

NETWORK 23

# OTR - Oracle Tablespace Report

Open Source Project

Mats Strömberg

2012

<http://www.network23.net/otr/>

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# Oracle® Tablespace Report

## Open Source Project

### Introduction

Oracle Tablespace Report is used to gather various statistics e.g. tablespace usage (allocated, used and free) space. The statistics are stored centrally in the OTR Repository located in an OTR Instance.

This project got started out of a work from a Danish friend, Lars-Bo Vanting, at the time we worked together back in 2005.

Initially it was only based on Tables, Views and PL/SQL. The current version has expanded on the basis and added a web GUI (based on the excellent open source project Open BlueDragon (<http://www.openbd.org>)).

The need for the enhancement of this tool was due to the fact that I had roughly 80+ Oracle instances, about 100 Linux/Solaris Servers and 6 NetApp Storage systems to manage... all alone. (The advantage was that my Team meetings went very fast... didn't have to argue too much with my dual personality ☺).

This version of OTR does a bit more than just collect tablespace and storage usage on a weekly basis. It monitors each database instance every 5 minutes and reports back if a tablespace is getting full and one can directly act on the upcoming problem, extend an tablespace or add a new tablespace file without the need to do this over the Enterprise Manager or manually.

Since I was all alone, having to manage this amount of databases, along with application servers and storage I needed a way of getting this kind of work as easy as possible. That way I could let anyone solve any acute problem coming up without me being around all the time. During 4 years in this company I haven't had more than roughly 2 weeks holiday/year... and those 2 weeks I get stuck having to solve issues over my Mobile phone.

The reason for putting this up as open source is thanks to the great Project run by the OpenBD Team. They have created a great tool which is a very serious alternative for Adobe ColdFusion and all at no cost. The team around this project is great and issues coming up are solved very fast. Support is done on Google Groups and there is always someone around helping out, core developers or regular users on the list... no matter who, you will always get help.

So if I can give something back to the OpenBD project and the community and at the same time help other DBA's making their work easier, this is a small step in that direction.

### **Short background about me...**

I've been working with ColdFusion since the mid 90'es back in the days when Jeremy and JJ Allaire were running the business. Started with Cold Fusion 2.0 and up to ColdFusion 4 (some time in the years between 3.1 and 4.0 the space disappeared in the ColdFusion name) and was, back then, an early adopter of the FuseBox framework.

In 1999 I moved from Sweden down to Switzerland and in 2001 came in contact with Oracle and for all with some really good Danish Oracle cracks like, Lars-Bo Vanting (now at BlueGecko in Denmark) and some of his Oracle friends, and have been working with Oracle 8.1.7 – 12g since then. I'm a big fan of the Oracle Enterprise Manager and later Oracle Grid Control (today Oracle Cloud Control). We still refer this as Enterprise Manager.

All these years though I never left the ColdFusion train. It has been more of a hobby since my daytime work has been around Oracle and System Administration, but the passion for the CFML world is there to stay.

## What's needed to get OTR running?

- Basis for the Oracle® Tablespace Report, from here on simply OTR, is the Oracle® Enterprise Manager 10g or the Oracle® Cloud Control 12c, so this is the first thing to be installed if not already done. Anyone running 10 or more Oracle Instances should never be without the Enterprise Manager!!!
- Open BlueDragon release 2.0.2 can be downloaded at <http://www.openbd.org/download/>

The easiest installation is using the Ready2Run Jetty+OpenBD download. Recommended is to download the OpenBD Desktop as well. With this you will be able to simply test and make additions on your own on your local PC or workstation.

- Oracles new JDBC driver **ojdbc6.jar** (or **ojdbc5.jar** if using JDK/JRE 5) to get connections to Oracle RAC to work. This driver is bundled in the OTR-Local download and included in the normal download but needs to be manually copied into the correct location. This driver replaces the old driver, ojdbc14.jar, which is included with OpenBD. Download location at Oracle can be found here:  
<http://www.oracle.com/technetwork/database/enterprise-edition/jdbc-112010-090769.html>
- JDK 6 <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- The otr.war which can be found at <http://www.network23.net/otr/> or (in the cloud) at <http://project-otr.jelastic.com>

The complete source is available on Google Code <http://code.google.com/p/oracle-tablespace-report/>

- The SQL files needed to setup the Repository on your OTR Repository Database. Also downloaded from <http://www.network23.net/otr/>

The SQL scripts are included in the otr.war and otr.zip and is located under otr\Doc\OTR-Reporting\Setup\DDL

**NOTE:** To avoid license problem with Oracle, the OTR Repository should NOT be installed in the Grid Control, Cloud Control or a RMAN Repository Database! The OTR can very well be run on a Standard Edition DB or even an Oracle XE instance. Future releases of OTR might even be possible to use MySQL as a Repository.

## What does it look like?

We're assuming the OTRREP schema and its objects have been created on the OTR Repository database.

### The Main screen.

Back to Main Customers DB Instances DB Hosts Tablespaces TBS Trend New Snapshot Del Snapshot Enterprise Manager

Last Snapshot: Nov 11, 2011

### My Company Inc. - Oracle Tablespace Report

Report Date: 11.11.2011

Customer: ALL

Include: ☒ Development DB's ☒ Internal DB's (GridControl & SnapManager for Oracle)

Run Report

**Current Status**

| SID    | Status |
|--------|--------|
| CFIDBT | TBS    |

SCFINDEX:  
Can Grow To: 66000 MB  
1237.5 MB Free, 98.13 used.

Updated every 5 Minutes  
For more Info...  
MouseOver  
the Status column.

[All](#) | [Trouble](#)

OpenBD Version: 2,0 - OpenBD Build: 2011-11-12 08:09:43 GMT  
[Open BlueDragon Administrator](#)

From here we will administrate our Customers, the Database Instances and the relationship of Customer/Database instance(s) and the Tablespaces used.

From here we will also generate reports of space usage at a defined point in time. This can be a report containing database instances for all customers or for a single customer. Reports can be stored as Excel files or as PDF files.

On the right side is the monitoring/alert pane where Instances with some sort of problem coming up will be listed. It will display if the Instance is down, in Blackout mode or if a Tablespace has a problem. With a mouse-over on a red alert the actual tablespace will be shown and how much free space in MB is still available and the "real" % used. With "real" means it's calculating the free space in % based on the "can grow to" value for the tablespace.

With a click on the red TBS alert, you get the possibility to adjust the tablespace with just one click.

Assuming we have a space problem on a BIGFILE tablespace.

Customers DB Instances DB Hosts Tablespaces TBS Trend New Snapshot Del Snapshot Enterprise Manager

OTR  
Last Snapshot: 22.11.2011

### My Company Inc. - Tablespace Adjustments

#### CFINDEX

| Datafile                                  | Can grow to | Used      | Increase with |
|---|-------------|-----------|---------------|
| /u01/oradata/cfidbt_db/CFIDBT/cfindex.dbf | 66,000 MB   | 65,400 MB | 1GB 2GB       |

At the moment we have not used any extra storage but **Please** make sure that the storage have enough space available for this file to grow.

With just one click this tablespace will extend the “Can Grow to” with another 1 or 2GB.

If it would be a non-BIGFILE tablespace...

Customers DB Instances DB Hosts Tablespaces TBS Trend New Snapshot Del Snapshot Enterprise Manager

OTR  
Last Snapshot: Nov 11, 2011

### My Company Inc. - Tablespace Adjustments

#### LEGDATASTANDARD

| Datafile   | Can grow to | Used     | Increase with |
|--|-------------|----------|---------------|
| /u01/oradata/legmbcp_db/LEGMBCP/LEGDATASTANDARD117.dbf | 2,048 MB    | 1,664 MB | 1GB 2GB       |
| /u01/oradata/legmbcp_db/LEGMBCP/LEGDATASTANDARD118.dbf | 2,048 MB    | 128 MB   | 1GB 2GB       |

**This is not a BIGFILE Tablespace so the file should not get bigger than 32GB!**

There are currently **118** files in this Tablespace. Most likely you should add a new file to it.

|  |          |        |                          |
|--|----------|--------|--------------------------|
| /u01/oradata/legmbcp_db/LEGMBCP/LEGDATASTANDARD119.dbf | 2,048 MB | 128 MB | <a href="#">ADD FILE</a> |
|--|----------|--------|--------------------------|

We have made our best effort to make sure this filename is not already used.  
At the moment we're only expanded the storage usage with 128 MB but **Please** make sure there is enough space on the storage for this file to grow.

A list of the files within this tablespace, that have autoextend still on, will be displayed. You can select to increase the “Can grow to” on one of these datafiles with 1 or 2GB or add a new file which will have its initial size set to 128MB and the “Can grow to” set to 2GB.

If a valid Mail Server and Mail account is configured a mail will be sent to the DBA and/or Storage Team with a reminder about checking the storage to make sure you don’t run out of space.



