



Radius Studio™ is a spatial processing, analysis and compliance engine that makes comprehensive use of the Oracle technology stack. It provides a data certification platform that ensures the quality and consistency of spatial data located in either Oracle 9i / 10g Databases or in vector file formats accessed via Feature Data Objects (FDO). This solution is delivered in a J2EE architecture that offers web access through the Oracle 10g Application Server (or JBoss v4.0.4 GA) and makes effective use of Oracle MapViewer.

Radius Studio enables users to rapidly analyse scattered spatial data to establish its operational purpose and facilitate its reuse by providing data mining, rules-based conformance checking and data cleaning capabilities. This rigorous control of data quality provides significant return on investment by automating these traditionally time-consuming, ongoing and expensive tasks.

Features

- The ability to collect scattered data for auditing, assessment and reuse
- Rule authoring using an intuitive user interface
- Data mining techniques to analyse data and identify statistically dominant patterns
- Rules stored as enterprise metadata in an open, portable knowledge base
- Reporting tools to identify non-conforming data
- Minimisation of risk by ensuring data adheres to regulatory or in-house compliance rules (SLAs, ISO9000) or performance measurement (e.g. Balanced Scorecard)
- An interoperable service oriented architecture (SOA) delivered through the implementation of standards (ISO19119)
- Spatial rules engine to automatically fix-up non-conforming objects
- Provides a knowledge management environment by storing all metadata in an Oracle database and providing enterprise access through web browsers and web services.

Benefits

- Ensures data quality; that data is suitable for reuse and a reliable basis for critical business decisions
- Improves efficiency by reducing workflow timeframes
- Minimises risk by incorporating comprehensive compliance and audit checking
- Provides certification of data quality and at-a-glance indicator of performance
- Users who really understand the data can define the rule base instead of briefing programmers to carry out the work, eliminating potential misunderstandings and long lead times
- Allows organisations to be more cost effective and to minimise data redundancy by sharing high quality data for multiple purposes
- Universal access is provided throughout the organisation, empowering any user with the appropriate privilege to define, refine and review the business rules.

Who is it for?

Central Government, National Mapping Agencies, Commercial Mapping Agencies, Defence, Transport and Utility organisations.

Sample Implementations

MidCoast Water, Australia – to build and manage rule-based processing workflows for spatial data and gain huge time, cost and asset savings through increased data accuracy and centralised business spatial data.

Nationaal Geografisch Instituut (IGN), Belgium – to author, consolidate and share all spatial data quality rules into a unique repository. Assessing quality and compliance to the rule set of the spatial data held in a central Oracle Spatial database.

Ordnance Survey of Northern Ireland (OSNI) – to undertake consolidation of Data Quality Environment to support OSNI modernisation

New and Enhanced Features

Linux Support

Support for running the application server (JBoss v4.0.4 GA only) on SUSE Linux Enterprise 10.

Grid Processing

Provides the ability to process data in parallel under a grid environment via distributing components, such as Sun™ Grid Engine. This greatly reduces workflow times by distributing processes across multiple machines. This is currently only supported on SUSE Linux Enterprise 10 running JBoss v4.0.4 GA, and is only available via the Radius Studio Web Services API.

Feature Data Object (FDO) integration

FDO support provides the capability to assess the quality of spatial data held in a variety of different vector formats. Initial formats supported (read only) are: WFS, ESRI Shapefile, SDF and OGR (MapInfo TAB and MIF/MID).

Rule and Action Templates

Support for rule and action templates. A template allows a fragment of a rule or action to be created and stored, and then referenced by other rules, actions, action templates and rule templates. This reduces duplication in the rule base and assists users with rule authoring tasks by allowing them to re-use previously created fragments.

Non-spatial rule checking

The ability to create and execute rules against non-spatial data. Rules on non-spatial data are written and executed in the same way as for spatial data.

Chain Finding

Provides the ability to create rules that use logic to link feature elements together to form a higher-level feature (any geometry based on the set of collected features, as specified by the user). This greatly assists data re-engineering and re-use in cases where feature elements need to be grouped so that checks and actions can be performed on the higher-level features. For example, forming polygons from lines.

