getSimplexFromDecomposition Interface Reference | 105 |
| 6.149.1 Detailed Description | 105 |
| 6.150 f_dividedpolygon_class::F_DividedPolygon_new Interface Reference | 105 |
| 6.150.1 Detailed Description | 105 |
| 6.151 f_dividedpolygon_class::F_DividedPolygon_printToScreen Interface Reference | 105 |
| 6.151.1 Detailed Description | 106 |
| 6.152 f_dividedpolygon_class::F_DividedPolygon_resetCentroid Interface Reference | 106 |
| 6.152.1 Detailed Description | 106 |
| 6.153 f_dividedpolygon_class::F_DividedPolygon_reversePtOrdering Interface Reference | 106 |
| 6.153.1 Detailed Description | 106 |
| 6.154 f_dividedpolygon_class::F_DividedPolygon_setPlaneOfExistence Interface Reference | 106 |
| 6.154.1 Detailed Description | 107 |
| 6.155 f_dividedpolygon_class::F_DividedPolygon_zeroPolygon Interface Reference | 107 |
| 6.155.1 Detailed Description | 107 |
| 6.156 f_dodecahedron_class::F_Dodecahedron_construct Interface Reference | 107 |
| 6.156.1 Detailed Description | 107 |
| 6.157 f_dodecahedron_class::F_Dodecahedron_delete Interface Reference | 107 |
| 6.157.1 Detailed Description | 108 |
| 6.158 f_dodecahedron_class::F_Dodecahedron_getBoundingPts Interface Reference | 108 |
| 6.158.1 Detailed Description | 108 |
| 6.159 f_dodecahedron_class::F_Dodecahedron_new Interface Reference | 108 |
| 6.159.1 Detailed Description | 108 |
| 6.160 f_elviraneighborhood_class::F_ELVIRANeighborhood_delete Interface Reference | 108 |
| 6.160.1 Detailed Description | 109 |
| 6.161 f_elviraneighborhood_class::F_ELVIRANeighborhood_new Interface Reference | 109 |
| 6.161.1 Detailed Description | 109 |

| | |
|--|-----|
| 6.162 f_elviraneighborhood_class::F_ELVIRANeighborhood_setMember Interface Reference | 109 |
| 6.162.1 Detailed Description | 109 |
| 6.163 f_elviraneighborhood_class::F_ELVIRANeighborhood_setSize Interface Reference | 109 |
| 6.163.1 Detailed Description | 110 |
| 6.164 f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_DivPoly Interface Reference | 110 |
| 6.164.1 Detailed Description | 110 |
| 6.165 f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_Poly Interface Reference | 110 |
| 6.165.1 Detailed Description | 110 |
| 6.166 f_cutpolygon::F_getReconstructionSurfaceArea_RC Interface Reference | 110 |
| 6.166.1 Detailed Description | 111 |
| 6.167 f_getvolumemoments::F_GNVM_CD_By_LSL_For_SVM Interface Reference | 111 |
| 6.167.1 Detailed Description | 111 |
| 6.168 f_getvolumemoments::F_GNVM_CD_By_LSL_For_TagAccumVM_SVM Interface Reference | 111 |
| 6.168.1 Detailed Description | 111 |
| 6.169 f_getvolumemoments::F_GNVM_CDWD3_By_LSL_For_SVMAD3 Interface Reference | 111 |
| 6.169.1 Detailed Description | 112 |
| 6.170 f_getvolumemoments::F_GNVM_D_By_LSL_For_SVM Interface Reference | 112 |
| 6.170.1 Detailed Description | 112 |
| 6.171 f_getvolumemoments::F_GNVM_D_By_LSL_For_TagAccumVM_SVM Interface Reference | 112 |
| 6.171.1 Detailed Description | 112 |
| 6.172 f_getvolumemoments::F_GNVM_D_By_PS_For_SVM Interface Reference | 112 |
| 6.172.1 Detailed Description | 113 |
| 6.173 f_getvolumemoments::F_GNVM_P24_By_LSL_For_SVM Interface Reference | 113 |
| 6.173.1 Detailed Description | 113 |
| 6.174 f_getvolumemoments::F_GNVM_P24WD3_By_LSL_For_SVMAD3 Interface Reference | 113 |
| 6.174.1 Detailed Description | 113 |
| 6.175 f_getvolumemoments::F_GNVM_Poly_By_PL_For_V Interface Reference | 113 |
| 6.175.1 Detailed Description | 114 |
| 6.176 f_getvolumemoments::F_GNVM_RC_By_PS_For_SVM Interface Reference | 114 |
| 6.176.1 Detailed Description | 114 |

| | |
|--|-----|
| 6.177 f_getvolumemoments::F_GNVM_RC_By_PS_For_V Interface Reference | 114 |
| 6.177.1 Detailed Description | 114 |
| 6.178 f_getvolumemoments::F_GNVM_Tet_By_LSL_For_SVM Interface Reference | 114 |
| 6.178.1 Detailed Description | 115 |
| 6.179 f_getvolumemoments::F_GNVM_Tri_By_LL_For_TagAVM_VM Interface Reference | 115 |
| 6.179.1 Detailed Description | 115 |
| 6.180 f_getvolumemoments::F_GNVM_Tri_By_PL_For_V Interface Reference | 115 |
| 6.180.1 Detailed Description | 115 |
| 6.181 f_getvolumemoments::F_GVM_CD_By_LSL_For_SVM Interface Reference | 115 |
| 6.181.1 Detailed Description | 116 |
| 6.182 f_getvolumemoments::F_GVM_D_By_LSL_For_SVM Interface Reference | 116 |
| 6.182.1 Detailed Description | 116 |
| 6.183 f_getvolumemoments::F_GVM_P24_By_LSL_For_SVM Interface Reference | 116 |
| 6.183.1 Detailed Description | 116 |
| 6.184 f_getvolumemoments::F_GVM_setMethod Interface Reference | 116 |
| 6.184.1 Detailed Description | 117 |
| 6.185 f_getvolumemoments::F_GVM_Tri_By_LL_For_TagALVM_VMAN Interface Reference | 117 |
| 6.185.1 Detailed Description | 117 |
| 6.186 f_geometriccuttinghelpers::F_isPtInternal_PL Interface Reference | 117 |
| 6.186.1 Detailed Description | 117 |
| 6.187 f_geometriccuttinghelpers::F_isPtInternal_PS Interface Reference | 117 |
| 6.187.1 Detailed Description | 118 |
| 6.188 f_listedvm_vman_class::F_ListedVM_VMAN_append Interface Reference | 118 |
| 6.188.1 Detailed Description | 118 |
| 6.189 f_listedvm_vman_class::F_ListedVM_VMAN_clear Interface Reference | 118 |
| 6.189.1 Detailed Description | 118 |
| 6.190 f_listedvm_vman_class::F_ListedVM_VMAN_delete Interface Reference | 118 |
| 6.190.1 Detailed Description | 119 |
| 6.191 f_listedvm_vman_class::F_ListedVM_VMAN_erase Interface Reference | 119 |
| 6.191.1 Detailed Description | 119 |

| | |
|--|-----|
| 6.192 f_listedvm_vman_class::F_ListedVM_VMAN_getMoments Interface Reference | 119 |
| 6.192.1 Detailed Description | 119 |
| 6.193 f_listedvm_vman_class::F_ListedVM_VMAN_getSize Interface Reference | 119 |
| 6.193.1 Detailed Description | 120 |
| 6.194 f_listedvm_vman_class::F_ListedVM_VMAN_new Interface Reference | 120 |
| 6.194.1 Detailed Description | 120 |
| 6.195 f_listedvm_vman_class::F_ListedVM_VMAN_zeroNormalComponent Interface Reference | 120 |
| 6.195.1 Detailed Description | 120 |
| 6.196 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_delete Interface Reference | 120 |
| 6.196.1 Detailed Description | 121 |
| 6.197 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_getId Interface Reference | 121 |
| 6.197.1 Detailed Description | 121 |
| 6.198 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_new Interface Reference | 121 |
| 6.198.1 Detailed Description | 121 |
| 6.199 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_newFromObjectAllocationServer Interface Reference | 121 |
| 6.199.1 Detailed Description | 122 |
| 6.200 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivity Interface Reference | 122 |
| 6.200.1 Detailed Description | 122 |
| 6.201 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivityNull Interface Reference | 122 |
| 6.201.1 Detailed Description | 122 |
| 6.202 f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setId Interface Reference | 122 |
| 6.202.1 Detailed Description | 123 |
| 6.203 f_localizerlink_class::F_LocalizerLink_delete Interface Reference | 123 |
| 6.203.1 Detailed Description | 123 |
| 6.204 f_localizerlink_class::F_LocalizerLink_getId Interface Reference | 123 |
| 6.204.1 Detailed Description | 123 |
| 6.205 f_localizerlink_class::F_LocalizerLink_new Interface Reference | 123 |
| 6.205.1 Detailed Description | 124 |
| 6.206 f_localizerlink_class::F_LocalizerLink_newFromObjectAllocationServer Interface Reference | 124 |

| | |
|---|-----|
| 6.206.1 Detailed Description | 124 |
| 6.207 f_localizerlink_class::F_LocalizerLink_setEdgeConnectivity Interface Reference | 124 |
| 6.207.1 Detailed Description | 124 |
| 6.208 f_localizerlink_class::F_LocalizerLink_setEdgeConnectivityNull Interface Reference | 124 |
| 6.208.1 Detailed Description | 125 |
| 6.209 f_localizerlink_class::F_LocalizerLink_setId Interface Reference | 125 |
| 6.209.1 Detailed Description | 125 |
| 6.210 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_add↔ Member Interface Reference | 125 |
| 6.210.1 Detailed Description | 125 |
| 6.211 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_delete Interface Reference | 125 |
| 6.211.1 Detailed Description | 126 |
| 6.212 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_↔ emptyNeighborhood Interface Reference | 126 |
| 6.212.1 Detailed Description | 126 |
| 6.213 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_new Interface Reference | 126 |
| 6.213.1 Detailed Description | 126 |
| 6.214 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_set↔ CenterOfStencil Interface Reference | 126 |
| 6.214.1 Detailed Description | 127 |
| 6.215 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_set↔ Member Interface Reference | 127 |
| 6.215.1 Detailed Description | 127 |
| 6.216 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_set↔ Size Interface Reference | 127 |
| 6.216.1 Detailed Description | 127 |
| 6.217 f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_Localized↔ SeparatorLink_delete Interface Reference | 127 |
| 6.217.1 Detailed Description | 128 |
| 6.218 f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_Localized↔ SeparatorLink_new Interface Reference | 128 |
| 6.218.1 Detailed Description | 128 |

| | |
|---|-----|
| 6.219 f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_delete Interface Reference | 128 |
| 6.219.1 Detailed Description | 128 |
| 6.220 f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_new Interface Reference | 128 |
| 6.220.1 Detailed Description | 129 |
| 6.221 f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_delete Interface Reference | 129 |
| 6.221.1 Detailed Description | 129 |
| 6.222 f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_new Interface Reference | 129 |
| 6.222.1 Detailed Description | 129 |
| 6.223 f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_delete Interface Reference | 129 |
| 6.223.1 Detailed Description | 130 |
| 6.224 f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_new Interface Reference | 130 |
| 6.224.1 Detailed Description | 130 |
| 6.225 f_planarlocalizer_class::F_PlanarLocalizer_addPlane Interface Reference | 130 |
| 6.225.1 Detailed Description | 130 |
| 6.226 f_planarlocalizer_class::F_PlanarLocalizer_delete Interface Reference | 130 |
| 6.226.1 Detailed Description | 131 |
| 6.227 f_planarlocalizer_class::F_PlanarLocalizer_new Interface Reference | 131 |
| 6.227.1 Detailed Description | 131 |
| 6.228 f_planarlocalizer_class::F_PlanarLocalizer_newFromObjectAllocationServer Interface Reference | 131 |
| 6.228.1 Detailed Description | 131 |
| 6.229 f_planarlocalizer_class::F_PlanarLocalizer_printToScreen Interface Reference | 131 |
| 6.229.1 Detailed Description | 132 |
| 6.230 f_planarlocalizer_class::F_PlanarLocalizer_setFromRectangularCuboid Interface Reference | 132 |
| 6.230.1 Detailed Description | 132 |
| 6.231 f_planarlocalizer_class::F_PlanarLocalizer_setNumberOfPlanes Interface Reference | 132 |
| 6.231.1 Detailed Description | 132 |
| 6.232 f_planarlocalizer_class::F_PlanarLocalizer_setPlane Interface Reference | 132 |

| | |
|--|-----|
| 6.232.1 Detailed Description | 133 |
| 6.233 f_planarseparator_class::F_PlanarSeparator_addPlane Interface Reference | 133 |
| 6.233.1 Detailed Description | 133 |
| 6.234 f_planarseparator_class::F_PlanarSeparator_copy Interface Reference | 133 |
| 6.234.1 Detailed Description | 133 |
| 6.235 f_planarseparator_class::F_PlanarSeparator_delete Interface Reference | 133 |
| 6.235.1 Detailed Description | 134 |
| 6.236 f_planarseparator_class::F_PlanarSeparator_getNumberOfPlanes Interface Reference | 134 |
| 6.236.1 Detailed Description | 134 |
| 6.237 f_planarseparator_class::F_PlanarSeparator_getPlane Interface Reference | 134 |
| 6.237.1 Detailed Description | 134 |
| 6.238 f_planarseparator_class::F_PlanarSeparator_isFlipped Interface Reference | 134 |
| 6.238.1 Detailed Description | 135 |
| 6.239 f_planarseparator_class::F_PlanarSeparator_new Interface Reference | 135 |
| 6.239.1 Detailed Description | 135 |
| 6.240 f_planarseparator_class::F_PlanarSeparator_newFromObjectAllocationServer Interface Reference | 135 |
| 6.240.1 Detailed Description | 135 |
| 6.241 f_planarseparator_class::F_PlanarSeparator_printToScreen Interface Reference | 135 |
| 6.241.1 Detailed Description | 136 |
| 6.242 f_planarseparator_class::F_PlanarSeparator_setNumberOfPlanes Interface Reference | 136 |
| 6.242.1 Detailed Description | 136 |
| 6.243 f_planarseparator_class::F_PlanarSeparator_setPlane Interface Reference | 136 |
| 6.243.1 Detailed Description | 136 |
| 6.244 f_polygon_class::F_Polygon_calculateAndSetPlaneOfExistence Interface Reference | 136 |
| 6.244.1 Detailed Description | 137 |
| 6.245 f_polygon_class::F_Polygon_calculateCentroid Interface Reference | 137 |
| 6.245.1 Detailed Description | 137 |
| 6.246 f_polygon_class::F_Polygon_calculateNearestPtOnSurface Interface Reference | 137 |
| 6.246.1 Detailed Description | 137 |
| 6.247 f_polygon_class::F_Polygon_calculateNormal Interface Reference | 137 |

| | |
|--|-----|
| 6.247.1 Detailed Description | 138 |
| 6.248 f_polygon_class::F_Polygon_calculateSign Interface Reference | 138 |
| 6.248.1 Detailed Description | 138 |
| 6.249 f_polygon_class::F_Polygon_calculateVolume Interface Reference | 138 |
| 6.249.1 Detailed Description | 138 |
| 6.250 f_polygon_class::F_Polygon_construct Interface Reference | 138 |
| 6.250.1 Detailed Description | 139 |
| 6.251 f_polygon_class::F_Polygon_delete Interface Reference | 139 |
| 6.251.1 Detailed Description | 139 |
| 6.252 f_polygon_class::F_Polygon_getBoundingPts Interface Reference | 139 |
| 6.252.1 Detailed Description | 139 |
| 6.253 f_polygon_class::F_Polygon_getLocalizer Interface Reference | 139 |
| 6.253.1 Detailed Description | 140 |
| 6.254 f_polygon_class::F_Polygon_getNumberOfPts Interface Reference | 140 |
| 6.254.1 Detailed Description | 140 |
| 6.255 f_polygon_class::F_Polygon_getNumberOfSimplicesInDecomposition Interface Reference | 140 |
| 6.255.1 Detailed Description | 140 |
| 6.256 f_polygon_class::F_Polygon_getPlaneOfExistence Interface Reference | 140 |
| 6.256.1 Detailed Description | 141 |
| 6.257 f_polygon_class::F_Polygon_getPt Interface Reference | 141 |
| 6.257.1 Detailed Description | 141 |
| 6.258 f_polygon_class::F_Polygon_getSimplexFromDecomposition Interface Reference | 141 |
| 6.258.1 Detailed Description | 141 |
| 6.259 f_polygon_class::F_Polygon_new Interface Reference | 141 |
| 6.259.1 Detailed Description | 142 |
| 6.260 f_polygon_class::F_Polygon_printToScreen Interface Reference | 142 |
| 6.260.1 Detailed Description | 142 |
| 6.261 f_polygon_class::F_Polygon_reversePtOrdering Interface Reference | 142 |
| 6.261.1 Detailed Description | 142 |
| 6.262 f_polygon_class::F_Polygon_setPlaneOfExistence Interface Reference | 142 |

| | |
|---|-----|
| 6.262.1 Detailed Description | 143 |
| 6.263 f_polygon_class::F_Polygon_zeroPolygon Interface Reference | 143 |
| 6.263.1 Detailed Description | 143 |
| 6.264 f_polyhedron24_class::F_Polyhedron24_adjustCapToMatchVolume Interface Reference | 143 |
| 6.264.1 Detailed Description | 143 |
| 6.265 f_polyhedron24_class::F_Polyhedron24_construct Interface Reference | 143 |
| 6.265.1 Detailed Description | 144 |
| 6.266 f_polyhedron24_class::F_Polyhedron24_delete Interface Reference | 144 |
| 6.266.1 Detailed Description | 144 |
| 6.267 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_adjustCapToMatchVolume Interface Reference | 144 |
| 6.267.1 Detailed Description | 144 |
| 6.268 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_construct Interface Reference | 144 |
| 6.268.1 Detailed Description | 145 |
| 6.269 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_delete Interface Reference | 145 |
| 6.269.1 Detailed Description | 145 |
| 6.270 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getBoundingPts Interface Reference | 145 |
| 6.270.1 Detailed Description | 145 |
| 6.271 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getData Interface Reference | 145 |
| 6.271.1 Detailed Description | 146 |
| 6.272 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getPt Interface Reference | 146 |
| 6.272.1 Detailed Description | 146 |
| 6.273 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_new Interface Reference | 146 |
| 6.273.1 Detailed Description | 146 |
| 6.274 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setData Interface Reference | 146 |
| 6.274.1 Detailed Description | 147 |
| 6.275 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setPt Interface Reference | 147 |
| 6.275.1 Detailed Description | 147 |
| 6.276 f_polyhedron24_class::F_Polyhedron24_getBoundingPts Interface Reference | 147 |
| 6.276.1 Detailed Description | 147 |
| 6.277 f_polyhedron24_class::F_Polyhedron24_getPt Interface Reference | 147 |

| | |
|---|-----|
| 6.277.1 Detailed Description | 148 |
| 6.278 f_polyhedron24_class::F_Polyhedron24_new Interface Reference | 148 |
| 6.278.1 Detailed Description | 148 |
| 6.279 f_polyhedron24_class::F_Polyhedron24_setPt Interface Reference | 148 |
| 6.279.1 Detailed Description | 148 |
| 6.280 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_add↔ Member Interface Reference | 148 |
| 6.280.1 Detailed Description | 149 |
| 6.281 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_delete Interface Reference | 149 |
| 6.281.1 Detailed Description | 149 |
| 6.282 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_empty↔ Neighborhood Interface Reference | 149 |
| 6.282.1 Detailed Description | 149 |
| 6.283 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_new Interface Reference | 149 |
| 6.283.1 Detailed Description | 150 |
| 6.284 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_set↔ CenterOfStencil Interface Reference | 150 |
| 6.284.1 Detailed Description | 150 |
| 6.285 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_set↔ Member Interface Reference | 150 |
| 6.285.1 Detailed Description | 150 |
| 6.286 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSize Interface Reference | 150 |
| 6.286.1 Detailed Description | 151 |
| 6.287 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_set↔ SurfaceArea Interface Reference | 151 |
| 6.287.1 Detailed Description | 151 |
| 6.288 f_reconstructioninterface::F_reconstructionWithAdvectionNormals_ListedVM_VMAN_RC Interface Reference | 151 |
| 6.288.1 Detailed Description | 151 |
| 6.289 f_reconstructioninterface::F_reconstructionWithAdvectionNormalsDebug_ListedVM_VMAN_RC Interface Reference | 151 |
| 6.289.1 Detailed Description | 152 |

| | |
|--|-----|
| 6.290 f_reconstructioninterface::F_reconstructionWithELVIRA2D Interface Reference | 152 |
| 6.290.1 Detailed Description | 152 |
| 6.291 f_reconstructioninterface::F_reconstructionWithELVIRA3D Interface Reference | 152 |
| 6.291.1 Detailed Description | 152 |
| 6.292 f_reconstructioninterface::F_reconstructionWithLVIRA2D_RC Interface Reference | 152 |
| 6.292.1 Detailed Description | 153 |
| 6.293 f_reconstructioninterface::F_reconstructionWithLVIRA3D_RC Interface Reference | 153 |
| 6.293.1 Detailed Description | 153 |
| 6.294 f_reconstructioninterface::F_reconstructionWithMOF2D_RectangularCuboid Interface Reference | 153 |
| 6.294.1 Detailed Description | 153 |
| 6.295 f_reconstructioninterface::F_reconstructionWithMOF2D_Tri Interface Reference | 153 |
| 6.295.1 Detailed Description | 154 |
| 6.296 f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_RectangularCuboid Interface Reference | 154 |
| 6.296.1 Detailed Description | 154 |
| 6.297 f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_Tri Interface Reference | 154 |
| 6.297.1 Detailed Description | 154 |
| 6.298 f_reconstructioninterface::F_reconstructionWithMOF3D_RectangularCuboid Interface Reference | 155 |
| 6.298.1 Detailed Description | 155 |
| 6.299 f_reconstructioninterface::F_reconstructionWithMOF3D_Tet Interface Reference | 155 |
| 6.299.1 Detailed Description | 155 |
| 6.300 f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_RectangularCuboid Interface Reference | 155 |
| 6.300.1 Detailed Description | 155 |
| 6.301 f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_Tet Interface Reference | 156 |
| 6.301.1 Detailed Description | 156 |
| 6.302 f_reconstructioninterface::F_reconstructionWithR2P2D_RC Interface Reference | 156 |
| 6.302.1 Detailed Description | 156 |
| 6.303 f_reconstructioninterface::F_reconstructionWithR2P2DDebug_RC Interface Reference | 156 |
| 6.303.1 Detailed Description | 156 |
| 6.304 f_reconstructioninterface::F_reconstructionWithR2P3D_RC Interface Reference | 157 |

| | |
|--|-----|
| 6.304.1 Detailed Description | 157 |
| 6.305 f_reconstructioninterface::F_reconstructionWithR2P3DDebug_RC Interface Reference | 157 |
| 6.305.1 Detailed Description | 157 |
| 6.306 f_rectangularcuboid_class::F_RectangularCuboid_calculateVolume Interface Reference | 157 |
| 6.306.1 Detailed Description | 157 |
| 6.307 f_rectangularcuboid_class::F_RectangularCuboid_construct Interface Reference | 158 |
| 6.307.1 Detailed Description | 158 |
| 6.308 f_rectangularcuboid_class::F_RectangularCuboid_construct_2pt Interface Reference | 158 |
| 6.308.1 Detailed Description | 158 |
| 6.309 f_rectangularcuboid_class::F_RectangularCuboid_delete Interface Reference | 158 |
| 6.309.1 Detailed Description | 158 |
| 6.310 f_rectangularcuboid_class::F_RectangularCuboid_getBoundingPts Interface Reference | 159 |
| 6.310.1 Detailed Description | 159 |
| 6.311 f_rectangularcuboid_class::F_RectangularCuboid_new Interface Reference | 159 |
| 6.311.1 Detailed Description | 159 |
| 6.312 f_sepvm_class::F_SepVM_construct Interface Reference | 159 |
| 6.312.1 Detailed Description | 159 |
| 6.313 f_sepvm_class::F_SepVM_delete Interface Reference | 160 |
| 6.313.1 Detailed Description | 160 |
| 6.314 f_sepvm_doubles3_class::F_SepVM_doubles3_delete Interface Reference | 160 |
| 6.314.1 Detailed Description | 160 |
| 6.315 f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroid Interface Reference | 160 |
| 6.315.1 Detailed Description | 160 |
| 6.316 f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroidPtr Interface Reference | 161 |
| 6.316.1 Detailed Description | 161 |
| 6.317 f_sepvm_doubles3_class::F_SepVM_doubles3_getData Interface Reference | 161 |
| 6.317.1 Detailed Description | 161 |
| 6.318 f_sepvm_doubles3_class::F_SepVM_doubles3_getVolume Interface Reference | 161 |
| 6.318.1 Detailed Description | 161 |
| 6.319 f_sepvm_doubles3_class::F_SepVM_doubles3_getVolumePtr Interface Reference | 162 |

| | |
|---|-----|
| 6.319.1 Detailed Description | 162 |
| 6.320 f_sepvm_doubles3_class::F_SepVM_doubles3_multiplyByVolume Interface Reference | 162 |
| 6.320.1 Detailed Description | 162 |
| 6.321 f_sepvm_doubles3_class::F_SepVM_doubles3_new Interface Reference | 162 |
| 6.321.1 Detailed Description | 162 |
| 6.322 f_sepvm_doubles3_class::F_SepVM_doubles3_normalizeByVolume Interface Reference | 163 |
| 6.322.1 Detailed Description | 163 |
| 6.323 f_sepvm_class::F_SepVM_getCentroid Interface Reference | 163 |
| 6.323.1 Detailed Description | 163 |
| 6.324 f_sepvm_class::F_SepVM_getCentroidPtr Interface Reference | 163 |
| 6.324.1 Detailed Description | 163 |
| 6.325 f_sepvm_class::F_SepVM_getVolume Interface Reference | 164 |
| 6.325.1 Detailed Description | 164 |
| 6.326 f_sepvm_class::F_SepVM_getVolumePtr Interface Reference | 164 |
| 6.326.1 Detailed Description | 164 |
| 6.327 f_sepvm_class::F_SepVM_multiplyByVolume Interface Reference | 164 |
| 6.327.1 Detailed Description | 164 |
| 6.328 f_sepvm_class::F_SepVM_new Interface Reference | 165 |
| 6.328.1 Detailed Description | 165 |
| 6.329 f_sepvm_class::F_SepVM_normalizeByVolume Interface Reference | 165 |
| 6.329.1 Detailed Description | 165 |
| 6.330 f_serializer::F_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer Interface Reference . . . | 165 |
| 6.330.1 Detailed Description | 165 |
| 6.331 f_serializer::F_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer Interface Reference . . . | 166 |
| 6.331.1 Detailed Description | 166 |
| 6.332 f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS Interface Reference . . . | 166 |
| 6.332.1 Detailed Description | 166 |
| 6.333 f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS_DefTol Interface Reference . . . | 166 |
| 6.333.1 Detailed Description | 166 |

| | |
|--|-----|
| 6.334 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_append Interface Reference | 167 |
| 6.334.1 Detailed Description | 167 |
| 6.335 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_clear Interface Reference | 167 |
| 6.335.1 Detailed Description | 167 |
| 6.336 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_delete Interface Reference | 167 |
| 6.336.1 Detailed Description | 167 |
| 6.337 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_getListAtIndex Interface Reference | 168 |
| 6.337.1 Detailed Description | 168 |
| 6.338 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_getSize Interface Reference | 168 |
| 6.338.1 Detailed Description | 168 |
| 6.339 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_getTagForIndex Interface Reference | 168 |
| 6.339.1 Detailed Description | 168 |
| 6.340 f_tagged_accumlistedm_vman_class::F_Tagged_AccumListedVM_VMAN_new Interface Reference | 169 |
| 6.340.1 Detailed Description | 169 |
| 6.341 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_delete Interface Reference | 169 |
| 6.341.1 Detailed Description | 169 |
| 6.342 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtIndex Interface Reference | 169 |
| 6.342.1 Detailed Description | 169 |
| 6.343 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtTag Interface Reference | 170 |
| 6.343.1 Detailed Description | 170 |
| 6.344 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidPtrAtIndex Interface Reference | 170 |
| 6.344.1 Detailed Description | 170 |
| 6.345 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getSize Interface Reference | 170 |
| 6.345.1 Detailed Description | 170 |
| 6.346 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getTagForIndex Interface Reference | 171 |

| | |
|--|-----|
| 6.346.1 Detailed Description | 171 |
| 6.347 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtIndex Interface Reference | 171 |
| 6.347.1 Detailed Description | 171 |
| 6.348 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtTag Interface Reference | 171 |
| 6.348.1 Detailed Description | 171 |
| 6.349 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumePtrAtIndex Interface Reference | 172 |
| 6.349.1 Detailed Description | 172 |
| 6.350 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_multiplyByVolume Interface Reference | 172 |
| 6.350.1 Detailed Description | 172 |
| 6.351 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_new Interface Reference | 172 |
| 6.351.1 Detailed Description | 172 |
| 6.352 f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_normalizeByVolume Interface Reference | 173 |
| 6.352.1 Detailed Description | 173 |
| 6.353 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_delete Interface Reference | 173 |
| 6.353.1 Detailed Description | 173 |
| 6.354 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidAtIndex Interface Reference | 173 |
| 6.354.1 Detailed Description | 173 |
| 6.355 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidPtrAtIndex Interface Reference | 174 |
| 6.355.1 Detailed Description | 174 |
| 6.356 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getSize Interface Reference | 174 |
| 6.356.1 Detailed Description | 174 |
| 6.357 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getTagForIndex Interface Reference | 174 |
| 6.357.1 Detailed Description | 174 |
| 6.358 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumeAtIndex Interface Reference | 175 |
| 6.358.1 Detailed Description | 175 |
| 6.359 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumePtrAtIndex Interface Reference | 175 |
| 6.359.1 Detailed Description | 175 |

| | |
|--|-----|
| 6.360 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_multiplyByVolume Interface Reference | 175 |
| 6.360.1 Detailed Description | 175 |
| 6.361 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_new Interface Reference | 176 |
| 6.361.1 Detailed Description | 176 |
| 6.362 f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_normalizeByVolume Interface Reference | 176 |
| 6.362.1 Detailed Description | 176 |
| 6.363 f_tet_class::F_Tet_construct Interface Reference | 176 |
| 6.363.1 Detailed Description | 176 |
| 6.364 f_tet_class::F_Tet_delete Interface Reference | 177 |
| 6.364.1 Detailed Description | 177 |
| 6.365 f_tet_class::F_Tet_getBoundingPts Interface Reference | 177 |
| 6.365.1 Detailed Description | 177 |
| 6.366 f_tet_class::F_Tet_new Interface Reference | 177 |
| 6.366.1 Detailed Description | 177 |
| 6.367 f_tri_class::F_Tri_calculateAndSetPlaneOfExistence Interface Reference | 178 |
| 6.367.1 Detailed Description | 178 |
| 6.368 f_tri_class::F_Tri_calculateCentroid Interface Reference | 178 |
| 6.368.1 Detailed Description | 178 |
| 6.369 f_tri_class::F_Tri_calculateNormal Interface Reference | 178 |
| 6.369.1 Detailed Description | 178 |
| 6.370 f_tri_class::F_Tri_calculateSign Interface Reference | 179 |
| 6.370.1 Detailed Description | 179 |
| 6.371 f_tri_class::F_Tri_calculateVolume Interface Reference | 179 |
| 6.371.1 Detailed Description | 179 |
| 6.372 f_tri_class::F_Tri_construct Interface Reference | 179 |
| 6.372.1 Detailed Description | 179 |
| 6.373 f_tri_class::F_Tri_delete Interface Reference | 180 |
| 6.373.1 Detailed Description | 180 |
| 6.374 f_tri_class::F_Tri_getBoundingPts Interface Reference | 180 |
| 6.374.1 Detailed Description | 180 |

| | |
|--|-----|
| 6.375 f_tri_class::F_Tri_getLocalizer Interface Reference | 180 |
| 6.375.1 Detailed Description | 180 |
| 6.376 f_tri_class::F_Tri_getPlaneOfExistence Interface Reference | 181 |
| 6.376.1 Detailed Description | 181 |
| 6.377 f_tri_class::F_Tri_getVertices Interface Reference | 181 |
| 6.377.1 Detailed Description | 181 |
| 6.378 f_tri_class::F_Tri_new Interface Reference | 181 |
| 6.378.1 Detailed Description | 181 |
| 6.379 f_tri_class::F_Tri_reversePtOrdering Interface Reference | 182 |
| 6.379.1 Detailed Description | 182 |
| 6.380 f_tri_class::F_Tri_setPlaneOfExistence Interface Reference | 182 |
| 6.380.1 Detailed Description | 182 |
| 6.381 f_vman_class::F_VMAN_delete Interface Reference | 182 |
| 6.381.1 Detailed Description | 182 |
| 6.382 f_vman_class::F_VMAN_getCentroid Interface Reference | 183 |
| 6.382.1 Detailed Description | 183 |
| 6.383 f_vman_class::F_VMAN_getNormal Interface Reference | 183 |
| 6.383.1 Detailed Description | 183 |
| 6.384 f_vman_class::F_VMAN_getVolume Interface Reference | 183 |
| 6.384.1 Detailed Description | 183 |
| 6.385 f_vman_class::F_VMAN_multiplyByVolume Interface Reference | 184 |
| 6.385.1 Detailed Description | 184 |
| 6.386 f_vman_class::F_VMAN_new Interface Reference | 184 |
| 6.386.1 Detailed Description | 184 |
| 6.387 f_vman_class::F_VMAN_normalizeByVolume Interface Reference | 184 |
| 6.387.1 Detailed Description | 184 |
| 6.388 f_tet_class::getboundingpts Interface Reference | 185 |
| 6.388.1 Detailed Description | 185 |
| 6.389 f_dodecahedron_class::getboundingpts Interface Reference | 185 |
| 6.389.1 Detailed Description | 185 |

| | |
|---|-----|
| 6.390 f_cappeddodecahedron_doubles3_class::getboundingpts Interface Reference | 185 |
| 6.390.1 Detailed Description | 185 |
| 6.391 f_polygon_class::getboundingpts Interface Reference | 186 |
| 6.391.1 Detailed Description | 186 |
| 6.392 f_polyhedron24_class::getboundingpts Interface Reference | 186 |
| 6.392.1 Detailed Description | 186 |
| 6.393 f_polyhedron24_doubles3_class::getboundingpts Interface Reference | 186 |
| 6.393.1 Detailed Description | 186 |
| 6.394 f_dividedpolygon_class::getboundingpts Interface Reference | 187 |
| 6.394.1 Detailed Description | 187 |
| 6.395 f_cappeddodecahedron_class::getboundingpts Interface Reference | 187 |
| 6.395.1 Detailed Description | 187 |
| 6.396 f_rectangularcuboid_class::getboundingpts Interface Reference | 187 |
| 6.396.1 Detailed Description | 187 |
| 6.397 f_tri_class::getboundingpts Interface Reference | 188 |
| 6.397.1 Detailed Description | 188 |
| 6.398 f_sepvm_doubles3_class::getcentroid Interface Reference | 188 |
| 6.398.1 Detailed Description | 188 |
| 6.399 f_sepvm_class::getcentroid Interface Reference | 188 |
| 6.399.1 Detailed Description | 188 |
| 6.400 f_vman_class::getcentroid Interface Reference | 189 |
| 6.400.1 Detailed Description | 189 |
| 6.401 f_tagged_accumvm_vm_class::getcentroidatindex Interface Reference | 189 |
| 6.401.1 Detailed Description | 189 |
| 6.402 f_tagged_accumvm_sepvm_class::getcentroidatindex Interface Reference | 189 |
| 6.402.1 Detailed Description | 189 |
| 6.403 f_tagged_accumvm_sepvm_class::getcentroidattag Interface Reference | 190 |
| 6.403.1 Detailed Description | 190 |
| 6.404 f_sepvm_class::getcentroidptr Interface Reference | 190 |
| 6.404.1 Detailed Description | 190 |

| | |
|---|-----|
| 6.405 f_sepvm_doubles3_class::getcentroidptr Interface Reference | 190 |
| 6.405.1 Detailed Description | 190 |
| 6.406 f_tagged_accumvm_vm_class::getcentroidptratindex Interface Reference | 191 |
| 6.406.1 Detailed Description | 191 |
| 6.407 f_tagged_accumvm_sepvm_class::getcentroidptratindex Interface Reference | 191 |
| 6.407.1 Detailed Description | 191 |
| 6.408 f_tagged_accumvm_vm_class::getcobject Interface Reference | 191 |
| 6.408.1 Detailed Description | 191 |
| 6.409 f_bytebuffer_class::getcobject Interface Reference | 192 |
| 6.409.1 Detailed Description | 192 |
| 6.410 f_planarlocalizer_class::getcobject Interface Reference | 192 |
| 6.410.1 Detailed Description | 192 |
| 6.411 f_cappeddodecahedron_class::getcobject Interface Reference | 192 |
| 6.411.1 Detailed Description | 192 |
| 6.412 f_objectallocationserver_localizedseparatorlink_class::getcobject Interface Reference | 193 |
| 6.412.1 Detailed Description | 193 |
| 6.413 f_r2pneighborhood_rectangularcuboid_class::getcobject Interface Reference | 193 |
| 6.413.1 Detailed Description | 193 |
| 6.414 f_tri_class::getcobject Interface Reference | 193 |
| 6.414.1 Detailed Description | 193 |
| 6.415 f_objectallocationserver_planarseparator_class::getcobject Interface Reference | 194 |
| 6.415.1 Detailed Description | 194 |
| 6.416 f_planarseparator_class::getcobject Interface Reference | 194 |
| 6.416.1 Detailed Description | 194 |
| 6.417 f_lviraneighborhood_rectangularcuboid_class::getcobject Interface Reference | 194 |
| 6.417.1 Detailed Description | 194 |
| 6.418 f_polygon_class::getcobject Interface Reference | 195 |
| 6.418.1 Detailed Description | 195 |
| 6.419 f_dodecahedron_class::getcobject Interface Reference | 195 |
| 6.419.1 Detailed Description | 195 |

| | |
|--|-----|
| 6.420 f_objectallocationserver_localizerlink_class::getcobject Interface Reference | 195 |
| 6.420.1 Detailed Description | 195 |
| 6.421 f_vman_class::getcobject Interface Reference | 196 |
| 6.421.1 Detailed Description | 196 |
| 6.422 f_polyhedron24_class::getcobject Interface Reference | 196 |
| 6.422.1 Detailed Description | 196 |
| 6.423 f_listedvm_vman_class::getcobject Interface Reference | 196 |
| 6.423.1 Detailed Description | 196 |
| 6.424 f_dividedpolygon_class::getcobject Interface Reference | 197 |
| 6.424.1 Detailed Description | 197 |
| 6.425 f_polyhedron24_doubles3_class::getcobject Interface Reference | 197 |
| 6.425.1 Detailed Description | 197 |
| 6.426 f_localizerlink_class::getcobject Interface Reference | 197 |
| 6.426.1 Detailed Description | 197 |
| 6.427 f_localizedseparatorlink_class::getcobject Interface Reference | 198 |
| 6.427.1 Detailed Description | 198 |
| 6.428 f_rectangularcuboid_class::getcobject Interface Reference | 198 |
| 6.428.1 Detailed Description | 198 |
| 6.429 f_sepvm_class::getcobject Interface Reference | 198 |
| 6.429.1 Detailed Description | 198 |
| 6.430 f_elviraneighborhood_class::getcobject Interface Reference | 199 |
| 6.430.1 Detailed Description | 199 |
| 6.431 f_sepvm_doubles3_class::getcobject Interface Reference | 199 |
| 6.431.1 Detailed Description | 199 |
| 6.432 f_tagged_accumlistedvm_vman_class::getcobject Interface Reference | 199 |
| 6.432.1 Detailed Description | 199 |
| 6.433 f_cappeddodecahedron_doubles3_class::getcobject Interface Reference | 200 |
| 6.433.1 Detailed Description | 200 |
| 6.434 f_tet_class::getcobject Interface Reference | 200 |
| 6.434.1 Detailed Description | 200 |

| | |
|--|-----|
| 6.435 f_tagged_accumvm_sepvm_class::getcobject Interface Reference | 200 |
| 6.435.1 Detailed Description | 200 |
| 6.436 f_objectallocationserver_planarlocalizer_class::getcobject Interface Reference | 201 |
| 6.436.1 Detailed Description | 201 |
| 6.437 f_polyhedron24_doubles3_class::getdata Interface Reference | 201 |
| 6.437.1 Detailed Description | 201 |
| 6.438 f_cappeddodecahedron_doubles3_class::getdata Interface Reference | 201 |
| 6.438.1 Detailed Description | 201 |
| 6.439 f_sepvm_doubles3_class::getdata Interface Reference | 202 |
| 6.439.1 Detailed Description | 202 |
| 6.440 f_localizerlink_class::getid Interface Reference | 202 |
| 6.440.1 Detailed Description | 202 |
| 6.441 f_localizedseparatorlink_class::getid Interface Reference | 202 |
| 6.441.1 Detailed Description | 202 |
| 6.442 f_tagged_accumlistedvm_vman_class::getlistatindex Interface Reference | 203 |
| 6.442.1 Detailed Description | 203 |
| 6.443 f_tri_class::getlocalizer Interface Reference | 203 |
| 6.443.1 Detailed Description | 203 |
| 6.444 f_polygon_class::getlocalizer Interface Reference | 203 |
| 6.444.1 Detailed Description | 203 |
| 6.445 f_dividedpolygon_class::getlocalizer Interface Reference | 204 |
| 6.445.1 Detailed Description | 204 |
| 6.446 f_listedvm_vman_class::getmoments Interface Reference | 204 |
| 6.446.1 Detailed Description | 204 |
| 6.447 f_vman_class::getnormal Interface Reference | 204 |
| 6.447.1 Detailed Description | 204 |
| 6.448 f_getvolumemoments::getnormalizedvolumemoments Interface Reference | 205 |
| 6.448.1 Detailed Description | 205 |
| 6.449 f_planarseparator_class::getnumberofplanes Interface Reference | 205 |
| 6.449.1 Detailed Description | 205 |

| | |
|---|-----|
| 6.450 f_polygon_class::getnumberofsimplicesindecomposition Interface Reference | 206 |
| 6.450.1 Detailed Description | 206 |
| 6.451 f_dividedpolygon_class::getnumberofsimplicesindecomposition Interface Reference | 206 |
| 6.451.1 Detailed Description | 206 |
| 6.452 f_polygon_class::getnumberofvertices Interface Reference | 206 |
| 6.452.1 Detailed Description | 206 |
| 6.453 f_dividedpolygon_class::getnumberofvertices Interface Reference | 207 |
| 6.453.1 Detailed Description | 207 |
| 6.454 f_planarseparator_class::getplane Interface Reference | 207 |
| 6.454.1 Detailed Description | 207 |
| 6.455 f_polygon_class::getplaneofexistence Interface Reference | 207 |
| 6.455.1 Detailed Description | 207 |
| 6.456 f_dividedpolygon_class::getplaneofexistence Interface Reference | 208 |
| 6.456.1 Detailed Description | 208 |
| 6.457 f_tri_class::getplaneofexistence Interface Reference | 208 |
| 6.457.1 Detailed Description | 208 |
| 6.458 f_cutpolygon::getplanepolygonfromreconstruction Interface Reference | 208 |
| 6.458.1 Detailed Description | 208 |
| 6.459 f_cappeddodecahedron_doubles3_class::getpt Interface Reference | 209 |
| 6.459.1 Detailed Description | 209 |
| 6.460 f_polygon_class::getpt Interface Reference | 209 |
| 6.460.1 Detailed Description | 209 |
| 6.461 f_polyhedron24_class::getpt Interface Reference | 209 |
| 6.461.1 Detailed Description | 209 |
| 6.462 f_polyhedron24_doubles3_class::getpt Interface Reference | 210 |
| 6.462.1 Detailed Description | 210 |
| 6.463 f_dividedpolygon_class::getpt Interface Reference | 210 |
| 6.463.1 Detailed Description | 210 |
| 6.464 f_cappeddodecahedron_class::getpt Interface Reference | 210 |
| 6.464.1 Detailed Description | 210 |

| | |
|---|-----|
| 6.465 f_cutpolygon::getreconstructionsurfacearea Interface Reference | 211 |
| 6.465.1 Detailed Description | 211 |
| 6.466 f_polygon_class::getsimplexfromdecomposition Interface Reference | 211 |
| 6.466.1 Detailed Description | 211 |
| 6.467 f_dividedpolygon_class::getsimplexfromdecomposition Interface Reference | 211 |
| 6.467.1 Detailed Description | 211 |
| 6.468 f_tagged_accumvm_sepvm_class::getsize Interface Reference | 212 |
| 6.468.1 Detailed Description | 212 |
| 6.469 f_bytebuffer_class::getsize Interface Reference | 212 |
| 6.469.1 Detailed Description | 212 |
| 6.470 f_listedvm_vman_class::getsize Interface Reference | 212 |
| 6.470.1 Detailed Description | 212 |
| 6.471 f_tagged_accumlistedvm_vman_class::getsize Interface Reference | 213 |
| 6.471.1 Detailed Description | 213 |
| 6.472 f_tagged_accumvm_vm_class::getsize Interface Reference | 213 |
| 6.472.1 Detailed Description | 213 |
| 6.473 f_tagged_accumlistedvm_vman_class::gettagforindex Interface Reference | 213 |
| 6.473.1 Detailed Description | 213 |
| 6.474 f_tagged_accumvm_vm_class::gettagforindex Interface Reference | 214 |
| 6.474.1 Detailed Description | 214 |
| 6.475 f_tagged_accumvm_sepvm_class::gettagforindex Interface Reference | 214 |
| 6.475.1 Detailed Description | 214 |
| 6.476 f_tri_class::getvertices Interface Reference | 214 |
| 6.476.1 Detailed Description | 214 |
| 6.477 f_vman_class::getvolume Interface Reference | 215 |
| 6.477.1 Detailed Description | 215 |
| 6.478 f_sepvm_class::getvolume Interface Reference | 215 |
| 6.478.1 Detailed Description | 215 |
| 6.479 f_sepvm_doubles3_class::getvolume Interface Reference | 215 |
| 6.479.1 Detailed Description | 215 |

| | |
|--|-----|
| 6.480 f_tagged_accumvm_vm_class::getvolumeatindex Interface Reference | 216 |
| 6.480.1 Detailed Description | 216 |
| 6.481 f_tagged_accumvm_sepvm_class::getvolumeatindex Interface Reference | 216 |
| 6.481.1 Detailed Description | 216 |
| 6.482 f_tagged_accumvm_sepvm_class::getvolumeattag Interface Reference | 216 |
| 6.482.1 Detailed Description | 216 |
| 6.483 f_getvolumemoments::getvolumemoments Interface Reference | 217 |
| 6.483.1 Detailed Description | 217 |
| 6.484 f_getvolumemoments::getvolumemoments_setmethod Interface Reference | 217 |
| 6.484.1 Detailed Description | 217 |
| 6.485 f_sepvm_class::getvolumeptr Interface Reference | 217 |
| 6.485.1 Detailed Description | 217 |
| 6.486 f_sepvm_doubles3_class::getvolumeptr Interface Reference | 218 |
| 6.486.1 Detailed Description | 218 |
| 6.487 f_tagged_accumvm_vm_class::getvolumepratrindex Interface Reference | 218 |
| 6.487.1 Detailed Description | 218 |
| 6.488 f_tagged_accumvm_sepvm_class::getvolumepratrindex Interface Reference | 218 |
| 6.488.1 Detailed Description | 218 |
| 6.489 f_planarseparator_class::isflipped Interface Reference | 219 |
| 6.489.1 Detailed Description | 219 |
| 6.490 f_geometriccuttinghelpers::isptinternal Interface Reference | 219 |
| 6.490.1 Detailed Description | 219 |
| 6.491 f_listedvm_vman_class::listedvm_vman_type Type Reference | 219 |
| 6.491.1 Detailed Description | 219 |
| 6.492 f_localizedseparatorlink_class::localizedseparatorlink_type Type Reference | 220 |
| 6.492.1 Detailed Description | 220 |
| 6.493 f_localizerlink_class::localizerlink_type Type Reference | 220 |
| 6.493.1 Detailed Description | 220 |
| 6.494 f_lviraneighborhood_rectangularcuboid_class::lviraneighborhood_rectangularcuboid_type Type Reference | 220 |
| 6.494.1 Detailed Description | 221 |

| | |
|--|-----|
| 6.495 f_tagged_accumvm_vm_class::multiplybyvolume Interface Reference | 221 |
| 6.495.1 Detailed Description | 221 |
| 6.496 f_tagged_accumvm_sepvm_class::multiplybyvolume Interface Reference | 221 |
| 6.496.1 Detailed Description | 221 |
| 6.497 f_vman_class::multiplybyvolume Interface Reference | 221 |
| 6.497.1 Detailed Description | 222 |
| 6.498 f_sepvm_class::multiplybyvolume Interface Reference | 222 |
| 6.498.1 Detailed Description | 222 |
| 6.499 f_sepvm_doubles3_class::multiplybyvolume Interface Reference | 222 |
| 6.499.1 Detailed Description | 222 |
| 6.500 f_objectallocationserver_planarlocalizer_class::new Interface Reference | 222 |
| 6.500.1 Detailed Description | 223 |
| 6.501 f_objectallocationserver_planarseparator_class::new Interface Reference | 223 |
| 6.501.1 Detailed Description | 223 |
| 6.502 f_r2pneighborhood_rectangularcuboid_class::new Interface Reference | 223 |
| 6.502.1 Detailed Description | 223 |
| 6.503 f_cappeddodecahedron_doubles3_class::new Interface Reference | 223 |
| 6.503.1 Detailed Description | 224 |
| 6.504 f_tagged_accumvm_sepvm_class::new Interface Reference | 224 |
| 6.504.1 Detailed Description | 224 |
| 6.505 f_cappeddodecahedron_class::new Interface Reference | 224 |
| 6.505.1 Detailed Description | 224 |
| 6.506 f_dodecahedron_class::new Interface Reference | 224 |
| 6.506.1 Detailed Description | 225 |
| 6.507 f_objectallocationserver_localizedseparatorlink_class::new Interface Reference | 225 |
| 6.507.1 Detailed Description | 225 |
| 6.508 f_tagged_accumlistedvm_vman_class::new Interface Reference | 225 |
| 6.508.1 Detailed Description | 225 |
| 6.509 f_listedvm_vman_class::new Interface Reference | 225 |
| 6.509.1 Detailed Description | 226 |

| | |
|---|-----|
| 6.510 f_bytebuffer_class::new Interface Reference | 226 |
| 6.510.1 Detailed Description | 226 |
| 6.511 f_tet_class::new Interface Reference | 226 |
| 6.511.1 Detailed Description | 226 |
| 6.512 f_polyhedron24_doubles3_class::new Interface Reference | 226 |
| 6.512.1 Detailed Description | 227 |
| 6.513 f_objectallocationserver_localizerlink_class::new Interface Reference | 227 |
| 6.513.1 Detailed Description | 227 |
| 6.514 f_elviraneighborhood_class::new Interface Reference | 227 |
| 6.514.1 Detailed Description | 227 |
| 6.515 f_tagged_accumvm_vm_class::new Interface Reference | 227 |
| 6.515.1 Detailed Description | 228 |
| 6.516 f_planarlocalizer_class::new Interface Reference | 228 |
| 6.516.1 Detailed Description | 228 |
| 6.517 f_tri_class::new Interface Reference | 228 |
| 6.517.1 Detailed Description | 228 |
| 6.518 f_localizedseparatorlink_class::new Interface Reference | 228 |
| 6.518.1 Detailed Description | 229 |
| 6.519 f_rectangularcuboid_class::new Interface Reference | 229 |
| 6.519.1 Detailed Description | 229 |
| 6.520 f_sepvm_class::new Interface Reference | 229 |
| 6.520.1 Detailed Description | 229 |
| 6.521 f_sepvm_doubles3_class::new Interface Reference | 229 |
| 6.521.1 Detailed Description | 230 |
| 6.522 f_polygon_class::new Interface Reference | 230 |
| 6.522.1 Detailed Description | 230 |
| 6.523 f_dividedpolygon_class::new Interface Reference | 230 |
| 6.523.1 Detailed Description | 230 |
| 6.524 f_polyhedron24_class::new Interface Reference | 230 |
| 6.524.1 Detailed Description | 231 |

| | |
|---|-----|
| 6.525 f_lviraneighborhood_rectangularcuboid_class::new Interface Reference | 231 |
| 6.525.1 Detailed Description | 231 |
| 6.526 f_localizerlink_class::new Interface Reference | 231 |
| 6.526.1 Detailed Description | 231 |
| 6.527 f_planarseparator_class::new Interface Reference | 231 |
| 6.527.1 Detailed Description | 232 |
| 6.528 f_vman_class::new Interface Reference | 232 |
| 6.528.1 Detailed Description | 232 |
| 6.529 f_tagged_accumvm_sepvm_class::normalizebyvolume Interface Reference | 232 |
| 6.529.1 Detailed Description | 232 |
| 6.530 f_tagged_accumvm_vm_class::normalizebyvolume Interface Reference | 232 |
| 6.530.1 Detailed Description | 233 |
| 6.531 f_sepvm_class::normalizebyvolume Interface Reference | 233 |
| 6.531.1 Detailed Description | 233 |
| 6.532 f_vman_class::normalizebyvolume Interface Reference | 233 |
| 6.532.1 Detailed Description | 233 |
| 6.533 f_sepvm_doubles3_class::normalizebyvolume Interface Reference | 233 |
| 6.533.1 Detailed Description | 234 |
| 6.534 f_objectallocationserver_localizedseparatorlink_class::objectallocationserver_localizedseparatorlink↔_type Type Reference | 234 |
| 6.534.1 Detailed Description | 234 |
| 6.535 f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_type Type Reference | 234 |
| 6.535.1 Detailed Description | 234 |
| 6.536 f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer_type Type Reference | 235 |
| 6.536.1 Detailed Description | 235 |
| 6.537 f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator_type Type Reference | 235 |
| 6.537.1 Detailed Description | 235 |
| 6.538 f_planarlocalizer_class::planarlocalizer_type Type Reference | 235 |
| 6.538.1 Detailed Description | 236 |
| 6.539 f_planarseparator_class::planarseparator_type Type Reference | 236 |

| | |
|--|-----|
| 6.539.1 Detailed Description | 236 |
| 6.540 f_polygon_class::polygon_type Type Reference | 236 |
| 6.540.1 Detailed Description | 237 |
| 6.541 f_polyhedron24_doubles3_class::polyhedron24_doubles3_type Type Reference | 237 |
| 6.541.1 Detailed Description | 237 |
| 6.542 f_polyhedron24_class::polyhedron24_type Type Reference | 237 |
| 6.542.1 Detailed Description | 237 |
| 6.543 f_polygon_class::printtoscreen Interface Reference | 238 |
| 6.543.1 Detailed Description | 238 |
| 6.544 f_planarseparator_class::printtoscreen Interface Reference | 238 |
| 6.544.1 Detailed Description | 238 |
| 6.545 f_dividedpolygon_class::printtoscreen Interface Reference | 238 |
| 6.545.1 Detailed Description | 238 |
| 6.546 f_planarlocalizer_class::printtoscreen Interface Reference | 239 |
| 6.546.1 Detailed Description | 239 |
| 6.547 f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_type Type Reference | 239 |
| 6.547.1 Detailed Description | 239 |
| 6.548 f_reconstructioninterface::reconstructionwithadvectednormals Interface Reference | 239 |
| 6.548.1 Detailed Description | 240 |
| 6.549 f_reconstructioninterface::reconstructionwithadvectednormalsdebug Interface Reference | 240 |
| 6.549.1 Detailed Description | 240 |
| 6.550 f_reconstructioninterface::reconstructionwithlvira2d Interface Reference | 240 |
| 6.550.1 Detailed Description | 240 |
| 6.551 f_reconstructioninterface::reconstructionwithlvira3d Interface Reference | 240 |
| 6.551.1 Detailed Description | 241 |
| 6.552 f_reconstructioninterface::reconstructionwithmof2d Interface Reference | 241 |
| 6.552.1 Detailed Description | 241 |
| 6.553 f_reconstructioninterface::reconstructionwithmof3d Interface Reference | 241 |
| 6.553.1 Detailed Description | 241 |
| 6.554 f_reconstructioninterface::reconstructionwithr2p2d Interface Reference | 242 |

| | |
|---|-----|
| 6.554.1 Detailed Description | 242 |
| 6.555 f_reconstructioninterface::reconstructionwithr2p2ddebug Interface Reference | 242 |
| 6.555.1 Detailed Description | 242 |
| 6.556 f_reconstructioninterface::reconstructionwithr2p3d Interface Reference | 242 |
| 6.556.1 Detailed Description | 242 |
| 6.557 f_reconstructioninterface::reconstructionwithr2p3ddebug Interface Reference | 243 |
| 6.557.1 Detailed Description | 243 |
| 6.558 f_rectangularcuboid_class::rectangularcuboid_type Type Reference | 243 |
| 6.558.1 Detailed Description | 243 |
| 6.559 f_bytebuffer_class::resetbufferpointer Interface Reference | 243 |
| 6.559.1 Detailed Description | 243 |
| 6.560 f_dividedpolygon_class::resetcentroid Interface Reference | 244 |
| 6.560.1 Detailed Description | 244 |
| 6.561 f_polygon_class::reverseptordering Interface Reference | 244 |
| 6.561.1 Detailed Description | 244 |
| 6.562 f_dividedpolygon_class::reverseptordering Interface Reference | 244 |
| 6.562.1 Detailed Description | 244 |
| 6.563 f_tri_class::reverseptordering Interface Reference | 245 |
| 6.563.1 Detailed Description | 245 |
| 6.564 f_sepvm_doubles3_class::sepvm_doubles3_type Type Reference | 245 |
| 6.564.1 Detailed Description | 245 |
| 6.565 f_sepvm_class::sepvm_type Type Reference | 245 |
| 6.565.1 Detailed Description | 246 |
| 6.566 f_serializer::serializeandpack Interface Reference | 246 |
| 6.566.1 Detailed Description | 246 |
| 6.567 f_r2pneighborhood_rectangularcuboid_class::setcenterofstencil Interface Reference | 246 |
| 6.567.1 Detailed Description | 246 |
| 6.568 f_lviraneighborhood_rectangularcuboid_class::setcenterofstencil Interface Reference | 246 |
| 6.568.1 Detailed Description | 247 |
| 6.569 f_cappeddodecahedron_doubles3_class::setdata Interface Reference | 247 |

