

# Aktuelles aus dem deegree Projekt

*Neues in 3.4 und Weiterentwicklungen für  
INSPIRE*

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# Sprecher

- Torsten Friebe
  - Mitglied im Technical Management Committee (TMC) des OSGeo Projekt deegree
  - Mitglied der Geschäftsführung lat/lon GmbH, Bonn

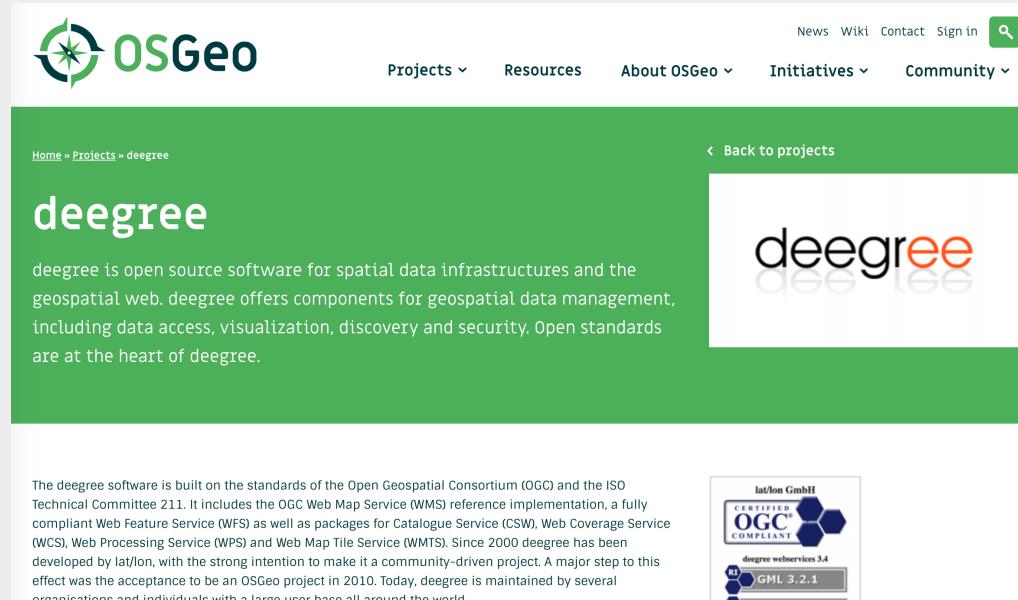
**deegree**



# OSGeo Projekt deegree

- Projektstart: 2002
- OSGeo Projekt: seit Februar 2010
- Open Source Lizenz: LGPL 2.1
- deegree bei OSGeo

<https://www.osgeo.org/projects/deegree/>



A screenshot of the deegree project page on the OSGeo website. The page has a green header bar with the OSGeo logo and navigation links for Projects, Resources, About OSGeo, Initiatives, and Community. The main content area has a green background and displays the deegree logo, a brief description of the software, and a "Back to projects" link. At the bottom, there is a footer section with text about the software's standards compliance and a badge from lat/lon GmbH certifying it as OGC compliant.

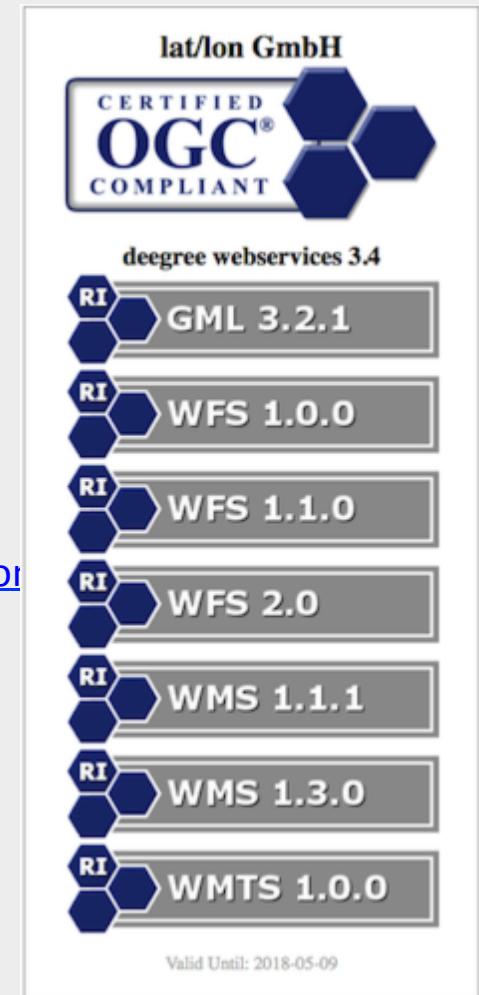
The deegree software is built on the standards of the Open Geospatial Consortium (OGC) and the ISO Technical Committee 211. It includes the OGC Web Map Service (WMS) reference implementation, a fully compliant Web Feature Service (WFS) as well as packages for Catalogue Service (CSW), Web Coverage Service (WCS), Web Processing Service (WPS) and Web Map Tile Service (WMTS). Since 2000 deegree has been developed by lat/lon, with the strong intention to make it a community-driven project. A major step to this effect was the acceptance to be an OSGeo project in 2010. Today, deegree is maintained by several organisations and individuals with a large user base all around the world.