## Customers

### Main screen for customers

Customers using one or more Oracle Services

OTR  
Last Snapshot: 18.11.2011

### My Company Inc. - Oracle Customers

| Company ID | Company name    | Edit | Delete | New |
|------------|-----------------|------|--------|-----|
| AAA        | Company A       |      |        |     |
| BBB        | Company B       |      |        |     |
| CCC        | Company C       |      |        |     |
| DDD        | Company D       |      |        |     |
| EEE        | Company E       |      |        |     |
| FFF        | Company F       |      |        |     |
| GGG        | Company G       |      |        |     |
| MYC        | My Company Inc. |      |        |     |
| NNN        | Company N       |      |        |     |

Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

From this screen we will administrate our customers. The company info contains Company ID or Mandator and a Customer name.

### Adding a new customer

OTR  
Last Snapshot: 18.11.2011

### My Company Inc. - New Oracle Customers

Company ID:

Name of Company:

Simply fill out the form and click on Save.

Customer ID is a 3 letter short name of the customer. This is later used as a connection to the database instance and the tablespaces used by this customer.

### Edit a customer

OTR  
Last Snapshot: 18.11.2011

### My Company Inc. - Edit Oracle Customers

Company ID:

Name of Company:


Note: Changing the Customer ID will bring a problem with the collected statistics and with the connection to the tablespaces, so try to keep this unchanged...

## DB Instances

In this module you will register all your Oracle Instances.














































### Main screen for Oracle Instances

[Customers](#) [DB Instances](#) [DB Hosts](#) [Tablespaces](#) [TBS Trend](#) [New Snapshot](#) [Del Snapshot](#) [Enterprise Manager](#)

  
Last Snapshot: Nov 25, 2011





**DB Instances and the Type there of...**  
SEE = Shared Enterprise Edition,  
DEE = Dedicated Enterprise Edition  
SSE = Shared Standard Edition  
DSE = Dedicated Standard Edition  
DEV = Development Servers or  
INT = Internally Used

## Company Inc. - Oracle Instances

| SID      | Description        | Environment | Host                      | Port | SYSTEM Password  |
|----------|--------------------|-------------|---------------------------|------|--|
| ACOKDPP  | ACO KDPrevent PROD | SEE         | acokdpp.mycompany.com     | 1521 | *****<br>     |
| AMCCRI   | Amis CCR INT       | SEE         | amccri.mycompany.com      | 1521 | *****<br>      |
| AMCCRP   | Amis CCR PROD      | SEE         | amccrp.mycompany.com      | 1521 | *****<br>      |
| AMDEPOTP | Amis DEPOT PROD    | SEE         | amdepotp.mycompany.com    | 1521 | *****<br>      |
| AMMBCP   | Amis MBC PROD      | SEE         | ammhcp.mycompany.com      | 1521 | *****<br>      |
| AMZGKP   | Amis ZGK PROD      | SEE         | amzgkp.mycompany.com      | 1521 | *****<br>      |
| CFIDBI   | CFIDB INT          | SEE         | cfidbi.mycompany.com      | 1521 | *****<br>      |
| CFIDBP   | CFIDB PROD         | SEE         | cfidbp-scan.mycompany.com | 1530 | *****<br>      |
| CFIDBT   | CFIDB PROD Backup  | DEE         | cfidbt.mycompany.com      | 1521 | *****<br>      |
| FD1      | SAP FD DEV         | SEE         | fd1.mycompany.com         | 1521 | *****<br>      |
| FFPMBCP  | FFP MBC Prod       | SEE         | ffpmbcp.mycompany.com     | 1521 | *****<br>      |

It contains Info like Oracle SID, what type of instance this is, DEE = Dedicated Enterprise Edition, DSE = Dedicated Standard Edition, SEE = Shared Enterprise Edition, SSE = Shared Standard Edition, DEV = Development Instances or INT = Internal Enterprise or Standard Edition (might be the Enterprise Manager Instance, a RMAN Instance or a SnapManager for Oracle Instance as an example). It also contains a short description for the Instance. This is usually related to an Application and/or Production/Integration/Test Instance.

 indicates that this is a Cluster (RAC),  indicates that it's a normal standalone Instance.

System password (used to monitor and increase Tablespaces). This password is encrypted in the OTR repository. To check if the password is OK, just click on the . It will turn  if OK otherwise . If there is an  icon this means that the Instance is in Blackout status and no snapshots or Tablespace checks will be done on the Instance.

When Adding or Editing an Instance you don't need to add hostname and listener port if you have an Enterprise Manager configured. This will be picked up twice a day with the current info directly from the Enterprise Manager repository. If you don't have any Enterprise Manager these entries are required to be defined otherwise OTR have no possibility to connect to the remote Instance.

During Setup of OTR and with Enterprise Manager configured and available these values will be available and stored on the OTR repository.

The screenshot shows the 'New Oracle Instance' form for 'My Company Inc.'. The form includes the following fields and options:

- Oracle SID: (empty text field)
- Environment: (SEE) Shared Enterprise Edition (dropdown menu)
- Description: (DEE) Dedicated Enterprise Edition (dropdown menu)
- SYSTEM Password: (SEE) Shared Enterprise Edition (dropdown menu)
- Hostname: (SSE) Shared Standard Edition (dropdown menu)
- Listener Port: (DEV) Develoement Enterprise Edition (dropdown menu)
- ASM Storage: (INT) Internal Enterprise Edition (dropdown menu)
- RAC Instance: ☐
- Service Name: (empty text field)
- Blackout: ☐
- Buttons: Save, Reset

The top navigation bar includes: Customers, DB Instances, DB Hosts, Tablespaces, TBS Trend, New Snapshot, Del Snapshot, Enterprise Manager. The OTR logo and 'Last Snapshot: 18.11.2011' are in the top right corner.

The screenshot shows the 'Edit Oracle Instance' form for 'My Company Inc.'. The form includes the following fields and options:


- Oracle SID: CFIDBP (text field)
- Environment: (SEE) Shared Enterprise Edition (dropdown menu)
- Description: CFIDB PROD (text field)
- SYSTEM Password: •••••• (password field)
- Hostname: cfidbp-scan.mycompany.com (text field)
- Listener Port: 1530 (text field)
- ASM Storage: ☒
- RAC Instance: ☒
- Service Name: cfidbp.mycompany.com (text field)
- Blackout: ☐
- Buttons: Update, Reset

The top navigation bar includes: Customers, DB Instances, DB Hosts, Tablespaces, TBS Trend, New Snapshot, Del Snapshot, Enterprise Manager. The OTR logo and 'Last Snapshot: 18.11.2011' are in the top right corner.

## DB Hosts

### Main screen for DB Hosts

[Customers](#) [DB Instances](#) [DB Hosts](#) [Tablespaces](#) [TBS Trend](#) [New Snapshot](#) [Del Snapshot](#) [Enterprise Manager](#)

  
Last Snapshot: 18.11.2011

DB Instances and the physical location... The report lists the location as of last Friday or the latest snapshot

## Company Inc. - Oracle Hosts & Instances

| Host                   | SID      | Release    |
|------------------------|----------|------------|
| delios.mycompany.com   | FFPMBCP  | 10.2.0.4.0 |
| delios.mycompany.com   | GWGMBCP  | 11.2.0.2.0 |
| delios.mycompany.com   | HYPMBCP  | 10.2.0.3.0 |
| delios.mycompany.com   | HYPZGKP  | 10.2.0.3.0 |
| hyperion.mycompany.com | AMCCRI   | 10.2.0.4.0 |
| hyperion.mycompany.com | AMCCRP   | 10.2.0.4.0 |
| hyperion.mycompany.com | AMDEPOTP | 10.2.0.4.0 |
| hyperion.mycompany.com | AMZGKP   | 10.2.0.4.0 |
| hyperion.mycompany.com | FD1      | 10.2.0.4.0 |
| hyperion.mycompany.com | FI1      | 10.2.0.4.0 |
| hyperion.mycompany.com | FP1      | 10.2.0.4.0 |

This is simply a list of which Instance is running on which physical host and which release it is as of the latest snapshot, usually the automated Friday snapshot. A pdf file will be generated on a weekly basis to keep track of where an Instance once where in case of DB Instances has to get moved around and you have had some setup or maintain scripts stuffed away on the previous server.

## Tablespaces

This is the heart of OTR. Here the connection between Customer, DB Instance and the Tablespaces are made.

