DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products. It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum. DIMS-EO is designed as a modular, component-based system. One of the open architecture’s distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.

**DIMS-EO features at a glance**
- Multi-mission capability
- Production control and product generation
- Cataloging and long-term archiving
- Online access to data catalog via internet
- Order handling and delivery

**Solution packages**
- Product Library
  - Product Library for archiving your data
- Production Center
  - Product Library + Process Management + Production Control for specific processing and archiving of your data
- Data Center
  - EOWEB + Product Library + Ordering Control + Online/Offline Product Generation and Delivery for earth observation data portals

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:
- **Product Library**
- **Production Center**
- **Data Center**

**About Werum Software & Systems**

With a workforce of over 100, Werum Software & Systems AG is one of the largest employers for IT professionals in Germany. For more than 45 years we have been implementing sophisticated software and systems for a worldwide base of customers, among them many renowned companies from the automotive and aerospace industry as well as scientific institutions and public authorities.

Our activities focus on the support of customer-specific processes in the core areas of test data and information management, earth observation, eGovernment and enterprise information management. The software solutions are based on platforms specially developed for these areas.

Diversity, reliability, flexibility and fairness are part of our philosophy and create the basis for sustainable customer relations. We offer our international customers well-founded application know-how and the knowledge and experience gained in many years of implementing most diverse projects and IT solutions. Already at the run-up to project implementation we assist them in advisory capacity with regard to any IT-related aspects of the specific task setting. Long-term maintenance and care services for the solutions supplied are a matter of course for us.

**Solution packages**
- **Product Library**
- **Production Center**
- **Data Center**

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- **Product Library**
- **Production Center**
- **Data Center**

DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products.

It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum.

DIMS-EO is designed as a modular, component-based system. One of the open architecture's distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.

**DIMS-EO features at a glance**
- Multi-mission capability
- Production control and product generation
- Cataloging and long-term archiving
- Online access to data catalog via internet
- Order handling and delivery

**Solution packages**
- **Product Library**
- **Production Center**
- **Data Center**

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- **Product Library**
- **Production Center**
- **Data Center**

**About Werum Software & Systems**

With a workforce of over 100, Werum Software & Systems AG is one of the largest employers for IT professionals in Germany. For more than 45 years we have been implementing sophisticated software and systems for a worldwide base of customers, among them many renowned companies from the automotive and aerospace industry as well as scientific institutions and public authorities.

Our activities focus on the support of customer-specific processes in the core areas of test data and information management, earth observation, eGovernment and enterprise information management. The software solutions are based on platforms specially developed for these areas.

Diversity, reliability, flexibility and fairness are part of our philosophy and create the basis for sustainable customer relations. We offer our international customers well-founded application know-how and the knowledge and experience gained in many years of implementing most diverse projects and IT solutions. Already at the run-up to project implementation we assist them in advisory capacity with regard to any IT-related aspects of the specific task setting. Long-term maintenance and care services for the solutions supplied are a matter of course for us.

**Solution packages**
- **Product Library**
- **Production Center**
- **Data Center**

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- **Product Library**
- **Production Center**
- **Data Center**

DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products.

It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum.

DIMS-EO is designed as a modular, component-based system. One of the open architecture's distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.

**DIMS-EO features at a glance**
- Multi-mission capability
- Production control and product generation
- Cataloging and long-term archiving
- Online access to data catalog via internet
- Order handling and delivery

**Solution packages**
- **Product Library**
- **Production Center**
- **Data Center**

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- **Product Library**
- **Production Center**
- **Data Center**

DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products.

It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum.

DIMS-EO is designed as a modular, component-based system. One of the open architecture's distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.

**DIMS-EO features at a glance**
- Multi-mission capability
- Production control and product generation
- Cataloging and long-term archiving
- Online access to data catalog via internet
- Order handling and delivery

**Solution packages**
- **Product Library**
- **Production Center**
- **Data Center**

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- **Product Library**
- **Production Center**
- **Data Center**

DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products.

It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum.

DIMS-EO is designed as a modular, component-based system. One of the open architecture's distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.
Data information and management system

User information and geodata access services
In combination with EOWEB, DIMS-EO provides a service for web-based access to the catalog and ordering functions. It provides functions for access to directory information, for search and placing orders of the desired products. Integration with industry-standard geodata access software is done easily by comprehensive user information services.