| | |
|---|-----|
| 6.569.1 Detailed Description | 247 |
| 6.570 f_polyhedron24_doubles3_class::setdata Interface Reference | 247 |
| 6.570.1 Detailed Description | 247 |
| 6.571 f_volumefractionmatching::setdistanctomatchvolumefraction Interface Reference | 247 |
| 6.571.1 Detailed Description | 248 |
| 6.572 f_localizerlink_class::setedgeconnectivity Interface Reference | 248 |
| 6.572.1 Detailed Description | 248 |
| 6.573 f_localizedseparatorlink_class::setedgeconnectivity Interface Reference | 248 |
| 6.573.1 Detailed Description | 248 |
| 6.574 f_localizerlink_class::setedgeconnectivitynull Interface Reference | 248 |
| 6.574.1 Detailed Description | 249 |
| 6.575 f_localizedseparatorlink_class::setedgeconnectivitynull Interface Reference | 249 |
| 6.575.1 Detailed Description | 249 |
| 6.576 f_planarlocalizer_class::setfromrectangularcuboid Interface Reference | 249 |
| 6.576.1 Detailed Description | 249 |
| 6.577 f_localizedseparatorlink_class::setid Interface Reference | 249 |
| 6.577.1 Detailed Description | 250 |
| 6.578 f_localizerlink_class::setid Interface Reference | 250 |
| 6.578.1 Detailed Description | 250 |
| 6.579 f_lviraneighborhood_rectangularcuboid_class::setmember Interface Reference | 250 |
| 6.579.1 Detailed Description | 250 |
| 6.580 f_elviraneighborhood_class::setmember Interface Reference | 250 |
| 6.580.1 Detailed Description | 251 |
| 6.581 f_r2pneighborhood_rectangularcuboid_class::setmember Interface Reference | 251 |
| 6.581.1 Detailed Description | 251 |
| 6.582 f_planarlocalizer_class::setnumberofplanes Interface Reference | 251 |
| 6.582.1 Detailed Description | 251 |
| 6.583 f_planarseparator_class::setnumberofplanes Interface Reference | 251 |
| 6.583.1 Detailed Description | 252 |
| 6.584 f_planarlocalizer_class::setplane Interface Reference | 252 |

| | |
|--|-----|
| 6.584.1 Detailed Description | 252 |
| 6.585 f_planarseparator_class::setplane Interface Reference | 252 |
| 6.585.1 Detailed Description | 252 |
| 6.586 f_tri_class::setplaneofexistence Interface Reference | 252 |
| 6.586.1 Detailed Description | 253 |
| 6.587 f_polygon_class::setplaneofexistence Interface Reference | 253 |
| 6.587.1 Detailed Description | 253 |
| 6.588 f_dividedpolygon_class::setplaneofexistence Interface Reference | 253 |
| 6.588.1 Detailed Description | 253 |
| 6.589 f_cappeddodecahedron_doubles3_class::setpt Interface Reference | 253 |
| 6.589.1 Detailed Description | 254 |
| 6.590 f_polyhedron24_doubles3_class::setpt Interface Reference | 254 |
| 6.590.1 Detailed Description | 254 |
| 6.591 f_polyhedron24_class::setpt Interface Reference | 254 |
| 6.591.1 Detailed Description | 254 |
| 6.592 f_bytebuffer_class::setsize Interface Reference | 254 |
| 6.592.1 Detailed Description | 255 |
| 6.593 f_elviraneighborhood_class::setsize Interface Reference | 255 |
| 6.593.1 Detailed Description | 255 |
| 6.594 f_r2pneighborhood_rectangularcuboid_class::setsize Interface Reference | 255 |
| 6.594.1 Detailed Description | 255 |
| 6.595 f_lviraneighborhood_rectangularcuboid_class::setsize Interface Reference | 255 |
| 6.595.1 Detailed Description | 256 |
| 6.596 f_r2pneighborhood_rectangularcuboid_class::setsurfacearea Interface Reference | 256 |
| 6.596.1 Detailed Description | 256 |
| 6.597 f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_type Type Reference | 256 |
| 6.597.1 Detailed Description | 256 |
| 6.598 f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_type Type Reference | 257 |
| 6.598.1 Detailed Description | 257 |
| 6.599 f_tagged_accumvm_vm_class::tagged_accumvm_vm_type Type Reference | 257 |

| | |
|--|------------|
| 6.599.1 Detailed Description | 257 |
| 6.600 f_tet_class::tet_type Type Reference | 257 |
| 6.600.1 Detailed Description | 258 |
| 6.601 f_tri_class::tri_type Type Reference | 258 |
| 6.601.1 Detailed Description | 258 |
| 6.602 f_serializer::unpackandstore Interface Reference | 258 |
| 6.602.1 Detailed Description | 258 |
| 6.603 f_vman_class::vman_type Type Reference | 259 |
| 6.603.1 Detailed Description | 259 |
| 6.604 f_listedvm_vman_class::zeronormalcomponent Interface Reference | 259 |
| 6.604.1 Detailed Description | 259 |
| 6.605 f_polygon_class::zeropolygon Interface Reference | 259 |
| 6.605.1 Detailed Description | 259 |
| 6.606 f_dividedpolygon_class::zeropolygon Interface Reference | 260 |
| 6.606.1 Detailed Description | 260 |
| 7 File Documentation | 261 |
| 7.1 c_constants.h File Reference | 261 |
| 7.1.1 Detailed Description | 261 |
| 7.1.2 Function Documentation | 261 |
| 7.1.2.1 c_Constants_setMinimumSurfaceAreaToTrack() | 261 |
| 7.1.2.2 c_Constants_setMinimumVolumeToTrack() | 262 |
| 7.1.2.3 c_Constants_setVolumeFractionBounds() | 262 |
| 7.1.2.4 c_Constants_setVolumeFractionToleranceForIterativeDistanceFinding() | 262 |
| 7.2 c_cut_polygon.h File Reference | 263 |
| 7.2.1 Detailed Description | 263 |
| 7.2.2 Function Documentation | 263 |
| 7.2.2.1 c_getPlanePolygonFromReconstruction_RectangularCuboid_DividedPolygon() | 264 |
| 7.2.2.2 c_getPlanePolygonFromReconstruction_RectangularCuboid_Polygon() | 264 |
| 7.2.2.3 c_getReconstructionSurfaceArea_RectangularCuboid() | 265 |
| 7.3 c_generic_cutting.h File Reference | 265 |

| | |
|---|-----|
| 7.3.1 Detailed Description | 267 |
| 7.3.2 Function Documentation | 267 |
| 7.3.2.1 c_getVolumeMoments_setMethod() | 267 |
| 7.4 c_localizers.h File Reference | 267 |
| 7.4.1 Detailed Description | 268 |
| 7.5 c_serializer.h File Reference | 268 |
| 7.5.1 Detailed Description | 268 |
| 7.6 f_bytebuffer_class.f90 File Reference | 269 |
| 7.6.1 Detailed Description | 269 |
| 7.7 f_cappeddodecahedron_class.f90 File Reference | 269 |
| 7.7.1 Detailed Description | 270 |
| 7.8 f_cappeddodecahedron_doubles3_class.f90 File Reference | 270 |
| 7.8.1 Detailed Description | 272 |
| 7.9 f_constants.f90 File Reference | 272 |
| 7.9.1 Detailed Description | 272 |
| 7.10 f_cutpolygon.f90 File Reference | 272 |
| 7.10.1 Detailed Description | 273 |
| 7.11 f_dividedpolygon_class.f90 File Reference | 273 |
| 7.11.1 Detailed Description | 275 |
| 7.12 f_dodecahedron_class.f90 File Reference | 275 |
| 7.12.1 Detailed Description | 275 |
| 7.13 f_geometriccuttinghelpers.f90 File Reference | 275 |
| 7.13.1 Detailed Description | 276 |
| 7.14 f_getvolumemoments.f90 File Reference | 276 |
| 7.14.1 Detailed Description | 277 |
| 7.15 f_localizedseparatorlink_class.f90 File Reference | 277 |
| 7.15.1 Detailed Description | 278 |
| 7.16 f_localizerlink_class.f90 File Reference | 278 |
| 7.16.1 Detailed Description | 279 |
| 7.17 f_objectallocationserver_localizedseparatorlink_class.f90 File Reference | 279 |

| | |
|--|-----|
| 7.17.1 Detailed Description | 280 |
| 7.18 f_objectallocationserver_localizerlink_class.f90 File Reference | 280 |
| 7.18.1 Detailed Description | 281 |
| 7.19 f_objectallocationserver_planarlocalizer_class.f90 File Reference | 281 |
| 7.19.1 Detailed Description | 281 |
| 7.20 f_objectallocationserver_planarseparator_class.f90 File Reference | 282 |
| 7.20.1 Detailed Description | 282 |
| 7.21 f_planarlocalizer_class.f90 File Reference | 282 |
| 7.21.1 Detailed Description | 283 |
| 7.22 f_planarseparator_class.f90 File Reference | 283 |
| 7.22.1 Detailed Description | 284 |
| 7.23 f_polygon_class.f90 File Reference | 284 |
| 7.23.1 Detailed Description | 286 |
| 7.24 f_polyhedron24_class.f90 File Reference | 286 |
| 7.24.1 Detailed Description | 287 |
| 7.25 f_polyhedron24_doubles3_class.f90 File Reference | 287 |
| 7.25.1 Detailed Description | 288 |
| 7.26 f_r2pneighborhood_rectangularcuboid_class.f90 File Reference | 288 |
| 7.26.1 Detailed Description | 289 |
| 7.27 f_rectangularcuboid_class.f90 File Reference | 289 |
| 7.27.1 Detailed Description | 289 |
| 7.28 f_sepvm_class.f90 File Reference | 290 |
| 7.28.1 Detailed Description | 290 |
| 7.29 f_sepvm_doubles3_class.f90 File Reference | 291 |
| 7.29.1 Detailed Description | 292 |
| 7.30 f_serializer.f90 File Reference | 292 |
| 7.30.1 Detailed Description | 292 |
| 7.31 f_tagged_accumlistedvm_vman_class.f90 File Reference | 292 |
| 7.31.1 Detailed Description | 293 |
| 7.32 f_tagged_accumvm_sepvm_class.f90 File Reference | 293 |
| 7.32.1 Detailed Description | 295 |
| 7.33 f_tagged_accumvm_vm_class.f90 File Reference | 295 |
| 7.33.1 Detailed Description | 296 |
| 7.34 f_tet_class.f90 File Reference | 296 |
| 7.34.1 Detailed Description | 297 |
| 7.35 f_tri_class.f90 File Reference | 297 |
| 7.35.1 Detailed Description | 298 |
| 7.36 f_vman_class.f90 File Reference | 298 |
| 7.36.1 Detailed Description | 299 |
| 7.37 f_volumefractionmatching.f90 File Reference | 299 |
| 7.37.1 Detailed Description | 300 |
| 7.38 irl_fortran_interface.f90 File Reference | 300 |
| 7.38.1 Detailed Description | 300 |

Chapter 1

C / Fortran IRL Interface

This document contains a description of all C and Fortran interface functions to IRL. It is primarily written in C with Fortran wrappers provided. To compile the C / Fortran interface, use the command `make opt_interfaces` for an optimized build, or `make debug_interfaces` to use the `DBGFLAGS` defined in `Makefile.in`.

In order to provide this interface, C functions are mapped to C++ equivalents, often times with several C functions being used to mimic the behavior of a class. The source files for the C interface is stored in `src/c_interface`, and each corresponds to a C++ header/implementation file except for the prefixed `c_`. Functions that work to mimic the behavior of a C++ class are formatted so that the class name appears after the prefixed `c_` and before the name of the C++ method, e.g. `c_ClassName_getId()`. Use of the C interface is handled through the inclusion of `IRL_c_interface.h` and linking to `libirl.a` and `libirl_c.a`. Examples using the C interface can be found in the `examples/C` directory.

To use the Fortran IRL interface, the module `irl_fortran_interface`, which is placed in `IRL/include`, must be used in the application code.

This single module provides access to the entire IRL Fortran interface. Linking must then be performed with `libirl.a`, `libirl_c.a`, and `libirl_fortran.a`. Fortran derived types are used to wrap C pointers representing the IRL C++ objects. Fortran 2003's `final` keyword is used to provide some form of RAI and help prevent memory leaks. Additionally, Fortran wrappers are written for the C functions in order to provide type and bounds checking before calling the C functions. Examples using the Fortran interface can be found in the `examples/fortran` directory.

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

| | | |
|---|--|----|
| f_bytebuffer_class | A fortran type class that allows the creation of IRL's ByteBuffer class along with enabling some of its methods | 23 |
| f_cappeddodecahedron_class | A fortran type class that allows the creation of IRL's CappedDodecahedron class along with enabling some of its methods | 24 |
| f_cappeddodecahedron_doubles3_class | A fortran type class that allows the creation of IRL's CappedDodecahedron_doubles3 class along with enabling some of its methods | 24 |
| f_constants | This module contains mappings to the IRL C interface that deal with setting global constants that are used in the IRL library | 25 |
| f_cutpolygon | This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells | 26 |
| f_definedtypes | This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells | 27 |
| f_dividedpolygon_class | A fortran type class that allows the creation of IRL's DividedPolygon class along with enabling some of its methods | 27 |
| f_dodecahedron_class | A fortran type class that allows the creation of IRL's Dodecahedron class along with enabling some of its methods | 29 |
| f_elviraneighborhood_class | A fortran type class to provide the functionality of ELVIRANeighborhood | 29 |
| f_geometriccuttinghelpers | This module contains mappings to the IRL C interface that provides access to functions often used to geometric cutting operations. See the C interface file src/c_interface/c_geometric_cutting_helpers.h for more information | 30 |
| f_getvolumemoments | This module contains mappings to the IRL C interface that deal with intersecting polyhedron volumes and integrating these volumes to obtain volumetric moments | 30 |

| | | |
|---|--|----|
| f_listedvm_vman_class | A fortran type class that allows the creation of IRL's ListedVolumeMomentsM<Volume↔MomentsAndNormal> class along with enabling some of its methods | 32 |
| f_localizedseparatorlink_class | A fortran type class that allows the creation of IRL's LocalizedSeparatorLink class along with enabling some of its methods | 33 |
| f_localizerlink_class | A fortran type class that allows the creation of IRL's LocalizerLink class along with enabling some of its methods | 33 |
| f_lviraneighborhood_rectangularcuboid_class | A fortran type class to provide the functionality of LVIRANeighborhood | 34 |
| f_objectallocationserver_localizedseparatorlink_class | A fortran type class that allows the creation of IRL's ObjectAllocationServer<Localized↔SeparatorLink> class along with enabling some of its methods | 35 |
| f_objectallocationserver_localizerlink_class | A fortran type class that allows the creation of IRL's ObjectAllocationServer<LocalizerLink> class along with enabling some of its methods | 36 |
| f_objectallocationserver_planarlocalizer_class | A fortran type class that allows the creation of IRL's ObjectAllocationServer<PlanarLocalizer> class along with enabling some of its methods | 36 |
| f_objectallocationserver_planarseparator_class | A fortran type class that allows the creation of IRL's ObjectAllocationServer<PlanarSeparator> class along with enabling some of its methods | 37 |
| f_planarlocalizer_class | A fortran type class that allows the creation of IRL's PlanarLocalizer class along with enabling some of its methods | 37 |
| f_planarseparator_class | A fortran type class that allows the creation of IRL's PlanarSeparator class along with enabling some of its methods | 38 |
| f_polygon_class | A fortran type class that allows the creation of IRL's Polygon class along with enabling some of its methods | 39 |
| f_polyhedron24_class | A fortran type class that allows the creation of IRL's Polyhedron24 class along with enabling some of its methods | 40 |
| f_polyhedron24_doubles3_class | A fortran type class that allows the creation of IRL's Polyhedron24_doubles3 class along with enabling some of its methods | 41 |
| f_r2pneighborhood_rectangularcuboid_class | A fortran type class to provide the functionality of R2PNeighborhood_RectangularCuboid | 42 |
| f_reconstructioninterface | This module contains interface reconstruction methods that can be used to obtain Planar↔Separators. The requirements to use each type of reconstruction are different. Please consult the documentation and examples before using a specific reconstruction type | 43 |
| f_rectangularcuboid_class | A fortran type class that allows the creation of IRL's RectangularCuboid class along with enabling some of its methods | 45 |
| f_sepvm_class | A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods | 45 |
| f_sepvm_doubles3_class | A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods | 46 |
| f_serializer | This module contains mappings to the IRL C interface that deal with serializing IRL class objects into an array of bytes and packing them into a byte buffer | 47 |

| | | |
|---|---|----|
| f_tagged_accumlistedvm_vman_class | A fortran type class that allows the creation of IRL's TaggedAccumulatedListedVolume↔ MomentsM<VolumeMomentsAndNormal> class along with enabling some of its methods . . . | 48 |
| f_tagged_accumvm_sepvm_class | A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<Separated↔ Moments<VolumeMoments>> class along with enabling some of its methods | 49 |
| f_tagged_accumvm_vm_class | A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<Volume↔ Moments> class along with enabling some of its methods | 50 |
| f_tet_class | A fortran type class that allows the creation of IRL's Tet class along with enabling some of its methods | 51 |
| f_tri_class | A fortran type class that allows the creation of IRL's Tri class along with enabling some of its methods | 52 |
| f_vman_class | A fortran type class that allows the creation of IRL's AccumulatedListedVolumeMomentsM<↔ VolumeMomentsAndNormal> class along with enabling some of its methods | 53 |
| f_volumefractionmatching | This module contains mappings to the IRL C interface that deals with setting the distance to each plane in a reconstruction to recreate the volume fraction on the provided polyhedron | 53 |
| irl_fortran_interface | This is just a master wrapper for the entire IRL fortran interface. For information about each module, view the documentation for the module itself | 54 |

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

| | |
|--|----|
| f_lviraneighborhood_rectangularcuboid_class::addmember | 55 |
| f_r2pneighborhood_rectangularcuboid_class::addmember | 55 |
| f_planarlocalizer_class::addplane | 56 |
| f_planarseparator_class::addplane | 56 |
| f_polyhedron24_class::adjustcaptomatchvolume | 56 |
| f_polyhedron24_doubles3_class::adjustcaptomatchvolume | 57 |
| f_cappeddodecahedron_class::adjustcaptomatchvolume | 57 |
| f_cappeddodecahedron_doubles3_class::adjustcaptomatchvolume | 57 |
| f_listedvm_vman_class::append | 58 |
| f_tagged_accumlistedvm_vman_class::append | 58 |
| f_bytebuffer_class::bytebuffer_type | 58 |
| c_ByteBuffer | 59 |
| f_bytebuffer_class::c_bytebuffer | 59 |
| f_cappeddodecahedron_class::c_cappeddodecahedron | 59 |
| c_CappedDodecahedron | 60 |
| c_CappedDodecahedron_doubles3 | 60 |
| f_cappeddodecahedron_doubles3_class::c_cappeddodecahedron_doubles3 | 60 |
| c_DividedPolygon | 61 |
| f_dividedpolygon_class::c_dividedpolygon | 61 |
| f_dodecahedron_class::c_dodecahedron | 61 |
| c_Dodecahedron | 62 |
| c_ELVIRANeighborhood | 62 |
| f_elviraneighborhood_class::c_elviraneighborhood | 62 |
| c_ListedVM_VMAN | 63 |
| f_listedvm_vman_class::c_listedvm_vman | 63 |
| c_LocalizedSeparatorLink | 63 |
| f_localizedseparatorlink_class::c_localizedseparatorlink | 64 |
| f_localizerlink_class::c_localizerlink | 64 |
| c_LocalizerLink | 64 |
| c_LVIRANeighborhood_RectangularCuboid | 65 |
| f_lviraneighborhood_rectangularcuboid_class::c_lviraneighborhood_rectangularcuboid | 65 |
| c_ObjectAllocationServer_LocalizedSeparatorLink | 65 |
| f_objectallocationserver_localizedseparatorlink_class::c_objectallocationserver_localizedseparatorlink | 66 |
| c_ObjectAllocationServer_LocalizerLink | 66 |
| f_objectallocationserver_localizerlink_class::c_objectallocationserver_localizerlink | 66 |

| | |
|--|----|
| f_objectallocationserver_planarlocalizer_class::c_objectallocationserver_planarlocalizer | 67 |
| c_ObjectAllocationServer_PlanarLocalizer | 67 |
| c_ObjectAllocationServer_PlanarSeparator | 67 |
| f_objectallocationserver_planarseparator_class::c_objectallocationserver_planarseparator | 68 |
| f_planarlocalizer_class::c_planarlocalizer | 68 |
| c_PlanarLocalizer | 68 |
| f_planarseparator_class::c_planarseparator | 69 |
| c_PlanarSeparator | 69 |
| f_polygon_class::c_polygon | 69 |
| c_Polygon | 70 |
| f_polyhedron24_class::c_polyhedron24 | 70 |
| c_Polyhedron24 | 70 |
| f_polyhedron24_doubles3_class::c_polyhedron24_doubles3 | 71 |
| c_Polyhedron24_doubles3 | 71 |
| c_R2PNeighborhood_RectangularCuboid | 71 |
| f_r2pneighborhood_rectangularcuboid_class::c_r2pneighborhood_rectangularcuboid | 72 |
| c_RectangularCuboid | 72 |
| f_rectangularcuboid_class::c_rectangularcuboid | 72 |
| c_SepVM | 73 |
| f_sepvm_class::c_sepvm | 73 |
| c_SepVM_doubles3 | 73 |
| f_sepvm_doubles3_class::c_sepvm_doubles3 | 74 |
| c_Tagged_AccumListedVM_VMAN | 74 |
| f_tagged_accumlistedvm_vman_class::c_tagged_accumlistedvm_vman | 74 |
| c_Tagged_AccumVM_SepVM | 75 |
| f_tagged_accumvm_sepvm_class::c_tagged_accumvm_sepvm | 75 |
| f_tagged_accumvm_vm_class::c_tagged_accumvm_vm | 75 |
| c_Tagged_AccumVM_VM | 76 |
| f_tet_class::c_tet | 76 |
| c_Tet | 76 |
| f_tri_class::c_tri | 77 |
| c_Tri | 77 |
| f_vman_class::c_vman | 77 |
| c_VMAN | 78 |
| f_tri_class::calculateandsetplaneofexistence | 78 |
| f_polygon_class::calculateandsetplaneofexistence | 78 |
| f_dividedpolygon_class::calculateandsetplaneofexistence | 79 |
| f_tri_class::calculatecentroid | 79 |
| f_polygon_class::calculatecentroid | 79 |
| f_polygon_class::calculatenearestptonsurface | 80 |
| f_tri_class::calculatenormal | 80 |
| f_polygon_class::calculatenormal | 80 |
| f_dividedpolygon_class::calculatenormal | 81 |
| f_tri_class::calculatesign | 81 |
| f_polygon_class::calculatesign | 81 |
| f_dividedpolygon_class::calculatesign | 82 |
| f_dividedpolygon_class::calculatesurfacearea | 82 |
| f_tri_class::calculatevolume | 82 |
| f_polygon_class::calculatevolume | 83 |
| f_rectangularcuboid_class::calculatevolume | 83 |
| f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_type | 83 |
| f_cappeddodecahedron_class::cappeddodecahedron_type | 84 |
| f_listedvm_vman_class::clear | 84 |
| f_tagged_accumlistedvm_vman_class::clear | 84 |
| f_dodecahedron_class::construct | 85 |
| f_tet_class::construct | 85 |
| f_tri_class::construct | 85 |
| f_polygon_class::construct | 86 |

| | |
|---|-----|
| f_polyhedron24_class::construct | 86 |
| f_dividedpolygon_class::construct | 86 |
| f_polyhedron24_doubles3_class::construct | 87 |
| f_cappeddodecahedron_class::construct | 87 |
| f_rectangularcuboid_class::construct | 87 |
| f_sepvm_class::construct | 88 |
| f_cappeddodecahedron_doubles3_class::construct | 88 |
| f_rectangularcuboid_class::construct_2pt | 88 |
| f_dividedpolygon_class::constructfrompolygon | 89 |
| f_planarseparator_class::copy | 89 |
| f_bytebuffer_class::dataptr | 89 |
| f_dividedpolygon_class::dividedpolygon_type | 90 |
| f_dodecahedron_class::dodecahedron_type | 90 |
| f_elviraneighborhood_class::elviraneighborhood_type | 91 |
| f_r2pneighborhood_rectangularcuboid_class::emptyneighborhood | 91 |
| f_lviraneighborhood_rectangularcuboid_class::emptyneighborhood | 91 |
| f_listedvm_vman_class::erase | 92 |
| f_bytebuffer_class::F_ByteBuffer_dataptr | 92 |
| f_bytebuffer_class::F_ByteBuffer_delete | 92 |
| f_bytebuffer_class::F_ByteBuffer_getSize | 93 |
| f_bytebuffer_class::F_ByteBuffer_new | 93 |
| f_bytebuffer_class::F_ByteBuffer_resetBufferPointer | 93 |
| f_bytebuffer_class::F_ByteBuffer_setSize | 94 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_adjustCapToMatchVolume | 94 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_construct | 94 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_delete | 95 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_adjustCapToMatchVolume | 95 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_construct | 95 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_delete | 96 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getBoundingPts | 96 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getData | 96 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getPt | 97 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_new | 97 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setData | 97 |
| f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setPt | 98 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_getBoundingPts | 98 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_getPt | 98 |
| f_cappeddodecahedron_class::F_CappedDodecahedron_new | 99 |
| f_constants::F_Constants_setMinimumSurfaceAreaToTrack | 99 |
| f_constants::F_Constants_setMinimumVolumeToTrack | 99 |
| f_constants::F_Constants_setVolumeFractionBounds | 100 |
| f_constants::F_Constants_setVolumeFractionToleranceForDistanceFinding | 100 |
| f_dividedpolygon_class::F_DividedPolygon_calculateAndSetPlaneOfExistence | 100 |
| f_dividedpolygon_class::F_DividedPolygon_calculateNormal | 101 |
| f_dividedpolygon_class::F_DividedPolygon_calculateSign | 101 |
| f_dividedpolygon_class::F_DividedPolygon_calculateSurfaceArea | 101 |
| f_dividedpolygon_class::F_DividedPolygon_construct | 102 |
| f_dividedpolygon_class::F_DividedPolygon_constructFromPolygon | 102 |
| f_dividedpolygon_class::F_DividedPolygon_delete | 102 |
| f_dividedpolygon_class::F_DividedPolygon_getBoundingPts | 103 |
| f_dividedpolygon_class::F_DividedPolygon_getLocalizer | 103 |
| f_dividedpolygon_class::F_DividedPolygon_getNumberOfPts | 103 |
| f_dividedpolygon_class::F_DividedPolygon_getNumberOfSimplexesInDecomposition | 104 |
| f_dividedpolygon_class::F_DividedPolygon_getPlaneOfExistence | 104 |
| f_dividedpolygon_class::F_DividedPolygon_getPt | 104 |
| f_dividedpolygon_class::F_DividedPolygon_getSimplexFromDecomposition | 105 |
| f_dividedpolygon_class::F_DividedPolygon_new | 105 |
| f_dividedpolygon_class::F_DividedPolygon_printToScreen | 105 |

| | |
|--|-----|
| f_dividedpolygon_class::F_DividedPolygon_resetCentroid | 106 |
| f_dividedpolygon_class::F_DividedPolygon_reversePtOrdering | 106 |
| f_dividedpolygon_class::F_DividedPolygon_setPlaneOfExistence | 106 |
| f_dividedpolygon_class::F_DividedPolygon_zeroPolygon | 107 |
| f_dodecahedron_class::F_Dodecahedron_construct | 107 |
| f_dodecahedron_class::F_Dodecahedron_delete | 107 |
| f_dodecahedron_class::F_Dodecahedron_getBoundingPts | 108 |
| f_dodecahedron_class::F_Dodecahedron_new | 108 |
| f_elviraneighborhood_class::F_ELVIRANeighborhood_delete | 108 |
| f_elviraneighborhood_class::F_ELVIRANeighborhood_new | 109 |
| f_elviraneighborhood_class::F_ELVIRANeighborhood_setMember | 109 |
| f_elviraneighborhood_class::F_ELVIRANeighborhood_setSize | 109 |
| f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_DivPoly | 110 |
| f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_Poly | 110 |
| f_cutpolygon::F_getReconstructionSurfaceArea_RC | 110 |
| f_getvolumemoments::F_GNVM_CD_By_LSL_For_SVM | 111 |
| f_getvolumemoments::F_GNVM_CD_By_LSL_For_TagAccumVM_SVM | 111 |
| f_getvolumemoments::F_GNVM_CDWD3_By_LSL_For_SVMAD3 | 111 |
| f_getvolumemoments::F_GNVM_D_By_LSL_For_SVM | 112 |
| f_getvolumemoments::F_GNVM_D_By_LSL_For_TagAccumVM_SVM | 112 |
| f_getvolumemoments::F_GNVM_D_By_PS_For_SVM | 112 |
| f_getvolumemoments::F_GNVM_P24_By_LSL_For_SVM | 113 |
| f_getvolumemoments::F_GNVM_P24WD3_By_LSL_For_SVMAD3 | 113 |
| f_getvolumemoments::F_GNVM_Poly_By_PL_For_V | 113 |
| f_getvolumemoments::F_GNVM_RC_By_PS_For_SVM | 114 |
| f_getvolumemoments::F_GNVM_RC_By_PS_For_V | 114 |
| f_getvolumemoments::F_GNVM_Tet_By_LSL_For_SVM | 114 |
| f_getvolumemoments::F_GNVM_Tri_By_LL_For_TagAVM_VM | 115 |
| f_getvolumemoments::F_GNVM_Tri_By_PL_For_V | 115 |
| f_getvolumemoments::F_GVM_CD_By_LSL_For_SVM | 115 |
| f_getvolumemoments::F_GVM_D_By_LSL_For_SVM | 116 |
| f_getvolumemoments::F_GVM_P24_By_LSL_For_SVM | 116 |
| f_getvolumemoments::F_GVM_setMethod | 116 |
| f_getvolumemoments::F_GVM_Tri_By_LL_For_TagALVM_VMAN | 117 |
| f_geometriccuttinghelpers::F_isPtInternal_PL | 117 |
| f_geometriccuttinghelpers::F_isPtInternal_PS | 117 |
| f_listedvm_vman_class::F_ListedVM_VMAN_append | 118 |
| f_listedvm_vman_class::F_ListedVM_VMAN_clear | 118 |
| f_listedvm_vman_class::F_ListedVM_VMAN_delete | 118 |
| f_listedvm_vman_class::F_ListedVM_VMAN_erase | 119 |
| f_listedvm_vman_class::F_ListedVM_VMAN_getMoments | 119 |
| f_listedvm_vman_class::F_ListedVM_VMAN_getSize | 119 |
| f_listedvm_vman_class::F_ListedVM_VMAN_new | 120 |
| f_listedvm_vman_class::F_ListedVM_VMAN_zeroNormalComponent | 120 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_delete | 120 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_getId | 121 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_new | 121 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_newFromObjectAllocationServer | 121 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivity | 122 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivityNull | 122 |
| f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setId | 122 |
| f_localizerlink_class::F_LocalizerLink_delete | 123 |
| f_localizerlink_class::F_LocalizerLink_getId | 123 |
| f_localizerlink_class::F_LocalizerLink_new | 123 |
| f_localizerlink_class::F_LocalizerLink_newFromObjectAllocationServer | 124 |
| f_localizerlink_class::F_LocalizerLink_setEdgeConnectivity | 124 |
| f_localizerlink_class::F_LocalizerLink_setEdgeConnectivityNull | 124 |
| f_localizerlink_class::F_LocalizerLink_setId | 125 |

| | |
|---|-----|
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_addMember | 125 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_delete | 125 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_emptyNeighborhood | 126 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_new | 126 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setCenterOfStencil | 126 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setMember | 127 |
| f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setSize | 127 |
| f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_LocalizedSeparatorLink_delete | 127 |
| f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_LocalizedSeparatorLink_new | 128 |
| f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_delete | 128 |
| f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_new | 128 |
| f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_delete | 129 |
| f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_new | 129 |
| f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_delete | 129 |
| f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_new | 130 |
| f_planarlocalizer_class::F_PlanarLocalizer_addPlane | 130 |
| f_planarlocalizer_class::F_PlanarLocalizer_delete | 130 |
| f_planarlocalizer_class::F_PlanarLocalizer_new | 131 |
| f_planarlocalizer_class::F_PlanarLocalizer_newFromObjectAllocationServer | 131 |
| f_planarlocalizer_class::F_PlanarLocalizer_printToScreen | 131 |
| f_planarlocalizer_class::F_PlanarLocalizer_setFromRectangularCuboid | 132 |
| f_planarlocalizer_class::F_PlanarLocalizer_setNumberOfPlanes | 132 |
| f_planarlocalizer_class::F_PlanarLocalizer_setPlane | 132 |
| f_planarseparator_class::F_PlanarSeparator_addPlane | 133 |
| f_planarseparator_class::F_PlanarSeparator_copy | 133 |
| f_planarseparator_class::F_PlanarSeparator_delete | 133 |
| f_planarseparator_class::F_PlanarSeparator_getNumberOfPlanes | 134 |
| f_planarseparator_class::F_PlanarSeparator_getPlane | 134 |
| f_planarseparator_class::F_PlanarSeparator_isFlipped | 134 |
| f_planarseparator_class::F_PlanarSeparator_new | 135 |
| f_planarseparator_class::F_PlanarSeparator_newFromObjectAllocationServer | 135 |
| f_planarseparator_class::F_PlanarSeparator_printToScreen | 135 |
| f_planarseparator_class::F_PlanarSeparator_setNumberOfPlanes | 136 |
| f_planarseparator_class::F_PlanarSeparator_setPlane | 136 |
| f_polygon_class::F_Polygon_calculateAndSetPlaneOfExistence | 136 |
| f_polygon_class::F_Polygon_calculateCentroid | 137 |
| f_polygon_class::F_Polygon_calculateNearestPtOnSurface | 137 |
| f_polygon_class::F_Polygon_calculateNormal | 137 |
| f_polygon_class::F_Polygon_calculateSign | 138 |
| f_polygon_class::F_Polygon_calculateVolume | 138 |
| f_polygon_class::F_Polygon_construct | 138 |
| f_polygon_class::F_Polygon_delete | 139 |
| f_polygon_class::F_Polygon_getBoundingPts | 139 |
| f_polygon_class::F_Polygon_getLocalizer | 139 |
| f_polygon_class::F_Polygon_getNumberOfPts | 140 |
| f_polygon_class::F_Polygon_getNumberOfSimplexesInDecomposition | 140 |
| f_polygon_class::F_Polygon_getPlaneOfExistence | 140 |
| f_polygon_class::F_Polygon_getPt | 141 |
| f_polygon_class::F_Polygon_getSimplexFromDecomposition | 141 |
| f_polygon_class::F_Polygon_new | 141 |
| f_polygon_class::F_Polygon_printToScreen | 142 |
| f_polygon_class::F_Polygon_reversePtOrdering | 142 |
| f_polygon_class::F_Polygon_setPlaneOfExistence | 142 |
| f_polygon_class::F_Polygon_zeroPolygon | 143 |

| | |
|---|-----|
| f_polyhedron24_class::F_Polyhedron24_adjustCapToMatchVolume | 143 |
| f_polyhedron24_class::F_Polyhedron24_construct | 143 |
| f_polyhedron24_class::F_Polyhedron24_delete | 144 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_adjustCapToMatchVolume | 144 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_construct | 144 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_delete | 145 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getBoundingPts | 145 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getData | 145 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getPt | 146 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_new | 146 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setData | 146 |
| f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setPt | 147 |
| f_polyhedron24_class::F_Polyhedron24_getBoundingPts | 147 |
| f_polyhedron24_class::F_Polyhedron24_getPt | 147 |
| f_polyhedron24_class::F_Polyhedron24_new | 148 |
| f_polyhedron24_class::F_Polyhedron24_setPt | 148 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_addMember | 148 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_delete | 149 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_emptyNeighborhood | 149 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_new | 149 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setCenterOfStencil | 150 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setMember | 150 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSize | 150 |
| f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSurfaceArea | 151 |
| f_reconstructioninterface::F_reconstructionWithAdvectionNormals_ListedVM_VMAN_RC | 151 |
| f_reconstructioninterface::F_reconstructionWithAdvectionNormalsDebug_ListedVM_VMAN_RC | 151 |
| f_reconstructioninterface::F_reconstructionWithELVIRA2D | 152 |
| f_reconstructioninterface::F_reconstructionWithELVIRA3D | 152 |
| f_reconstructioninterface::F_reconstructionWithLVIRA2D_RC | 152 |
| f_reconstructioninterface::F_reconstructionWithLVIRA3D_RC | 153 |
| f_reconstructioninterface::F_reconstructionWithMOF2D_RectangularCuboid | 153 |
| f_reconstructioninterface::F_reconstructionWithMOF2D_Tri | 153 |
| f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_RectangularCuboid | 154 |
| f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_Tri | 154 |
| f_reconstructioninterface::F_reconstructionWithMOF3D_RectangularCuboid | 155 |
| f_reconstructioninterface::F_reconstructionWithMOF3D_Tet | 155 |
| f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_RectangularCuboid | 155 |
| f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_Tet | 156 |
| f_reconstructioninterface::F_reconstructionWithR2P2D_RC | 156 |
| f_reconstructioninterface::F_reconstructionWithR2P2DDebug_RC | 156 |
| f_reconstructioninterface::F_reconstructionWithR2P3D_RC | 157 |
| f_reconstructioninterface::F_reconstructionWithR2P3DDebug_RC | 157 |
| f_rectangularcuboid_class::F_RectangularCuboid_calculateVolume | 157 |
| f_rectangularcuboid_class::F_RectangularCuboid_construct | 158 |
| f_rectangularcuboid_class::F_RectangularCuboid_construct_2pt | 158 |
| f_rectangularcuboid_class::F_RectangularCuboid_delete | 158 |
| f_rectangularcuboid_class::F_RectangularCuboid_getBoundingPts | 159 |
| f_rectangularcuboid_class::F_RectangularCuboid_new | 159 |
| f_sepvm_class::F_SepVM_construct | 159 |
| f_sepvm_class::F_SepVM_delete | 160 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_delete | 160 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroid | 160 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroidPtr | 161 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_getData | 161 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_getVolume | 161 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_getVolumePtr | 162 |

| | |
|---|-----|
| f_sepvm_doubles3_class::F_SepVM_doubles3_multiplyByVolume | 162 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_new | 162 |
| f_sepvm_doubles3_class::F_SepVM_doubles3_normalizeByVolume | 163 |
| f_sepvm_class::F_SepVM_getCentroid | 163 |
| f_sepvm_class::F_SepVM_getCentroidPtr | 163 |
| f_sepvm_class::F_SepVM_getVolume | 164 |
| f_sepvm_class::F_SepVM_getVolumePtr | 164 |
| f_sepvm_class::F_SepVM_multiplyByVolume | 164 |
| f_sepvm_class::F_SepVM_new | 165 |
| f_sepvm_class::F_SepVM_normalizeByVolume | 165 |
| f_serializer::F_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer | 165 |
| f_serializer::F_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer | 166 |
| f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS | 166 |
| f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS_DefTol | 166 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_append | 167 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_clear | 167 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_delete | 167 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getListAtIndex | 168 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getSize | 168 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getTagForIndex | 168 |
| f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_new | 169 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_delete | 169 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtIndex | 169 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtTag | 170 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidPtrAtIndex | 170 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getSize | 170 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getTagForIndex | 171 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtIndex | 171 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtTag | 171 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumePtrAtIndex | 172 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_multiplyByVolume | 172 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_new | 172 |
| f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_normalizeByVolume | 173 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_delete | 173 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidAtIndex | 173 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidPtrAtIndex | 174 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getSize | 174 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getTagForIndex | 174 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumeAtIndex | 175 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumePtrAtIndex | 175 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_multiplyByVolume | 175 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_new | 176 |
| f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_normalizeByVolume | 176 |
| f_tet_class::F_Tet_construct | 176 |
| f_tet_class::F_Tet_delete | 177 |
| f_tet_class::F_Tet_getBoundingPts | 177 |
| f_tet_class::F_Tet_new | 177 |
| f_tri_class::F_Tri_calculateAndSetPlaneOfExistence | 178 |
| f_tri_class::F_Tri_calculateCentroid | 178 |
| f_tri_class::F_Tri_calculateNormal | 178 |
| f_tri_class::F_Tri_calculateSign | 179 |
| f_tri_class::F_Tri_calculateVolume | 179 |
| f_tri_class::F_Tri_construct | 179 |
| f_tri_class::F_Tri_delete | 180 |
| f_tri_class::F_Tri_getBoundingPts | 180 |
| f_tri_class::F_Tri_getLocalizer | 180 |
| f_tri_class::F_Tri_getPlaneOfExistence | 181 |
| f_tri_class::F_Tri_getVertices | 181 |

| | |
|---|-----|
| f_tri_class::F_Tri_new | 181 |
| f_tri_class::F_Tri_reversePtOrdering | 182 |
| f_tri_class::F_Tri_setPlaneOfExistence | 182 |
| f_vman_class::F_VMAN_delete | 182 |
| f_vman_class::F_VMAN_getCentroid | 183 |
| f_vman_class::F_VMAN_getNormal | 183 |
| f_vman_class::F_VMAN_getVolume | 183 |
| f_vman_class::F_VMAN_multiplyByVolume | 184 |
| f_vman_class::F_VMAN_new | 184 |
| f_vman_class::F_VMAN_normalizeByVolume | 184 |
| f_tet_class::getboundingpts | 185 |
| f_dodecahedron_class::getboundingpts | 185 |
| f_cappeddodecahedron_doubles3_class::getboundingpts | 185 |
| f_polygon_class::getboundingpts | 186 |
| f_polyhedron24_class::getboundingpts | 186 |
| f_polyhedron24_doubles3_class::getboundingpts | 186 |
| f_dividedpolygon_class::getboundingpts | 187 |
| f_cappeddodecahedron_class::getboundingpts | 187 |
| f_rectangularcuboid_class::getboundingpts | 187 |
| f_tri_class::getboundingpts | 188 |
| f_sepvm_doubles3_class::getcentroid | 188 |
| f_sepvm_class::getcentroid | 188 |
| f_vman_class::getcentroid | 189 |
| f_tagged_accumvm_vm_class::getcentroidatindex | 189 |
| f_tagged_accumvm_sepvm_class::getcentroidatindex | 189 |
| f_tagged_accumvm_sepvm_class::getcentroidattag | 190 |
| f_sepvm_class::getcentroidptr | 190 |
| f_sepvm_doubles3_class::getcentroidptr | 190 |
| f_tagged_accumvm_vm_class::getcentroidptratindex | 191 |
| f_tagged_accumvm_sepvm_class::getcentroidptratindex | 191 |
| f_tagged_accumvm_vm_class::getcobject | 191 |
| f_bytebuffer_class::getcobject | 192 |
| f_planarlocalizer_class::getcobject | 192 |
| f_cappeddodecahedron_class::getcobject | 192 |
| f_objectallocationserver_localizedseparatorlink_class::getcobject | 193 |
| f_r2pneighborhood_rectangularcuboid_class::getcobject | 193 |
| f_tri_class::getcobject | 193 |
| f_objectallocationserver_planarseparator_class::getcobject | 194 |
| f_planarseparator_class::getcobject | 194 |
| f_lviraneighborhood_rectangularcuboid_class::getcobject | 194 |
| f_polygon_class::getcobject | 195 |
| f_dodecahedron_class::getcobject | 195 |
| f_objectallocationserver_localizerlink_class::getcobject | 195 |
| f_vman_class::getcobject | 196 |
| f_polyhedron24_class::getcobject | 196 |
| f_listedvm_vman_class::getcobject | 196 |
| f_dividedpolygon_class::getcobject | 197 |
| f_polyhedron24_doubles3_class::getcobject | 197 |
| f_localizerlink_class::getcobject | 197 |
| f_localizedseparatorlink_class::getcobject | 198 |
| f_rectangularcuboid_class::getcobject | 198 |
| f_sepvm_class::getcobject | 198 |
| f_elviraneighborhood_class::getcobject | 199 |
| f_sepvm_doubles3_class::getcobject | 199 |
| f_tagged_accumlistedvm_vman_class::getcobject | 199 |
| f_cappeddodecahedron_doubles3_class::getcobject | 200 |
| f_tet_class::getcobject | 200 |
| f_tagged_accumvm_sepvm_class::getcobject | 200 |

| | |
|---|-----|
| f_objectallocationserver_planarlocalizer_class::getcobject | 201 |
| f_polyhedron24_doubles3_class::getdata | 201 |
| f_cappeddodecahedron_doubles3_class::getdata | 201 |
| f_sepvm_doubles3_class::getdata | 202 |
| f_localizerlink_class::getid | 202 |
| f_localizedseparatorlink_class::getid | 202 |
| f_tagged_accumlistedvm_vman_class::getlistatindex | 203 |
| f_tri_class::getlocalizer | 203 |
| f_polygon_class::getlocalizer | 203 |
| f_dividedpolygon_class::getlocalizer | 204 |
| f_listedvm_vman_class::getmoments | 204 |
| f_vman_class::getnormal | 204 |
| f_getvolumemoments::getnormalizedvolumemoments | 205 |
| f_planarseparator_class::getnumberofplanes | 205 |
| f_polygon_class::getnumberofsimplicesindecomposition | 206 |
| f_dividedpolygon_class::getnumberofsimplicesindecomposition | 206 |
| f_polygon_class::getnumberofvertices | 206 |
| f_dividedpolygon_class::getnumberofvertices | 207 |
| f_planarseparator_class::getplane | 207 |
| f_polygon_class::getplaneofexistence | 207 |
| f_dividedpolygon_class::getplaneofexistence | 208 |
| f_tri_class::getplaneofexistence | 208 |
| f_cutpolygon::getplanepolygonfromreconstruction | 208 |
| f_cappeddodecahedron_doubles3_class::getpt | 209 |
| f_polygon_class::getpt | 209 |
| f_polyhedron24_class::getpt | 209 |
| f_polyhedron24_doubles3_class::getpt | 210 |
| f_dividedpolygon_class::getpt | 210 |
| f_cappeddodecahedron_class::getpt | 210 |
| f_cutpolygon::getreconstructionsurfacearea | 211 |
| f_polygon_class::getsimplexfromdecomposition | 211 |
| f_dividedpolygon_class::getsimplexfromdecomposition | 211 |
| f_tagged_accumvm_sepvm_class::getsize | 212 |
| f_bytebuffer_class::getsize | 212 |
| f_listedvm_vman_class::getsize | 212 |
| f_tagged_accumlistedvm_vman_class::getsize | 213 |
| f_tagged_accumvm_vm_class::getsize | 213 |
| f_tagged_accumlistedvm_vman_class::gettagforindex | 213 |
| f_tagged_accumvm_vm_class::gettagforindex | 214 |
| f_tagged_accumvm_sepvm_class::gettagforindex | 214 |
| f_tri_class::getvertices | 214 |
| f_vman_class::getvolume | 215 |
| f_sepvm_class::getvolume | 215 |
| f_sepvm_doubles3_class::getvolume | 215 |
| f_tagged_accumvm_vm_class::getvolumeatindex | 216 |
| f_tagged_accumvm_sepvm_class::getvolumeatindex | 216 |
| f_tagged_accumvm_sepvm_class::getvolumeatitag | 216 |
| f_getvolumemoments::getvolumemoments | 217 |
| f_getvolumemoments::getvolumemoments_setmethod | 217 |
| f_sepvm_class::getvolumeptr | 217 |
| f_sepvm_doubles3_class::getvolumeptr | 218 |
| f_tagged_accumvm_vm_class::getvolumeptratindex | 218 |
| f_tagged_accumvm_sepvm_class::getvolumeptratindex | 218 |
| f_planarseparator_class::isflipped | 219 |
| f_geometriccuttinghelpers::isptinternal | 219 |
| f_listedvm_vman_class::listedvm_vman_type | 219 |
| f_localizedseparatorlink_class::localizedseparatorlink_type | 220 |
| f_localizerlink_class::localizerlink_type | 220 |

| | |
|---|-----|
| f_iviraneighborhood_rectangularcuboid_class::iviraneighborhood_rectangularcuboid_type | 220 |
| f_tagged_accumvm_vm_class::multiplybyvolume | 221 |
| f_tagged_accumvm_sepvm_class::multiplybyvolume | 221 |
| f_vman_class::multiplybyvolume | 221 |
| f_sepvm_class::multiplybyvolume | 222 |
| f_sepvm_doubles3_class::multiplybyvolume | 222 |
| f_objectallocationserver_planarlocalizer_class::new | 222 |
| f_objectallocationserver_planarseparator_class::new | 223 |
| f_r2pneighborhood_rectangularcuboid_class::new | 223 |
| f_cappeddodecahedron_doubles3_class::new | 223 |
| f_tagged_accumvm_sepvm_class::new | 224 |
| f_cappeddodecahedron_class::new | 224 |
| f_dodecahedron_class::new | 224 |
| f_objectallocationserver_localizedseparatorlink_class::new | 225 |
| f_tagged_accumlistedvm_vman_class::new | 225 |
| f_listedvm_vman_class::new | 225 |
| f_bytebuffer_class::new | 226 |
| f_tet_class::new | 226 |
| f_polyhedron24_doubles3_class::new | 226 |
| f_objectallocationserver_localizerlink_class::new | 227 |
| f_elviraneighborhood_class::new | 227 |
| f_tagged_accumvm_vm_class::new | 227 |
| f_planarlocalizer_class::new | 228 |
| f_tri_class::new | 228 |
| f_localizedseparatorlink_class::new | 228 |
| f_rectangularcuboid_class::new | 229 |
| f_sepvm_class::new | 229 |
| f_sepvm_doubles3_class::new | 229 |
| f_polygon_class::new | 230 |
| f_dividedpolygon_class::new | 230 |
| f_polyhedron24_class::new | 230 |
| f_iviraneighborhood_rectangularcuboid_class::new | 231 |
| f_localizerlink_class::new | 231 |
| f_planarseparator_class::new | 231 |
| f_vman_class::new | 232 |
| f_tagged_accumvm_sepvm_class::normalizebyvolume | 232 |
| f_tagged_accumvm_vm_class::normalizebyvolume | 232 |
| f_sepvm_class::normalizebyvolume | 233 |
| f_vman_class::normalizebyvolume | 233 |
| f_sepvm_doubles3_class::normalizebyvolume | 233 |
| f_objectallocationserver_localizedseparatorlink_class::objectallocationserver_localizedseparatorlink_type | 234 |
| f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_type | 234 |
| f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer_type | 235 |
| f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator_type | 235 |
| f_planarlocalizer_class::planarlocalizer_type | 235 |
| f_planarseparator_class::planarseparator_type | 236 |
| f_polygon_class::polygon_type | 236 |
| f_polyhedron24_doubles3_class::polyhedron24_doubles3_type | 237 |
| f_polyhedron24_class::polyhedron24_type | 237 |
| f_polygon_class::printtoscreen | 238 |
| f_planarseparator_class::printtoscreen | 238 |
| f_dividedpolygon_class::printtoscreen | 238 |
| f_planarlocalizer_class::printtoscreen | 239 |
| f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_type | 239 |
| f_reconstructioninterface::reconstructionwithadvectionnormals | 239 |
| f_reconstructioninterface::reconstructionwithadvectionnormalsdebug | 240 |
| f_reconstructioninterface::reconstructionwithlvira2d | 240 |
| f_reconstructioninterface::reconstructionwithlvira3d | 240 |

| | |
|---|-----|
| f_reconstructioninterface::reconstructionwithmof2d | 241 |
| f_reconstructioninterface::reconstructionwithmof3d | 241 |
| f_reconstructioninterface::reconstructionwithr2p2d | 242 |
| f_reconstructioninterface::reconstructionwithr2p2ddebug | 242 |
| f_reconstructioninterface::reconstructionwithr2p3d | 242 |
| f_reconstructioninterface::reconstructionwithr2p3ddebug | 243 |
| f_rectangularcuboid_class::rectangularcuboid_type | 243 |
| f_bytebuffer_class::resetbufferpointer | 243 |
| f_dividedpolygon_class::resetcentroid | 244 |
| f_polygon_class::reverseptordering | 244 |
| f_dividedpolygon_class::reverseptordering | 244 |
| f_tri_class::reverseptordering | 245 |
| f_sepvm_doubles3_class::sepvm_doubles3_type | 245 |
| f_sepvm_class::sepvm_type | 245 |
| f_serializer::serializeandpack | 246 |
| f_r2pneighborhood_rectangularcuboid_class::setcenterofstencil | 246 |
| f_lviraneighborhood_rectangularcuboid_class::setcenterofstencil | 246 |
| f_cappeddodecahedron_doubles3_class::setdata | 247 |
| f_polyhedron24_doubles3_class::setdata | 247 |
| f_volumefractionmatching::setdistancetomatchvolumefraction | 247 |
| f_localizerlink_class::setedgeconnectivity | 248 |
| f_localizedseparatorlink_class::setedgeconnectivity | 248 |
| f_localizerlink_class::setedgeconnectivitynull | 248 |
| f_localizedseparatorlink_class::setedgeconnectivitynull | 249 |
| f_planarlocalizer_class::setfromrectangularcuboid | 249 |
| f_localizedseparatorlink_class::setid | 249 |
| f_localizerlink_class::setid | 250 |
| f_lviraneighborhood_rectangularcuboid_class::setmember | 250 |
| f_elviraneighborhood_class::setmember | 250 |
| f_r2pneighborhood_rectangularcuboid_class::setmember | 251 |
| f_planarlocalizer_class::setnumberofplanes | 251 |
| f_planarseparator_class::setnumberofplanes | 251 |
| f_planarlocalizer_class::setplane | 252 |
| f_planarseparator_class::setplane | 252 |
| f_tri_class::setplaneofexistence | 252 |
| f_polygon_class::setplaneofexistence | 253 |
| f_dividedpolygon_class::setplaneofexistence | 253 |
| f_cappeddodecahedron_doubles3_class::setpt | 253 |
| f_polyhedron24_doubles3_class::setpt | 254 |
| f_polyhedron24_class::setpt | 254 |
| f_bytebuffer_class::setsize | 254 |
| f_elviraneighborhood_class::setsize | 255 |
| f_r2pneighborhood_rectangularcuboid_class::setsize | 255 |
| f_lviraneighborhood_rectangularcuboid_class::setsize | 255 |
| f_r2pneighborhood_rectangularcuboid_class::setsurfacearea | 256 |
| f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_type | 256 |
| f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_type | 257 |
| f_tagged_accumvm_vm_class::tagged_accumvm_vm_type | 257 |
| f_tet_class::tet_type | 257 |
| f_tri_class::tri_type | 258 |
| f_serializer::unpackandstore | 258 |
| f_vman_class::vman_type | 259 |
| f_listedvm_vman_class::zeronormalcomponent | 259 |
| f_polygon_class::zeropolygon | 259 |
| f_dividedpolygon_class::zeropolygon | 260 |

Chapter 4

File Index

4.1 File List

Here is a list of all documented files with brief descriptions:

| | |
|---|-----|
| c_byte_buffer.cpp | ?? |
| c_byte_buffer.h | ?? |
| c_capped_dodecahedron.cpp | ?? |
| c_capped_dodecahedron.h | ?? |
| c_capped_dodecahedron_doubles3.cpp | ?? |
| c_capped_dodecahedron_doubles3.h | ?? |
| c_constants.cpp | ?? |
| c_constants.h | 261 |
| c_cut_polygon.cpp | ?? |
| c_cut_polygon.h | 263 |
| c_divided_polygon.cpp | ?? |
| c_divided_polygon.h | ?? |
| c_dodecahedron.cpp | ?? |
| c_dodecahedron.h | ?? |
| c_elvira_neighborhood.cpp | ?? |
| c_elvira_neighborhood.h | ?? |
| c_generic_cutting.cpp | ?? |
| c_generic_cutting.h | 265 |
| c_geometric_cutting_helpers.cpp | ?? |
| c_geometric_cutting_helpers.h | ?? |
| c_listedvm_vman.cpp | ?? |
| c_listedvm_vman.h | ?? |
| c_localized_separator_link.cpp | ?? |
| c_localized_separator_link.h | ?? |
| c_localizer_link.cpp | ?? |
| c_localizer_link.h | ?? |
| c_localizers.cpp | ?? |
| c_localizers.h | 267 |
| c_lvira_neighborhood_rectangular_cuboid.cpp | ?? |
| c_lvira_neighborhood_rectangular_cuboid.h | ?? |
| c_object_allocation_server_localized_separator_link.cpp | ?? |
| c_object_allocation_server_localized_separator_link.h | ?? |
| c_object_allocation_server_localizer_link.cpp | ?? |
| c_object_allocation_server_localizer_link.h | ?? |
| c_object_allocation_server_planar_localizer.cpp | ?? |

| | |
|---|-----|
| c_object_allocation_server_planar_localizer.h | ?? |
| c_object_allocation_server_planar_separator.cpp | ?? |
| c_object_allocation_server_planar_separator.h | ?? |
| c_polygon.cpp | ?? |
| c_polygon.h | ?? |
| c_polyhedron24.cpp | ?? |
| c_polyhedron24.h | ?? |
| c_polyhedron24_doubles3.cpp | ?? |
| c_polyhedron24_doubles3.h | ?? |
| c_r2p_neighborhood_rectangular_cuboid.cpp | ?? |
| c_r2p_neighborhood_rectangular_cuboid.h | ?? |
| c_reconstruction_interface.cpp | ?? |
| c_reconstruction_interface.h | ?? |
| c_rectangular_cuboid.cpp | ?? |
| c_rectangular_cuboid.h | ?? |
| c_separated_volume_moments.cpp | ?? |
| c_separated_volume_moments.h | ?? |
| c_separated_volume_moments_doubles3.cpp | ?? |
| c_separated_volume_moments_doubles3.h | ?? |
| c_separators.cpp | ?? |
| c_separators.h | ?? |
| c_serializer.cpp | ?? |
| c_serializer.h | 268 |
| c_tagged_accumulated_listed_volume_moments_and_normal.cpp | ?? |
| c_tagged_accumulated_listed_volume_moments_and_normal.h | ?? |
| c_tagged_accumulated_separated_volume_moments.cpp | ?? |
| c_tagged_accumulated_separated_volume_moments.h | ?? |
| c_tagged_accumulated_volume_moments.cpp | ?? |
| c_tagged_accumulated_volume_moments.h | ?? |
| c_tet.cpp | ?? |
| c_tet.h | ?? |
| c_tri.cpp | ?? |
| c_tri.h | ?? |
| c_volume_fraction_matching.cpp | ?? |
| c_volume_fraction_matching.h | ?? |
| c_volume_moments_and_normal.cpp | ?? |
| c_volume_moments_and_normal.h | ?? |
| f_bytebuffer_class.f90 | |
| This file contains the Fortran interface for the ByteBuffer class | 269 |
| f_cappeddodecahedron_class.f90 | |
| This file contains the Fortran interface for the CappedDodecahedron class | 269 |
| f_cappeddodecahedron_doubles3_class.f90 | |
| This file contains the Fortran interface for the CappedDodecahedron_doubles3 class | 270 |
| f_constants.f90 | |
| This file contains the Fortran interface to IRL functions that deal with setting constants | 272 |
| f_cutpolygon.f90 | |
| This file deals with intersecting polygons and generating polygons corresponding to planar re- constructions | 272 |
| f_definedtypes.f90 | ?? |
| f_dividedpolygon_class.f90 | |
| This file contains the Fortran interface for the DividedPolygon class | 273 |
| f_dodecahedron_class.f90 | |
| This file contains the Fortran interface for the Dodecahedron class | 275 |
| f_elviraneighborhood_class.f90 | ?? |
| f_geometriccuttinghelpers.f90 | |
| This file provides access to helper functions often used during geometric cutting | 275 |
| f_getvolumemoments.f90 | |
| This file deals with subdivinding and integrating volume moments for polyhedra | 276 |

| | |
|---|-----|
| f_listedvm_vman_class.f90 | ?? |
| f_localizedseparatorlink_class.f90 | |
| This file allows use of the IRL LocalizedSeparatorLink class through a fortran interface | 277 |
| f_localizerlink_class.f90 | |
| This file allows use of the IRL LocalizerLink class through a fortran interface | 278 |
| f_iviraneighborhood_rectangularcuboid_class.f90 | ?? |
| f_objectallocationserver_localizedseparatorlink_class.f90 | |
| This file allows use of the IRL ObjectAllocationServer<LocalizedSeparatorLink> class through a fortran interface | 279 |
| f_objectallocationserver_localizerlink_class.f90 | |
| This file allows use of the IRL ObjectAllocationServer<LocalizerLink> class through a fortran interface | 280 |
| f_objectallocationserver_planarlocalizer_class.f90 | |
| This file allows use of the IRL ObjectAllocationServer<PlanarLocalizer> class through a fortran interface | 281 |
| f_objectallocationserver_planarseparator_class.f90 | |
| This file allows use of the IRL ObjectAllocationServer<PlanarSeparator> class through a fortran interface | 282 |
| f_planarlocalizer_class.f90 | |
| This file allows use of the IRL PlanarLocalizer class through a fortran interface | 282 |
| f_planarseparator_class.f90 | |
| This file allows use of the IRL PlanarSeparator class through a fortran interface | 283 |
| f_polygon_class.f90 | |
| This file contains the Fortran interface for the Polygon class | 284 |
| f_polyhedron24_class.f90 | |
| This file contains the Fortran interface for the Polyhedron24 class | 286 |
| f_polyhedron24_doubles3_class.f90 | |
| This file contains the Fortran interface for the Polyhedron24_doubles3 class | 287 |
| f_r2pneighborhood_rectangularcuboid_class.f90 | |
| This file contains functions reproducing the functionality of the IRL class R2PNeighborhood←_RectangularCuboid. The purpose of this is to allow building the stencil through references to then supply to obtain a PlanarSeparator using the R2P method | 288 |
| f_reconstructioninterface.f90 | ?? |
| f_rectangularcuboid_class.f90 | |
| This file contains the Fortran interface for the RectangularCuboid class | 289 |
| f_sepvm_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 290 |
| f_sepvm_doubles3_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 291 |
| f_serializer.f90 | |
| This file deals with serializing IRL class objects into byte buffers. This is usually done before parallel communication via MPI using MPI_BYTE | 292 |
| f_tagged_accumlistedvm_vman_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 292 |
| f_tagged_accumvm_sepvm_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 293 |
| f_tagged_accumvm_vm_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 295 |
| f_tet_class.f90 | |
| This file contains the Fortran interface for the Tet class | 296 |
| f_tri_class.f90 | |
| This file contains the Fortran interface for the Tri class | 297 |
| f_vman_class.f90 | |
| This file contains the Fortran interface for volume moments classes | 298 |
| f_volumefractionmatching.f90 | |
| This file deals with setting the distances to each plane in a planar reconstruction to match a given volume fraction for the provided cell | 299 |

[irl_fortran_interface.f90](#)

This file serves to provide a single include directive when using the IRL fortran interface [300](#)

Chapter 5

Namespace Documentation

5.1 `f_bytebuffer_class` Module Reference

A fortran type class that allows the creation of IRL's ByteBuffer class along with enabling some of its methods.

