



## **GDSK SAM Spatial Analysis Module**

Extend the power of GDSK GEOPLATFORM with analysis tools to improve the accuracy of your decision makings. Get a new vision of territory.

Spatial data, under a general perspective, is any information that is referenced to a location. Also known as geospatial data or geographic information, it is the data that identifies the geographic location of features and boundaries on Earth. Spatial data is usually stored as geo-referenced coordinates and can be portrayed in a map. GDSK Spatial is designed to manage spatial data: store, retrieve, filter, analyze, modify, versioning and so on.

GDSK SPATIAL ANALYSIS MODULE (SAM) is a high performance extension package for GDSK SPATIAL that provides complete analysis of geometry and topology. Its purpose is helping you to get information about the territory, from which otherwise gets difficult to extract data. GDSK SAM enables you to answer complex business questions derived from geometry attributes and interactions. GDSK SAM is designed to:

- Retrieve geometry information like areas, lengths and validity
- Determine binary relationships such as contain, cross or touch
- Evaluate distances to determine proximity
- Generate new geometry from intersections

### Enjoy **GDSK GEOPLATFORM** with:

- ✓ GIS portals for web delivery
- ✓ High resolution printing
- ✓ Distributed and federated GIS
- ✓ Multimedia capabilities
- ✓ Web services
- ✓ Shared data
- ✓ Advanced integration schemas
- ✓ Corporate documentation access
- ✓ Standards support

**Web portal based**  
**Easy learning**  
**Advanced vector feature edition**  
**Friendly distributed catalog**  
**Spatial metadata catalog**  
**Maximum Precision**

# EASY WAY TO GIS

Visit <http://www.gdsk.biz/>

Spatial relationships on geometry are evaluated with DE-9IM (Dimensionally Extended 9 Intersection Model). This mathematical approach defines a boundary, interior and exterior for geometries. Based on these concepts, DE-9IM, established a 3x3 matrix of nine intersection possibilities among boundary, exterior and interior. This matrix, different for each spatial relationship function, has equivalence to a specialized ST\_ function when you use ST\_Relate.

### **Standard Spatial SQL API**

GDSK SAM spatial functions are based on ISO/IEC JTC1 SC32: DE-9IM / SQL/MM: SQL Multimedia and Application Packages: Part 3: Spatial and implements most of the functions described in order to support advanced spatial queries on GDSK GEOPLATFORM. This API provides a well-known framework and syntax for GIS administrators, enabling great flexibility on data analysis and enhanced GIS applications.

GDSK SAM also enables a group of analysis functions on GDSK MAPVIEWER that are executed at client layer without server-side processing:

- ✓ Distance measurement of map surface
- ✓ Area calculation
- ✓ Color transformations on rasters
- ✓ Attribute filtering for fast feature selection
- ✓ Node information

### **Want to know more about GDSK GEOPLATFORM?**

Much more information is waiting you at [www.gdsk.biz](http://www.gdsk.biz)

YOU MOVE THE WORLD



ID Doc: GDSK\_DOC\_2\_CARD\_SAM.pdf

© GDSK S.L. All rights reserved. GDSK GEOPLATFORM, its components and other GDSK products are property of GDSK S.L. All other products and services mentioned are trademarks of their respective companies. The information contained in this document serves informational purposes only. This document is subject to change without notice. Nothing herein should be interpreted as constituting an additional warranty to the warranty statements accompanying GDSK products and services.