Consistent long-term archiving
A cornerstone of DIMS-EO is the Product Library, which is the source of processing input and the destination of processing output. It provides a complete and consistent reference of the configured products. Archives used with DIMS-EO range widely from file systems to HSM systems. What they have in common is that they handle product metadata and detailed data separately. So, DIMS-EO offers comprehensive functionality for product management and retrieval.

Order management
Based on the Product Library, the Order Management component handles the business process of ordering throughout the system. This includes all steps from accepting orders (including subscription control), generating production orders through to invoicing.

Wide range of production scenarios
DIMS-EO production control enables
- Triggered, data-driven processing
- Systematic production - time-controlled and based on rules
- Processing and product delivery on demand
- NRT processing and delivery

Flexible processing management
Processing systems developed by research groups or third-party vendors can be integrated by means of the DIMS-EO Processing System Management. It provides an interface between the implemented processing algorithms on one side and the processing and archiving facility of DIMS-EO or other environments on the other.

Homogeneous operating
A unified operating tool supplies interactive monitoring and control of the DIMS-EO components. There also is an independent monitoring and alarm component that allows close supervision of the whole DIMS-EO facility.

Online/offline product delivery
This component generates custom-made delivery packages of ordered products. They can be transferred either online or on any customary media.

Flexible processing management
DIMS-EO offers flexible configuration to meet the requirements of different missions, satellites, and instruments. Moreover, the core components provide open interfaces which pave the way to building up customer-specific data management systems.

Multi-mission proven
The system modules have proven their worthiness in a number of space missions, satellites, and instruments:
- BIRD
  Bi-spectral Infrared Detection
- CHAMP
  CHAllenging Mini Satellite Payload
- ENVISAT
  ENVironmental SATellite
- GOME
  Global Ozone Monitoring Experiment on ERS2
- GOME2
  Global Ozone Monitoring Experiment
- METEOSAT
  METEOrological SA(tellite) on METOP
- MODIS
  Moderate resolution imaging instrument on TERRA and AQUA
- Sentinel-1
  SAR mission of the Copernicus Programme
- Sentinel-3
  Environmental and climate monitoring mission of the Copernicus Programme
- SRTM
  Shuttle Radar Topography Mission
- Swarm
  Multi-satellite geomagnetic mission
- TanDEM-X
  Twin mission to TerraSAR-X

Configurability and openness
DIMS-EO components are in use for the ESA’s multi-mission facilities infrastructure, Sentinel-1 and Sentinel-3 payload data ground segments, and further archiving and data access solutions.
Data information and management system

Online/offline product delivery
This component generates custom-made delivery packages of ordered products. They can be transferred either online or on any customary media.

Consistent long-term archiving
A cornerstone of DIMS-EO is the Product Library, which is the source of processing input and the destination of processing output. It provides a complete and consistent reference of the configured products. Archives used with DIMS-EO range widely from file systems to HSM systems. What they have in common is that they handle product metadata and detailed data separately. So, DIMS-EO offers comprehensive functionality for product management and retrieval.

Order management
Based on the Product Library, the Order Management component handles the business process of ordering throughout the system. This includes all steps from accepting orders (including subscription control), generating production orders through to invoicing.

System capabilities and structure

Flexible processing management
Processing systems developed by research groups or third-party vendors can be integrated by means of the DIMS-EO Processing System Management. It provides an interface between the implemented processing algorithms on one side and the processing and archiving facility of DIMS-EO or other environments on the other.

Homogeneous operating
A unified operating tool supplies interactive monitoring and control of the DIMS-EO components. There also is an independent monitoring and alarm component that allows close supervision of the whole DIMS-EO facility.

Multi-mission proven
The system modules have proven their worthiness in a number of space missions, satellites and instruments:

- BIRD
- CHArMing Mini Satellite Payload
- ENVISAT
- GOME
- Global Ozone Monitoring Experiment on ERS-2
- GOME2
- Global Ozone Monitoring Experiment

Configurability and openness
DIMS-EO offers flexible configuration to meet the requirements of different missions, satellites and instruments. Moreover, the core components provide open interfaces which pave the way to building up customer-specific data management systems.