lat/lon GmbH  
CERTIFIED  
OGC®  
COMPLIANT

degree webervices 3.4  
degree GML 3.2.1  
degree WMS 1.3.0

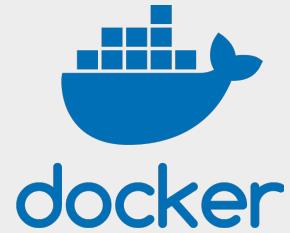
# deegree und OGC Standards

- Unterstützung für vollständigen INSPIRE Stack:
  - View Service (WMS 1.1.1 and WMTS 1.0)
  - Download Service (WFS 2.0)
  - Discovery Service (CSW 2.0.2 APISO)
- Support für INSPIRE Datenthemen (GML 3.2.1)
- deegree ist Referenzimplementierung  
<https://github.com/opengeospatial/cite/wiki/Reference-Implementation>
- deegree beim OGC  
<http://www.opengis.net/resource/products/details/?pid=1351>



# deegree auf Docker Hub

- NEW Docker Image unter <http://hub.docker.com>



<https://hub.docker.com/r/deegree/deegree3-docker/>

-  **69** Forks
-  **50** Stars
-  **22** Watcher
-  **23** Contributors

<https://github.com/deegree/deegree3>

- Version **3.4-RC7** in Zahlen
-  **feature** **13** neue Features
-  **enhancement** **112** Verbesserungen
-  **bug** **173** behobene Fehler (\*)

\* Im Vergleich zu Version 3.3

# Neue Features (Auswahl) in 3.4

	Author	Labels	Projects	Milestones	Reviews
Implemented response paging for WFS 2.0.0 ✓ <a href="#">feature</a>	#619 by Igoltz			3.4	
Implemented support of XML and SOAP encoding for WMS 1.3.0 ✓ <a href="#">feature</a>	#598 by dstenger			3.4	
Supported request encodings are made configurable for WFS ✓ <a href="#">feature</a>	#544 by dstenger			3.4	
Oracle GeoRaster Support for 3.4 ✓ <a href="#">feature</a>	#520 by stephanr			3.4	
Add SVG support to WMS ✓ <a href="#">feature</a>	#469 by copierjj			3.4	
GML temporal support ✘ <a href="#">feature</a>	#449 by MrSnyder			3.4	
New feature: OWS request time-out ✓ <a href="#">feature</a>	#326 by MrSnyder			3.4	
Basic SOAP support for WFS ✓ <a href="#">feature</a>	#284 by versusvoid			3.4	
GDAL integration and dataaccess modules ✓ <a href="#">feature</a>	#249 by MrSnyder			3.4	
ConnectionProvider for J2EE DataSource implementations ✘ <a href="#">feature</a>	#233 by MrSnyder			3.4	
Add control option for linearization of WFS GML output <a href="#">feature</a>	#225 by MrSnyder			3.4	
Implementation of the autopacement for labels <a href="#">feature</a>					

# Erweiterungen (Auswahl) in 3.4

		Author ▾	Labels ▾	Projects ▾	Milestones ▾	Reviews ▾
6 Open	✓ 112 Closed					
➤ Removed real person names from service metadata ✓	enhancement					
#895 by Igoltz was merged 3 days ago	3.4					
➤ Rework tomcat bundle distribution ✓	enhancement					
#894 by tfr42 was merged 3 days ago	3.4					
➤ Java 8 Updates ✓	enhancement					
#893 by Igoltz was merged 3 days ago	3.4					
➤ Integrate new tool deegree-tools-config (makes usage of Java 8+ mandatory) ✓	enhancement					
#887 by dsteiner was merged 13 days ago	3.4					
➤ Replaced WFS configuration option allowFeatureReferencesToDatastore by new idGenMode ✓	WFS enhancement					
#877 by Igoltz was merged 13 days ago	3.4					
➤ Enhanced CRS configuration by CRS identifier in OGC HTTP URI syntax ✓	enhancement					
in progress						
#840 by Igoltz was merged on 3 Nov 2017	3.4					
➤ Enhance SQLFeatureStoreConfigWriter to differentiate between feature and xlink:href mapping ✓	enhancement in progress					
#837 by Igoltz was merged on 3 Nov 2017	3.4					
➤ Improved documentation regarding extended capabilities ✓	documentation enhancement					
in progress						
#836 by Igoltz was merged on 3 Nov 2017	3.4					
➤ Added LGPL v2.1 license file and section into README.md file ✓	documentation enhancement					
#822 by tfr42 was merged on 6 Oct 2017	3.4					
➤ Enhance WFS-T by being able to insert features that reference features which are already inserted ✓	enhancement in progress					