Data Types

- type `bytebuffer_type`
- type `c_bytebuffer`
- interface `dataptr`
- interface `F_ByteBuffer_dataPtr`
- interface `F_ByteBuffer_delete`
- interface `F_ByteBuffer_getSize`
- interface `F_ByteBuffer_new`
- interface `F_ByteBuffer_resetBufferPointer`
- interface `F_ByteBuffer_setSize`
- interface `getcobject`
- interface `getsize`
- interface `new`
- interface `resetbufferpointer`
- interface `setsize`

Functions/Subroutines

- impure elemental subroutine `bytebuffer_class_delete` (this)
- subroutine `bytebuffer_class_new` (this)
- type(`c_bytebuffer`) function `bytebuffer_class_getcobject` (this)
- integer(`irl_largeoffsetindex_t`) function `bytebuffer_class_getsize` (this)
- subroutine `bytebuffer_class_setsize` (this, `a_size`)
- subroutine `bytebuffer_class_resetbufferpointer` (this)
- integer(`irl_byte_t`) function, dimension(:), pointer `bytebuffer_class_dataptr` (this)

5.1.1 Detailed Description

A fortran type class that allows the creation of IRL's ByteBuffer class along with enabling some of its methods.

5.2 f_cappeddodecahedron_class Module Reference

A fortran type class that allows the creation of IRL's CappedDodecahedron class along with enabling some of its methods.

Data Types

- interface [adjustcaptomatchvolume](#)
- type [c_cappeddodecahedron](#)
- type [cappeddodecahedron_type](#)
- interface [construct](#)
- interface [F_CappedDodecahedron_adjustCapToMatchVolume](#)
- interface [F_CappedDodecahedron_construct](#)
- interface [F_CappedDodecahedron_delete](#)
- interface [F_CappedDodecahedron_getBoundingPts](#)
- interface [F_CappedDodecahedron_getPt](#)
- interface [F_CappedDodecahedron_new](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getpt](#)
- interface [new](#)

Functions/Subroutines

- impure elemental subroutine **cappeddodecahedron_class_delete** (this)
- subroutine **cappeddodecahedron_class_new** (this)
- type([c_cappeddodecahedron](#)) function **cappeddodecahedron_class_getcobject** (this)
- subroutine **cappeddodecahedron_class_construct** (this, a_dodecahedron)
- subroutine **cappeddodecahedron_class_adjustcaptomatchvolume** (this, a_correct_signed_volume)
- subroutine **cappeddodecahedron_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) **cappeddodecahedron_class_getpt** (this, a_index)

5.2.1 Detailed Description

A fortran type class that allows the creation of IRL's CappedDodecahedron class along with enabling some of its methods.

5.3 f_cappeddodecahedron_doubles3_class Module Reference

A fortran type class that allows the creation of IRL's CappedDodecahedron_doubles3 class along with enabling some of its methods.

Data Types

- interface [adjustcaptomatchvolume](#)
- type [c_cappeddodecahedron_doubles3](#)
- type [cappeddodecahedron_doubles3_type](#)
- interface [construct](#)
- interface [F_CappedDodecahedron_doubles3_adjustCapToMatchVolume](#)
- interface [F_CappedDodecahedron_doubles3_construct](#)
- interface [F_CappedDodecahedron_doubles3_delete](#)
- interface [F_CappedDodecahedron_doubles3_getBoundingPts](#)
- interface [F_CappedDodecahedron_doubles3_getData](#)
- interface [F_CappedDodecahedron_doubles3_getPt](#)
- interface [F_CappedDodecahedron_doubles3_new](#)
- interface [F_CappedDodecahedron_doubles3_setData](#)
- interface [F_CappedDodecahedron_doubles3_setPt](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getdata](#)
- interface [getpt](#)
- interface [new](#)
- interface [setdata](#)
- interface [setpt](#)

Functions/Subroutines

- impure elemental subroutine **cappeddodecahedron_doubles3_class_delete** (this)
- subroutine **cappeddodecahedron_doubles3_class_new** (this)
- type([c_cappeddodecahedron_doubles3](#)) function **cappeddodecahedron_doubles3_class_getcobject** (this)
- subroutine **cappeddodecahedron_doubles3_class_construct** (this, a_dodecahedron, a_attached_data)
- subroutine **cappeddodecahedron_doubles3_class_adjustcaptomatchvolume** (this, a_correct_signed↵_volume)
- subroutine **cappeddodecahedron_doubles3_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) **cappeddodecahedron_doubles3_class_getpt** (this, a_index)
- subroutine **cappeddodecahedron_doubles3_class_setpt** (this, a_index, a_pt)
- real(irl_double) function, dimension(3) **cappeddodecahedron_doubles3_class_getdata** (this, a_index)
- subroutine **cappeddodecahedron_doubles3_class_setdata** (this, a_index, a_data)

5.3.1 Detailed Description

A fortran type class that allows the creation of IRL's CappedDodecahedron_doubles3 class along with enabling some of its methods.

5.4 f_constants Module Reference

This module contains mappings to the IRL C interface that deal with setting global constants that are used in the IRL library.

Data Types

- interface [F_Constants_setMinimumSurfaceAreaToTrack](#)
- interface [F_Constants_setMinimumVolumeToTrack](#)
- interface [F_Constants_setVolumeFractionBounds](#)
- interface [F_Constants_setVolumeFractionToleranceForDistanceFinding](#)

Functions/Subroutines

- subroutine **constants_setvolumefractionbounds** (a_VF_low)
- subroutine **constants_setvolumefractiontolerancefordistancefinding** (a_tolerance)
- subroutine **constants_setminimumvolumetotrack** (a_minimum_volume_to_track)
- subroutine **constants_setminimumsurfaceareatotrack** (a_minimum_surface_area_to_track)

5.4.1 Detailed Description

This module contains mappings to the IRL C interface that deal with setting global constants that are used in the IRL library.

5.5 f_cutpolygon Module Reference

This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells.

Data Types

- interface [F_getPlanePolygonFromReconstruction_RC_DivPoly](#)
- interface [F_getPlanePolygonFromReconstruction_RC_Poly](#)
- interface [F_getReconstructionSurfaceArea_RC](#)
- interface [getplanepolygonfromreconstruction](#)
- interface [getreconstructionsurfacearea](#)

Functions/Subroutines

- subroutine **getplanepolygonfromreconstruction_rc_poly** (a_rectangular_cuboid, a_planar_separator, a_plane_index, a_polygon)
- subroutine **getplanepolygonfromreconstruction_rc_divpoly** (a_rectangular_cuboid, a_planar_separator, a_plane_index, a_divided_polygon)
- real(irl_double) function **getreconstructionsurfacearea_rc** (a_rectangular_cuboid, a_planar_separator)

5.5.1 Detailed Description

This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells.

5.6 f_definedtypes Module Reference

This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells.

Variables

- integer, parameter **irl_unsignedindex_t** = 4
- integer, parameter **irl_signedindex_t** = 4
- integer, parameter **irl_largeoffsetindex_t** = 8
- integer, parameter **irl_byte_t** = 1
- integer, parameter **irl_double** = 8

5.6.1 Detailed Description

This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells.

5.7 f_dividedpolygon_class Module Reference

A fortran type class that allows the creation of IRL's DividedPolygon class along with enabling some of its methods.

Data Types

- type [c_dividedpolygon](#)
- interface [calculateandsetplaneofexistence](#)
- interface [calculatenormal](#)
- interface [calculatesign](#)
- interface [calculatesurfacearea](#)
- interface [construct](#)
- interface [constructfrompolygon](#)
- type [dividedpolygon_type](#)
- interface [F_DividedPolygon_calculateAndSetPlaneOfExistence](#)
- interface [F_DividedPolygon_calculateNormal](#)
- interface [F_DividedPolygon_calculateSign](#)
- interface [F_DividedPolygon_calculateSurfaceArea](#)
- interface [F_DividedPolygon_construct](#)
- interface [F_DividedPolygon_constructFromPolygon](#)
- interface [F_DividedPolygon_delete](#)
- interface [F_DividedPolygon_getBoundingPts](#)
- interface [F_DividedPolygon_getLocalizer](#)
- interface [F_DividedPolygon_getNumberOfPts](#)
- interface [F_DividedPolygon_getNumberOfSimplicesInDecomposition](#)
- interface [F_DividedPolygon_getPlaneOfExistence](#)
- interface [F_DividedPolygon_getPt](#)
- interface [F_DividedPolygon_getSimplexFromDecomposition](#)
- interface [F_DividedPolygon_new](#)
- interface [F_DividedPolygon_printToScreen](#)

- interface [F_DividedPolygon_resetCentroid](#)
- interface [F_DividedPolygon_reversePtOrdering](#)
- interface [F_DividedPolygon_setPlaneOfExistence](#)
- interface [F_DividedPolygon_zeroPolygon](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getlocalizer](#)
- interface [getnumberofsimplicesindecomposition](#)
- interface [getnumberofvertices](#)
- interface [getplaneofexistence](#)
- interface [getpt](#)
- interface [getsimplexfromdecomposition](#)
- interface [new](#)
- interface [printtoscreen](#)
- interface [resetcentroid](#)
- interface [reverseptordering](#)
- interface [setplaneofexistence](#)
- interface [zeropolygon](#)

Functions/Subroutines

- subroutine **dividedpolygon_class_new** (this)
- impure elemental subroutine **dividedpolygon_class_delete** (this)
- type([c_dividedpolygon](#)) function **dividedpolygon_class_getcobject** (this)
- subroutine **dividedpolygon_class_construct** (this, a_npts, a_pts)
- subroutine **dividedpolygon_class_constructfrompolygon** (this, a_polygon)
- subroutine **dividedpolygon_class_resetcentroid** (this)
- integer(irl_unsignedindex_t) function **dividedpolygon_class_getnumberofsimplicesindecomposition** (this)
- subroutine **dividedpolygon_class_getsimplexfromdecomposition** (this, a_tri_number_to_get, a_tri_in↔_decomposition)
- real(irl_double) function, dimension(1:3) **dividedpolygon_class_calculatenormal** (this)
- subroutine **dividedpolygon_class_getlocalizer** (this, a_planar_localizer)
- subroutine **dividedpolygon_class_reverseptordering** (this)
- subroutine **dividedpolygon_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- integer(irl_unsignedindex_t) function **dividedpolygon_class_getnumberofpts** (this)
- real(irl_double) function, dimension(3) **dividedpolygon_class_getpt** (this, a_index)
- subroutine **dividedpolygon_class_zeropolygon** (this)
- real(irl_double) function **dividedpolygon_class_calculatesurfacearea** (this)
- real(irl_double) function **dividedpolygon_class_calculatesign** (this)
- subroutine **dividedpolygon_class_setplaneofexistence** (this, a_plane)
- subroutine **dividedpolygon_class_calculateandsetplaneofexistence** (this)
- real(irl_double) function, dimension(4) **dividedpolygon_class_getplaneofexistence** (this)
- subroutine **dividedpolygon_class_printtoscreen** (this)

5.7.1 Detailed Description

A fortran type class that allows the creation of IRL's DividedPolygon class along with enabling some of its methods.

5.8 f_dodecahedron_class Module Reference

A fortran type class that allows the creation of IRL's Dodecahedron class along with enabling some of its methods.

Data Types

- type [c_dodecahedron](#)
- interface [construct](#)
- type [dodecahedron_type](#)
- interface [F_Dodecahedron_construct](#)
- interface [F_Dodecahedron_delete](#)
- interface [F_Dodecahedron_getBoundingPts](#)
- interface [F_Dodecahedron_new](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [new](#)

Functions/Subroutines

- subroutine **dodecahedron_class_new** (this)
- impure elemental subroutine **dodecahedron_class_delete** (this)
- type([c_dodecahedron](#)) function **dodecahedron_class_getcobject** (this)
- subroutine **dodecahedron_class_construct** (this, a_transported_cell)
- subroutine **dodecahedron_class_getboundingpts** (this, a_lower_pt, a_upper_pt)

5.8.1 Detailed Description

A fortran type class that allows the creation of IRL's Dodecahedron class along with enabling some of its methods.

5.9 f_elviraneighborhood_class Module Reference

A fortran type class to provide the functionality of ELVIRANeighborhood.

Data Types

- type [c_elviraneighborhood](#)
- type [elviraneighborhood_type](#)
- interface [F_ELVRANeighborhood_delete](#)
- interface [F_ELVRANeighborhood_new](#)
- interface [F_ELVRANeighborhood_setMember](#)
- interface [F_ELVRANeighborhood_setSize](#)
- interface [getcobject](#)
- interface [new](#)
- interface [setmember](#)
- interface [setsize](#)

Functions/Subroutines

- subroutine **elviraneighborhood_class_new** (this)
- impure elemental subroutine **elviraneighborhood_class_delete** (this)
- type([c_elviraneighborhood](#)) function **elviraneighborhood_class_getcobject** (this)
- subroutine **elviraneighborhood_class_setsize** (this, a_size)
- subroutine **elviraneighborhood_class_setmember** (this, a_rectangular_cuboid, a_liquid_volume_fraction, i, j, k)

5.9.1 Detailed Description

A fortran type class to provide the functionality of ELVIRANeighborhood.

5.10 f_geometriccuttinghelpers Module Reference

This module contains mappings to the IRL C interface that provides access to functions often used to geoemtric cutting operations. See the C interface file `src/c_interface/c_geometric_cutting_helpers.h` for more information.

Data Types

- interface [F_isPtInternal_PL](#)
- interface [F_isPtInternal_PS](#)
- interface [isptinternal](#)

Functions/Subroutines

- logical(1) function **isptinternal_ps** (a_pt, a_separator)
- logical(1) function **isptinternal_pl** (a_pt, a_localizer)

5.10.1 Detailed Description

This module contains mappings to the IRL C interface that provides access to functions often used to geoemtric cutting operations. See the C interface file `src/c_interface/c_geometric_cutting_helpers.h` for more information.

5.11 f_getvolumemoments Module Reference

This module contains mappings to the IRL C interface that deal with intersecting polyhedron volumes and integrating these volumes to obtain volumetric moments.

Data Types

- interface [F_GNVM_CD_By_LSL_For_SVM](#)
- interface [F_GNVM_CD_By_LSL_For_TagAccumVM_SVM](#)
- interface [F_GNVM_CDWD3_By_LSL_For_SVMAD3](#)
- interface [F_GNVM_D_By_LSL_For_SVM](#)
- interface [F_GNVM_D_By_LSL_For_TagAccumVM_SVM](#)
- interface [F_GNVM_D_By_PS_For_SVM](#)
- interface [F_GNVM_P24_By_LSL_For_SVM](#)
- interface [F_GNVM_P24WD3_By_LSL_For_SVMAD3](#)
- interface [F_GNVM_Poly_By_PL_For_V](#)
- interface [F_GNVM_RC_By_PS_For_SVM](#)
- interface [F_GNVM_RC_By_PS_For_V](#)
- interface [F_GNVM_Tet_By_LSL_For_SVM](#)
- interface [F_GNVM_Tri_By_LL_For_TagAVM_VM](#)
- interface [F_GNVM_Tri_By_PL_For_V](#)
- interface [F_GVM_CD_By_LSL_For_SVM](#)
- interface [F_GVM_D_By_LSL_For_SVM](#)
- interface [F_GVM_P24_By_LSL_For_SVM](#)
- interface [F_GVM_setMethod](#)
- interface [F_GVM_Tri_By_LL_For_TagALVM_VMAN](#)
- interface [getnormalizedvolumemoments](#)
- interface [getvolumemoments](#)
- interface [getvolumemoments_setmethod](#)

Functions/Subroutines

- subroutine **gvm_setmethod** (a_cutting_method)
- subroutine **gnvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_cdwd3_by_lsl_for_svmad3** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_p24wd3_by_lsl_for_svmad3** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_tet_by_lsl_for_svm** (a_tet, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_rc_by_ps_for_v** (a_rectangulr_cuboid, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_d_by_ps_for_svm** (a_Dodecahedron, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_cd_by_lsl_for_tagaccumvm_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_d_by_lsl_for_tagaccumvm_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)↔
- subroutine **gnvm_rc_by_ps_for_svm** (a_rectangular_cuboid, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_tri_by_ll_for_tagavm_vm** (a_tri, a_localizer_link, a_moments_to_return)
- subroutine **gnvm_tri_by_pl_for_v** (a_tri, a_planar_localizer, a_moments_to_return)
- subroutine **gnvm_poly_by_pl_for_v** (a_polygon, a_planar_localizer, a_moments_to_return)
- subroutine **gvm_tri_by_ll_for_tagalvm_vman** (a_tri, a_localizer_link, a_moments_to_return)

5.11.1 Detailed Description

This module contains mappings to the IRL C interface that deal with intersecting polyhedron volumes and integrating these volumes to obtain volumetric moments.

5.12 f_listedvm_vman_class Module Reference

A fortran type class that allows the creation of IRL's ListedVolumeMomentsM<VolumeMomentsAndNormal> class along with enabling some of its methods.

Data Types

- interface [append](#)
- type [c_listedvm_vman](#)
- interface [clear](#)
- interface [erase](#)
- interface [F_ListedVM_VMAN_append](#)
- interface [F_ListedVM_VMAN_clear](#)
- interface [F_ListedVM_VMAN_delete](#)
- interface [F_ListedVM_VMAN_erase](#)
- interface [F_ListedVM_VMAN_getMoments](#)
- interface [F_ListedVM_VMAN_getSize](#)
- interface [F_ListedVM_VMAN_new](#)
- interface [F_ListedVM_VMAN_zeroNormalComponent](#)
- interface [getcobject](#)
- interface [getmoments](#)
- interface [getsize](#)
- type [listedvm_vman_type](#)
- interface [new](#)
- interface [zeronormalcomponent](#)

Functions/Subroutines

- subroutine [listedvm_vman_class_new](#) (this)
- impure elemental subroutine [listedvm_vman_class_delete](#) (this)
- type([c_listedvm_vman](#)) function [listedvm_vman_class_getcobject](#) (this)
- subroutine [listedvm_vman_class_append](#) (this, a_other_list)
- subroutine [listedvm_vman_class_clear](#) (this)
- integer(irl_unsignedindex_t) function [listedvm_vman_class_getsize](#) (this)
- subroutine [listedvm_vman_class_getmoments](#) (this, a_index, a_moments)
- subroutine [listedvm_vman_class_zeronormalcomponent](#) (this, a_index)
- subroutine [listedvm_vman_class_erase](#) (this, a_index)

5.12.1 Detailed Description

A fortran type class that allows the creation of IRL's ListedVolumeMomentsM<VolumeMomentsAndNormal> class along with enabling some of its methods.

5.13 f_localizedseparatorlink_class Module Reference

A fortran type class that allows the creation of IRL's LocalizedSeparatorLink class along with enabling some of its methods.

Data Types

- type [c_localizedseparatorlink](#)
- interface [F_LocalizedSeparatorLink_delete](#)
- interface [F_LocalizedSeparatorLink_getId](#)
- interface [F_LocalizedSeparatorLink_new](#)
- interface [F_LocalizedSeparatorLink_newFromObjectAllocationServer](#)
- interface [F_LocalizedSeparatorLink_setEdgeConnectivity](#)
- interface [F_LocalizedSeparatorLink_setEdgeConnectivityNull](#)
- interface [F_LocalizedSeparatorLink_setId](#)
- interface [getcobject](#)
- interface [getid](#)
- type [localizedseparatorlink_type](#)
- interface [new](#)
- interface [setedgeconnectivity](#)
- interface [setedgeconnectivitynull](#)
- interface [setid](#)

Functions/Subroutines

- subroutine **localizedseparatorlink_class_new** (this, a_planar_localizer, a_planar_separator)
- subroutine **localizedseparatorlink_class_newfromobjectallocationserver** (this, a_object_allocation_↔server, a_planar_localizer, a_planar_separator)
- impure elemental subroutine **localizedseparatorlink_class_delete** (this)
- type([c_localizedseparatorlink](#)) function **localizedseparatorlink_class_getcobject** (this)
- subroutine **localizedseparatorlink_class_setid** (this, a_id)
- integer(irl_unsignedindex_t) function **localizedseparatorlink_class_getid** (this)
- subroutine **localizedseparatorlink_class_setedgeconnectivity** (this, a_plane_index, a_neighboring_↔LocalizedSeparatorLink)
- subroutine **localizedseparatorlink_class_setedgeconnectivitynull** (this, a_plane_index)

5.13.1 Detailed Description

A fortran type class that allows the creation of IRL's LocalizedSeparatorLink class along with enabling some of its methods.

5.14 f_localizerlink_class Module Reference

A fortran type class that allows the creation of IRL's LocalizerLink class along with enabling some of its methods.

Data Types

- type [c_localizerlink](#)
- interface [F_LocalizerLink_delete](#)
- interface [F_LocalizerLink_getId](#)
- interface [F_LocalizerLink_new](#)
- interface [F_LocalizerLink_newFromObjectAllocationServer](#)
- interface [F_LocalizerLink_setEdgeConnectivity](#)
- interface [F_LocalizerLink_setEdgeConnectivityNull](#)
- interface [F_LocalizerLink_setId](#)
- interface [getcobject](#)
- interface [getId](#)
- type [localizerlink_type](#)
- interface [new](#)
- interface [setedgeconnectivity](#)
- interface [setedgeconnectivitynull](#)
- interface [setId](#)

Functions/Subroutines

- subroutine **localizerlink_class_new** (this, a_planar_localizer)
- subroutine **localizerlink_class_newfromobjectallocationserver** (this, a_object_allocation_server, a_planar_localizer)
- impure elemental subroutine **localizerlink_class_delete** (this)
- type([c_localizerlink](#)) function **localizerlink_class_getcobject** (this)
- subroutine **localizerlink_class_setId** (this, a_id)
- integer(irl_unsignedindex_t) function **localizerlink_class_getId** (this)
- subroutine **localizerlink_class_setedgeconnectivity** (this, a_plane_index, a_neighboring_LocalizerLink)
- subroutine **localizerlink_class_setedgeconnectivitynull** (this, a_plane_index)

5.14.1 Detailed Description

A fortran type class that allows the creation of IRL's LocalizerLink class along with enabling some of its methods.

5.15 f_lviraneighborhood_rectangularcuboid_class Module Reference

A fortran type class to provide the functionality of LVIRANeighborhood.

Data Types

- interface [addmember](#)
- type [c_lviraneighborhood_rectangularcuboid](#)
- interface [emptyneighborhood](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_addMember](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_delete](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_emptyNeighborhood](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_new](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_setCenterOfStencil](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_setMember](#)
- interface [F_LVIRANeighborhood_RectangularCuboid_setSize](#)
- interface [getcobject](#)
- type [lviraneighborhood_rectangularcuboid_type](#)
- interface [new](#)
- interface [setcenterofstencil](#)
- interface [setmember](#)
- interface [setsize](#)

Functions/Subroutines

- subroutine **lviraneighborhood_rectangularcuboid_class_new** (this)
- impure elemental subroutine **lviraneighborhood_rectangularcuboid_class_delete** (this)
- type([c_lviraneighborhood_rectangularcuboid](#)) function **lviraneighborhood_rectangularcuboid_class_getcobject** (this)
- subroutine **lviraneighborhood_rectangularcuboid_class_setsize** (this, a_size)
- subroutine **lviraneighborhood_rectangularcuboid_class_setmember** (this, a_index, a_rectangular_cuboid, a_liquid_volume_fraction)
- subroutine **lviraneighborhood_rectangularcuboid_class_addmember** (this, a_rectangular_cuboid, a_volume_fraction)
- subroutine **lviraneighborhood_rectangularcuboid_class_emptyneighborhood** (this)
- subroutine **lviraneighborhood_rectangularcuboid_class_setcenterofstencil** (this, a_center_cell_index)

5.15.1 Detailed Description

A fortran type class to provide the functionality of LVIRANeighborhood.

5.16 f_objectallocationserver_localizedseparatorlink_class Module Reference

A fortran type class that allows the creation of IRL's ObjectAllocationServer<LocalizedSeparatorLink> class along with enabling some of its methods.

Data Types

- type [c_objectallocationserver_localizedseparatorlink](#)
- interface [F_ObjectAllocationServer_LocalizedSeparatorLink_delete](#)
- interface [F_ObjectAllocationServer_LocalizedSeparatorLink_new](#)
- interface [getcobject](#)
- interface [new](#)
- type [objectallocationserver_localizedseparatorlink_type](#)

Functions/Subroutines

- subroutine **objectallocationserver_localizedseparatorlink_class_new** (this, a_number_to_allocate)
- impure elemental subroutine **objectallocationserver_localizedseparatorlink_class_delete** (this)
- type([c_objectallocationserver_localizedseparatorlink](#)) function **objectallocationserver_localizedseparatorlink_class_getcobject** (this)

5.16.1 Detailed Description

A fortran type class that allows the creation of IRL's ObjectAllocationServer<LocalizedSeparatorLink> class along with enabling some of its methods.

5.17 `f_objectallocationserver_localizerlink_class` Module Reference

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<LocalizerLink>` class along with enabling some of its methods.

Data Types

- type `c_objectallocationserver_localizerlink`
- interface `F_ObjectAllocationServer_LocalizerLink_delete`
- interface `F_ObjectAllocationServer_LocalizerLink_new`
- interface `getcobject`
- interface `new`
- type `objectallocationserver_localizerlink_type`

Functions/Subroutines

- subroutine `objectallocationserver_localizerlink_class_new` (this, a_number_to_allocate)
- impure elemental subroutine `objectallocationserver_localizerlink_class_delete` (this)
- type(`c_objectallocationserver_localizerlink`) function `objectallocationserver_localizerlink_class_↔getcobject` (this)

5.17.1 Detailed Description

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<LocalizerLink>` class along with enabling some of its methods.

5.18 `f_objectallocationserver_planarlocalizer_class` Module Reference

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<PlanarLocalizer>` class along with enabling some of its methods.

Data Types

- type `c_objectallocationserver_planarlocalizer`
- interface `F_ObjectAllocationServer_PlanarLocalizer_delete`
- interface `F_ObjectAllocationServer_PlanarLocalizer_new`
- interface `getcobject`
- interface `new`
- type `objectallocationserver_planarlocalizer_type`

Functions/Subroutines

- subroutine `objectallocationserver_planarlocalizer_class_new` (this, a_number_to_allocate)
- impure elemental subroutine `objectallocationserver_planarlocalizer_class_delete` (this)
- type(`c_objectallocationserver_planarlocalizer`) function `objectallocationserver_planarlocalizer_class_↔getcobject` (this)

5.18.1 Detailed Description

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<PlanarLocalizer>` class along with enabling some of its methods.

5.19 `f_objectallocationserver_planarseparator_class` Module Reference

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<PlanarSeparator>` class along with enabling some of its methods.

Data Types

- type `c_objectallocationserver_planarseparator`
- interface `F_ObjectAllocationServer_PlanarSeparator_delete`
- interface `F_ObjectAllocationServer_PlanarSeparator_new`
- interface `getcobject`
- interface `new`
- type `objectallocationserver_planarseparator_type`

Functions/Subroutines

- subroutine `objectallocationserver_planarseparator_class_new` (this, a_number_to_allocate)
- impure elemental subroutine `objectallocationserver_planarseparator_class_delete` (this)
- type(`c_objectallocationserver_planarseparator`) function `objectallocationserver_planarseparator_class_getcobject` (this)

5.19.1 Detailed Description

A fortran type class that allows the creation of IRL's `ObjectAllocationServer<PlanarSeparator>` class along with enabling some of its methods.

5.20 `f_planarlocalizer_class` Module Reference

A fortran type class that allows the creation of IRL's `PlanarLocalizer` class along with enabling some of its methods.

Data Types

- interface `addplane`
- type `c_planarlocalizer`
- interface `F_PlanarLocalizer_addPlane`
- interface `F_PlanarLocalizer_delete`
- interface `F_PlanarLocalizer_new`
- interface `F_PlanarLocalizer_newFromObjectAllocationServer`
- interface `F_PlanarLocalizer_printToScreen`
- interface `F_PlanarLocalizer_setFromRectangularCuboid`
- interface `F_PlanarLocalizer_setNumberOfPlanes`
- interface `F_PlanarLocalizer_setPlane`
- interface `getcobject`
- interface `new`
- type `planarlocalizer_type`
- interface `printtoscreen`
- interface `setfromrectangularcuboid`
- interface `setnumberofplanes`
- interface `setplane`

Functions/Subroutines

- subroutine **planarlocalizer_class_new** (this)
- subroutine **planarlocalizer_class_newfromobjectallocationserver** (this, a_object_allocation_server)
- impure elemental subroutine **planarlocalizer_class_delete** (this)
- type([c_planarlocalizer](#)) function **planarlocalizer_class_getcobject** (this)
- subroutine **planarlocalizer_class_addplane** (this, a_normal, a_distance)
- subroutine **planarlocalizer_class_setnumberofplanes** (this, a_number_to_set)
- subroutine **planarlocalizer_class_setplane** (this, a_plane_index_to_set, a_normal, a_distance)
- subroutine **planarlocalizer_class_setfromrectangularcuboid** (this, a_lower_pt, a_upper_pt)
- subroutine **planarlocalizer_class_printtoscreen** (this)

5.20.1 Detailed Description

A fortran type class that allows the creation of IRL's PlanarLocalizer class along with enabling some of its methods.

5.21 [f_planarseparator_class](#) Module Reference

A fortran type class that allows the creation of IRL's PlanarSeparator class along with enabling some of its methods.

Data Types

- interface [addplane](#)
- type [c_planarseparator](#)
- interface [copy](#)
- interface [F_PlanarSeparator_addPlane](#)
- interface [F_PlanarSeparator_copy](#)
- interface [F_PlanarSeparator_delete](#)
- interface [F_PlanarSeparator_getNumberOfPlanes](#)
- interface [F_PlanarSeparator_getPlane](#)
- interface [F_PlanarSeparator_isFlipped](#)
- interface [F_PlanarSeparator_new](#)
- interface [F_PlanarSeparator_newFromObjectAllocationServer](#)
- interface [F_PlanarSeparator_printToScreen](#)
- interface [F_PlanarSeparator_setNumberOfPlanes](#)
- interface [F_PlanarSeparator_setPlane](#)
- interface [getcobject](#)
- interface [getnumberofplanes](#)
- interface [getplane](#)
- interface [isflipped](#)
- interface [new](#)
- type [planarseparator_type](#)
- interface [printtoscreen](#)
- interface [setnumberofplanes](#)
- interface [setplane](#)

Functions/Subroutines

- subroutine **planarseparator_class_new** (this)
- subroutine **planarseparator_class_newfromobjectallocationserver** (this, a_object_allocation_server)
- impure elemental subroutine **planarseparator_class_delete** (this)
- type([c_planarseparator](#)) function **planarseparator_class_getcobject** (this)
- subroutine **planarseparator_class_addplane** (this, a_normal, a_distance)
- subroutine **planarseparator_class_setnumberofplanes** (this, a_number_to_set)
- subroutine **planarseparator_class_setplane** (this, a_plane_index_to_set, a_normal, a_distance)
- subroutine **planarseparator_class_copy** (this, a_other_PlanarSeparator)
- integer(irl_unsignedindex_t) function **planarseparator_class_getnumberofplanes** (this)
- real(irl_double) function, dimension(4) **planarseparator_class_getplane** (this, a_index)
- logical(1) function **planarseparator_class_isflipped** (this)
- subroutine **planarseparator_class_printtoscreen** (this)

5.21.1 Detailed Description

A fortran type class that allows the creation of IRL's PlanarSeparator class along with enabling some of its methods.

5.22 f_polygon_class Module Reference

A fortran type class that allows the creation of IRL's Polygon class along with enabling some of its methods.

Data Types

- type [c_polygon](#)
- interface [calculateandsetplaneofexistence](#)
- interface [calculatecentroid](#)
- interface [calculatenearestptonsurface](#)
- interface [calculatenormal](#)
- interface [calculatesign](#)
- interface [calculatevolume](#)
- interface [construct](#)
- interface [F_Polygon_calculateAndSetPlaneOfExistence](#)
- interface [F_Polygon_calculateCentroid](#)
- interface [F_Polygon_calculateNearestPtOnSurface](#)
- interface [F_Polygon_calculateNormal](#)
- interface [F_Polygon_calculateSign](#)
- interface [F_Polygon_calculateVolume](#)
- interface [F_Polygon_construct](#)
- interface [F_Polygon_delete](#)
- interface [F_Polygon_getBoundingPts](#)
- interface [F_Polygon_getLocalizer](#)
- interface [F_Polygon_getNumberOfPts](#)
- interface [F_Polygon_getNumberOfSimplicesInDecomposition](#)
- interface [F_Polygon_getPlaneOfExistence](#)
- interface [F_Polygon_getPt](#)
- interface [F_Polygon_getSimplexFromDecomposition](#)
- interface [F_Polygon_new](#)

- interface [F_Polygon_printToScreen](#)
- interface [F_Polygon_reversePtOrdering](#)
- interface [F_Polygon_setPlaneOfExistence](#)
- interface [F_Polygon_zeroPolygon](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getlocalizer](#)
- interface [getnumberofsimplicesindecomposition](#)
- interface [getnumberofvertices](#)
- interface [getplaneofexistence](#)
- interface [getpt](#)
- interface [getsimplexfromdecomposition](#)
- interface [new](#)
- type [polygon_type](#)
- interface [printtoscreen](#)
- interface [reverseptordering](#)
- interface [setplaneofexistence](#)
- interface [zeropolygon](#)

Functions/Subroutines

- subroutine **polygon_class_new** (this)
- impure elemental subroutine **polygon_class_delete** (this)
- type([c_polygon](#)) function **polygon_class_getcobject** (this)
- subroutine **polygon_class_construct** (this, a_npts, a_pts)
- real(irl_double) function, dimension(1:3) **polygon_class_calculatenormal** (this)
- subroutine **polygon_class_getlocalizer** (this, a_planar_localizer)
- subroutine **polygon_class_reverseptordering** (this)
- subroutine **polygon_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- integer(irl_unsignedindex_t) function **polygon_class_getnumberofpts** (this)
- real(irl_double) function, dimension(3) **polygon_class_getpt** (this, a_index)
- integer(irl_unsignedindex_t) function **polygon_class_getnumberofsimplicesindecomposition** (this)
- subroutine **polygon_class_getsimplexfromdecomposition** (this, a_tri_number_to_get, a_tri_in_decomposition)
- subroutine **polygon_class_zeropolygon** (this)
- real(irl_double) function, dimension(3) **polygon_class_calculatenearestptonsurface** (this, a_pt)
- real(irl_double) function **polygon_class_calculatevolume** (this)
- real(irl_double) function **polygon_class_calculatesign** (this)
- subroutine **polygon_class_setplaneofexistence** (this, a_plane)
- subroutine **polygon_class_calculateandsetplaneofexistence** (this)
- real(irl_double) function, dimension(4) **polygon_class_getplaneofexistence** (this)
- real(irl_double) function, dimension(3) **polygon_class_calculatecentroid** (this)
- subroutine **polygon_class_printtoscreen** (this)

5.22.1 Detailed Description

A fortran type class that allows the creation of IRL's Polygon class along with enabling some of its methods.

5.23 f_polyhedron24_class Module Reference

A fortran type class that allows the creation of IRL's Polyhedron24 class along with enabling some of its methods.

Data Types

- interface [adjustcaptomatchvolume](#)
- type [c_polyhedron24](#)
- interface [construct](#)
- interface [F_Polyhedron24_adjustCapToMatchVolume](#)
- interface [F_Polyhedron24_construct](#)
- interface [F_Polyhedron24_delete](#)
- interface [F_Polyhedron24_getBoundingPts](#)
- interface [F_Polyhedron24_getPt](#)
- interface [F_Polyhedron24_new](#)
- interface [F_Polyhedron24_setPt](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getpt](#)
- interface [new](#)
- type [polyhedron24_type](#)
- interface [setpt](#)

Functions/Subroutines

- subroutine **polyhedron24_class_new** (this)
- impure elemental subroutine **polyhedron24_class_delete** (this)
- type([c_polyhedron24](#)) function **polyhedron24_class_getcobject** (this)
- subroutine **polyhedron24_class_construct** (this, a_polyhedron24)
- subroutine **polyhedron24_class_adjustcaptomatchvolume** (this, a_correct_signed_volume)
- subroutine **polyhedron24_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) **polyhedron24_class_getpt** (this, a_index)
- subroutine **polyhedron24_class_setpt** (this, a_index, a_pt)

5.23.1 Detailed Description

A fortran type class that allows the creation of IRL's Polyhedron24 class along with enabling some of its methods.

5.24 f_polyhedron24_doubles3_class Module Reference

A fortran type class that allows the creation of IRL's Polyhedron24_doubles3 class along with enabling some of its methods.

Data Types

- interface [adjustcaptomatchvolume](#)
- type [c_polyhedron24_doubles3](#)
- interface [construct](#)
- interface [F_Polyhedron24_doubles3_adjustCapToMatchVolume](#)
- interface [F_Polyhedron24_doubles3_construct](#)
- interface [F_Polyhedron24_doubles3_delete](#)
- interface [F_Polyhedron24_doubles3_getBoundingPts](#)
- interface [F_Polyhedron24_doubles3_getData](#)
- interface [F_Polyhedron24_doubles3_getPt](#)
- interface [F_Polyhedron24_doubles3_new](#)
- interface [F_Polyhedron24_doubles3_setData](#)
- interface [F_Polyhedron24_doubles3_setPt](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getdata](#)
- interface [getpt](#)
- interface [new](#)
- type [polyhedron24_doubles3_type](#)
- interface [setdata](#)
- interface [setpt](#)

Functions/Subroutines

- subroutine **polyhedron24_doubles3_class_new** (this)
- impure elemental subroutine **polyhedron24_doubles3_class_delete** (this)
- type([c_polyhedron24_doubles3](#)) function **polyhedron24_doubles3_class_getcobject** (this)
- subroutine **polyhedron24_doubles3_class_construct** (this, a_polyhedron24, a_data)
- subroutine **polyhedron24_doubles3_class_adjustcaptomatchvolume** (this, a_correct_signed_volume)
- subroutine **polyhedron24_doubles3_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) **polyhedron24_doubles3_class_getpt** (this, a_index)
- subroutine **polyhedron24_doubles3_class_setpt** (this, a_index, a_pt)
- real(irl_double) function, dimension(3) **polyhedron24_doubles3_class_getdata** (this, a_index)
- subroutine **polyhedron24_doubles3_class_setdata** (this, a_index, a_data)

5.24.1 Detailed Description

A fortran type class that allows the creation of IRL's Polyhedron24_doubles3 class along with enabling some of its methods.

5.25 f_r2pneighborhood_rectangularcuboid_class Module Reference

A fortran type class to provide the functionality of R2PNeighborhood_RectangularCuboid.

Data Types

- interface [addmember](#)
- type [c_r2pneighborhood_rectangularcuboid](#)
- interface [emptyneighborhood](#)
- interface [F_R2PNeighborhood_RectangularCuboid_addMember](#)
- interface [F_R2PNeighborhood_RectangularCuboid_delete](#)
- interface [F_R2PNeighborhood_RectangularCuboid_emptyNeighborhood](#)
- interface [F_R2PNeighborhood_RectangularCuboid_new](#)
- interface [F_R2PNeighborhood_RectangularCuboid_setCenterOfStencil](#)
- interface [F_R2PNeighborhood_RectangularCuboid_setMember](#)
- interface [F_R2PNeighborhood_RectangularCuboid_setSize](#)
- interface [F_R2PNeighborhood_RectangularCuboid_setSurfaceArea](#)
- interface [getcobject](#)
- interface [new](#)
- type [r2pneighborhood_rectangularcuboid_type](#)
- interface [setcenterofstencil](#)
- interface [setmember](#)
- interface [setsize](#)
- interface [setsurfacearea](#)

Functions/Subroutines

- subroutine [r2pneighborhood_rectangularcuboid_class_new](#) (this)
- impure elemental subroutine [r2pneighborhood_rectangularcuboid_class_delete](#) (this)
- type([c_r2pneighborhood_rectangularcuboid](#)) function [r2pneighborhood_rectangularcuboid_class_getcobject](#) (this)
- subroutine [r2pneighborhood_rectangularcuboid_class_setsize](#) (this, a_size)
- subroutine [r2pneighborhood_rectangularcuboid_class_setmember](#) (this, a_rectangular_cuboid, a_separated_volume_moments, a_index)
- subroutine [r2pneighborhood_rectangularcuboid_class_addmember](#) (this, a_rectangular_cuboid, a_separated_volume_moments)
- subroutine [r2pneighborhood_rectangularcuboid_class_emptyneighborhood](#) (this)
- subroutine [r2pneighborhood_rectangularcuboid_class_setcenterofstencil](#) (this, a_center_cell_index)
- subroutine [r2pneighborhood_rectangularcuboid_class_setsurfacearea](#) (this, a_surface_area)

5.25.1 Detailed Description

A fortran type class to provide the functionality of R2PNeighborhood_RectangularCuboid.

5.26 f_reconstructioninterface Module Reference

This module contains interface reconstruction methods that can be used to obtain PlanarSeparators. The requirements to use each type of reconstruction are different. Please consult the documentation and examples before using a specific reconstruction type.

Data Types

- interface [F_reconstructionWithAdvectionNormals_ListedVM_VMAN_RC](#)
- interface [F_reconstructionWithAdvectionNormalsDebug_ListedVM_VMAN_RC](#)
- interface [F_reconstructionWithELVIRA2D](#)
- interface [F_reconstructionWithELVIRA3D](#)
- interface [F_reconstructionWithLVIRA2D_RC](#)
- interface [F_reconstructionWithLVIRA3D_RC](#)
- interface [F_reconstructionWithMOF2D_RectangularCuboid](#)
- interface [F_reconstructionWithMOF2D_Tri](#)
- interface [F_reconstructionWithMOF2DGiveWeights_RectangularCuboid](#)
- interface [F_reconstructionWithMOF2DGiveWeights_Tri](#)
- interface [F_reconstructionWithMOF3D_RectangularCuboid](#)
- interface [F_reconstructionWithMOF3D_Tet](#)
- interface [F_reconstructionWithMOF3DGiveWeights_RectangularCuboid](#)
- interface [F_reconstructionWithMOF3DGiveWeights_Tet](#)
- interface [F_reconstructionWithR2P2D_RC](#)
- interface [F_reconstructionWithR2P2DDebug_RC](#)
- interface [F_reconstructionWithR2P3D_RC](#)
- interface [F_reconstructionWithR2P3DDebug_RC](#)
- interface [reconstructionwithadvectionnormals](#)
- interface [reconstructionwithadvectionnormalsdebug](#)
- interface [reconstructionwithlvira2d](#)
- interface [reconstructionwithlvira3d](#)
- interface [reconstructionwithmof2d](#)
- interface [reconstructionwithmof3d](#)
- interface [reconstructionwithr2p2d](#)
- interface [reconstructionwithr2p2ddebug](#)
- interface [reconstructionwithr2p3d](#)
- interface [reconstructionwithr2p3ddebug](#)

Functions/Subroutines

- subroutine [reconstructionwithlvira2d](#) (a_elvira_neighborhood, a_planar_separator)
- subroutine [reconstructionwithlvira3d](#) (a_elvira_neighborhood, a_planar_separator)
- subroutine [reconstructionwithmof2d_rectangularcuboid](#) (a_rectangular_cuboid, a_separated_volume↔_moments, a_planar_separator)
- subroutine [reconstructionwithmof3d_rectangularcuboid](#) (a_rectangular_cuboid, a_separated_volume↔_moments, a_planar_separator)
- subroutine [reconstructionwithmof2dgiveweights_rectangularcuboid](#) (a_rectangular_cuboid, a↔_separated_volume_moments, a_internal_weight, a_external_weight, a_planar_separator)
- subroutine [reconstructionwithmof3dgiveweights_rectangularcuboid](#) (a_rectangular_cuboid, a↔_separated_volume_moments, a_internal_weight, a_external_weight, a_planar_separator)
- subroutine [reconstructionwithmof2d_tri](#) (a_tri, a_separated_volume_moments, a_planar_separator)
- subroutine [reconstructionwithmof2dgiveweights_tri](#) (a_tri, a_separated_volume_moments, a_internal↔_weight, a_external_weight, a_planar_separator)
- subroutine [reconstructionwithmof3d_tet](#) (a_tet, a_separated_volume_moments, a_planar_separator)
- subroutine [reconstructionwithmof3dgiveweights_tet](#) (a_tet, a_separated_volume_moments, a_internal↔_weight, a_external_weight, a_planar_separator)
- subroutine [reconstructionwithadvectionnormals_listedvm_vman_rc](#) (a_volume_moments_list, a↔_neighborhood, a_two_plane_threshold, a_planar_separator)
- subroutine [reconstructionwithadvectionnormalsdebug_listedvm_vman_rc](#) (a_volume_moments_list, a↔_neighborhood, a_two_plane_threshold, a_planar_separator)
- subroutine [reconstructionwithr2p2d_rc](#) (a_neighborhood, a_planar_separator)
- subroutine [reconstructionwithr2p3d_rc](#) (a_neighborhood, a_planar_separator)
- subroutine [reconstructionwithr2p2ddebug_rc](#) (a_neighborhood, a_planar_separator)
- subroutine [reconstructionwithr2p3ddebug_rc](#) (a_neighborhood, a_planar_separator)
- subroutine [reconstructionwithlvira2d_rc](#) (a_neighborhood, a_planar_separator)
- subroutine [reconstructionwithlvira3d_rc](#) (a_neighborhood, a_planar_separator)

5.26.1 Detailed Description

This module contains interface reconstruction methods that can be used to obtain PlanarSeparators. The requirements to use each type of reconstruction are different. Please consult the documentation and examples before using a specific reconstruction type.

5.27 `f_rectangarcuboid_class` Module Reference

A fortran type class that allows the creation of IRL's RectangularCuboid class along with enabling some of its methods.

Data Types

- type `c_rectangarcuboid`
- interface `calculatevolume`
- interface `construct`
- interface `construct_2pt`
- interface `F_RectangularCuboid_calculateVolume`
- interface `F_RectangularCuboid_construct`
- interface `F_RectangularCuboid_construct_2pt`
- interface `F_RectangularCuboid_delete`
- interface `F_RectangularCuboid_getBoundingPts`
- interface `F_RectangularCuboid_new`
- interface `getboundingpts`
- interface `getcobject`
- interface `new`
- type `rectangarcuboid_type`

Functions/Subroutines

- subroutine `rectangarcuboid_class_new` (this)
- impure elemental subroutine `rectangarcuboid_class_delete` (this)
- type(`c_rectangarcuboid`) function `rectangarcuboid_class_getcobject` (this)
- subroutine `rectangarcuboid_class_construct` (this, a_transported_cell)
- subroutine `rectangarcuboid_class_construct_2pt` (this, a_lower_pt, a_upper_pt)
- real(irl_double) function `rectangarcuboid_class_calculatevolume` (this)
- subroutine `rectangarcuboid_class_getboundingpts` (this, a_lower_pt, a_upper_pt)

5.27.1 Detailed Description

A fortran type class that allows the creation of IRL's RectangularCuboid class along with enabling some of its methods.

5.28 `f_sepvm_class` Module Reference

A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods.

Data Types

- type [c_sepvm](#)
- interface [construct](#)
- interface [F_SepVM_construct](#)
- interface [F_SepVM_delete](#)
- interface [F_SepVM_getCentroid](#)
- interface [F_SepVM_getCentroidPtr](#)
- interface [F_SepVM_getVolume](#)
- interface [F_SepVM_getVolumePtr](#)
- interface [F_SepVM_multiplyByVolume](#)
- interface [F_SepVM_new](#)
- interface [F_SepVM_normalizeByVolume](#)
- interface [getcentroid](#)
- interface [getcentroidptr](#)
- interface [getcobject](#)
- interface [getvolume](#)
- interface [getvolumeptr](#)
- interface [multiplybyvolume](#)
- interface [new](#)
- interface [normalizebyvolume](#)
- type [sepvm_type](#)

Functions/Subroutines

- subroutine **sepvm_class_new** (this)
- impure elemental subroutine **sepvm_class_delete** (this)
- type([c_sepvm](#)) function **sepvm_class_getcobject** (this)
- subroutine **sepvm_class_construct** (this, a_moments_list)
- subroutine **sepvm_class_normalizebyvolume** (this)
- subroutine **sepvm_class_multiplybyvolume** (this)
- real(irl_double) function **sepvm_class_getvolume** (this, a_index)
- real(irl_double) function, dimension(3) **sepvm_class_getcentroid** (this, a_index)
- real(irl_double) function, pointer **sepvm_class_getvolumeptr** (this, a_index)
- real(irl_double) function, dimension(:), pointer **sepvm_class_getcentroidptr** (this, a_index)

5.28.1 Detailed Description

A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods.

5.29 f_sepvm_doubles3_class Module Reference

A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods.

Data Types

- type `c_sepvm_doubles3`
- interface `F_SepVM_doubles3_delete`
- interface `F_SepVM_doubles3_getCentroid`
- interface `F_SepVM_doubles3_getCentroidPtr`
- interface `F_SepVM_doubles3_getData`
- interface `F_SepVM_doubles3_getVolume`
- interface `F_SepVM_doubles3_getVolumePtr`
- interface `F_SepVM_doubles3_multiplyByVolume`
- interface `F_SepVM_doubles3_new`
- interface `F_SepVM_doubles3_normalizeByVolume`
- interface `getcentroid`
- interface `getcentroidptr`
- interface `getcobject`
- interface `getdata`
- interface `getvolume`
- interface `getvolumeptr`
- interface `multiplybyvolume`
- interface `new`
- interface `normalizebyvolume`
- type `sepvm_doubles3_type`

Functions/Subroutines

- subroutine `sepvm_doubles3_class_new` (this)
- impure elemental subroutine `sepvm_doubles3_class_delete` (this)
- type(`c_sepvm_doubles3`) function `sepvm_doubles3_class_getcobject` (this)
- subroutine `sepvm_doubles3_class_normalizebyvolume` (this)
- subroutine `sepvm_doubles3_class_multiplybyvolume` (this)
- real(irl_double) function `sepvm_doubles3_class_getvolume` (this, a_index)
- real(irl_double) function, dimension(3) `sepvm_doubles3_class_getcentroid` (this, a_index)
- real(irl_double) function, dimension(3) `sepvm_doubles3_class_getdata` (this, a_index)
- real(irl_double) function, pointer `sepvm_doubles3_class_getvolumeptr` (this, a_index)
- real(irl_double) function, dimension(:), pointer `sepvm_doubles3_class_getcentroidptr` (this, a_index)

5.29.1 Detailed Description

A fortran type class that allows the creation of IRL's SeparatedMoments<VolumeMoments> class along with enabling some of its methods.

5.30 f_serializer Module Reference

This module contains mappings to the IRL C interface that deal with serializing IRL class objects into an array of bytes and packing them into a byte buffer.

Data Types

- interface [F_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer](#)
- interface [F_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer](#)
- interface [serializeandpack](#)
- interface [unpackandstore](#)

Functions/Subroutines

- subroutine **serializeandpack_planarseparator_bytebuffer** (a_separator, a_byte_buffer)
- subroutine **unpackandstore_planarseparator_bytebuffer** (a_separator, a_byte_buffer)

5.30.1 Detailed Description

This module contains mappings to the IRL C interface that deal with serializing IRL class objects into an array of bytes and packing them into a byte buffer.

5.31 f_tagged_accumlistedvm_vman_class Module Reference

A fortran type class that allows the creation of IRL's TaggedAccumulatedListedVolumeMomentsM<Volume←MomentsAndNormal> class along with enabling some of its methods.

Data Types

- interface [append](#)
- type [c_tagged_accumlistedvm_vman](#)
- interface [clear](#)
- interface [F_Tagged_AccumListedVM_VMAN_append](#)
- interface [F_Tagged_AccumListedVM_VMAN_clear](#)
- interface [F_Tagged_AccumListedVM_VMAN_delete](#)
- interface [F_Tagged_AccumListedVM_VMAN_getListAtIndex](#)
- interface [F_Tagged_AccumListedVM_VMAN_getSize](#)
- interface [F_Tagged_AccumListedVM_VMAN_getTagForIndex](#)
- interface [F_Tagged_AccumListedVM_VMAN_new](#)
- interface [getcobject](#)
- interface [getlistatindex](#)
- interface [getsize](#)
- interface [gettagforindex](#)
- interface [new](#)
- type [tagged_accumlistedvm_vman_type](#)

Functions/Subroutines

- subroutine **tagged_accumlistedvm_vman_class_new** (this)
- impure elemental subroutine **tagged_accumlistedvm_vman_class_delete** (this)
- type([c_tagged_accumlistedvm_vman](#)) function **tagged_accumlistedvm_vman_class_getcobject** (this)
- subroutine **tagged_accumlistedvm_vman_class_getlistatindex** (this, a_index, a_other_list)
- subroutine **tagged_accumlistedvm_vman_class_append** (this, a_other_list)
- subroutine **tagged_accumlistedvm_vman_class_clear** (this)
- integer(irl_unsignedindex_t) function **tagged_accumlistedvm_vman_class_getsize** (this)
- integer(irl_unsignedindex_t) function **tagged_accumlistedvm_vman_class_gettagforindex** (this, a_index)

5.31.1 Detailed Description

A fortran type class that allows the creation of IRL's TaggedAccumulatedListedVolumeMomentsM<Volume↔MomentsAndNormal> class along with enabling some of its methods.

5.32 f_tagged_accumvm_sepvm_class Module Reference

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<SeparatedMoments<↔VolumeMoments>> class along with enabling some of its methods.