### Tablespaces main screen

Customers DB Instances DB Hosts **Tablespaces** TBS Trend New Snapshot Del Snapshot Enterprise Manager

Here you define the relationships between Customers, Instances and one or more Tablespace(s)

**My Company Inc. - Oracle Customer/App/Tablespace**

Export Result as CSV - Export Result to Excel - Upload a new CSV or XLS(X)

| #  | Customer | Application        | SID     | Tablespace        | Warning | Critical |
|----|----------|--------------------|---------|-------------------|---------|----------|
| 1  | AAA      | ACO KDPrevent PROD | ACOKDPP | APPL_DATA         | 85      | 97       |
| 2  | AAA      | ACO KDPrevent PROD | ACOKDPP | APPL_IDX          | 85      | 97       |
| 3  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSAL_DEFAULT      | 85      | 97       |
| 4  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSAR_DEFAULT      | 85      | 97       |
| 5  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSAR_TRANSACTION  | 85      | 97       |
| 6  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSDR_DEFAULT      | 85      | 97       |
| 7  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSDR_DYNAMIC      | 85      | 97       |
| 8  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSET_DEFAULT      | 85      | 97       |
| 9  | AAA      | ACO KDPrevent PROD | ACOKDPP | TSKDMATCH_DEFAULT | 85      | 97       |
| 10 | AAA      | ACO KDPrevent PROD | ACOKDPP | TSKDMATCH_IDX     | 85      | 97       |
| 11 | AAA      | ACO KDPrevent PROD | ACOKDPP | TSMD_DEFAULT      | 85      | 97       |

The source for this information can be a .CSV file or an Excel Document. This file will be uploaded to the OTR repository server. In case of an Excel both .xls and .xlsx formats are accepted.

### Upload CSV or XLS(X)

Upload a new CSV or XLS

Upload Tablespace Info from an Excel or a CSV File.

ACOKDPP APPL\_DATA

**My Company Inc. - Oracle Tablespace Usage CSV or XLS Upload**

CSV/XLS File:  Browse...

Upload Reset

The .CSV contains 6 fields/row and will have the following structure:

```
ICB;Amis CCR INT;AMCCRI;TSDATLARGE;85;97
ICB;Amis CCR INT;AMCCRI;TSDATNORM;85;97
ICB;Amis CCR INT;AMCCRI;TSDATSN;85;97
ICB;Amis CCR INT;AMCCRI;TSIDX;85;97
```

It contains the Customer ID, The Instance Description, OraSID, Tablespace name, Warning threshold and Critical threshold.

The other possibility and also the easiest way, is to keep this info in an Excel sheet.

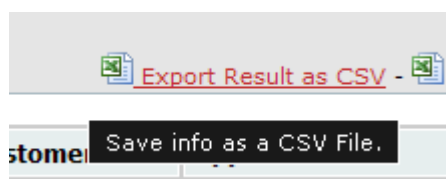
|    | A   | B                   | C       | D                 |
|----|-----|---------------------|---------|-------------------|
| 1  | AAA | ACO KDPprevent PROD | ACOKDPP | APPL_DATA         |
| 2  | AAA | ACO KDPprevent PROD | ACOKDPP | APPL_IDX          |
| 3  | AAA | ACO KDPprevent PROD | ACOKDPP | TSAL_DEFAULT      |
| 4  | AAA | ACO KDPprevent PROD | ACOKDPP | TSAR_DEFAULT      |
| 5  | AAA | ACO KDPprevent PROD | ACOKDPP | TSAR_TRANSACTION  |
| 6  | AAA | ACO KDPprevent PROD | ACOKDPP | TSDR_DEFAULT      |
| 7  | AAA | ACO KDPprevent PROD | ACOKDPP | TSDR_DYNAMIC      |
| 8  | AAA | ACO KDPprevent PROD | ACOKDPP | TSET_DEFAULT      |
| 9  | AAA | ACO KDPprevent PROD | ACOKDPP | TSKDMATCH_DEFAULT |
| 10 | AAA | ACO KDPprevent PROD | ACOKDPP | TSKDMATCH_IDX     |
| 11 | AAA | ACO KDPprevent PROD | ACOKDPP | TSMD_DEFAULT      |
| 12 | AAA | ACO KDPprevent PROD | ACOKDPP | TXAL_DEFAULT      |
| 13 | AAA | ACO KDPprevent PROD | ACOKDPP | TXAR_DEFAULT      |
| 14 | AAA | ACO KDPprevent PROD | ACOKDPP | TXAR_TRANSACTION  |
| 15 | AAA | ACO KDPprevent PROD | ACOKDPP | TXDR_DEFAULT      |
| 16 | AAA | ACO KDPprevent PROD | ACOKDPP | TXDR_DYNAMIC      |
| 17 | AAA | ACO KDPprevent PROD | ACOKDPP | TXET_DEFAULT      |
| 18 | AAA | ACO KDPprevent PROD | ACOKDPP | TXMD_DEFAULT      |

The content in Excel is the same as for the .csv

Company ID, Instance description, OraSID, Tablespace name, Warning and Critical thresholds.

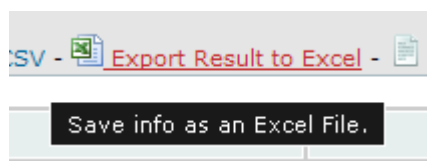
### Export as CSV

This info can also be exported locally as either a .csv file



### Export as XLS

Or as an Excel document



## TBS Trend

This will display the trend of growth graphically in a Bar chart.

### Main screen for Tablespace Usage Trends

Customers DB Instances DB Hosts Tablespaces **TBS Trend** New Snapshot Del Snapshot Enterprise Manager

OTR  
Last Snapshot: 18.11.2011

**My Company Inc. - Instance Tablespace Trend**

Here you can see the Trend in growth of the tablespace usage as a Bar chart.

Instance: ACOKDPP Year: 2011 From: 31.12.2010 To: 18.11.2011

Show Trend

Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

### Trend defined by 2 snapshots

Statistical data can be displayed from a time period between 2 snapshots.

**My Company Inc. - Instance Tablespace Trend**

Instance: CFIDBP 1 snapshot / Month: ☐ Year: 2011 From: 04.11.2011 To: 18.11.2011

Show Trend

Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

### Trend defined on a Monthly basis

This will pick the last snapshot from each month within the selected year.

**My Company Inc. - Instance Tablespace Trend**

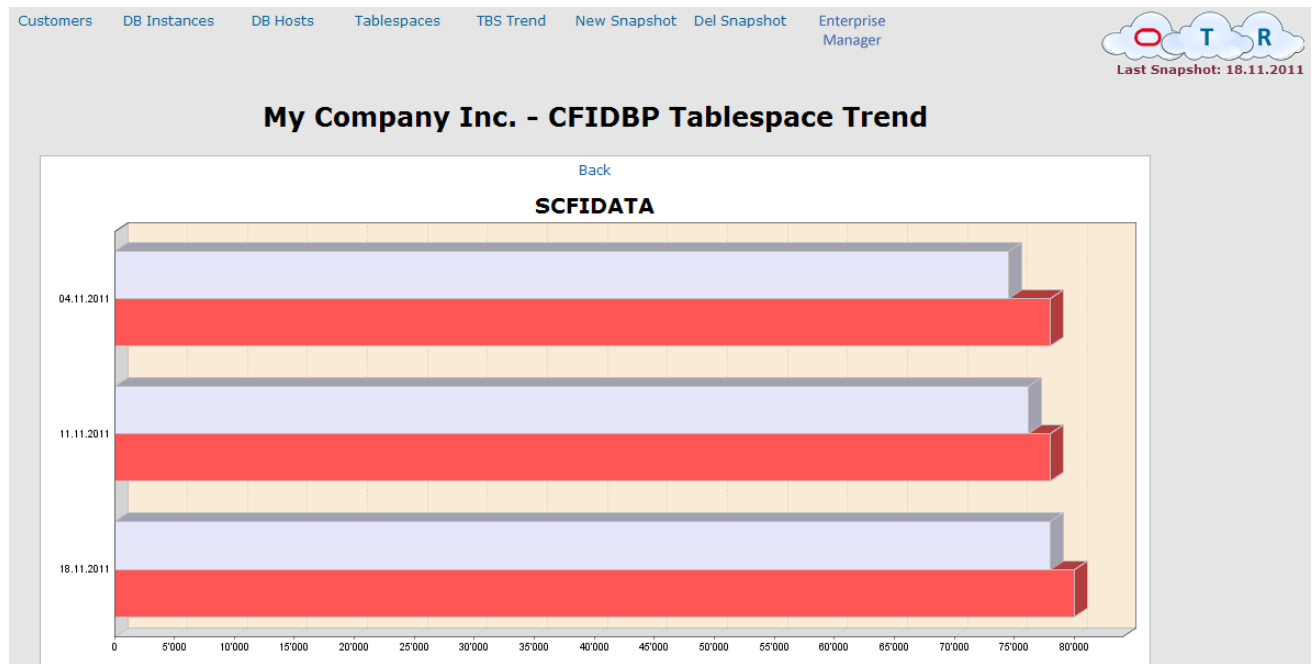
Instance: CFIDBP 1 snapshot / Month: ☒ Year: 2011 From: 04.11.2011 To: 18.11.2011

Show Trend

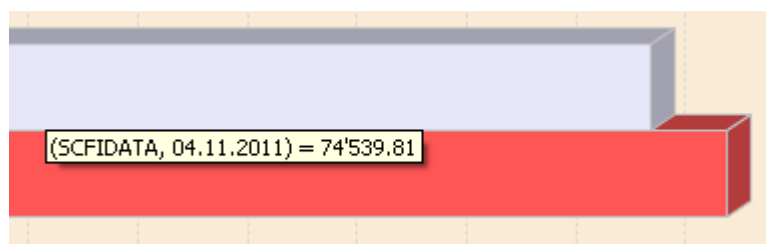
Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

## Tablespace Trends as Graphical Output

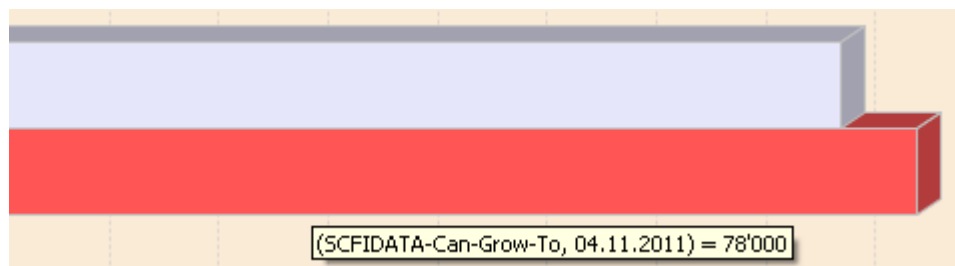
The output will display the output as a bar-chart.



