ArcWeb℠ Services 2006 SOAP Object Model*

Data Management

Data Management Service

DataManager
- addFeatures(dataFileName: string, features: Feature[ ], rollbackOnError: boolean, token:string): FeatureIDInfo[ ]
- createDataFile(dataFile: DataFile, token: string): void
- deleteDataFile(dataFileName: string, token:string): void
- deleteFeatures(dataFileName: string, featureIDs: string[ ], token:string): void
- findFeatures(dataFileName: string, featureSearchOptions: FeatureSearchOptions, token:string): FeatureResultSet
- geocodeFeatures(dataFileName: string, featureIDs: string[ ], geocodeOptions: GeocodeOptions, token:string): GeocodeInfo[ ]
- getAvailableDataFileAttributes (token: string): AttributeDesc[ ]
- getDataFileInfo(dataFileNames: string[ ], token:string): DataFileInfo[ ]
- getUniqueValues(dataFileName: string, fieldName: string, resultSetRange: ResultSetRange, token:string): StringSet
- getVersion: string
- renameField(dataFileName: string, oldFieldName: string, newFieldName: string, token:string): void
- updateDataFile(dataFileName: string, dataFile: DataFile, token:string): void
- updateFeatures(dataFileName: string, featureUpdateOptions: FeatureUpdateOptions, featureIDs: string[ ], token:string): void

AddressFields
- city: string
- country: string
- houseNumber: string
- intersection: string
- postalCode: string
- stateProvince: string
- street: string

DataFile
- addressFields: AddressFields
- attributes: KeyValue[ ]
- coordSys: CoordSys
- fieldInfo: FieldInfo[ ]
- geometryType: integer
- name: string

DataFileInfo
- dataFile: DataFile
- dateCreated: long
- extent: Envelope
- featureCount: integer
- geographicExtent: Envelope
- lastModified: long
- maxScale: long
- minScale: long
- size: long

Feature
- fieldValues: KeyValue[ ]
- geometry: Geometry

FeatureIDInfo
- errorMessage: string
- id: string

FeatureInfo
- dateCreated: long
- feature: Feature
- geocodeDataSource: string
- geocodeStatus: string
- id: string
- lastModified: long

FeatureResultSet
- features: FeatureInfo[ ]
- totalCount: integer

FeatureSearchOptions
- intersectGeometry: Geometry
- returnGeometry: boolean
- searchOptions: SearchOptions
- spatialBuffer: SpatialBuffer

FeatureUpdateOptions
- fieldValues: KeyValue[ ]
- geometry: Geometry

FieldInfo
- isIndexed: boolean
- label: string
- name: string
- type: integer

GeocodeCandidate
- address: Address
- desc1: string
- desc2: string
- extent: Envelope
- matchType: string
- point: Point
- score: double
- type: string

GeocodeInfo
- candidates: GeocodeCandidate[ ]
- errorMessage: string
- hasMore: boolean
- matchType: string
- totalCount: integer

GeocodeOptions
- dataSource: string
- extendedPostalCode: boolean
- formatAddressFields: boolean
- partialAddress: boolean

StringSet
- strings: string[ ]
- totalCount: integer

Find

Common

Address
- city: string
- country: string
- houseNumber: string
- intersection: string
- postalCode: string
- stateProvince: string
- street: string

AddressFinderInfo
- countryCodes: KeyValue[ ]
- dataSource: string
- extendedPostalCode: boolean
- partialAddress: boolean
- reverseGeocode: boolean
- snapTypes: string[ ]

AddressFinderOptions
- dataSource: string
- extendedPostalCode: boolean
- partialAddress: boolean
- resultSetRange: ResultSetRange
- snapType: string

GeocodeCandidate
- address: Address
- desc1: string
- desc2: string
- extent: Envelope
- matchType: string
- point: Point
- score: double
- type: string

GeocodeInfo
- candidates: GeocodeCandidate[ ]
- errorMessage: string
- hasMore: boolean
- matchType: string
- totalCount: integer