# deegree CLI Werkzeug in deegree 3.4-RC7

- <https://github.com/deegree/deegree3/tree/master/deegree-tools/deegree-tools-config>

## deegree-cli-utility

build passing

Command line utility based on [deegree3](#) to generate `DDL` and `deegree SQLFeatureStore` from GML application schemas.

You can download the latest release [here](#) or build it yourself.

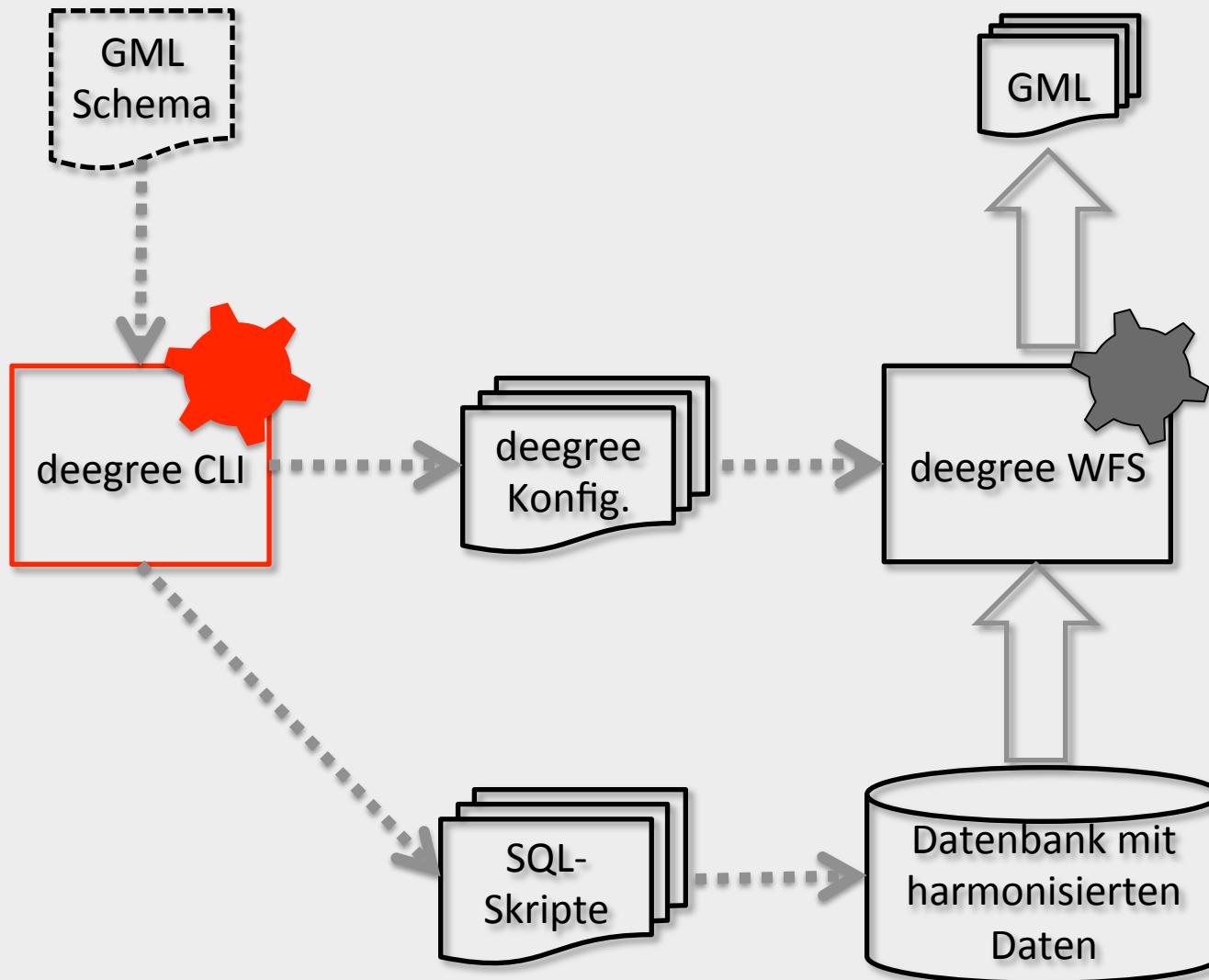
```
git clone https://github.com/lat-lon/deegree-cli-utility.git
cd deegree-cli-utility/
git checkout deegree-3.4
mvn clean package -Pjar-with-dependencies
```