The currently used space in the tablespace...



and the size the tablespace can grow to.





## Snapshots

The statistics is stored in the OTR repository as a snapshot. This is done as a weekly Scheduled job defined in the OpenBD Administrator. This job should be scheduled shortly before Friday Midnight.

Snapshots can also be generated manually.

Customers DB Instances DB Hosts Tablespaces TBS Trend **New Snapshot** Del Snapshot Enterprise Manager

OTR  
Last Snapshot: 18.11.2011

This will generate a new snapshot with today's date, containing Tablespace and NFS Storage usage.

### My Company Inc. - Tablespace Report

Report Date: 18.11.2011

Customer: ALL

Include: ☒ Development DB's ☒ Internal DB's (GridControl & SnapManager for Oracle)

Run Report

LOADING

| Current Status |        |
|----------------|--------|
| SID            | Status |
| CFIDBT         | TBS    |

Updated every 5 Minutes  
For more Info...  
MouseOver the Status column.

[All](#) | [Trouble](#)

Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

Only one snapshot / day will be stored, so creating a new snapshot again on the same day will simply delete the previous one and create a new snapshot for that day.

## No Friday snapshots!

Customers DB Instances DB Hosts Tablespaces TBS Trend **New Snapshot** Del Snapshot Enterprise Manager

OTR  
Last Snapshot: Nov 11, 2011

No manually generated snapshots on a Friday!

### My Company Inc. - Oracle Tablespace Report

Report Date:

Customer:

Include:

No manually generated Snapshots on Fridays!  
4 Sec

| Current Status |        |
|----------------|--------|
| SID            | Status |
| CFIDBP         | TBS    |

Updated every 5 Minutes  
For more Info...  
MouseOver the Status column.

[All](#) | [Trouble](#)

OpenBD Version: 2,0 - OpenBD Build: 2011-11-12 08:09:43 GMT  
Open BlueDragon Administrator

Since Fridays are our scheduled snapshot day you are not allowed to create manual snapshots on this day. It's possible to delete manually generated snapshots but not the Friday snapshots.

Customers DB Instances DB Hosts Tablespaces TBS Trend **New Snapshot** **Del Snapshot** Enterprise Manager

OTR  
Last Snapshot: 22.11.2011

Delete a specific snapshot. You can not delete Friday snapshots.

### My Company Inc. - Delete Tablespace Snapshot

Report Date: 22.11.2011 Friday Snapshots are not listed

Delete Snapshot

| Current Status |        |
|----------------|--------|
| SID            | Status |
| CFIDBP         | TBS    |

Updated every 5 Minutes  
For more Info...  
MouseOver the Status column.

[All](#) | [Trouble](#)

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Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

## Enterprise Manager

Since we're DBA's we of course need access to our "real" toolbox. Therefor we have a direct link to the login for Oracle® Enterprise Manager.

[Customers](#) [DB Instances](#) [DB Hosts](#) [Tablespaces](#) [TBS Trend](#) [New Snapshot](#) [Del Snapshot](#) [Enterprise Manager](#)

  
Last Snapshot: 22.11.2011

This is a direct Link to the Oracle Enterprise Manager

### My Company Inc. - Oracle Tablespace Report

Report Date: 22.11.2011

Customer: ALL

Include: ☒ Development DB's ☒ Internal DB's (GridControl & SnapManager for Oracle)

Run Report

Current Status

| SID    | Status |
|--------|--------|
| CFIDBT | TBS    |

Updated every 5 Minutes  
For more Info...  
MouseOver  
the Status column.

[All](#) | [Trouble](#)

Copyright © 2010 - 2011 NETWORK 23

Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT

Open BlueDragon Administrator

## How do we get started?

First of all we need to setup the repository OTR schema and the objects used for the repository, assuming of course that Enterprise Manager is already installed!

## DDL Scripts

These scripts are located under DOC\OTR-Reporting\Setup\DDL

```
OTR_TBS_UPGRADE.sql
OTR_DB_SPACE_REP_SCHEMA.sql
OTR_DB_SPACE_REP_DDL.sql
OTR_CR_VIEW_TBS_FREE.sql
OTR_CR_VIEW_DB_HOST.sql
OTR_DB_SPACE_REP_DROP_DDL.sql
OTR_DB_SPACE_REP_TBS+SCHEMA_CLIENT.sql
```

### OTR\_TBS\_UPGRADE.sql

If this is an upgrade and your old OTR is still using an EXTERNAL TABLE for the Customer/Instance/Tablespace relationship you need to run this upgrade script. It will create a new normal Table for the Customer/Instance/Tablespace relationship and also copy the old tablespace info from the old table over to this new Table. It will also add a new snapshot Table which will contain statistics about ASM Storage. Some of the other old tables will get some new fields.

```
>@OTR_DB_SPACE_REP_SCHEMA.sql
Enter Database Alias for the OTR Repository [OTR]: SMO
Enter Password for user OTRREP: *****
```

If this is a new setup then just run the scripts described below.

### OTR\_DB\_SPACE\_REP\_SCHEMA.sql

The first script to run is the OTR\_DB\_SPACE\_REP\_SCHEMA.sql which will create new tablespace(s) for the OTR Repository, Create the schema owner OTRREP and setup the grants needed.

It's looks like it expects to place the Tablespaces for the OTRREP schema using normal mounts, typical NFS mounts. If Repository Database is using ASM one simple just enter the Disk Group name instead. E.g. +SMO\_DATA\_DG

**NOTE:** To avoid any license problems make sure not to use the Enterprise Manager Repository Instance for your OTR Repository!

```
>@OTR_DB_SPACE_REP_SCHEMA.sql
Enter Database Alias for the OTR Repository [OTR]: SMO
Enter Password for user SYS: *****
Enter path for the otr_rep_data01.dbf [/u01/oradata/otr_db/OTR]: /u01/oradata/smo_db/SMO
Enter path for the otr_rep_indx01.dbf [/u01/oradata/otr_db/OTR]: /u01/oradata/smo_db/SMO
OTR Datafiles will be placed under
/u01/oradata/smo_db/SMO/otr_rep_data01.dbf
/u01/oradata/smo_db/SMO/otr_rep_indx01.dbf
If this is correct press Enter otherwise Ctrl+C
```

Choose the OTRREP user's Temporary tablespace.

| TABLESPACE_NAME | CONTENTS  | DB | DEFAULT | TEMP | TABLESPACE |
|-----------------|-----------|----|---------|------|------------|
| TEMP            | TEMPORARY | *  |         |      |            |

Pressing <return> will result in the database's default Temporary tablespace (identified by \*) being used.

Enter Temporary TABLESPACE Name: TEMP

... Creating OTRREP user

Entering SYSTEM or SYSAUX as Temporary Tablespace will generate an Error and the script stops.

### OTR\_DB\_SPACE\_REP\_DDL.sql

Next script to run is the OTR\_DB\_SPACE\_REP\_DDL.sql

```
>@OTR_DB_SPACE_REP_DDL.sql
Enter Database Alias for the OTR Repository [OTR]: SMO
Enter Password for user OTRREP: *****
```

This script will create all tables used to store the repository data.

This script will also call the 2 scripts OTR\_CR\_VIEW\_TBS\_FREE.sql and OTR\_CR\_VIEW\_DB\_HOST.sql.

### Done with Step 1

This rounds up the first part and we have to download the WEB GUI and the OpenBD Server.

## Web Frontend using Open BlueDragon

For the Web frontend of OTR we need the server software from the OpenBD project. OpenBD is the world's first truly open source GPL Java and Google App Engine CFML runtime. CFML is a powerful tag/script based language that takes away all the heavy lifting of producing highly scalable web and email based services and sites.

### Download Ready2Run Jetty+OpenBD

At <http://www.openbd.org/download> we need to download the Ready2Run Jetty+OpenBD. It's also possible to run OpenBD on a Tomcat Server. In this case we only need to download the openbd.war file and dump it in the webapps folder. Tomcat setup is not described in this document.

In this case we will use the OMS/EM Server to install the OTR Web GUI.