- METEOSAT
- METEOlogical SATellite on METOP
- MODIS
- Moderate resolution imaging instrument on TERRA and AQUA
- Sentinel-1
- SAR mission of the Copernicus Programme
- Sentinel-3
- Environmental and climate monitoring mission of the Copernicus Programme
- SRTM
- Shuttle Radar Topography Mission
- Swarm
- Multi-satellit geomagnetic mission
- TanDEM-X
- Twin mission to TerraSAR-X
- TerraSAR-X
- Earth observation satellite with Synthetic Aperture Radar in X-band

DIMS-EO components are in use for the ESA's multi-mission facilities infrastructure, Sentinel-1 and Sentinel-3 payload data ground segments, and further archiving and data access solutions.

Medium resolution optical image (MODIS)

Digital elevation model (SRTM)

Atmospheric data (ERS-GOME)
In seeking to understand the world’s eco and climate system scientists all over the world gather information from the deepest oceans to the remotest polar regions. The means they apply include satellite measurements from space and sophisticated instruments on research vessels, diving robots, aircrafts or specifically built research stations.

Whatever method scientists use to acquire the data, it will definitely be very expensive. That makes the results valuable in two respects: firstly, a great deal of money and time is invested in collecting the data and, secondly, re-gathering them a second time is more than difficult or even impossible. Therefore, best data quality must be ensured at the first go.

As scientists need to continuously extend and improve their data inventories, it is necessary to manage all data acquired with the different means and to link them with any related information about the how, when, where and why. It should be easy for scientists to access the entire data and to combine information from various sources in order to constantly increase their knowledge about Earth.
Data and Information Management System for Earth Observation

DIMS-EO is a multi-mission processing, archiving and distributing platform for earth observation products.

It has been developed in close and effective cooperation between the German Remote Sensing Data Center (an institute of the German Aerospace Center, DLR) and Werum.

DIMS-EO is designed as a modular, component-based system. One of the open architecture’s distinguishing features is its high configurability, which enables easy adaptation to product structures, good integrability with third-party elements and scalability to meet performance requirements of new applications.

The platform has been commercialized for many years with us being sole distributor. We are a competent partner in implementation projects with customers - from concept studies, configuration and integration through to long-term maintenance.

Solution packages

Depending on the individual needs, we can supply either an all-component DIMS-EO or the following solution packages:

- Product Library
  - Product Library for archiving your data
- Production Center
  - Product Library + Process Management + Production Control for specific processing and archiving of your data
- Data Center
  - EOWEB + Product Library + Ordering Control + Online/Offline Product Generation and Delivery for earth observation data portals

DIMS-EO’s capability to integrate any processors and support any workflows is an excellent basis to perform systematic processing and archiving of any kind of data.

DIMS-EO features at a glance

- Multi-mission capability
- Production control and product generation
- Cataloging and long-term archiving
- Online access to data catalog via internet
- Order handling and delivery

About Werum Software & Systems

With a workforce of over 120, Werum Software & Systems AG is one of the largest independent employers for IT professionals in Germany. For more than 50 years we have been implementing sophisticated software and systems for customers all over the world, among them many renowned companies from the automotive and aerospace industry as well as scientific institutions and public authorities.

Our activities focus on the support of customer-specific processes in the core areas of test data and information management, earth observation, eGovernment and enterprise information management. The software solutions are based on platforms specially developed for these areas.

Diversity, reliability, flexibility and fairness are part of our philosophy and create the basis for sustainable customer relations. We offer our international customers well-founded application know-how as well as the knowledge and experience gained in many years of implementing most diverse projects and IT solutions. Already in the run-up to project implementation we assist them in advisory capacity with regard to any IT-related aspects of the specific task setting. Long-term maintenance and servicing of the solutions supplied are a matter of course for us.

Warum Software & Systems AG
Wulf-Werum-Straße 3
21337 Lueneburg, Germany
Phone +49 4131 8307-300
Fax +49 4131 8307-200
sales@werum.de
www.werum.de

Photos and graphics with friendly permission from DLR and ESA.

© Arne Schoenenhaar & Wolfgang Seese (in-house photography). All rights reserved. Werum software is a registered trademark of Werum Software & Systems AG. All other names and trademarks of the respective companies.