Data Types

- type [c_tagged_accumvm_sepvm](#)
- interface [F_Tagged_AccumVM_SepVM_delete](#)
- interface [F_Tagged_AccumVM_SepVM_getCentroidAtIndex](#)
- interface [F_Tagged_AccumVM_SepVM_getCentroidAtTag](#)
- interface [F_Tagged_AccumVM_SepVM_getCentroidPtrAtIndex](#)
- interface [F_Tagged_AccumVM_SepVM_getSize](#)
- interface [F_Tagged_AccumVM_SepVM_getTagForIndex](#)
- interface [F_Tagged_AccumVM_SepVM_getVolumeAtIndex](#)
- interface [F_Tagged_AccumVM_SepVM_getVolumeAtTag](#)
- interface [F_Tagged_AccumVM_SepVM_getVolumePtrAtIndex](#)
- interface [F_Tagged_AccumVM_SepVM_multiplyByVolume](#)
- interface [F_Tagged_AccumVM_SepVM_new](#)
- interface [F_Tagged_AccumVM_SepVM_normalizeByVolume](#)
- interface [getcentroidatindex](#)
- interface [getcentroidattag](#)
- interface [getcentroidptratindex](#)
- interface [getcobject](#)
- interface [getsize](#)
- interface [gettagforindex](#)
- interface [getvolumeatindex](#)
- interface [getvolumeattag](#)
- interface [getvolumepratrindex](#)
- interface [multiplybyvolume](#)
- interface [new](#)
- interface [normalizebyvolume](#)
- type [tagged_accumvm_sepvm_type](#)

Functions/Subroutines

- subroutine [tagged_accumvm_sepvm_class_new](#) (this)
- impure elemental subroutine [tagged_accumvm_sepvm_class_delete](#) (this)
- type([c_tagged_accumvm_sepvm](#)) function [tagged_accumvm_sepvm_class_getcobject](#) (this)
- subroutine [tagged_accumvm_sepvm_class_normalizebyvolume](#) (this)
- subroutine [tagged_accumvm_sepvm_class_multiplybyvolume](#) (this)
- real(irl_double) function [tagged_accumvm_sepvm_class_getvolumeatindex](#) (this, a_list_index, a_index)
- real(irl_double) function, dimension(3) [tagged_accumvm_sepvm_class_getcentroidatindex](#) (this, a_list↔_index, a_index)
- real(irl_double) function [tagged_accumvm_sepvm_class_getvolumeattag](#) (this, a_tag, a_index)

- `real(irl_double)` function, dimension(3) **tagged_accumvm_sepvm_class_getcentroidat** (this, a_tag, a_index)
- `real(irl_double)` function, pointer **tagged_accumvm_sepvm_class_getvolumepratrindex** (this, a_list_index, a_index)
- `real(irl_double)` function, dimension(:), pointer **tagged_accumvm_sepvm_class_getcentroidptratrindex** (this, a_list_index, a_index)
- `integer(irl_unsignedindex_t)` function **tagged_accumvm_sepvm_class_getsize** (this)
- `integer(irl_unsignedindex_t)` function **tagged_accumvm_sepvm_class_gettagforindex** (this, a_index)

5.32.1 Detailed Description

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<SeparatedMoments<VolumeMoments>> class along with enabling some of its methods.

5.33 f_tagged_accumvm_vm_class Module Reference

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<VolumeMoments> class along with enabling some of its methods.

Data Types

- type `c_tagged_accumvm_vm`
- interface `F_Tagged_AccumVM_VM_delete`
- interface `F_Tagged_AccumVM_VM_getCentroidAtIndex`
- interface `F_Tagged_AccumVM_VM_getCentroidPtrAtIndex`
- interface `F_Tagged_AccumVM_VM_getSize`
- interface `F_Tagged_AccumVM_VM_getTagForIndex`
- interface `F_Tagged_AccumVM_VM_getVolumeAtIndex`
- interface `F_Tagged_AccumVM_VM_getVolumePtrAtIndex`
- interface `F_Tagged_AccumVM_VM_multiplyByVolume`
- interface `F_Tagged_AccumVM_VM_new`
- interface `F_Tagged_AccumVM_VM_normalizeByVolume`
- interface `getcentroidatindex`
- interface `getcentroidptratrindex`
- interface `getcobject`
- interface `getsize`
- interface `gettagforindex`
- interface `getvolumeatindex`
- interface `getvolumepratrindex`
- interface `multiplybyvolume`
- interface `new`
- interface `normalizebyvolume`
- type `tagged_accumvm_vm_type`

Functions/Subroutines

- subroutine **tagged_accumvm_vm_class_new** (this)
- impure elemental subroutine **tagged_accumvm_vm_class_delete** (this)
- type([c_tagged_accumvm_vm](#)) function **tagged_accumvm_vm_class_getcobject** (this)
- subroutine **tagged_accumvm_vm_class_normalizebyvolume** (this)
- subroutine **tagged_accumvm_vm_class_multiplybyvolume** (this)
- real(irl_double) function **tagged_accumvm_vm_class_getvolumeatindex** (this, a_list_index)
- real(irl_double) function, dimension(3) **tagged_accumvm_vm_class_getcentroidatindex** (this, a_list_index ↵ index)
- real(irl_double) function, pointer **tagged_accumvm_vm_class_getvolumeprtatindex** (this, a_list_index)
- real(irl_double) function, dimension(:), pointer **tagged_accumvm_vm_class_getcentroidprtatindex** (this, a_list_index)
- integer(irl_unsignedindex_t) function **tagged_accumvm_vm_class_getsize** (this)
- integer(irl_unsignedindex_t) function **tagged_accumvm_vm_class_gettagforindex** (this, a_index)

5.33.1 Detailed Description

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<VolumeMoments> class along with enabling some of its methods.

5.34 f_tet_class Module Reference

A fortran type class that allows the creation of IRL's Tet class along with enabling some of its methods.

Data Types

- type [c_tet](#)
- interface [construct](#)
- interface [F_Tet_construct](#)
- interface [F_Tet_delete](#)
- interface [F_Tet_getBoundingPts](#)
- interface [F_Tet_new](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [new](#)
- type [tet_type](#)

Functions/Subroutines

- subroutine **tet_class_new** (this)
- impure elemental subroutine **tet_class_delete** (this)
- type([c_tet](#)) function **tet_class_getcobject** (this)
- subroutine **tet_class_construct** (this, a_Tet_pts)
- subroutine **tet_class_getboundingpts** (this, a_lower_pt, a_upper_pt)

5.34.1 Detailed Description

A fortran type class that allows the creation of IRL's Tet class along with enabling some of its methods.

5.35 f_tri_class Module Reference

A fortran type class that allows the creation of IRL's Tri class along with enabling some of its methods.

Data Types

- type [c_tri](#)
- interface [calculateandsetplaneofexistence](#)
- interface [calculatecentroid](#)
- interface [calculatenormal](#)
- interface [calculatesign](#)
- interface [calculatevolume](#)
- interface [construct](#)
- interface [F_Tri_calculateAndSetPlaneOfExistence](#)
- interface [F_Tri_calculateCentroid](#)
- interface [F_Tri_calculateNormal](#)
- interface [F_Tri_calculateSign](#)
- interface [F_Tri_calculateVolume](#)
- interface [F_Tri_construct](#)
- interface [F_Tri_delete](#)
- interface [F_Tri_getBoundingPts](#)
- interface [F_Tri_getLocalizer](#)
- interface [F_Tri_getPlaneOfExistence](#)
- interface [F_Tri_getVertices](#)
- interface [F_Tri_new](#)
- interface [F_Tri_reversePtOrdering](#)
- interface [F_Tri_setPlaneOfExistence](#)
- interface [getboundingpts](#)
- interface [getcobject](#)
- interface [getlocalizer](#)
- interface [getplaneofexistence](#)
- interface [getvertices](#)
- interface [new](#)
- interface [reverseptordering](#)
- interface [setplaneofexistence](#)
- type [tri_type](#)

Functions/Subroutines

- subroutine **tri_class_new** (this)
- impure elemental subroutine **tri_class_delete** (this)
- type([c_tri](#)) function **tri_class_getcobject** (this)
- subroutine **tri_class_construct** (this, a_pts)
- real(irl_double) function, dimension(1:3, 1:3) **tri_class_getvertices** (this)
- real(irl_double) function **tri_class_calculatevolume** (this)
- real(irl_double) function, dimension(1:3) **tri_class_calculatecentroid** (this)
- real(irl_double) function, dimension(1:3) **tri_class_calculatenormal** (this)
- subroutine **tri_class_getlocalizer** (this, a_planar_localizer)
- subroutine **tri_class_reverseptordering** (this)
- subroutine **tri_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function **tri_class_calculatesign** (this)
- subroutine **tri_class_setplaneofexistence** (this, a_plane)
- subroutine **tri_class_calculateandsetplaneofexistence** (this)
- real(irl_double) function, dimension(4) **tri_class_getplaneofexistence** (this)

5.35.1 Detailed Description

A fortran type class that allows the creation of IRL's Tri class along with enabling some of its methods.

5.36 f_vman_class Module Reference

A fortran type class that allows the creation of IRL's AccumulatedListedVolumeMomentsM<VolumeMomentsAnd←Normal> class along with enabling some of its methods.

Data Types

- type [c_vman](#)
- interface [F_VMAN_delete](#)
- interface [F_VMAN_getCentroid](#)
- interface [F_VMAN_getNormal](#)
- interface [F_VMAN_getVolume](#)
- interface [F_VMAN_multiplyByVolume](#)
- interface [F_VMAN_new](#)
- interface [F_VMAN_normalizeByVolume](#)
- interface [getcentroid](#)
- interface [getcobject](#)
- interface [getnormal](#)
- interface [getvolume](#)
- interface [multiplybyvolume](#)
- interface [new](#)
- interface [normalizebyvolume](#)
- type [vman_type](#)

Functions/Subroutines

- subroutine **vman_class_new** (this)
- impure elemental subroutine **vman_class_delete** (this)
- type([c_vman](#)) function **vman_class_getcobject** (this)
- real(irl_double) function **vman_class_getvolume** (this)
- real(irl_double) function, dimension(3) **vman_class_getcentroid** (this)
- real(irl_double) function, dimension(3) **vman_class_getnormal** (this)
- subroutine **vman_class_normalizebyvolume** (this)
- subroutine **vman_class_multiplybyvolume** (this)

5.36.1 Detailed Description

A fortran type class that allows the creation of IRL's AccumulatedListedVolumeMomentsM<VolumeMomentsAnd←Normal> class along with enabling some of its methods.

5.37 f_volumefractionmatching Module Reference

This module contains mappings to the IRL C interface that deals with setting the distance to each plane in a reconstruction to recreate the volume fraction on the provided polyhedron.

Data Types

- interface [F_setDistanceToMatchVolumeFraction_RC_PS](#)
- interface [F_setDistanceToMatchVolumeFraction_RC_PS_DefTol](#)
- interface [setdistancetomatchvolumefraction](#)

Functions/Subroutines

- subroutine **setdistancetomatchvolumefraction_rc_ps** (a_rectangular_cuboid, a_volume_fraction, a_↔ planar_separator, a_volume_fraction_tolerance)
- subroutine **setdistancetomatchvolumefraction_rc_ps_deftol** (a_rectangular_cuboid, a_volume_fraction, a_planar_separator)

5.37.1 Detailed Description

This module contains mappings to the IRL C interface that deals with setting the distance to each plane in a reconstruction to recreate the volume fraction on the provided polyhedron.

5.38 irl_fortran_interface Module Reference

This is just a master wrapper for the entire IRL fortran interface. For information about each module, view the documentation for the module itself.

5.38.1 Detailed Description

This is just a master wrapper for the entire IRL fortran interface. For information about each module, view the documentation for the module itself.

Chapter 6

Class Documentation

6.1 `f_lviraneighborhood_rectangularcuboid_class::addmember` Interface Reference

Public Member Functions

- subroutine **`lviraneighborhood_rectangularcuboid_class_addmember`** (this, a_rectangular_cuboid, a ↔ volume_fraction)

6.1.1 Detailed Description

Definition at line 52 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.2 `f_r2pneighborhood_rectangularcuboid_class::addmember` Interface Reference

Public Member Functions

- subroutine **`r2pneighborhood_rectangularcuboid_class_addmember`** (this, a_rectangular_cuboid, a ↔ separated_volume_moments)

6.2.1 Detailed Description

Definition at line 52 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_r2pneighborhood_rectangularcuboid_class.f90`

6.3 `f_planarlocalizer_class::addplane` Interface Reference

Public Member Functions

- subroutine **`planarlocalizer_class_addplane`** (this, a_normal, a_distance)

6.3.1 Detailed Description

Definition at line 42 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.4 `f_planarseparator_class::addplane` Interface Reference

Public Member Functions

- subroutine **`planarseparator_class_addplane`** (this, a_normal, a_distance)

6.4.1 Detailed Description

Definition at line 42 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.5 `f_polyhedron24_class::adjustcaptomatchvolume` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_class_adjustcaptomatchvolume`** (this, a_correct_signed_volume)

6.5.1 Detailed Description

Definition at line 42 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.6 `f_polyhedron24_doubles3_class::adjustcaptomatchvolume` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_doubles3_class_adjustcaptomatchvolume`** (this, `a_correct_signed_volume`)

6.6.1 Detailed Description

Definition at line 41 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.7 `f_cappeddodecahedron_class::adjustcaptomatchvolume` Interface Reference

Public Member Functions

- subroutine **`cappeddodecahedron_class_adjustcaptomatchvolume`** (this, `a_correct_signed_volume`)

6.7.1 Detailed Description

Definition at line 46 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.8 `f_cappeddodecahedron_doubles3_class::adjustcaptomatchvolume` Interface Reference

Public Member Functions

- subroutine **`cappeddodecahedron_doubles3_class_adjustcaptomatchvolume`** (this, `a_correct_signed_volume`)

6.8.1 Detailed Description

Definition at line 46 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.9 `f_listedvm_vman_class::append` Interface Reference

Public Member Functions

- subroutine **listedvm_vman_class_append** (this, a_other_list)

6.9.1 Detailed Description

Definition at line 41 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_listedvm_vman_class.f90](#)

6.10 `f_tagged_accumlistedvm_vman_class::append` Interface Reference

Public Member Functions

- subroutine **tagged_accumlistedvm_vman_class_append** (this, a_other_list)

6.10.1 Detailed Description

Definition at line 42 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.11 `f_bytebuffer_class::bytebuffer_type` Type Reference

Public Member Functions

- final **bytebuffer_class_delete**

Private Attributes

- type([c_bytebuffer](#)), private **c_object**

6.11.1 Detailed Description

Definition at line 27 of file `f_bytebuffer_class.f90`.

The documentation for this type was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.12 c_ByteBuffer Struct Reference

Public Attributes

- IRL::ByteBuffer * **obj_ptr** = nullptr

6.12.1 Detailed Description

Definition at line 17 of file c_byte_buffer.h.

The documentation for this struct was generated from the following file:

- [c_byte_buffer.h](#)

6.13 f_bytebuffer_class::c_bytebuffer Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.13.1 Detailed Description

Definition at line 23 of file f_bytebuffer_class.f90.

The documentation for this type was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.14 f_cappeddodecahedron_class::c_cappeddodecahedron Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.14.1 Detailed Description

Definition at line 23 of file f_cappeddodecahedron_class.f90.

The documentation for this type was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.15 c_CappedDodecahedron Struct Reference

Public Attributes

- IRL::CappedDodecahedron * **obj_ptr** = nullptr

6.15.1 Detailed Description

Definition at line 17 of file c_capped_dodecahedron.h.

The documentation for this struct was generated from the following file:

- c_capped_dodecahedron.h

6.16 c_CappedDodecahedron_doubles3 Struct Reference

Public Attributes

- IRL::StoredCappedDodecahedron< IRL::PtWithDoublesStatelessFunctor< IRL::LinearInterpolation_↔
Functor, 3 > > * **obj_ptr** = nullptr

6.16.1 Detailed Description

Definition at line 19 of file c_capped_dodecahedron_doubles3.h.

The documentation for this struct was generated from the following file:

- c_capped_dodecahedron_doubles3.h

6.17 f_cappeddodecahedron_doubles3_class::c_cappeddodecahedron_doubles3 Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.17.1 Detailed Description

Definition at line 23 of file f_cappeddodecahedron_doubles3_class.f90.

The documentation for this type was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.18 c_DividedPolygon Struct Reference

Public Attributes

- IRL::DividedPolygon * **obj_ptr** = nullptr

6.18.1 Detailed Description

Definition at line 21 of file c_divided_polygon.h.

The documentation for this struct was generated from the following file:

- c_divided_polygon.h

6.19 f_dividedpolygon_class::c_dividedpolygon Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.19.1 Detailed Description

Definition at line 26 of file f_dividedpolygon_class.f90.

The documentation for this type was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.20 f_dodecahedron_class::c_dodecahedron Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.20.1 Detailed Description

Definition at line 23 of file f_dodecahedron_class.f90.

The documentation for this type was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.21 c_Dodecahedron Struct Reference

Public Attributes

- IRL::Dodecahedron * **obj_ptr** = nullptr

6.21.1 Detailed Description

Definition at line 17 of file c_dodecahedron.h.

The documentation for this struct was generated from the following file:

- c_dodecahedron.h

6.22 c_ELVIReighborhood Struct Reference

Public Attributes

- IRL::ELVIReighborhood * **obj_ptr** = nullptr

6.22.1 Detailed Description

Definition at line 18 of file c_elvira_neighborhood.h.

The documentation for this struct was generated from the following file:

- c_elvira_neighborhood.h

6.23 f_elviraneighborhood_class::c_elviraneighborhood Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.23.1 Detailed Description

Definition at line 29 of file f_elviraneighborhood_class.f90.

The documentation for this type was generated from the following file:

- f_elviraneighborhood_class.f90

6.24 c_ListedVM_VMAN Struct Reference

Public Attributes

- IRL::ListedVolumeMoments< IRL::VolumeMomentsAndNormal > * **obj_ptr** = nullptr

6.24.1 Detailed Description

Definition at line 19 of file c_listedvm_vman.h.

The documentation for this struct was generated from the following file:

- c_listedvm_vman.h

6.25 f_listedvm_vman_class::c_listedvm_vman Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.25.1 Detailed Description

Definition at line 23 of file f_listedvm_vman_class.f90.

The documentation for this type was generated from the following file:

- f_listedvm_vman_class.f90

6.26 c_LocalizedSeparatorLink Struct Reference

Public Attributes

- IRL::LocalizedSeparatorLink * **obj_ptr**
- bool **allocated_from_object_allocation_server** = false

6.26.1 Detailed Description

Definition at line 21 of file c_localized_separator_link.h.

The documentation for this struct was generated from the following file:

- c_localized_separator_link.h

6.27 `f_localizedseparatorlink_class::c_localizedseparatorlink` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`
- `logical(c_bool)`, private **allocated_from_object_allocation_server** = `.false.`

6.27.1 Detailed Description

Definition at line 26 of file `f_localizedseparatorlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.28 `f_localizerlink_class::c_localizerlink` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`
- `logical(c_bool)`, private **allocated_from_object_allocation_server** = `.false.`

6.28.1 Detailed Description

Definition at line 25 of file `f_localizerlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_localizerlink_class.f90](#)

6.29 `c_LocalizerLink` Struct Reference

Public Attributes

- `IRL::LocalizerLink * obj_ptr` = `nullptr`
- `bool allocated_from_object_allocation_server` = `false`

6.29.1 Detailed Description

Definition at line 20 of file `c_localizer_link.h`.

The documentation for this struct was generated from the following file:

- `c_localizer_link.h`

6.30 c_LVIRANeighborhood_RectangularCuboid Struct Reference

Public Attributes

- IRL::LVIRANeighborhood< IRL::RectangularCuboid > * **obj_ptr** = nullptr

6.30.1 Detailed Description

Definition at line 18 of file c_lvira_neighborhood_rectangular_cuboid.h.

The documentation for this struct was generated from the following file:

- c_lvira_neighborhood_rectangular_cuboid.h

6.31 f_lviraneighborhood_rectangularcuboid_class::c_lviraneighborhood_rectangularcuboid Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.31.1 Detailed Description

Definition at line 29 of file f_lviraneighborhood_rectangularcuboid_class.f90.

The documentation for this type was generated from the following file:

- f_lviraneighborhood_rectangularcuboid_class.f90

6.32 c_ObjectAllocationServer_LocalizedSeparatorLink Struct Reference

Public Attributes

- IRL::ObjectAllocationServer< IRL::LocalizedSeparatorLink > * **obj_ptr** = nullptr

6.32.1 Detailed Description

Definition at line 18 of file c_object_allocation_server_localized_separator_link.h.

The documentation for this struct was generated from the following file:

- c_object_allocation_server_localized_separator_link.h

6.33 `f_objectallocationserver_localizedseparatorlink_class::c_objectallocationserver_↵ localizedseparatorlink` Type Reference

Private Attributes

- `type(c_ptr), private object = C_NULL_PTR`

6.33.1 Detailed Description

Definition at line 23 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.34 `c_ObjectAllocationServer_LocalizerLink` Struct Reference

Public Attributes

- `IRL::ObjectAllocationServer< IRL::LocalizerLink > * obj_ptr = nullptr`

6.34.1 Detailed Description

Definition at line 18 of file `c_object_allocation_server_localizer_link.h`.

The documentation for this struct was generated from the following file:

- `c_object_allocation_server_localizer_link.h`

6.35 `f_objectallocationserver_localizerlink_class::c_objectallocationserver_localizerlink` Type Reference

Private Attributes

- `type(c_ptr), private object = C_NULL_PTR`

6.35.1 Detailed Description

Definition at line 23 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.36 `f_objectallocationserver_planarlocalizer_class::c_objectallocationserver_planarlocalizer` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.36.1 Detailed Description

Definition at line 23 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_planarlocalizer_class.f90](#)

6.37 `c_ObjectAllocationServer_PlanarLocalizer` Struct Reference

Public Attributes

- `IRL::ObjectAllocationServer< IRL::PlanarLocalizer > * obj_ptr` = `nullptr`

6.37.1 Detailed Description

Definition at line 18 of file `c_object_allocation_server_planar_localizer.h`.

The documentation for this struct was generated from the following file:

- `c_object_allocation_server_planar_localizer.h`

6.38 `c_ObjectAllocationServer_PlanarSeparator` Struct Reference

Public Attributes

- `IRL::ObjectAllocationServer< IRL::PlanarSeparator > * obj_ptr` = `nullptr`

6.38.1 Detailed Description

Definition at line 18 of file `c_object_allocation_server_planar_separator.h`.

The documentation for this struct was generated from the following file:

- `c_object_allocation_server_planar_separator.h`

6.39 `f_objectallocationserver_planarseparator_class::c_objectallocationserver_planarseparator` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.39.1 Detailed Description

Definition at line 23 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_planarseparator_class.f90](#)

6.40 `f_planarlocalizer_class::c_planarlocalizer` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`
- `logical(c_bool)`, private **allocated_from_object_allocation_server** = `.false.`

6.40.1 Detailed Description

Definition at line 24 of file `f_planarlocalizer_class.f90`.

The documentation for this type was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.41 `c_PlanarLocalizer` Struct Reference

Public Attributes

- `IRL::PlanarLocalizer *` **obj_ptr** = `nullptr`
- `bool` **allocated_from_object_allocation_server** = `false`

6.41.1 Detailed Description

Definition at line 21 of file `c_localizers.h`.

The documentation for this struct was generated from the following file:

- [c_localizers.h](#)

6.42 f_planarseparator_class::c_planarseparator Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR
- logical(c_bool), private **allocated_from_object_allocation_server** = .false.

6.42.1 Detailed Description

Definition at line 24 of file f_planarseparator_class.f90.

The documentation for this type was generated from the following file:

- [f_planarseparator_class.f90](#)

6.43 c_PlanarSeparator Struct Reference

Public Attributes

- IRL::PlanarSeparator * **obj_ptr** = nullptr
- bool **allocated_from_object_allocation_server** = false

6.43.1 Detailed Description

Definition at line 22 of file c_separators.h.

The documentation for this struct was generated from the following file:

- c_separators.h

6.44 f_polygon_class::c_polygon Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.44.1 Detailed Description

Definition at line 25 of file f_polygon_class.f90.

The documentation for this type was generated from the following file:

- [f_polygon_class.f90](#)

6.45 c_Polygon Struct Reference

Public Attributes

- IRL::Polygon * **obj_ptr** = nullptr

6.45.1 Detailed Description

Definition at line 20 of file c_polygon.h.

The documentation for this struct was generated from the following file:

- [c_polygon.h](#)

6.46 f_polyhedron24_class::c_polyhedron24 Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.46.1 Detailed Description

Definition at line 23 of file f_polyhedron24_class.f90.

The documentation for this type was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.47 c_Polyhedron24 Struct Reference

Public Attributes

- IRL::Polyhedron24 * **obj_ptr** = nullptr

6.47.1 Detailed Description

Definition at line 17 of file c_polyhedron24.h.

The documentation for this struct was generated from the following file:

- [c_polyhedron24.h](#)

6.48 `f_polyhedron24_doubles3_class::c_polyhedron24_doubles3` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.48.1 Detailed Description

Definition at line 23 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this type was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.49 `c_Polyhedron24_doubles3` Struct Reference

Public Attributes

- `IRL::StoredPolyhedron24< IRL::PtWithDoublesStatelessFunctor< IRL::LinearInterpolation_Functor, 3 > >`
* **obj_ptr** = `nullptr`

6.49.1 Detailed Description

Definition at line 19 of file `c_polyhedron24_doubles3.h`.

The documentation for this struct was generated from the following file:

- `c_polyhedron24_doubles3.h`

6.50 `c_R2PNeighborhood_RectangularCuboid` Struct Reference

Public Attributes

- `IRL::R2PNeighborhood< IRL::RectangularCuboid >` * **obj_ptr** = `nullptr`

6.50.1 Detailed Description

Definition at line 20 of file `c_r2p_neighborhood_rectangular_cuboid.h`.

The documentation for this struct was generated from the following file:

- `c_r2p_neighborhood_rectangular_cuboid.h`

6.51 f_r2pneighborhood_rectangularcuboid_class::c_r2pneighborhood_rectangularcuboid Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.51.1 Detailed Description

Definition at line 30 of file f_r2pneighborhood_rectangularcuboid_class.f90.

The documentation for this type was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.52 c_RectangularCuboid Struct Reference

Public Attributes

- IRL::RectangularCuboid * **obj_ptr** = nullptr

6.52.1 Detailed Description

Definition at line 17 of file c_rectangular_cuboid.h.

The documentation for this struct was generated from the following file:

- c_rectangular_cuboid.h

6.53 f_rectangularcuboid_class::c_rectangularcuboid Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.53.1 Detailed Description

Definition at line 23 of file f_rectangularcuboid_class.f90.

The documentation for this type was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.54 c_SepVM Struct Reference

Public Attributes

- IRL::SeparatedMoments< IRL::VolumeMoments > * **obj_ptr** = nullptr

6.54.1 Detailed Description

Definition at line 17 of file c_separated_volume_moments.h.

The documentation for this struct was generated from the following file:

- c_separated_volume_moments.h

6.55 f_sepvm_class::c_sepvm Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.55.1 Detailed Description

Definition at line 22 of file f_sepvm_class.f90.

The documentation for this type was generated from the following file:

- [f_sepvm_class.f90](#)

6.56 c_SepVM_doubles3 Struct Reference

Public Attributes

- IRL::SeparatedMoments< IRL::VolumeMomentsAndDoubles< 3 > > * **obj_ptr** = nullptr

6.56.1 Detailed Description

Definition at line 18 of file c_separated_volume_moments_doubles3.h.

The documentation for this struct was generated from the following file:

- c_separated_volume_moments_doubles3.h

6.57 `f_sepvm_doubles3_class::c_sepvm_doubles3` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.57.1 Detailed Description

Definition at line 22 of file `f_sepvm_doubles3_class.f90`.

The documentation for this type was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.58 `c_Tagged_AccumListedVM_VMAN` Struct Reference

Public Attributes

- `IRL::TaggedAccumulatedListedVolumeMoments < IRL::VolumeMomentsAndNormal > * obj_ptr = nullptr`

6.58.1 Detailed Description

Definition at line 19 of file `c_tagged_accumulated_listed_volume_moments_and_normal.h`.

The documentation for this struct was generated from the following file:

- `c_tagged_accumulated_listed_volume_moments_and_normal.h`

6.59 `f_tagged_accumlistedvm_vman_class::c_tagged_accumlistedvm_vman` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.59.1 Detailed Description


Definition at line 23 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this type was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.60 c_Tagged_AccumVM_SepVM Struct Reference

Public Attributes

- IRL::TaggedAccumulatedVolumeMoments< IRL::SeparatedMoments< IRL::VolumeMoments > > * **obj_ptr** 
ptr = nullptr

6.60.1 Detailed Description

Definition at line 18 of file c_tagged_accumulated_separated_volume_moments.h.

The documentation for this struct was generated from the following file:

- c_tagged_accumulated_separated_volume_moments.h

6.61 f_tagged_accumvm_sepvm_class::c_tagged_accumvm_sepvm Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.61.1 Detailed Description

Definition at line 22 of file f_tagged_accumvm_sepvm_class.f90.

The documentation for this type was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.62 f_tagged_accumvm_vm_class::c_tagged_accumvm_vm Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.62.1 Detailed Description

Definition at line 22 of file f_tagged_accumvm_vm_class.f90.

The documentation for this type was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.63 c_Tagged_AccumVM_VM Struct Reference

Public Attributes

- IRL::TaggedAccumulatedVolumeMoments< IRL::VolumeMoments > * **obj_ptr** = nullptr

6.63.1 Detailed Description

Definition at line 18 of file c_tagged_accumulated_volume_moments.h.

The documentation for this struct was generated from the following file:

- c_tagged_accumulated_volume_moments.h

6.64 f_tet_class::c_tet Type Reference

Private Attributes

- type(c_ptr), private **object** = C_NULL_PTR

6.64.1 Detailed Description

Definition at line 23 of file f_tet_class.f90.

The documentation for this type was generated from the following file:

- [f_tet_class.f90](#)

6.65 c_Tet Struct Reference

Public Attributes

- IRL::Tet * **obj_ptr** = nullptr

6.65.1 Detailed Description

Definition at line 17 of file c_tet.h.

The documentation for this struct was generated from the following file:

- c_tet.h

6.66 `f_tri_class::c_tri` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.66.1 Detailed Description

Definition at line 24 of file `f_tri_class.f90`.

The documentation for this type was generated from the following file:

- [f_tri_class.f90](#)

6.67 `c_Tri` Struct Reference

Public Attributes

- `IRL::Tri * obj_ptr` = `nullptr`

6.67.1 Detailed Description

Definition at line 18 of file `c_tri.h`.

The documentation for this struct was generated from the following file:

- `c_tri.h`

6.68 `f_vman_class::c_vman` Type Reference

Private Attributes

- `type(c_ptr)`, private **object** = `C_NULL_PTR`

6.68.1 Detailed Description

Definition at line 22 of file `f_vman_class.f90`.

The documentation for this type was generated from the following file:

- [f_vman_class.f90](#)

6.69 c_VMAN Struct Reference

Public Attributes

- IRL::VolumeMomentsAndNormal * **obj_ptr** = nullptr

6.69.1 Detailed Description

Definition at line 17 of file `c_volume_moments_and_normal.h`.

The documentation for this struct was generated from the following file:

- `c_volume_moments_and_normal.h`

6.70 f_tri_class::calculateandsetplaneofexistence Interface Reference

Public Member Functions

- subroutine **tri_class_calculateandsetplaneofexistence** (this)

6.70.1 Detailed Description

Definition at line 69 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.71 f_polygon_class::calculateandsetplaneofexistence Interface Reference

Public Member Functions

- subroutine **polygon_class_calculateandsetplaneofexistence** (this)

6.71.1 Detailed Description

Definition at line 83 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.72 `f_dividedpolygon_class::calculateandsetplaneofexistence` Interface Reference

Public Member Functions

- subroutine `dividedpolygon_class_calculateandsetplaneofexistence` (this)

6.72.1 Detailed Description

Definition at line 106 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.73 `f_tri_class::calculatecentroid` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(1:3) `tri_class_calculatecentroid` (this)

6.73.1 Detailed Description

Definition at line 48 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.74 `f_polygon_class::calculatecentroid` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) `polygon_class_calculatecentroid` (this)

6.74.1 Detailed Description

Definition at line 86 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.75 `f_polygon_class::calculatenearestptonsurface` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) **`polygon_class_calculatenearestptonsurface`** (this, `a_pt`)

6.75.1 Detailed Description

Definition at line 71 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.76 `f_tri_class::calculatenormal` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(1:3) **`tri_class_calculatenormal`** (this)

6.76.1 Detailed Description

Definition at line 51 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.77 `f_polygon_class::calculatenormal` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(1:3) **`polygon_class_calculatenormal`** (this)

6.77.1 Detailed Description

Definition at line 44 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.78 `f_dividedpolygon_class::calculatenormal` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(1:3) **`dividedpolygon_class_calculatenormal`** (this)

6.78.1 Detailed Description

Definition at line 66 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.79 `f_tri_class::calculatesign` Interface Reference

Public Member Functions

- `real(irl_double)` function **`tri_class_calculatesign`** (this)

6.79.1 Detailed Description

Definition at line 63 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.80 `f_polygon_class::calculatesign` Interface Reference

Public Member Functions

- `real(irl_double)` function **`polygon_class_calculatesign`** (this)

6.80.1 Detailed Description

Definition at line 77 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.81 `f_dividedpolygon_class::calculatesign` Interface Reference

Public Member Functions

- `real(irl_double)` function **`dividedpolygon_class_calculatesign`** (this)

6.81.1 Detailed Description

Definition at line 98 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.82 `f_dividedpolygon_class::calculatesurfacearea` Interface Reference

Public Member Functions

- `real(irl_double)` function **`dividedpolygon_class_calculatesurfacearea`** (this)

6.82.1 Detailed Description

Definition at line 94 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.83 `f_tri_class::calculatevolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`tri_class_calculatevolume`** (this)

6.83.1 Detailed Description

Definition at line 45 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.84 `f_polygon_class::calculatevolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`polygon_class_calculatevolume`** (this)

6.84.1 Detailed Description

Definition at line 74 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.85 `f_rectangularcuboid_class::calculatevolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`rectangularcuboid_class_calculatevolume`** (this)

6.85.1 Detailed Description

Definition at line 45 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.86 `f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_type` Type Reference

Public Member Functions

- final **`cappeddodecahedron_doubles3_class_delete`**

Private Attributes

- `type(c_cappeddodecahedron_doubles3)`, private **`c_object`**

6.86.1 Detailed Description

Definition at line 27 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this type was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.87 `f_cappeddodecahedron_class::cappeddodecahedron_type` Type Reference

Public Member Functions

- final `cappeddodecahedron_class_delete`

Private Attributes

- `type(c_cappeddodecahedron)`, private `c_object`

6.87.1 Detailed Description

Definition at line 27 of file `f_cappeddodecahedron_class.f90`.

The documentation for this type was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.88 `f_listedvm_vman_class::clear` Interface Reference

Public Member Functions

- subroutine `listedvm_vman_class_clear` (this)

6.88.1 Detailed Description

Definition at line 44 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.89 `f_tagged_accumlistedvm_vman_class::clear` Interface Reference

Public Member Functions

- subroutine `tagged_accumlistedvm_vman_class_clear` (this)

6.89.1 Detailed Description

Definition at line 45 of file `f_tagged_accumlistedm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedm_vman_class.f90](#)

6.90 **f_dodecahedron_class::construct** Interface Reference

Public Member Functions

- subroutine **dodecahedron_class_construct** (this, a_transported_cell)

6.90.1 Detailed Description

Definition at line 41 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.91 **f_tet_class::construct** Interface Reference

Public Member Functions

- subroutine **tet_class_construct** (this, a_Tet_pts)

6.91.1 Detailed Description

Definition at line 39 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.92 **f_tri_class::construct** Interface Reference

Public Member Functions

- subroutine **tri_class_construct** (this, a_pts)

6.92.1 Detailed Description

Definition at line 39 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.93 f_polygon_class::construct Interface Reference

Public Member Functions

- subroutine **polygon_class_construct** (this, a_npts, a_pts)

6.93.1 Detailed Description

Definition at line 41 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.94 f_polyhedron24_class::construct Interface Reference

Public Member Functions

- subroutine **polyhedron24_class_construct** (this, a_polyhedron24)

6.94.1 Detailed Description

Definition at line 39 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.95 f_dividedpolygon_class::construct Interface Reference

Public Member Functions

- subroutine **dividedpolygon_class_construct** (this, a_npts, a_pts)

6.95.1 Detailed Description

Definition at line 46 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.96 `f_polyhedron24_doubles3_class::construct` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_doubles3_class_construct`** (`this`, `a_polyhedron24`, `a_data`)

6.96.1 Detailed Description

Definition at line 38 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.97 `f_cappeddodecahedron_class::construct` Interface Reference

Public Member Functions

- subroutine **`cappeddodecahedron_class_construct`** (`this`, `a_dodecahedron`)

6.97.1 Detailed Description

Definition at line 42 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.98 `f_rectangularcuboid_class::construct` Interface Reference

Public Member Functions

- subroutine **`rectangularcuboid_class_construct`** (`this`, `a_transported_cell`)

6.98.1 Detailed Description

Definition at line 39 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.99 f_sepvm_class::construct Interface Reference

Public Member Functions

- subroutine **sepvm_class_construct** (this, a_moments_list)

6.99.1 Detailed Description

Definition at line 35 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.100 f_cappeddodecahedron_doubles3_class::construct Interface Reference

Public Member Functions

- subroutine **cappeddodecahedron_doubles3_class_construct** (this, a_dodecahedron, a_attached_data)

6.100.1 Detailed Description

Definition at line 42 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.101 f_rectangularcuboid_class::construct_2pt Interface Reference

Public Member Functions

- subroutine **rectangularcuboid_class_construct_2pt** (this, a_lower_pt, a_upper_pt)

6.101.1 Detailed Description

Definition at line 42 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.102 **f_dividedpolygon_class::constructfrompolygon** Interface Reference

Public Member Functions

- subroutine **dividedpolygon_class_constructfrompolygon** (this, a_polygon)

6.102.1 Detailed Description

Definition at line 50 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.103 **f_planarseparator_class::copy** Interface Reference

Public Member Functions

- subroutine **planarseparator_class_copy** (this, a_other_PlanarSeparator)

6.103.1 Detailed Description

Definition at line 51 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.104 **f_bytebuffer_class::dataptr** Interface Reference

Public Member Functions

- integer(irl_byte_t) function, dimension(:), pointer **bytebuffer_class_dataptr** (this)

6.104.1 Detailed Description

Definition at line 54 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.105 `f_dividedpolygon_class::dividedpolygon_type` Type Reference

Public Member Functions

- final `dividedpolygon_class_delete`

Private Attributes

- `type(c_dividedpolygon)`, private `c_object`

6.105.1 Detailed Description

Definition at line 31 of file `f_dividedpolygon_class.f90`.

The documentation for this type was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.106 `f_dodecahedron_class::dodecahedron_type` Type Reference

Public Member Functions

- final `dodecahedron_class_delete`

Private Attributes

- `type(c_dodecahedron)`, private `c_object`

6.106.1 Detailed Description

Definition at line 28 of file `f_dodecahedron_class.f90`.

The documentation for this type was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.107 `f_elviraneighborhood_class::elviraneighborhood_type` Type Reference

Public Member Functions

- final `elviraneighborhood_class_delete`

Private Attributes

- `type(c_elviraneighborhood)`, private `c_object`

6.107.1 Detailed Description

Definition at line 33 of file `f_elviraneighborhood_class.f90`.

The documentation for this type was generated from the following file:

- `f_elviraneighborhood_class.f90`

6.108 `f_r2pneighborhood_rectangularcuboid_class::emptyneighborhood` Interface Reference

Public Member Functions

- subroutine `r2pneighborhood_rectangularcuboid_class_emptyneighborhood` (this)

6.108.1 Detailed Description

Definition at line 55 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_r2pneighborhood_rectangularcuboid_class.f90`

6.109 `f_lviraneighborhood_rectangularcuboid_class::emptyneighborhood` Interface Reference

Public Member Functions

- subroutine `lviraneighborhood_rectangularcuboid_class_emptyneighborhood` (this)

6.109.1 Detailed Description

Definition at line 55 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.110 `f_listedvm_vman_class::erase` Interface Reference

Public Member Functions

- subroutine **`listedvm_vman_class_erase`** (`this`, `a_index`)

6.110.1 Detailed Description

Definition at line 56 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.111 `f_bytebuffer_class::F_ByteBuffer_dataPtr` Interface Reference

Public Member Functions

- `type(c_ptr)` function **`f_bytebuffer_dataptr`** (`this`)

6.111.1 Detailed Description

Definition at line 97 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.112 `f_bytebuffer_class::F_ByteBuffer_delete` Interface Reference

Public Member Functions

- subroutine **`f_bytebuffer_delete`** (`this`)

6.112.1 Detailed Description

Definition at line 67 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.113 `f_bytebuffer_class::F_ByteBuffer_getSize` Interface Reference

Public Member Functions

- integer(`c_size_t`) function `f_bytebuffer_getsize` (this)

6.113.1 Detailed Description

Definition at line 74 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.114 `f_bytebuffer_class::F_ByteBuffer_new` Interface Reference

Public Member Functions

- subroutine `f_bytebuffer_new` (this)

6.114.1 Detailed Description

Definition at line 60 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.115 `f_bytebuffer_class::F_ByteBuffer_resetBufferPointer` Interface Reference

Public Member Functions

- subroutine `f_bytebuffer_resetbufferpointer` (this)

6.115.1 Detailed Description

Definition at line 90 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.116 `f_bytebuffer_class::F_ByteBuffer_setSize` Interface Reference

Public Member Functions

- subroutine `f_bytebuffer_setsize` (this, a_size)

6.116.1 Detailed Description

Definition at line 82 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.117 `f_cappeddodecahedron_class::F_CappedDodecahedron_adjustCapToMatch`↔ Volume Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_adjustcapmatchvolume` (this, a_correct_signed_volume)

6.117.1 Detailed Description

Definition at line 82 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.118 `f_cappeddodecahedron_class::F_CappedDodecahedron_construct` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_construct` (this, a_dodecahedron)

6.118.1 Detailed Description

Definition at line 74 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.119 `f_cappeddodecahedron_class::F_CappedDodecahedron_delete` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_delete` (this)

6.119.1 Detailed Description

Definition at line 67 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.120 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_adjustCapToMatchVolume` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_adjustcaptomatchvolume` (this, `a_correct_signed_volume`)

6.120.1 Detailed Description

Definition at line 95 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.121 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_construct` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_construct` (this, `a_dodecahedron`, `a_attached_data`)

6.121.1 Detailed Description

Definition at line 86 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.122 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_↔` delete Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_delete` (this)

6.122.1 Detailed Description

Definition at line 79 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.123 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_↔` getBoundingPts Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.123.1 Detailed Description

Definition at line 103 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.124 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_↔` getData Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_getdata` (this, a_index, a_data)

6.124.1 Detailed Description

Definition at line 130 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.125 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getPt` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_getpt` (this, a_index, a_pt)

6.125.1 Detailed Description

Definition at line 112 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.126 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_new` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_new` (this)

6.126.1 Detailed Description

Definition at line 72 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.127 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setData` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_setdata` (this, a_index, a_data)

6.127.1 Detailed Description

Definition at line 139 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.128 `f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_↔` setPt Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_doubles3_setpt` (this, a_index, a_pt)

6.128.1 Detailed Description

Definition at line 121 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.129 `f_cappeddodecahedron_class::F_CappedDodecahedron_getBoundingPts` Inter- face Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.129.1 Detailed Description

Definition at line 90 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.130 `f_cappeddodecahedron_class::F_CappedDodecahedron_getPt` Interface Refer- ence

Public Member Functions

- subroutine `f_cappeddodecahedron_getpt` (this, a_index, a_pt)

6.130.1 Detailed Description

Definition at line 99 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.131 `f_cappeddodecahedron_class::F_CappedDodecahedron_new` Interface Reference

Public Member Functions

- subroutine `f_cappeddodecahedron_new` (this)

6.131.1 Detailed Description

Definition at line 60 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.132 `f_constants::F_Constants_setMinimumSurfaceAreaToTrack` Interface Reference

Public Member Functions

- subroutine `f_constants_setminimumsurfaceareatotrack` (a_minimum_surface_area_to_track)

6.132.1 Detailed Description

Definition at line 51 of file `f_constants.f90`.

The documentation for this interface was generated from the following file:

- [f_constants.f90](#)

6.133 `f_constants::F_Constants_setMinimumVolumeToTrack` Interface Reference

Public Member Functions

- subroutine `f_constants_setminimumvolumetotrack` (a_minimum_volume_to_track)

6.133.1 Detailed Description

Definition at line 42 of file `f_constants.f90`.

The documentation for this interface was generated from the following file:

- [f_constants.f90](#)

6.134 `f_constants::F_Constants_setVolumeFractionBounds` Interface Reference

Public Member Functions

- subroutine `f_constants_setvolumefractionbounds` (`a_VF_low`)

6.134.1 Detailed Description

Definition at line 24 of file `f_constants.f90`.

The documentation for this interface was generated from the following file:

- [f_constants.f90](#)

6.135 `f_constants::F_Constants_setVolumeFractionToleranceForDistanceFinding` Interface Reference

Public Member Functions

- subroutine `f_constants_setvolumefractiontolerancefordistancefinding` (`a_tolerance`)

6.135.1 Detailed Description

Definition at line 33 of file `f_constants.f90`.

The documentation for this interface was generated from the following file:

- [f_constants.f90](#)

6.136 `f_dividedpolygon_class::F_DividedPolygon_calculateAndSetPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_calculateandsetplaneofexistence` (`this`)

6.136.1 Detailed Description

Definition at line 255 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.137 `f_dividedpolygon_class::F_DividedPolygon_calculateNormal` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_calculatenormal` (this, a_normal)

6.137.1 Detailed Description

Definition at line 175 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.138 `f_dividedpolygon_class::F_DividedPolygon_calculateSign` Interface Reference

Public Member Functions

- `real(c_double)` function `f_dividedpolygon_calculatesign` (this)

6.138.1 Detailed Description

Definition at line 239 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.139 `f_dividedpolygon_class::F_DividedPolygon_calculateSurfaceArea` Interface Reference

Public Member Functions

- `real(c_double)` function `f_dividedpolygon_calculatesurfacearea` (this)

6.139.1 Detailed Description

Definition at line 231 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.140 `f_dividedpolygon_class::F_DividedPolygon_construct` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_construct` (this, a_npts, a_pts)

6.140.1 Detailed Description

Definition at line 134 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.141 `f_dividedpolygon_class::F_DividedPolygon_constructFromPolygon` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_constructfrompolygon` (this, a_polygon)

6.141.1 Detailed Description

Definition at line 143 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.142 `f_dividedpolygon_class::F_DividedPolygon_delete` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_delete` (this)

6.142.1 Detailed Description

Definition at line 127 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.143 `f_dividedpolygon_class::F_DividedPolygon_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.143.1 Detailed Description

Definition at line 198 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.144 `f_dividedpolygon_class::F_DividedPolygon_getLocalizer` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_getlocalizer` (this, a_planar_localizer)

6.144.1 Detailed Description

Definition at line 183 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.145 `f_dividedpolygon_class::F_DividedPolygon_getNumberOfPts` Interface Reference

Public Member Functions

- integer(c_int) function `f_dividedpolygon_getnumberofpts` (this)

6.145.1 Detailed Description

Definition at line 207 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.146 `f_dividedpolygon_class::F_DividedPolygon_getNumberOfSimplicesInDecomposition` Interface Reference

Public Member Functions

- integer(`c_int`) function `f_dividedpolygon_getnumberofsimplicesindecomposition` (this)

6.146.1 Detailed Description

Definition at line 158 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.147 `f_dividedpolygon_class::F_DividedPolygon_getPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_getplaneofexistence` (this, `a_plane`)

6.147.1 Detailed Description

Definition at line 262 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.148 `f_dividedpolygon_class::F_DividedPolygon_getPt` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_getpt` (this, `a_index`, `a_pt`)

6.148.1 Detailed Description

Definition at line 215 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.149 **f_dividedpolygon_class::F_DividedPolygon_getSimplexFromDecomposition** Interface Reference

Public Member Functions

- subroutine **f_dividedpolygon_getsimplexfromdecomposition** (this, a_tri_number_to_get, a_triangle_in↵_decomposition)

6.149.1 Detailed Description

Definition at line 166 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.150 **f_dividedpolygon_class::F_DividedPolygon_new** Interface Reference

Public Member Functions

- subroutine **f_dividedpolygon_new** (this)

6.150.1 Detailed Description

Definition at line 120 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.151 **f_dividedpolygon_class::F_DividedPolygon_printToScreen** Interface Reference

Public Member Functions

- subroutine **f_dividedpolygon_printtoscreen** (this)

6.151.1 Detailed Description

Definition at line 270 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.152 `f_dividedpolygon_class::F_DividedPolygon_resetCentroid` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_resetcentroid` (this)

6.152.1 Detailed Description

Definition at line 151 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.153 `f_dividedpolygon_class::F_DividedPolygon_reversePtOrdering` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_reverseptordering` (this)

6.153.1 Detailed Description

Definition at line 191 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.154 `f_dividedpolygon_class::F_DividedPolygon_setPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_setplaneofexistence` (this, a_plane)

6.154.1 Detailed Description

Definition at line 247 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.155 `f_dividedpolygon_class::F_DividedPolygon_zeroPolygon` Interface Reference

Public Member Functions

- subroutine `f_dividedpolygon_zeropolygon` (this)

6.155.1 Detailed Description

Definition at line 224 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.156 `f_dodecahedron_class::F_Dodecahedron_construct` Interface Reference

Public Member Functions

- subroutine `f_dodecahedron_construct` (this, a_transported_cell)

6.156.1 Detailed Description

Definition at line 64 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.157 `f_dodecahedron_class::F_Dodecahedron_delete` Interface Reference

Public Member Functions

- subroutine `f_dodecahedron_delete` (this)

6.157.1 Detailed Description

Definition at line 57 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.158 `f_dodecahedron_class::F_Dodecahedron_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_dodecahedron_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.158.1 Detailed Description

Definition at line 72 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.159 `f_dodecahedron_class::F_Dodecahedron_new` Interface Reference

Public Member Functions

- subroutine `f_dodecahedron_new` (this)

6.159.1 Detailed Description

Definition at line 50 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.160 `f_elviraneighborhood_class::F_ELVIRANeighborhood_delete` Interface Reference

Public Member Functions

- subroutine `f_elviraneighborhood_delete` (this)

6.160.1 Detailed Description

Definition at line 62 of file f_elviraneighborhood_class.f90.

The documentation for this interface was generated from the following file:

- f_elviraneighborhood_class.f90

6.161 **f_elviraneighborhood_class::F_ELVRANeighborhood_new** Interface Reference

Public Member Functions

- subroutine **f_elviraneighborhood_new** (this)

6.161.1 Detailed Description

Definition at line 55 of file f_elviraneighborhood_class.f90.

The documentation for this interface was generated from the following file:

- f_elviraneighborhood_class.f90

6.162 **f_elviraneighborhood_class::F_ELVRANeighborhood_setMember** Interface Reference

Public Member Functions

- subroutine **f_elviraneighborhood_setmember** (this, a_rectangular_cuboid, a_liquid_volume_fraction, i, j, k)

6.162.1 Detailed Description

Definition at line 77 of file f_elviraneighborhood_class.f90.

The documentation for this interface was generated from the following file:

- f_elviraneighborhood_class.f90

6.163 **f_elviraneighborhood_class::F_ELVRANeighborhood_setSize** Interface Reference

Public Member Functions

- subroutine **f_elviraneighborhood_setsize** (this, a_size)

6.163.1 Detailed Description

Definition at line 69 of file `f_elviraneighborhood_class.f90`.

The documentation for this interface was generated from the following file:

- `f_elviraneighborhood_class.f90`

6.164 `f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_DivPoly` Interface Reference

Public Member Functions

- subroutine **`f_getplanepolygonfromreconstruction_rc_divpoly`** (`a_rectangular_cuboid`, `a_planar_separator`, `a_plane_index`, `a_divided_polygon`)

6.164.1 Detailed Description

Definition at line 51 of file `f_cutpolygon.f90`.

The documentation for this interface was generated from the following file:

- [f_cutpolygon.f90](#)

6.165 `f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_Poly` Interface Reference

Public Member Functions

- subroutine **`f_getplanepolygonfromreconstruction_rc_poly`** (`a_rectangular_cuboid`, `a_planar_separator`, `a_plane_index`, `a_polygon`)

6.165.1 Detailed Description

Definition at line 38 of file `f_cutpolygon.f90`.

The documentation for this interface was generated from the following file:

- [f_cutpolygon.f90](#)

6.166 `f_cutpolygon::F_getReconstructionSurfaceArea_RC` Interface Reference

Public Member Functions

- `real(c_double)` function **`f_getreconstructionssurfacearea_rc`** (`a_rectangular_cuboid`, `a_planar_separator`)

6.166.1 Detailed Description

Definition at line 64 of file `f_cutpolygon.f90`.

The documentation for this interface was generated from the following file:

- [f_cutpolygon.f90](#)

6.167 **f_getvolumemoments::F_GNVM_CD_By_LSL_For_SVM** Interface Reference

Public Member Functions

- subroutine **f_gnvm_cd_by_lsl_for_svm** (`a_Capped_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.167.1 Detailed Description

Definition at line 113 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.168 **f_getvolumemoments::F_GNVM_CD_By_LSL_For_TagAccumVM_SVM** Interface Reference

Public Member Functions

- subroutine **f_gnvm_cd_by_lsl_for_tagaccumvm_svm** (`a_Capped_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.168.1 Detailed Description

Definition at line 233 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.169 **f_getvolumemoments::F_GNVM_CDWD3_By_LSL_For_SVMAD3** Interface Reference

Public Member Functions

- subroutine **f_gnvm_cdwd3_by_lsl_for_svmad3** (`a_Capped_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.169.1 Detailed Description

Definition at line 125 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.170 f_getvolumemoments::F_GNVM_D_By_LSL_For_SVM Interface Reference

Public Member Functions

- subroutine **f_gnvm_d_by_lsl_for_svm** (`a_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.170.1 Detailed Description

Definition at line 101 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.171 f_getvolumemoments::F_GNVM_D_By_LSL_For_TagAccumVM_SVM Interface Reference

Public Member Functions

- subroutine **f_gnvm_d_by_lsl_for_tagaccumvm_svm** (`a_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.171.1 Detailed Description

Definition at line 245 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.172 f_getvolumemoments::F_GNVM_D_By_PS_For_SVM Interface Reference

Public Member Functions

- subroutine **f_gnvm_d_by_ps_for_svm** (`a_Dodecahedron`, `a_planar_separator`, `a_moments_to_return`)

6.172.1 Detailed Description

Definition at line 221 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.173 **f_getvolumemoments::F_GNVM_P24_By_LSL_For_SVM** Interface Reference

Public Member Functions

- subroutine **f_gnvm_p24_by_lsl_for_svm** (`a_polyhedron_24`, `a_localized_separator_link`, `a_moments_to_return`)

6.173.1 Detailed Description

Definition at line 137 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.174 **f_getvolumemoments::F_GNVM_P24WD3_By_LSL_For_SVMAD3** Interface Reference

Public Member Functions

- subroutine **f_gnvm_p24wd3_by_lsl_for_svmad3** (`a_polyhedron_24`, `a_localized_separator_link`, `a_moments_to_return`)

6.174.1 Detailed Description

Definition at line 149 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.175 **f_getvolumemoments::F_GNVM_Poly_By_PL_For_V** Interface Reference

Public Member Functions

- subroutine **f_gnvm_poly_by_pl_for_v** (`a_poly`, `a_planar_localizer`, `a_moments_to_return`)

6.175.1 Detailed Description

Definition at line 293 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.176 f_getvolumemoments::F_GNVM_RC_By_PS_For_SVM Interface Reference

Public Member Functions

- subroutine **f_gnvm_rc_by_ps_for_svm** (`a_rectangular_cuboid`, `a_planar_separator`, `a_moments_to_return`)

6.176.1 Detailed Description

Definition at line 257 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.177 f_getvolumemoments::F_GNVM_RC_By_PS_For_V Interface Reference

Public Member Functions

- subroutine **f_gnvm_rc_by_ps_for_v** (`a_rectangular_cuboid`, `a_planar_separator`, `a_moments_to_return`)

6.177.1 Detailed Description

Definition at line 209 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.178 f_getvolumemoments::F_GNVM_Tet_By_LSL_For_SVM Interface Reference

Public Member Functions

- subroutine **f_gnvm_tet_by_lsl_for_svm** (`a_tet`, `a_localized_separator_link`, `a_moments_to_return`)

6.178.1 Detailed Description

Definition at line 197 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.179 `f_getvolumemoments::F_GNVM_Tri_By_LL_For_TagAVM_VM` Interface Reference

Public Member Functions

- subroutine `f_gnvm_tri_by_ll_for_tagavm_vm` (`a_tri`, `a_localizer_link`, `a_moments_to_return`)

6.179.1 Detailed Description

Definition at line 269 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.180 `f_getvolumemoments::F_GNVM_Tri_By_PL_For_V` Interface Reference

Public Member Functions

- subroutine `f_gnvm_tri_by_pl_for_v` (`a_tri`, `a_planar_localizer`, `a_moments_to_return`)

6.180.1 Detailed Description

Definition at line 281 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.181 `f_getvolumemoments::F_GVM_CD_By_LSL_For_SVM` Interface Reference

Public Member Functions

- subroutine `f_gvm_cd_by_lsl_for_svm` (`a_Capped_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_return`)

6.181.1 Detailed Description

Definition at line 161 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.182 `f_getvolumemoments::F_GVM_D_By_LSL_For_SVM` Interface Reference

Public Member Functions

- subroutine `f_gvm_d_by_lsl_for_svm` (`a_Dodecahedron`, `a_localized_separator_link`, `a_moments_to_↔` return)

6.182.1 Detailed Description

Definition at line 173 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.183 `f_getvolumemoments::F_GVM_P24_By_LSL_For_SVM` Interface Reference

Public Member Functions

- subroutine `f_gvm_p24_by_lsl_for_svm` (`a_polyhedron_24`, `a_localized_separator_link`, `a_moments_to_↔` return)

6.183.1 Detailed Description

Definition at line 185 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.184 `f_getvolumemoments::F_GVM_setMethod` Interface Reference

Public Member Functions

- subroutine `f_gvm_setmethod` (`a_cutting_method`)

6.184.1 Detailed Description

Definition at line 91 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.185 **f_getvolumemoments::F_GVM_Tri_By_LL_For_TagALVM_VMAN** Interface Reference

Public Member Functions

- subroutine **f_gvm_tri_by_ll_for_tagalvm_vman** (`a_tri`, `a_localizer_link`, `a_moments_to_return`)

6.185.1 Detailed Description

Definition at line 305 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.186 **f_geometriccuttinghelpers::F_isPtInternal_PL** Interface Reference

Public Member Functions

- logical(`c_bool`) function **f_isptinternal_pl** (`a_pt`, `a_localizer`)

6.186.1 Detailed Description

Definition at line 46 of file `f_geometriccuttinghelpers.f90`.