If we have internet access direct from the OTR Server and this is a Linux/UNIX Server we can use the `wget` command.

We will install the OpenBD under `/opt/OpenBD`

As user root

```
# cd opt
# mkdir OpenBD
# cd OpenBD
# wget http://www.openbd.org/download/2.0.2/jetty-openbd.zip
# unzip jetty-openbd.zip
```

### Download JDK or JRE 6 from Oracle

At <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

At the time of this writing the release is Java SE 6 Update 29. Select the appropriate release for your platform.

In our case we're on a 64-bit Oracle Linux so our download would be `jdk-6u29-linux-x64-rpm.bin`

Installing this with

```
# ./jdk-6u29-linux-x64-rpm.bin
```

Making this as our default Java setup we will use the "alternatives" to maintaining symbolic links to our newly installed java.

```
# /usr/sbin/alternatives --install /usr/bin/java java /usr/java/jdk1.6.0_29/bin/java 16029
# /usr/sbin/alternatives --display java
```

## Fixing the start script for OpenBD

Create a file `/etc/default/jetty` to define the `JETTY_HOME`

```
# vi /etc/default/jetty

JETTY_HOME=/opt/OpenBD
```

Change the mod of the start/stop script

```
# chmod 755 /opt/OpenBD/bin/jetty.sh
```

Edit the start/stop script to add the path to your JDK6 bin directory and an `JAVA_OPTIONS` parameter to fix X11 problems when using graphics and charts. Marked in red below.

```
# JETTY_USER
#   if set, then used as a username to run the server as
#

# Adding one of the JDK's to the path (Locally)
PATH=$PATH:/usr/java/jdk1.6.0_29/bin

# JAVA_OPTIONS to avoid X11 error when using Charts in OpenBD
JAVA_OPTIONS=-Djava.awt.headless=true

usage()
{
    echo "Usage: ${0##*/} [-d] {start|stop|run|restart|check|supervise} [ CONFIGS ... ] "
    exit 1
}
```

## Updating JDBC Driver for Oracle

Copy the new Oracle JDBC driver into OpenBD's lib directory

```
# cd /opt/OpenBD/webapps/openbd
# cp otr/Doc/licenses/ojdbc6.jar WEB-INF/lib
# cd /opt/OpenBD
```

If you're using JDK5 instead of JDK6 you need to download the correct driver from Oracle at <http://www.oracle.com/technetwork/java/javase/downloads/index.html> and then copy the `ojdbc5.jar` file into the `/opt/OpenBD/webapps/openbd/WEB-INF/lib` directory.

Rename the old jdbc driver to avoid it to be loaded at startup.

```
# cd /opt/OpenBD/webapps/openbd/WEB-INF/lib
# mv ojdbc14.jar ojdbc14.jar.old
# cd /opt/OpenBD
```


And start the Jetty/OpenBD

```
# bin/jetty.sh start
```

## Test your OpenBD Installation

Open a web browser and goto the URL `http:// your_ otr_server:8080`

You should get a message that your Installation was successful.

 OpenBD Basic CFML Advanced Tags Functions Plugins Server Support

### Congratulations ...

... since you are reading this, means the installation went well and you are now ready to start using OpenBD CFML.



Some information about your current installation:

|                  |   |
|------------------|---|
| edition:         | 8   |
| builddate:       | 2011-11-24 01:00:57 GMT                     |
| level:           | GPL   |
| state:           | alpha                                       |
| releasedate:     | 11 November 2011                            |
| version:         | 2.1   |
| path_translated: | /opt/OpenBE/webapps/openbd/manual/index.cfm |
| server:          | minerva:8080                                |
| current time:    | {ts '2011-11-25 07:46:44'}                  |

[Continue to the manual](#)

---

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By default Jetty, like most Java Servers, is configured to use port 8080. You can easily change this to port 80 since most likely you will not have any conflict using this port. Enterprise Manager usually, with a normal installation, will use a different port (typically 4889)

## Change listener port for Jetty

If you prefer to use port 80 instead of port 8080 simple stop the OpenBD Server again.

```
# bin/jetty.sh stop
```

Go into the etc folder

```
# cd /opt/OpenBD/etc
```

Edit the file jetty.xml

```
# vi jetty.xml
```

Look for the property jetty.port, change the default="8080" to default="80"

Also change the file jetty-fileserver.xml

```
# vi jetty-fileserver.xml
```

Look for the `<Set name="port">8080</Set>` and change this to

```
<Set name="port">80</Set>
```

Start the OpenBD Server again

```
# cd ..  
# bin/jetty.sh start
```

From now on your OpenBD should respond on standard port 80

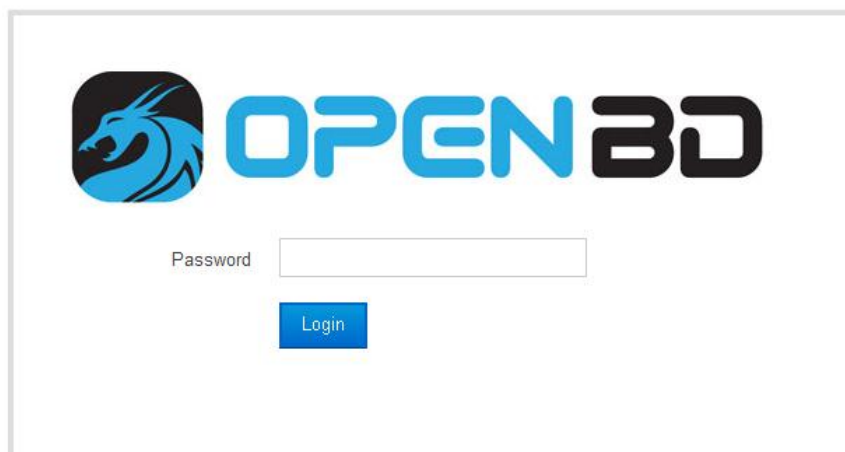
## Configuring OpenBD for OTR

First we need to define 2 Datasources for OTR to be able to communicate with the OGC and OTR Repositories.

### Login to OpenBD Administrator

Go to the URL, with or without the portnumber depending on if you reconfigured your Jetty Setup or not, `http:// your_ otr_server[:8080]/bluedragon/administrator`

 Open BlueDragon Administrator



The default Password is **admin**



## OpenBD Administrator Main Screen

### Welcome to the Open BlueDragon Administrator

Open BlueDragon is an open source (GPLv3), Java-based runtime engine for CFML. For more information on the Open BlueDragon project, please visit the [Open BlueDragon web site](#) and the [Open BlueDragon Google Group](#).

You may use the OpenBD Administrator to manage many OpenBD settings such as datasources, scheduled tasks, mail server settings, directory mappings, custom tag paths, and much more.

For more information on the Open BlueDragon Administrator or to obtain a newer version of the Administrator, please visit the [Open BlueDragon Admin Console project at Google Code](#).

#### Documentation

For the latest OpenBD documentation you may refer to the [OpenBD Manual](#) that is bundled with OpenBD and runs locally, or the following resources:

- [OpenBD Web Site](#)
- [OpenBD Wiki](#)
- [OpenBD CFML Manual](#) (generated from nightly builds)
- [OpenBD Cookbook](#)

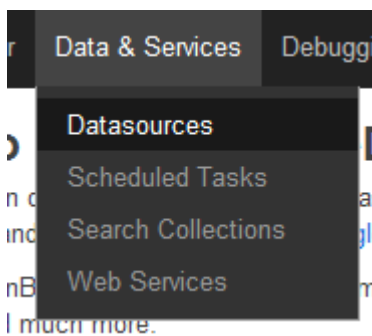
#### Requesting Features and Reporting Bugs

- [OpenBD Google Group](#)
- [OpenBD Issue Tracker](#)
- [OpenBD Admin Console project at Google Code](#)
- [CFML Conventional Wisdom](#) (general CFML language discussion group)

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Version 2.0 - Nov 11, 2011 12:00 AM

To add new Datasources select the menu Data & Services



### Add Datasource OTR\_OTRREP

#### Manage Datasources

[More Info](#)

##### Add a Datasource

Datasource Name

Database Type

#### Datasources

No registered datasources

*No datasources configured*

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Datasource Name: **OTR\_OTRREP** and Type is of course **Oracle** and click **Add Datasource**

## Adding connection info

### Configure Datasource - Oracle (Oracle)

| Datasource Details   |   |
|--|---|
| OpenBD Datasource Name   | <input type="text" value="OTR_OTRREP"/>                   |
| Database SID   | <input type="text" value="SMO"/>                          |
| Database Server  | <input type="text" value="theia.mbczh.ch"/>               |
| Server Port  | <input type="text" value="1521"/>                         |
| User Name  | <input type="text" value="OTRREP"/>                       |
| Password   | <input type="password" value="••••••••"/>                 |
| Description  | <input type="text" value="OTR Oracle Tablespace Report"/> |
| <div><input type="button" value="Show Advanced Settings"/> <input type="button" value="Submit"/> <input type="button" value="Cancel"/></div> |   |

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Database SID: **<Your OTR OracleSID>**

Database Server: **<Host of your OTR Instance>**

Server Port: **<Listener Port for your OTR Instance>**

User Name: **OTRREP**

Password: **otrrep4otr**

Description: **OTR Oracle Tablespace Report**

## Manage Datasources

[More Info](#)

The datasource was created successfully.



