

# BIEE 11G 培训

## 主题：地图数据管理

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编码： GJZQ\_BI  
编写日期： 2011-07-02  
版本： 1.0



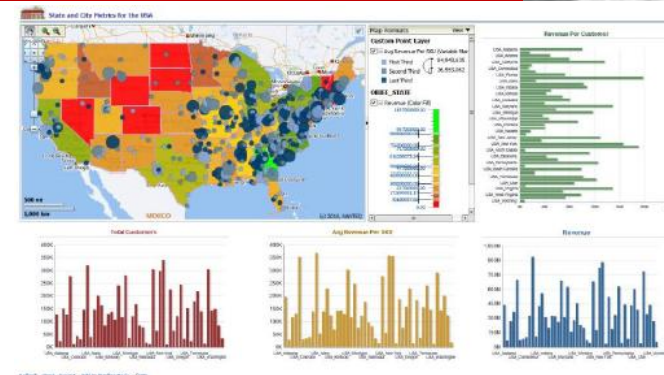
汉得信息技术有限公司  
HAND Enterprise Solutions Company Ltd.  
[www.hand-china.com](http://www.hand-china.com)





# BIEE - 地图数据管理

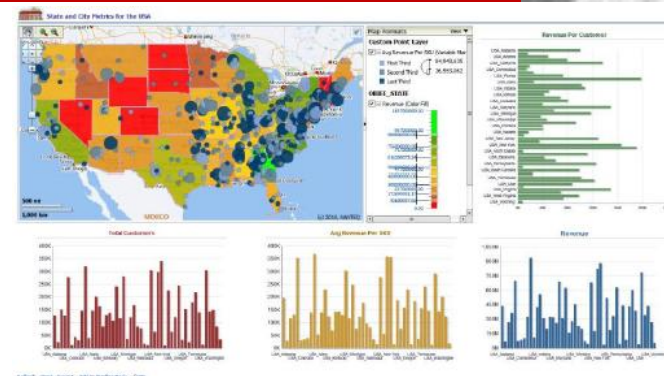
- 地图功能概览
- Oracle Spatial 架构
- 管理地图数据
- 自定义背景地图
- 地图交互功能
- 地图数据部署





# BIEE - 地图数据管理

- 地图功能概览
- Oracle Spatial 架构
- 管理地图数据
- 自定义背景地图
- 地图交互功能
- 地图数据部署



# BIEE - 地图功能概览

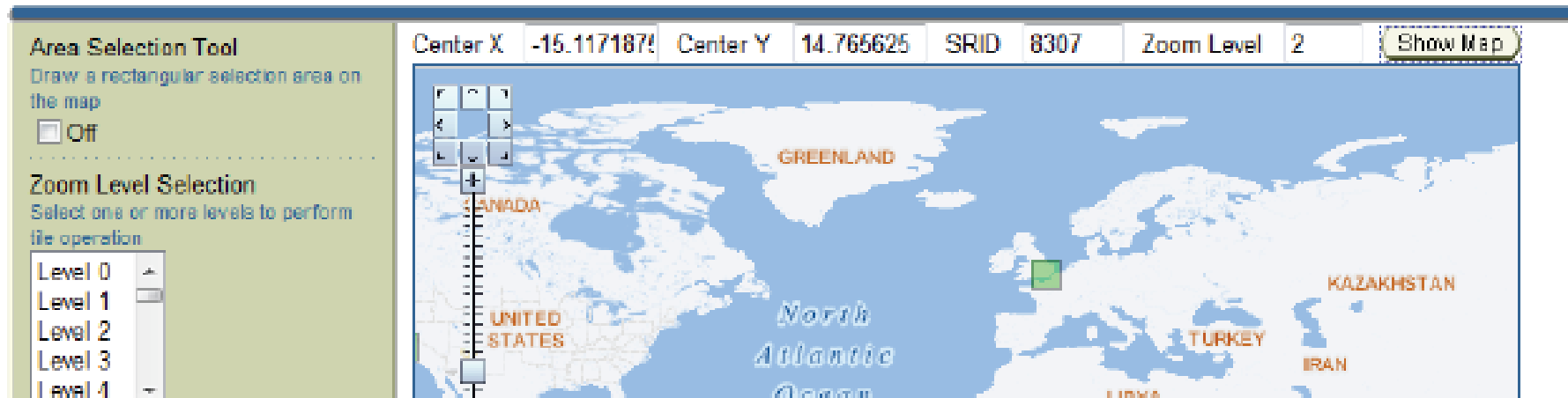
- Oracle MapViewer 作为 Java 应用程序运行, 绘制地图并输出
- BIEE 11g 默认安装组件(Map Viewer)
- 部署在weblogic. 地址: [http://\[biserver\]:9704/mapviewer](http://[biserver]:9704/mapviewer)
- 使用地图不需要额外的授权费用

**ORACLE**  
FUSION MIDDLEWARE  
MAPVIEWER

**11<sup>g</sup>**

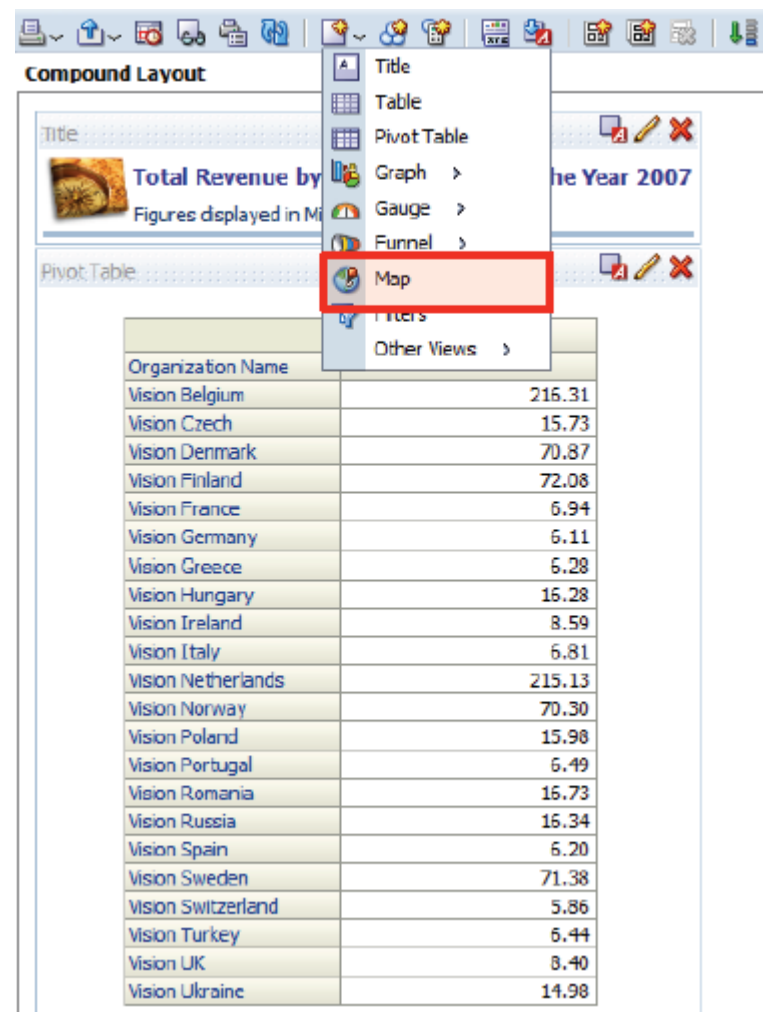


Location, Location, Location



# BIEE - 地图功能概览

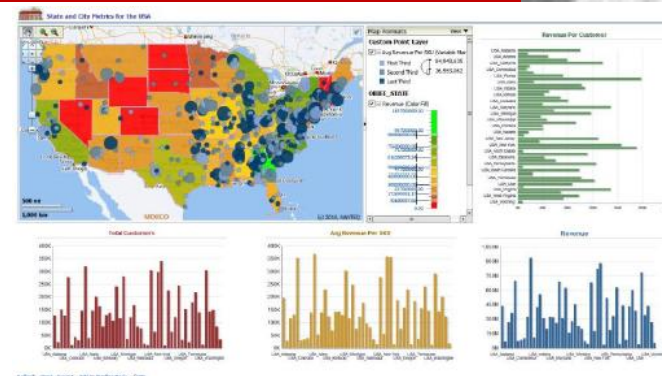
- 创建方法如创建分析一致
- 添加“地图”视图
- 添加地图列
  - 示例中 Organization Name与已经与地理国家代码相关联。