The documentation for this interface was generated from the following file:

- [f_geometriccuttinghelpers.f90](#)

6.187 **f_geometriccuttinghelpers::F_isPtInternal_PS** Interface Reference

Public Member Functions

- logical(`c_bool`) function **f_isptinternal_ps** (`a_pt`, `a_separator`)

6.187.1 Detailed Description

Definition at line 35 of file `f_geometriccuttinghelpers.f90`.

The documentation for this interface was generated from the following file:

- [f_geometriccuttinghelpers.f90](#)

6.188 f_listedvm_vman_class::F_ListedVM_VMAN_append Interface Reference

Public Member Functions

- subroutine **f_listedvm_vman_append** (this, a_other_list)

6.188.1 Detailed Description

Definition at line 76 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.189 f_listedvm_vman_class::F_ListedVM_VMAN_clear Interface Reference

Public Member Functions

- subroutine **f_listedvm_vman_clear** (this)

6.189.1 Detailed Description

Definition at line 84 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.190 f_listedvm_vman_class::F_ListedVM_VMAN_delete Interface Reference

Public Member Functions

- subroutine **f_listedvm_vman_delete** (this)

6.190.1 Detailed Description

Definition at line 69 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.191 `f_listedvm_vman_class::F_ListedVM_VMAN_erase` Interface Reference

Public Member Functions

- subroutine `f_listedvm_vman_erase` (this, a_index)

6.191.1 Detailed Description

Definition at line 116 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.192 `f_listedvm_vman_class::F_ListedVM_VMAN_getMoments` Interface Reference

Public Member Functions

- subroutine `f_listedvm_vman_getmoments` (this, a_index, a_moments)

6.192.1 Detailed Description

Definition at line 99 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.193 `f_listedvm_vman_class::F_ListedVM_VMAN_getSize` Interface Reference

Public Member Functions

- integer(c_int) function `f_listedvm_vman_getsize` (this)

6.193.1 Detailed Description

Definition at line 91 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.194 `f_listedvm_vman_class::F_ListedVM_VMAN_new` Interface Reference

Public Member Functions

- subroutine `f_listedvm_vman_new` (this)

6.194.1 Detailed Description

Definition at line 62 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.195 `f_listedvm_vman_class::F_ListedVM_VMAN_zeroNormalComponent` Interface Reference

Public Member Functions

- subroutine `f_listedvm_vman_zeronormalcomponent` (this, a_index)

6.195.1 Detailed Description

Definition at line 108 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.196 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_delete` Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_delete` (this)

6.196.1 Detailed Description

Definition at line 79 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.197 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_getId` Interface Reference

Public Member Functions

- integer(`c_int`) function `f_localizedseparatorlink_getid` (this)

6.197.1 Detailed Description

Definition at line 94 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.198 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_new` Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_new` (this, `a_planar_localizer`, `a_planar_separator`)

6.198.1 Detailed Description

Definition at line 59 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.199 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_newFromObjectAllocationServer` Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_newfromobjectallocationserver` (this, `a_object_allocation_server`, `a_planar_localizer`, `a_planar_separator`)

6.199.1 Detailed Description

Definition at line 68 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.200 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivity` Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_setedgeconnectivity` (this, a_plane_index, a_ptr_to_neighbor)

6.200.1 Detailed Description

Definition at line 102 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.201 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivity`↔ Null Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_setedgeconnectivitynull` (this, a_plane_index)

6.201.1 Detailed Description

Definition at line 111 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.202 `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setId` Interface Reference

Public Member Functions

- subroutine `f_localizedseparatorlink_setid` (this, a_id)

6.202.1 Detailed Description

Definition at line 86 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.203 `f_localizerlink_class::F_LocalizerLink_delete` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_delete` (this)

6.203.1 Detailed Description

Definition at line 76 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.204 `f_localizerlink_class::F_LocalizerLink_getId` Interface Reference

Public Member Functions

- integer(`c_int`) function `f_localizerlink_getid` (this)

6.204.1 Detailed Description

Definition at line 91 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.205 `f_localizerlink_class::F_LocalizerLink_new` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_new` (this, `a_planar_localizer`)

6.205.1 Detailed Description

Definition at line 58 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.206 `f_localizerlink_class::F_LocalizerLink_newFromObjectAllocationServer` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_newfromobjectallocationserver` (this, a_object_allocation_server, a_planar_↔localizer)

6.206.1 Detailed Description

Definition at line 66 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.207 `f_localizerlink_class::F_LocalizerLink_setEdgeConnectivity` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_setedgeconnectivity` (this, a_plane_index, a_ptr_to_neighbor)

6.207.1 Detailed Description

Definition at line 99 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.208 `f_localizerlink_class::F_LocalizerLink_setEdgeConnectivityNull` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_setedgeconnectivitynull` (this, a_plane_index)

6.208.1 Detailed Description

Definition at line 108 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.209 `f_localizerlink_class::F_LocalizerLink_setId` Interface Reference

Public Member Functions

- subroutine `f_localizerlink_setid` (this, a_id)

6.209.1 Detailed Description

Definition at line 83 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.210 `f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_addMember` Interface Reference ↩

Public Member Functions

- subroutine `f_lviraneighborhood_rectangularcuboid_addmember` (this, a_rectangular_cuboid, a ↩ volume_fraction)

6.210.1 Detailed Description

Definition at line 97 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.211 `f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_delete` Interface Reference ↩

Public Member Functions

- subroutine `f_lviraneighborhood_rectangularcuboid_delete` (this)

6.211.1 Detailed Description

Definition at line 71 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.212 `f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_emptyNeighborhood` Interface Reference ↩

Public Member Functions

- subroutine `f_lviraneighborhood_rectangularcuboid_emptyneighborhood` (this)

6.212.1 Detailed Description

Definition at line 107 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.213 `f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_new` Interface Reference ↩

Public Member Functions

- subroutine `f_lviraneighborhood_rectangularcuboid_new` (this)

6.213.1 Detailed Description

Definition at line 64 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.214 `f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setCenterOfStencil` Interface Reference ↩

Public Member Functions

- subroutine `f_lviraneighborhood_rectangularcuboid_setcenterofstencil` (this, a_center_cell_index)

6.214.1 Detailed Description

Definition at line 114 of file f_lviraneighborhood_rectangularcuboid_class.f90.

The documentation for this interface was generated from the following file:

- f_lviraneighborhood_rectangularcuboid_class.f90

6.215 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setMember Interface Reference**Public Member Functions**

- subroutine **f_lviraneighborhood_rectangularcuboid_setmember** (this, a_index, a_rectangular_cuboid, a_liquid_volume_fraction)

6.215.1 Detailed Description

Definition at line 86 of file f_lviraneighborhood_rectangularcuboid_class.f90.

The documentation for this interface was generated from the following file:

- f_lviraneighborhood_rectangularcuboid_class.f90

6.216 f_lviraneighborhood_rectangularcuboid_class::F_LVIRANeighborhood_RectangularCuboid_setSize Interface Reference**Public Member Functions**

- subroutine **f_lviraneighborhood_rectangularcuboid_setsize** (this, a_size)

6.216.1 Detailed Description

Definition at line 78 of file f_lviraneighborhood_rectangularcuboid_class.f90.

The documentation for this interface was generated from the following file:

- f_lviraneighborhood_rectangularcuboid_class.f90

6.217 f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_LocalizedSeparatorLink_delete Interface Reference**Public Member Functions**

- subroutine **f_objectallocationserver_localizedseparatorlink_delete** (this)

6.217.1 Detailed Description

Definition at line 50 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.218 `f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer↔_LocalizedSeparatorLink_new` Interface Reference

Public Member Functions

- subroutine `f_objectallocationserver_localizedseparatorlink_new` (this, a_number_to_allocate)

6.218.1 Detailed Description

Definition at line 42 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.219 `f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_Localizer↔Link_delete` Interface Reference

Public Member Functions

- subroutine `f_objectallocationserver_localizerlink_delete` (this)

6.219.1 Detailed Description

Definition at line 50 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.220 `f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_Localizer↔Link_new` Interface Reference

Public Member Functions

- subroutine `f_objectallocationserver_localizerlink_new` (this, a_number_to_allocate)

6.220.1 Detailed Description

Definition at line 42 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.221 **f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_delete** Interface Reference

Public Member Functions

- subroutine **f_objectallocationserver_planarlocalizer_delete** (this)

6.221.1 Detailed Description

Definition at line 50 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarlocalizer_class.f90](#)

6.222 **f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_new** Interface Reference

Public Member Functions

- subroutine **f_objectallocationserver_planarlocalizer_new** (this, a_number_to_allocate)

6.222.1 Detailed Description

Definition at line 42 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarlocalizer_class.f90](#)

6.223 **f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_delete** Interface Reference

Public Member Functions

- subroutine **f_objectallocationserver_planarseparator_delete** (this)

6.223.1 Detailed Description

Definition at line 50 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarseparator_class.f90](#)

6.224 `f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_new` Interface Reference

Public Member Functions

- subroutine `f_objectallocationserver_planarseparator_new` (this, a_number_to_allocate)

6.224.1 Detailed Description

Definition at line 42 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarseparator_class.f90](#)

6.225 `f_planarlocalizer_class::F_PlanarLocalizer_addPlane` Interface Reference

Public Member Functions

- subroutine `f_planarlocalizer_addplane` (this, a_normal, a_distance)

6.225.1 Detailed Description

Definition at line 82 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.226 `f_planarlocalizer_class::F_PlanarLocalizer_delete` Interface Reference

Public Member Functions

- subroutine `f_planarlocalizer_delete` (this)

6.226.1 Detailed Description

Definition at line 75 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.227 `f_planarlocalizer_class::F_PlanarLocalizer_new` Interface Reference

Public Member Functions

- subroutine `f_planarlocalizer_new` (this)

6.227.1 Detailed Description

Definition at line 60 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.228 `f_planarlocalizer_class::F_PlanarLocalizer_newFromObjectAllocationServer` Interface Reference

Public Member Functions

- subroutine `f_planarlocalizer_newfromobjectallocationserver` (this, `a_object_allocation_server`)

6.228.1 Detailed Description

Definition at line 67 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.229 `f_planarlocalizer_class::F_PlanarLocalizer_printToScreen` Interface Reference

Public Member Functions

- subroutine `f_planarlocalizer_printtoscreen` (this)

6.229.1 Detailed Description

Definition at line 118 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.230 `f_planarlocalizer_class::F_PlanarLocalizer_setFromRectangularCuboid` Interface Reference

Public Member Functions

- subroutine **`f_planarlocalizer_setfromrectangularcuboid`** (this, a_lower_pt, a_upper_pt)

6.230.1 Detailed Description

Definition at line 109 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.231 `f_planarlocalizer_class::F_PlanarLocalizer_setNumberOfPlanes` Interface Reference

Public Member Functions

- subroutine **`f_planarlocalizer_setnumberofplanes`** (this, a_number_to_set)

6.231.1 Detailed Description

Definition at line 91 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.232 `f_planarlocalizer_class::F_PlanarLocalizer_setPlane` Interface Reference

Public Member Functions

- subroutine **`f_planarlocalizer_setplane`** (this, a_plane_index_to_set, a_normal, a_distance)

6.232.1 Detailed Description

Definition at line 99 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.233 `f_planarseparator_class::F_PlanarSeparator_addPlane` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_addplane` (this, a_normal, a_distance)

6.233.1 Detailed Description

Definition at line 92 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.234 `f_planarseparator_class::F_PlanarSeparator_copy` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_copy` (this, a_other_PlanarSeparator)

6.234.1 Detailed Description

Definition at line 119 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.235 `f_planarseparator_class::F_PlanarSeparator_delete` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_delete` (this)

6.235.1 Detailed Description

Definition at line 85 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.236 `f_planarseparator_class::F_PlanarSeparator_getNumberOfPlanes` Interface Reference

Public Member Functions

- `integer(c_int) function f_planarseparator_getnumberofplanes` (this)

6.236.1 Detailed Description

Definition at line 127 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.237 `f_planarseparator_class::F_PlanarSeparator_getPlane` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_getplane` (this, `a_index`, `a_plane_listed`)

6.237.1 Detailed Description

Definition at line 135 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.238 `f_planarseparator_class::F_PlanarSeparator_isFlipped` Interface Reference

Public Member Functions

- `logical(c_bool) function f_planarseparator_isflipped` (this)

6.238.1 Detailed Description

Definition at line 144 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.239 `f_planarseparator_class::F_PlanarSeparator_new` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_new` (this)

6.239.1 Detailed Description

Definition at line 70 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.240 `f_planarseparator_class::F_PlanarSeparator_newFromObjectAllocationServer` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_newfromobjectallocationserver` (this, a_object_allocation_server)

6.240.1 Detailed Description

Definition at line 77 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.241 `f_planarseparator_class::F_PlanarSeparator_printToScreen` Interface Reference

Public Member Functions

- subroutine `f_planarseparator_printtoscreen` (this)

6.241.1 Detailed Description

Definition at line 152 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.242 `f_planarseparator_class::F_PlanarSeparator_setNumberOfPlanes` Interface Reference

Public Member Functions

- subroutine **f_planarseparator_setnumberofplanes** (this, a_number_to_set)

6.242.1 Detailed Description

Definition at line 101 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.243 `f_planarseparator_class::F_PlanarSeparator_setPlane` Interface Reference

Public Member Functions

- subroutine **f_planarseparator_setplane** (this, a_plane_index_to_set, a_normal, a_distance)

6.243.1 Detailed Description

Definition at line 109 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.244 `f_polygon_class::F_Polygon_calculateAndSetPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine **f_polygon_calculateandsetplaneofexistence** (this)

6.244.1 Detailed Description

Definition at line 227 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.245 `f_polygon_class::F_Polygon_calculateCentroid` Interface Reference

Public Member Functions

- subroutine `f_polygon_calculatecentroid` (this, a_centroid)

6.245.1 Detailed Description

Definition at line 242 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.246 `f_polygon_class::F_Polygon_calculateNearestPtOnSurface` Interface Reference

Public Member Functions

- subroutine `f_polygon_calculatenearestptonsurface` (this, a_pt, a_pt_on_polygon)

6.246.1 Detailed Description

Definition at line 194 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.247 `f_polygon_class::F_Polygon_calculateNormal` Interface Reference

Public Member Functions

- subroutine `f_polygon_calculatenormal` (this, a_normal)

6.247.1 Detailed Description

Definition at line 121 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.248 f_polygon_class::F_Polygon_calculateSign Interface Reference

Public Member Functions

- `real(c_double)` function **f_polygon_calculatesign** (this)

6.248.1 Detailed Description

Definition at line 211 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.249 f_polygon_class::F_Polygon_calculateVolume Interface Reference

Public Member Functions

- `real(c_double)` function **f_polygon_calculatevolume** (this)

6.249.1 Detailed Description

Definition at line 203 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.250 f_polygon_class::F_Polygon_construct Interface Reference

Public Member Functions

- subroutine **f_polygon_construct** (this, a_npts, a_pts)

6.250.1 Detailed Description

Definition at line 112 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.251 `f_polygon_class::F_Polygon_delete` Interface Reference

Public Member Functions

- subroutine `f_polygon_delete` (this)

6.251.1 Detailed Description

Definition at line 105 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.252 `f_polygon_class::F_Polygon_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_polygon_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.252.1 Detailed Description

Definition at line 144 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.253 `f_polygon_class::F_Polygon_getLocalizer` Interface Reference

Public Member Functions

- subroutine `f_polygon_getlocalizer` (this, a_planar_localizer)

6.253.1 Detailed Description

Definition at line 129 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.254 `f_polygon_class::F_Polygon_getNumberOfPts` Interface Reference

Public Member Functions

- integer(`c_int`) function `f_polygon_getnumberofpts` (this)

6.254.1 Detailed Description

Definition at line 153 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.255 `f_polygon_class::F_Polygon_getNumberOfSimplicesInDecomposition` Interface Reference

Public Member Functions

- integer(`c_int`) function `f_polygon_getnumberofsimplicesindecomposition` (this)

6.255.1 Detailed Description

Definition at line 170 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.256 `f_polygon_class::F_Polygon_getPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_polygon_getplaneofexistence` (this, `a_plane`)

6.256.1 Detailed Description

Definition at line 234 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.257 `f_polygon_class::F_Polygon_getPt` Interface Reference

Public Member Functions

- subroutine `f_polygon_getpt` (this, a_index, a_pt)

6.257.1 Detailed Description

Definition at line 161 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.258 `f_polygon_class::F_Polygon_getSimplexFromDecomposition` Interface Reference

Public Member Functions

- subroutine `f_polygon_getsimplexfromdecomposition` (this, a_tri_number_to_get, a_triangle_in_decomposition)

6.258.1 Detailed Description

Definition at line 178 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.259 `f_polygon_class::F_Polygon_new` Interface Reference

Public Member Functions

- subroutine `f_polygon_new` (this)

6.259.1 Detailed Description

Definition at line 98 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.260 f_polygon_class::F_Polygon_printToScreen Interface Reference

Public Member Functions

- subroutine **f_polygon_printtoscreen** (this)

6.260.1 Detailed Description

Definition at line 250 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.261 f_polygon_class::F_Polygon_reversePtOrdering Interface Reference

Public Member Functions

- subroutine **f_polygon_reverseptordering** (this)

6.261.1 Detailed Description

Definition at line 137 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.262 f_polygon_class::F_Polygon_setPlaneOfExistence Interface Reference

Public Member Functions

- subroutine **f_polygon_setplaneofexistence** (this, a_plane)

6.262.1 Detailed Description

Definition at line 219 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.263 `f_polygon_class::F_Polygon_zeroPolygon` Interface Reference

Public Member Functions

- subroutine `f_polygon_zeropolygon` (this)

6.263.1 Detailed Description

Definition at line 187 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.264 `f_polyhedron24_class::F_Polyhedron24_adjustCapToMatchVolume` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_adjustcaptomatchvolume` (this, a_correct_signed_volume)

6.264.1 Detailed Description

Definition at line 80 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.265 `f_polyhedron24_class::F_Polyhedron24_construct` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_construct` (this, a_polyhedron24)

6.265.1 Detailed Description

Definition at line 72 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.266 f_polyhedron24_class::F_Polyhedron24_delete Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_delete** (this)

6.266.1 Detailed Description

Definition at line 65 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.267 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_adjustCapToMatch↔ Volume Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_doubles3_adjustcaptomatchvolume** (this, a_correct_signed_volume)

6.267.1 Detailed Description

Definition at line 85 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.268 f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_construct Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_doubles3_construct** (this, a_polyhedron24, a_data)

6.268.1 Detailed Description

Definition at line 76 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.269 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_delete` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_delete` (this)

6.269.1 Detailed Description

Definition at line 69 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.270 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.270.1 Detailed Description

Definition at line 93 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.271 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getData` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_getdata` (this, a_index, a_data)

6.271.1 Detailed Description

Definition at line 120 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.272 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getPt` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_getpt` (this, a_index, a_pt)

6.272.1 Detailed Description

Definition at line 102 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.273 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_new` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_new` (this)

6.273.1 Detailed Description

Definition at line 62 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.274 `f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setData` Interface Reference

Public Member Functions

- subroutine `f_polyhedron24_doubles3_setdata` (this, a_index, a_data)

6.274.1 Detailed Description

Definition at line 129 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.275 **f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setPt** Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_doubles3_setpt** (this, a_index, a_pt)

6.275.1 Detailed Description

Definition at line 111 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.276 **f_polyhedron24_class::F_Polyhedron24_getBoundingPts** Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_getboundingpts** (this, a_lower_pt, a_upper_pt)

6.276.1 Detailed Description

Definition at line 88 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.277 **f_polyhedron24_class::F_Polyhedron24_getPt** Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_getpt** (this, a_index, a_pt)

6.277.1 Detailed Description

Definition at line 97 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.278 f_polyhedron24_class::F_Polyhedron24_new Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_new** (this)

6.278.1 Detailed Description

Definition at line 58 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.279 f_polyhedron24_class::F_Polyhedron24_setPt Interface Reference

Public Member Functions

- subroutine **f_polyhedron24_setpt** (this, a_index, a_pt)

6.279.1 Detailed Description

Definition at line 106 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.280 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_addMember Interface Reference ↩

Public Member Functions

- subroutine **f_r2pneighborhood_rectangularcuboid_addmember** (this, a_rectangular_cuboid, a_↩ separated_volume_moments)

6.280.1 Detailed Description

Definition at line 100 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.281 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_delete` Interface Reference ↩

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_delete` (this)

6.281.1 Detailed Description

Definition at line 74 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.282 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_emptyNeighborhood` Interface Reference ↩

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_emptyneighborhood` (this)

6.282.1 Detailed Description

Definition at line 110 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.283 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_new` Interface Reference ↩

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_new` (this)

6.283.1 Detailed Description

Definition at line 67 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.284 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setCenterOfStencil` Interface Reference

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_setcenterofstencil` (this, a_center_cell_index)

6.284.1 Detailed Description

Definition at line 117 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.285 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setMember` Interface Reference

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_setmember` (this, a_rectangular_cuboid, a_separated_volume_moments, a_index)

6.285.1 Detailed Description

Definition at line 89 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.286 `f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSize` Interface Reference

Public Member Functions

- subroutine `f_r2pneighborhood_rectangularcuboid_setsize` (this, a_size)

6.286.1 Detailed Description

Definition at line 81 of file f_r2pneighborhood_rectangularcuboid_class.f90.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.287 f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSurfaceArea Interface Reference**Public Member Functions**

- subroutine **f_r2pneighborhood_rectangularcuboid_setsurfacearea** (this, a_surface_area)

6.287.1 Detailed Description

Definition at line 125 of file f_r2pneighborhood_rectangularcuboid_class.f90.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.288 f_reconstructioninterface::F_reconstructionWithAdvectedNormals_ListedVM_VMAN_RC Interface Reference**Public Member Functions**

- subroutine **f_reconstructionwithadvectednormals_listedvm_vman_rc** (a_volume_moments_list, a_neighborhood, a_two_plane_threshold, a_planar_separator)

6.288.1 Detailed Description

Definition at line 229 of file f_reconstructioninterface.f90.

The documentation for this interface was generated from the following file:

- [f_reconstructioninterface.f90](#)

6.289 f_reconstructioninterface::F_reconstructionWithAdvectedNormalsDebug_ListedVM_VMAN_RC Interface Reference**Public Member Functions**

- subroutine **f_reconstructionwithadvectednormalsdebug_listedvm_vman_rc** (a_volume_moments_list, a_neighborhood, a_two_plane_threshold, a_planar_separator)

6.289.1 Detailed Description

Definition at line 242 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.290 `f_reconstructioninterface::F_reconstructionWithELVIRA2D` Interface Reference

Public Member Functions

- subroutine `f_reconstructionwithelvira2d` (`a_ELVIRANeighborhood`, `a_planar_separator`)

6.290.1 Detailed Description

Definition at line 103 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.291 `f_reconstructioninterface::F_reconstructionWithELVIRA3D` Interface Reference

Public Member Functions

- subroutine `f_reconstructionwithelvira3d` (`a_ELVIRANeighborhood`, `a_planar_separator`)

6.291.1 Detailed Description

Definition at line 114 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.292 `f_reconstructioninterface::F_reconstructionWithLVIRA2D_RC` Interface Reference

Public Member Functions

- subroutine `f_reconstructionwithlvira2d_rc` (`a_neighborhood`, `a_planar_separator`)

6.292.1 Detailed Description

Definition at line 299 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.293 **f_reconstructioninterface::F_reconstructionWithLVIRA3D_RC** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithlvira3d_rc** (`a_neighborhood`, `a_planar_separator`)

6.293.1 Detailed Description

Definition at line 310 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.294 **f_reconstructioninterface::F_reconstructionWithMOF2D_RectangularCuboid** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithmof2d_rectangularcuboid** (`a_rectangular_cuboid`, `a_separated_volume_moments`, `a_planar_separator`)

6.294.1 Detailed Description

Definition at line 125 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.295 **f_reconstructioninterface::F_reconstructionWithMOF2D_Tri** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithmof2d_tri** (`a_tri`, `a_separated_volume_moments`, `a_planar_separator`)

6.295.1 Detailed Description

Definition at line 177 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.296 `f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_Rectangular`↔ Cuboid Interface Reference

Public Member Functions

- subroutine **`f_reconstructionwithmof2dgiveweights_rectangularcuboid`** (`a_rectangular_cuboid`, `a_separated_volume_moments`, `a_internal_weight`, `a_external_weight`, `a_planar_separator`)↔

6.296.1 Detailed Description

Definition at line 149 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.297 `f_reconstructioninterface::F_reconstructionWithMOF2DGiveWeights_Tri` Interface Reference

Public Member Functions

- subroutine **`f_reconstructionwithmof2dgiveweights_tri`** (`a_tri`, `a_separated_volume_moments`, `a_internal_weight`, `a_external_weight`, `a_planar_separator`)↔

6.297.1 Detailed Description

Definition at line 189 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.298 **f_reconstructioninterface::F_reconstructionWithMOF3D_RectangularCuboid** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithmof3d_rectangularcuboid** (a_rectangular_cuboid, a_separated_↔ volume_moments, a_planar_separator)

6.298.1 Detailed Description

Definition at line 137 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.299 **f_reconstructioninterface::F_reconstructionWithMOF3D_Tet** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithmof3d_tet** (a_tet, a_separated_volume_moments, a_planar_separator)

6.299.1 Detailed Description

Definition at line 203 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.300 **f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_Rectangular↔ Cuboid** Interface Reference

Public Member Functions

- subroutine **f_reconstructionwithmof3dgiveweights_rectangularcuboid** (a_rectangular_cuboid, a_↔ separated_volume_moments, a_internal_weight, a_external_weight, a_planar_separator)

6.300.1 Detailed Description

Definition at line 163 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.301 `f_reconstructioninterface::F_reconstructionWithMOF3DGiveWeights_Tet` Interface Reference

Public Member Functions

- subroutine **`f_reconstructionwithmof3dgiveweights_tet`** (`a_tet`, `a_separated_volume_moments`, `a_↔`
`internal_weight`, `a_external_weight`, `a_planar_separator`)

6.301.1 Detailed Description

Definition at line 215 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.302 `f_reconstructioninterface::F_reconstructionWithR2P2D_RC` Interface Reference

Public Member Functions

- subroutine **`f_reconstructionwithr2p2d_rc`** (`a_neighborhood`, `a_planar_separator`)

6.302.1 Detailed Description

Definition at line 255 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.303 `f_reconstructioninterface::F_reconstructionWithR2P2DDebug_RC` Interface Reference

Public Member Functions

- subroutine **`f_reconstructionwithr2p2ddebug_rc`** (`a_neighborhood`, `a_planar_separator`)

6.303.1 Detailed Description

Definition at line 277 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.304 `f_reconstructioninterface::F_reconstructionWithR2P3D_RC` Interface Reference

Public Member Functions

- subroutine `f_reconstructionwithr2p3d_rc` (`a_neighborhood`, `a_planar_separator`)

6.304.1 Detailed Description

Definition at line 266 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.305 `f_reconstructioninterface::F_reconstructionWithR2P3DDebug_RC` Interface Reference

Public Member Functions

- subroutine `f_reconstructionwithr2p3ddebug_rc` (`a_neighborhood`, `a_planar_separator`)

6.305.1 Detailed Description

Definition at line 288 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.306 `f_rectangularcuboid_class::F_RectangularCuboid_calculateVolume` Interface Reference

Public Member Functions

- `real(c_double)` function `f_rectangularcuboid_calculatevolume` (`this`)

6.306.1 Detailed Description

Definition at line 85 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.307 `f_rectangularcuboid_class::F_RectangularCuboid_construct` Interface Reference

Public Member Functions

- subroutine `f_rectangularcuboid_construct` (this, a_transport cell)

6.307.1 Detailed Description

Definition at line 68 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.308 `f_rectangularcuboid_class::F_RectangularCuboid_construct_2pt` Interface Reference

Public Member Functions

- subroutine `f_rectangularcuboid_construct_2pt` (this, a_lower_pt, a_upper_pt)

6.308.1 Detailed Description

Definition at line 76 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.309 `f_rectangularcuboid_class::F_RectangularCuboid_delete` Interface Reference

Public Member Functions

- subroutine `f_rectangularcuboid_delete` (this)

6.309.1 Detailed Description

Definition at line 61 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.310 `f_rectangularcuboid_class::F_RectangularCuboid_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_rectangularcuboid_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.310.1 Detailed Description

Definition at line 93 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.311 `f_rectangularcuboid_class::F_RectangularCuboid_new` Interface Reference

Public Member Functions

- subroutine `f_rectangularcuboid_new` (this)

6.311.1 Detailed Description

Definition at line 54 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.312 `f_sepvm_class::F_SepVM_construct` Interface Reference

Public Member Functions

- subroutine `f_sepvm_construct` (this, a_moments_list)

6.312.1 Detailed Description

Definition at line 77 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.313 `f_sepvm_class::F_SepVM_delete` Interface Reference

Public Member Functions

- subroutine `f_sepvm_delete` (this)

6.313.1 Detailed Description

Definition at line 70 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.314 `f_sepvm_doubles3_class::F_SepVM_doubles3_delete` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_delete` (this)

6.314.1 Detailed Description

Definition at line 69 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.315 `f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroid` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_getcentroid` (this, a_index, a_centroid)

6.315.1 Detailed Description

Definition at line 99 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.316 `f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroidPtr` Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_sepvm_doubles3_getcentroidptr` (`this`, `a_index`)

6.316.1 Detailed Description

Definition at line 126 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.317 `f_sepvm_doubles3_class::F_SepVM_doubles3_getData` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_getdata` (`this`, `a_index`, `a_data`)

6.317.1 Detailed Description

Definition at line 108 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.318 `f_sepvm_doubles3_class::F_SepVM_doubles3_getVolume` Interface Reference

Public Member Functions

- `real(c_double)` function `f_sepvm_doubles3_getvolume` (`this`, `a_index`)

6.318.1 Detailed Description

Definition at line 90 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.319 `f_sepvm_doubles3_class::F_SepVM_doubles3_getVolumePtr` Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_sepvm_doubles3_getvolumeptr` (this, a_index)

6.319.1 Detailed Description

Definition at line 117 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.320 `f_sepvm_doubles3_class::F_SepVM_doubles3_multiplyByVolume` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_multiplybyvolume` (this)

6.320.1 Detailed Description

Definition at line 83 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.321 `f_sepvm_doubles3_class::F_SepVM_doubles3_new` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_new` (this)

6.321.1 Detailed Description

Definition at line 62 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.322 `f_sepvm_doubles3_class::F_SepVM_doubles3_normalizeByVolume` Interface Reference

Public Member Functions

- subroutine `f_sepvm_doubles3_normalizebyvolume` (this)

6.322.1 Detailed Description

Definition at line 76 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.323 `f_sepvm_class::F_SepVM_getCentroid` Interface Reference

Public Member Functions

- subroutine `f_sepvm_getcentroid` (this, a_index, a_centroid)

6.323.1 Detailed Description

Definition at line 108 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.324 `f_sepvm_class::F_SepVM_getCentroidPtr` Interface Reference

Public Member Functions

- type(`c_ptr`) function `f_sepvm_getcentroidptr` (this, a_index)

6.324.1 Detailed Description

Definition at line 126 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.325 `f_sepvm_class::F_SepVM_getVolume` Interface Reference

Public Member Functions

- `real(c_double)` function `f_sepvm_getvolume` (this, a_index)

6.325.1 Detailed Description

Definition at line 99 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.326 `f_sepvm_class::F_SepVM_getVolumePtr` Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_sepvm_getvolumeptr` (this, a_index)

6.326.1 Detailed Description

Definition at line 117 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.327 `f_sepvm_class::F_SepVM_multiplyByVolume` Interface Reference

Public Member Functions

- subroutine `f_sepvm_multiplybyvolume` (this)

6.327.1 Detailed Description

Definition at line 92 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.328 `f_sepvm_class::F_SepVM_new` Interface Reference

Public Member Functions

- subroutine **`f_sepvm_new`** (this)

6.328.1 Detailed Description

Definition at line 63 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.329 `f_sepvm_class::F_SepVM_normalizeByVolume` Interface Reference

Public Member Functions

- subroutine **`f_sepvm_normalizebyvolume`** (this)

6.329.1 Detailed Description

Definition at line 85 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.330 `f_serializer::F_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer` Interface Reference

Public Member Functions

- subroutine **`f_serializer_serializeandpack_planarseparator_bytebuffer`** (`a_separator`, `a_byte_buffer`)

6.330.1 Detailed Description

Definition at line 38 of file `f_serializer.f90`.

The documentation for this interface was generated from the following file:

- [f_serializer.f90](#)

6.331 `f_serializer::F_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer` Interface Reference

Public Member Functions

- subroutine `f_serializer_unpackandstore_planarseparator_bytebuffer` (`a_separator`, `a_byte_buffer`)

6.331.1 Detailed Description

Definition at line 49 of file `f_serializer.f90`.

The documentation for this interface was generated from the following file:

- [f_serializer.f90](#)

6.332 `f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS` Interface Reference

Public Member Functions

- subroutine `f_setdistancetomatchvolumefraction_rc_ps` (`a_rectangular_cuboid`, `a_volume_fraction`, `a_planar_separator`, `a_volume_fraction_tolerance`)

6.332.1 Detailed Description

Definition at line 35 of file `f_volumefractionmatching.f90`.

The documentation for this interface was generated from the following file:

- [f_volumefractionmatching.f90](#)

6.333 `f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS_DefTol` Interface Reference

Public Member Functions

- subroutine `f_setdistancetomatchvolumefraction_rc_ps_deftol` (`a_rectangular_cuboid`, `a_volume_fraction`, `a_planar_separator`)

6.333.1 Detailed Description

Definition at line 48 of file `f_volumefractionmatching.f90`.

The documentation for this interface was generated from the following file:

- [f_volumefractionmatching.f90](#)

6.334 **f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_↵** **append** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumlistedvm_vman_append** (this, a_other_list)

6.334.1 Detailed Description

Definition at line 81 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.335 **f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_clear** **Interface Reference**

Public Member Functions

- subroutine **f_tagged_accumlistedvm_vman_clear** (this)

6.335.1 Detailed Description

Definition at line 89 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.336 **f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_delete** **Interface Reference**

Public Member Functions

- subroutine **f_tagged_accumlistedvm_vman_delete** (this)

6.336.1 Detailed Description

Definition at line 65 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.337 `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_get↔` ListAtIndex Interface Reference

Public Member Functions

- subroutine `f_tagged_accumlistedvm_vman_getlistatindex` (this, a_index, a_other_list)

6.337.1 Detailed Description

Definition at line 72 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.338 `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_get↔` Size Interface Reference

Public Member Functions

- integer(c_int) function `f_tagged_accumlistedvm_vman_getsize` (this)

6.338.1 Detailed Description

Definition at line 96 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.339 `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_get↔` TagForIndex Interface Reference

Public Member Functions

- integer(c_int) function `f_tagged_accumlistedvm_vman_gettagforindex` (this, a_index)

6.339.1 Detailed Description

Definition at line 104 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.340 **f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_new** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumlistedvm_vman_new** (this)

6.340.1 Detailed Description

Definition at line 58 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.341 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_delete** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_sepvm_delete** (this)

6.341.1 Detailed Description

Definition at line 78 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.342 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAt**↵ Index Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_sepvm_getcentroidatindex** (this, a_list_index, a_index, a_centroid)

6.342.1 Detailed Description

Definition at line 109 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.343 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAt**↔ Tag Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_sepvm_getcentroidattag** (this, a_tag, a_index, a_centroid)

6.343.1 Detailed Description

Definition at line 129 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.344 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidPtr**↔ AtIndex Interface Reference

Public Member Functions

- type(c_ptr) function **f_tagged_accumvm_sepvm_getcentroidptratindex** (this, a_list_index, a_index)

6.344.1 Detailed Description

Definition at line 149 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.345 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getSize** Inter- face Reference

Public Member Functions

- integer(c_int) function **f_tagged_accumvm_sepvm_getsize** (this)

6.345.1 Detailed Description

Definition at line 159 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.346 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getTagForIndex** Interface Reference

Public Member Functions

- integer(c_int) function **f_tagged_accumvm_sepvm_gettagforindex** (this, a_index)

6.346.1 Detailed Description

Definition at line 167 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.347 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAt** Index Interface Reference

Public Member Functions

- real(c_double) function **f_tagged_accumvm_sepvm_getvolumeatindex** (this, a_list_index, a_index)

6.347.1 Detailed Description

Definition at line 99 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.348 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtTag** Interface Reference

Public Member Functions

- real(c_double) function **f_tagged_accumvm_sepvm_getvolumeattag** (this, a_tag, a_index)

6.348.1 Detailed Description

Definition at line 119 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.349 `f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumePtr`↔ AtIndex Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_tagged_accumvm_sepvm_getvolumepratrindex` (this, a_list_index, a_index)

6.349.1 Detailed Description

Definition at line 139 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.350 `f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_multiplyBy`↔ Volume Interface Reference

Public Member Functions

- subroutine `f_tagged_accumvm_sepvm_multiplybyvolume` (this)

6.350.1 Detailed Description

Definition at line 92 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.351 `f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_new` Interface Reference

Public Member Functions

- subroutine `f_tagged_accumvm_sepvm_new` (this)

6.351.1 Detailed Description

Definition at line 71 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.352 **f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_normalizeByVolume** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_sepvm_normalizebyvolume** (this)

6.352.1 Detailed Description

Definition at line 85 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.353 **f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_delete** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_vm_delete** (this)

6.353.1 Detailed Description

Definition at line 72 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.354 **f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidAtIndex** Interface Reference

Public Member Functions

- subroutine **f_tagged_accumvm_vm_getcentroidatindex** (this, a_list_index, a_centroid)

6.354.1 Detailed Description

Definition at line 102 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.355 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidPtrAtIndex` Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_tagged_accumvm_vm_getcentroidptratindex` (this, a_list_index)

6.355.1 Detailed Description

Definition at line 120 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.356 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getSize` Interface Reference

Public Member Functions

- `integer(c_int)` function `f_tagged_accumvm_vm_getsize` (this)

6.356.1 Detailed Description

Definition at line 129 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.357 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getTagForIndex` Interface Reference

Public Member Functions

- `integer(c_int)` function `f_tagged_accumvm_vm_gettagforindex` (this, a_index)

6.357.1 Detailed Description

Definition at line 137 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.358 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumeAtIndex` Interface Reference

Public Member Functions

- `real(c_double)` function `f_tagged_accumvm_vm_getvolumeatindex` (this, `a_list_index`)

6.358.1 Detailed Description

Definition at line 93 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.359 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumePtrAtIndex` Interface Reference

Public Member Functions

- `type(c_ptr)` function `f_tagged_accumvm_vm_getvolumeptratindex` (this, `a_list_index`)

6.359.1 Detailed Description

Definition at line 111 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.360 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_multiplyByVolume` Interface Reference

Public Member Functions

- subroutine `f_tagged_accumvm_vm_multiplybyvolume` (this)

6.360.1 Detailed Description

Definition at line 86 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.361 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_new` Interface Reference

Public Member Functions

- subroutine `f_tagged_accumvm_vm_new` (this)

6.361.1 Detailed Description

Definition at line 65 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.362 `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_normalizeByVolume` Interface Reference

Public Member Functions

- subroutine `f_tagged_accumvm_vm_normalizebyvolume` (this)

6.362.1 Detailed Description

Definition at line 79 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.363 `f_tet_class::F_Tet_construct` Interface Reference

Public Member Functions

- subroutine `f_tet_construct` (this, a_Tet_pts)

6.363.1 Detailed Description

Definition at line 62 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.364 `f_tet_class::F_Tet_delete` Interface Reference

Public Member Functions

- subroutine `f_tet_delete` (this)

6.364.1 Detailed Description

Definition at line 55 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.365 `f_tet_class::F_Tet_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_tet_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.365.1 Detailed Description

Definition at line 70 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.366 `f_tet_class::F_Tet_new` Interface Reference

Public Member Functions

- subroutine `f_tet_new` (this)

6.366.1 Detailed Description

Definition at line 48 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.367 `f_tri_class::F_Tri_calculateAndSetPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_tri_calculateandsetplaneofexistence` (this)

6.367.1 Detailed Description

Definition at line 173 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.368 `f_tri_class::F_Tri_calculateCentroid` Interface Reference

Public Member Functions

- subroutine `f_tri_calculatecentroid` (this, a_centroid)

6.368.1 Detailed Description

Definition at line 117 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.369 `f_tri_class::F_Tri_calculateNormal` Interface Reference

Public Member Functions

- subroutine `f_tri_calculatenormal` (this, a_normal)

6.369.1 Detailed Description

Definition at line 125 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.370 `f_tri_class::F_Tri_calculateSign` Interface Reference

Public Member Functions

- `real(c_double)` function **`f_tri_calculatesign`** (this)

6.370.1 Detailed Description

Definition at line 157 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.371 `f_tri_class::F_Tri_calculateVolume` Interface Reference

Public Member Functions

- `real(c_double)` function **`f_tri_calculatevolume`** (this)

6.371.1 Detailed Description

Definition at line 109 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.372 `f_tri_class::F_Tri_construct` Interface Reference

Public Member Functions

- subroutine **`f_tri_construct`** (this, `a_pts`)

6.372.1 Detailed Description

Definition at line 93 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.373 `f_tri_class::F_Tri_delete` Interface Reference

Public Member Functions

- subroutine `f_tri_delete` (this)

6.373.1 Detailed Description

Definition at line 86 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.374 `f_tri_class::F_Tri_getBoundingPts` Interface Reference

Public Member Functions

- subroutine `f_tri_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.374.1 Detailed Description

Definition at line 148 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.375 `f_tri_class::F_Tri_getLocalizer` Interface Reference

Public Member Functions

- subroutine `f_tri_getlocalizer` (this, a_planar_localizer)

6.375.1 Detailed Description

Definition at line 133 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.376 `f_tri_class::F_Tri_getPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_tri_getplaneofexistence` (this, a_plane)

6.376.1 Detailed Description

Definition at line 180 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.377 `f_tri_class::F_Tri_getVertices` Interface Reference

Public Member Functions

- subroutine `f_tri_getvertices` (this, a_pts)

6.377.1 Detailed Description

Definition at line 101 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.378 `f_tri_class::F_Tri_new` Interface Reference

Public Member Functions

- subroutine `f_tri_new` (this)

6.378.1 Detailed Description

Definition at line 79 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.379 `f_tri_class::F_Tri_reversePtOrdering` Interface Reference

Public Member Functions

- subroutine `f_tri_reverseptordering` (this)

6.379.1 Detailed Description

Definition at line 141 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.380 `f_tri_class::F_Tri_setPlaneOfExistence` Interface Reference

Public Member Functions

- subroutine `f_tri_setplaneofexistence` (this, a_plane)

6.380.1 Detailed Description

Definition at line 165 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.381 `f_vman_class::F_VMAN_delete` Interface Reference

Public Member Functions

- subroutine `f_vman_delete` (this)

6.381.1 Detailed Description

Definition at line 63 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.382 `f_vman_class::F_VMAN_getCentroid` Interface Reference

Public Member Functions

- subroutine `f_vman_getcentroid` (this, a_centroid)

6.382.1 Detailed Description

Definition at line 78 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.383 `f_vman_class::F_VMAN_getNormal` Interface Reference

Public Member Functions

- subroutine `f_vman_getnormal` (this, a_normal)

6.383.1 Detailed Description

Definition at line 86 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.384 `f_vman_class::F_VMAN_getVolume` Interface Reference

Public Member Functions

- subroutine `f_vman_getvolume` (this, a_volume)

6.384.1 Detailed Description

Definition at line 70 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.385 `f_vman_class::F_VMAN_multiplyByVolume` Interface Reference

Public Member Functions

- subroutine `f_vman_multiplybyvolume` (this)

6.385.1 Detailed Description

Definition at line 101 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.386 `f_vman_class::F_VMAN_new` Interface Reference

Public Member Functions

- subroutine `f_vman_new` (this)

6.386.1 Detailed Description

Definition at line 56 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.387 `f_vman_class::F_VMAN_normalizeByVolume` Interface Reference

Public Member Functions

- subroutine `f_vman_normalizebyvolume` (this)

6.387.1 Detailed Description

Definition at line 94 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.388 `f_tet_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`f_tet_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.388.1 Detailed Description

Definition at line 42 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.389 `f_dodecahedron_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`dodecahedron_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.389.1 Detailed Description

Definition at line 44 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.390 `f_cappeddodecahedron_doubles3_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`cappeddodecahedron_doubles3_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.390.1 Detailed Description

Definition at line 50 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.391 `f_polygon_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`polygon_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.391.1 Detailed Description

Definition at line 53 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.392 `f_polyhedron24_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.392.1 Detailed Description

Definition at line 45 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.393 `f_polyhedron24_doubles3_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_doubles3_class_getboundingpts`** (this, a_lower_pt, a_upper_pt)

6.393.1 Detailed Description

Definition at line 44 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.394 `f_dividedpolygon_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine `dividedpolygon_class_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.394.1 Detailed Description

Definition at line 78 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.395 `f_cappeddodecahedron_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine `cappeddodecahedron_class_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.395.1 Detailed Description

Definition at line 50 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.396 `f_rectangularcuboid_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine `rectangularcuboid_class_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.396.1 Detailed Description

Definition at line 48 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.397 `f_tri_class::getboundingpts` Interface Reference

Public Member Functions

- subroutine `tri_class_getboundingpts` (this, a_lower_pt, a_upper_pt)

6.397.1 Detailed Description

Definition at line 60 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.398 `f_sepvm_doubles3_class::getcentroid` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) sepvm_doubles3_class_getcentroid` (this, a_index)

6.398.1 Detailed Description

Definition at line 47 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.399 `f_sepvm_class::getcentroid` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) sepvm_class_getcentroid` (this, a_index)

6.399.1 Detailed Description

Definition at line 50 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.400 **f_vman_class::getcentroid** Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) **vman_class_getcentroid** (this)

6.400.1 Detailed Description

Definition at line 41 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.401 **f_tagged_accumvm_vm_class::getcentroidatindex** Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) **tagged_accumvm_vm_class_getcentroidatindex** (this, a_list↔
index)

6.401.1 Detailed Description

Definition at line 47 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.402 **f_tagged_accumvm_sepvm_class::getcentroidatindex** Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) **tagged_accumvm_sepvm_class_getcentroidatindex** (this, a_list↔
_index, a_index)

6.402.1 Detailed Description

Definition at line 47 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.403 `f_tagged_accumvm_sepvm_class::getcentroidattag` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(3) **`tagged_accumvm_sepvm_class_getcentroidattag`** (this, a_tag, a_index)

6.403.1 Detailed Description

Definition at line 53 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.404 `f_sepvm_class::getcentroidptr` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(:), pointer **`sepvm_class_getcentroidptr`** (this, a_index)

6.404.1 Detailed Description

Definition at line 56 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.405 `f_sepvm_doubles3_class::getcentroidptr` Interface Reference

Public Member Functions

- `real(irl_double)` function, dimension(:), pointer **`sepvm_doubles3_class_getcentroidptr`** (this, a_index)

6.405.1 Detailed Description

Definition at line 56 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.406 `f_tagged_accumvm_vm_class::getcentroidptratindex` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(:)`, pointer **`tagged_accumvm_vm_class_getcentroidptratindex`** (`this`, `a_list_index`)

6.406.1 Detailed Description

Definition at line 53 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.407 `f_tagged_accumvm_sepvm_class::getcentroidptratindex` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(:)`, pointer **`tagged_accumvm_sepvm_class_getcentroidptratindex`** (`this`, `a_list_index`, `a_index`)

6.407.1 Detailed Description

Definition at line 59 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.408 `f_tagged_accumvm_vm_class::getcobject` Interface Reference

Public Member Functions

- `type(c_tagged_accumvm_vm)` function **`tagged_accumvm_vm_class_getcobject`** (`this`)

6.408.1 Detailed Description

Definition at line 35 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.409 `f_bytebuffer_class::getcobject` Interface Reference

Public Member Functions

- `type(c_bytebuffer)` function `bytebuffer_class_getcobject` (this)

6.409.1 Detailed Description

Definition at line 38 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.410 `f_planarlocalizer_class::getcobject` Interface Reference

Public Member Functions

- `type(c_planarlocalizer)` function `planarlocalizer_class_getcobject` (this)

6.410.1 Detailed Description

Definition at line 39 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.411 `f_cappeddodecahedron_class::getcobject` Interface Reference

Public Member Functions

- `type(c_cappeddodecahedron)` function `cappeddodecahedron_class_getcobject` (this)

6.411.1 Detailed Description

Definition at line 38 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.412 `f_objectallocationserver_localizedseparatorlink_class::getcobject` Interface Reference

Public Member Functions

- `type(c_objectallocationserver_localizedseparatorlink)` function `objectallocationserver_localizedseparatorlink_class::getcobject` (this)

6.412.1 Detailed Description

Definition at line 36 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.413 `f_r2pneighborhood_rectangularcuboid_class::getcobject` Interface Reference

Public Member Functions

- `type(c_r2pneighborhood_rectangularcuboid)` function `r2pneighborhood_rectangularcuboid_class::getcobject` (this)

6.413.1 Detailed Description

Definition at line 43 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.414 `f_tri_class::getcobject` Interface Reference

Public Member Functions

- `type(c_tri)` function `tri_class::getcobject` (this)

6.414.1 Detailed Description

Definition at line 36 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.415 `f_objectallocationserver_planarseparator_class::getobject` Interface Reference

Public Member Functions

- `type(c_objectallocationserver_planarseparator)` function `objectallocationserver_planarseparator_class::getobject` (this)

6.415.1 Detailed Description

Definition at line 36 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarseparator_class.f90](#)

6.416 `f_planarseparator_class::getobject` Interface Reference

Public Member Functions

- `type(c_planarseparator)` function `planarseparator_class::getobject` (this)

6.416.1 Detailed Description

Definition at line 39 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.417 `f_lviraneighborhood_rectangularcuboid_class::getobject` Interface Reference

Public Member Functions

- `type(c_lviraneighborhood_rectangularcuboid)` function `lviraneighborhood_rectangularcuboid_class::getobject` (this)

6.417.1 Detailed Description

Definition at line 43 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_lviraneighborhood_rectangularcuboid_class.f90](#)

6.418 `f_polygon_class::getobject` Interface Reference

Public Member Functions

- `type(c_polygon)` function **`polygon_class_getobject`** (this)

6.418.1 Detailed Description

Definition at line 38 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.419 `f_dodecahedron_class::getobject` Interface Reference

Public Member Functions

- `type(c_dodecahedron)` function **`dodecahedron_class_getobject`** (this)

6.419.1 Detailed Description

Definition at line 38 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.420 `f_objectallocationserver_localizerlink_class::getobject` Interface Reference

Public Member Functions

- `type(c_objectallocationserver_localizerlink)` function **`objectallocationserver_localizerlink_class_↔
getobject`** (this)

6.420.1 Detailed Description

Definition at line 36 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.421 `f_vman_class::getcobject` Interface Reference

Public Member Functions

- `type(c_vman)` function `vman_class_getcobject` (this)

6.421.1 Detailed Description

Definition at line 35 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.422 `f_polyhedron24_class::getcobject` Interface Reference

Public Member Functions

- `type(c_polyhedron24)` function `polyhedron24_class_getcobject` (this)

6.422.1 Detailed Description

Definition at line 36 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.423 `f_listedvm_vman_class::getcobject` Interface Reference

Public Member Functions

- `type(c_listedvm_vman)` function `listedvm_vman_class_getcobject` (this)

6.423.1 Detailed Description

Definition at line 38 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_listedvm_vman_class.f90](#)

6.424 `f_dividedpolygon_class::getcobject` Interface Reference

Public Member Functions

- `type(c_dividedpolygon)` function `dividedpolygon_class_getcobject` (this)

6.424.1 Detailed Description

Definition at line 42 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.425 `f_polyhedron24_doubles3_class::getcobject` Interface Reference

Public Member Functions

- `type(c_polyhedron24_doubles3)` function `polyhedron24_doubles3_class_getcobject` (this)

6.425.1 Detailed Description

Definition at line 35 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.426 `f_localizerlink_class::getcobject` Interface Reference

Public Member Functions

- `type(c_localizerlink)` function `localizerlink_class_getcobject` (this)

6.426.1 Detailed Description

Definition at line 40 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.427 `f_localizedseparatorlink_class::getcobject` Interface Reference

Public Member Functions

- `type(c_localizedseparatorlink)` function `localizedseparatorlink_class_getcobject` (this)

6.427.1 Detailed Description

Definition at line 41 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.428 `f_rectangularcuboid_class::getcobject` Interface Reference

Public Member Functions

- `type(c_rectangularcuboid)` function `rectangularcuboid_class_getcobject` (this)

6.428.1 Detailed Description

Definition at line 36 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.429 `f_sepvm_class::getcobject` Interface Reference

Public Member Functions

- `type(c_sepvm)` function `sepvm_class_getcobject` (this)

6.429.1 Detailed Description

Definition at line 38 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.430 `f_elviraneighborhood_class::getcobject` Interface Reference

Public Member Functions

- `type(c_elviraneighborhood)` function `elviraneighborhood_class_getcobject` (this)

6.430.1 Detailed Description

Definition at line 43 of file `f_elviraneighborhood_class.f90`.

The documentation for this interface was generated from the following file:

- `f_elviraneighborhood_class.f90`

6.431 `f_sepvm_doubles3_class::getcobject` Interface Reference

Public Member Functions

- `type(c_sepvm_doubles3)` function `sepvm_doubles3_class_getcobject` (this)

6.431.1 Detailed Description

Definition at line 35 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- `f_sepvm_doubles3_class.f90`

6.432 `f_tagged_accumlistedvm_vman_class::getcobject` Interface Reference

Public Member Functions

- `type(c_tagged_accumlistedvm_vman)` function `tagged_accumlistedvm_vman_class_getcobject` (this)

6.432.1 Detailed Description

Definition at line 36 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_tagged_accumlistedvm_vman_class.f90`

6.433 `f_cappeddodecahedron_doubles3_class::getcobject` Interface Reference

Public Member Functions

- `type(c_cappeddodecahedron_doubles3)` function `cappeddodecahedron_doubles3_class_getcobject` (this)

6.433.1 Detailed Description

Definition at line 38 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.434 `f_tet_class::getcobject` Interface Reference

Public Member Functions

- `type(c_tet)` function `tet_class_getcobject` (this)

6.434.1 Detailed Description

Definition at line 36 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.435 `f_tagged_accumvm_sepvm_class::getcobject` Interface Reference

Public Member Functions

- `type(c_tagged_accumvm_sepvm)` function `tagged_accumvm_sepvm_class_getcobject` (this)

6.435.1 Detailed Description

Definition at line 35 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.436 `f_objectallocationserver_planarlocalizer_class::getcobject` Interface Reference

Public Member Functions

- `type(c_objectallocationserver_planarlocalizer)` function `objectallocationserver_planarlocalizer_class_↔getcobject` (this)

6.436.1 Detailed Description

Definition at line 36 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarlocalizer_class.f90](#)

6.437 `f_polyhedron24_doubles3_class::getdata` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` `polyhedron24_doubles3_class_getdata` (this, `a_index`)

6.437.1 Detailed Description

Definition at line 53 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.438 `f_cappeddodecahedron_doubles3_class::getdata` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` `cappeddodecahedron_doubles3_class_getdata` (this, `a_index`)

6.438.1 Detailed Description

Definition at line 62 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.439 `f_sepvm_doubles3_class::getdata` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` **`sepvm_doubles3_class_getdata`** (`this`, `a_index`)

6.439.1 Detailed Description

Definition at line 50 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.440 `f_localizerlink_class::getid` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`localizerlink_class_getid`** (`this`)

6.440.1 Detailed Description

Definition at line 46 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.441 `f_localizedseparatorlink_class::getid` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`localizedseparatorlink_class_getid`** (`this`)

6.441.1 Detailed Description

Definition at line 47 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.442 `f_tagged_accumlistedm_vman_class::getlistatindex` Interface Reference

Public Member Functions

- subroutine **`tagged_accumlistedm_vman_class_getlistatindex`** (this, a_index, a_other_list)

6.442.1 Detailed Description

Definition at line 39 of file `f_tagged_accumlistedm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedm_vman_class.f90](#)

6.443 `f_tri_class::getlocalizer` Interface Reference

Public Member Functions

- subroutine **`tri_class_getlocalizer`** (this, a_planar_localizer)

6.443.1 Detailed Description

Definition at line 54 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.444 `f_polygon_class::getlocalizer` Interface Reference

Public Member Functions

- subroutine **`polygon_class_getlocalizer`** (this, a_planar_localizer)

6.444.1 Detailed Description

Definition at line 47 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.445 `f_dividedpolygon_class::getlocalizer` Interface Reference

Public Member Functions

- subroutine **`dividedpolygon_class_getlocalizer`** (this, a_planar_localizer)

6.445.1 Detailed Description

Definition at line 70 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.446 `f_listedvm_vman_class::getmoments` Interface Reference

Public Member Functions

- subroutine **`listedvm_vman_class_getmoments`** (this, a_index, a_moments)

6.446.1 Detailed Description

Definition at line 50 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_listedvm_vman_class.f90](#)

6.447 `f_vman_class::getnormal` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) vman_class_getnormal` (this)

6.447.1 Detailed Description

Definition at line 44 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.448 **f_getvolumemoments::getnormalizedvolumemoments** Interface Reference

Public Member Functions

- subroutine **gnvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_cdwd3_by_lsl_for_svmad3** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_p24wd3_by_lsl_for_svmad3** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_tet_by_lsl_for_svm** (a_tet, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_rc_by_ps_for_v** (a_rectangulr_cuboid, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_d_by_ps_for_svm** (a_Dodecahedron, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_cd_by_lsl_for_tagaccumvm_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_d_by_lsl_for_tagaccumvm_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gnvm_rc_by_ps_for_svm** (a_rectangular_cuboid, a_planar_separator, a_moments_to_return)
- subroutine **gnvm_tri_by_pl_for_v** (a_tri, a_planar_localizer, a_moments_to_return)
- subroutine **gnvm_poly_by_pl_for_v** (a_polygon, a_planar_localizer, a_moments_to_return)
- subroutine **gnvm_tri_by_ll_for_tagavm_vm** (a_tri, a_localizer_link, a_moments_to_return)

6.448.1 Detailed Description

Definition at line 46 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.449 **f_planarseparator_class::getnumberofplanes** Interface Reference

Public Member Functions

- integer(irl_unsignedindex_t) function **planarseparator_class_getnumberofplanes** (this)

6.449.1 Detailed Description

Definition at line 54 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.450 `f_polygon_class::getnumberofsimplicesindecomposition` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`polygon_class_getnumberofsimplicesindecomposition`** (this)

6.450.1 Detailed Description

Definition at line 62 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.451 `f_dividedpolygon_class::getnumberofsimplicesindecomposition` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`dividedpolygon_class_getnumberofsimplicesindecomposition`** (this)

6.451.1 Detailed Description

Definition at line 58 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.452 `f_polygon_class::getnumberofvertices` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`polygon_class_getnumberofpts`** (this)

6.452.1 Detailed Description

Definition at line 56 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.453 `f_dividedpolygon_class::getnumberofvertices` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`dividedpolygon_class_getnumberofpts`** (this)

6.453.1 Detailed Description

Definition at line 82 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.454 `f_planarseparator_class::getplane` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(4)` **`planarseparator_class_getplane`** (this, `a_index`)

6.454.1 Detailed Description

Definition at line 57 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.455 `f_polygon_class::getplaneofexistence` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(4)` **`polygon_class_getplaneofexistence`** (this)

6.455.1 Detailed Description

Definition at line 89 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.456 `f_dividedpolygon_class::getplaneofexistence` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(4) dividedpolygon_class_getplaneofexistence (this)`

6.456.1 Detailed Description

Definition at line 110 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.457 `f_tri_class::getplaneofexistence` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(4) tri_class_getplaneofexistence (this)`

6.457.1 Detailed Description

Definition at line 72 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.458 `f_cutpolygon::getplanepolygonfromreconstruction` Interface Reference

Public Member Functions

- subroutine **getplanepolygonfromreconstruction_rc_poly** (`a_rectangular_cuboid`, `a_planar_separator`, `a_plane_index`, `a_polygon`)
- subroutine **getplanepolygonfromreconstruction_rc_divpoly** (`a_rectangular_cuboid`, `a_planar_separator`, `a_plane_index`, `a_divided_polygon`)

6.458.1 Detailed Description

Definition at line 28 of file `f_cutpolygon.f90`.

