



ERDAS TITAN API Documentation

November 2008



Copyright © 2008 ERDAS, Inc.

All rights reserved.

Printed in the United States of America.

The information contained in this document is the exclusive property of ERDAS, Inc. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by ERDAS, Inc. All requests should be sent to the attention of:

Manager, Technical Documentation
ERDAS, Inc.
5051 Peachtree Corners Circle
Suite 100
Norcross, GA 30092-2500 USA.

The information contained in this document is subject to change without notice.

Government Reserved Rights. MrSID technology incorporated in the Software was developed in part through a project at the Los Alamos National Laboratory, funded by the U.S. Government, managed under contract by the University of California (University), and is under exclusive commercial license to LizardTech, Inc. It is used under license from LizardTech. MrSID is protected by U.S. Patent No. 5,710,835. Foreign patents pending. The U.S. Government and the University have reserved rights in MrSID technology, including without limitation: (a) The U.S. Government has a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced throughout the world, for or on behalf of the United States, inventions covered by U.S. Patent No. 5,710,835 and has other rights under 35 U.S.C. § 200-212 and applicable implementing regulations; (b) If LizardTech's rights in the MrSID Technology terminate during the term of this Agreement, you may continue to use the Software. Any provisions of this license which could reasonably be deemed to do so would then protect the University and/or the U.S. Government; and (c) The University has no obligation to furnish any know-how, technical assistance, or technical data to users of MrSID software and makes no warranty or representation as to the validity of U.S. Patent 5,710,835 nor that the MrSID Software will not infringe any patent or other proprietary right. For further information about these provisions, contact LizardTech, 1008 Western Ave., Suite 200, Seattle, WA 98104.

ERDAS, ERDAS IMAGINE, IMAGINE OrthoBASE, Stereo Analyst and IMAGINE VirtualGIS are registered trademarks; IMAGINE OrthoBASE Pro is a trademark of ERDAS, Inc.

SOCET SET is a registered trademark of BAE Systems Mission Solutions.

Other companies and products mentioned herein are trademarks or registered trademarks of their respective owners.

Table of Contents

Table of Contents	iii
TITAN Client API Documentation	1
Introduction	1
ERDAS TITAN REST API	3
REST Request Format	3

TITAN Client API Documentation

Introduction

This guide explains how to use the ERDAS TITAN REST API to embed the TITAN experience (browsing users and accessing data) into a geospatial software application.

During the installation of the ERDAS TITAN Client software there are several key applications that are installed on the computer. The primary application is the Geospatial Instant Messenger which is the tool that allows you to share data with others, set permissions, search the network, and catalog various types of web services.