# BIEE - 地图数据管理

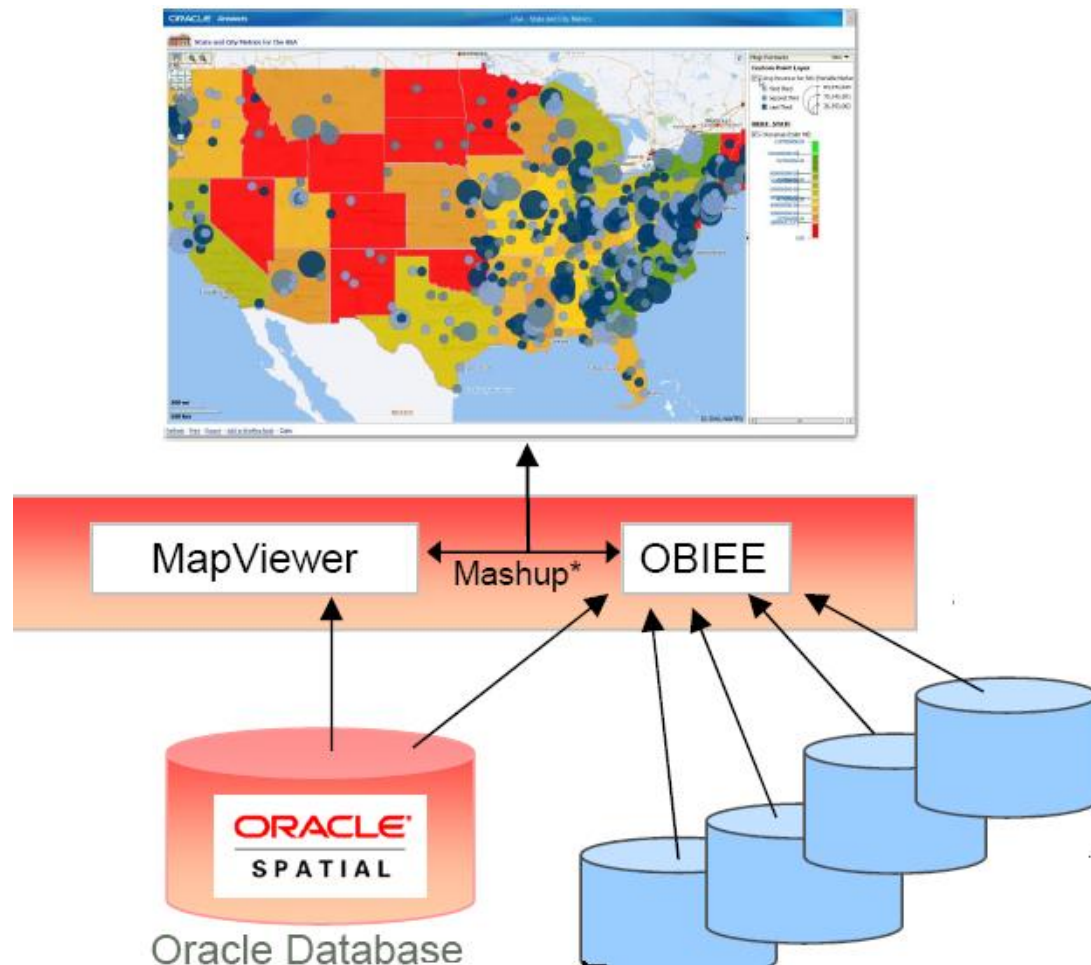
- 地图功能概览
- **Oracle Spatial 架构**
  - Oracle Database
  - Oracle Map Viewer
  - Oracle Map Builder
- 管理地图数据
- 自定义背景地图
- 地图交互功能
- 地图数据部署



# BIEE - Oracle Spatial 架构



- Oracle Database
  - 存储Spatial 对象定义
- Oracle Map Viewer
  - J2EE 应用程序,  
绘制交互式地图
  - 调用 XML, JAVA, PL/SQL  
和JavaScript APIs
  - 提供地图层缓存
- Oracle Map Builder
  - Map viewer部署工具
  - 地图开发工具,  
定义地图内容和结构,  
以及绘制规则

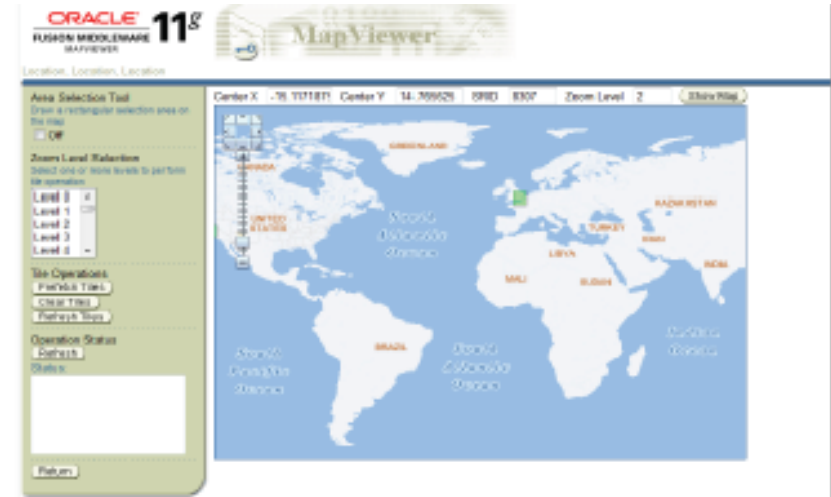
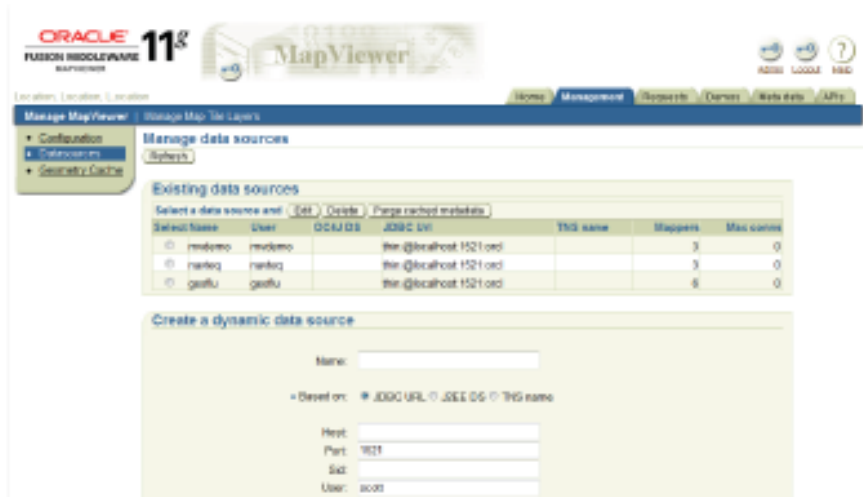