## Usage

```
Usage: java -jar deegree-cli-utility.jar [options] schema_url
```

```
options:
--format={deegree|ddl|all}, default=deegree
--srid=<epsg_code>, default=4258
--idtype={int|uuid}, default=int
--mapping={relational|blob}, default=relational
--dialect={postgis|oracle}, default=postgis
```

# Bereitstellung von Daten mit deegree WFS



## Relational

Tabellen sind aus  
GML Schema  
abgeleitet

GML Objekte  
werden auf  
relationales  
Modell gemappt

## BLOB

Eine Tabelle

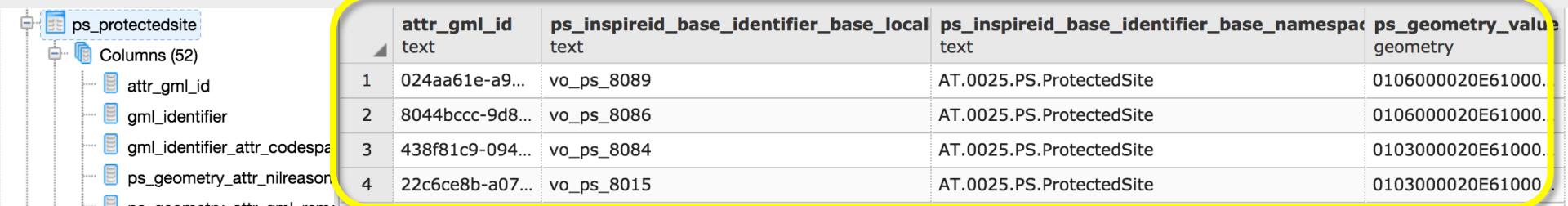
GML Objekt wird  
als BLOB  
gespeichert

# Relationales Mapping der GML Objekte

- deegree SQLFeatureStore Konfiguration

```
<SQLFeatureStore configVersion="3.1.0" xmlns="http://www.deegree.org/datasource/feature/sql">
  <JDBCConnId>postgresDS_canonical</JDBCConnId>
  <StorageCRS srid="-1" dim="2D">EPSG:4326</StorageCRS>
  <GMLSchema>../../appschemas/ProtectedSites.xsd</GMLSchema>
  <FeatureTypeMapping name="ps:ProtectedSite" table="ps_protectedsite">
    <FIDMapping prefix="PS_PROTECTEDSITE_">
      <Column name="attr_gml_id" type="string" />
    </FIDMapping>
    <Complex path="gml:identifier">
      <Primitive path="text()" mapping="gml_identifier" />
      <Primitive path="@codeSpace" mapping="gml_identifier_attr_codespace" />
    </Complex>....
  </FeatureTypeMapping>
</SQLFeatureStore>
```

- GML Objekte als Relationen



The screenshot shows the structure and data of the 'ps\_protectedsite' table. The table has 52 columns, with the first four being highlighted by a yellow box.

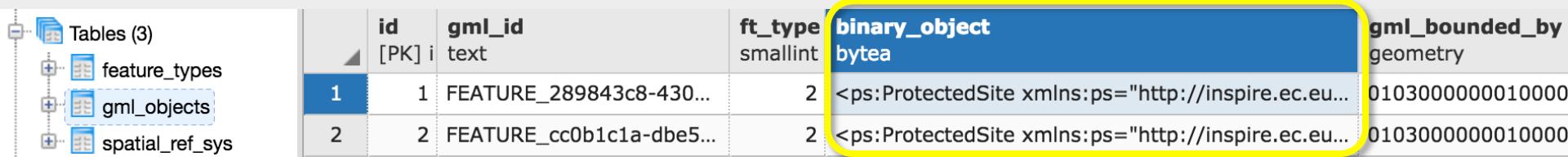
	attr_gml_id	ps_inspireid_base_identifier_base_local	ps_inspireid_base_identifier_base_namespace	ps_geometry_value
1	024aa61e-a9...	vo_ps_8089	AT.0025.PS.ProtectedSite	0106000020E61000.
2	8044bccc-9d8...	vo_ps_8086	AT.0025.PS.ProtectedSite	0106000020E61000.
3	438f81c9-094...	vo_ps_8084	AT.0025.PS.ProtectedSite	0103000020E61000.
4	22c6ce8b-a07...	vo_ps_8015	AT.0025.PS.ProtectedSite	0103000020E61000.