### Add a Datasource

Datasource Name

Database Type



### Datasources

| Actions   | Datasource Name | Description                  | Database Type   | Status |
|---|-----------------|------------------------------|-----------------|--------|
|   | OTR_OTRREP      | OTR Oracle Tablespace Report | Oracle (Oracle) |        |
| <input type="button" value="Verify All Datasources"/> |                 |                              |                 |        |

## Add Datasource OTR\_SYSMAN

### Manage Datasources

[More Info](#)

The datasource was created successfully.



#### Add a Datasource

Datasource Name

Database Type



Add Datasource

#### Datasources

| Actions | Datasource Name | Description                  | Database Type   | Status |
|---------|-----------------|------------------------------|-----------------|--------|
|         | OTR_OTRREP      | OTR Oracle Tablespace Report | Oracle (Oracle) |        |

Verify All Datasources

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Version 2.0 - Nov 11, 2011 12:00 AM

Datasource Name: **OTR\_SYSMAN** and the type **Oracle** and click **Add Datasource**

#### Configure Datasource - Oracle (Oracle)

| Datasource Details                                 |   |
|--|---|
| OpenBD Datasource Name                             | <input type="text" value="OTR_SYSMAN"/>                                   |
| Database SID                                       | <input type="text" value="OGC2ICB"/>                                      |
| Database Server                                    | <input type="text" value="theia.mbczh.ch"/>                               |
| Server Port  | <input type="text" value="1521"/>   |
| User Name  | <input type="text" value="SYSMAN"/>                                       |
| Password   | <input type="password" value="....."/>                                    |
| Description  | <input type="text" value="Used to generate TBS/NFS Space Usage Reports"/> |
| <p>Show Advanced Settings</p> <p>Submit Cancel</p> |   |

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Version 2.0 - Nov 11, 2011 12:00 AM

User Name: **SYSMAN** <User on your OGC Instance!!!>

Password: **<SYSMAN Password>**

Description: **Used to generate TBS/NFS Space Usage Reports**

## Test the new Datasources

### Manage Datasources

[More Info](#)

The datasource was created successfully.



#### Add a Datasource

Datasource Name

Database Type

- select -

Add Datasource

#### Datasources

| Actions                       | Datasource Name | Description                                  | Database Type   | Status |
|-------------------------------|-----------------|--|-----------------|--------|
|                               | OTR_OTRREP      | OTR Oracle Tablespace Report                 | Oracle (Oracle) |        |
|                               | OTR_SYSMAN      | Used to generate TBS/NFS Space Usage Reports | Oracle (Oracle) |        |
| <p>Verify All Datasources</p> |                 |  |                 |        |

By clicking on [Verify All Datasources](#) you will get a confirmation of the settings and if they are OK

#### Datasources

| Actions                       | Datasource Name | Description                                  | Database Type   | Status |
|-------------------------------|-----------------|--|-----------------|--------|
|                               | OTR_OTRREP      | OTR Oracle Tablespace Report                 | Oracle (Oracle) | ✓      |
|                               | OTR_SYSMAN      | Used to generate TBS/NFS Space Usage Reports | Oracle (Oracle) | ✓      |
| <p>Verify All Datasources</p> |                 |  |                 |        |

## Installing the OTR WebApp

In this section we will install the web application for OTR.

### Download the otr.war

The otr.war can be downloaded from <http://www.network23.net/otr> or get the complete source from Google Code <http://code.google.com/p/oracle-tablespace-report/>

### Copy the otr.war over to your server

Simply copy the otr.war to your server under /opt/OpenBD/webapps/openbd using WinSCP or similar tool.

Most likely is the Linux/UNIX server, where the OTR Web GUI is supposed to be running, not open for remote access for user root. So transfer the file into /tmp as user oracle. SSH connect to the server as user oracle and then with 'su -' change to root. Move the file from /tmp to /opt/OpenBD/webapps/openbd.

```
# chown root:root /tmp/otr.war
# mv /tmp/otr.war /opt/OpenBD/webapps/openbd
```

Jetty is not default configured for hot deploy so simply use unzip to unpack the content

```
# cd /opt/OpenBD/webapps/openbd
# unzip otr.war
```

Change the mod for the directory and its content so you, for future needs, can access the OTR application from outside the server with user oracle

```
# chmod -R 777 otr
```

### Make changes to the file Application.cfc to fit your Company and setup

Most all parameters for the OTR Application is defined in the file otr/Application.cfc

Update the following settings.

#### Oracle Settings

```
<!--- SQLNET.DEFAULT_DOMAIN for DB-Links --->
<cfset Application.oracle.domain_name = "MBCZH.CH" />
<!--- Datasource Settings --->
<cfset Application.datasource = "OTR_OTRREP" />
<cfset Application.dbusername = "OTRREP" />
<cfset Application.dbpassword = "otrrep4otr" />
```

The **Application.oracle.domain\_name** should correspond to the SQLNET.DEFAULT\_DOMAIN within your Oracle environment.

If you change the password for the Schema Owner OTRREP it needs to be changed here also.

## Mail Server Settings

```
<!-- MailServer Settings --->
<cfset Application.mailserver = "smtp.mycompany.ch" />
<cfset Application.mailport = "25" />
<cfset Application.mailtimeout = "60" />
<!-- Mail address for DBA or DBA Group --->
<cfset Application.dba_group_mail = "DB-Services@mycompany.com" />
```

**Application.mailserver** is the host of your mail server. If this parameter is left empty no mails will be sent when a Tablespace gets extended.

**Application.mailport** is the SMTP Port used by the mail server. Usually this is port 25.

**Application.mailtimeout** is the number of seconds to wait before timing out the connection to the SMTP server.

**Application.dba\_group\_mail** is the mail address for the DBA or a DBA Group mail account. The mail will also be sent from this account.

If the mail server is configured, OTR will send an E-mail each time a Tablespace is adjusted. The content of the mail will be something like:

Subject: Tablespace **TBSNAME** on **ORASID** just got another 2GB!

Tablespace **TBSNAME** on Instance **ORASID** was just extended with 2GB more.

**ORASID** is located on host **mydbhost.mycompany.com**

Please make sure there is enough storage space available for this tablespace to grow.

## Company Settings

```
<!-- Company Settings --->
<cfset Application.company = "My Company Inc." />
<!-- Excel Document Info --->
<!-- Foreign Characters for Excel
    ß = chr(223)
    å = chr(229)
    ä = chr(228)
    ö = chr(246)
    Å = chr(197)
    Ä = chr(196)
    Ö = chr(214) --->
<cfset Application.excel_doc_info_author = "Mats Str#chr(246)#mberg" />
<cfset Application.excel_doc_info_subject = "Customer Tablespace Usage" />
<cfset Application.excel_doc_info_title = "My Company Inc. - Tablespace Report" />
<cfset Application.excel_doc_info_lastauthor = "ustr" />
```

**Application.company** is Your Company Name. This will be displayed on every screen in the application.

**Application.excel\_doc\_info\_xxx** will be used as document info when generating Excel files. Some character values are provided for foreign character which Excel will understand.

## Snapshots

```
<!-- Snapshot Day / Sunday = 1 --->
<cfset Application.snapshot_day = 6 /><!-- 6 = Friday --->
```

It's possible to change the snapshot day but it's not really recommend.

The week starts on Sunday = 1 and stops on Saturday = 7

## General Settings

```
<!-- General Application Settings --->
<cfset Application.obd_host = "http://minerva/" />
<cfset Application.obd_desktop_host = "http://localhost/" />

<cfset Application.ogc_logon_url = "http://minerva:4889/em/console/logon/logon" />
<cfset Application.host_instance_pdf_dir = "/opt/pro/dir/ccr/oracle/" />
```

**Application.obd\_host** is the host of the OTR web server. If Jetty isn't re-configured for port 80 this should contain the correct port number. <http://YourServer:8080/>

**Application.ogc\_login\_url** is the URL for your Enterprise Manager login screen.

**Application.host\_instance\_pdf\_dir** is the location where the weekly PDF reports will be located.

## Tablespace Warning Settings

```
<!--- Tablespace Warning Levels --->
<cfset Application.tablespace.mb_left = 1800 />

<!--- Tablespace Warning Levels --->
<cfset Application.monitoring_cycle = 5 />
```

**Application.tablespace.mb\_left** is default set to **1800** MB.

**Application.monitoring\_cycle** is the number of minutes between each tablespace check. Default is 5 Minutes.

With these settings correctly configured for your environment you are now ready to do the final setup of OTR.

## Restart Jetty/OpenBD

The values contained in the Application.cfc will only be activated at the time the OTR application is started. Changes done during the time the OpenBD/Jetty is running will not be visible.