# BIEE - Map Viewer



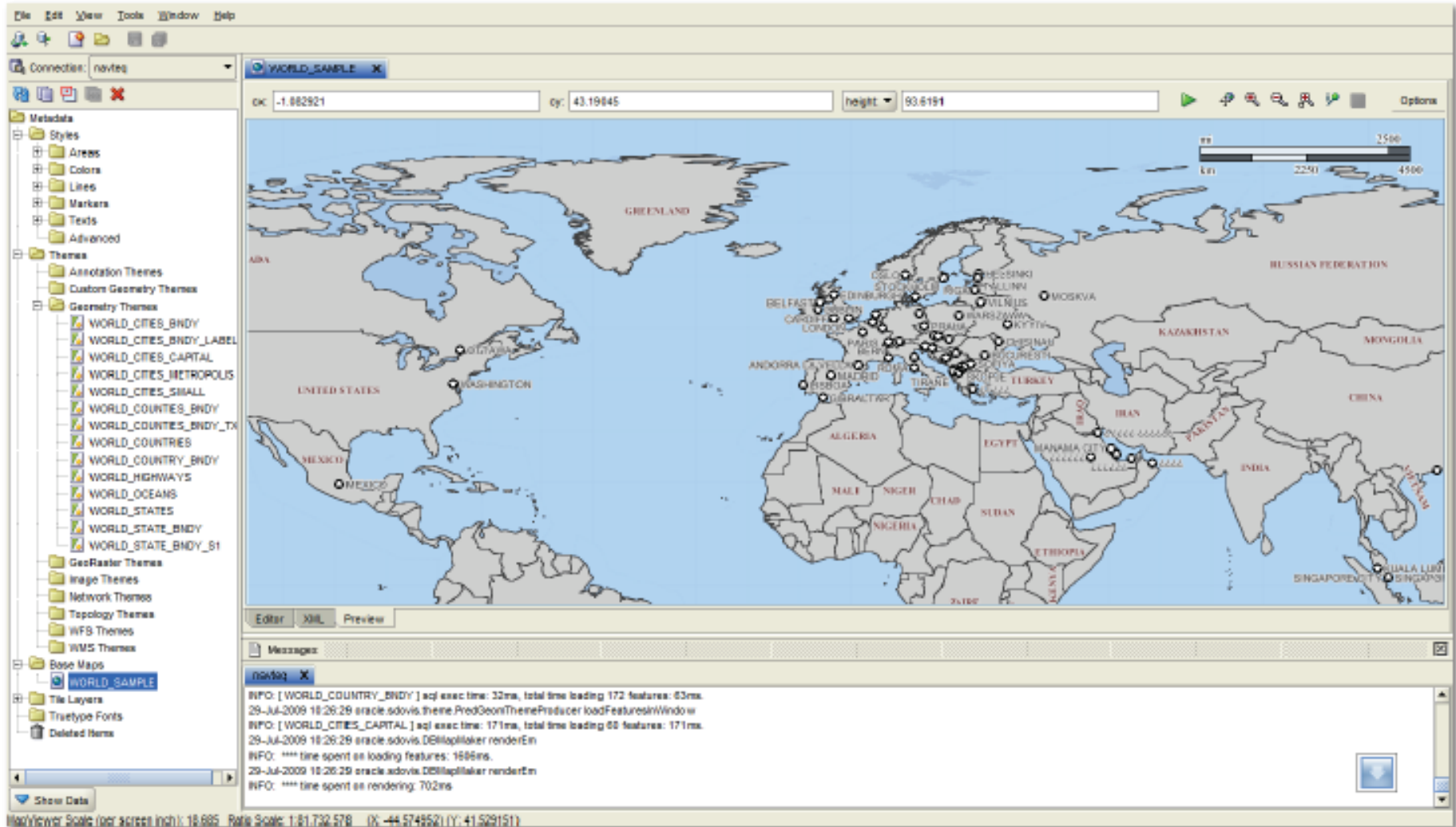
地图管理界面可以做如下操作

- 配置Map viewer服务器
- 配置地图层次
- 配置数据源
- 清除缓存





# BIEE – Map Builder





# BIEE - 元数据

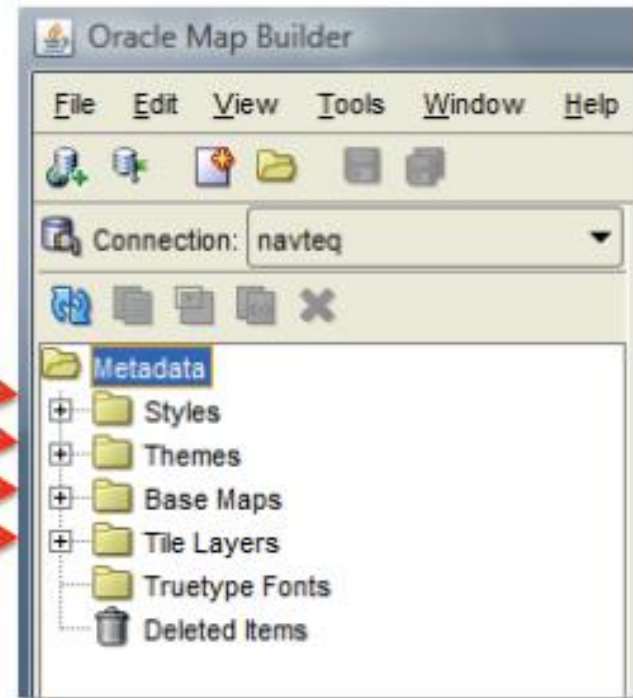
- 数据库中的Schema对应Map builder的4个元数据区域

➤ USER\_SDO\_STYLES

➤ USER\_SDO\_THEMES

➤ USER\_SDO\_MAPS

➤ USER\_SDO\_CACHED\_MAPS





# BIEE - NAVTEQ 示例数据

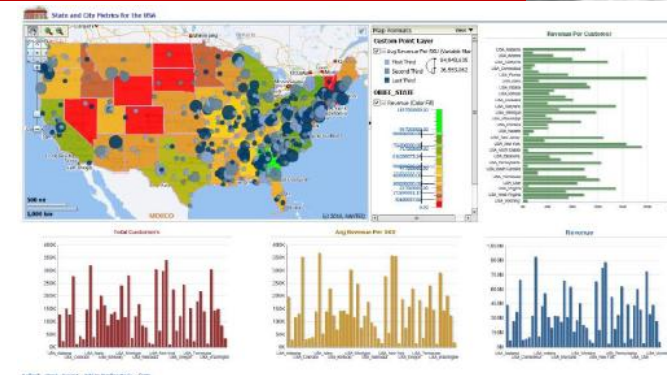
- 示例数据可以从如下地址

<http://www.oracle.com/technology/solware/products/mapviewer/index.html>



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# BIEE - 管理地图数据

## ■ 管理->地图数据管理

The screenshot displays the Oracle Business Intelligence Administration console. The top navigation bar includes the Oracle logo, 'Business Intelligence' text, a search bar, and links for 'Administration', 'Help', and 'Sign Out'. The 'Administration' link is highlighted with a red box. Below the navigation bar, the 'Administration' section is expanded, showing various system information and management options. The 'Map Data Management' section is highlighted with a red box, containing the link 'Manage Map Data' and its description: 'Manage layers, background maps and images.' Other sections visible include 'Security', 'Session Management', 'Maintenance and Troubleshooting', 'Marketing', and 'BI Publisher'.

**ORACLE Business Intelligence** Search   **Administration** Help Sign Out

**Administration** Home Catalog Dashboards New Open Signed In As weblogic

Oracle Business Intelligence Product Version **11.1.1.3.0 (Build 100806.0400)**

Physical Presentation Catalog Path C:\Users\Administrator\Desktop\OBIEE 11g Upgrade and New Features\universal\_11g\root

Oracle BI Server Data Source coreapplication\_OH164533653

Available Paging Memory (MB) 4290

Available Virtual Address Space (MB) 8388233

Replication Enabled

Maintenance Mode is currently off.

**Security**

**Manage Catalog Groups**  
Create, edit and delete Catalog Groups.

**Manage Privileges**  
Manage privileges and rights given to users and groups.

**Session Management**

**Manage Sessions**  
View Oracle Business Intelligence session information including active users and queries.

**Manage Agent Sessions**  
View Agent session information including Agent state and recipients.

**Maintenance and Troubleshooting**

**Manage Device Types**  
Create, edit, view or delete Device Types.

**Toggle Maintenance Mode**  
Maintenance Mode is currently off.

**Reload Files and Metadata**  
Reload XML message files, refresh server metadata, and clear caches.

**Issue SQL**  
Issue SQL directly to Oracle BI Server.

**Map Data Management**

**Manage Map Data**  
Manage layers, background maps and images.

**Marketing**

**Manage Marketing Jobs**  
View background marketing jobs and database cache result sets.

**Manage Marketing Defaults**  
Manage the default settings such as Default Campaign Load Format and Default Global Audience for Marketing.

**BI Publisher**

**Manage BI Publisher**  
Manage BI Publisher data sources, scheduler configuration, delivery destinations, and runtime properties.