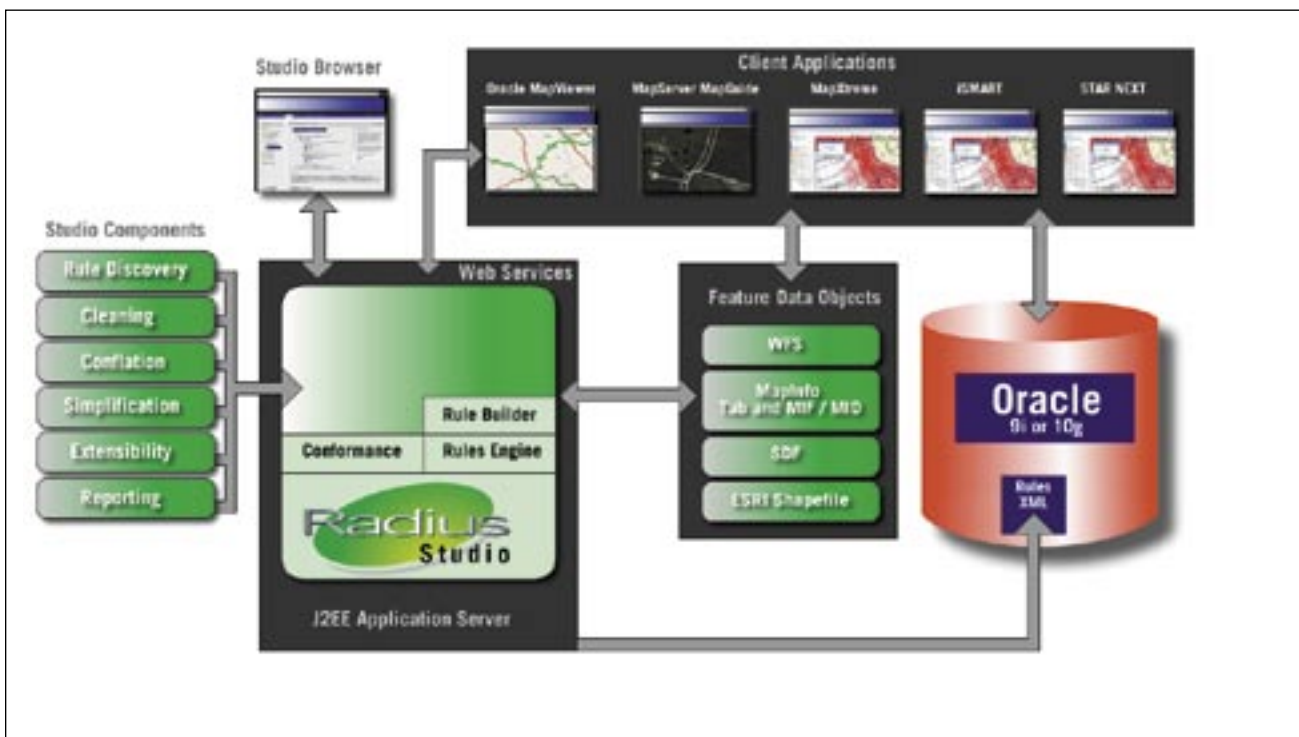
Download and Upload of Radius Studio Elements

Provides the ability to download Radius Studio elements (data stores, rules, actions, templates, action maps, discovery specifications and sessions) as an XML file and allows this to be uploaded into another Radius Studio system. This allows elements to be easily shared between development, test and production systems.

Extensibility API

Provides an API to allow the user to:

- Implement new data stores for non-standard data sources
- Implement additional built-in functions to be used in the rule and action builder.



1Spatial

Head Office

Cavendish House
Cambridge Business Park
Cambridge
CB4 0WZ, UK

International Offices

Rue de Colonies 11
1000 Brussels
Belgium

1 Nore House,
Riverview Business Park
Mahon
Cork
Ireland

Olavsgt. 39b
NO-3612
Kongsberg
Norway

3 Wellgreen Lane
Stirling,
FK8 2BS
UK