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Process Recipes

Execute a built-in Process

Create a Process from a built-in process by name

```
Process process = new Process("vec:Bounds")
String name = process.name
println name
```

vec:Bounds

Get the title

```
String title = process.title println title
```

Bounds

Get the description

```
String description = process.description println description
```

Computes the bounding box of the input features.

Get the version

```
String version = process.version println version
```

1.0.0

Get the input parameters

```
Map parameters = process.parameters
println parameters
```

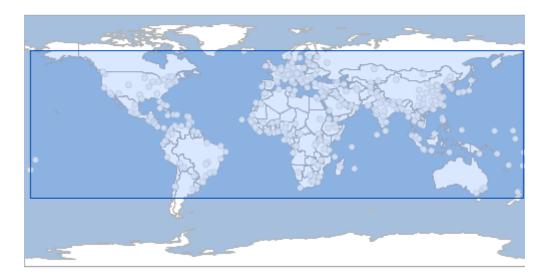
[features:class geoscript.layer.Cursor]

```
Map results = process.results println results
```

```
[bounds:class geoscript.geom.Bounds]
```

Execute the Process to calculate the bounding box of all Features in a Layer

```
Workspace workspace = new GeoPackage('src/main/resources/data.gpkg')
Layer layer = workspace.get("places")
Map executeResults = process.execute([features: layer])
Bounds bounds = executeResults.bounds
```



Listing built-in Processes

Get the names of all built-in Processes

```
List<String> processes = Process.processNames
processes.each { String name ->
    println name
}
```

```
geo:length
geo:isEmpty
geo:contains
geo:disjoint
geo:intersects
geo:buffer
geo:convexHull
```

geo:crosses geo:difference geo:distance geo:boundary geo:centroid geo:interiorPoint geo:getGeometryN geo:reproject geo:envelope geo:polygonize geo:isRing geo:startPoint geo:endPoint geo:area geo:numGeometries geo:isSimple geo:isWithinDistance geo:overlaps geo:relate geo:symDifference geo:touches geo:within geo:simplify geo:densify geo:numPoints geo:dimension geo:exteriorRing geo:numInteriorRing geo:geometryType geo:getX geo:getY geo:equalsExact geo:isValid geo:isClosed geo:union geo:intersection geo:splitPolygon geo:relatePattern geo:equalsExactTolerance geo:pointN geo:interiorRingN vec:Aggregate vec:BarnesSurface vec:Bounds vec:BufferFeatureCollection vec:Centroid vec:Clip vec:CollectGeometries vec:Count vec:Feature vec:FeatureClassStats

```
vec:Grid
vec:Heatmap
vec:InclusionFeatureCollection
vec:IntersectionFeatureCollection
vec:LRSGeocode
vec:LRSMeasure
vec:LRSSegment
vec:Nearest
vec:PointBuffers
vec:PointStacker
vec:Query
vec:RectangularClip
vec:Reproject
vec:Simplify
vec:Snap
vec:Transform
vec:UnionFeatureCollection
vec:Unique
vec:VectorToRaster
vec:VectorZonalStatistics
ras:AddCoverages
ras:Affine
ras:AreaGrid
ras:BandMerge
ras:BandSelect
ras:Contour
ras:ConvolveCoverage
ras:CoverageClassStats
ras:CropCoverage
ras:MultiplyCoverages
ras:NormalizeCoverage
ras:PolygonExtraction
ras:RangeLookup
ras:RasterAsPointCollection
ras:RasterZonalStatistics
ras:RasterZonalStatistics2
ras:ScaleCoverage
ras:StyleCoverage
```

Executing a new Process

```
geoscript:convexhull
```

Get the title

```
String title = process.title
println title
```

convexhull

Get the description

```
String description = process.description println description
```

Create a convexhull around the features

Get the version

```
String version = process.version println version
```

1.0.0

Get the input parameters

```
Map parameters = process.parameters
println parameters
```

```
[features:class geoscript.layer.Cursor]
```

Get the output parameters

```
Map results = process.results
println results
```

```
[result:class geoscript.layer.Cursor]
```

Execute the Process created from a Groovy Closure

```
Workspace workspace = new GeoPackage('src/main/resources/data.gpkg')
Layer layer = workspace.get("places")
Map executeResults = process.execute([features: layer.cursor])
Cursor convexHullCursor = executeResults.result
```