The documentation for this interface was generated from the following file:

- [f_cutpolygon.f90](#)

6.459 `f_cappeddodecahedron_doubles3_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` **`cappeddodecahedron_doubles3_class_getpt`** (`this`, `a_index`)

6.459.1 Detailed Description

Definition at line 54 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.460 `f_polygon_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` **`polygon_class_getpt`** (`this`, `a_index`)

6.460.1 Detailed Description

Definition at line 59 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.461 `f_polyhedron24_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(3)` **`polyhedron24_class_getpt`** (`this`, `a_index`)

6.461.1 Detailed Description

Definition at line 48 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.462 `f_polyhedron24_doubles3_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) polyhedron24_doubles3_class_getpt` (this, a_index)

6.462.1 Detailed Description

Definition at line 47 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.463 `f_dividedpolygon_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) dividedpolygon_class_getpt` (this, a_index)

6.463.1 Detailed Description

Definition at line 86 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.464 `f_cappeddodecahedron_class::getpt` Interface Reference

Public Member Functions

- `real(irl_double) function, dimension(3) cappeddodecahedron_class_getpt` (this, a_index)

6.464.1 Detailed Description

Definition at line 54 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.465 `f_cutpolygon::getreconstructionsurfacearea` Interface Reference

Public Member Functions

- `real(irl_double)` function **`getreconstructionsurfacearea_rc`** (`a_rectangular_cuboid`, `a_planar_separator`)

6.465.1 Detailed Description

Definition at line 33 of file `f_cutpolygon.f90`.

The documentation for this interface was generated from the following file:

- [f_cutpolygon.f90](#)

6.466 `f_polygon_class::getsimplexfromdecomposition` Interface Reference

Public Member Functions

- subroutine **`polygon_class_getsimplexfromdecomposition`** (`this`, `a_tri_number_to_get`, `a_tri_in_decomposition`)

6.466.1 Detailed Description

Definition at line 65 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.467 `f_dividedpolygon_class::getsimplexfromdecomposition` Interface Reference

Public Member Functions

- subroutine **`dividedpolygon_class_getsimplexfromdecomposition`** (`this`, `a_tri_number_to_get`, `a_tri_in_decomposition`)

6.467.1 Detailed Description

Definition at line 62 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.468 `f_tagged_accumvm_sepvm_class::getsize` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`tagged_accumvm_sepvm_class_getsize`** (this)

6.468.1 Detailed Description

Definition at line 62 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.469 `f_bytebuffer_class::getsize` Interface Reference

Public Member Functions

- `integer(irl_largeoffsetindex_t)` function **`bytebuffer_class_getsize`** (this)

6.469.1 Detailed Description

Definition at line 42 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.470 `f_listedvm_vman_class::getsize` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`listedvm_vman_class_getsize`** (this)

6.470.1 Detailed Description

Definition at line 47 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_listedvm_vman_class.f90](#)

6.471 `f_tagged_accumlistedvm_vman_class::getsize` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function `tagged_accumlistedvm_vman_class_getsize` (this)

6.471.1 Detailed Description

Definition at line 48 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.472 `f_tagged_accumvm_vm_class::getsize` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function `tagged_accumvm_vm_class_getsize` (this)

6.472.1 Detailed Description

Definition at line 56 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.473 `f_tagged_accumlistedvm_vman_class::gettagforindex` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function `tagged_accumlistedvm_vman_class_gettagforindex` (this, `a_index`)

6.473.1 Detailed Description

Definition at line 51 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.474 `f_tagged_accumvm_vm_class::gettagforindex` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`tagged_accumvm_vm_class_gettagforindex`** (`this`, `a_index`)

6.474.1 Detailed Description

Definition at line 59 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.475 `f_tagged_accumvm_sepvm_class::gettagforindex` Interface Reference

Public Member Functions

- `integer(irl_unsignedindex_t)` function **`tagged_accumvm_sepvm_class_gettagforindex`** (`this`, `a_index`)

6.475.1 Detailed Description

Definition at line 65 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.476 `f_tri_class::getvertices` Interface Reference

Public Member Functions

- `real(irl_double)` function, `dimension(1:3, 1:3)` **`tri_class_getvertices`** (`this`)

6.476.1 Detailed Description

Definition at line 42 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.477 `f_vman_class::getvolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`vman_class_getvolume`** (this)

6.477.1 Detailed Description

Definition at line 38 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.478 `f_sepvm_class::getvolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`sepvm_class_getvolume`** (this, `a_index`)

6.478.1 Detailed Description

Definition at line 47 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.479 `f_sepvm_doubles3_class::getvolume` Interface Reference

Public Member Functions

- `real(irl_double)` function **`sepvm_doubles3_class_getvolume`** (this, `a_index`)

6.479.1 Detailed Description

Definition at line 44 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.480 `f_tagged_accumvm_vm_class::getvolumeatindex` Interface Reference

Public Member Functions

- `real(irl_double)` function **`tagged_accumvm_vm_class_getvolumeatindex`** (`this`, `a_list_index`)

6.480.1 Detailed Description

Definition at line 44 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.481 `f_tagged_accumvm_sepvm_class::getvolumeatindex` Interface Reference

Public Member Functions

- `real(irl_double)` function **`tagged_accumvm_sepvm_class_getvolumeatindex`** (`this`, `a_list_index`, `a_index`)

6.481.1 Detailed Description

Definition at line 44 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.482 `f_tagged_accumvm_sepvm_class::getvolumeattag` Interface Reference

Public Member Functions

- `real(irl_double)` function **`tagged_accumvm_sepvm_class_getvolumeattag`** (`this`, `a_tag`, `a_index`)

6.482.1 Detailed Description

Definition at line 50 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.483 **f_getvolumemoments::getvolumemoments** Interface Reference

Public Member Functions

- subroutine **gvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **gvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized_separator_link, a_moments_to_return)
- subroutine **gvm_tri_by_ll_for_tagalvm_vman** (a_tri, a_localizer_link, a_moments_to_return)

6.483.1 Detailed Description

Definition at line 79 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.484 **f_getvolumemoments::getvolumemoments_setmethod** Interface Reference

Public Member Functions

- subroutine **gvm_setmethod** (a_cutting_method)

6.484.1 Detailed Description

Definition at line 41 of file `f_getvolumemoments.f90`.

The documentation for this interface was generated from the following file:

- [f_getvolumemoments.f90](#)

6.485 **f_sepvm_class::getvolumeptr** Interface Reference

Public Member Functions

- `real(irl_double)` function, pointer **sepvm_class_getvolumeptr** (this, a_index)

6.485.1 Detailed Description

Definition at line 53 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.486 `f_sepvm_doubles3_class::getvolumeptr` Interface Reference

Public Member Functions

- `real(irl_double)` function, pointer `sepvm_doubles3_class_getvolumeptr` (this, a_index)

6.486.1 Detailed Description

Definition at line 53 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.487 `f_tagged_accumvm_vm_class::getvolumeptratindex` Interface Reference

Public Member Functions

- `real(irl_double)` function, pointer `tagged_accumvm_vm_class_getvolumeptratindex` (this, a_list_index)

6.487.1 Detailed Description

Definition at line 50 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.488 `f_tagged_accumvm_sepvm_class::getvolumeptratindex` Interface Reference

Public Member Functions

- `real(irl_double)` function, pointer `tagged_accumvm_sepvm_class_getvolumeptratindex` (this, a_list_index, a_index)

6.488.1 Detailed Description

Definition at line 56 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.489 `f_planarseparator_class::isflipped` Interface Reference

Public Member Functions

- logical(1) function `planarseparator_class_isflipped` (this)

6.489.1 Detailed Description

Definition at line 60 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.490 `f_geometriccuttinghelpers::isptinternal` Interface Reference

Public Member Functions

- logical(1) function `isptinternal_ps` (a_pt, a_separator)
- logical(1) function `isptinternal_pl` (a_pt, a_localizer)

6.490.1 Detailed Description

Definition at line 27 of file `f_geometriccuttinghelpers.f90`.

The documentation for this interface was generated from the following file:

- [f_geometriccuttinghelpers.f90](#)

6.491 `f_listedvm_vman_class::listedvm_vman_type` Type Reference

Public Member Functions

- final `listedvm_vman_class_delete`

Private Attributes

- `type(c_listedvm_vman)`, private `c_object`

6.491.1 Detailed Description

Definition at line 28 of file `f_listedvm_vman_class.f90`.

The documentation for this type was generated from the following file:

- `f_listedvm_vman_class.f90`

6.492 `f_localizedseparatorlink_class::localizedseparatorlink_type` Type Reference

Public Member Functions

- final `localizedseparatorlink_class_delete`

Private Attributes

- `type(c_localizedseparatorlink)`, private `c_object`

6.492.1 Detailed Description

Definition at line 31 of file `f_localizedseparatorlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.493 `f_localizerlink_class::localizerlink_type` Type Reference

Public Member Functions

- final `localizerlink_class_delete`

Private Attributes

- `type(c_localizerlink)`, private `c_object`

6.493.1 Detailed Description

Definition at line 30 of file `f_localizerlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_localizerlink_class.f90](#)

6.494 `f_lviraneighborhood_rectangularcuboid_class::lviraneighborhood_rectangularcuboid_type` Type Reference ↩

Public Member Functions

- final `lviraneighborhood_rectangularcuboid_class_delete`

Private Attributes

- `type(c_lviraneighborhood_rectangularcuboid)`, private `c_object`

6.494.1 Detailed Description

Definition at line 33 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this type was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.495 `f_tagged_accumvm_vm_class::multiplybyvolume` Interface Reference

Public Member Functions

- subroutine `tagged_accumvm_vm_class_multiplybyvolume` (this)

6.495.1 Detailed Description

Definition at line 41 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- `f_tagged_accumvm_vm_class.f90`

6.496 `f_tagged_accumvm_sepvm_class::multiplybyvolume` Interface Reference

Public Member Functions

- subroutine `tagged_accumvm_sepvm_class_multiplybyvolume` (this)

6.496.1 Detailed Description

Definition at line 41 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- `f_tagged_accumvm_sepvm_class.f90`

6.497 `f_vman_class::multiplybyvolume` Interface Reference

Public Member Functions

- subroutine `vman_class_multiplybyvolume` (this)

6.497.1 Detailed Description

Definition at line 50 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.498 f_sepvm_class::multiplybyvolume Interface Reference

Public Member Functions

- subroutine **sepvm_class_multiplybyvolume** (this)

6.498.1 Detailed Description

Definition at line 44 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.499 f_sepvm_doubles3_class::multiplybyvolume Interface Reference

Public Member Functions

- subroutine **sepvm_doubles3_class_multiplybyvolume** (this)

6.499.1 Detailed Description

Definition at line 41 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.500 f_objectallocationserver_planarlocalizer_class::new Interface Reference

Public Member Functions

- subroutine **objectallocationserver_planarlocalizer_class_new** (this, a_number_to_allocate)

6.500.1 Detailed Description

Definition at line 33 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarlocalizer_class.f90](#)

6.501 `f_objectallocationserver_planarseparator_class::new` Interface Reference

Public Member Functions

- subroutine `objectallocationserver_planarseparator_class_new` (this, a_number_to_allocate)

6.501.1 Detailed Description

Definition at line 33 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_planarseparator_class.f90](#)

6.502 `f_r2pneighborhood_rectangularcuboid_class::new` Interface Reference

Public Member Functions

- subroutine `r2pneighborhood_rectangularcuboid_class_new` (this)

6.502.1 Detailed Description

Definition at line 40 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.503 `f_cappeddodecahedron_doubles3_class::new` Interface Reference

Public Member Functions

- subroutine `cappeddodecahedron_doubles3_class_new` (this)

6.503.1 Detailed Description

Definition at line 34 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.504 f_tagged_accumvm_sepvm_class::new Interface Reference

Public Member Functions

- subroutine **tagged_accumvm_sepvm_class_new** (this)

6.504.1 Detailed Description

Definition at line 32 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.505 f_cappeddodecahedron_class::new Interface Reference

Public Member Functions

- subroutine **cappeddodecahedron_class_new** (this)

6.505.1 Detailed Description

Definition at line 34 of file `f_cappeddodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_class.f90](#)

6.506 f_dodecahedron_class::new Interface Reference

Public Member Functions

- subroutine **dodecahedron_class_new** (this)

6.506.1 Detailed Description

Definition at line 35 of file `f_dodecahedron_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dodecahedron_class.f90](#)

6.507 `f_objectallocationserver_localizedseparatorlink_class::new` Interface Reference

Public Member Functions

- subroutine **`objectallocationserver_localizedseparatorlink_class_new`** (this, `a_number_to_allocate`)

6.507.1 Detailed Description

Definition at line 33 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.508 `f_tagged_accumlistedvm_vman_class::new` Interface Reference

Public Member Functions

- subroutine **`tagged_accumlistedvm_vman_class_new`** (this)

6.508.1 Detailed Description

Definition at line 33 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.509 `f_listedvm_vman_class::new` Interface Reference

Public Member Functions

- subroutine **`listedvm_vman_class_new`** (this)

6.509.1 Detailed Description

Definition at line 35 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.510 `f_bytebuffer_class::new` Interface Reference

Public Member Functions

- subroutine **`bytebuffer_class_new`** (this)

6.510.1 Detailed Description

Definition at line 34 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.511 `f_tet_class::new` Interface Reference

Public Member Functions

- subroutine **`tet_class_new`** (this)

6.511.1 Detailed Description

Definition at line 33 of file `f_tet_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tet_class.f90](#)

6.512 `f_polyhedron24_doubles3_class::new` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_doubles3_class_new`** (this)

6.512.1 Detailed Description

Definition at line 32 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.513 **f_objectallocationserver_localizerlink_class::new** Interface Reference

Public Member Functions

- subroutine **objectallocationserver_localizerlink_class_new** (this, a_number_to_allocate)

6.513.1 Detailed Description

Definition at line 33 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.514 **f_elviraneighborhood_class::new** Interface Reference

Public Member Functions

- subroutine **elviraneighborhood_class_new** (this)

6.514.1 Detailed Description

Definition at line 40 of file `f_elviraneighborhood_class.f90`.

The documentation for this interface was generated from the following file:

- [f_elviraneighborhood_class.f90](#)

6.515 **f_tagged_accumvm_vm_class::new** Interface Reference

Public Member Functions

- subroutine **tagged_accumvm_vm_class_new** (this)

6.515.1 Detailed Description

Definition at line 32 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.516 f_planarlocalizer_class::new Interface Reference

Public Member Functions

- subroutine **planarlocalizer_class_new** (this)
- subroutine **planarlocalizer_class_newfromobjectallocationserver** (this, a_object_allocation_server)

6.516.1 Detailed Description

Definition at line 35 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.517 f_tri_class::new Interface Reference

Public Member Functions

- subroutine **tri_class_new** (this)

6.517.1 Detailed Description

Definition at line 33 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.518 f_localizedseparatorlink_class::new Interface Reference

Public Member Functions

- subroutine **localizedseparatorlink_class_new** (this, a_planar_localizer, a_planar_separator)
- subroutine **localizedseparatorlink_class_newfromobjectallocationserver** (this, a_object_allocation_server, a_planar_localizer, a_planar_separator)

6.518.1 Detailed Description

Definition at line 37 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.519 `f_rectangularcuboid_class::new` Interface Reference

Public Member Functions

- subroutine `rectangularcuboid_class_new` (this)

6.519.1 Detailed Description

Definition at line 33 of file `f_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_rectangularcuboid_class.f90](#)

6.520 `f_sepvm_class::new` Interface Reference

Public Member Functions

- subroutine `sepvm_class_new` (this)

6.520.1 Detailed Description

Definition at line 32 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.521 `f_sepvm_doubles3_class::new` Interface Reference

Public Member Functions

- subroutine `sepvm_doubles3_class_new` (this)

6.521.1 Detailed Description

Definition at line 32 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.522 f_polygon_class::new Interface Reference

Public Member Functions

- subroutine **polygon_class_new** (this)

6.522.1 Detailed Description

Definition at line 35 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.523 f_dividedpolygon_class::new Interface Reference

Public Member Functions

- subroutine **dividedpolygon_class_new** (this)

6.523.1 Detailed Description

Definition at line 38 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.524 f_polyhedron24_class::new Interface Reference

Public Member Functions

- subroutine **polyhedron24_class_new** (this)

6.524.1 Detailed Description

Definition at line 33 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.525 `f_iviraneighborhood_rectangularcuboid_class::new` Interface Reference

Public Member Functions

- subroutine `iviraneighborhood_rectangularcuboid_class_new` (this)

6.525.1 Detailed Description

Definition at line 40 of file `f_iviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_iviraneighborhood_rectangularcuboid_class.f90`

6.526 `f_localizerlink_class::new` Interface Reference

Public Member Functions

- subroutine `localizerlink_class_new` (this, `a_planar_localizer`)
- subroutine `localizerlink_class_newfromobjectallocationserver` (this, `a_object_allocation_server`, `a_planar_localizer`)

6.526.1 Detailed Description

Definition at line 36 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.527 `f_planarseparator_class::new` Interface Reference

Public Member Functions

- subroutine `planarseparator_class_new` (this)
- subroutine `planarseparator_class_newfromobjectallocationserver` (this, `a_object_allocation_server`)

6.527.1 Detailed Description

Definition at line 35 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.528 f_vman_class::new Interface Reference

Public Member Functions

- subroutine **vman_class_new** (this)

6.528.1 Detailed Description

Definition at line 32 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.529 f_tagged_accumvm_sepvm_class::normalizebyvolume Interface Reference

Public Member Functions

- subroutine **tagged_accumvm_sepvm_class_normalizebyvolume** (this)

6.529.1 Detailed Description

Definition at line 38 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.530 f_tagged_accumvm_vm_class::normalizebyvolume Interface Reference

Public Member Functions

- subroutine **tagged_accumvm_vm_class_normalizebyvolume** (this)

6.530.1 Detailed Description

Definition at line 38 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.531 `f_sepvm_class::normalizebyvolume` Interface Reference

Public Member Functions

- subroutine `sepvm_class_normalizebyvolume` (this)

6.531.1 Detailed Description

Definition at line 41 of file `f_sepvm_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_class.f90](#)

6.532 `f_vman_class::normalizebyvolume` Interface Reference

Public Member Functions

- subroutine `vman_class_normalizebyvolume` (this)

6.532.1 Detailed Description

Definition at line 47 of file `f_vman_class.f90`.

The documentation for this interface was generated from the following file:

- [f_vman_class.f90](#)

6.533 `f_sepvm_doubles3_class::normalizebyvolume` Interface Reference

Public Member Functions

- subroutine `sepvm_doubles3_class_normalizebyvolume` (this)

6.533.1 Detailed Description

Definition at line 38 of file `f_sepvm_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.534 `f_objectallocationserver_localizedseparatorlink_class::objectallocationserver_↵ localizedseparatorlink_type` Type Reference

Public Member Functions

- final `objectallocationserver_localizedseparatorlink_class_delete`

Private Attributes

- `type(c_objectallocationserver_localizedseparatorlink)`, private `c_object`

6.534.1 Detailed Description

Definition at line 27 of file `f_objectallocationserver_localizedseparatorlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_localizedseparatorlink_class.f90](#)

6.535 `f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_↵ _type` Type Reference

Public Member Functions

- final `objectallocationserver_localizerlink_class_delete`

Private Attributes

- `type(c_objectallocationserver_localizerlink)`, private `c_object`

6.535.1 Detailed Description

Definition at line 27 of file `f_objectallocationserver_localizerlink_class.f90`.

The documentation for this type was generated from the following file:

- [f_objectallocationserver_localizerlink_class.f90](#)

6.536 `f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer_type` Type Reference ↩

Public Member Functions

- final `objectallocationserver_planarlocalizer_class_delete`

Private Attributes

- `type(c_objectallocationserver_planarlocalizer)`, private `c_object`

6.536.1 Detailed Description

Definition at line 27 of file `f_objectallocationserver_planarlocalizer_class.f90`.

The documentation for this type was generated from the following file:

- `f_objectallocationserver_planarlocalizer_class.f90`

6.537 `f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator_type` Type Reference ↩

Public Member Functions

- final `objectallocationserver_planarseparator_class_delete`

Private Attributes

- `type(c_objectallocationserver_planarseparator)`, private `c_object`

6.537.1 Detailed Description

Definition at line 27 of file `f_objectallocationserver_planarseparator_class.f90`.

The documentation for this type was generated from the following file:

- `f_objectallocationserver_planarseparator_class.f90`

6.538 `f_planarlocalizer_class::planarlocalizer_type` Type Reference

Public Member Functions

- final `planarlocalizer_class_delete`

Private Attributes

- `type(c_planarlocalizer)`, private `c_object`

6.538.1 Detailed Description

Definition at line 29 of file `f_planarlocalizer_class.f90`.

The documentation for this type was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.539 f_planarseparator_class::planarseparator_type Type Reference

Public Member Functions

- final `planarseparator_class_delete`

Private Attributes

- `type(c_planarseparator)`, private `c_object`

6.539.1 Detailed Description

Definition at line 29 of file `f_planarseparator_class.f90`.

The documentation for this type was generated from the following file:

- [f_planarseparator_class.f90](#)

6.540 f_polygon_class::polygon_type Type Reference

Public Member Functions

- final `polygon_class_delete`

Private Attributes

- `type(c_polygon)`, private `c_object`

6.540.1 Detailed Description

Definition at line 29 of file `f_polygon_class.f90`.

The documentation for this type was generated from the following file:

- [f_polygon_class.f90](#)

6.541 `f_polyhedron24_doubles3_class::polyhedron24_doubles3_type` Type Reference

Public Member Functions

- final `polyhedron24_doubles3_class_delete`

Private Attributes

- `type(c_polyhedron24_doubles3)`, private `c_object`

6.541.1 Detailed Description

Definition at line 26 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this type was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.542 `f_polyhedron24_class::polyhedron24_type` Type Reference

Public Member Functions

- final `polyhedron24_class_delete`

Private Attributes

- `type(c_polyhedron24)`, private `c_object`

6.542.1 Detailed Description

Definition at line 27 of file `f_polyhedron24_class.f90`.

The documentation for this type was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.543 `f_polygon_class::printtoscreen` Interface Reference

Public Member Functions

- subroutine `polygon_class_printtoscreen` (this)

6.543.1 Detailed Description

Definition at line 92 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.544 `f_planarseparator_class::printtoscreen` Interface Reference

Public Member Functions

- subroutine `planarseparator_class_printtoscreen` (this)

6.544.1 Detailed Description

Definition at line 63 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.545 `f_dividedpolygon_class::printtoscreen` Interface Reference

Public Member Functions

- subroutine `dividedpolygon_class_printtoscreen` (this)

6.545.1 Detailed Description

Definition at line 114 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.546 `f_planarlocalizer_class::printtoscreen` Interface Reference

Public Member Functions

- subroutine **`planarlocalizer_class_printtoscreen`** (this)

6.546.1 Detailed Description

Definition at line 54 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.547 `f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid↔_type` Type Reference

Public Member Functions

- final **`r2pneighborhood_rectangularcuboid_class_delete`**

Private Attributes

- type([c_r2pneighborhood_rectangularcuboid](#)), private **`c_object`**

6.547.1 Detailed Description

Definition at line 34 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this type was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.548 `f_reconstructioninterface::reconstructionwithadvectednormals` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithadvectednormals_listedvm_vman_rc`** ([a_volume_moments_list](#), [a↔neighborhood](#), [a_two_plane_threshold](#), [a_planar_separator](#))

6.548.1 Detailed Description

Definition at line 58 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.549 `f_reconstructioninterface::reconstructionwithadvectednormalsdebug` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithadvectednormalsdebug_listedvm_vman_rc`** (`a_volume_moments_list`, `a_neighborhood`, `a_two_plane_threshold`, `a_planar_separator`)

6.549.1 Detailed Description

Definition at line 64 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.550 `f_reconstructioninterface::reconstructionwithlvira2d` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithlvira2d_rc`** (`a_neighborhood`, `a_planar_separator`)

6.550.1 Detailed Description

Definition at line 90 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.551 `f_reconstructioninterface::reconstructionwithlvira3d` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithlvira3d_rc`** (`a_neighborhood`, `a_planar_separator`)

6.551.1 Detailed Description

Definition at line 95 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.552 **f_reconstructioninterface::reconstructionwithmof2d** Interface Reference

Public Member Functions

- subroutine **reconstructionwithmof2d_rectangularcuboid** (`a_rectangular_cuboid`, `a_separated_volume`↔
`_moments`, `a_planar_separator`)
- subroutine **reconstructionwithmof2dgiveweights_rectangularcuboid** (`a_rectangular_cuboid`, `a`↔
`separated_volume_moments`, `a_internal_weight`, `a_external_weight`, `a_planar_separator`)
- subroutine **reconstructionwithmof2d_tri** (`a_tri`, `a_separated_volume_moments`, `a_planar_separator`)
- subroutine **reconstructionwithmof2dgiveweights_tri** (`a_tri`, `a_separated_volume_moments`, `a_internal`↔
`_weight`, `a_external_weight`, `a_planar_separator`)

6.552.1 Detailed Description

Definition at line 36 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.553 **f_reconstructioninterface::reconstructionwithmof3d** Interface Reference

Public Member Functions

- subroutine **reconstructionwithmof3d_rectangularcuboid** (`a_rectangular_cuboid`, `a_separated_volume`↔
`_moments`, `a_planar_separator`)
- subroutine **reconstructionwithmof3dgiveweights_rectangularcuboid** (`a_rectangular_cuboid`, `a`↔
`separated_volume_moments`, `a_internal_weight`, `a_external_weight`, `a_planar_separator`)
- subroutine **reconstructionwithmof3d_tet** (`a_tet`, `a_separated_volume_moments`, `a_planar_separator`)
- subroutine **reconstructionwithmof3dgiveweights_tet** (`a_tet`, `a_separated_volume_moments`, `a_internal`↔
`_weight`, `a_external_weight`, `a_planar_separator`)

6.553.1 Detailed Description

Definition at line 47 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.554 `f_reconstructioninterface::reconstructionwithr2p2d` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithr2p2d_rc`** (`a_neighborhood`, `a_planar_separator`)

6.554.1 Detailed Description

Definition at line 70 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.555 `f_reconstructioninterface::reconstructionwithr2p2ddebug` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithr2p2ddebug_rc`** (`a_neighborhood`, `a_planar_separator`)

6.555.1 Detailed Description

Definition at line 80 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.556 `f_reconstructioninterface::reconstructionwithr2p3d` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithr2p3d_rc`** (`a_neighborhood`, `a_planar_separator`)

6.556.1 Detailed Description

Definition at line 75 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.557 `f_reconstructioninterface::reconstructionwithr2p3ddebug` Interface Reference

Public Member Functions

- subroutine **`reconstructionwithr2p3ddebug_rc`** (`a_neighborhood`, `a_planar_separator`)

6.557.1 Detailed Description

Definition at line 85 of file `f_reconstructioninterface.f90`.

The documentation for this interface was generated from the following file:

- `f_reconstructioninterface.f90`

6.558 `f_rectangularcuboid_class::rectangularcuboid_type` Type Reference

Public Member Functions

- final **`rectangularcuboid_class_delete`**

Private Attributes

- type(`c_rectangularcuboid`), private **`c_object`**

6.558.1 Detailed Description

Definition at line 27 of file `f_rectangularcuboid_class.f90`.

The documentation for this type was generated from the following file:

- `f_rectangularcuboid_class.f90`

6.559 `f_bytebuffer_class::resetbufferpointer` Interface Reference

Public Member Functions

- subroutine **`bytebuffer_class_resetbufferpointer`** (`this`)

6.559.1 Detailed Description

Definition at line 50 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- `f_bytebuffer_class.f90`

6.560 `f_dividedpolygon_class::resetcentroid` Interface Reference

Public Member Functions

- subroutine **`dividedpolygon_class_resetcentroid`** (this)

6.560.1 Detailed Description

Definition at line 54 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.561 `f_polygon_class::reverseptordering` Interface Reference

Public Member Functions

- subroutine **`polygon_class_reverseptordering`** (this)

6.561.1 Detailed Description

Definition at line 50 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.562 `f_dividedpolygon_class::reverseptordering` Interface Reference

Public Member Functions

- subroutine **`dividedpolygon_class_reverseptordering`** (this)

6.562.1 Detailed Description

Definition at line 74 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.563 `f_tri_class::reverseptordering` Interface Reference

Public Member Functions

- subroutine `tri_class_reverseptordering` (this)

6.563.1 Detailed Description

Definition at line 57 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.564 `f_sepvm_doubles3_class::sepvm_doubles3_type` Type Reference

Public Member Functions

- final `sepvm_doubles3_class_delete`

Public Attributes

- type([c_sepvm_doubles3](#)) `c_object`

6.564.1 Detailed Description

Definition at line 26 of file `f_sepvm_doubles3_class.f90`.

The documentation for this type was generated from the following file:

- [f_sepvm_doubles3_class.f90](#)

6.565 `f_sepvm_class::sepvm_type` Type Reference

Public Member Functions

- final `sepvm_class_delete`

Private Attributes

- type([c_sepvm](#)), private `c_object`

6.565.1 Detailed Description

Definition at line 26 of file `f_sepvm_class.f90`.

The documentation for this type was generated from the following file:

- [f_sepvm_class.f90](#)

6.566 `f_serializer::serializeandpack` Interface Reference

Public Member Functions

- subroutine **serializeandpack_planarseparator_bytebuffer** (`a_separator`, `a_byte_buffer`)

6.566.1 Detailed Description

Definition at line 27 of file `f_serializer.f90`.

The documentation for this interface was generated from the following file:

- [f_serializer.f90](#)

6.567 `f_r2pneighborhood_rectangularcuboid_class::setcenterofstencil` Interface Reference

Public Member Functions

- subroutine **r2pneighborhood_rectangularcuboid_class_setcenterofstencil** (`this`, `a_center_cell_index`)

6.567.1 Detailed Description

Definition at line 58 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.568 `f_lviraneighborhood_rectangularcuboid_class::setcenterofstencil` Interface Reference

Public Member Functions

- subroutine **lviraneighborhood_rectangularcuboid_class_setcenterofstencil** (`this`, `a_center_cell_index`)

6.568.1 Detailed Description

Definition at line 58 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.569 `f_cappeddodecahedron_doubles3_class::setdata` Interface Reference

Public Member Functions

- subroutine **`cappeddodecahedron_doubles3_class_setdata`** (this, a_index, a_data)

6.569.1 Detailed Description

Definition at line 66 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.570 `f_polyhedron24_doubles3_class::setdata` Interface Reference

Public Member Functions

- subroutine **`polyhedron24_doubles3_class_setdata`** (this, a_index, a_data)

6.570.1 Detailed Description

Definition at line 56 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.571 `f_volumefractionmatching::setdistancetomatchvolumefraction` Interface Reference

Public Member Functions

- subroutine **`setdistancetomatchvolumefraction_rc_ps`** (a_rectangular_cuboid, a_volume_fraction, a_planar_separator, a_volume_fraction_tolerance)
- subroutine **`setdistancetomatchvolumefraction_rc_ps_deftol`** (a_rectangular_cuboid, a_volume_fraction, a_planar_separator)

6.571.1 Detailed Description

Definition at line 26 of file `f_volumefractionmatching.f90`.

The documentation for this interface was generated from the following file:

- [f_volumefractionmatching.f90](#)

6.572 `f_localizerlink_class::setedgeconnectivity` Interface Reference

Public Member Functions

- subroutine **localizerlink_class_setedgeconnectivity** (this, a_plane_index, a_neighboring_LocalizerLink)

6.572.1 Detailed Description

Definition at line 49 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.573 `f_localizedseparatorlink_class::setedgeconnectivity` Interface Reference

Public Member Functions

- subroutine **localizedseparatorlink_class_setedgeconnectivity** (this, a_plane_index, a_neighboring_LocalizedSeparatorLink)

6.573.1 Detailed Description

Definition at line 50 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.574 `f_localizerlink_class::setedgeconnectivitynull` Interface Reference

Public Member Functions

- subroutine **localizerlink_class_setedgeconnectivitynull** (this, a_plane_index)

6.574.1 Detailed Description

Definition at line 52 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.575 `f_localizedseparatorlink_class::setedgeconnectivitynull` Interface Reference

Public Member Functions

- subroutine `localizedseparatorlink_class_setedgeconnectivitynull` (this, a_plane_index)

6.575.1 Detailed Description

Definition at line 53 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.576 `f_planarlocalizer_class::setfromrectangularcuboid` Interface Reference

Public Member Functions

- subroutine `planarlocalizer_class_setfromrectangularcuboid` (this, a_lower_pt, a_upper_pt)

6.576.1 Detailed Description

Definition at line 51 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.577 `f_localizedseparatorlink_class::setid` Interface Reference

Public Member Functions

- subroutine `localizedseparatorlink_class_setid` (this, a_id)

6.577.1 Detailed Description

Definition at line 44 of file `f_localizedseparatorlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizedseparatorlink_class.f90](#)

6.578 f_localizerlink_class::setid Interface Reference

Public Member Functions

- subroutine **localizerlink_class_setid** (this, a_id)

6.578.1 Detailed Description

Definition at line 43 of file `f_localizerlink_class.f90`.

The documentation for this interface was generated from the following file:

- [f_localizerlink_class.f90](#)

6.579 f_lviraneighborhood_rectangularcuboid_class::setmember Interface Reference

Public Member Functions

- subroutine **lviraneighborhood_rectangularcuboid_class_setmember** (this, a_index, a_rectangular_cuboid, a_liquid_volume_fraction)

6.579.1 Detailed Description

Definition at line 49 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_lviraneighborhood_rectangularcuboid_class.f90](#)

6.580 f_elviraneighborhood_class::setmember Interface Reference

Public Member Functions

- subroutine **elviraneighborhood_class_setmember** (this, a_rectangular_cuboid, a_liquid_volume_fraction, i, j, k)

6.580.1 Detailed Description

Definition at line 49 of file `f_elviraneighborhood_class.f90`.

The documentation for this interface was generated from the following file:

- `f_elviraneighborhood_class.f90`

6.581 `f_r2pneighborhood_rectangularcuboid_class::setmember` Interface Reference

Public Member Functions

- subroutine **`r2pneighborhood_rectangularcuboid_class_setmember`** (this, `a_rectangular_cuboid`, `a_separated_volume_moments`, `a_index`)

6.581.1 Detailed Description

Definition at line 49 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.582 `f_planarlocalizer_class::setnumberofplanes` Interface Reference

Public Member Functions

- subroutine **`planarlocalizer_class_setnumberofplanes`** (this, `a_number_to_set`)

6.582.1 Detailed Description

Definition at line 45 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.583 `f_planarseparator_class::setnumberofplanes` Interface Reference

Public Member Functions

- subroutine **`planarseparator_class_setnumberofplanes`** (this, `a_number_to_set`)

6.583.1 Detailed Description

Definition at line 45 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.584 f_planarlocalizer_class::setplane Interface Reference

Public Member Functions

- subroutine **planarlocalizer_class_setplane** (this, a_plane_index_to_set, a_normal, a_distance)

6.584.1 Detailed Description

Definition at line 48 of file `f_planarlocalizer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarlocalizer_class.f90](#)

6.585 f_planarseparator_class::setplane Interface Reference

Public Member Functions

- subroutine **planarseparator_class_setplane** (this, a_plane_index_to_set, a_normal, a_distance)

6.585.1 Detailed Description

Definition at line 48 of file `f_planarseparator_class.f90`.

The documentation for this interface was generated from the following file:

- [f_planarseparator_class.f90](#)

6.586 f_tri_class::setplaneofexistence Interface Reference

Public Member Functions

- subroutine **tri_class_setplaneofexistence** (this, a_plane)

6.586.1 Detailed Description

Definition at line 66 of file `f_tri_class.f90`.

The documentation for this interface was generated from the following file:

- [f_tri_class.f90](#)

6.587 **f_polygon_class::setplaneofexistence** Interface Reference

Public Member Functions

- subroutine **polygon_class_setplaneofexistence** (this, a_plane)

6.587.1 Detailed Description

Definition at line 80 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.588 **f_dividedpolygon_class::setplaneofexistence** Interface Reference

Public Member Functions

- subroutine **dividedpolygon_class_setplaneofexistence** (this, a_plane)

6.588.1 Detailed Description

Definition at line 102 of file `f_dividedpolygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

6.589 **f_cappeddodecahedron_doubles3_class::setpt** Interface Reference

Public Member Functions

- subroutine **cappeddodecahedron_doubles3_class_setpt** (this, a_index, a_pt)

6.589.1 Detailed Description

Definition at line 58 of file `f_cappeddodecahedron_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_cappeddodecahedron_doubles3_class.f90](#)

6.590 f_polyhedron24_doubles3_class::setpt Interface Reference

Public Member Functions

- subroutine **polyhedron24_doubles3_class_setpt** (this, a_index, a_pt)

6.590.1 Detailed Description

Definition at line 50 of file `f_polyhedron24_doubles3_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_doubles3_class.f90](#)

6.591 f_polyhedron24_class::setpt Interface Reference

Public Member Functions

- subroutine **polyhedron24_class_setpt** (this, a_index, a_pt)

6.591.1 Detailed Description

Definition at line 51 of file `f_polyhedron24_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polyhedron24_class.f90](#)

6.592 f_bytebuffer_class::setsize Interface Reference

Public Member Functions

- subroutine **bytebuffer_class_setsize** (this, a_size)

6.592.1 Detailed Description

Definition at line 46 of file `f_bytebuffer_class.f90`.

The documentation for this interface was generated from the following file:

- [f_bytebuffer_class.f90](#)

6.593 `f_elviraneighborhood_class::setsize` Interface Reference

Public Member Functions

- subroutine `elviraneighborhood_class_setsize` (this, a_size)

6.593.1 Detailed Description

Definition at line 46 of file `f_elviraneighborhood_class.f90`.

The documentation for this interface was generated from the following file:

- [f_elviraneighborhood_class.f90](#)

6.594 `f_r2pneighborhood_rectangularcuboid_class::setsize` Interface Reference

Public Member Functions

- subroutine `r2pneighborhood_rectangularcuboid_class_setsize` (this, a_size)

6.594.1 Detailed Description

Definition at line 46 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.595 `f_lviraneighborhood_rectangularcuboid_class::setsize` Interface Reference

Public Member Functions

- subroutine `lviraneighborhood_rectangularcuboid_class_setsize` (this, a_size)

6.595.1 Detailed Description

Definition at line 46 of file `f_lviraneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- `f_lviraneighborhood_rectangularcuboid_class.f90`

6.596 `f_r2pneighborhood_rectangularcuboid_class::setsurfacearea` Interface Reference

Public Member Functions

- subroutine `r2pneighborhood_rectangularcuboid_class_setsurfacearea` (this, a_surface_area)

6.596.1 Detailed Description

Definition at line 61 of file `f_r2pneighborhood_rectangularcuboid_class.f90`.

The documentation for this interface was generated from the following file:

- [f_r2pneighborhood_rectangularcuboid_class.f90](#)

6.597 `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_type` Type Reference

Public Member Functions

- final `tagged_accumlistedvm_vman_class_delete`

Private Attributes

- `type(c_tagged_accumlistedvm_vman)`, private `c_object`

6.597.1 Detailed Description

Definition at line 27 of file `f_tagged_accumlistedvm_vman_class.f90`.

The documentation for this type was generated from the following file:

- [f_tagged_accumlistedvm_vman_class.f90](#)

6.598 `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_type` Type Reference

Public Member Functions

- final `tagged_accumvm_sepvm_class_delete`

Private Attributes

- `type(c_tagged_accumvm_sepvm)`, private `c_object`

6.598.1 Detailed Description

Definition at line 26 of file `f_tagged_accumvm_sepvm_class.f90`.

The documentation for this type was generated from the following file:

- [f_tagged_accumvm_sepvm_class.f90](#)

6.599 `f_tagged_accumvm_vm_class::tagged_accumvm_vm_type` Type Reference

Public Member Functions

- final `tagged_accumvm_vm_class_delete`

Private Attributes

- `type(c_tagged_accumvm_vm)`, private `c_object`

6.599.1 Detailed Description

Definition at line 26 of file `f_tagged_accumvm_vm_class.f90`.

The documentation for this type was generated from the following file:

- [f_tagged_accumvm_vm_class.f90](#)

6.600 `f_tet_class::tet_type` Type Reference

Public Member Functions

- final `tet_class_delete`

Private Attributes

- `type(c_tet)`, private `c_object`

6.600.1 Detailed Description

Definition at line 27 of file `f_tet_class.f90`.

The documentation for this type was generated from the following file:

- [f_tet_class.f90](#)

6.601 f_tri_class::tri_type Type Reference

Public Member Functions

- final `tri_class_delete`

Private Attributes

- `type(c_tri)`, private `c_object`

6.601.1 Detailed Description

Definition at line 27 of file `f_tri_class.f90`.

The documentation for this type was generated from the following file:

- [f_tri_class.f90](#)

6.602 f_serializer::unpackandstore Interface Reference

Public Member Functions

- subroutine `unpackandstore_planarseparator_bytebuffer` (`a_separator`, `a_byte_buffer`)

6.602.1 Detailed Description

Definition at line 32 of file `f_serializer.f90`.

The documentation for this interface was generated from the following file:

- [f_serializer.f90](#)

6.603 `f_vman_class::vman_type` Type Reference

Public Member Functions

- final `vman_class_delete`

Private Attributes

- `type(c_vman)`, private `c_object`

6.603.1 Detailed Description

Definition at line 26 of file `f_vman_class.f90`.

The documentation for this type was generated from the following file:

- [f_vman_class.f90](#)

6.604 `f_listedvm_vman_class::zeronormalcomponent` Interface Reference

Public Member Functions

- subroutine `listedvm_vman_class_zeronormalcomponent` (this, a_index)

6.604.1 Detailed Description

Definition at line 53 of file `f_listedvm_vman_class.f90`.

The documentation for this interface was generated from the following file:

- `f_listedvm_vman_class.f90`

6.605 `f_polygon_class::zeropolygon` Interface Reference

Public Member Functions

- subroutine `polygon_class_zeropolygon` (this)

6.605.1 Detailed Description

Definition at line 68 of file `f_polygon_class.f90`.

The documentation for this interface was generated from the following file:

- [f_polygon_class.f90](#)

6.606 f_dividedpolygon_class::zeropolygon Interface Reference

Public Member Functions

- subroutine **dividedpolygon_class_zeropolygon** (this)

6.606.1 Detailed Description

Definition at line 90 of file f_dividedpolygon_class.f90.

The documentation for this interface was generated from the following file:

- [f_dividedpolygon_class.f90](#)

Chapter 7

File Documentation

7.1 c_constants.h File Reference

```
#include "src/parameters/constants.h"
```

Functions

- void [c_Constants_setVolumeFractionBounds](#) (const double *a_VF_low)
Set VF_LOW and VF_HIGH defined in src/constants.cpp.
- void [c_Constants_setVolumeFractionToleranceForIterativeDistanceFinding](#) (const double *a_tolerance)
Set the volume fraction tolerance for iterative distance finding.
- void [c_Constants_setMinimumVolumeToTrack](#) (const double *a_minimum_volume_to_track)
Function to set MINIMUM_VOLUME_TO_TRACK defined in src/constants.cpp.
- void [c_Constants_setMinimumSurfaceAreaToTrack](#) (const double *a_minimum_surface_area_to_track)
Function to set MINIMUM_SURFACE_AREA_TO_TRACK defined in src/constants.cpp.

7.1.1 Detailed Description

These C-style functions are mapped to functions available in src/constants.h.

This file deals with functions that set global functions involved in the IRL library.

Individual documentation for each function is given alongside the function.

7.1.2 Function Documentation

7.1.2.1 c_Constants_setMinimumSurfaceAreaToTrack()

```
void c_Constants_setMinimumSurfaceAreaToTrack (  
    const double * a_minimum_surface_area_to_track )
```

Function to set MINIMUM_SURFACE_AREA_TO_TRACK defined in src/constants.cpp.

This function sets MINIMUM_SURFACE_AREA_TO_TRACK to the value a_minimum_surface_area_to_track. MINIMUM_SURFACE_AREA_TO_TRACK is primarily used as the terminating condition for the numerical integration and subdivision of polygons, where sub-areas less than MINIMUM_SURFACE_AREA_TO_TRACK will be ignored.

Parameters

| | | |
|----|--|--|
| in | <i>a_minimum_surface_area_to_track</i> | Value to set MINIMUM_SURFACE_AREA_TO_TRACK to. |
|----|--|--|

Definition at line 28 of file c_constants.cpp.

7.1.2.2 c_Constants_setMinimumVolumeToTrack()

```
void c_Constants_setMinimumVolumeToTrack (
    const double * a_minimum_volume_to_track )
```

Function to set MINIMUM_VOLUME_TO_TRACK defined in src/constants.cpp.

This function sets MINIMUM_VOLUME_TO_TRACK to the value *a_minimum_volume_to_track*. MINIMUM_VOLUME_TO_TRACK is primarily used as the terminating condition for the numerical integration and subdivision of polyhedra, where sub-volumes less than MINIMUM_VOLUME_TO_TRACK will be ignored.

Parameters

| | | |
|----|----------------------------------|--|
| in | <i>a_minimum_volume_to_track</i> | Value to set MINIMUM_VOLUME_TO_TRACK to. |
|----|----------------------------------|--|

Definition at line 23 of file c_constants.cpp.

7.1.2.3 c_Constants_setVolumeFractionBounds()

```
void c_Constants_setVolumeFractionBounds (
    const double * a_VF_low )
```

Set VF_LOW and VF_HIGH defined in src/constants.cpp.

This function sets bounds on Volume Fraction (VF), setting VF_LOW and VF_HIGH for all future computations. These are used as threshold values to terminate some computations, especially during calculations of interface reconstructions. VF_HIGH will automatically be set as 1.0 - *a_VF_low* in order to preserve symmetry.

Parameters

| | | |
|----|-----------------|----------------------|
| in | <i>a_VF_low</i> | Value to set VF_LOW. |
|----|-----------------|----------------------|

Definition at line 14 of file c_constants.cpp.

7.1.2.4 c_Constants_setVolumeFractionToleranceForIterativeDistanceFinding()

```
void c_Constants_setVolumeFractionToleranceForIterativeDistanceFinding (
    const double * a_tolerance )
```


Set the volume fraction tolerance for iterative distance finding.

This function sets the default volume fraction tolerance to be used when an iterative distance finding routine is used. It will always be the minimum of `a_tolerance` and `VF_LOW`.

Parameters

| | | |
|----|--------------------------|---|
| in | <code>a_tolerance</code> | Default volume fraction tolerance to use during iterative distance finding. |
|----|--------------------------|---|

Definition at line 18 of file `c_constants.cpp`.

7.2 c_cut_polygon.h File Reference

```
#include "src/c_interface/geometry/polygons/c_divided_polygon.h"
#include "src/c_interface/geometry/polygons/c_polygon.h"
#include "src/c_interface/geometry/polyhedrons/c_rectangular_cuboid.h"
#include "src/c_interface/planar_reconstruction/c_separators.h"
#include "src/generic_cutting/cut_polygon.h"
#include "src/geometry/polygons/tri.h"
```

Functions

- void [c_getPlanePolygonFromReconstruction_RectangularCuboid_Polygon](#) (const [c_RectangularCuboid](#) *a_rectangular_cuboid, const [c_PlanarSeparator](#) *a_separator, const int *a_plane_index, [c_Polygon](#) *a_polygon)
Create a Polygon by truncating a Plane from a PlanarSeparator by a RectangularCuboid.
- void [c_getPlanePolygonFromReconstruction_RectangularCuboid_DividedPolygon](#) (const [c_RectangularCuboid](#) *a_rectangular_cuboid, const [c_PlanarSeparator](#) *a_separator, const int *a_plane_index, [c_DividedPolygon](#) *a_divided_polygon)
Create a DividedPolygon by truncating a Plane from a PlanarSeparator by a RectangularCuboid.
- double [c_getReconstructionSurfaceArea_RectangularCuboid](#) (const [c_RectangularCuboid](#) *a_rectangular_cuboid, const [c_PlanarSeparator](#) *a_separator)
Creates the interface polygons for the planes in a_separator that exist in a_rectangular_cuboid and returns the total area of these polygons.

7.2.1 Detailed Description

These C-style functions are mapped to functions available in `src/cut_polygon.h`.

This file maps to functions that deal with intersecting polygons with planes and calculating surface area from Polygons. This mostly means the creation of Polygons from intersections of Planes and Polyhedra, or intersection of Polygons with Planes to generate new (truncated) Polygons.

Individual documentation for each function is given alongside the function.

7.2.2 Function Documentation

7.2.2.1 c_getPlanePolygonFromReconstruction_RectangularCuboid_DividedPolygon()

```
void c_getPlanePolygonFromReconstruction_RectangularCuboid_DividedPolygon (
    const c_RectangularCuboid * a_rectangular_cuboid,
    const c_PlanarSeparator * a_separator,
    const int * a_plane_index,
    c_DividedPolygon * a_divided_polygon )
```

Create a DividedPolygon by truncating a Plane from a PlanarSeparator by a RectangularCuboid.

This function intersects the `a_plane_index` Plane of `a_separator` with a `a_rectangular_cuboid` in order to generate a DividedPolygon. If the PlanarSeparator consists of multiple planes, the Polygon object will also be intersected with the other planes in the PlanarSeparator. The centroid for the DividedPolygon is also updated before the function returns.

Parameters

| | | |
|-----|-----------------------------|---|
| in | <i>a_rectangular_cuboid</i> | Pointer to RectangularCuboid object that will be used to truncate the plane. |
| in | <i>a_separator</i> | Pointer to PlanarSeparator object that the plane from which a DividedPolygon is being created is taken. |
| in | <i>a_plane_index</i> | Index of plane in <code>a_separator</code> that the DividedPolygon will be created from. |
| out | <i>a_polygon</i> | Pointer to DividedPolygon object where the created Polygon will be stored. |

Definition at line 33 of file `c_cut_polygon.cpp`.

7.2.2.2 c_getPlanePolygonFromReconstruction_RectangularCuboid_Polygon()

```
void c_getPlanePolygonFromReconstruction_RectangularCuboid_Polygon (
    const c_RectangularCuboid * a_rectangular_cuboid,
    const c_PlanarSeparator * a_separator,
    const int * a_plane_index,
    c_Polygon * a_polygon )
```

Create a Polygon by truncating a Plane from a PlanarSeparator by a RectangularCuboid.

This function intersects the `a_plane_index` Plane of `a_separator` with a `a_rectangular_cuboid` in order to generate a Polygon. If the PlanarSeparator consists of multiple planes, the Polygon object will also be intersected with the other planes in the PlanarSeparator.

Parameters

| | | |
|-----|-----------------------------|--|
| in | <i>a_rectangular_cuboid</i> | Pointer to RectangularCuboid object that will be used to truncate the plane. |
| in | <i>a_separator</i> | Pointer to PlanarSeparator object that the plane from which a Polygon is being created is taken. |
| in | <i>a_plane_index</i> | Index of plane in <code>a_separator</code> that the Polygon will be created from. |
| out | <i>a_polygon</i> | Pointer to Polygon object where the created Polygon will be stored. |

Definition at line 16 of file `c_cut_polygon.cpp`.

7.2.2.3 c_getReconstructionSurfaceArea_RectangularCuboid()

```
double c_getReconstructionSurfaceArea_RectangularCuboid (
    const c_RectangularCuboid * a_rectangular_cuboid,
    const c_PlanarSeparator * a_separator )
```

Creates the interface polygons for the planes in `a_separator` that exist in `a_rectangular_cuboid` and returns the total area of these polygons.

This function creates Polygon objects for each plane in `a_separator` that exists solely in `a_rectangular_cuboid`. The area of these Polygon objects is summed and returned from the function. If `a_separator` contains multiple planes the polygons will also be intersected and truncated by them prior to the calculation of the surface area.

Parameters

| | | |
|----|-----------------------------------|--|
| in | <code>a_rectangular_cuboid</code> | Pointer to RectangularCuboid object that will be used to truncate the planes in <code>a_separator</code> . |
| in | <code>a_separator</code> | Pointer to PlanarSeparator object from which the planes will be taken. |

Definition at line 52 of file `c_cut_polygon.cpp`.

7.3 c_generic_cutting.h File Reference

```
#include "src/c_interface/geometry/polygons/c_polygon.h"
#include "src/c_interface/geometry/polygons/c_tri.h"
#include "src/c_interface/geometry/polyhedrons/c_capped_dodecahedron.h"
#include "src/c_interface/geometry/polyhedrons/c_capped_dodecahedron_doubles3.h"
#include "src/c_interface/geometry/polyhedrons/c_dodecahedron.h"
#include "src/c_interface/geometry/polyhedrons/c_polyhedron24.h"
#include "src/c_interface/geometry/polyhedrons/c_polyhedron24_doubles3.h"
#include "src/c_interface/geometry/polyhedrons/c_rectangular_cuboid.h"
#include "src/c_interface/geometry/polyhedrons/c_tet.h"
#include "src/c_interface/moments/c_separated_volume_moments.h"
#include "src/c_interface/moments/c_separated_volume_moments_doubles3.h"
#include "src/c_interface/moments/c_tagged_accumulated_listed_volume_moments_and_normal.h"
#include "src/c_interface/moments/c_tagged_accumulated_separated_volume_moments.h"
#include "src/c_interface/moments/c_tagged_accumulated_volume_moments.h"
#include "src/c_interface/planar_reconstruction/c_localized_separator_link.h"
#include "src/c_interface/planar_reconstruction/c_localizer_link.h"
#include "src/c_interface/planar_reconstruction/c_separators.h"
#include "src/generic_cutting/generic_cutting.h"
#include "src/geometry/general/new_pt_calculation_functors.h"
#include "src/geometry/general/pt_with_data.h"
#include "src/geometry/polyhedrons/capped_dodecahedron.h"
#include "src/geometry/polyhedrons/dodecahedron.h"
#include "src/geometry/polyhedrons/polyhedron_24.h"
#include "src/geometry/polyhedrons/rectangular_cuboid.h"
#include "src/geometry/polyhedrons/tet.h"
#include "src/moments/tagged_accumulated_listed_volume_moments.h"
```

Functions

- void [c_getVolumeMoments_setMethod](#) (const int *a_cutting_method)
Function to set the method used for cutting when a c_getNormalizedVolumeMoments function is called.
- void [c_getNormalizedVolumeMoments_Dodecahedron_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_Dodecahedron](#) *a_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_CappedDodecahedron_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_CappedDodecahedron](#) *a_capped_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_CappedDodecahedron_doubles3_By_LocalizedSeparatorLink_For_SeparatedVolumeMomentsAndDoubles3](#) (const [c_CappedDodecahedron_doubles3](#) *a_capped_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM_doubles3](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Polyhedron24_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_Polyhedron24](#) *a_polyhedron_24, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Polyhedron24WithDoubles3_By_LocalizedSeparatorLink_For_SeparatedVolumeMomentsAndDoubles3](#) (const [c_Polyhedron24_doubles3](#) *a_polyhedron_24, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM_doubles3](#) *a_moments_to_return)
- void [c_getVolumeMoments_CappedDodecahedron_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_CappedDodecahedron](#) *a_capped_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getVolumeMoments_Dodecahedron_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_Dodecahedron](#) *a_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getVolumeMoments_Polyhedron24_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_Polyhedron24](#) *a_polyhedron_24, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Tet_By_LocalizedSeparatorLink_For_SeparatedVolumeMoments](#) (const [c_Tet](#) *a_tet, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_RectangularCuboid_By_PlanarSeparator_For_VolumeMoments](#) (const [c_RectangularCuboid](#) *a_rectangular_cuboid, const [c_PlanarSeparator](#) *a_planar_separator, double *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Dodecahedron_By_PlanarSeparator_For_SeparatedVolumeMoments](#) (const [c_Dodecahedron](#) *a_dodecahedron, const [c_PlanarSeparator](#) *a_planar_separator, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Dodecahedron_By_LocalizedSeparator_For_SeparatedVolumeMoments](#) (const [c_Dodecahedron](#) *a_dodecahedron, const [c_LocalizedSeparator](#) *a_localized_separator, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_CappedDodecahedron_By_LocalizedSeparatorLink_For_TaggedAccumulatedVolumeMoments_SeparatedVolumeMoments](#) (const [c_CappedDodecahedron](#) *a_capped_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_Tagged_AccumVM_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Dodecahedron_By_LocalizedSeparatorLink_For_TaggedAccumulatedVolumeMoments_SeparatedVolumeMoments](#) (const [c_Dodecahedron](#) *a_dodecahedron, const [c_LocalizedSeparatorLink](#) *a_localized_separator_link, [c_Tagged_AccumVM_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_RectangularCuboid_By_PlanarSeparator_For_SeparatedVolumeMoments](#) (const [c_RectangularCuboid](#) *a_rectangular_cuboid, const [c_PlanarSeparator](#) *a_planar_separator, [c_SepVM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Tri_By_LocalizerLink_For_TaggedAccumulatedVolumeMoments_VolumeMoments](#) (const [c_Tri](#) *a_tri, const [c_LocalizerLink](#) *a_localizer_link, [c_Tagged_AccumVM_VM](#) *a_moments_to_return)
- void [c_getNormalizedVolumeMoments_Tri_By_PlanarLocalizer_For_VolumeMoments](#) (const [c_Tri](#) *a_tri, const [c_PlanarLocalizer](#) *a_planar_localizer, double *a_moments_to_return)

- void **c_getNormalizedVolumeMoments_Polygon_By_PlanarLocalizer_For_Volume** (const [c_Polygon](#) *a_poly, const [c_PlanarLocalizer](#) *a_planar_localizer, double *a_moments_to_return)
- void **c_getVolumeMoments_Tri_By_LocalizerLink_For_TaggedAccumulatedListedVolumeMoments↔_VolumeMomentsAndNormal** (const [c_Tri](#) *a_tri, const [c_LocalizerLink](#) *a_localizer_link, [c_Tagged_AccumListedVM_VMAN](#) *a_moments_to_return)

7.3.1 Detailed Description

These C-style functions are mapped to functions available in `src/generic_cutting.h`.