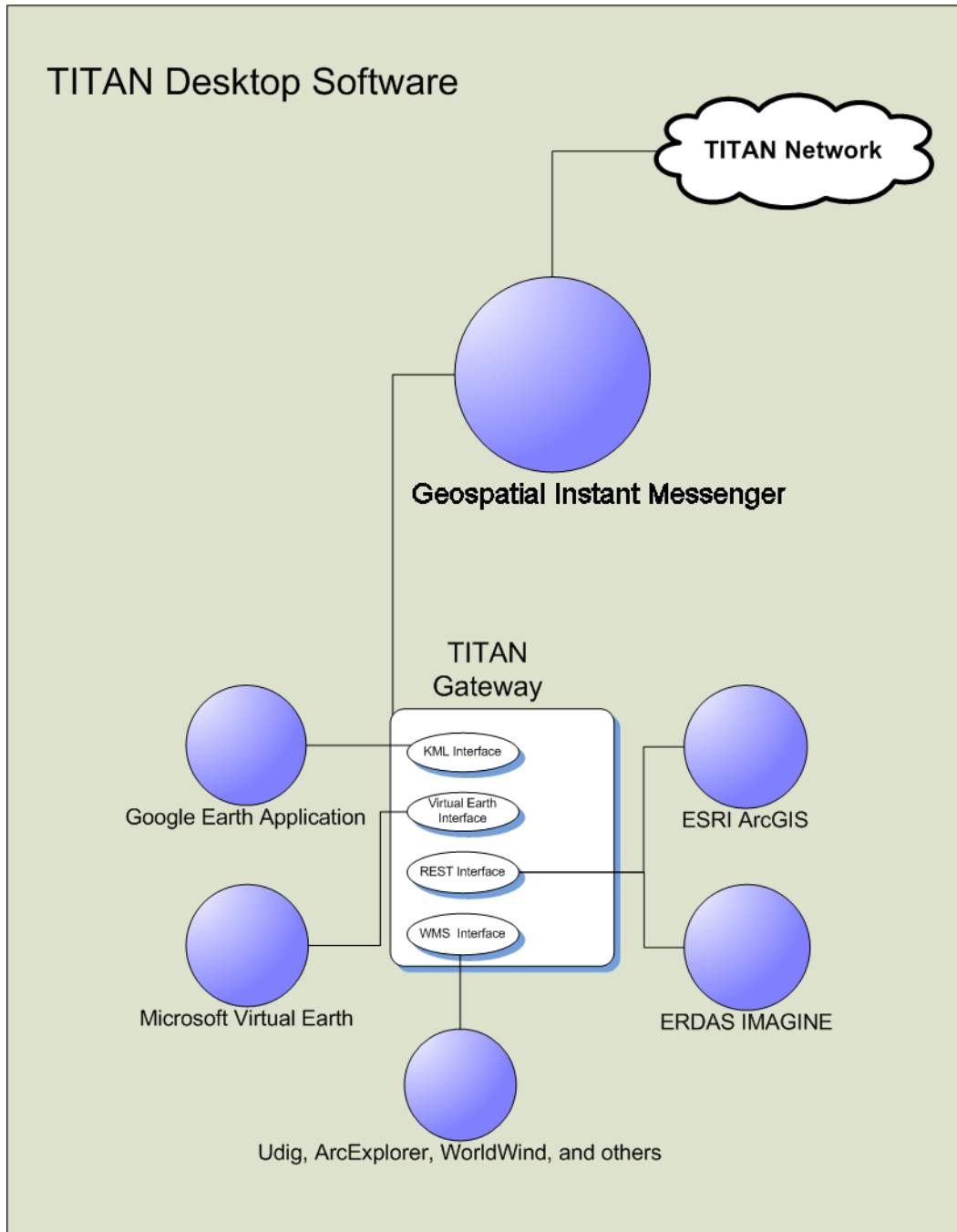
Another application is called the ERDAS TITAN Gateway. This application provides the gateway between the client's applications and the ERDAS TITAN Network. The ERDAS TITAN Gateway utilizes the Geospatial Instant Messenger to access the ERDAS TITAN Network; therefore, the Geospatial Instant Messenger must be running and logged into an ERDAS TITAN GeoHub in order for the ERDAS TITAN Gateway interfaces to work properly.

Additionally, ERDAS TITAN Gateway will only accept requests from the local computer (i.e. localhost) as a safety precaution.

ERDAS TITAN Gateway provides four interfaces for exploring data that can be found on the ERDAS TITAN Network (See [Figure 1](#)):

- REST API
- KML Server
- WMS Server
- Microsoft Virtual Earth Tile Server

Figure 1: TITAN Gateway Interfaces



The remainder of this document will explain in detail the REST API that is provided by the ERDAS TitanGateway server.

ERDAS TITAN REST API

REST Request Format

The REST API is the simplest means of accessing data on the ERDAS TITAN Network. The requests are formed using simple HTTP Get requests. The following requests can be made:

- Request the current list of users logged onto the network
- Request the list of data shares for a specific user on the network
- Request a WMS URL for a specific data share from a specific user

Retrieve List of Users

Use the following URL to retrieve the list of users:

```
http://127.0.0.1:8090/tsdk_userlist.xml
```

This request will return the following REST response.

```
<?xml version="1.0" encoding="UTF-8"?>
<xml>
  <user>
    <id>userid</id>
    <display>user_displayname</display>
    <sid>user_subid</sid>
    <shares>number_of_data_shares</shares>

    <catalogs>number_of_catalog_shares</catalogs>
  </user>
</xml>
```

Retrieve List of data shares from a user

Use the following URL to retrieve the list of data shares from a specific user (note that the actual user_id and user_sub_id should be defined without quotes):

```
http://127.0.0.1:8090/tsdk_getfiles.xml?id="user_id"&sid="user_sub_id"
```

