

Hyperion Focus 16

Next Generation Outline Extractor Tips and Tricks

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Founder and President
Applied OLAP, Inc

About the Speaker

- Oracle ACE Director
- Visionary and Development Lead - Dodeca
- Essbase Developer for 21 years
- Patent Holder
- Charter Microsoft Excel MVP
- Essbase and Excel Author
- ODTUG Board of Directors
- Blogger
- Former CPA
- Pilot, Rock Climber, Bike Commuter
- Usually a nice guy, but mostly...

About the Speaker



Agenda

- Outline Extractor History
- The Next Generation Outline Extractor
 - Design goals
 - Feature review
 - Screenshots / Demo
- Tips and Tricks



Outline Extractor History



Outline Extractor History

- Created by Olap Underground
 - Written by ‘underground’ Oracle employees
 - Written in Visual Basic
 - Version 6 only
- Development taken over by Applied OLAP
 - Support infrastructure
 - Professional development environment
- Popular
 - Tens of thousands of downloads
- Stable
 - Few changes over the years

The Next Generation Outline Extractor

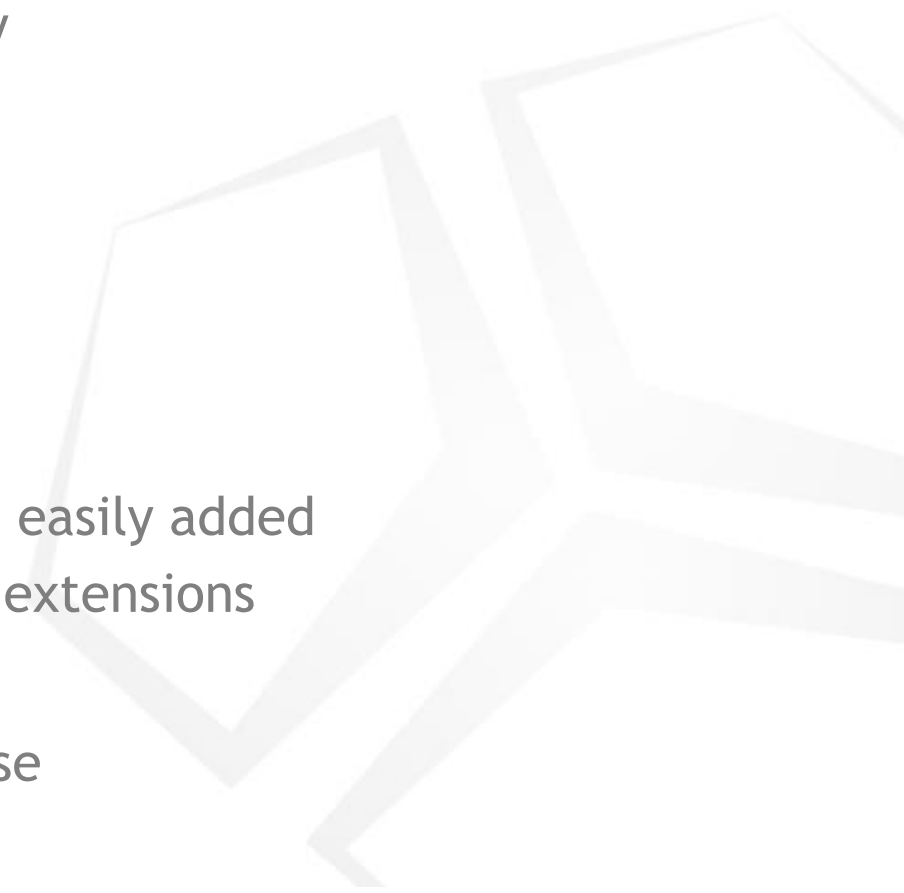


Why a Next Generation Outline Extractor?