PlaceFinderInfo
- countryCodes: KeyValue[ ]
- dataSource: string
- types: KeyValue[ ]

PlaceFinderOptions
- dataSource: string
- filterCountry: string
- filterExtent: Envelope
- filterType: string
- resultSetRange: ResultSetRange
- searchType: string

Address Finder Service

AddressFinder
- findAddressByPoint(point: Point, addressFinderOptions: AddressFinderOptions, token: string): Address
- findLocationByAddress(address: Address, addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo
- findLocationByIP(ipAddress: string, addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo
- findLocationByPhoneNumber(phoneNumber: string, addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo
- getInfo(dataSources: string[ ], token: string): AddressFinderInfo[ ]
- getVersion: string

Address Manager Service

AddressManager
- findAddressesByPoint(points: Point[ ], addressFinderOptions: AddressFinderOptions, token: string): AddressInfo[ ]
- findLocationsByAddress(addresses: Address[ ], addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo[ ]
- findLocationsByIP(ipAddresses: string[ ], addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo[ ]
- findLocationsByPhoneNumber(phoneNumbers: string[ ], addressFinderOptions: AddressFinderOptions, token: string): GeocodeInfo[ ]
- getInfo(dataSources: string[ ], token: string): AddressFinderInfo[ ]
- getVersion: string

AddressInfo
- address: Address
- errorMessage: string

Content Finder Service

ContentFinder
- getAvailableAttributes(contentType: string, token:string): AttributeDesc[ ]
- getAvailableServices(token: string): string[ ]
- getDependentContent(contentFinderRecordID: ContentFinderRecordID, token: string): ContentFinderRecord[ ]
- getRecord(contentFinderRecordID: ContentFinderRecordID, token: string): ContentFinderRecord
- getSubContent(contentFinderRecordID: ContentFinderRecordID, token: string): ContentFinderRecord[ ]
- getUniqueValues(contentType: string, attributeName: string, token: string): string [ ]
- getVersion: string
- searchRecords(contentFinderSearchOptions: ContentFinderSearchOptions, token: string): ContentFinderResultSet

ContentFinderRecord
- attributes: KeyValue[ ]
- contentLastUpdated: long
- contentProperties: KeyValue[ ]
- extent: Envelope
- id: ContentFinderRecordID

ContentFinderRecordID
- contentType: string
- id: string
- service: string

ContentFinderResultSet
- records: ContentFinderRecord[ ]
- totalCount: integer

ContentFinderSearchOptions
- contentType: string
- dataScale: long
- dataType: integer
- extent: Envelope
- orderBy: string
- orderDescending: boolean
- ownerType: string
- resultSetRange: ResultSetRange
- returnAttributes: string[ ]
- returnContentProperties: boolean
- service: string
- spatialOperator: string
- whereClause: string

Place Finder Service

PlaceFinder
- findPlace(placeName: string, placeFinderOptions: PlaceFinderOptions, token: string): GeocodeInfo
- getInfo(dataSources: string[ ], token: string): PlaceFinderInfo[ ]
- getVersion: string

Place Finder Sample Service

PlaceFinderSample
- findPlace(placeName: string, placeFinderOptions: PlaceFinderOptions): GeocodeInfo
- getInfo(): PlaceFinderInfo
- getVersion: string

Map & Route

Common

CircleDesc
- antialiasing: string
- boundaryColor: string
- boundaryTransparency: double
- boundaryType: string
- circle: Circle
- fillColor: string
- fillTransparency: double
- overlapLabels: string
- thickness: integer

LabelDesc
- angle: double
- antialiasing: string
- blockoutColor: string
- caps: string
- font: string
- fontColor: string
- fontSize: integer
- fontStyle: string
- glowing: boolean
- hAlignment: string
- interval: integer
- outlineColor: string
- overlapLabels: string
- transparency: double
- vAlignment: string