This file deals with functions that compute volume moments for polyhedra and subdivided polyhedra. In principle, the first argument to the function is a pointer to a known polytope class available in IRL, such as a Polygon, Tet, or a Dodecahedron. The second argument is a pointer to a PlanarSeparator, PlanarLocalizer, LocalizedSeparator, or LocalizedSeparatorLink that will subdivide or otherwise restrict the integration area when calculating the volumetric moments. The third argument is a pointer to an object of the type of VolumeMoments that will be returned.

Individual documentation for each function is given alongside the function.

7.3.2 Function Documentation

7.3.2.1 c_getVolumeMoments_setMethod()

```
void c_getVolumeMoments_setMethod (
    const int * a_cutting_method )
```

Function to set the method used for cutting when a `c_getNormalizedVolumeMoments` function is called.

- 0 : RecursiveSimplexCutting
- 1 : HalfEdgeCutting
- 2 : SimplexCutting

Definition at line 136 of file `c_generic_cutting.cpp`.

7.4 c_localizers.h File Reference

```
#include "src/c_interface/data_structures/c_object_allocation_server_planar↔_localizer.h"
#include "src/geometry/general/normal.h"
#include "src/geometry/general/plane.h"
#include "src/geometry/polyhedrons/rectangular_cuboid.h"
#include "src/planar_reconstruction/planar_localizer.h"
```

Classes

- struct [c_PlanarLocalizer](#)

Functions

- void **c_PlanarLocalizer_new** ([c_PlanarLocalizer](#) *a_self)
- void **c_PlanarLocalizer_newFromObjectAllocationServer** ([c_PlanarLocalizer](#) *a_self, [c_ObjectAllocationServer_PlanarLocalizer](#) *a_object_allocation_server)
- void **c_PlanarLocalizer_delete** ([c_PlanarLocalizer](#) *a_self)
- void **c_PlanarLocalizer_addPlane** ([c_PlanarLocalizer](#) *a_self, const double *a_normal, const double *a_distance)
- void **c_PlanarLocalizer_setNumberOfPlanes** ([c_PlanarLocalizer](#) *a_self, const int *a_number_to_set)
- void **c_PlanarLocalizer_setPlane** ([c_PlanarLocalizer](#) *a_self, const int *a_plane_index_to_set, const double *a_normal, const double *a_distance)
- void **c_PlanarLocalizer_setFromRectangularCuboid** ([c_PlanarLocalizer](#) *a_self, const double *a_lower_pt, const double *a_upper_pt)
- void **c_PlanarLocalizer_printToScreen** (const [c_PlanarLocalizer](#) *a_self)

7.4.1 Detailed Description

These C-style functions are mapped to functions available in `src/reconstruction_interface.h`.

This file includes functions to place `PlanarSeparator` objects in geometries. These methods differ in what they require. For the individual needs of each reconstruction method, it is best to consult its specific documentation.

7.5 c_serializer.h File Reference

```
#include "src/c_interface/helpers/c_byte_buffer.h"
#include "src/c_interface/planar_reconstruction/c_separators.h"
#include "src/helpers/serializer.h"
#include "src/parameters/defined_types.h"
#include "src/planar_reconstruction/planar_separator.h"
```

Functions

- void **c_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer** (const [c_PlanarSeparator](#) *a_separator, [c_ByteBuffer](#) *a_container)
- void **c_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer** ([c_PlanarSeparator](#) *a_separator, [c_ByteBuffer](#) *a_container)

7.5.1 Detailed Description

These C-style functions are mapped to functions available in `src/serializer.h`.

This file includes functions to handle the serialization and packing of IRL class objects into linear byte-buffers. This also includes the class `ByteBuffer`, which manages this linear packing and tracks its current buffer location, allowing easy sequential reading that takes place over multiple calls. These functions are mostly planned to be used along with MPI communication routines to send `MPI_BYTES` between processors. This means that these functions assume a `HOMOGENEOUS ARCHITECTURE`, requiring all little-endian or all big-endian representation to be used.

7.6 f_bytebuffer_class.f90 File Reference

This file contains the Fortran interface for the ByteBuffer class.

Data Types

- type [f_bytebuffer_class::c_bytebuffer](#)
- type [f_bytebuffer_class::bytebuffer_type](#)
- interface [f_bytebuffer_class::new](#)
- interface [f_bytebuffer_class::getcobject](#)
- interface [f_bytebuffer_class::getsize](#)
- interface [f_bytebuffer_class::setsize](#)
- interface [f_bytebuffer_class::resetbufferpointer](#)
- interface [f_bytebuffer_class::dataptr](#)
- interface [f_bytebuffer_class::F_ByteBuffer_new](#)
- interface [f_bytebuffer_class::F_ByteBuffer_delete](#)
- interface [f_bytebuffer_class::F_ByteBuffer_getSize](#)
- interface [f_bytebuffer_class::F_ByteBuffer_setSize](#)
- interface [f_bytebuffer_class::F_ByteBuffer_resetBufferPointer](#)
- interface [f_bytebuffer_class::F_ByteBuffer_dataPtr](#)

Modules

- module [f_bytebuffer_class](#)

A fortran type class that allows the creation of IRL's ByteBuffer class along with enabling some of its methods.

Functions/Subroutines

- impure elemental subroutine [f_bytebuffer_class::bytebuffer_class_delete](#) (this)
- subroutine [f_bytebuffer_class::bytebuffer_class_new](#) (this)
- type(c_bytebuffer) function [f_bytebuffer_class::bytebuffer_class_getcobject](#) (this)
- integer(irl_largeoffsetindex_t) function [f_bytebuffer_class::bytebuffer_class_getsize](#) (this)
- subroutine [f_bytebuffer_class::bytebuffer_class_setsize](#) (this, a_size)
- subroutine [f_bytebuffer_class::bytebuffer_class_resetbufferpointer](#) (this)
- integer(irl_byte_t) function, dimension(:), pointer [f_bytebuffer_class::bytebuffer_class_dataptr](#) (this)

7.6.1 Detailed Description

This file contains the Fortran interface for the ByteBuffer class.

7.7 f_cappeddodecahedron_class.f90 File Reference

This file contains the Fortran interface for the CappedDodecahedron class.

Data Types

- type [f_cappeddodecahedron_class::c_cappeddodecahedron](#)
- type [f_cappeddodecahedron_class::cappeddodecahedron_type](#)
- interface [f_cappeddodecahedron_class::new](#)
- interface [f_cappeddodecahedron_class::getcobject](#)
- interface [f_cappeddodecahedron_class::construct](#)
- interface [f_cappeddodecahedron_class::adjustcaptomatchvolume](#)
- interface [f_cappeddodecahedron_class::getboundingpts](#)
- interface [f_cappeddodecahedron_class::getpt](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_new](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_delete](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_construct](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_adjustCapToMatchVolume](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_getBoundingPts](#)
- interface [f_cappeddodecahedron_class::F_CappedDodecahedron_getPt](#)

Modules

- module [f_cappeddodecahedron_class](#)

A fortran type class that allows the creation of IRL's CappedDodecahedron class along with enabling some of its methods.

Functions/Subroutines

- impure elemental subroutine [f_cappeddodecahedron_class::cappeddodecahedron_class_delete](#) (this)
- subroutine [f_cappeddodecahedron_class::cappeddodecahedron_class_new](#) (this)
- type(c_cappeddodecahedron) function [f_cappeddodecahedron_class::cappeddodecahedron_class_↔getcobject](#) (this)
- subroutine [f_cappeddodecahedron_class::cappeddodecahedron_class_construct](#) (this, a_↔dodecahedron)
- subroutine [f_cappeddodecahedron_class::cappeddodecahedron_class_adjustcaptomatchvolume](#) (this, a_correct_signed_volume)
- subroutine [f_cappeddodecahedron_class::cappeddodecahedron_class_getboundingpts](#) (this, a_↔lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) [f_cappeddodecahedron_class::cappeddodecahedron_class_↔getpt](#) (this, a_index)

7.7.1 Detailed Description

This file contains the Fortran interface for the CappedDodecahedron class.

7.8 f_cappeddodecahedron_doubles3_class.f90 File Reference

This file contains the Fortran interface for the CappedDodecahedron_doubles3 class.

Data Types

- type [f_cappeddodecahedron_doubles3_class::c_cappeddodecahedron_doubles3](#)
- type [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_type](#)
- interface [f_cappeddodecahedron_doubles3_class::new](#)
- interface [f_cappeddodecahedron_doubles3_class::getcobject](#)
- interface [f_cappeddodecahedron_doubles3_class::construct](#)
- interface [f_cappeddodecahedron_doubles3_class::adjustcaptomatchvolume](#)
- interface [f_cappeddodecahedron_doubles3_class::getboundingpts](#)
- interface [f_cappeddodecahedron_doubles3_class::getpt](#)
- interface [f_cappeddodecahedron_doubles3_class::setpt](#)
- interface [f_cappeddodecahedron_doubles3_class::getdata](#)
- interface [f_cappeddodecahedron_doubles3_class::setdata](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_new](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_delete](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_construct](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_adjustCapToMatchVolume](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getBoundingPts](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getPt](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setPt](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_getData](#)
- interface [f_cappeddodecahedron_doubles3_class::F_CappedDodecahedron_doubles3_setData](#)

Modules

- module [f_cappeddodecahedron_doubles3_class](#)

A fortran type class that allows the creation of IRL's CappedDodecahedron_doubles3 class along with enabling some of its methods.

Functions/Subroutines

- impure elemental subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_delete](#) (this)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_new](#) (this)
- type(c_cappeddodecahedron_doubles3) function [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_getcobject](#) (this)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_construct](#) (this, a_dodecahedron, a_attached_data)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_adjustcaptomatchvolume](#) (this, a_correct_signed_volume)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_getboundingpts](#) (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_getpt](#) (this, a_index)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_setpt](#) (this, a_index, a_pt)
- real(irl_double) function, dimension(3) [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_getdata](#) (this, a_index)
- subroutine [f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_class_setdata](#) (this, a_index, a_data)

7.8.1 Detailed Description

This file contains the Fortran interface for the CappedDodecahedron_doubles3 class.

7.9 f_constants.f90 File Reference

This file contains the Fortran interface to IRL functions that deal with setting constants.

Data Types

- interface [f_constants::F_Constants_setVolumeFractionBounds](#)
- interface [f_constants::F_Constants_setVolumeFractionToleranceForDistanceFinding](#)
- interface [f_constants::F_Constants_setMinimumVolumeToTrack](#)
- interface [f_constants::F_Constants_setMinimumSurfaceAreaToTrack](#)

Modules

- module [f_constants](#)
This module contains mappings to the IRL C interface that deal with setting global constants that are used in the IRL library.

Functions/Subroutines

- subroutine **f_constants::constants_setvolumefractionbounds** (a_VF_low)
- subroutine **f_constants::constants_setvolumefractiontolerancefordistancefinding** (a_tolerance)
- subroutine **f_constants::constants_setminimumvolumetotrack** (a_minimum_volume_to_track)
- subroutine **f_constants::constants_setminimumsurfaceareatotrack** (a_minimum_surface_area_to_↵ track)

7.9.1 Detailed Description

This file contains the Fortran interface to IRL functions that deal with setting constants.

7.10 f_cutpolygon.f90 File Reference

This file deals with intersecting polygons and generating polygons corresponding to planar reconstructions.

Data Types

- interface [f_cutpolygon::getplanepolygonfromreconstruction](#)
- interface [f_cutpolygon::getreconstructionsurfacearea](#)
- interface [f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_Poly](#)
- interface [f_cutpolygon::F_getPlanePolygonFromReconstruction_RC_DivPoly](#)
- interface [f_cutpolygon::F_getReconstructionSurfaceArea_RC](#)

Modules

- module [f_cutpolygon](#)

This module contains mappings to the IRL C interface that deal with intersecting planes to generate polygons and creating polygons that are representative of planar reconstructions in given cells.

Functions/Subroutines

- subroutine **f_cutpolygon::getplanepolygonfromreconstruction_rc_poly** (a_rectangular_cuboid, a_↔ planar_separator, a_plane_index, a_polygon)
- subroutine **f_cutpolygon::getplanepolygonfromreconstruction_rc_divpoly** (a_rectangular_cuboid, a_↔ planar_separator, a_plane_index, a_divided_polygon)
- real(irl_double) function **f_cutpolygon::getreconstructionsurfacearea_rc** (a_rectangular_cuboid, a_↔ planar_separator)

7.10.1 Detailed Description

This file deals with intersecting polygons and generating polygons corresponding to planar reconstructions.

7.11 f_dividedpolygon_class.f90 File Reference

This file contains the Fortran interface for the DividedPolygon class.

Data Types

- type [f_dividedpolygon_class::c_dividedpolygon](#)
- type [f_dividedpolygon_class::dividedpolygon_type](#)
- interface [f_dividedpolygon_class::new](#)
- interface [f_dividedpolygon_class::getcobject](#)
- interface [f_dividedpolygon_class::construct](#)
- interface [f_dividedpolygon_class::constructfrompolygon](#)
- interface [f_dividedpolygon_class::resetcentroid](#)
- interface [f_dividedpolygon_class::getnumberofsimplicesincomposition](#)
- interface [f_dividedpolygon_class::getsimplexfromdecomposition](#)
- interface [f_dividedpolygon_class::calculatenormal](#)
- interface [f_dividedpolygon_class::getlocalizer](#)
- interface [f_dividedpolygon_class::reverseptordering](#)
- interface [f_dividedpolygon_class::getboundingpts](#)
- interface [f_dividedpolygon_class::getnumberofvertices](#)
- interface [f_dividedpolygon_class::getpt](#)
- interface [f_dividedpolygon_class::zeropolygon](#)
- interface [f_dividedpolygon_class::calculatesurfacearea](#)
- interface [f_dividedpolygon_class::calculatesign](#)
- interface [f_dividedpolygon_class::setplaneofexistence](#)
- interface [f_dividedpolygon_class::calculateandsetplaneofexistence](#)
- interface [f_dividedpolygon_class::getplaneofexistence](#)
- interface [f_dividedpolygon_class::printtoscreen](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_new](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_delete](#)

- interface [f_dividedpolygon_class::F_DividedPolygon_construct](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_constructFromPolygon](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_resetCentroid](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getNumberOfSimplicesInDecomposition](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getSimplexFromDecomposition](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_calculateNormal](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getLocalizer](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_reversePtOrdering](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getBoundingPts](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getNumberOfPts](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getPt](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_zeroPolygon](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_calculateSurfaceArea](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_calculateSign](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_setPlaneOfExistence](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_calculateAndSetPlaneOfExistence](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_getPlaneOfExistence](#)
- interface [f_dividedpolygon_class::F_DividedPolygon_printToScreen](#)

Modules

- module [f_dividedpolygon_class](#)

A fortran type class that allows the creation of IRL's DividedPolygon class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_dividedpolygon_class::dividedpolygon_class_new](#) (this)
- impure elemental subroutine [f_dividedpolygon_class::dividedpolygon_class_delete](#) (this)
- type(c_dividedpolygon) function [f_dividedpolygon_class::dividedpolygon_class_getobject](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_construct](#) (this, a_npts, a_pts)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_constructfrompolygon](#) (this, a_polygon)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_resetcentroid](#) (this)
- integer(irl_unsignedindex_t) function [f_dividedpolygon_class::dividedpolygon_class_getnumberofsimplicesindecompos](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_getsimplexfromdecomposition](#) (this, a_↵ tri_number_to_get, a_tri_in_decomposition)
- real(irl_double) function, dimension(1:3) [f_dividedpolygon_class::dividedpolygon_class_calculatenormal](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_getlocalizer](#) (this, a_planar_localizer)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_reverseptordering](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_getboundingpts](#) (this, a_lower_pt, a_↵ upper_pt)
- integer(irl_unsignedindex_t) function [f_dividedpolygon_class::dividedpolygon_class_getnumberofpts](#) (this)
- real(irl_double) function, dimension(3) [f_dividedpolygon_class::dividedpolygon_class_getpt](#) (this, a_↵ index)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_zeropolygon](#) (this)
- real(irl_double) function [f_dividedpolygon_class::dividedpolygon_class_calculatesurfacearea](#) (this)
- real(irl_double) function [f_dividedpolygon_class::dividedpolygon_class_calculatesign](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_setplaneofexistence](#) (this, a_plane)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_calculateandsetplaneofexistence](#) (this)
- real(irl_double) function, dimension(4) [f_dividedpolygon_class::dividedpolygon_class_getplaneofexistence](#) (this)
- subroutine [f_dividedpolygon_class::dividedpolygon_class_printtoscreen](#) (this)

7.11.1 Detailed Description

This file contains the Fortran interface for the DividedPolygon class.

7.12 `f_dodecahedron_class.f90` File Reference

This file contains the Fortran interface for the Dodecahedron class.

Data Types

- type `f_dodecahedron_class::c_dodecahedron`
- type `f_dodecahedron_class::dodecahedron_type`
- interface `f_dodecahedron_class::new`
- interface `f_dodecahedron_class::getcobject`
- interface `f_dodecahedron_class::construct`
- interface `f_dodecahedron_class::getboundingpts`
- interface `f_dodecahedron_class::F_Dodecahedron_new`
- interface `f_dodecahedron_class::F_Dodecahedron_delete`
- interface `f_dodecahedron_class::F_Dodecahedron_construct`
- interface `f_dodecahedron_class::F_Dodecahedron_getBoundingPts`

Modules

- module `f_dodecahedron_class`

A fortran type class that allows the creation of IRL's Dodecahedron class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_dodecahedron_class::dodecahedron_class_new` (this)
- impure elemental subroutine `f_dodecahedron_class::dodecahedron_class_delete` (this)
- type(`c_dodecahedron`) function `f_dodecahedron_class::dodecahedron_class_getcobject` (this)
- subroutine `f_dodecahedron_class::dodecahedron_class_construct` (this, `a_transported_cell`)
- subroutine `f_dodecahedron_class::dodecahedron_class_getboundingpts` (this, `a_lower_pt`, `a_upper_pt`)

7.12.1 Detailed Description

This file contains the Fortran interface for the Dodecahedron class.

7.13 `f_geometriccuttinghelpers.f90` File Reference

This file provides access to helper functions often used during geometric cutting.

Data Types

- interface [f_geometriccuttinghelpers::isptinternal](#)
- interface [f_geometriccuttinghelpers::F_isPtInternal_PS](#)
- interface [f_geometriccuttinghelpers::F_isPtInternal_PL](#)

Modules

- module [f_geometriccuttinghelpers](#)

This module contains mappings to the IRL C interface that provides access to functions often used to geoemtric cutting operations. See the C interface file `src/c_interface/c_geometric_cutting_helpers.h` for more information.

Functions/Subroutines

- logical(1) function [f_geometriccuttinghelpers::isptinternal_ps](#) (a_pt, a_separator)
- logical(1) function [f_geometriccuttinghelpers::isptinternal_pl](#) (a_pt, a_localizer)

7.13.1 Detailed Description

This file provides access to helper functions often used during geometric cutting.

7.14 [f_getvolumemoments.f90](#) File Reference

This file deals with subdivinding and integrating volume moments for polyhedra.

Data Types

- interface [f_getvolumemoments::getvolumemoments_setmethod](#)
- interface [f_getvolumemoments::getnormalizedvolumemoments](#)
- interface [f_getvolumemoments::getvolumemoments](#)
- interface [f_getvolumemoments::F_GVM_setMethod](#)
- interface [f_getvolumemoments::F_GNVM_D_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_CD_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_CDWD3_By_LSL_For_SVMAD3](#)
- interface [f_getvolumemoments::F_GNVM_P24_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_P24WD3_By_LSL_For_SVMAD3](#)
- interface [f_getvolumemoments::F_GVM_CD_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GVM_D_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GVM_P24_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_Tet_By_LSL_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_RC_By_PS_For_V](#)
- interface [f_getvolumemoments::F_GNVM_D_By_PS_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_CD_By_LSL_For_TagAccumVM_SVM](#)
- interface [f_getvolumemoments::F_GNVM_D_By_LSL_For_TagAccumVM_SVM](#)
- interface [f_getvolumemoments::F_GNVM_RC_By_PS_For_SVM](#)
- interface [f_getvolumemoments::F_GNVM_Tri_By_LL_For_TagAVM_VM](#)
- interface [f_getvolumemoments::F_GNVM_Tri_By_PL_For_V](#)
- interface [f_getvolumemoments::F_GNVM_Poly_By_PL_For_V](#)
- interface [f_getvolumemoments::F_GVM_Tri_By_LL_For_TagALVM_VMAN](#)

Modules

- module [f_getvolumemoments](#)

This module contains mappings to the IRL C interface that deal with intersecting polyhedron volumes and integrating these volumes to obtain volumetric moments.

Functions/Subroutines

- subroutine **f_getvolumemoments::gvm_setmethod** (a_cutting_method)
- subroutine **f_getvolumemoments::gnvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator↔link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized↔separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_cdwd3_by_lsl_for_svmad3** (a_Capped_Dodecahedron, a↔localized_separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized↔separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_p24wd3_by_lsl_for_svmad3** (a_polyhedron_24, a_localized↔separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gvm_cd_by_lsl_for_svm** (a_Capped_Dodecahedron, a_localized↔separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gvm_d_by_lsl_for_svm** (a_Dodecahedron, a_localized_separator↔link, a_moments_to_return)
- subroutine **f_getvolumemoments::gvm_p24_by_lsl_for_svm** (a_polyhedron_24, a_localized_separator↔link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_tet_by_lsl_for_svm** (a_tet, a_localized_separator_link, a↔moments_to_return)
- subroutine **f_getvolumemoments::gnvm_rc_by_ps_for_v** (a_rectangulr_cuboid, a_planar_separator, a↔moments_to_return)
- subroutine **f_getvolumemoments::gnvm_d_by_ps_for_svm** (a_Dodecahedron, a_planar_separator, a↔moments_to_return)
- subroutine **f_getvolumemoments::gnvm_cd_by_lsl_for_tagaccumvm_svm** (a_Capped_Dodecahedron, a_localized_separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_d_by_lsl_for_tagaccumvm_svm** (a_Dodecahedron, a↔localized_separator_link, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_rc_by_ps_for_svm** (a_rectangular_cuboid, a_planar_separator, a_moments_to_return)
- subroutine **f_getvolumemoments::gnvm_tri_by_ll_for_tagavm_vm** (a_tri, a_localizer_link, a_moments↔to_return)
- subroutine **f_getvolumemoments::gnvm_tri_by_pl_for_v** (a_tri, a_planar_localizer, a_moments_to↔return)
- subroutine **f_getvolumemoments::gnvm_poly_by_pl_for_v** (a_polygon, a_planar_localizer, a↔moments_to_return)
- subroutine **f_getvolumemoments::gvm_tri_by_ll_for_tagalvm_vman** (a_tri, a_localizer_link, a↔moments_to_return)

7.14.1 Detailed Description

This file deals with subdivinding and integrating volume moments for polyhedra.

7.15 f_localizedseparatorlink_class.f90 File Reference

This file allows use of the IRL LocalizedSeparatorLink class through a fortran interface.

Data Types

- type `f_localizedseparatorlink_class::c_localizedseparatorlink`
- type `f_localizedseparatorlink_class::localizedseparatorlink_type`
- interface `f_localizedseparatorlink_class::new`
- interface `f_localizedseparatorlink_class::getcobject`
- interface `f_localizedseparatorlink_class::setid`
- interface `f_localizedseparatorlink_class::getid`
- interface `f_localizedseparatorlink_class::setedgeconnectivity`
- interface `f_localizedseparatorlink_class::setedgeconnectivitynull`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_new`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_newFromObjectAllocationServer`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_delete`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setid`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_getid`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivity`
- interface `f_localizedseparatorlink_class::F_LocalizedSeparatorLink_setEdgeConnectivityNull`

Modules

- module `f_localizedseparatorlink_class`

A fortran type class that allows the creation of IRL's LocalizedSeparatorLink class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_new` (this, a_planar_localizer, a_planar_separator)
- subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_newfromobjectallocationserver` (this, a_object_allocation_server, a_planar_localizer, a_planar_separator)
- impure elemental subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_delete` (this)
- type(`c_localizedseparatorlink`) function `f_localizedseparatorlink_class::localizedseparatorlink_class_getcobject` (this)
- subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_setid` (this, a_id)
- integer(`irl_unsignedindex_t`) function `f_localizedseparatorlink_class::localizedseparatorlink_class_getid` (this)
- subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_setedgeconnectivity` (this, a_plane_index, a_neighboring_LocalizedSeparatorLink)
- subroutine `f_localizedseparatorlink_class::localizedseparatorlink_class_setedgeconnectivitynull` (this, a_plane_index)

7.15.1 Detailed Description

This file allows use of the IRL LocalizedSeparatorLink class through a fortran interface.

7.16 f_localizerlink_class.f90 File Reference

This file allows use of the IRL LocalizerLink class through a fortran interface.

Data Types

- type [f_localizerlink_class::c_localizerlink](#)
- type [f_localizerlink_class::localizerlink_type](#)
- interface [f_localizerlink_class::new](#)
- interface [f_localizerlink_class::getcobject](#)
- interface [f_localizerlink_class::setid](#)
- interface [f_localizerlink_class::getid](#)
- interface [f_localizerlink_class::setedgeconnectivity](#)
- interface [f_localizerlink_class::setedgeconnectivitynull](#)
- interface [f_localizerlink_class::F_LocalizerLink_new](#)
- interface [f_localizerlink_class::F_LocalizerLink_newFromObjectAllocationServer](#)
- interface [f_localizerlink_class::F_LocalizerLink_delete](#)
- interface [f_localizerlink_class::F_LocalizerLink_setId](#)
- interface [f_localizerlink_class::F_LocalizerLink_getId](#)
- interface [f_localizerlink_class::F_LocalizerLink_setEdgeConnectivity](#)
- interface [f_localizerlink_class::F_LocalizerLink_setEdgeConnectivityNull](#)

Modules

- module [f_localizerlink_class](#)

A fortran type class that allows the creation of IRL's LocalizerLink class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_localizerlink_class::localizerlink_class_new](#) (this, a_planar_localizer)
- subroutine [f_localizerlink_class::localizerlink_class_newfromobjectallocationserver](#) (this, a_object_↔ allocation_server, a_planar_localizer)
- impure elemental subroutine [f_localizerlink_class::localizerlink_class_delete](#) (this)
- type(c_localizerlink) function [f_localizerlink_class::localizerlink_class_getcobject](#) (this)
- subroutine [f_localizerlink_class::localizerlink_class_setid](#) (this, a_id)
- integer(irl_unsignedindex_t) function [f_localizerlink_class::localizerlink_class_getid](#) (this)
- subroutine [f_localizerlink_class::localizerlink_class_setedgeconnectivity](#) (this, a_plane_index, a_↔ neighboring_LocalizerLink)
- subroutine [f_localizerlink_class::localizerlink_class_setedgeconnectivitynull](#) (this, a_plane_index)

7.16.1 Detailed Description

This file allows use of the IRL LocalizerLink class through a fortran interface.

7.17 f_objectallocationserver_localizedseparatorlink_class.f90 File Reference

This file allows use of the IRL ObjectAllocationServer<LocalizedSeparatorLink> class through a fortran interface.

Data Types

- type [f_objectallocationserver_localizedseparatorlink_class::c_objectallocationserver_localizedseparatorlink](#)
- type [f_objectallocationserver_localizedseparatorlink_class::objectallocationserver_localizedseparatorlink_type](#)
- interface [f_objectallocationserver_localizedseparatorlink_class::new](#)
- interface [f_objectallocationserver_localizedseparatorlink_class::getcobject](#)
- interface [f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_LocalizedSeparatorLink_new](#)
- interface [f_objectallocationserver_localizedseparatorlink_class::F_ObjectAllocationServer_LocalizedSeparatorLink_delete](#)

Modules

- module [f_objectallocationserver_localizedseparatorlink_class](#)
A fortran type class that allows the creation of IRL's ObjectAllocationServer<LocalizedSeparatorLink> class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_objectallocationserver_localizedseparatorlink_class::objectallocationserver_localizedseparatorlink↔_class_new](#) (this, a_number_to_allocate)
- impure elemental subroutine [f_objectallocationserver_localizedseparatorlink_class::objectallocationserver↔_localizedseparatorlink_class_delete](#) (this)
- type(c_objectallocationserver_localizedseparatorlink) function [f_objectallocationserver_localizedseparatorlink↔_class::objectallocationserver_localizedseparatorlink_class_getcobject](#) (this)

7.17.1 Detailed Description

This file allows use of the IRL ObjectAllocationServer<LocalizedSeparatorLink> class through a fortran interface.

7.18 f_objectallocationserver_localizerlink_class.f90 File Reference

This file allows use of the IRL ObjectAllocationServer<LocalizerLink> class through a fortran interface.

Data Types

- type [f_objectallocationserver_localizerlink_class::c_objectallocationserver_localizerlink](#)
- type [f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_type](#)
- interface [f_objectallocationserver_localizerlink_class::new](#)
- interface [f_objectallocationserver_localizerlink_class::getcobject](#)
- interface [f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_new](#)
- interface [f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_delete](#)

Modules

- module [f_objectallocationserver_localizerlink_class](#)
A fortran type class that allows the creation of IRL's ObjectAllocationServer<LocalizerLink> class along with enabling some of its methods.

Functions/Subroutines

- subroutine **f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_class↔_new** (this, a_number_to_allocate)
- impure elemental subroutine **f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_class_delete** (this)
- type(c_objectallocationserver_localizerlink) function **f_objectallocationserver_localizerlink_class↔::objectallocationserver_localizerlink_class_getcobject** (this)

7.18.1 Detailed Description

This file allows use of the IRL ObjectAllocationServer<LocalizerLink> class through a fortran interface.

7.19 f_objectallocationserver_planarlocalizer_class.f90 File Reference

This file allows use of the IRL ObjectAllocationServer<PlanarLocalizer> class through a fortran interface.

Data Types

- type [f_objectallocationserver_planarlocalizer_class::c_objectallocationserver_planarlocalizer](#)
- type [f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer_type](#)
- interface [f_objectallocationserver_planarlocalizer_class::new](#)
- interface [f_objectallocationserver_planarlocalizer_class::getcobject](#)
- interface [f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_new](#)
- interface [f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_delete](#)

Modules

- module [f_objectallocationserver_planarlocalizer_class](#)
A fortran type class that allows the creation of IRL's ObjectAllocationServer<PlanarLocalizer> class along with enabling some of its methods.

Functions/Subroutines

- subroutine **f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer↔_class_new** (this, a_number_to_allocate)
- impure elemental subroutine **f_objectallocationserver_planarlocalizer_class::objectallocationserver↔_planarlocalizer_class_delete** (this)
- type(c_objectallocationserver_planarlocalizer) function **f_objectallocationserver_planarlocalizer_class↔::objectallocationserver_planarlocalizer_class_getcobject** (this)

7.19.1 Detailed Description

This file allows use of the IRL ObjectAllocationServer<PlanarLocalizer> class through a fortran interface.

7.20 `f_objectallocationserver_planarseparator_class.f90` File Reference

This file allows use of the IRL `ObjectAllocationServer<PlanarSeparator>` class through a fortran interface.

Data Types

- type `f_objectallocationserver_planarseparator_class::c_objectallocationserver_planarseparator`
- type `f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator_type`
- interface `f_objectallocationserver_planarseparator_class::new`
- interface `f_objectallocationserver_planarseparator_class::getcobject`
- interface `f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_new`
- interface `f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_delete`

Modules

- module `f_objectallocationserver_planarseparator_class`
A fortran type class that allows the creation of IRL's `ObjectAllocationServer<PlanarSeparator>` class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator↔_class_new` (this, a_number_to_allocate)
- impure elemental subroutine `f_objectallocationserver_planarseparator_class::objectallocationserver↔_planarseparator_class_delete` (this)
- type(`c_objectallocationserver_planarseparator`) function `f_objectallocationserver_planarseparator↔_class::objectallocationserver_planarseparator_class_getcobject` (this)

7.20.1 Detailed Description

This file allows use of the IRL `ObjectAllocationServer<PlanarSeparator>` class through a fortran interface.

7.21 `f_planarlocalizer_class.f90` File Reference

This file allows use of the IRL `PlanarLocalizer` class through a fortran interface.

Data Types

- type `f_planarlocalizer_class::c_planarlocalizer`
- type `f_planarlocalizer_class::planarlocalizer_type`
- interface `f_planarlocalizer_class::new`
- interface `f_planarlocalizer_class::getcobject`
- interface `f_planarlocalizer_class::addplane`
- interface `f_planarlocalizer_class::setnumberofplanes`
- interface `f_planarlocalizer_class::setplane`
- interface `f_planarlocalizer_class::setfromrectangularcuboid`
- interface `f_planarlocalizer_class::printtoscreen`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_new`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_newFromObjectAllocationServer`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_delete`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_addPlane`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_setNumberOfPlanes`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_setPlane`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_setFromRectangularCuboid`
- interface `f_planarlocalizer_class::F_PlanarLocalizer_printToScreen`

Modules

- module [f_planarlocalizer_class](#)

A fortran type class that allows the creation of IRL's PlanarLocalizer class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_planarlocalizer_class::planarlocalizer_class_new](#) (this)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_newfromobjectallocationserver](#) (this, a_↔
object_allocation_server)
- impure elemental subroutine [f_planarlocalizer_class::planarlocalizer_class_delete](#) (this)
- type(c_planarlocalizer) function [f_planarlocalizer_class::planarlocalizer_class_getcobject](#) (this)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_addplane](#) (this, a_normal, a_distance)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_setnumberofplanes](#) (this, a_number_to_set)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_setplane](#) (this, a_plane_index_to_set, a_↔
normal, a_distance)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_setfromrectangularcuboid](#) (this, a_lower_pt,
a_upper_pt)
- subroutine [f_planarlocalizer_class::planarlocalizer_class_printtoscreen](#) (this)

7.21.1 Detailed Description

This file allows use of the IRL PlanarLocalizer class through a fortran interface.

7.22 f_planarseparator_class.f90 File Reference

This file allows use of the IRL PlanarSeparator class through a fortran interface.

Data Types

- type [f_planarseparator_class::c_planarseparator](#)
- type [f_planarseparator_class::planarseparator_type](#)
- interface [f_planarseparator_class::new](#)
- interface [f_planarseparator_class::getcobject](#)
- interface [f_planarseparator_class::addplane](#)
- interface [f_planarseparator_class::setnumberofplanes](#)
- interface [f_planarseparator_class::setplane](#)
- interface [f_planarseparator_class::copy](#)
- interface [f_planarseparator_class::getnumberofplanes](#)
- interface [f_planarseparator_class::getplane](#)
- interface [f_planarseparator_class::isflipped](#)
- interface [f_planarseparator_class::printtoscreen](#)
- interface [f_planarseparator_class::F_PlanarSeparator_new](#)
- interface [f_planarseparator_class::F_PlanarSeparator_newFromObjectAllocationServer](#)
- interface [f_planarseparator_class::F_PlanarSeparator_delete](#)
- interface [f_planarseparator_class::F_PlanarSeparator_addPlane](#)
- interface [f_planarseparator_class::F_PlanarSeparator_setNumberOfPlanes](#)
- interface [f_planarseparator_class::F_PlanarSeparator_setPlane](#)
- interface [f_planarseparator_class::F_PlanarSeparator_copy](#)
- interface [f_planarseparator_class::F_PlanarSeparator_getNumberOfPlanes](#)
- interface [f_planarseparator_class::F_PlanarSeparator_getPlane](#)
- interface [f_planarseparator_class::F_PlanarSeparator_isFlipped](#)
- interface [f_planarseparator_class::F_PlanarSeparator_printToScreen](#)

Modules

- module [f_planarseparator_class](#)

A fortran type class that allows the creation of IRL's PlanarSeparator class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_planarseparator_class::planarseparator_class_new](#) (this)
- subroutine [f_planarseparator_class::planarseparator_class_newfromobjectallocationserver](#) (this, a↔_object_allocation_server)
- impure elemental subroutine [f_planarseparator_class::planarseparator_class_delete](#) (this)
- type(c_planarseparator) function [f_planarseparator_class::planarseparator_class_getcobject](#) (this)
- subroutine [f_planarseparator_class::planarseparator_class_addplane](#) (this, a_normal, a_distance)
- subroutine [f_planarseparator_class::planarseparator_class_setnumberofplanes](#) (this, a_number_to↔_set)
- subroutine [f_planarseparator_class::planarseparator_class_setplane](#) (this, a_plane_index_to_set, a↔_normal, a_distance)
- subroutine [f_planarseparator_class::planarseparator_class_copy](#) (this, a_other_PlanarSeparator)
- integer(irl_unsignedindex_t) function [f_planarseparator_class::planarseparator_class_getnumberofplanes](#) (this)
- real(irl_double) function, dimension(4) [f_planarseparator_class::planarseparator_class_getplane](#) (this, a_index)
- logical(1) function [f_planarseparator_class::planarseparator_class_isflipped](#) (this)
- subroutine [f_planarseparator_class::planarseparator_class_printtoscreen](#) (this)

7.22.1 Detailed Description

This file allows use of the IRL PlanarSeparator class through a fortran interface.

7.23 f_polygon_class.f90 File Reference

This file contains the Fortran interface for the Polygon class.

Data Types

- type [f_polygon_class::c_polygon](#)
- type [f_polygon_class::polygon_type](#)
- interface [f_polygon_class::new](#)
- interface [f_polygon_class::getcobject](#)
- interface [f_polygon_class::construct](#)
- interface [f_polygon_class::calculatenormal](#)
- interface [f_polygon_class::getlocalizer](#)
- interface [f_polygon_class::reverseptordering](#)
- interface [f_polygon_class::getboundingpts](#)
- interface [f_polygon_class::getnumberofvertices](#)
- interface [f_polygon_class::getpt](#)
- interface [f_polygon_class::getnumberofsimplicesindecomposition](#)
- interface [f_polygon_class::getsimplexfromdecomposition](#)
- interface [f_polygon_class::zeropolygon](#)

- interface `f_polygon_class::calculatenearestptonsurface`
- interface `f_polygon_class::calculatevolume`
- interface `f_polygon_class::calculatesign`
- interface `f_polygon_class::setplaneofexistence`
- interface `f_polygon_class::calculateandsetplaneofexistence`
- interface `f_polygon_class::calculatecentroid`
- interface `f_polygon_class::getplaneofexistence`
- interface `f_polygon_class::printtoscreen`
- interface `f_polygon_class::F_Polygon_new`
- interface `f_polygon_class::F_Polygon_delete`
- interface `f_polygon_class::F_Polygon_construct`
- interface `f_polygon_class::F_Polygon_calculateNormal`
- interface `f_polygon_class::F_Polygon_getLocalizer`
- interface `f_polygon_class::F_Polygon_reversePtOrdering`
- interface `f_polygon_class::F_Polygon_getBoundingPts`
- interface `f_polygon_class::F_Polygon_getNumberOfPts`
- interface `f_polygon_class::F_Polygon_getPt`
- interface `f_polygon_class::F_Polygon_getNumberOfSimplicesInDecomposition`
- interface `f_polygon_class::F_Polygon_getSimplexFromDecomposition`
- interface `f_polygon_class::F_Polygon_zeroPolygon`
- interface `f_polygon_class::F_Polygon_calculateNearestPtOnSurface`
- interface `f_polygon_class::F_Polygon_calculateVolume`
- interface `f_polygon_class::F_Polygon_calculateSign`
- interface `f_polygon_class::F_Polygon_setPlaneOfExistence`
- interface `f_polygon_class::F_Polygon_calculateAndSetPlaneOfExistence`
- interface `f_polygon_class::F_Polygon_getPlaneOfExistence`
- interface `f_polygon_class::F_Polygon_calculateCentroid`
- interface `f_polygon_class::F_Polygon_printToScreen`

Modules

- module `f_polygon_class`

A fortran type class that allows the creation of IRL's Polygon class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_polygon_class::polygon_class_new` (this)
- impure elemental subroutine `f_polygon_class::polygon_class_delete` (this)
- type(c_polygon) function `f_polygon_class::polygon_class_getcobject` (this)
- subroutine `f_polygon_class::polygon_class_construct` (this, a_npts, a_pts)
- real(irl_double) function, dimension(1:3) `f_polygon_class::polygon_class_calculatenormal` (this)
- subroutine `f_polygon_class::polygon_class_getlocalizer` (this, a_planar_localizer)
- subroutine `f_polygon_class::polygon_class_reverseptordering` (this)
- subroutine `f_polygon_class::polygon_class_getboundingpts` (this, a_lower_pt, a_upper_pt)
- integer(irl_unsignedindex_t) function `f_polygon_class::polygon_class_getnumberofpts` (this)
- real(irl_double) function, dimension(3) `f_polygon_class::polygon_class_getpt` (this, a_index)
- integer(irl_unsignedindex_t) function `f_polygon_class::polygon_class_getnumberofsimplicesindecomposition` (this)
- subroutine `f_polygon_class::polygon_class_getsimplexfromdecomposition` (this, a_tri_number_to_get, a_tri_in_decomposition)
- subroutine `f_polygon_class::polygon_class_zeropolygon` (this)
- real(irl_double) function, dimension(3) `f_polygon_class::polygon_class_calculatenearestptonsurface` (this, a_pt)

- real(irl_double) function **f_polygon_class::polygon_class_calculatevolume** (this)
- real(irl_double) function **f_polygon_class::polygon_class_calculatesign** (this)
- subroutine **f_polygon_class::polygon_class_setplaneofexistence** (this, a_plane)
- subroutine **f_polygon_class::polygon_class_calculateandsetplaneofexistence** (this)
- real(irl_double) function, dimension(4) **f_polygon_class::polygon_class_getplaneofexistence** (this)
- real(irl_double) function, dimension(3) **f_polygon_class::polygon_class_calculatecentroid** (this)
- subroutine **f_polygon_class::polygon_class_printtoscreen** (this)

7.23.1 Detailed Description

This file contains the Fortran interface for the Polygon class.

7.24 f_polyhedron24_class.f90 File Reference

This file contains the Fortran interface for the Polyhedron24 class.

Data Types

- type [f_polyhedron24_class::c_polyhedron24](#)
- type [f_polyhedron24_class::polyhedron24_type](#)
- interface [f_polyhedron24_class::new](#)
- interface [f_polyhedron24_class::getcobject](#)
- interface [f_polyhedron24_class::construct](#)
- interface [f_polyhedron24_class::adjustcaptomatchvolume](#)
- interface [f_polyhedron24_class::getboundingpts](#)
- interface [f_polyhedron24_class::getpt](#)
- interface [f_polyhedron24_class::setpt](#)
- interface [f_polyhedron24_class::F_Polyhedron24_new](#)
- interface [f_polyhedron24_class::F_Polyhedron24_delete](#)
- interface [f_polyhedron24_class::F_Polyhedron24_construct](#)
- interface [f_polyhedron24_class::F_Polyhedron24_adjustCapToMatchVolume](#)
- interface [f_polyhedron24_class::F_Polyhedron24_getBoundingPts](#)
- interface [f_polyhedron24_class::F_Polyhedron24_getPt](#)
- interface [f_polyhedron24_class::F_Polyhedron24_setPt](#)

Modules

- module [f_polyhedron24_class](#)

A fortran type class that allows the creation of IRL's Polyhedron24 class along with enabling some of its methods.

Functions/Subroutines

- subroutine **f_polyhedron24_class::polyhedron24_class_new** (this)
- impure elemental subroutine **f_polyhedron24_class::polyhedron24_class_delete** (this)
- type(c_polyhedron24) function **f_polyhedron24_class::polyhedron24_class_getcobject** (this)
- subroutine **f_polyhedron24_class::polyhedron24_class_construct** (this, a_polyhedron24)
- subroutine **f_polyhedron24_class::polyhedron24_class_adjustcaptomatchvolume** (this, a_correct_↔ signed_volume)
- subroutine **f_polyhedron24_class::polyhedron24_class_getboundingpts** (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) **f_polyhedron24_class::polyhedron24_class_getpt** (this, a_index)
- subroutine **f_polyhedron24_class::polyhedron24_class_setpt** (this, a_index, a_pt)

7.24.1 Detailed Description

This file contains the Fortran interface for the Polyhedron24 class.

7.25 f_polyhedron24_doubles3_class.f90 File Reference

This file contains the Fortran interface for the Polyhedron24_doubles3 class.

Data Types

- type [f_polyhedron24_doubles3_class::c_polyhedron24_doubles3](#)
- type [f_polyhedron24_doubles3_class::polyhedron24_doubles3_type](#)
- interface [f_polyhedron24_doubles3_class::new](#)
- interface [f_polyhedron24_doubles3_class::getcobject](#)
- interface [f_polyhedron24_doubles3_class::construct](#)
- interface [f_polyhedron24_doubles3_class::adjustcaptomatchvolume](#)
- interface [f_polyhedron24_doubles3_class::getboundingpts](#)
- interface [f_polyhedron24_doubles3_class::getpt](#)
- interface [f_polyhedron24_doubles3_class::setpt](#)
- interface [f_polyhedron24_doubles3_class::getdata](#)
- interface [f_polyhedron24_doubles3_class::setdata](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_new](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_delete](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_construct](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_adjustCapToMatchVolume](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getBoundingPts](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getPt](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setPt](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_getData](#)
- interface [f_polyhedron24_doubles3_class::F_Polyhedron24_doubles3_setData](#)

Modules

- module [f_polyhedron24_doubles3_class](#)
A fortran type class that allows the creation of IRL's Polyhedron24_doubles3 class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_new](#) (this)
- impure elemental subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_delete](#) (this)
- type(c_polyhedron24_doubles3) function [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_getcobject](#) (this)
- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_construct](#) (this, a_polyhedron24, a_data)
- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_adjustcaptomatchvolume](#) (this, a_correct_signed_volume)
- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_getboundingpts](#) (this, a_lower_pt, a_upper_pt)
- real(irl_double) function, dimension(3) [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_getpt](#) (this, a_index)
- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_setpt](#) (this, a_index, a_pt)
- real(irl_double) function, dimension(3) [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_getdata](#) (this, a_index)
- subroutine [f_polyhedron24_doubles3_class::polyhedron24_doubles3_class_setdata](#) (this, a_index, a_data)

7.25.1 Detailed Description

This file contains the Fortran interface for the Polyhedron24_doubles3 class.

7.26 f_r2pneighborhood_rectangularcuboid_class.f90 File Reference

This file contains functions reproducing the functionality of the IRL class R2PNeighborhood_RectangularCuboid. The purpose of this is to allow building the stencil through references to then supply to obtain a PlanarSeparator using the R2P method.

Data Types

- type [f_r2pneighborhood_rectangularcuboid_class::c_r2pneighborhood_rectangularcuboid](#)
- type [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_type](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::new](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::getcobject](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::setsize](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::setmember](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::addmember](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::emptyneighborhood](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::setcenterofstencil](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::setsurfacearea](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_new](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_delete](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSize](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setMember](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_addMember](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_emptyNeighborhood](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setCenterOfStencil](#)
- interface [f_r2pneighborhood_rectangularcuboid_class::F_R2PNeighborhood_RectangularCuboid_setSurfaceArea](#)

Modules

- module [f_r2pneighborhood_rectangularcuboid_class](#)
A fortran type class to provide the functionality of R2PNeighborhood_RectangularCuboid.

Functions/Subroutines

- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_new (this)
- impure elemental subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_↵](#)
rectangularcuboid_class_delete (this)
- type(c_r2pneighborhood_rectangularcuboid) function [f_r2pneighborhood_rectangularcuboid_class_↵](#)
::r2pneighborhood_rectangularcuboid_class_getcobject (this)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_setsize (this, a_size)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_setmember (this, a_rectangular_cuboid, a_separated_volume_moments, a_index)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_addmember (this, a_rectangular_cuboid, a_separated_volume_moments)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_emptyneighborhood (this)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_setcenterofstencil (this, a_center_cell_index)
- subroutine [f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood_rectangularcuboid_↵](#)
class_setsurfacearea (this, a_surface_area)

7.26.1 Detailed Description

This file contains functions reproducing the functionality of the IRL class `R2PNeighborhood_RectangularCuboid`. The purpose of this is to allow building the stencil through references to then supply to obtain a `PlanarSeparator` using the `R2P` method.

7.27 `f_rectangularcuboid_class.f90` File Reference

This file contains the Fortran interface for the `RectangularCuboid` class.

Data Types

- type `f_rectangularcuboid_class::c_rectangularcuboid`
- type `f_rectangularcuboid_class::rectangularcuboid_type`
- interface `f_rectangularcuboid_class::new`
- interface `f_rectangularcuboid_class::getcobject`
- interface `f_rectangularcuboid_class::construct`
- interface `f_rectangularcuboid_class::construct_2pt`
- interface `f_rectangularcuboid_class::calculatevolume`
- interface `f_rectangularcuboid_class::getboundingpts`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_new`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_delete`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_construct`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_construct_2pt`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_calculateVolume`
- interface `f_rectangularcuboid_class::F_RectangularCuboid_getBoundingPts`

Modules

- module `f_rectangularcuboid_class`
A fortran type class that allows the creation of IRL's `RectangularCuboid` class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_rectangularcuboid_class::rectangularcuboid_class_new` (this)
- impure elemental subroutine `f_rectangularcuboid_class::rectangularcuboid_class_delete` (this)
- type(`c_rectangularcuboid`) function `f_rectangularcuboid_class::rectangularcuboid_class_getcobject` (this)
- subroutine `f_rectangularcuboid_class::rectangularcuboid_class_construct` (this, `a_transported_cell`)
- subroutine `f_rectangularcuboid_class::rectangularcuboid_class_construct_2pt` (this, `a_lower_pt`, `a_upper_pt`)
- real(`irl_double`) function `f_rectangularcuboid_class::rectangularcuboid_class_calculatevolume` (this)
- subroutine `f_rectangularcuboid_class::rectangularcuboid_class_getboundingpts` (this, `a_lower_pt`, `a_upper_pt`)

7.27.1 Detailed Description

This file contains the Fortran interface for the `RectangularCuboid` class.

7.28 f_sepvm_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type [f_sepvm_class::c_sepvm](#)
- type [f_sepvm_class::sepvm_type](#)
- interface [f_sepvm_class::new](#)
- interface [f_sepvm_class::construct](#)
- interface [f_sepvm_class::getcobject](#)
- interface [f_sepvm_class::normalizebyvolume](#)
- interface [f_sepvm_class::multiplybyvolume](#)
- interface [f_sepvm_class::getvolume](#)
- interface [f_sepvm_class::getcentroid](#)
- interface [f_sepvm_class::getvolumeptr](#)
- interface [f_sepvm_class::getcentroidptr](#)
- interface [f_sepvm_class::F_SepVM_new](#)
- interface [f_sepvm_class::F_SepVM_delete](#)
- interface [f_sepvm_class::F_SepVM_construct](#)
- interface [f_sepvm_class::F_SepVM_normalizeByVolume](#)
- interface [f_sepvm_class::F_SepVM_multiplyByVolume](#)
- interface [f_sepvm_class::F_SepVM_getVolume](#)
- interface [f_sepvm_class::F_SepVM_getCentroid](#)
- interface [f_sepvm_class::F_SepVM_getVolumePtr](#)
- interface [f_sepvm_class::F_SepVM_getCentroidPtr](#)

Modules

- module [f_sepvm_class](#)

A fortran type class that allows the creation of IRL's SeparatedMoments< VolumeMoments> class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_sepvm_class::sepvm_class_new](#) (this)
- impure elemental subroutine [f_sepvm_class::sepvm_class_delete](#) (this)
- type(c_sepvm) function [f_sepvm_class::sepvm_class_getcobject](#) (this)
- subroutine [f_sepvm_class::sepvm_class_construct](#) (this, a_moments_list)
- subroutine [f_sepvm_class::sepvm_class_normalizebyvolume](#) (this)
- subroutine [f_sepvm_class::sepvm_class_multiplybyvolume](#) (this)
- real(irl_double) function [f_sepvm_class::sepvm_class_getvolume](#) (this, a_index)
- real(irl_double) function, dimension(3) [f_sepvm_class::sepvm_class_getcentroid](#) (this, a_index)
- real(irl_double) function, pointer [f_sepvm_class::sepvm_class_getvolumeptr](#) (this, a_index)
- real(irl_double) function, dimension(:), pointer [f_sepvm_class::sepvm_class_getcentroidptr](#) (this, a_index)

7.28.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.29 f_sepvm_doubles3_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type [f_sepvm_doubles3_class::c_sepvm_doubles3](#)
- type [f_sepvm_doubles3_class::sepvm_doubles3_type](#)
- interface [f_sepvm_doubles3_class::new](#)
- interface [f_sepvm_doubles3_class::getcobject](#)
- interface [f_sepvm_doubles3_class::normalizebyvolume](#)
- interface [f_sepvm_doubles3_class::multiplybyvolume](#)
- interface [f_sepvm_doubles3_class::getvolume](#)
- interface [f_sepvm_doubles3_class::getcentroid](#)
- interface [f_sepvm_doubles3_class::getdata](#)
- interface [f_sepvm_doubles3_class::getvolumeptr](#)
- interface [f_sepvm_doubles3_class::getcentroidptr](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_new](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_delete](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_normalizeByVolume](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_multiplyByVolume](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_getVolume](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroid](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_getData](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_getVolumePtr](#)
- interface [f_sepvm_doubles3_class::F_SepVM_doubles3_getCentroidPtr](#)

Modules

- module [f_sepvm_doubles3_class](#)

A fortran type class that allows the creation of IRL's SeparatedMoments< VolumeMoments> class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_sepvm_doubles3_class::sepvm_doubles3_class_new](#) (this)
- impure elemental subroutine [f_sepvm_doubles3_class::sepvm_doubles3_class_delete](#) (this)
- type(c_sepvm_doubles3) function [f_sepvm_doubles3_class::sepvm_doubles3_class_getcobject](#) (this)
- subroutine [f_sepvm_doubles3_class::sepvm_doubles3_class_normalizebyvolume](#) (this)
- subroutine [f_sepvm_doubles3_class::sepvm_doubles3_class_multiplybyvolume](#) (this)
- real(irl_double) function [f_sepvm_doubles3_class::sepvm_doubles3_class_getvolume](#) (this, a_index)
- real(irl_double) function, dimension(3) [f_sepvm_doubles3_class::sepvm_doubles3_class_getcentroid](#) (this, a_index)
- real(irl_double) function, dimension(3) [f_sepvm_doubles3_class::sepvm_doubles3_class_getdata](#) (this, a_index)
- real(irl_double) function, pointer [f_sepvm_doubles3_class::sepvm_doubles3_class_getvolumeptr](#) (this, a_index)
- real(irl_double) function, dimension(:), pointer [f_sepvm_doubles3_class::sepvm_doubles3_class_getcentroidptr](#) (this, a_index)

7.29.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.30 f_serializer.f90 File Reference

This file deals with serializing IRL class objects into byte buffers. This is usually done before parallel communication via MPI using MPI_BYTE.

Data Types

- interface [f_serializer::serializeandpack](#)
- interface [f_serializer::unpackandstore](#)
- interface [f_serializer::F_Serializer_serializeAndPack_PlanarSeparator_ByteBuffer](#)
- interface [f_serializer::F_Serializer_unpackAndStore_PlanarSeparator_ByteBuffer](#)

Modules

- module [f_serializer](#)

This module contains mappings to the IRL C interface that deal with serializing IRL class objects into an array of bytes and packing them into a byte buffer.

Functions/Subroutines

- subroutine **f_serializer::serializeandpack_planarseparator_bytebuffer** (a_separator, a_byte_buffer)
- subroutine **f_serializer::unpackandstore_planarseparator_bytebuffer** (a_separator, a_byte_buffer)

7.30.1 Detailed Description

This file deals with serializing IRL class objects into byte buffers. This is usually done before parallel communication via MPI using MPI_BYTE.