- Three main reasons
 - Original Extractor = VB = Hard to support
 - Required customers to install 32-bit runtime client
 - Essbase 11.1.2.1 added new PATH requirement
 - Essbase 11.1.2.4 - no more VB API
 - Windows 32-bit only
 - Doesn't run on Solaris / AIX / Linux
 - Required separate machine to run
 - New functionality desired by some users
 - Ex. ASO Solve Order
- What about MaxL Outline Extractor?
 - Supported only in the latest versions
 - Not a readily usable format

The Next Generation Outline Extractor

- Design Goals
 - Design for long term
 - Extensible
 - Use Oracle-strategic technology
 - Design for supportability
 - Wider adoption
 - Wider platform choices
 - Less support calls
 - Design for extensibility
 - Enables new functionality to be easily added
 - Allows users to write their own extensions
 - Write in *Java!*
 - Oracle's strategic API for Essbase
 - Multi-platform



The Next Generation Outline Extractor

- **Functionality**
 - Export one or more specified dimensions (or all dimensions)
 - Ex Product; Year
- **Filter members**
 - Uses calc style member specs
 - Semicolon-delimited list of specs - one for each specified dimension in dimension order
 - Include filter - specifies member set to include
 - Ex. @ICHILDREN(Product);@IDESCENDANTS(Year)
 - Exclude filter - specifies member set to exclude
 - Applied after Include Filter
 - Ex. @MATCH(Year, "J*")

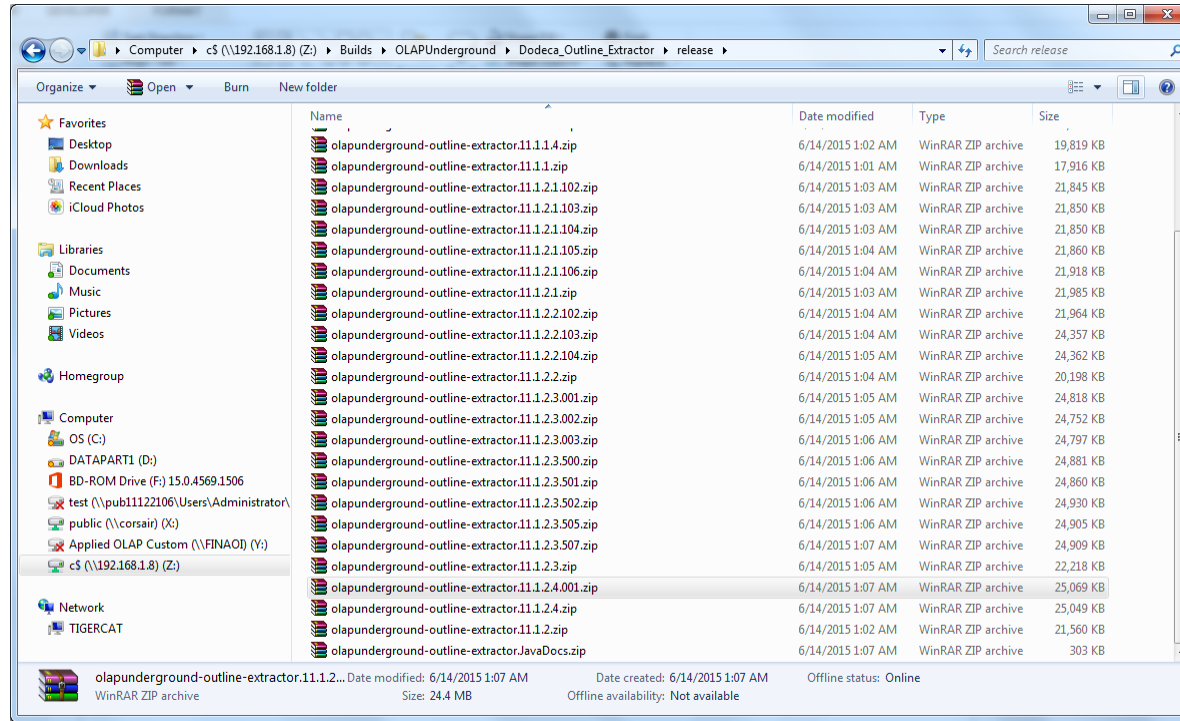
The Next Generation Outline Extractor

- Functionality
 - Input
 - Essbase Outline API - Java
 - MaxL XML
 - Output
 - Writers include:
 - Fast Load file
 - Load file
 - Gen format
 - Lev format
 - Documentation
 - Hyperion Planning 11 format
 - Relational
 - Write multiple outputs in a single pass
 - *Optionally* implement your own writer in Java



