

«type»  
**CompositeTime**

«attribute»

- + year :co:IntegerQuantity [0..1]
- + month :co:IntegerQuantity [0..1]
- + day :co:IntegerQuantity [0..1]
- + hour :co:IntegerQuantity [0..1]
- + minute :co:IntegerQuantity [0..1]
- + second :co:RealQuantity [0..1]
- + calendar :string

«type»  
**ConfidenceEllipsoid**

«attribute»

- + semiMajorAxisLength :float
- + semiMinorAxisLength :float
- + semiIntermediateAxisLength :float
- + majorAxisPlunge :float
- + majorAxisAzimuth :float
- + majorAxisRotation :float

«type»  
**OriginQuality**

«attribute»

- + associatedPhaseCount :int [0..1]
- + usedPhaseCount :int [0..1]
- + associatedStationCount :int [0..1]
- + usedStationCount :int [0..1]
- + depthPhaseCount :int [0..1]
- + standardError :float [0..1]
- + azimuthalGap :float [0..1]
- + secondaryAzimuthalGap :float [0..1]
- + groundTruthLevel :string [0..1]
- + maximumDistance :float [0..1]
- + minimumDistance :float [0..1]
- + medianDistance :float [0..1]

«enumeration»  
**OriginDepthType**

FROM\_LOCATION = from location  
 FROM\_MOMENT\_TENSOR\_INVERSION = from moment ten...  
 BROAD\_BAND\_P\_WAVEFORMS = from modeling o...  
 CONSTRAINED\_BY\_DEPTH\_PHASES = constrained by ...  
 CONSTRAINED\_BY\_DIRECT\_PHASES = constrained by ...  
 CONSTRAINED\_BY\_DEPTH\_AND\_DIRECT\_PHASES = constrained by ...  
 OPERATOR\_ASSIGNED = operator assigned  
 OTHER\_ORIGIN\_DEPTH = other

«enumeration»  
**EventDescriptionType**

FELT\_REPORT = felt report  
 FLINN\_ENGDALH\_REGION = Flinn-Engdahl region  
 LOCAL\_TIME = local time  
 TECTONIC\_SUMMARY = tectonic summary  
 NEAREST\_CITIES = nearest cities  
 EARTHQUAKE\_NAME = earthquake name  
 REGION\_NAME = region name

«type»  
**DataUsed**

«attribute»

- + componentCount :int [0..1]
- + longestPeriod :float [0..1]
- + shortestPeriod :float [0..1]
- + stationCount :int [0..1]
- + waveType :bedt:DataUsedWaveType

«type»  
**SourceTimeFunction**

«attribute»

- + decayTime :float [0..1]
- + duration :float
- + riseTime :float [0..1]
- + type :bedt:SourceTimeFunctionType

«type»  
**EventDescription**

«attribute»

- + text :string
- + type :bedt:EventDescriptionType [0..1]

«enumeration»  
**DataUsedWaveType**

P\_WAVES = P waves  
 BODY\_WAVES = body waves  
 SURFACE\_WAVES = surface waves  
 MANTLE\_WAVES = mantle waves  
 COMBINED = combined  
 UNKNOWN = unknown