This request will return the following REST response. Note that one "Folder" element will exist for each data share. In this example we demonstrate the response for one polygon share and one truecolor share. Regardless of the type of data a WMS link for the data can be retrieved using the "file" attribute of each dataset. It is also possible to have a hierarchy of folders within the XML if the user has created folders within the TITAN application.

```

<?xml version="1.0" encoding="UTF-8"?>
<xml>
<Folder>
<token type="5">
  <name>Layer Count</name>
  <value><![CDATA[1]]></value>
</token>
<token type="5">
  <name>Dimensions</name>
  <value><![CDATA[0 x 0]]></value>
</token>
<token type="5">
  <name>Extent</name>
  <value><![CDATA[-178.215027, 71.406647, -
66.969849, 18.924782]]></value>
</token>
<token type="5">
  <name>file</name>
  <value><![CDATA[V:/titan_testcase_files/vectors/states
.shp]]></value></token>
<token type="5">
  <name>acc</name>
  <value><![CDATA[80415000]]></value>
</token>
<token type="5">
  <name>Permissions</name>
  <value><![CDATA[Public]]></value>
</token>
<token type="5">
  <name>td</name>
  <value><![CDATA[1]]></value>
</token>
<token type="5">
  <name>Pyramids</name>
  <value><![CDATA[Yes]]></value>
</token>
<token type="5">
  <name>vtype</name>
  <value><![CDATA[4]]></value>
</token>
<token type="5">
  <name>mod</name>
  <value><![CDATA[80415000]]></value>
</token>
<token type="5">
  <name>done</name>
  <value><![CDATA[1]]></value>
</token>

```

```

<token type="5">
  <name>Feature Count</name>
  <value><![CDATA[51]]></value>
</token>
<token type="5">
  <name>CRS</name>
  <value><![CDATA[none]]></value>
</token>
<token type="5">
  <name>icon</name>
  <value><![CDATA[poly]]></value>
</token>
</Folder>

<Folder>
<token type="5">
  <name>Layer Count</name>
  <value><![CDATA[3]]></value>
</token>
<token type="5">
  <name>Dimensions</name>
  <value><![CDATA[3454 x 2701]]></value>
</token>
<token type="5">
  <name>Extent</name>
  <value><![CDATA[-83.114082, 35.484581, -
82.536331, 35.110855]]></value>
</token>
<token type="5">
  <name>file</name>

<value><![CDATA[V:/titan_testcase_files/rasters/pisgah
-utm.img]]></value>
</token>
<token type="5">
  <name>acc</name>
  <value><![CDATA[1039204930]]></value>
</token>
<token type="5">
  <name>Permissions</name>
  <value><![CDATA[Public]]></value>
</token>
<token type="5">
  <name>Depth</name>
  <value><![CDATA[Byte]]></value>
</token>
<token type="5">
  <name>td</name>
  <value><![CDATA[1]]></value>

```

```

</token>
<token type="5">
  <name>Pyramids</name>
  <value><![CDATA[Yes]]></value>
</token>
<token type="5">
  <name>mod</name>
  <value><![CDATA[1039204930]]></value>
</token>
<token type="5">
  <name>done</name>
  <value><![CDATA[1]]></value>
</token>
<token type="5">
  <name>Feature Count</name>
  <value><![CDATA[0]]></value>
</token>
<token type="5">
  <name>CRS</name>
  <value><![CDATA[UTM]]></value>
</token>
<token type="5">
  <name>icon</name>
  <value><![CDATA[truecolor]]></value>
</token>
</Folder>

</xml>

```

Retrieve WMS URL for a specific data share

Use the following URL to retrieve the WMS link for a specific data share from a specific user. The "file" attribute can be extracted from the list of shares defined above. Note that the user_id, user_sub_id, and file attributes should be defined without quotes.

```

http://127.0.0.1:8090/tsdk_wmslink.xml?id="user_id"&si
d="user_sub_id"&url=" file"

```

This request will return the following REST response.

```

<?xml version="1.0" encoding="UTF-8"?>
<xml>
  <url><![CDATA[wms_url]]></url>
</xml>

```