The Next Generation Outline Extractor

- Essbase Version Support
 - 41 different versions
 - 9.3.1 through 11.1.2.4.011



The Next Generation Outline Extractor

- Two separate components
 - Properties file
 - Configures the extractor
 - Designed for command line/batch
 - GUI
 - Wizard format
 - Creates the property file
 - Optionally executes the property file
- Delivered with Client API
 - Includes embedded/direct mode jars
 - APS server is optional
 - Different package for each version of Essbase

Properties file

```
## Default URL to use for APS connections
#aps.url=http://localhost:13080/aps/JAPI
aps.url=embedded

## Essbase server name for the connection
essbase.server=

## Essbase username
essbase.username=

## Essbase password
essbase.password=

## Credentials encrypted
credentials.encrypted=false

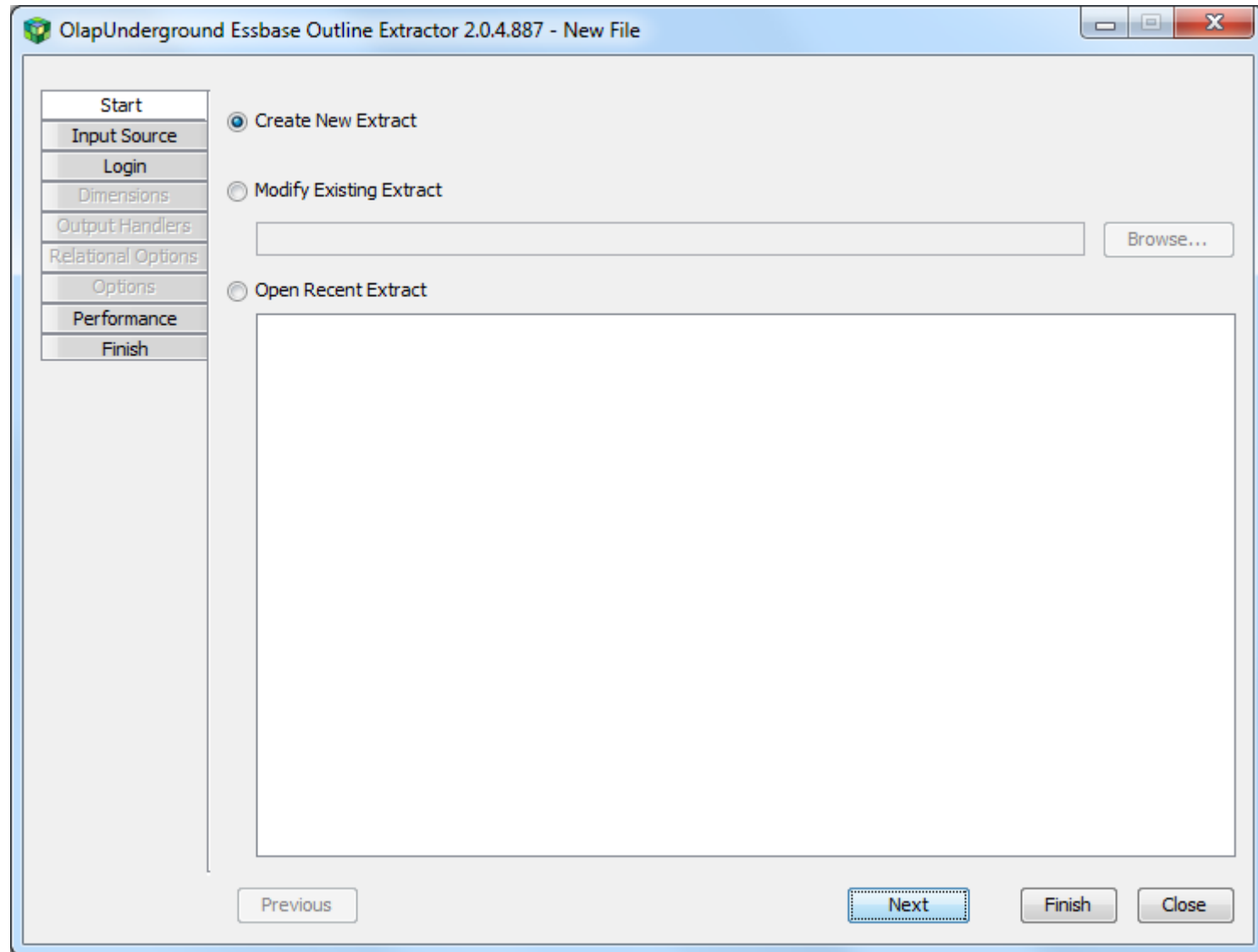
## Essbase application name
essbase.application=

## Essbase cube name
essbase.cube=

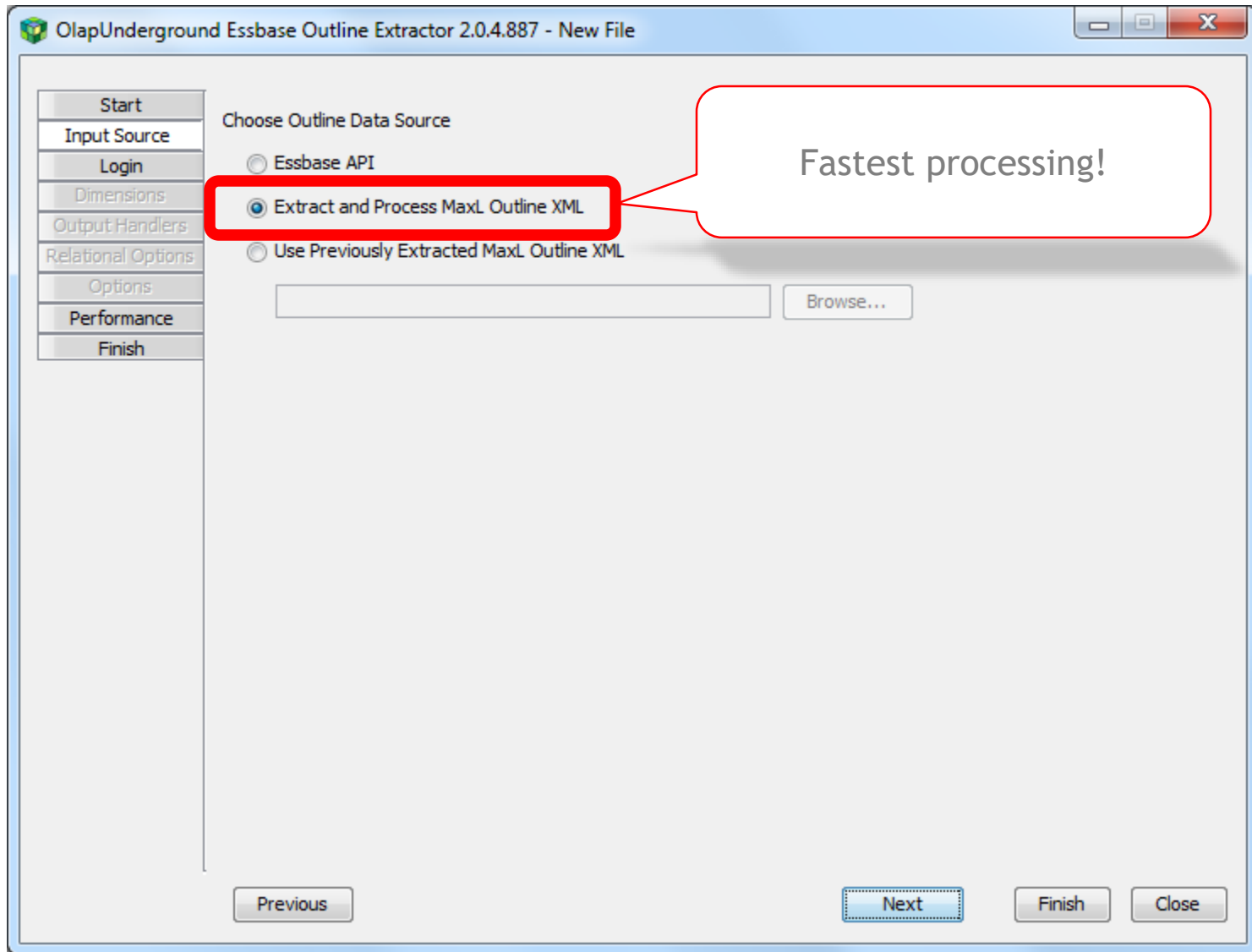
## Specify the dimension(s) to be exported.  Separate dimension names with semicolons or leave blank to process all
## dimensions.
##export.dimensions=Market;Product;Year
export.dimensions=

## Specify the member set(s) to include in the export using Essbase calc syntax.  The member spec may contain multiple
## specifications using comma delimiters in which case the members to be included will be evaluated for all dimensions.
## Alternatively, multiple member sets may be specified using a semicolon to separate the sets.  When separate sets are
## specified, the sets will be applied to the members specified in the export.dimensions based on the position of the
## member set.
##
## For example, to filter the export to include the children of Product and the descendants
## of Year, specify @ICHILDREN(Product);@IDESCENDANTS(Year) as the export.member.filter.spec.
##export.member.filter.include.spec=@IDESC(Market);@IDESC(Product);@LEVMBRS(Year, 0)
export.member.filter.include.spec=
```