Layer
- name: string
- visibility: string

LayerInfo
- legends: LayerLegend[ ]
- name: string
- visibility: string

LayerLegend
- layerClassName: string
- symbolURL: string

LineDesc
- antialiasing: string
- color: string
- endType: string
- geometry: Geometry
- jointType: string
- lineType: string
- overlapLabels: string
- thickness: integer
- transparency: double

MapArea
- center: Point
- extent: Envelope
- scale: long

MapImageInfo
- layers: LayerInfo[ ]
- legendURL: string
- mapArea: MapArea
- mapURL: string
- outputCoordSys: CoordSys

MapImageOptions
- backgroundColor: string
- circles: CircleDesc[ ]
- dataSource: string
- displayLayers: Layer[ ]
- lines: LineDesc[ ]
- mapImageFormat: string
- mapImageSize: MapImageSize
- mapLegend: MapLegend
- markers: MarkerDesc[ ]
- outputCoordSys: CoordSys
- polygons: PolygonDesc[ ]
- returnLayers: boolean
- scaleBars: ScaleBarDesc[ ]
- styleSheet: string

MapLegend
- antialiasing: string
- autoextend: boolean
- backgroundColor: string
- columns: integer
- font: string
- height: integer
- layerFontSize: integer
- splitText: string
- swatchHeight: integer
- swatchWidth: integer
- title: string
- titleFontSize: integer
- valueFontSize: integer
- width: integer

MarkerDesc
- color: string
- iconDataSource: string
- label: string
- labelDesc: LabelDesc
- location: Point
- name: string
- size: integer

PixelCoord
- x: integer
- y: integer

PolygonDesc
- antialiasing: string
- boundary: string
- boundaryColor: string
- boundaryJointType: string
- boundaryTransparency: double
- boundaryType: string
- boundaryWidth: integer
- fillColor: string
- fillInterval: integer
- fillTransparency: double
- fillType: string
- geometry: Geometry
- overlapLabels: string

ScaleBarDesc
- barColor: string
- barLength: integer
- barPixelLocation: PixelCoord
- barUnits: string
- barWidth: integer
- font: string
- fontColor: string
- fontSize: integer

MapImage Service

MapImage
- convertMapCoordsToPixelCoords(mapArea: MapArea, mapSize: MapImageSize, mapCoords: Point[ ], token:string): PixelCoord[ ]
- convertPixelCoordsToMapCoords(mapArea: MapArea, mapSize: MapImageSize, mapClickPoints: PixelCoord[ ], token:string): Point[ ]
- getBestMap(mapImageOptions: MapImageOptions, bufferPercent: double, token: string): MapImageInfo
- getBestMapArea(mapImageOptions: MapImageOptions, bufferPercent: double, token:string): MapArea
- getCustomThematicMap(mapArea: MapArea, mapImageOptions: MapImageOptions, thematicData: ThematicData, thematicOptions: ThematicOptions, thematicColors: ThematicColors, token: string): MapImageInfo
- getESRIThematicMap(mapArea: MapArea, mapImageOptions: MapImageOptions, thematicField: string, thematicOptions: ThematicOptions, thematicColors: ThematicColors, token: string): MapImageInfo
- getFusedMapImage(mapFusionOptions: MapFusionOptions[ ], outputImageFormat: string, token: string): string
- getMap(mapAreas: MapArea[ ], mapImageOptions: MapImageOptions[ ], token: string): MapImageInfo[ ]
- getMarkerNames(iconDataSource: string, token: string): string[ ]
- getSavedMap(savedMapID: string, token: string): MapImageInfo
- getThematicFields(thematicDataSource: string, token: string): string[ ]
- getValueMap(mapArea: MapArea, mapImageOptions: MapImageOptions, thematicData: ThematicData, codeColorValues: KeyValue[ ], thematicOptions: ThematicOptions, token: string): MapImageInfo
- getVersion: string
- saveMap(mapArea: MapArea, mapImageOptions: MapImageOptions, token: string): string