# BIEE - 管理地图数据

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**ORACLE Business Intelligence**

Search    **Administration**

**Administration**

Oracle Business Intelligence Product Version **11.1.1.3.0 (Build 100806.04000)**

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# BIEE - 管理地图数据

- 首先，需要定义地图层，要使地图正常显示，至少应该有一个层

ORACLE Business Intelligence

Search All

Administration Home Catalog Dashboards

Manage Map Data

Manage Map Data

Manage map components and associate geographic layers to BI data

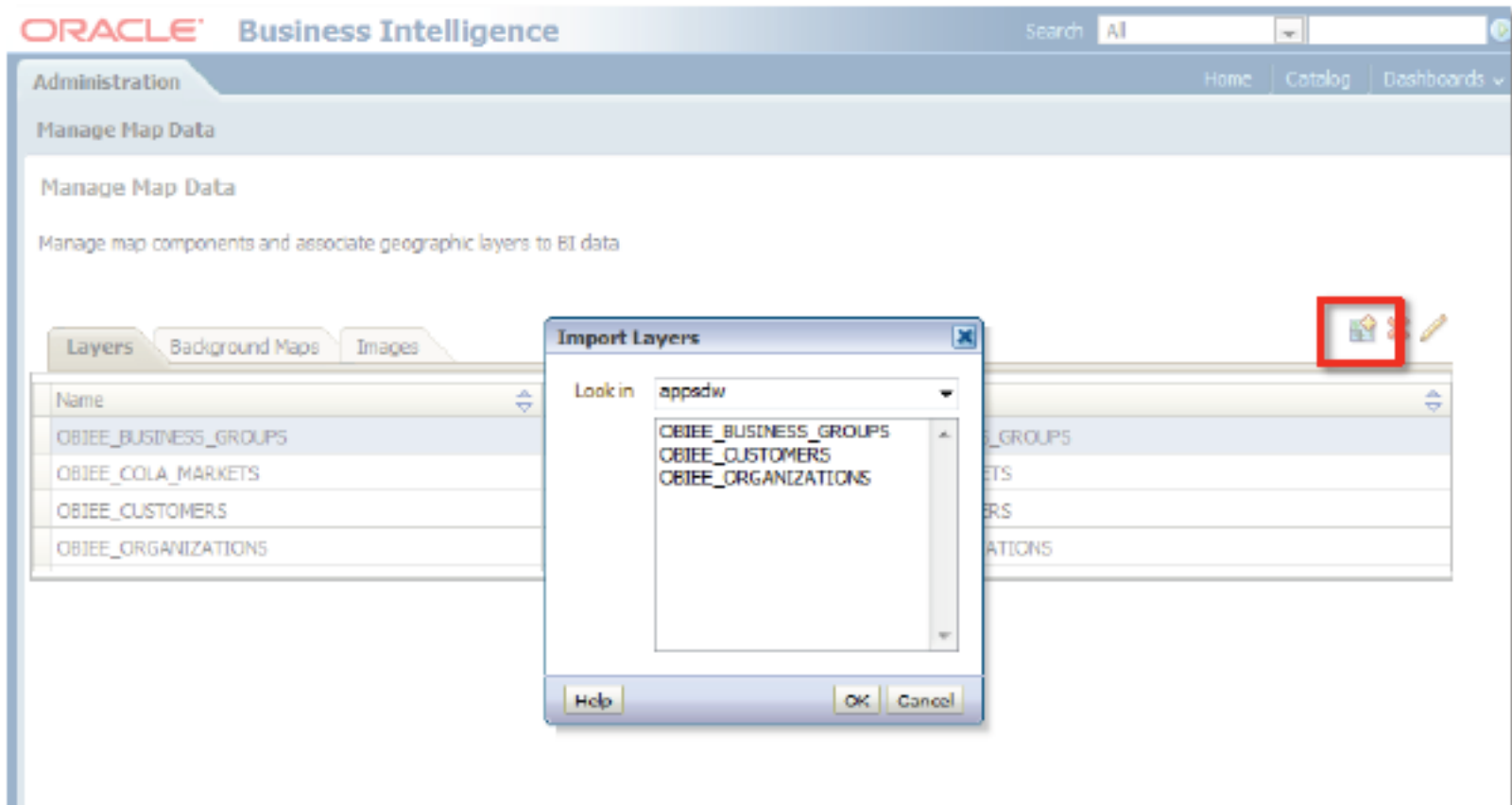
Layers Background Maps Images

Name	Description	Location
OBIEE_BUSINESS_GROUPS		appsdw/OBIEE_BUSINESS_GROUPS
OBIEE_COLA_MARKETS		cola/OBIEE_COLA_MARKETS
OBIEE_CUSTOMERS		appsdw/OBIEE_CUSTOMERS
OBIEE_ORGANIZATIONS		appsdw/OBIEE_ORGANIZATIONS

添加、修改、删除地图层

# BIEE - 管理地图数据

- 选择添加一个新的地图层，OBIEE自动获取所选数据源中的地图层
- 对应 Mapbuilder中的 “Themes”，并且数据存放于 USER\_SDO\_THEMES





# BIEE - 管理地图数据

- 指定主题区域中的列，用于与地图数据关联

**Edit Layer - OBIEE\_ORGANIZATIONS**

Name:

Location:  [Browse](#)

Description:

**BI Associations**

Associate map layers to BI columns to enable their display on maps.

Layer Key: **ORGANIZATION** [Sample Data: Vision UK](#)

BI Key Delimiter:

Geometry Type:

**BI Key Columns**

BI Key	Subject Areas
"Organization Name" <a href="#">Sample Data:</a>	"Sales Forecast"
"Organization Name" <a href="#">Sample Data:</a>	"Sales Orders"
"Organization Name" <a href="#">Sample Data:</a>	"Service Incidents"

此例中Key为  
**ORGANIZATION**，  
表示我们可以在下  
面3个主题中使  
用**ORGANIZATION**  
列来关联地图信息

# BIEE - 管理地图数据



定义好地图层以后，可以添加背景地图，并且配置哪些层可以使用它

**ORACLE Business Intelligence** Search

Administration Home Catalog Dashboards

**Manage Map Data**

Manage Map Data

Manage map components and associate geographic layers to BI data

Layers **Background Maps** Images

添加、修改、删除背景地图

Name	Description	Location	Associated Subject Areas
COLA_MARKETS		COLA/COLA_MARKETS	"Cola Markets"
OPENSTREETMAP		APPSDW/OPENSTREETMAP	"Sales Forecast", "Sales Orders", "Service Incidents"
WORLD_MAP		NAVTEQ/WORLD_MAP	"Sales Orders"
WORLD_MAP_OBIEE		NAVTEQ/WORLD_MAP_OBIEE	"Sales Orders", "Sales Forecast", "Service Incidents"

# BIEE - 管理地图数据



- 选择添加一个新的背景地图，OBIEE自动获取所选数据源中Map Tile
- 对应 Mapbuilder中的 “Map Tiles”，并且数据存放于 USER\_SDO\_CACHED\_MAPS

ORACLE Business Intelligence

Administration Home Catalog Dashboards

Manage Map Data

Manage Map Data

Manage map components and associate geographic layers to BI data

Layers Background Maps Images

Name	Description	Location
COLA_MARKETS		COLA/COLA_MARKETS
OPENSTREETMAP		APPSDW/OPENSTREETMA
WORLD_MAP		NAVTEQ/WORLD_MAP
WORLD_MAP_OBIEE		NAVTEQ/WORLD_MAP_O