GUI - Start



GUI - Input Source



Next Generation Outline Extractor Demos

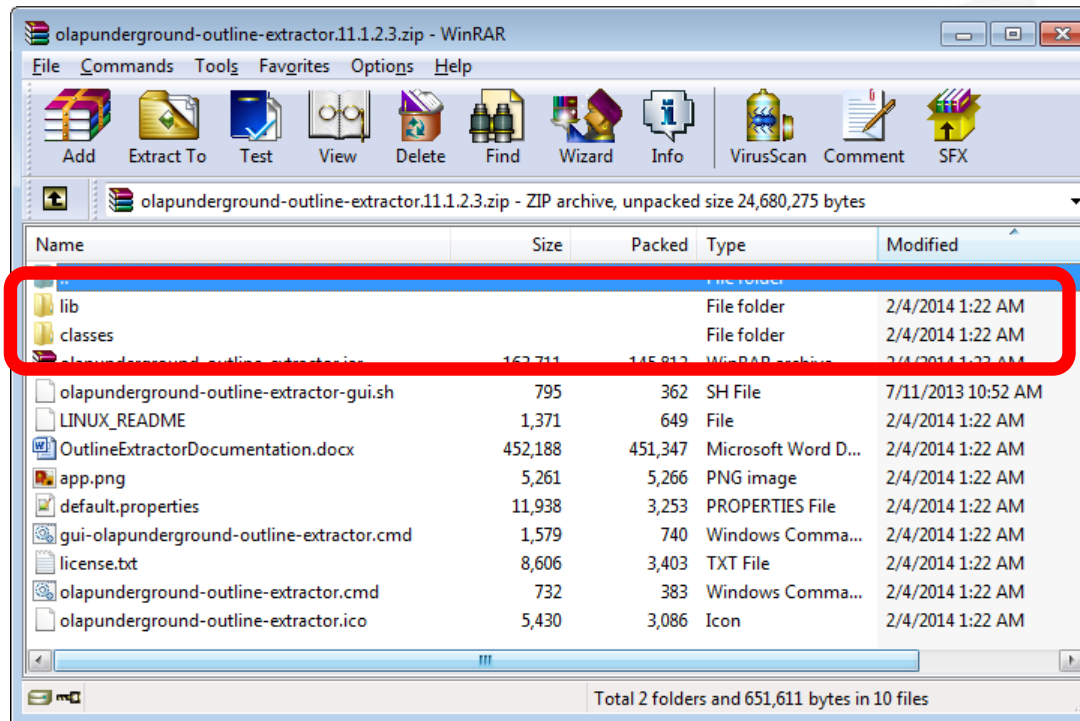


Tips and Tricks



Tips and Tricks

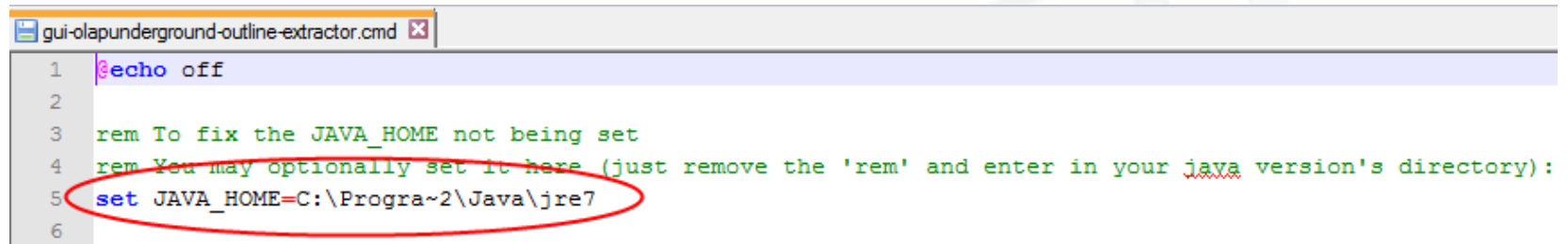
- Setup / Installation
 - Unzip the entire contents of the download zip to a directory
 - Contains libraries and configuration files in a required path structure



Tips and Tricks

- Setup / Installation

- You must have a Java JRE (or JDK) installed
- You must have a JAVA_HOME environment variable or
You must modify the cmd file to have a temporary
JAVA_HOME



```
gui-olapunderground-outline-extractor.cmd
1 echo off
2
3 rem To fix the JAVA_HOME not being set
4 rem You may optionally set it here (just remove the 'rem' and enter in your java version's directory):
5 set JAVA_HOME=C:\Progra~2\Java\jre7
6
```

- Get the extractor version for your exact version of Essbase
 - Or the *next previous version* if no exact version available
 - Outline Extractor versions tied to APS versions

Tips and Tricks

- Performance
 - Use the MaxL Outline XML for input
 - Magnitudes faster
- Otherwise
 - Balancing act between speed and available ports
 - Due to Essbase Java API implementation
 - Scheduled to change/improve in 11.1.2.4
 - Use the tuning parameters
 - Member Query Delay
 - Biggest performance implications
 - Has impact on port usage
 - Port Exhaustion Wait Time
 - Amount of time program sleeps if port issues are encountered
 - Allows ports to *reset*
 - Adds Member Query Delay Increment to Member Query Delay

Tips and Tricks

- Performance

- Essbase Java API

- Maximize the number of available ports

- Windows ships with limited numbers of ports available

- XP - ~4,000
- Win7 - ~16,000

- Configurable via registry changes

- XP

- MaxUserPort - set to 65,534 (default = 5,000)
- TcpTimedWaitDelay - set to 30 (default = 240)

<http://timtows-hyperion-blog.blogspot.com/2007/12/essbase-api-error-fix-geeky.html>

- Win7

- » Command line to set ports

`netsh int ipv4 set dynamic tcp start=5000 num=60536`

- » TcpTimedWaitDelay - set to 30 (default = 240)

<http://timtows-hyperion-blog.blogspot.com/2011/05/essbase-api-ephemeral-port.html>