MapFusionOptions
- mapURL: string
- transparency: double

ThematicColors
- classColors: string[ ]
- colorPalette: string

ThematicData
- data: KeyValue[ ]
- precision: integer
- sign: string

ThematicOptions
- classificationMethod: string
- classLabels: string[ ]
- numClasses: integer
- thematicOnlyLegend: boolean

Route Finder Service

RouteFinder
- findRoute(routeStops: RouteStop[ ], routeFinderOptions: RouteFinderOptions, token: string): RouteInfo
- getLanguages(token: string): string[ ]
- getVersion: string

RouteDisplayOptions
- color: string
- thickness: integer
- transparency: double

RouteFinderOptions
- avoidTraffic: boolean
- dataSource: string
- language: string
- returnDirections: boolean
- returnGeometry: boolean
- returnMap: boolean
- returnTurnByTurnMaps: boolean
- routeDisplayOptions: RouteDisplayOptions
- routeMapOptions: MapImageOptions
- routeOptions: RouteOptions
- trafficDataSource: string
- trafficSeverity: integer
- turnByTurnMapOptions: MapImageOptions
- units: string

RouteInfo
- optimizedStopOrder: integer[ ]
- routeMap: MapImageInfo
- routePath: Geometry
- segmentDescs: SegmentDesc[ ]
- totalDesc: RouteSummary
- turnByTurnMaps: MapImageInfo[ ]

RouteOptions
- filterExtent: Envelope
- hwyPref: integer
- optimizeStops: boolean
- precision: double
- returnExtents: boolean
- routeBarriers: Point[ ]
- routeType: string

RouteStop
- desc: string
- point: Point

RouteSummary
- distanceUnits: string
- numericDistance: double
- numericTime: double
- routeExtent: Envelope
- totalDistance: string
- totalTime: string

SegmentDesc
- descriptiveDirections: string
- descriptiveDistance: string
- extent: Envelope
- numericDistance: double
- numericTime: double

Spatial Query

Spatial Query Service

SpatialQuery
- findFeaturesByExtent(extent: Envelope, spatialQueryOptions: SpatialQueryOptions, token: string): ResultSet
- findFeaturesByGeometry(geometry: Geometry, spatialQueryOptions: SpatialQueryOptions, token: string): ResultSet
- findFeaturesByPoint(point: Point, spatialQueryOptions: SpatialQueryOptions, token: string): ResultSet
- getAvailableFieldNames(dataSources: string[ ], token: string): SpatialQueryInfo[ ]
- getVersion: string

SpatialQueryInfo
- availableFields: FieldDesc[ ]
- dataSource: string

SpatialQueryOptions
- dataSource: string
- distanceUnits: string
- returnDistance: boolean
- returnGeometry: boolean
- searchOptions: SearchOptions
- spatialBuffer: SpatialBuffer

Utility

Account Info Service

AccountInfo
- getServices(accountInfoOptions: AccountInfoOptions, token: string): ServiceSummary[ ]
- getUsage(accountInfoOptions: AccountInfoOptions, dateTimeRange: DateTimeRange token: string): AccountSummary
- getVersion: string

AccountInfoOptions
- adminOptions: AdminOptions
- returnDataSources: string[ ]
- returnDetailedInfo: boolean
- returnServices: string[ ]

AccountSummary
- groupUsage: AccountUsage
- usageByUser: UserUsage[ ]

AccountUsage
- averageDailyCreditUsage: double
- creditsRemaining: double
- creditsUsed: double
- dailyStorageCost: double
- diskStorageQuota: long
- diskStorageUsed: long
- estimatedEndDate: long
- expiration: long
- totalStorageCost: double

AdminOptions
- returnGroupUsage: boolean
- returnUsers: string[ ]

DataSourceInfo
- name: string
- summary: string
- supportsArcXML: boolean
- supportsWMS: boolean
- title: string