Import Background Maps

Look in: NAVTEQ

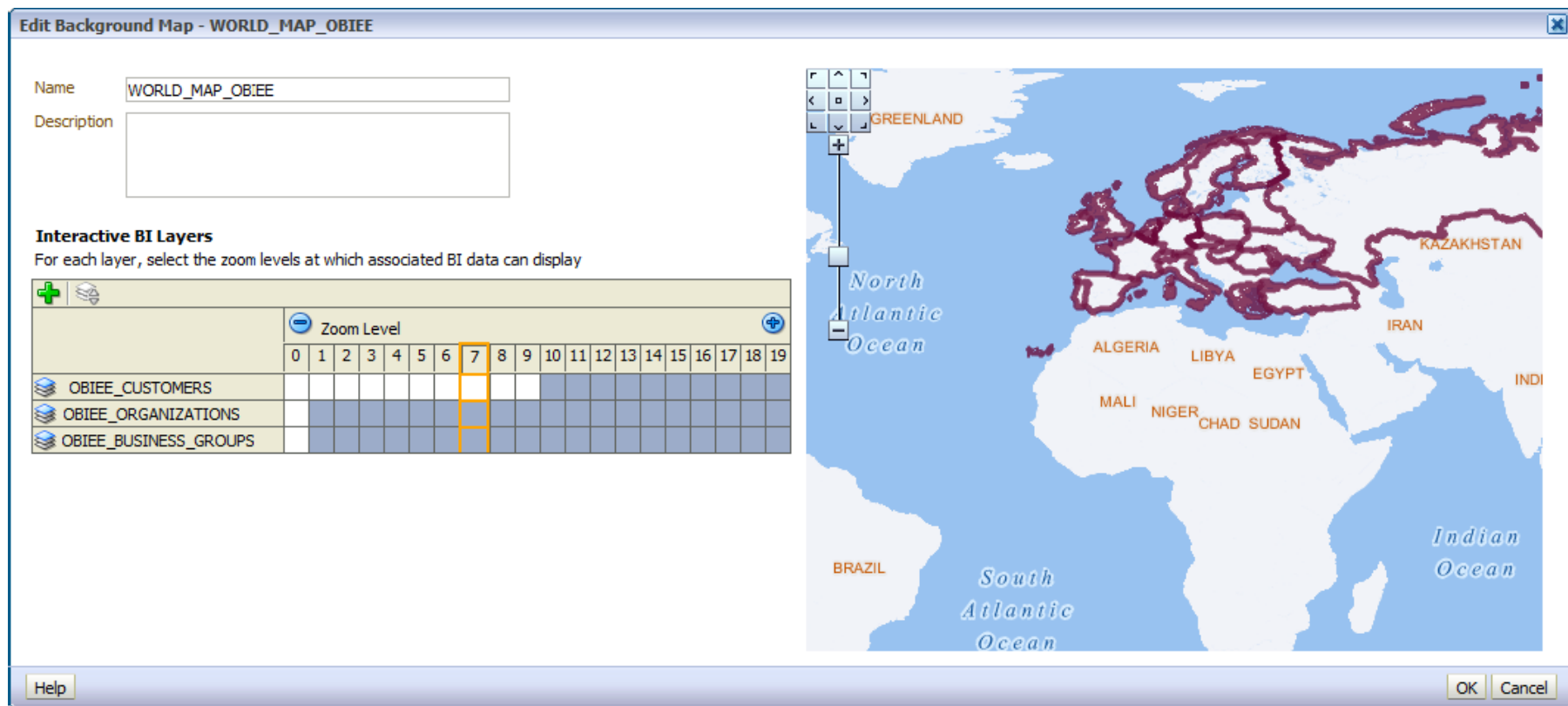
WORLD\_MAP\_IMG

Help OK Cancel

# BIEE - 管理地图数据



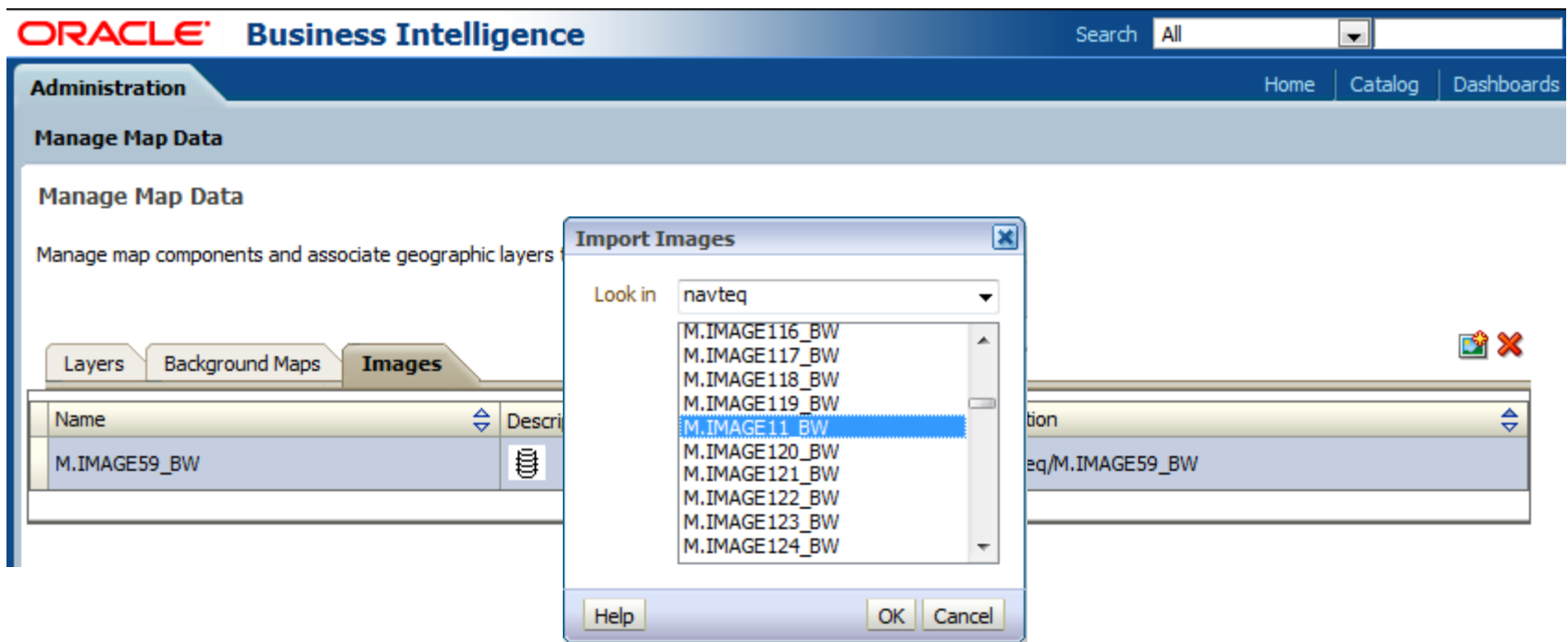
- 引入背景地图以后，可以进行配置
  - 指定哪一层可以使用地图，指定 Zoom Levels
  - 指定层次的上下顺序



# BIEE - 管理地图数据



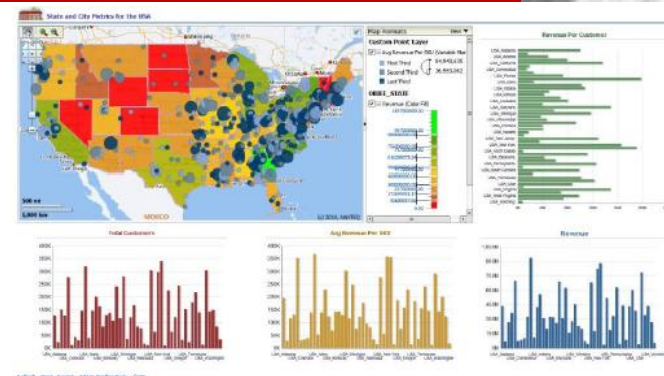
- 可以引入自定义图片
  - 在MapBuilder中定义好图片
- - 数据存储于 USER\_SDO\_STYLES