«enumeration»  
**EventType**

NOT\_EXISTING = not existing  
 NOT\_REPORTED = not reported  
 EARTHQUAKE = earthquake  
 ANTHROPOGENIC\_EVENT = anthropogenic event  
 COLLAPSE = collapse  
 CAVITY\_COLLAPSE = cavity collapse  
 MINE\_COLLAPSE = mine collapse  
 BUILDING\_COLLAPSE = building collapse  
 EXPLOSION = explosion  
 ACCIDENTAL\_EXPLOSION = accidental explosion  
 CHEMICAL\_EXPLOSION = chemical explosion  
 CONTROLLED\_EXPLOSION = controlled explosion  
 EXPERIMENTAL\_EXPLOSION = experimental ex...  
 INDUSTRIAL\_EXPLOSION = industrial explosion  
 MINING\_EXPLOSION = mining explosion  
 QUARRY\_BLAST = quarry blast  
 ROAD\_CUT = road cut  
 BLASTING\_LEVEE = blasting levee  
 NUCLEAR\_EXPLOSION = nuclear explosion  
 INDUCED\_OR\_TRIGGERED\_EVENT = induced or trig...  
 ROCK\_BURST = rock burst  
 RESERVOIR\_LOADING = reservoir loading  
 FLUID\_INJECTION = fluid injection  
 FLUID\_EXTRACTION = fluid extraction  
 CRASH = crash  
 PLANE\_CRASH = plane crash  
 TRAIN\_CRASH = train crash  
 BOAT\_CRASH = boat crash  
 OTHER\_EVENT = other event  
 ATMOSPHERIC\_EVENT = atmospheric event  
 SONIC\_BOOM = sonic boom  
 SONIC\_BLAST = sonic blast  
 ACOUSTIC\_NOISE = acoustic noise  
 THUNDER = thunder  
 AVALANCHE = avalanche  
 SNOW\_AVALANCHE = snow avalanche  
 DEBRIS\_AVALANCHE = debris avalanche  
 HYDROACOUSTIC\_EVENT = hydroacoustic event  
 ICE\_QUAKE = ice quake  
 SLIDE = slide  
 LANDSLIDE = landslide  
 ROCKSLIDE = rockslide  
 METEORITE = meteorite  
 VOLCANIC\_ERUPTION = volcanic eruption

«enumeration»  
**SourceTimeFunctionType**

BOX\_CAR = box car  
 TRIANGLE = triangle  
 TRAPEZOID = trapezoid  
 UNKNOWN = unknown

«type»  
**PrincipalAxes**

«attribute»

- + tAxis :bedt:Axis
- + pAxis :bedt:Axis
- + nAxis :bedt:Axis [0..1]

«type»  
**NodalPlanes**

«attribute»

- + nodalPlane1 :bedt:NodalPlane [0..1]
- + nodalPlane2 :bedt:NodalPlane [0..1]
- + preferredPlane :int [0..1]

«type»  
**Tensor**

«attribute»

- + Mrr :co:RealQuantity
- + Mlt :co:RealQuantity
- + Mpp :co:RealQuantity
- + Mrt :co:RealQuantity
- + Mrp :co:RealQuantity
- + Mtp :co:RealQuantity

«type»  
**Phase**

«attribute»

- + code :string

«enumeration»  
**AmplitudeUnit**

M = m  
 S = s  
 M/S = m/s  
 M/(S\*S) = m/(s\*s)  
 M\*S = m\*s  
 DIMENSIONLESS = dimensionless  
 OTHER = other

«enumeration»  
**PickPolarity**

NEGATIVE = negative  
 UNDECIDABLE = undecided

«type»  
**Axis**

«attribute»

- + azimuth :co:RealQuantity
- + plunge :co:RealQuantity
- + length :co:RealQuantity

«type»  
**NodalPlane**

«attribute»

- + strike :co:RealQuantity
- + dip :co:RealQuantity
- + rake :co:RealQuantity

«enumeration»  
**MomentTensorCategory**

TELESEISMIC = teleseismic  
 REGIONAL = regional

«enumeration»  
**PickOnset**

EMERGENT = emergent  
 IMPULSIVE = impulsive  
 QUESTIONABLE = questionable

«enumeration»  
**AmplitudeCategory**

POINT = point  
 MEAN = mean  
 DURATION = duration  
 PERIOD = period  
 INTEGRAL = integral  
 OTHER = other

«enumeration»  
**EventTypeCertainty**

KNOWN = known  
 SUSPECTED = suspected

«enumeration»  
**MtInversionType**

GENERAL = general  
 ZERO\_TRACE = zero trace  
 DOUBLE\_COUPLE = double couple

«enumeration»  
**OriginType**

HYPOCENTER = hypocenter  
 CENTROID = centroid  
 AMPLITUDE = amplitude  
 MACROSEISMIC = macroseismic  
 RUPTURE\_START = rupture start  
 RUPTURE\_END = rupture end

«enumeration»  
**OriginUncertaintyDescription**

HORIZONTAL = horizontal unce...  
 ELLIPSE = uncertainty ellipse  
 ELLIPSOID = confidence ellipsoid