DataSourceUsage
- name: string
- title: string
- usage: UsageInfo

ServiceInfo
- dataSourcesInfo: DataSourceInfo[ ]
- desc: string
- name: string
- wsdl: string

ServiceSummary
- servicesInfo: ServiceInfo[ ]
- user: User

ServiceUsage
- dataSourcesUsage: DataSourceUsage[ ]
- name: string
- usage: UsageInfo

UsageInfo
- creditsUsed: double
- dateLastUsed: long
- numRequests: long

User
- emailAddress: string
- firstName: string
- isActive: boolean
- isAdmin: boolean
- lastName: string
- username: string

UserUsage
- accountUsage: AccountUsage
- servicesUsage: ServiceUsage[ ]
- user: User

Utility Service

Utility
- convertCircleToGeometry(circle: Circle, numPoints: integer, token: string): Geometry
- convertCircularArcToGeometry(arc: CircularArc, numPoints: integer, token: string): Geometry
- convertEllipseToGeometry(ellipse: Ellipse, numPoints: integer, token: string): Geometry
- getBestProjection(extent: Envelope, token: string): Envelope
- getDataCollectionDate(dataSource: string, extent: Envelope, mapSize: mapImageSize, token: string): string
- getDistance(location1: Point, location2: Point, units: string, numPoints: integer, returnGeometry: boolean, token: string): DistanceInfo
- getDriveTime(dataSource: string point: Point, interval: integer, units: string, token: string): Geometry
- getSupportedProjections(type: string, token: string): KeyValue[ ]
- getVersion: string
- projectExtent(extent: Envelope, projectTo: CoordSys, token: string): Envelope
- projectGeometry(geometry: Geometry, projectTo: CoordSys, token: string): Geometry
- projectPoint(point: Point, projectTo: CoordSys, token: string): Point

CircularArc
- center: Point
- endAngle: double
- innerRadius: double
- outerRadius: double
- radiusUnits: string
- startAngle: double
- trueCircle: boolean

DistanceInfo
- distance: double
- geometry: Geometry

Ellipse
- axisUnits: string
- center: Point
- majorAxis: double
- minorAxis: double
- rotation: double
- trueEllipse: boolean

Authentication Service

Authentication
- getCustomExpirationToken(username: string, password: string, expiration: integer): string
- getToken(username: string, password: string): string
- getVersion: string
- validateToken(token: string): integer

Wireless

Wireless Location Service

WirelessLocation
- getDeviceLocation(devices: MobileDevice[ ], deviceLocationOptions: DeviceLocationOptions, token: string): DeviceLocationInfo[ ]
- getDeviceStatus(devices: MobileDevice[ ], token: string): DeviceStatus[ ]
- getDeviceStops(deviceStopOptions: DeviceStopOptions, token: string): DeviceStopInfo[ ]
- getTripInfo(deviceTripOptions: DeviceTripOptions, token: string): DeviceTripInfo
- getVersion: string
- sendSMS(devices: MobileDevice[ ], message: string, token: string): string[ ]

DeviceLocationInfo
- accuracy: string
- errorMessage: string
- point: Point
- radius: double
- timeStamp: long

DeviceLocationOptions
- accuracy: string
- radiusUnits: string

DeviceStatus
- errorMessage: string
- status: string

DeviceStopInfo
- dateTimeRange: DateTimeRange
- point: Point

DeviceStopOptions
- dateTimeRange: DateTimeRange
- dateTimeRange: DateTimeRange
- maxRadius: double
- minDuration: integer
- radiusUnits: string

DeviceTripInfo
- angle: double
- distance: double
- path: Geometry
- speed: integer

DeviceTripOptions
- dateTimeRange: DateTimeRange
- dateTimeRange: DateTimeRange
- returnAngle: boolean
- returnDistance: boolean
- returnPath: boolean
- returnSpeed: boolean
- units: string