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- 地图数据部署



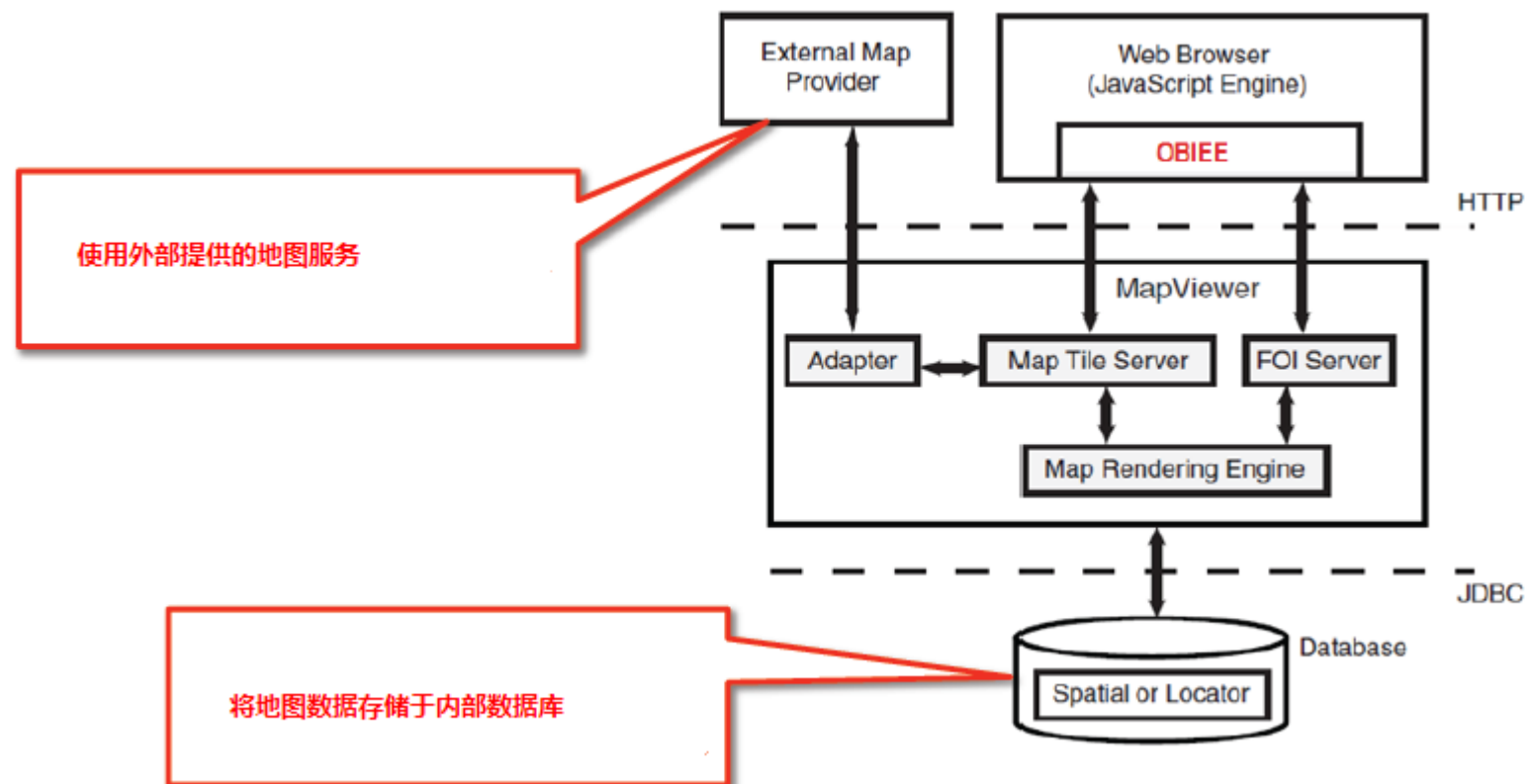


## BIEE - 自定义背景地图

- 使用自定义地图有两种方式
  - 内部地图，使用Mapbuilder开发或购买地图数据
  - 外部地图，使用Web Map Service Provider

# BIEE - 自定义背景地图

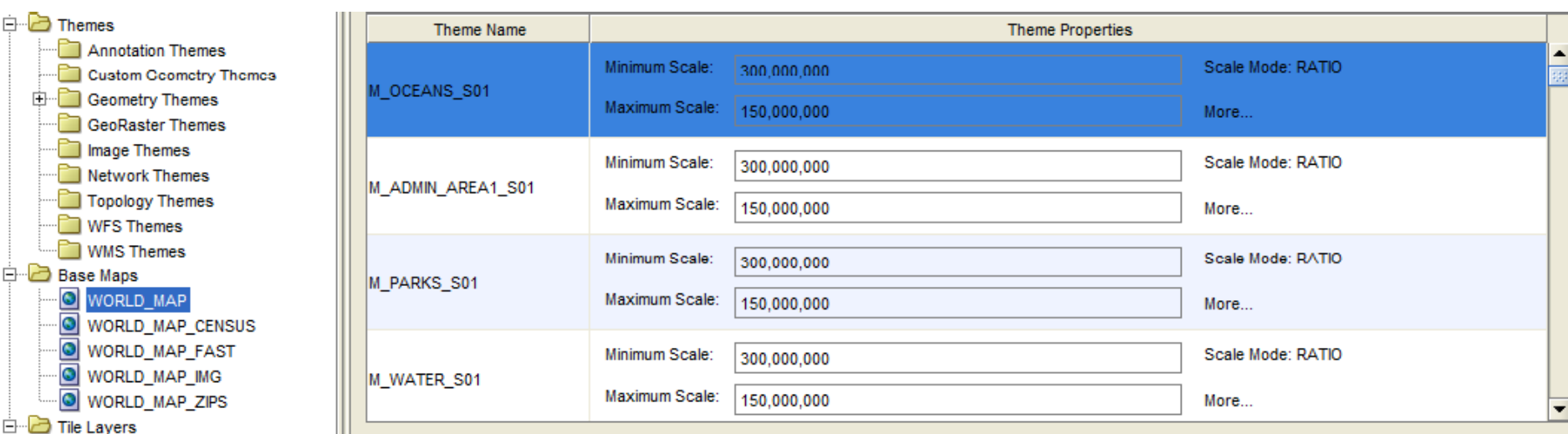
- 目前Google Maps不支持 BIEE Map
- BIEE 11G 只支持地图提供商通过 Web Map Services提供的地图服务





# BIEE - 自定义背景地图

- 自定义地图从 Base Map 开始.....
- Base Map 由多个 Themes 组成
- NAVTEQ提供超过300个主题



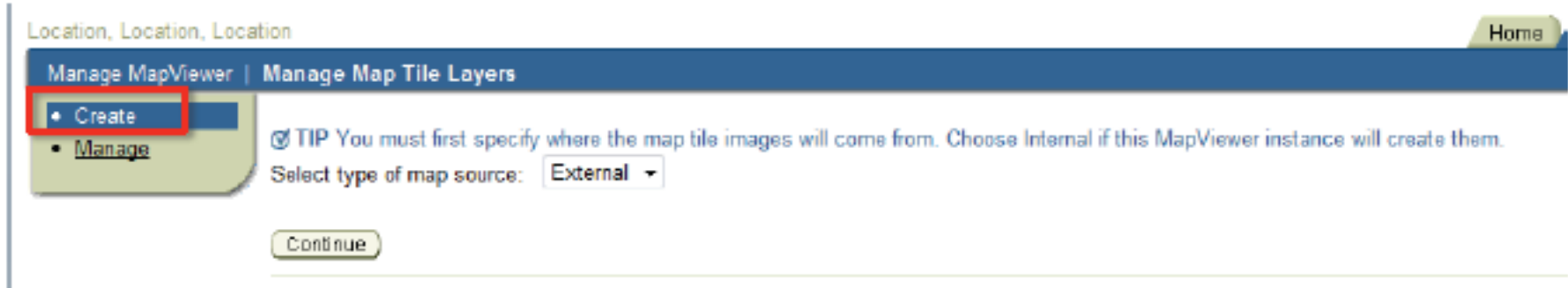
The screenshot displays the BIEE interface. On the left, a tree view shows the hierarchy: Themes (Annotation Themes, Custom Geometry Themes, Geometry Themes, GeoRaster Themes, Image Themes, Network Themes, Topology Themes, WFS Themes, WMS Themes) and Base Maps (WORLD\_MAP, WORLD\_MAP\_CENSUS, WORLD\_MAP\_FAST, WORLD\_MAP\_IMG, WORLD\_MAP\_ZIPS). The 'WORLD\_MAP' theme is selected. On the right, a table titled 'Theme Properties' lists the properties for the selected theme and other themes.

Theme Name	Theme Properties	
M_OCEANS_S01	Minimum Scale: 300,000,000 Maximum Scale: 150,000,000	Scale Mode: RATIO More...
M_ADMIN_AREA1_S01	Minimum Scale: 300,000,000 Maximum Scale: 150,000,000	Scale Mode: RATIO More...
M_PARKS_S01	Minimum Scale: 300,000,000 Maximum Scale: 150,000,000	Scale Mode: RATIO More...
M_WATER_S01	Minimum Scale: 300,000,000 Maximum Scale: 150,000,000	Scale Mode: RATIO More...



## BIEE - 使用外部地图

- 在Map Viewer 管理界面，“Manager Map Tile Layers”选择 创建外部地图数据源类型





## BIEE - 使用外部地图

- 指定名字和数据源，数据源用于存放Map Tile Layer 的定义

Name:

This name will be automatically prefixed with datasrc name.

Data Source:

MapView data source, for storing map tile layer configurations.

Max browser tile cache age(hours)

The maximum length of time(in hours) during which the map tiles may be kept inside the web browser's cache.