So to get this change you have just made, you simply stop and start Jetty again. (Make sure you're user root for this)

```
$ su -
# cd /opt/OpenBD
# bin/jetty.sh restart
```

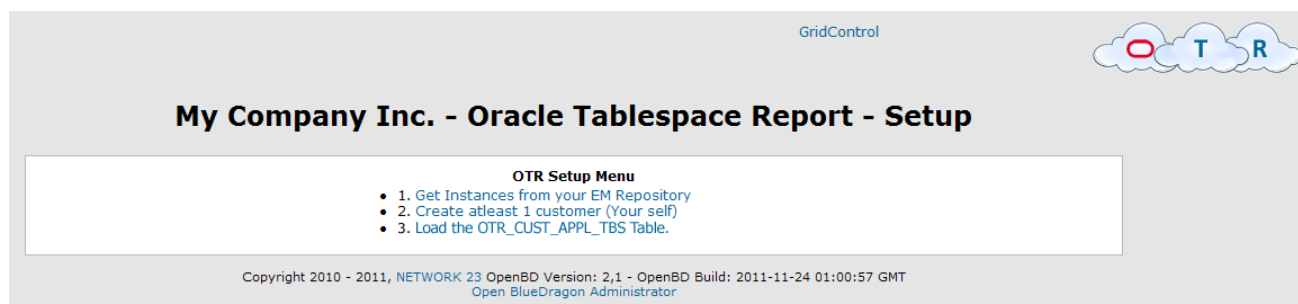
Now when you go to the URL [http://yourserver\[:8080\]/otr](http://yourserver[:8080]/otr) you should see the Setup screen now, displaying your Company Name.

If this is not the case and you continuously ends up on the Open BlueDragon's Administration screen, then either the Schema Owner OTRREP don't exist, Password is wrong or the schema objects doesn't exist. Make sure that the Setup SQL's has been run properly. See chapter [DDL Scripts](#)



## Get your OTR ready for use

To get your OTR ready to be used we now need to fill it with usable data.



### Get Instances from EM Repository

Since this is a new setup you won't have any database Instances in OTR. Start by selecting the menu [1. Get Instances from your EM Repository](#). As first step, all Instances found in your Enterprise Manager repository will be picked up and stored in the OTR Repository. The second step will be to enter the SYSTEM Password for each Instance. When all passwords are entered correct for each Instance this step is done and the link will be inactive.

### Create your first Customer

There are no customers in your OTR Repository. Select the menu [2. Create at least 1 customer \(Your self\)](#). When this step is done the link will be inactive.

### Create the Tablespace relationships

The relation between a Customer, DB Instance and a Tablespace is preferably done using an Excel sheet. As this is a new setup your external table source file doesn't exist yet.

By selecting the menu [3. Load the OTR\\_CUST\\_APPL\\_TBS Table](#) the system will connect to all your registered Instances (as user SYSTEM) and pick up all Tablespaces for each Instance. At this time Tablespaces SYSTEM, SYSAUX, TEMP and UNDO will not be selected.

Your setup is basically done now and you can use the menu Tablespaces and export this as XLS and edit this file locally on your PC.

Replace the Customer ID with correct Customer ID and save the Excel file. Finally upload the file again to OTR and your Tablespace list will now be usable.

### Add all your customers

Make sure to add all customers to your system and that the Customer ID is corresponding to your updated Excel file. This will be needed when you create your first snapshot, may it be a manually created snapshot or the weekly generated snapshot.

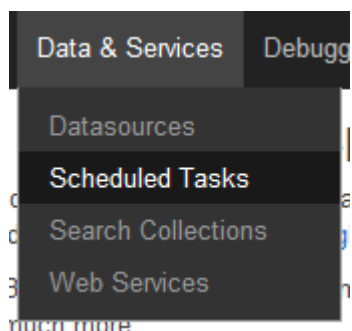
## Define a Gather TBS/NFS Space Usage Statistics Job

To get the weekly monitoring to collect the Tablespace usage statistics you should now define a Job in the OpenBD Administrator.

Login to the Administrator using the URL [http://your\\_server\[:port\]/bluedragon/administrator/](http://your_server[:port]/bluedragon/administrator/)

If you haven't changed the Administrator Password it will be **admin**.

Select the Menu Data & Services and the Scheduled Tasks



Enter **Gather TBS/NFS Space Usage Statistics** as Task Name.

A screenshot of the 'Edit Scheduled Task' form in the OpenBD Administrator. The form has several fields: 'Task Name' (Gather TBS/NFS Space Usage Statistics), 'Duration' (Start Date: 11/25/2011, End Date: ), 'Interval' (One Time, Recurring, Daily), and 'Full URL' (http://minerva...). A calendar widget is open, showing November 2011, with the 25th (Friday) selected. The time is set to 23:30.

The Job should be run on a Friday night so select a Date matching a Friday.

A screenshot of the 'Interval' section of the 'Edit Scheduled Task' form. The 'Recurring' radio button is selected. The frequency is set to 'weekly' in a dropdown menu. The time is set to '@ 23:30'.

Define the job as a weekly recurring job starting at **23:30** (11:30 PM)

Enter [http://your\\_server\[:8080\]/otr/otr\\_friday\\_snapshot.cfm](http://your_server[:8080]/otr/otr_friday_snapshot.cfm) as Full URL

|          |   |
|----------|---|
| Full URL | <input type="text" value="http://minerva/otr/otr_friday_snapshot.cfm"/> |
| Port     | <input type="text"/>  |

As request Timeout set the value to **120** seconds.

|                                       |  |
|---------------------------------------|--|
| Request Timeout                       | <input type="text" value="120"/> seconds |
| <input type="button" value="Submit"/> |  |

### Define Job for creating Host/Instance PDF.

If you could like to have a weekly PDF generated containing info about which Instance is running on which Host, you can create this job over the OpenBD Administrator. The job should be generated on a weekly basis just as the Gather Statistics Job and be run just before or after Friday midnight, shortly after the [Gather TBS/NFS Space Usage Statistics](#) Job.

This step is not required but the information could be handy to have later on...

Define the Scheduling Task

Task Name: [Host Instance Report PDF](#). We'll define the Start Date to be on a Saturday.

|           |  |                                |
|-----------|--|--------------------------------|
| Task Name | <input type="text" value="Host Instance Report PDF"/>  |                                |
| Duration  | Start Date: <input type="text"/>   | End Date: <input type="text"/> |
| Interval  | <div><input type="radio"/> One Time<br/><input type="radio"/> Recurring<br/><input type="radio"/> Daily every <input type="text"/></div> |                                |
| Full URL  | <div><input type="text" value="http://"/><br/>Port <input type="text"/></div>  |                                |

November 2011

| Su | Mo | Tu | We | Th | Fr | Sa |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |    |    |    |

Set the Interval to **Weekly** at **01:00** which means that the job will be run on Saturday morning at 01:00 AM

|          |   |  |
|----------|---|--|
| Interval | <input type="radio"/> One Time @ <input type="text"/>   |  |
|          | <input checked="" type="radio"/> Recurring <input type="text" value="weekly"/> @ <input type="text" value="01:00"/> |  |
|          | <input type="radio"/> Daily every <input type="text"/> seconds from <input type="text"/> to <input type="text"/>    |  |

The URL is: [http://your\\_server\[:port\]/otr/otr\\_db\\_host\\_pdf.cfm](http://your_server[:port]/otr/otr_db_host_pdf.cfm)

|          |  |
|----------|--|
| Full URL | <input type="text" value="http://your_server[:port]/otr/otr_db_host_pdf.cfm"/> |
|----------|--|

Set the Request Timeout to **60** sec and click the Submit button.

|                                       |                                 |         |
|---------------------------------------|---------------------------------|---------|
| Request Timeout                       | <input type="text" value="60"/> | seconds |
| <input type="button" value="Submit"/> |                                 |         |

Your job is now defined. You could test the job but since we don't have any statistical data collected yet it won't generate any PDF.

## Test your Setup.

As long as you're not testing your setup on a Friday you could now create your first Manual Snapshot. Required is of course that the relationship between Customer/Instance and Tablespace is done so the snapshot will have something to collect.

In the Web GUI of OTR select the menu option New Snapshot.

The screenshot shows the OTR Web GUI. At the top, there is a navigation bar with links: Customers, DB Instances, DB Hosts, Tablespaces, TBS Trend, **New Snapshot**, Del Snapshot, and Enterprise Manager. A tooltip for 'New Snapshot' states: 'This will generate a new snapshot with today's date, containing Tablespace and NFS Storage usage.' The main header reads 'My Company Inc. - Tablespace Report'. The form contains the following fields and options:

- Report Date: 18.11.2011 (dropdown)
- Customer: ALL (dropdown)
- Include: ☒ Development DB's ☒ Internal DB's (GridControl & SnapManager for Oracle)
- Run Report (button)

A 'LOADING' spinner is visible below the 'Run Report' button. On the right side, there is a 'Current Status' section with a table:

| SID    | Status |
|--------|--------|
| CFIDBT | TBS    |

Below the status table, it says 'Updated every 5 Minutes For more Info... MouseOver the Status column.' and a link 'All | Trouble'. At the bottom, there is a footer with copyright information: 'Copyright © 2010 - 2011 NETWORK 23 Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT Open BlueDragon Administrator'.