MobileDevice
- dataSource: string
- phoneNumber: string

Report

Report Service

Report
- createPDFDocument(templateName: string, data: KeyValue[ ], token: string): string
- getAvailableTemplateNames(token: string): string[ ]
- getCustomSiteReport(site: Site, reportOptions: ReportOptions[ ], variables: CustomReportVariables[ ], token: string): ReportInfo
- getCustomStandardGeographyReport(standardGeographies: StandardGeography[ ], reportOptions: ReportOptions, variables: CustomReportVariables[ ], token: string): ReportInfo
- getCustomVariables(variableDataSource: string, token: string): CustomVariableInfo[ ]
- getDatabases(token: string): string[ ]
- getGeographyIDs(geographyIDOptions: GeographyIDOptions, token: string): ResultSet
- getReportHeaderKeys(methodName: string, token: string): KeyValue[ ]
- getSiteReports(site: Site, reportOptions: ReportOptions[ ], combineReports: boolean, token: string): ReportInfo[ ]
- getStandardGeographyReport(standardGeographies: StandardGeography[ ], reportOptions: ReportOptions, token: string): ReportInfo
- getTables(database: string, token: string): string[ ]
- getThematicMapReport(sites: Site[ ], reportOptions: ReportOptions, thematicReportOptions: ThematicReportOptions, thematicVariable: string, token: string): ReportInfo
- getThematicVariables(database: string, table: string, token: string): ThematicVariableInfo[ ]
- getVersion: string
- searchThematicVariables(keyword: string, token: string): ThematicVariableInfo[ ]

CustomReportVariables
- variableDataSource: string
- variableNames: string[ ]

CustomVariableInfo
- database: string
- fieldDesc: FieldDesc

GeographyIDOptions
- geographyIDFilter: string
- geographyLevelFilter: string
- keyword: string
- outputGeographyLevel: string
- resultSetRange: ResultSetRange

ReportInfo
- dataSource: string
- reportFormat: string
- reportURL: string

ReportOptions
- dataSource: string
- reportFormat: string
- reportHeader: KeyValue[ ]

Site
- calcType: string
- polygons: Geometry[ ]
- ringRadii: double[ ]
- ringUnits: string
- siteLocation: Point
- siteName: string

StandardGeography
- geographyIDs: string[ ]
- geographyLevel: string

ThematicReportOptions
- classificationMethod: string
- colorPalette: string
- geographyLevel: string
- numClasses: integer

ThematicVariableInfo
- database: string
- shortDesc: string
- table: string
- variable: string

Common

AttributeDesc
- length: integer
- name: string
- precision: integer
- required: string
- shortDesc: string
- type: string

Circle
- center: Point
- radius: double
- radiusUnits: string
- trueCircle: boolean

CoordSys
- datumTransformation: string
- projection: string

DateTimeRange
- end: long
- start: long

Envelope
- coordSys: CoordSys
- maxX: double
- maxY: double
- minX: double
- minY: double

FieldDesc
- length: integer
- name: string
- precision: integer
- shortDesc: string
- type: string

Geometry
- coordSys: CoordSys
- parts: integer[ ]
- points: SimplePoint[ ]
- type: integer

KeyValue
- key: string
- value: string

MapImageSize
- height: integer
- width: integer

OrderBy
- descending: boolean
- field: string

Point
- coordSys: CoordSys
- x: double
- y: double

ResultSet
- fields: FieldDesc[ ]
- rows: RowData[ ]
- totalCount: integer

ResultSetRange
- count: integer
- startIndex: integer

RowData
- fieldValues: string[ ]

SearchOptions
- orderByList: OrderBy[ ]
- resultSetRange: ResultSetRange
- returnFields: string[ ]
- whereClause: string

SimplePoint
- x: double
- y: double

SpatialBuffer
- bufferDistance: double
- bufferUnits: string

Key

Service Name

Interface key
Request Property
Response Property
Request/Response Property
Method

* Web Services also available for OpenLS, REST, and J2ME (Mobile Toolkit)

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