7.31 f_tagged_accumlistedvm_vman_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type `f_tagged_accumlistedvm_vman_class::c_tagged_accumlistedvm_vman`
- type `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_type`
- interface `f_tagged_accumlistedvm_vman_class::new`
- interface `f_tagged_accumlistedvm_vman_class::getcobject`
- interface `f_tagged_accumlistedvm_vman_class::getlistatindex`
- interface `f_tagged_accumlistedvm_vman_class::append`
- interface `f_tagged_accumlistedvm_vman_class::clear`
- interface `f_tagged_accumlistedvm_vman_class::getsize`
- interface `f_tagged_accumlistedvm_vman_class::gettagforindex`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_new`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_delete`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getListAtIndex`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_append`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_clear`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getSize`
- interface `f_tagged_accumlistedvm_vman_class::F_Tagged_AccumListedVM_VMAN_getTagForIndex`

Modules

- module `f_tagged_accumlistedvm_vman_class`
A fortran type class that allows the creation of IRL's TaggedAccumulatedListedVolumeMomentsM<Volume↔MomentsAndNormal> class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_new` (this)
- impure elemental subroutine `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_delete` (this)
- type(`c_tagged_accumlistedvm_vman`) function `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_getcobject` (this)
- subroutine `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_getlistatindex` (this, a_index, a_other_list)
- subroutine `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_append` (this, a_other_list)
- subroutine `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_clear` (this)
- integer(`irl_unsignedindex_t`) function `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_getsize` (this)
- integer(`irl_unsignedindex_t`) function `f_tagged_accumlistedvm_vman_class::tagged_accumlistedvm_vman_class_gettagforindex` (this, a_index)

7.31.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.32 f_tagged_accumvm_sepvman_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type [f_tagged_accumvm_sepvm_class::c_tagged_accumvm_sepvm](#)
- type [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_type](#)
- interface [f_tagged_accumvm_sepvm_class::new](#)
- interface [f_tagged_accumvm_sepvm_class::getcobject](#)
- interface [f_tagged_accumvm_sepvm_class::normalizebyvolume](#)
- interface [f_tagged_accumvm_sepvm_class::multiplybyvolume](#)
- interface [f_tagged_accumvm_sepvm_class::getvolumeatindex](#)
- interface [f_tagged_accumvm_sepvm_class::getcentroidatindex](#)
- interface [f_tagged_accumvm_sepvm_class::getvolumeatitag](#)
- interface [f_tagged_accumvm_sepvm_class::getcentroidatitag](#)
- interface [f_tagged_accumvm_sepvm_class::getvolumeptratindex](#)
- interface [f_tagged_accumvm_sepvm_class::getcentroidptratindex](#)
- interface [f_tagged_accumvm_sepvm_class::getsize](#)
- interface [f_tagged_accumvm_sepvm_class::gettagforindex](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_new](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_delete](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_normalizeByVolume](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_multiplyByVolume](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtIndex](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtIndex](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumeAtTag](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidAtTag](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getVolumePtrAtIndex](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getCentroidPtrAtIndex](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getSize](#)
- interface [f_tagged_accumvm_sepvm_class::F_Tagged_AccumVM_SepVM_getTagForIndex](#)

Modules

- module [f_tagged_accumvm_sepvm_class](#)

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM<SeparatedMoments< Volume↔ Moments>> class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_new](#) (this)
- impure elemental subroutine [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class↔ delete](#) (this)
- type(c_tagged_accumvm_sepvm) function [f_tagged_accumvm_sepvm_class::tagged_accumvm↔ sepvm_class_getcobject](#) (this)
- subroutine [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_normalizebyvolume](#) (this)
- subroutine [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_multiplybyvolume](#) (this)
- real(irl_double) function [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class↔ getvolumeatindex](#) (this, a_list_index, a_index)
- real(irl_double) function, dimension(3) [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm↔ class_getcentroidatindex](#) (this, a_list_index, a_index)
- real(irl_double) function [f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class↔ getvolumeatitag](#) (this, a_tag, a_index)

- `real(irl_double)` function, dimension(3) `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_getcentroidatag` (this, a_tag, a_index)
- `real(irl_double)` function, pointer `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_getvolumepratrindex` (this, a_list_index, a_index)
- `real(irl_double)` function, dimension(:), pointer `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_getcentroidpratrindex` (this, a_list_index, a_index)
- `integer(irl_unsignedindex_t)` function `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_getsize` (this)
- `integer(irl_unsignedindex_t)` function `f_tagged_accumvm_sepvm_class::tagged_accumvm_sepvm_class_gettagforindex` (this, a_index)

7.32.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.33 f_tagged_accumvm_vm_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type `f_tagged_accumvm_vm_class::c_tagged_accumvm_vm`
- type `f_tagged_accumvm_vm_class::tagged_accumvm_vm_type`
- interface `f_tagged_accumvm_vm_class::new`
- interface `f_tagged_accumvm_vm_class::getcobject`
- interface `f_tagged_accumvm_vm_class::normalizebyvolume`
- interface `f_tagged_accumvm_vm_class::multiplybyvolume`
- interface `f_tagged_accumvm_vm_class::getvolumeatindex`
- interface `f_tagged_accumvm_vm_class::getcentroidatindex`
- interface `f_tagged_accumvm_vm_class::getvolumepratrindex`
- interface `f_tagged_accumvm_vm_class::getcentroidpratrindex`
- interface `f_tagged_accumvm_vm_class::getsize`
- interface `f_tagged_accumvm_vm_class::gettagforindex`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_new`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_delete`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_normalizeByVolume`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_multiplyByVolume`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumeAtIndex`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidAtIndex`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getVolumePtrAtIndex`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getCentroidPtrAtIndex`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getSize`
- interface `f_tagged_accumvm_vm_class::F_Tagged_AccumVM_VM_getTagForIndex`

Modules

- module `f_tagged_accumvm_vm_class`

A fortran type class that allows the creation of IRL's AccumulatedVolumeMomentsM< VolumeMoments> class along with enabling some of its methods.

Functions/Subroutines

- subroutine **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_new** (this)
- impure elemental subroutine **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_delete** (this)
- type(c_tagged_accumvm_vm) function **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getcobject** (this)
- subroutine **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_normalizebyvolume** (this)
- subroutine **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_multiplybyvolume** (this)
- real(irl_double) function **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getvolumeatindex** (this, a_list_index)
- real(irl_double) function, dimension(3) **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getcentroidatindex** (this, a_list_index)
- real(irl_double) function, pointer **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getvolumepratrindex** (this, a_list_index)
- real(irl_double) function, dimension(:), pointer **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getcentroidpratrindex** (this, a_list_index)
- integer(irl_unsignedindex_t) function **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_getsize** (this)
- integer(irl_unsignedindex_t) function **f_tagged_accumvm_vm_class::tagged_accumvm_vm_class_gettagforindex** (this, a_index)

7.33.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.34 f_tet_class.f90 File Reference

This file contains the Fortran interface for the Tet class.

Data Types

- type [f_tet_class::c_tet](#)
- type [f_tet_class::tet_type](#)
- interface [f_tet_class::new](#)
- interface [f_tet_class::getcobject](#)
- interface [f_tet_class::construct](#)
- interface [f_tet_class::getboundingpts](#)
- interface [f_tet_class::F_Tet_new](#)
- interface [f_tet_class::F_Tet_delete](#)
- interface [f_tet_class::F_Tet_construct](#)
- interface [f_tet_class::F_Tet_getBoundingPts](#)

Modules

- module [f_tet_class](#)

A fortran type class that allows the creation of IRL's Tet class along with enabling some of its methods.

Functions/Subroutines

- subroutine `f_tet_class::tet_class_new` (this)
- impure elemental subroutine `f_tet_class::tet_class_delete` (this)
- type(`c_tet`) function `f_tet_class::tet_class_getcobject` (this)
- subroutine `f_tet_class::tet_class_construct` (this, `a_Tet_pts`)
- subroutine `f_tet_class::tet_class_getboundingpts` (this, `a_lower_pt`, `a_upper_pt`)

7.34.1 Detailed Description

This file contains the Fortran interface for the Tet class.

7.35 f_tri_class.f90 File Reference

This file contains the Fortran interface for the Tri class.

Data Types

- type `f_tri_class::c_tri`
- type `f_tri_class::tri_type`
- interface `f_tri_class::new`
- interface `f_tri_class::getcobject`
- interface `f_tri_class::construct`
- interface `f_tri_class::getvertices`
- interface `f_tri_class::calculatevolume`
- interface `f_tri_class::calculatecentroid`
- interface `f_tri_class::calculatenormal`
- interface `f_tri_class::getlocalizer`
- interface `f_tri_class::reverseptordering`
- interface `f_tri_class::getboundingpts`
- interface `f_tri_class::calculatesign`
- interface `f_tri_class::setplaneofexistence`
- interface `f_tri_class::calculateandsetplaneofexistence`
- interface `f_tri_class::getplaneofexistence`
- interface `f_tri_class::F_Tri_new`
- interface `f_tri_class::F_Tri_delete`
- interface `f_tri_class::F_Tri_construct`
- interface `f_tri_class::F_Tri_getVertices`
- interface `f_tri_class::F_Tri_calculateVolume`
- interface `f_tri_class::F_Tri_calculateCentroid`
- interface `f_tri_class::F_Tri_calculateNormal`
- interface `f_tri_class::F_Tri_getLocalizer`
- interface `f_tri_class::F_Tri_reversePtOrdering`
- interface `f_tri_class::F_Tri_getBoundingPts`
- interface `f_tri_class::F_Tri_calculateSign`
- interface `f_tri_class::F_Tri_setPlaneOfExistence`
- interface `f_tri_class::F_Tri_calculateAndSetPlaneOfExistence`
- interface `f_tri_class::F_Tri_getPlaneOfExistence`

Modules

- module [f_tri_class](#)

A fortran type class that allows the creation of IRL's Tri class along with enabling some of its methods.

Functions/Subroutines

- subroutine [f_tri_class::tri_class_new](#) (this)
- impure elemental subroutine [f_tri_class::tri_class_delete](#) (this)
- type(c_tri) function [f_tri_class::tri_class_getcobject](#) (this)
- subroutine [f_tri_class::tri_class_construct](#) (this, a_pts)
- real(irl_double) function, dimension(1:3, 1:3) [f_tri_class::tri_class_getvertices](#) (this)
- real(irl_double) function [f_tri_class::tri_class_calculatevolume](#) (this)
- real(irl_double) function, dimension(1:3) [f_tri_class::tri_class_calculatecentroid](#) (this)
- real(irl_double) function, dimension(1:3) [f_tri_class::tri_class_calculatenormal](#) (this)
- subroutine [f_tri_class::tri_class_getlocalizer](#) (this, a_planar_localizer)
- subroutine [f_tri_class::tri_class_reverseptordering](#) (this)
- subroutine [f_tri_class::tri_class_getboundingpts](#) (this, a_lower_pt, a_upper_pt)
- real(irl_double) function [f_tri_class::tri_class_calculatesign](#) (this)
- subroutine [f_tri_class::tri_class_setplaneofexistence](#) (this, a_plane)
- subroutine [f_tri_class::tri_class_calculateandsetplaneofexistence](#) (this)
- real(irl_double) function, dimension(4) [f_tri_class::tri_class_getplaneofexistence](#) (this)

7.35.1 Detailed Description

This file contains the Fortran interface for the Tri class.

7.36 f_vman_class.f90 File Reference

This file contains the Fortran interface for volume moments classes.

Data Types

- type [f_vman_class::c_vman](#)
- type [f_vman_class::vman_type](#)
- interface [f_vman_class::new](#)
- interface [f_vman_class::getcobject](#)
- interface [f_vman_class::getvolume](#)
- interface [f_vman_class::getcentroid](#)
- interface [f_vman_class::getnormal](#)
- interface [f_vman_class::normalizebyvolume](#)
- interface [f_vman_class::multiplybyvolume](#)
- interface [f_vman_class::F_VMAN_new](#)
- interface [f_vman_class::F_VMAN_delete](#)
- interface [f_vman_class::F_VMAN_getVolume](#)
- interface [f_vman_class::F_VMAN_getCentroid](#)
- interface [f_vman_class::F_VMAN_getNormal](#)
- interface [f_vman_class::F_VMAN_normalizeByVolume](#)
- interface [f_vman_class::F_VMAN_multiplyByVolume](#)

Modules

- module [f_vman_class](#)

A fortran type class that allows the creation of IRL's AccumulatedListedVolumeMomentsM< VolumeMomentsAnd↔ Normal> class along with enabling some of its methods.

Functions/Subroutines

- subroutine **f_vman_class::vman_class_new** (this)
- impure elemental subroutine **f_vman_class::vman_class_delete** (this)
- type(c_vman) function **f_vman_class::vman_class_getcobject** (this)
- real(irl_double) function **f_vman_class::vman_class_getvolume** (this)
- real(irl_double) function, dimension(3) **f_vman_class::vman_class_getcentroid** (this)
- real(irl_double) function, dimension(3) **f_vman_class::vman_class_getnormal** (this)
- subroutine **f_vman_class::vman_class_normalizebyvolume** (this)
- subroutine **f_vman_class::vman_class_multiplybyvolume** (this)

7.36.1 Detailed Description

This file contains the Fortran interface for volume moments classes.

7.37 f_volumefractionmatching.f90 File Reference

This file deals with setting the distances to each plane in a planar reconstruction to match a given volume fraction for the provided cell.

Data Types

- interface [f_volumefractionmatching::setdistancetomatchvolumefraction](#)
- interface [f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS](#)
- interface [f_volumefractionmatching::F_setDistanceToMatchVolumeFraction_RC_PS_DefTol](#)

Modules

- module [f_volumefractionmatching](#)

This module contains mappings to the IRL C interface that deals with setting the distance to each plane in a reconstruction to recreate the volume fraction on the provided polyhedron.

Functions/Subroutines

- subroutine **f_volumefractionmatching::setdistancetomatchvolumefraction_rc_ps** (a_rectangular_↔ cuboid, a_volume_fraction, a_planar_separator, a_volume_fraction_tolerance)
- subroutine **f_volumefractionmatching::setdistancetomatchvolumefraction_rc_ps_deftol** (a_↔ rectangular_cuboid, a_volume_fraction, a_planar_separator)

7.37.1 Detailed Description

This file deals with setting the distances to each plane in a planar reconstruction to match a given volume fraction for the provided cell.

7.38 `irl_fortran_interface.f90` File Reference

This file serves to provide a single include directive when using the IRL fortran interface.

Modules

- module [irl_fortran_interface](#)

This is just a master wrapper for the entire IRL fortran interface. For information about each module, view the documentation for the module itself.

7.38.1 Detailed Description

This file serves to provide a single include directive when using the IRL fortran interface.

Index

c_ByteBuffer, 59
c_CappedDodecahedron, 60
c_CappedDodecahedron_doubles3, 60
c_Constants_setMinimumSurfaceAreaToTrack
 c_constants.h, 261
c_Constants_setMinimumVolumeToTrack
 c_constants.h, 262
c_Constants_setVolumeFractionBounds
 c_constants.h, 262
c_Constants_setVolumeFractionToleranceForIterative↔
 DistanceFinding
 c_constants.h, 262
c_DividedPolygon, 61
c_Dodecahedron, 62
c_ELVIRANeighborhood, 62
c_LVIRANeighborhood_RectangularCuboid, 65
c_ListedVM_VMAN, 63
c_LocalizedSeparatorLink, 63
c_LocalizerLink, 64
c_ObjectAllocationServer_LocalizedSeparatorLink, 65
c_ObjectAllocationServer_LocalizerLink, 66
c_ObjectAllocationServer_PlanarLocalizer, 67
c_ObjectAllocationServer_PlanarSeparator, 67
c_PlanarLocalizer, 68
c_PlanarSeparator, 69
c_Polygon, 70
c_Polyhedron24, 70
c_Polyhedron24_doubles3, 71
c_R2PNeighborhood_RectangularCuboid, 71
c_RectangularCuboid, 72
c_SepVM_doubles3, 73
c_SepVM, 73
c_Tagged_AccumListedVM_VMAN, 74
c_Tagged_AccumVM_SepVM, 75
c_Tagged_AccumVM_VM, 76
c_Tet, 76
c_Tri, 77
c_VMAN, 78
c_constants.h, 261
 c_Constants_setMinimumSurfaceAreaToTrack,
 261
 c_Constants_setMinimumVolumeToTrack, 262
 c_Constants_setVolumeFractionBounds, 262
 c_Constants_setVolumeFractionToleranceFor↔
 IterativeDistanceFinding, 262
c_cut_polygon.h, 263
 c_getPlanePolygonFromReconstruction_Rectangular↔
 Cuboid_DividedPolygon, 263
 c_getPlanePolygonFromReconstruction_Rectangular↔
 Cuboid_Polygon
 c_cut_polygon.h, 264
c_getReconstructionSurfaceArea_RectangularCuboid
 c_cut_polygon.h, 264
c_getVolumeMoments_setMethod
 c_generic_cutting.h, 267
c_localizers.h, 267
c_serializer.h, 268

f_bytebuffer_class, 23
f_bytebuffer_class.f90, 269
f_bytebuffer_class::F_ByteBuffer_dataPtr, 92
f_bytebuffer_class::F_ByteBuffer_delete, 92
f_bytebuffer_class::F_ByteBuffer_getSize, 93
f_bytebuffer_class::F_ByteBuffer_new, 93
f_bytebuffer_class::F_ByteBuffer_resetBufferPointer, 93
f_bytebuffer_class::F_ByteBuffer_setSize, 94
f_bytebuffer_class::bytebuffer_type, 58
f_bytebuffer_class::c_bytebuffer, 59
f_bytebuffer_class::dataptr, 89
f_bytebuffer_class::getcobject, 192
f_bytebuffer_class::getsize, 212
f_bytebuffer_class::new, 226
f_bytebuffer_class::resetbufferpointer, 243
f_bytebuffer_class::setsize, 254
f_cappeddodecahedron_class, 24
f_cappeddodecahedron_class.f90, 269
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _adjustCapToMatchVolume, 94
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _construct, 94
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _delete, 95
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _getBoundingPts, 98
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _getPt, 98
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _new, 99
f_cappeddodecahedron_class::adjustcaptomatchvolume,
 57

Cuboid_Polygon, 264
c_getReconstructionSurfaceArea_Rectangular↔
 Cuboid, 264
c_generic_cutting.h, 265
 c_getVolumeMoments_setMethod, 267
c_getPlanePolygonFromReconstruction_Rectangular↔
 Cuboid_DividedPolygon
 c_cut_polygon.h, 263
c_getPlanePolygonFromReconstruction_Rectangular↔
 Cuboid_Polygon
 c_cut_polygon.h, 264
c_getReconstructionSurfaceArea_RectangularCuboid
 c_cut_polygon.h, 264
c_getVolumeMoments_setMethod
 c_generic_cutting.h, 267
c_localizers.h, 267
c_serializer.h, 268

f_bytebuffer_class, 23
f_bytebuffer_class.f90, 269
f_bytebuffer_class::F_ByteBuffer_dataPtr, 92
f_bytebuffer_class::F_ByteBuffer_delete, 92
f_bytebuffer_class::F_ByteBuffer_getSize, 93
f_bytebuffer_class::F_ByteBuffer_new, 93
f_bytebuffer_class::F_ByteBuffer_resetBufferPointer, 93
f_bytebuffer_class::F_ByteBuffer_setSize, 94
f_bytebuffer_class::bytebuffer_type, 58
f_bytebuffer_class::c_bytebuffer, 59
f_bytebuffer_class::dataptr, 89
f_bytebuffer_class::getcobject, 192
f_bytebuffer_class::getsize, 212
f_bytebuffer_class::new, 226
f_bytebuffer_class::resetbufferpointer, 243
f_bytebuffer_class::setsize, 254
f_cappeddodecahedron_class, 24
f_cappeddodecahedron_class.f90, 269
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _adjustCapToMatchVolume, 94
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _construct, 94
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _delete, 95
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _getBoundingPts, 98
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _getPt, 98
f_cappeddodecahedron_class::F_CappedDodecahedron↔
 _new, 99
f_cappeddodecahedron_class::adjustcaptomatchvolume,
 57

- f_cappeddodecahedron_class::c_cappeddodecahedron, 59
- f_cappeddodecahedron_class::cappeddodecahedron↔_type, 84
- f_cappeddodecahedron_class::construct, 87
- f_cappeddodecahedron_class::getboundingpts, 187
- f_cappeddodecahedron_class::getcobject, 192
- f_cappeddodecahedron_class::getpt, 210
- f_cappeddodecahedron_class::new, 224
- f_cappeddodecahedron_doubles3_class, 24
- f_cappeddodecahedron_doubles3_class.f90, 270
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_adjustCapTo↔MatchVolume, 95
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_construct, 95
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_delete, 96
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_getBoundingPts, 96
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_getData, 96
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_getPt, 97
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_new, 97
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_setData, 97
- f_cappeddodecahedron_doubles3_class::F_Capped↔Dodecahedron_doubles3_setPt, 98
- f_cappeddodecahedron_doubles3_class::adjustcaptomatchvolume, 57
- f_cappeddodecahedron_doubles3_class::c_cappeddodecahedron_doubles3, 60
- f_cappeddodecahedron_doubles3_class::cappeddodecahedron_doubles3_type, 83
- f_cappeddodecahedron_doubles3_class::construct, 88
- f_cappeddodecahedron_doubles3_class::getboundingpts, 185
- f_cappeddodecahedron_doubles3_class::getcobject, 200
- f_cappeddodecahedron_doubles3_class::getdata, 201
- f_cappeddodecahedron_doubles3_class::getpt, 209
- f_cappeddodecahedron_doubles3_class::new, 223
- f_cappeddodecahedron_doubles3_class::setdata, 247
- f_cappeddodecahedron_doubles3_class::setpt, 253
- f_constants, 25
- f_constants.f90, 272
- f_constants::F_Constants_setMinimumSurfaceArea↔ToTrack, 99
- f_constants::F_Constants_setMinimumVolumeToTrack, 99
- f_constants::F_Constants_setVolumeFractionBounds, 100
- f_constants::F_Constants_setVolumeFractionTolerance↔ForDistanceFinding, 100
- f_cutpolygon, 26
- f_cutpolygon.f90, 272
- f_cutpolygon::F_getPlanePolygonFromReconstruction↔_RC_DivPoly, 110
- f_cutpolygon::F_getPlanePolygonFromReconstruction↔_RC_Poly, 110
- f_cutpolygon::F_getReconstructionSurfaceArea_RC, 110
- f_cutpolygon::getplanepolygonfromreconstruction, 208
- f_cutpolygon::getreconstructionsurfacearea, 211
- f_definedtypes, 27
- f_dividedpolygon_class, 27
- f_dividedpolygon_class.f90, 273
- f_dividedpolygon_class::F_DividedPolygon_calculate↔AndSetPlaneOfExistence, 100
- f_dividedpolygon_class::F_DividedPolygon_calculate↔Normal, 101
- f_dividedpolygon_class::F_DividedPolygon_calculate↔Sign, 101
- f_dividedpolygon_class::F_DividedPolygon_calculate↔SurfaceArea, 101
- f_dividedpolygon_class::F_DividedPolygon_construct, 102
- f_dividedpolygon_class::F_DividedPolygon_construct↔FromPolygon, 102
- f_dividedpolygon_class::F_DividedPolygon_delete, 102
- f_dividedpolygon_class::F_DividedPolygon_get↔BoundingPts, 103
- f_dividedpolygon_class::F_DividedPolygon_get↔Localizer, 103
- f_dividedpolygon_class::F_DividedPolygon_get↔NumberOfPts, 103
- f_dividedpolygon_class::F_DividedPolygon_get↔NumberOfSimplicesInDecomposition, 104
- f_dividedpolygon_class::F_DividedPolygon_getPlane↔OfExistence, 104
- f_dividedpolygon_class::F_DividedPolygon_getPt, 104
- f_dividedpolygon_class::F_DividedPolygon_get↔SimplexFromDecomposition, 105
- f_dividedpolygon_class::F_DividedPolygon_new, 105
- f_dividedpolygon_class::F_DividedPolygon_printTo↔Screen, 105
- f_dividedpolygon_class::F_DividedPolygon_reset↔Centroid, 106
- f_dividedpolygon_class::F_DividedPolygon_reversePt↔Ordering, 106
- f_dividedpolygon_class::F_DividedPolygon_setPlane↔OfExistence, 106
- f_dividedpolygon_class::F_DividedPolygon_zero↔Polygon, 107
- f_dividedpolygon_class::c_dividedpolygon, 61
- f_dividedpolygon_class::calculateandsetplaneofexistence, 79
- f_dividedpolygon_class::calculatenormal, 81
- f_dividedpolygon_class::calculatesign, 82
- f_dividedpolygon_class::calculatesurfacearea, 82
- f_dividedpolygon_class::construct, 86
- f_dividedpolygon_class::constructfrompolygon, 89
- f_dividedpolygon_class::dividedpolygon_type, 90

- f_dividedpolygon_class::getboundingpts, [187](#)
- f_dividedpolygon_class::getcobject, [197](#)
- f_dividedpolygon_class::getlocalizer, [204](#)
- f_dividedpolygon_class::getnumberofsimplicesindecomposition, [206](#)
- f_dividedpolygon_class::getnumberofvertices, [207](#)
- f_dividedpolygon_class::getplaneofexistence, [208](#)
- f_dividedpolygon_class::getpt, [210](#)
- f_dividedpolygon_class::getsimplexfromdecomposition, [211](#)
- f_dividedpolygon_class::new, [230](#)
- f_dividedpolygon_class::printtoscreen, [238](#)
- f_dividedpolygon_class::resetcentroid, [244](#)
- f_dividedpolygon_class::reverseptordering, [244](#)
- f_dividedpolygon_class::setplaneofexistence, [253](#)
- f_dividedpolygon_class::zeropolygon, [260](#)
- f_dodecahedron_class, [29](#)
- f_dodecahedron_class.f90, [275](#)
- f_dodecahedron_class::F_Dodecahedron_construct, [107](#)
- f_dodecahedron_class::F_Dodecahedron_delete, [107](#)
- f_dodecahedron_class::F_Dodecahedron_getBounding←
Pts, [108](#)
- f_dodecahedron_class::F_Dodecahedron_new, [108](#)
- f_dodecahedron_class::c_dodecahedron, [61](#)
- f_dodecahedron_class::construct, [85](#)
- f_dodecahedron_class::dodecahedron_type, [90](#)
- f_dodecahedron_class::getboundingpts, [185](#)
- f_dodecahedron_class::getcobject, [195](#)
- f_dodecahedron_class::new, [224](#)
- f_elviraneighborhood_class, [29](#)
- f_elviraneighborhood_class::F_ELVRANeighborhood←
_delete, [108](#)
- f_elviraneighborhood_class::F_ELVRANeighborhood←
_new, [109](#)
- f_elviraneighborhood_class::F_ELVRANeighborhood←
_setMember, [109](#)
- f_elviraneighborhood_class::F_ELVRANeighborhood←
_setSize, [109](#)
- f_elviraneighborhood_class::c_elviraneighborhood, [62](#)
- f_elviraneighborhood_class::elviraneighborhood_type, [91](#)
- f_elviraneighborhood_class::getcobject, [199](#)
- f_elviraneighborhood_class::new, [227](#)
- f_elviraneighborhood_class::setmember, [250](#)
- f_elviraneighborhood_class::setsize, [255](#)
- f_geometriccuttinghelpers, [30](#)
- f_geometriccuttinghelpers.f90, [275](#)
- f_geometriccuttinghelpers::F_isPtInternal_PL, [117](#)
- f_geometriccuttinghelpers::F_isPtInternal_PS, [117](#)
- f_geometriccuttinghelpers::isptinternal, [219](#)
- f_getvolumemoments, [30](#)
- f_getvolumemoments.f90, [276](#)
- f_getvolumemoments::F_GNVM_CD_By_LSL_For_S←
VM, [111](#)
- f_getvolumemoments::F_GNVM_CD_By_LSL_For_←
TagAccumVM_SVM, [111](#)
- f_getvolumemoments::F_GNVM_CDWD3_By_LSL_←
For_SVMAD3, [111](#)
- f_getvolumemoments::F_GNVM_D_By_LSL_For_SVM, [112](#)
- f_getvolumemoments::F_GNVM_D_By_LSL_For_←
TagAccumVM_SVM, [112](#)
- f_getvolumemoments::F_GNVM_D_By_PS_For_SVM, [112](#)
- f_getvolumemoments::F_GNVM_P24_By_LSL_For_←
SVM, [113](#)
- f_getvolumemoments::F_GNVM_P24WD3_By_LSL_←
For_SVMAD3, [113](#)
- f_getvolumemoments::F_GNVM_Poly_By_PL_For_V, [113](#)
- f_getvolumemoments::F_GNVM_RC_By_PS_For_S←
VM, [114](#)
- f_getvolumemoments::F_GNVM_RC_By_PS_For_V, [114](#)
- f_getvolumemoments::F_GNVM_Tet_By_LSL_For_S←
VM, [114](#)
- f_getvolumemoments::F_GNVM_Tri_By_LL_For_Tag←
AVM_VM, [115](#)
- f_getvolumemoments::F_GNVM_Tri_By_PL_For_V, [115](#)
- f_getvolumemoments::F_GVM_CD_By_LSL_For_SVM, [115](#)
- f_getvolumemoments::F_GVM_D_By_LSL_For_SVM, [116](#)
- f_getvolumemoments::F_GVM_P24_By_LSL_For_S←
VM, [116](#)
- f_getvolumemoments::F_GVM_Tri_By_LL_For_TagA←
LVM_VMAN, [117](#)
- f_getvolumemoments::F_GVM_setMethod, [116](#)
- f_getvolumemoments::getnormalizedvolumemoments, [205](#)
- f_getvolumemoments::getvolumemoments, [217](#)
- f_getvolumemoments::getvolumemoments_setmethod, [217](#)
- f_listedvm_vman_class, [32](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_append, [118](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_clear, [118](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_delete, [118](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_erase, [119](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_get←
Moments, [119](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_getSize, [119](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_new, [120](#)
- f_listedvm_vman_class::F_ListedVM_VMAN_zero←
NormalComponent, [120](#)
- f_listedvm_vman_class::append, [58](#)
- f_listedvm_vman_class::c_listedvm_vman, [63](#)
- f_listedvm_vman_class::clear, [84](#)
- f_listedvm_vman_class::erase, [92](#)
- f_listedvm_vman_class::getcobject, [196](#)

- [f_listedvm_vman_class::getmoments](#), 204
- [f_listedvm_vman_class::getsize](#), 212
- [f_listedvm_vman_class::listedvm_vman_type](#), 219
- [f_listedvm_vman_class::new](#), 225
- [f_listedvm_vman_class::zeronormalcomponent](#), 259
- [f_localizedseparatorlink_class](#), 33
- [f_localizedseparatorlink_class.f90](#), 277
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_delete](#), 120
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_getId](#), 121
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_new](#), 121
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_newFromObjectAllocationServer](#), 121
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_setEdgeConnectivity](#), 122
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_setEdgeConnectivityNull](#), 122
- [f_localizedseparatorlink_class::F_LocalizedSeparator↔
Link_setId](#), 122
- [f_localizedseparatorlink_class::c_localizedseparatorlink](#), 64
- [f_localizedseparatorlink_class::getcobject](#), 198
- [f_localizedseparatorlink_class::getid](#), 202
- [f_localizedseparatorlink_class::localizedseparatorlink↔
_type](#), 220
- [f_localizedseparatorlink_class::new](#), 228
- [f_localizedseparatorlink_class::setedgeconnectivity](#), 248
- [f_localizedseparatorlink_class::setedgeconnectivitynull](#), 249
- [f_localizedseparatorlink_class::setid](#), 249
- [f_localizerlink_class](#), 33
- [f_localizerlink_class.f90](#), 278
- [f_localizerlink_class::F_LocalizerLink_delete](#), 123
- [f_localizerlink_class::F_LocalizerLink_getId](#), 123
- [f_localizerlink_class::F_LocalizerLink_new](#), 123
- [f_localizerlink_class::F_LocalizerLink_newFrom↔
ObjectAllocationServer](#), 124
- [f_localizerlink_class::F_LocalizerLink_setEdge↔
Connectivity](#), 124
- [f_localizerlink_class::F_LocalizerLink_setEdge↔
ConnectivityNull](#), 124
- [f_localizerlink_class::F_LocalizerLink_setId](#), 125
- [f_localizerlink_class::c_localizerlink](#), 64
- [f_localizerlink_class::getcobject](#), 197
- [f_localizerlink_class::getid](#), 202
- [f_localizerlink_class::localizerlink_type](#), 220
- [f_localizerlink_class::new](#), 231
- [f_localizerlink_class::setedgeconnectivity](#), 248
- [f_localizerlink_class::setedgeconnectivitynull](#), 248
- [f_localizerlink_class::setid](#), 250
- [f_lviraneighborhood_rectangularcuboid_class](#), 34
- [f_lviraneighborhood_rectangularcuboid_class::F_LV↔
RANeighborhood_RectangularCuboid_add↔
Member](#), 125
- [f_lviraneighborhood_rectangularcuboid_class::F_L↔
VIRANeighborhood_RectangularCuboid↔
delete](#), 125
- [f_lviraneighborhood_rectangularcuboid_class::F_L↔
VIRANeighborhood_RectangularCuboid↔
emptyNeighborhood](#), 126
- [f_lviraneighborhood_rectangularcuboid_class::F_LV↔
IRANeighborhood_RectangularCuboid_new](#), 126
- [f_lviraneighborhood_rectangularcuboid_class::F_LV↔
RANeighborhood_RectangularCuboid_set↔
CenterOfStencil](#), 126
- [f_lviraneighborhood_rectangularcuboid_class::F_LV↔
RANeighborhood_RectangularCuboid_set↔
Member](#), 127
- [f_lviraneighborhood_rectangularcuboid_class::F_LV↔
RANeighborhood_RectangularCuboid_set↔
Size](#), 127
- [f_lviraneighborhood_rectangularcuboid_class::addmember](#), 55
- [f_lviraneighborhood_rectangularcuboid_class::c↔
lviraneighborhood_rectangularcuboid](#), 65
- [f_lviraneighborhood_rectangularcuboid_class::emptyneighborhood](#), 91
- [f_lviraneighborhood_rectangularcuboid_class::getcobject](#), 194
- [f_lviraneighborhood_rectangularcuboid_class::lviraneighborhood↔
_rectangularcuboid_type](#), 220
- [f_lviraneighborhood_rectangularcuboid_class::new](#), 231
- [f_lviraneighborhood_rectangularcuboid_class::setcenterofstencil](#), 246
- [f_lviraneighborhood_rectangularcuboid_class::setmember](#), 250
- [f_lviraneighborhood_rectangularcuboid_class::setsize](#), 255
- [f_objectallocationserver_localizedseparatorlink_class](#), 35
- [f_objectallocationserver_localizedseparatorlink↔
class.f90](#), 279
- [f_objectallocationserver_localizedseparatorlink↔
class::F_ObjectAllocationServer_Localized↔
SeparatorLink_delete](#), 127
- [f_objectallocationserver_localizedseparatorlink↔
class::F_ObjectAllocationServer_Localized↔
SeparatorLink_new](#), 128
- [f_objectallocationserver_localizedseparatorlink_class↔
::c_objectallocationserver_localizedseparatorlink](#), 66
- [f_objectallocationserver_localizedseparatorlink_class↔
::getcobject](#), 193
- [f_objectallocationserver_localizedseparatorlink_class↔
::new](#), 225
- [f_objectallocationserver_localizedseparatorlink_class↔
::objectallocationserver_localizedseparatorlink↔
_type](#), 234
- [f_objectallocationserver_localizerlink_class](#), 36
- [f_objectallocationserver_localizerlink_class.f90](#), 280
- [f_objectallocationserver_localizerlink_class::F_Object↔
AllocationServer_LocalizerLink_delete](#), 128

- f_objectallocationserver_localizerlink_class::F_ObjectAllocationServer_LocalizerLink_new, 128
- f_objectallocationserver_localizerlink_class::c_objectallocationserver_localizerlink, 66
- f_objectallocationserver_localizerlink_class::getcobject, 195
- f_objectallocationserver_localizerlink_class::new, 227
- f_objectallocationserver_localizerlink_class::objectallocationserver_localizerlink_type, 234
- f_objectallocationserver_planarlocalizer_class, 36
- f_objectallocationserver_planarlocalizer_class.f90, 281
- f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_delete, 129
- f_objectallocationserver_planarlocalizer_class::F_ObjectAllocationServer_PlanarLocalizer_new, 129
- f_objectallocationserver_planarlocalizer_class::c_objectallocationserver_planarlocalizer, 67
- f_objectallocationserver_planarlocalizer_class::getcobject, 201
- f_objectallocationserver_planarlocalizer_class::new, 222
- f_objectallocationserver_planarlocalizer_class::objectallocationserver_planarlocalizer_type, 235
- f_objectallocationserver_planarseparator_class, 37
- f_objectallocationserver_planarseparator_class.f90, 282
- f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_delete, 129
- f_objectallocationserver_planarseparator_class::F_ObjectAllocationServer_PlanarSeparator_new, 130
- f_objectallocationserver_planarseparator_class::c_objectallocationserver_planarseparator, 68
- f_objectallocationserver_planarseparator_class::getcobject, 194
- f_objectallocationserver_planarseparator_class::new, 223
- f_objectallocationserver_planarseparator_class::objectallocationserver_planarseparator_type, 235
- f_planarlocalizer_class, 37
- f_planarlocalizer_class.f90, 282
- f_planarlocalizer_class::F_PlanarLocalizer_addPlane, 130
- f_planarlocalizer_class::F_PlanarLocalizer_delete, 130
- f_planarlocalizer_class::F_PlanarLocalizer_new, 131
- f_planarlocalizer_class::F_PlanarLocalizer_newFromObjectAllocationServer, 131
- f_planarlocalizer_class::F_PlanarLocalizer_printToScreen, 131
- f_planarlocalizer_class::F_PlanarLocalizer_setFromRectangularCuboid, 132
- f_planarlocalizer_class::F_PlanarLocalizer_setNumberOfPlanes, 132
- f_planarlocalizer_class::F_PlanarLocalizer_setPlane, 132
- f_planarlocalizer_class::addplane, 56
- f_planarlocalizer_class::c_planarlocalizer, 68
- f_planarlocalizer_class::getcobject, 192
- f_planarlocalizer_class::new, 228
- f_planarlocalizer_class::planarlocalizer_type, 235
- f_planarlocalizer_class::printtoscreen, 239
- f_planarlocalizer_class::setfromrectangularcuboid, 249
- f_planarlocalizer_class::setnumberofplanes, 251
- f_planarlocalizer_class::setplane, 252
- f_planarseparator_class, 38
- f_planarseparator_class.f90, 283
- f_planarseparator_class::F_PlanarSeparator_addPlane, 133
- f_planarseparator_class::F_PlanarSeparator_copy, 133
- f_planarseparator_class::F_PlanarSeparator_delete, 133
- f_planarseparator_class::F_PlanarSeparator_getNumberOfPlanes, 134
- f_planarseparator_class::F_PlanarSeparator_getPlane, 134
- f_planarseparator_class::F_PlanarSeparator_isFlipped, 134
- f_planarseparator_class::F_PlanarSeparator_new, 135
- f_planarseparator_class::F_PlanarSeparator_newFromObjectAllocationServer, 135
- f_planarseparator_class::F_PlanarSeparator_printToScreen, 135
- f_planarseparator_class::F_PlanarSeparator_setNumberOfPlanes, 136
- f_planarseparator_class::F_PlanarSeparator_setPlane, 136
- f_planarseparator_class::addplane, 56
- f_planarseparator_class::c_planarseparator, 69
- f_planarseparator_class::copy, 89
- f_planarseparator_class::getcobject, 194
- f_planarseparator_class::getnumberofplanes, 205
- f_planarseparator_class::getplane, 207
- f_planarseparator_class::isflipped, 219
- f_planarseparator_class::new, 231
- f_planarseparator_class::planarseparator_type, 236
- f_planarseparator_class::printtoscreen, 238
- f_planarseparator_class::setnumberofplanes, 251
- f_planarseparator_class::setplane, 252
- f_polygon_class, 39
- f_polygon_class.f90, 284
- f_polygon_class::F_Polygon_calculateAndSetPlaneOfExistence, 136
- f_polygon_class::F_Polygon_calculateCentroid, 137
- f_polygon_class::F_Polygon_calculateNearestPtOnSurface, 137
- f_polygon_class::F_Polygon_calculateNormal, 137
- f_polygon_class::F_Polygon_calculateSign, 138
- f_polygon_class::F_Polygon_calculateVolume, 138
- f_polygon_class::F_Polygon_construct, 138
- f_polygon_class::F_Polygon_delete, 139
- f_polygon_class::F_Polygon_getBoundingPts, 139
- f_polygon_class::F_Polygon_getLocalizer, 139
- f_polygon_class::F_Polygon_getNumberOfPts, 140

- f_polygon_class::F_Polygon_getNumberOfSimplices↔
InDecomposition, 140
- f_polygon_class::F_Polygon_getPlaneOfExistence, 140
- f_polygon_class::F_Polygon_getPt, 141
- f_polygon_class::F_Polygon_getSimplexFromDecomposition↔
141
- f_polygon_class::F_Polygon_new, 141
- f_polygon_class::F_Polygon_printToScreen, 142
- f_polygon_class::F_Polygon_reversePtOrdering, 142
- f_polygon_class::F_Polygon_setPlaneOfExistence, 142
- f_polygon_class::F_Polygon_zeroPolygon, 143
- f_polygon_class::c_polygon, 69
- f_polygon_class::calculateandsetplaneofexistence, 78
- f_polygon_class::calculatecentroid, 79
- f_polygon_class::calculatenearestptonsurface, 80
- f_polygon_class::calculatenormal, 80
- f_polygon_class::calculatesign, 81
- f_polygon_class::calculatevolume, 83
- f_polygon_class::construct, 86
- f_polygon_class::getboundingpts, 186
- f_polygon_class::getcobject, 195
- f_polygon_class::getlocalizer, 203
- f_polygon_class::getnumberofsimplicesindecomposition,
206
- f_polygon_class::getnumberofvertices, 206
- f_polygon_class::getplaneofexistence, 207
- f_polygon_class::getpt, 209
- f_polygon_class::getsimplexfromdecomposition, 211
- f_polygon_class::new, 230
- f_polygon_class::polygon_type, 236
- f_polygon_class::printtoscreen, 238
- f_polygon_class::reverseptordering, 244
- f_polygon_class::setplaneofexistence, 253
- f_polygon_class::zeropolygon, 259
- f_polyhedron24_class, 40
- f_polyhedron24_class.f90, 286
- f_polyhedron24_class::F_Polyhedron24_adjustCapTo↔
MatchVolume, 143
- f_polyhedron24_class::F_Polyhedron24_construct, 143
- f_polyhedron24_class::F_Polyhedron24_delete, 144
- f_polyhedron24_class::F_Polyhedron24_getBounding↔
Pts, 147
- f_polyhedron24_class::F_Polyhedron24_getPt, 147
- f_polyhedron24_class::F_Polyhedron24_new, 148
- f_polyhedron24_class::F_Polyhedron24_setPt, 148
- f_polyhedron24_class::adjustcaptomatchvolume, 56
- f_polyhedron24_class::c_polyhedron24, 70
- f_polyhedron24_class::construct, 86
- f_polyhedron24_class::getboundingpts, 186
- f_polyhedron24_class::getcobject, 196
- f_polyhedron24_class::getpt, 209
- f_polyhedron24_class::new, 230
- f_polyhedron24_class::polyhedron24_type, 237
- f_polyhedron24_class::setpt, 254
- f_polyhedron24_doubles3_class, 41
- f_polyhedron24_doubles3_class.f90, 287
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_adjustCapToMatchVolume, 144
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_construct, 144
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_delete, 145
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_getBoundingPts, 145
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_getData, 145
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_getPt, 146
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_new, 146
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_setData, 146
- f_polyhedron24_doubles3_class::F_Polyhedron24↔
doubles3_setPt, 147
- f_polyhedron24_doubles3_class::adjustcaptomatchvolume,
57
- f_polyhedron24_doubles3_class::c_polyhedron24↔
doubles3, 71
- f_polyhedron24_doubles3_class::construct, 87
- f_polyhedron24_doubles3_class::getboundingpts, 186
- f_polyhedron24_doubles3_class::getcobject, 197
- f_polyhedron24_doubles3_class::getdata, 201
- f_polyhedron24_doubles3_class::getpt, 210
- f_polyhedron24_doubles3_class::new, 226
- f_polyhedron24_doubles3_class::polyhedron24↔
doubles3_type, 237
- f_polyhedron24_doubles3_class::setdata, 247
- f_polyhedron24_doubles3_class::setpt, 254
- f_r2pneighborhood_rectangularcuboid_class, 42
- f_r2pneighborhood_rectangularcuboid_class.f90, 288
- f_r2pneighborhood_rectangularcuboid_class::F_R2↔
PNeighborhood_RectangularCuboid_add↔
Member, 148
- f_r2pneighborhood_rectangularcuboid_class::F_R2↔
PNeighborhood_RectangularCuboid_delete,
149
- f_r2pneighborhood_rectangularcuboid_class::F_R2P↔
Neighborhood_RectangularCuboid_empty↔
Neighborhood, 149
- f_r2pneighborhood_rectangularcuboid_class::F_R2P↔
Neighborhood_RectangularCuboid_new, 149
- f_r2pneighborhood_rectangularcuboid_class::F_R2↔
PNeighborhood_RectangularCuboid_set↔
CenterOfStencil, 150
- f_r2pneighborhood_rectangularcuboid_class::F_R2↔
PNeighborhood_RectangularCuboid_set↔
Member, 150
- f_r2pneighborhood_rectangularcuboid_class::F_R2P↔
Neighborhood_RectangularCuboid_setSize,
150
- f_r2pneighborhood_rectangularcuboid_class::F_R2↔
PNeighborhood_RectangularCuboid_set↔
SurfaceArea, 151
- f_r2pneighborhood_rectangularcuboid_class::addmember,
55
- f_r2pneighborhood_rectangularcuboid_class::c↔

- r2pneighborhood_rectangularcuboid, 72
- f_r2pneighborhood_rectangularcuboid_class::emptyneighborhood, 91
- f_r2pneighborhood_rectangularcuboid_class::getobject, 193
- f_r2pneighborhood_rectangularcuboid_class::new, 223
- f_r2pneighborhood_rectangularcuboid_class::r2pneighborhood↔_rectangularcuboid_type, 239
- f_r2pneighborhood_rectangularcuboid_class::setcenterofstencil, 246
- f_r2pneighborhood_rectangularcuboid_class::setmember, 251
- f_r2pneighborhood_rectangularcuboid_class::setsize, 255
- f_r2pneighborhood_rectangularcuboid_class::setsurfacearea, 256
- f_reconstructioninterface, 43
- f_reconstructioninterface::F_reconstructionWith↔AdvectedNormals_ListedVM_VMAN_RC, 151
- f_reconstructioninterface::F_reconstructionWith↔AdvectedNormalsDebug_ListedVM_VMA↔N_RC, 151
- f_reconstructioninterface::F_reconstructionWithELVI↔RA2D, 152
- f_reconstructioninterface::F_reconstructionWithELVI↔RA3D, 152
- f_reconstructioninterface::F_reconstructionWithLVIR↔A2D_RC, 152
- f_reconstructioninterface::F_reconstructionWithLVIR↔A3D_RC, 153
- f_reconstructioninterface::F_reconstructionWithMOF2↔D_RectangularCuboid, 153
- f_reconstructioninterface::F_reconstructionWithMOF2↔D_Tri, 153
- f_reconstructioninterface::F_reconstructionWithMOF2↔DGiveWeights_RectangularCuboid, 154
- f_reconstructioninterface::F_reconstructionWithMOF2↔DGiveWeights_Tri, 154
- f_reconstructioninterface::F_reconstructionWithMOF3↔D_RectangularCuboid, 155
- f_reconstructioninterface::F_reconstructionWithMOF3↔D_Tet, 155
- f_reconstructioninterface::F_reconstructionWithMOF3↔DGiveWeights_RectangularCuboid, 155
- f_reconstructioninterface::F_reconstructionWithMOF3↔DGiveWeights_Tet, 156
- f_reconstructioninterface::F_reconstructionWithR2P2↔D_RC, 156
- f_reconstructioninterface::F_reconstructionWithR2P2↔DDebug_RC, 156
- f_reconstructioninterface::F_reconstructionWithR2P3↔D_RC, 157
- f_reconstructioninterface::F_reconstructionWithR2P3↔DDebug_RC, 157
- f_reconstructioninterface::reconstructionwithadvectednormal, 239
- f_reconstructioninterface::reconstructionwithadvectednormal, 240
- f_reconstructioninterface::reconstructionwithlvira2d, 240
- f_reconstructioninterface::reconstructionwithlvira3d, 240
- f_reconstructioninterface::reconstructionwithmof2d, 241
- f_reconstructioninterface::reconstructionwithmof3d, 241
- f_reconstructioninterface::reconstructionwithr2p2d, 242
- f_reconstructioninterface::reconstructionwithr2p2ddebug, 242
- f_reconstructioninterface::reconstructionwithr2p3d, 242
- f_reconstructioninterface::reconstructionwithr2p3ddebug, 243
- f_rectangularcuboid_class, 45
- f_rectangularcuboid_class.f90, 289
- f_rectangularcuboid_class::F_RectangularCuboid↔calculateVolume, 157
- f_rectangularcuboid_class::F_RectangularCuboid↔construct, 158
- f_rectangularcuboid_class::F_RectangularCuboid↔construct_2pt, 158
- f_rectangularcuboid_class::F_RectangularCuboid↔delete, 158
- f_rectangularcuboid_class::F_RectangularCuboid↔getBoundingPts, 159
- f_rectangularcuboid_class::F_RectangularCuboid_new, 159
- f_rectangularcuboid_class::c_rectangularcuboid, 72
- f_rectangularcuboid_class::calculatevolume, 83
- f_rectangularcuboid_class::construct, 87
- f_rectangularcuboid_class::construct_2pt, 88
- f_rectangularcuboid_class::getboundingpts, 187
- f_rectangularcuboid_class::getcobject, 198
- f_rectangularcuboid_class::new, 229
- f_rectangularcuboid_class::rectangularcuboid_type, 243
- f_sepvm_class, 45
- f_sepvm_class.f90, 290
- f_sepvm_class::F_SepVM_construct, 159
- f_sepvm_class::F_SepVM_delete, 160
- f_sepvm_class::F_SepVM_getCentroid, 163
- f_sepvm_class::F_SepVM_getCentroidPtr, 163
- f_sepvm_class::F_SepVM_getVolume, 164
- f_sepvm_class::F_SepVM_getVolumePtr, 164
- f_sepvm_class::F_SepVM_multiplyByVolume, 164
- f_sepvm_class::F_SepVM_new, 165
- f_sepvm_class::F_SepVM_normalizeByVolume, 165
- f_sepvm_class::c_sepvm, 73
- f_sepvm_class::construct, 88
- f_sepvm_class::getcentroid, 188
- f_sepvm_class::getcentroidptr, 190
- f_sepvm_class::getcobject, 198
- f_sepvm_class::getvolume, 215
- f_sepvm_class::getvolumeptr, 217
- f_sepvm_class::multiplybyvolume, 222
- f_sepvm_class::new, 229
- f_sepvm_class::normalizebyvolume, 233
- f_sepvm_class::sepvm_type, 245
- f_sepvm_doubles3_class, 46
- f_sepvm_doubles3_class.f90, 291

- f_sepvm_doubles3_class::F_SepVM_doubles3_delete, 160
- f_sepvm_doubles3_class::F_SepVM_doubles3_get↔ Centroid, 160
- f_sepvm_doubles3_class::F_SepVM_doubles3_get↔ CentroidPtr, 161
- f_sepvm_doubles3_class::F_SepVM_doubles3_get↔ Data, 161
- f_sepvm_doubles3_class::F_SepVM_doubles3_get↔ Volume, 161
- f_sepvm_doubles3_class::F_SepVM_doubles3_get↔ VolumePtr, 162
- f_sepvm_doubles3_class::F_SepVM_doubles3_↔ multiplyByVolume, 162
- f_sepvm_doubles3_class::F_SepVM_doubles3_new, 162
- f_sepvm_doubles3_class::F_SepVM_doubles3_↔ normalizeByVolume, 163
- f_sepvm_doubles3_class::c_sepvm_doubles3, 74
- f_sepvm_doubles3_class::getcentroid, 188
- f_sepvm_doubles3_class::getcentroidptr, 190
- f_sepvm_doubles3_class::getcobject, 199
- f_sepvm_doubles3_class::getdata, 202
- f_sepvm_doubles3_class::getvolume, 215
- f_sepvm_doubles3_class::getvolumeptr, 218
- f_sepvm_doubles3_class::multiplybyvolume, 222
- f_sepvm_doubles3_class::new, 229
- f_sepvm_doubles3_class::normalizebyvolume, 233
- f_sepvm_doubles3_class::sepvm_doubles3_type, 245
- f_serializer, 47
- f_serializer.f90, 292
- f_serializer::F_Serializer_serializeAndPack_Planar↔ Separator_ByteBuffer, 165
- f_serializer::F_Serializer_unpackAndStore_Planar↔ Separator_ByteBuffer, 166
- f_serializer::serializeandpack, 246
- f_serializer::unpackandstore, 258
- f_tagged_accumlistedm_vman_class, 48
- f_tagged_accumlistedm_vman_class.f90, 292
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_append, 167
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_clear, 167
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_delete, 167
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_getListAtIndex, 168
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_getSize, 168
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_getTagForIndex, 168
- f_tagged_accumlistedm_vman_class::F_Tagged_↔ AccumListedVM_VMAN_new, 169
- f_tagged_accumlistedm_vman_class::append, 58
- f_tagged_accumlistedm_vman_class::c_tagged_↔ accumlistedm_vman, 74
- f_tagged_accumlistedm_vman_class::clear, 84
- f_tagged_accumlistedm_vman_class::getcobject, 199
- f_tagged_accumlistedm_vman_class::getlistatindex, 203
- f_tagged_accumlistedm_vman_class::getsize, 213
- f_tagged_accumlistedm_vman_class::gettagforindex, 213
- f_tagged_accumlistedm_vman_class::new, 225
- f_tagged_accumlistedm_vman_class::tagged_↔ accumlistedm_vman_type, 256
- f_tagged_accumvm_sepvm_class, 49
- f_tagged_accumvm_sepvm_class.f90, 293
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_delete, 169
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getCentroidAtIndex, 169
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getCentroidAtTag, 170
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getCentroidPtrAtIndex, 170
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getSize, 170
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getTagForIndex, 171
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getVolumeAtIndex, 171
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getVolumeAtTag, 171
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_getVolumePtrAtIndex, 172
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_multiplyByVolume, 172
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_new, 172
- f_tagged_accumvm_sepvm_class::F_Tagged_Accum↔ VM_SepVM_normalizeByVolume, 173
- f_tagged_accumvm_sepvm_class::c_tagged_accumvm↔_sepvm, 75
- f_tagged_accumvm_sepvm_class::getcentroidatindex, 189
- f_tagged_accumvm_sepvm_class::getcentroidattag, 190
- f_tagged_accumvm_sepvm_class::getcentroidpratrindex, 191
- f_tagged_accumvm_sepvm_class::getcobject, 200
- f_tagged_accumvm_sepvm_class::getsize, 212
- f_tagged_accumvm_sepvm_class::gettagforindex, 214
- f_tagged_accumvm_sepvm_class::getvolumeatindex, 216
- f_tagged_accumvm_sepvm_class::getvolumeattag, 216
- f_tagged_accumvm_sepvm_class::getvolumepratrindex, 218
- f_tagged_accumvm_sepvm_class::multiplybyvolume, 221
- f_tagged_accumvm_sepvm_class::new, 224
- f_tagged_accumvm_sepvm_class::normalizebyvolume, 232
- f_tagged_accumvm_sepvm_class::tagged_accumvm↔_sepvm_type, 257
- f_tagged_accumvm_vm_class, 50

- f_tagged_accumvm_vm_class.f90, 295
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_delete, 173
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getCentroidAtIndex, 173
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getCentroidPtrAtIndex, 174
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getSize, 174
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getTagForIndex, 174
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getVolumeAtIndex, 175
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_getVolumePtrAtIndex, 175
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_multiplyByVolume, 175
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_new, 176
- f_tagged_accumvm_vm_class::F_Tagged_AccumVM↔_VM_normalizeByVolume, 176
- f_tagged_accumvm_vm_class::c_tagged_accumvm↔vm, 75
- f_tagged_accumvm_vm_class::getcentroidatindex, 189
- f_tagged_accumvm_vm_class::getcentroidptratindex, 191
- f_tagged_accumvm_vm_class::getcobject, 191
- f_tagged_accumvm_vm_class::getsize, 213
- f_tagged_accumvm_vm_class::gettagforindex, 214
- f_tagged_accumvm_vm_class::getvolumeatindex, 216
- f_tagged_accumvm_vm_class::getvolumepratrindex, 218
- f_tagged_accumvm_vm_class::multiplybyvolume, 221
- f_tagged_accumvm_vm_class::new, 227
- f_tagged_accumvm_vm_class::normalizebyvolume, 232
- f_tagged_accumvm_vm_class::tagged_accumvm↔vm_type, 257
- f_tet_class, 51
- f_tet_class.f90, 296
- f_tet_class::F_Tet_construct, 176
- f_tet_class::F_Tet_delete, 177
- f_tet_class::F_Tet_getBoundingPts, 177
- f_tet_class::F_Tet_new, 177
- f_tet_class::c_tet, 76
- f_tet_class::construct, 85
- f_tet_class::getboundingpts, 185
- f_tet_class::getcobject, 200
- f_tet_class::new, 226
- f_tet_class::tet_type, 257
- f_tri_class, 52
- f_tri_class.f90, 297
- f_tri_class::F_Tri_calculateAndSetPlaneOfExistence, 178
- f_tri_class::F_Tri_calculateCentroid, 178
- f_tri_class::F_Tri_calculateNormal, 178
- f_tri_class::F_Tri_calculateSign, 179
- f_tri_class::F_Tri_calculateVolume, 179
- f_tri_class::F_Tri_construct, 179
- f_tri_class::F_Tri_delete, 180
- f_tri_class::F_Tri_getBoundingPts, 180
- f_tri_class::F_Tri_getLocalizer, 180
- f_tri_class::F_Tri_getPlaneOfExistence, 181
- f_tri_class::F_Tri_getVertices, 181
- f_tri_class::F_Tri_new, 181
- f_tri_class::F_Tri_reversePtOrdering, 182
- f_tri_class::F_Tri_setPlaneOfExistence, 182
- f_tri_class::c_tri, 77
- f_tri_class::calculateandsetplaneofexistence, 78
- f_tri_class::calculatecentroid, 79
- f_tri_class::calculatenormal, 80
- f_tri_class::calculatesign, 81
- f_tri_class::calculatevolume, 82
- f_tri_class::construct, 85
- f_tri_class::getboundingpts, 188
- f_tri_class::getcobject, 193
- f_tri_class::getlocalizer, 203
- f_tri_class::getplaneofexistence, 208
- f_tri_class::getvertices, 214
- f_tri_class::new, 228
- f_tri_class::reverseptordering, 245
- f_tri_class::setplaneofexistence, 252
- f_tri_class::tri_type, 258
- f_vman_class, 53
- f_vman_class.f90, 298
- f_vman_class::F_VMAN_delete, 182
- f_vman_class::F_VMAN_getCentroid, 183
- f_vman_class::F_VMAN_getNormal, 183
- f_vman_class::F_VMAN_getVolume, 183
- f_vman_class::F_VMAN_multiplyByVolume, 184
- f_vman_class::F_VMAN_new, 184
- f_vman_class::F_VMAN_normalizeByVolume, 184
- f_vman_class::c_vman, 77
- f_vman_class::getcentroid, 189
- f_vman_class::getcobject, 196
- f_vman_class::getnormal, 204
- f_vman_class::getvolume, 215
- f_vman_class::multiplybyvolume, 221
- f_vman_class::new, 232
- f_vman_class::normalizebyvolume, 233
- f_vman_class::vman_type, 259
- f_volumefractionmatching, 53
- f_volumefractionmatching.f90, 299
- f_volumefractionmatching::F_setDistanceToMatch↔VolumeFraction_RC_PS_DefTol, 166
- f_volumefractionmatching::F_setDistanceToMatch↔VolumeFraction_RC_PS, 166
- f_volumefractionmatching::setdistancetomatchvolumefraction, 247
- irl_fortran_interface, 54
- irl_fortran_interface.f90, 300