Note: If no snapshots has been made you can't generate any usage reports!!!

If at least 1 Snapshot exists it's possible to run a Report.

First select the Report Date and for which Customer. It can be for All customers or for 1 specific customer. Also select to include (or not) Development DB's and/or Internal DB's like the Enterprise Manager or some other internal type of DB (SMO, RMAN etc.)

## My Company Inc. - Oracle Tablespace Report

Report Date: 25.11.2011

Customer: My Company Inc.

Include: ☒ Development DB's ☒ Internal DB's (GridControl & SnapManager for Oracle)

[Run Report](#)

**Current Status**

| SID | Status |
|-----|--------|
|     |        |

Updated every 5 Minutes  
For more Info...  
MouseOver  
the Status column.

[All](#) | [Trouble](#)

Copyright © 2010 - 2011 NETWORK 23  
Powered By: OpenBD Version: 2,1 - OpenBD Build: 2011-11-22 01:00:56 GMT  
Open BlueDragon Administrator

The report output will contain info about Instance, Tablespace name, Used MB, Free MB, Can Grow To MB, Max Free MB, % Used and % Real used which reflects the Can grow to space.

Back to Main Customers DB Instances DB Hosts Tablespaces TBS Trend New Snapshot Del Snapshot Enterprise Manager

  
Last Snapshot: Nov 25, 2011

### My Company Inc. - Oracle Tablespace Reports

25.11.2011 - My Company Inc.

AMCCRI AMCCRP AMDEPOTP CFIDBI CFIDBP CFIDBT HYPCCRP ICBCCRI ICBCCRP LEGCCRT OGC2ICB OTMSCCRT OTMSCCRX OTMSICBI OTMSICBP OTMSICNI OTMSICNX RECOMBCI RECOMBCP SMO SOL XENTISI XENTISP

customer\_report.xls as PDF

| DB: AMCCRI                |           | Client App(s): Amis CCR INT    |                  |               |        |             |
|---------------------------|-----------|--------------------------------|------------------|---------------|--------|-------------|
| TABLESPACE                | Used (MB) | Free (MB)                      | Can Grow To (MB) | Max Free (MB) | % Used | % Real Used |
| TSDATLARGE                | 8,100     | 2,668.06                       | 12,000           | 6,568.06      | 67 %   | 45 %        |
| TSDATNORM                 | 1,000     | 398.56                         | 2,000            | 1,398.56      | 60 %   | 30 %        |
| TSDATSN                   | 500       | 373.44                         | 2,000            | 1,873.44      | 25 %   | 6 %         |
| TSIDX                     | 8,900     | 3,444.31                       | 10,000           | 4,544.31      | 61 %   | 55 %        |
| Sub Total (MB):           |           | <b>18,500</b>                  | <b>26,000</b>    |               |        | Top         |
| NFS Server: <b>kronos</b> |           | Mount: /u01/oradata/amccri_db  | 28,672           | 7,356         | 74 %   |             |
| NFS Server: <b>kronos</b> |           | Mount: /u02/oradata/amccri_log | 6,144            | 4,621         | 25 %   |             |
|                           |           |                                | <b>34,816</b>    | <b>11,977</b> |        |             |

| DB: AMCCRP      |           | Client App(s): Amis CCR PROD |                  |               |        |             |
|-----------------|-----------|------------------------------|------------------|---------------|--------|-------------|
| TABLESPACE      | Used (MB) | Free (MB)                    | Can Grow To (MB) | Max Free (MB) | % Used | % Real Used |
| TSDATLARGE      | 8,100     | 1,916.00                     | 12,000           | 5,816.00      | 76 %   | 52 %        |
| TSDATNORM       | 1,000     | 377.31                       | 5,000            | 4,377.31      | 62 %   | 12 %        |
| TSDATSN         | 500       | 368.44                       | 2,000            | 1,868.44      | 26 %   | 7 %         |
| TSIDX           | 8,900     | 1,317.00                     | 10,000           | 2,417.00      | 85 %   | 76 %        |
| Sub Total (MB): |           | <b>18,500</b>                | <b>29,000</b>    |               |        | Top         |

The report also contains NFS space usage in MB. How much space a NFS Volume has and how much free space is still available in MB. It also displays which NFS Server or Storage system is used.

One special feature for NFS volumes created with NetApp's SnapManager for Oracle. The names of these volumes are usually not following your regular volume definition. If such a volume is used, it will be displayed with a dark red color. With a mouse-over on such a Mount name the real name of the volume will be displayed.

For example:

|  |                                |           |               |      |
|--|--------------------------------|-----------|---------------|------|
| NFS Server: <b>kronos</b>  | Mount: /u01/oradata/amccri_db  | 28,672    | 7,356         | 74 % |
| NFS Server: <b>kronos</b>  | Mount: /u02/oradata/amccri_log | 6,144     | 4,621         | 25 % |
| kronos:/vol/SnapManager_20100923141903532_vol_amccrp_db/qamccrp_db |                                | <b>16</b> | <b>11,977</b> |      |

For Instances using ASM the report will contain the Disk Groups used by the Instance and show Used, Free and Total MB as well as Used in %

This concludes the description of the basic Setup and usage of OTR.

Feel free to add functionality to OTR. Get the source code from Google code and join in on the development.

## Installing from SVN

Installing the OTR from Subversion

<http://code.google.com/p/oracle-tablespace-report/>

## Introduction

Development for the OTR Application is continuously underway, but if you want to try it out now (and we'd love it if you would!), you can grab the code from Subversion (SVN) and run it on your instance of OpenBD.

**NOTE:** Do NOT run bleeding edge code on a production or otherwise important instance of OpenBD! There is currently no security in place on the OTR, and any bugs that exist in the bleeding edge code could cause problems with your Oracle Databases.

## SVN Clients

If you don't have an SVN client, you'll need to get one. If you're a developer and you're already using [Eclipse](#), probably the simplest one to grab is [Subclipse](#). It will work on any platform (Linux, Mac, or Windows).

If you aren't on Eclipse, native clients are available for any platform, or you can run SVN from a terminal or DOS window.

One client that seems to be nice that is available for Linux, Mac, and Windows is [SyncroSVN](#). I haven't personally used it but a few Mac bloggers swear by it.

For Windows, the most popular client is [TortoiseSVN](#), which integrates directly into Windows file explorer.

For Mac, [Versions](#) looks very nice, but again, I haven't personally tried it. [svnX](#) is another popular client for Mac.

## Getting the Code from SVN

Once you have an SVN client installed, do a checkout from the SVN repository for this project. Details are available on the [checkout page](#). You'll want to grab the trunk.

## Where to Put the OTR

The OTR code resides in the webapps directory at the top of your OpenBD instance.

The easiest way to configure things is to have your local directory for the SVN project be the root of the instance of OpenBD on which you want to try out the OTR.

## Reporting Bugs

Since development is still happening rapidly at this point, expect to see a few bugs here and there, and also expect to be pulling the code down regularly to get the latest version of things.

If you do see a bug that's keeping you from using the admin console or think it might be something we aren't aware of, please report it on the [issues page](#).

## Requesting Features

If you have ideas for features you'd like to see in the admin console, no matter how big or small, we'd love to hear them! Please create an issue on the [issues page](#) and use the label Type-Enhancement

## OTR Philosophy

The group of people behind OTR (so far the group is only me and my dual personality ☺, hopefully this group will increase in the near future and preferably not the way where I have to incorporate a triple personality!), believe strongly in the ideals of the Open Source movement. I believe that software that is made available under an open source model, should always remain under that model, and never be abused or incorporated into products that would result in the harm of the original project.

To that end, I believe that any changes that anyone makes to the core product should be contributed back to the community, for the benefit of the community as a whole. This is what the GPL license frames.

- How much does OTR cost?  
\$0.00 dollars/euros/francs/pounds/yen. Zero. There is no cost for you to download, use, develop and extend OTR, deploy and ship your application.
- Can I sell OTR?  
No. You cannot sell OTR as it is not yours to sell. You may sell installation or consultancy services for OTR. You're also allowed to sell added functions to OTR, although we would prefer you would consider supporting the Open Source Project and contributing your added functionality.
- Okay, where's the catch? What features are you not shipping?  
There is no catch. All functionality in OTR is available to you the current release, or as and when they are developed. We believe in the power of CFML language and what it as to offer to Oracle® and we want to get it into the hands of as many DBA's and/or DB Engineers as possible.

## Trademarks

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OTR is Copyright NETWORK 23.

## Credits

OTR Web interface is using Drew Wilson's excellent TipTip jQuery Plugin

<http://code.drewwilson.com/entry/tiptip-jquery-plugin>

OTR Web interface is also using Christian Bach's excellent **tablesorter** jQuery Plugin

<http://tablesorter.com/docs/>

## Disclaimer / Warranties

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