## BIEE - 使用外部地图

- 配置地图服务地址，这些信息应该有地图供应商提供
  - Map Service URL: <http://osm.wherogroup.com/cgi-bin/mapserv>
  - Adapter class: mcsadapter.WMSAdapter
  - Jar file location: [OBIEE\_Home]/Oracle\_BI1/bifoundation/jee/mapviewer.ear/web.war/WEB-INF/tileservice/mvadapter/ mvadapter.jar

Map service Url:	<input type="text" value="osm.wherogroup.com/cgi-bin/mapserv"/>
Request method:	<input type="text" value="HTTP GET"/>
	<input type="checkbox"/> HTTP proxy required
Adapter class:	<input type="text" value="mcsadapter.WMSAdapter"/>
Jar file location:	<input type="text" value="/tileservice/mvadapter/mvadapter.jar"/>
	complete path to the adapter Jar file on the server



# BIEE - 使用外部地图

## ■ 启动 Adapter Properties,并配置相关信息

- service: WMS
- srs: EPSG:4326
- Format:: image/png
- map: /data/umn/osm/osm\_basic.map
- layers: OSM\_Basic

☒ Adapter properties

Select and

Select	name	value
<input type="radio"/>	service	WMS
<input type="radio"/>	srs	EPSG:4326
<input type="radio"/>	format	image/png
<input type="radio"/>	map	/data/umn/osm/osm_basic.map
<input checked="" type="radio"/>	layers	OSM_Basic

Properties:



# BIEE - 使用外部地图

## ■ 指定SRID

SRID:	<input type="text" value="8307"/>
Maps will be displayed in this SRID	
Min X:	<input type="text" value="-180.0"/>
Max X:	<input type="text" value="180.0"/>
Min Y:	<input type="text" value="-90.0"/>
Max Y:	<input type="text" value="90.0"/>

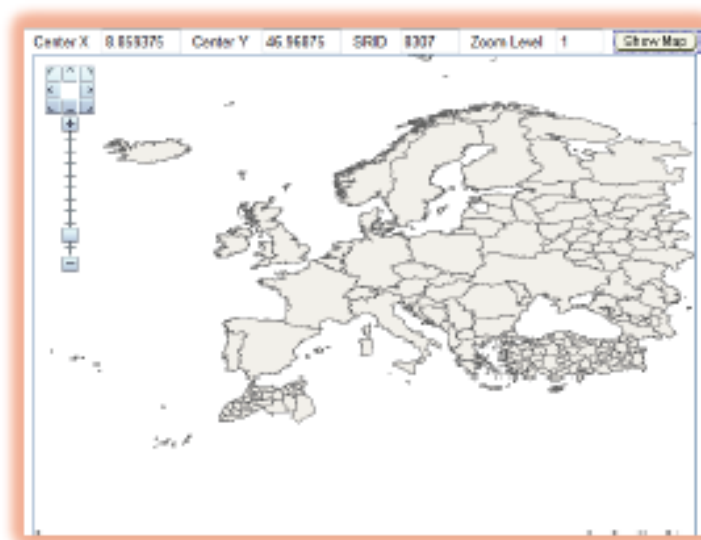
# BIEE - 使用外部地图

## ■ 提交并预览

Existing map tile layers

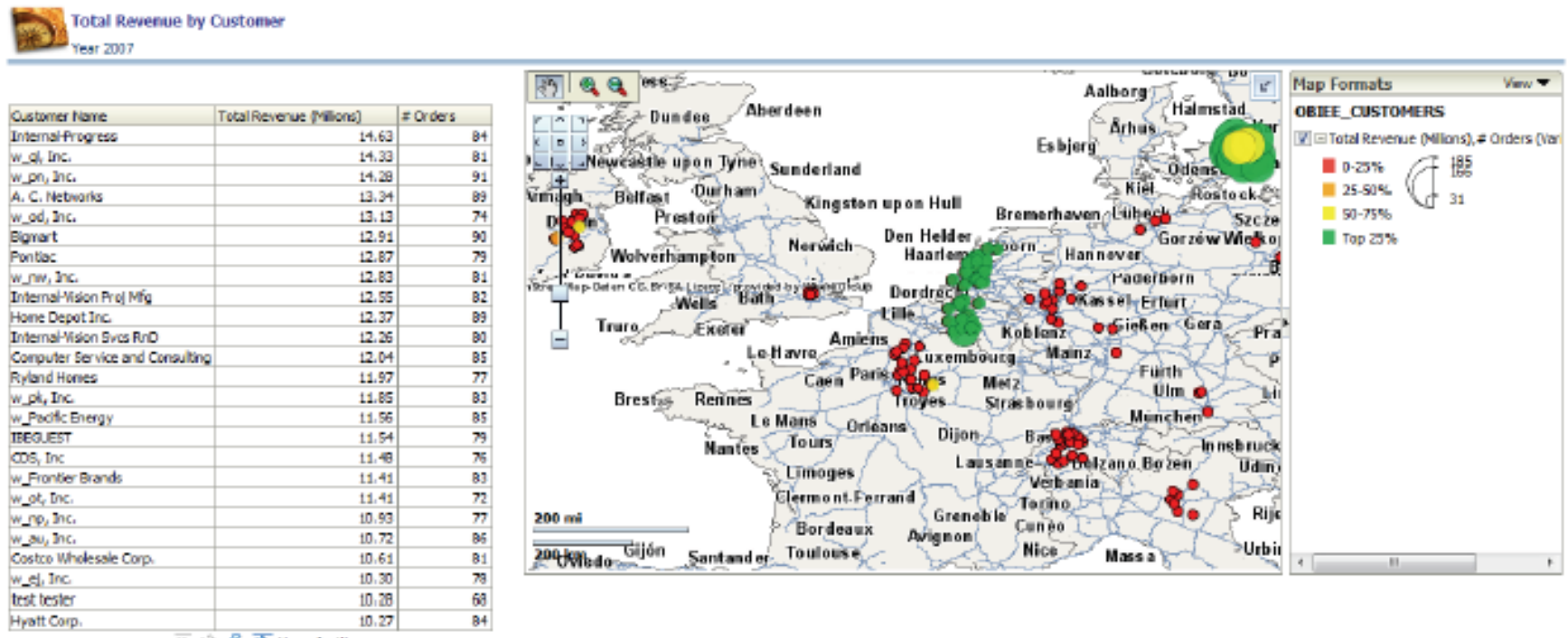
Select a map tile layer and Edit / View details View map / Manage tiles Bring online Take offline Delete

Select	Name	Data Source	Base map	Zoom levels	Internal
<input type="radio"/>	WORLD_MAP_IMG	NAVTEQ	WORLD_MAP_IMG	20	true
<input checked="" type="radio"/>	OPENSTREETMAP	APPSDW		10	false
<input type="radio"/>	WORLD_MAP_OBIEE	NAVTEQ	WORLD_MAP_OBIEE	10	true
<input type="radio"/>	WORLD_MAP	NAVTEQ	WORLD_MAP	20	true



# BIEE - 使用外部地图

## ■ 使用外部地图创建的地图显示效果







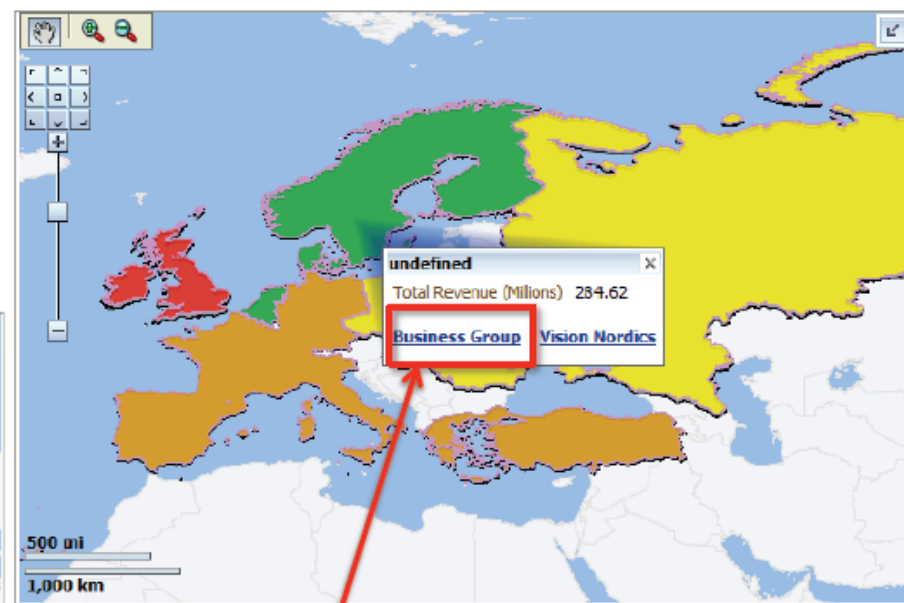
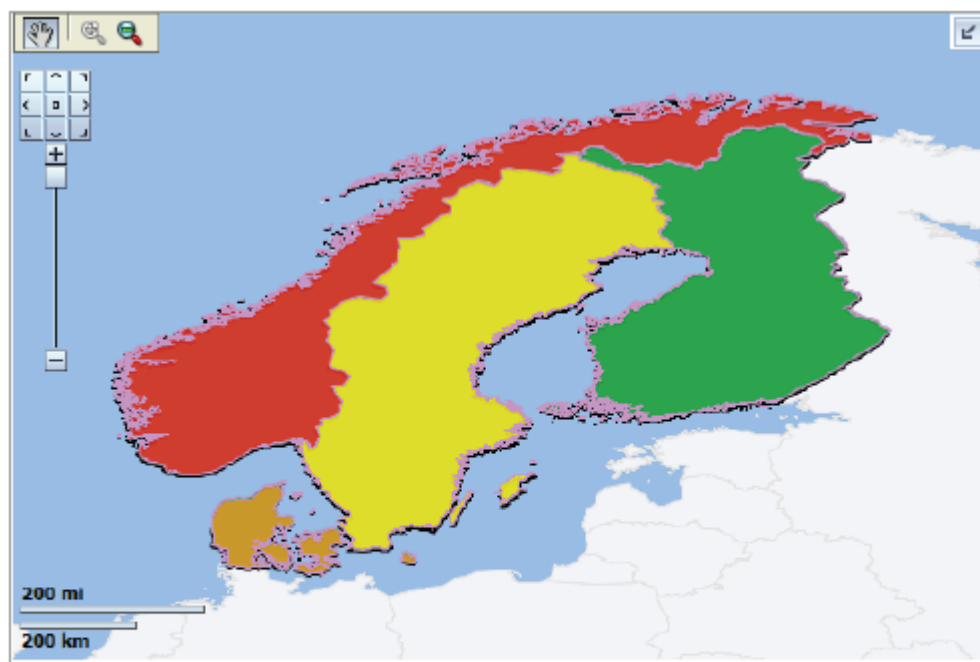
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# BIEE - 地图交互功能