# GML Objekte werden als BLOB abgebildet

- deegree SQLFeatureStore Konfiguration

```
<SQLFeatureStore configVersion="3.4.0" xmlns="http://www.deegree.org/datasource/feature/sql">
  <JDBCConnId>postgresDS_blob</JDBCConnId>
  <StorageCRS srid="-1" dim="2D">EPSG:4258</StorageCRS>
  <GMLSchema>../../appschemas/ProtectedSites.xsd</GMLSchema>
  <BLOBMapping/>
</SQLFeatureStore>
```

- GML Objekte als BLOB



The screenshot shows a database interface with a sidebar containing a tree view of tables: Tables (3), feature\_types, gml\_objects, and spatial\_ref\_sys. The main area displays a table with the following columns: id [PK], gml\_id, ft\_type, and gml\_bounded\_by.

	<b>id</b> [PK]	<b>gml_id</b>	<b>ft_type</b>	<b>gml_bounded_by</b>
	1	FEATURE_289843c8-430...	binary_object bytea	0103000000010000
	2	FEATURE_cc0b1c1a-dbe5...	binary_object bytea	0103000000010000

A yellow box highlights the second row, specifically the ft\_type column which contains binary\_object and bytea, indicating the storage type for the GML objects.

# Comparision between Relational and BLOB

	Relational	BLOB
Storage as	Multiple Tables	Single Table
Supported Geometry types	Database Types	GML (ISO) Geometry Types
Filter Expression to Query	SQL	In-Memory on XML instance
Filter on BBox and GML ID	Using DB Spatial Functions	Using DB Spatial Functions
Response Time (for first byte)	Fair (enough for INSPIRE)	Better

# INSPIRE in Practice

- INSPIRE in Practice
- Toolbeschreibung unter  
<https://inspire-reference.jrc.ec.europa.eu/tools/deegree>

European Commission INSPIRE in Practice

European Commission > INSPIRE > In Practice > deegree

HOME IMPLEMENTATIONS TOOLS APPS VOCABULARIES GAME REGISTER EU-LGIN

 deegree

**Overview** deegree is open source software for spatial data infrastructures and the geospatial web. deegree offers components for geospatial data management, including data access, visualization, discovery and security. Open standards are at the heart of deegree.

**General info** It comes with an INSPIRE workspace to help to provide the network services as required by INSPIRE

**INSPIRE info**

**Related**

**Comments**

Tags: OSGeo OGC WMS WFS CSW WCS WPS WMTS INSPIRE

1 Like I use this Last modified: 06 Nov 2017 Contributor: Are3na Team

Are you the developer/publisher of this tool?

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Project links

 Official website  Download Page  GitHub

 Documentation  Demo  Documentation

General information

Scope: Web Servers

Media:



BACK TO TOP

# Beispiele für INSPIRE mit deegree

- Online-Tutorial mit Beispielen für Annex 1 Themen Protected Sites und Cadastral Parcels:  
<https://github.com/lat-lon/deegree-workshop>
- Weitere INSPIRE Konfigurationen auf github:  
<https://github.com/de-bkg/deegree-workspace-dlm250-inspire>
- <https://github.com/DirkThalheim/deegree-elf>
- <https://github.com/eENVplus/deegree-workspace-eenvplus>

# Support the community project

-  **contributions welcome**    **49 offene Issues**
  - Wir suchen Tester, Technical Writer und SW-Entwickler
-  **funding welcome**    **23 Issues**
  - Wir suchen Sponsoren für die Weiterentwicklung

<https://github.com/deegree/deegree3/issues>

# Ausblick

- Migration der Mailing Listen von Sourceforge nach OSGeo
- Neuer Release Zyklus
- Geplante Anpassungen:
  - Java 9/10 Unterstützung
  - Apache Tomcat 9 Unterstützung

# Q & A

<http://www.deegree.org>

Twitter: [@deegree\\_org](https://twitter.com/deegree_org)

## PR #820 – Erweiterter WFS-T

- WFS-T kann bei INSERT-Aktion Feature-Referenzen innerhalb der Datenbank auflösen
- Mehr unter:  
<https://github.com/deegree/deegree3/pull/820>

# deegree Enterprise Edition ist die **Produktversion** von deegree

Weitere Infos unter:

<http://www.deegree-enterprise.com>  
<http://www.deegree-enterprise.de>