## 下钻(头交互/值交互)



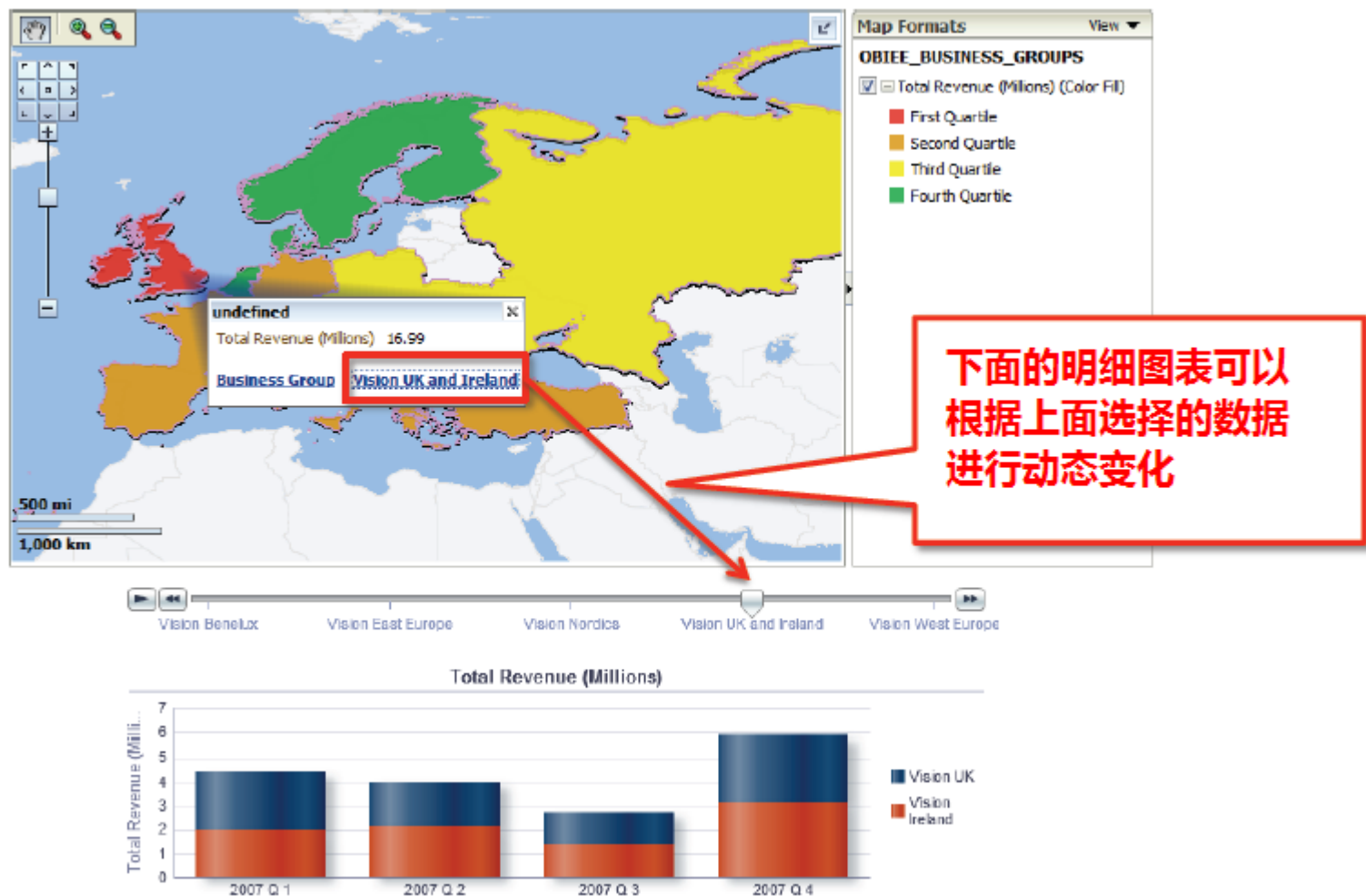
Business Group	Total Revenue (Millions)	# Orders
Vision Benelux	431.44	696
Vision East Europe	96.05	1705
Vision Nordics	284.62	1829
Vision UK and Ireland	16.99	314
Vision West Europe	51.14	722
<b>Grand Total</b>	<b>880.24</b>	<b>5266</b>

Business Group	Organization Name	Total Revenue (Millions)	# Orders
Vision Nordics	Vision Denmark	70.87	1591
	Vision Finland	72.08	1567
	Vision Norway	70.30	1575
	Vision Sweden	71.38	1552
<b>Grand Total</b>		<b>284.62</b>	<b>6285</b>

# BIEE - 地图交互功能



## 主从视图



# BIEE - 地图交互功能



Action Link ,导航到其他地图/分析/或者仪表盘





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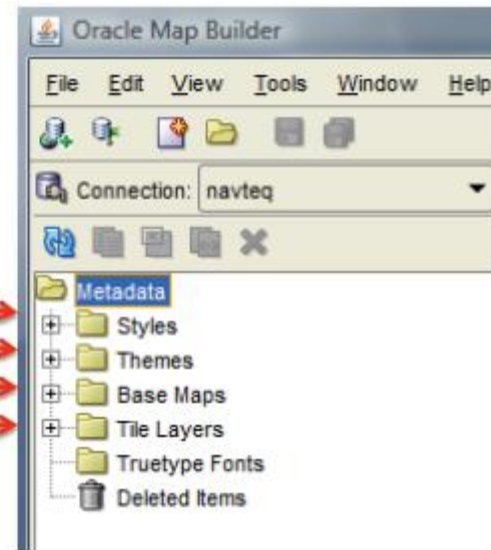
- 地图数据存放于4张系统视图表中
- 不能直接导出和导入数据

USER\_SDO\_STYLES

USER\_SDO\_THEMES

USER\_SDO\_MAPS

USER\_SDO\_CACHED\_MAPS





# BIEE - 地图数据部署

- 创建临时表
- 从临时表导出数据
- 导入临时表数据到正式环境
- 移动临时表数据到目标表

```
CREATE TABLE temp_sdo_cached_maps AS SELECT * FROM USER_SDO_CACHED_MAPS;  
CREATE TABLE temp_sdo_maps AS SELECT * FROM USER_SDO_MAPS;  
CREATE TABLE temp_sdo_styles AS SELECT * FROM USER_SDO_STYLES;  
CREATE TABLE temp_sdo_themes AS SELECT * FROM USER_SDO_THEMES;
```

```
exp appsdw/appsdw@dev file=appsdw.dmp  
tables=temp_cached_maps,temp_maps,temp_styles,temp_themes
```

```
imp appsdw/appsdw@prod file=appsdw.dmp
```

```
INSERT INTO USER_SDO_CACHED_MAPS SELECT * FROM temp_sdo_cached_maps;  
INSERT INTO USER_SDO_MAPS SELECT * FROM temp_sdo_maps;  
INSERT INTO USER_SDO_STYLES SELECT * FROM temp_sdo_styles;  
INSERT INTO USER_SDO_THEMES SELECT * FROM temp_sdo_themes;  
COMMIT;
```



Question Time!

# Q & A

## Questions & Answers



# Thank You !



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HAND Enterprise Solutions Company Ltd.  
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