Tips and Tricks

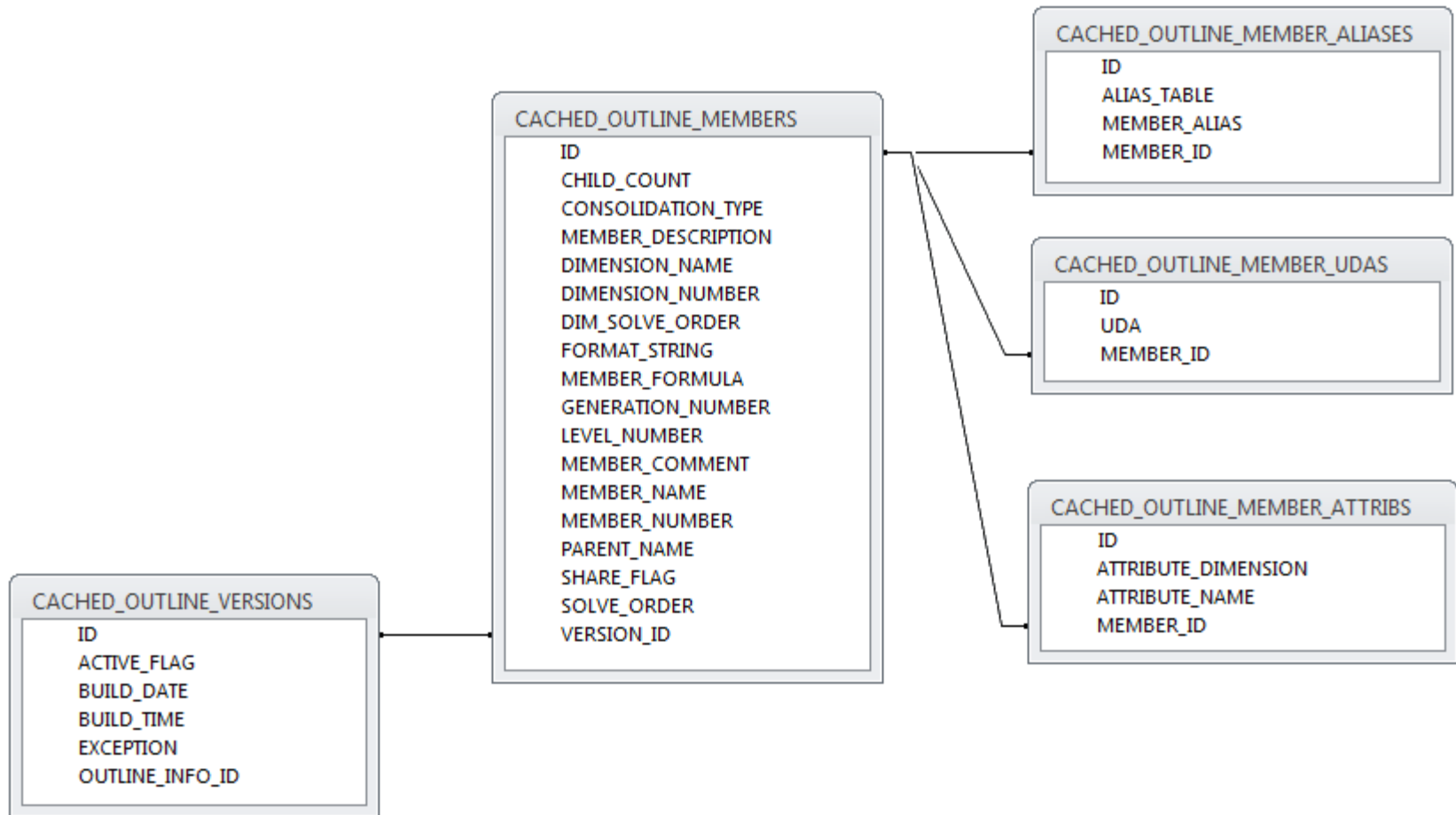
- Performance
 - Place your client and your Essbase server close to one another
 - Don't have you client on the East Coast and your Essbase server on the West Coast
 - Many round-trips to get member information
 - Applies to both API and MaxL extracts
 - MaxL extracts still calls the API for some things
 - If you want to load the formulas into Excel, use the *Flatten* option
 - Removes line wraps, etc

Tips and Tricks

- Relational Extract
 - You must download the JDBC drivers for the target database from the database vendor website
 - Normally free of charge
 - Place downloaded drivers in the lib subdirectory
 - Obtain the necessary connection string from the vendor website
 - Obtain the Hibernate dialect from the Hibernate website or contact Applied OLAP support
 - **You must add the JDBC driver to the classpath**
 - **META-INF/MANIFEST.MF in [olapunderground-outline-extractor.jar](#)**
 - We recommend WinRAR for this operation
 - Microsoft SQL Server driver is shipped with the product
 - The database must already exist
 - The user credentials require the ability to create tables

Tips and Tricks

- Relational Extract
 - Database Schema



Tips and Tricks

- Batch Operations
 - Make a copy of `classes\extractor.properties`
 - Rename it something relevant to your extract
 - Leave the new properties file in the classes subdirectory
 - This file has all properties documented
 - Leave values for unused properties blank
 - Make a copy of `olapunderground-outline-extractor.cmd`
 - Rename it something relevant to your extract
 - Use the `-properties` flag to indicate the properties file

```
:runGui
%_JEXEC% -jar olapunderground-outline-extractor.jar -properties Sample-Year.properties
```

- Run it to automatically encrypt user credentials
 - If the encrypted flag is false
 - Set the encrypted flag to true after encryption is complete

Tips and Tricks

- Troubleshooting
 - Turn on DEBUG or TRACE logging
 - Produces detailed logs
- Support
 - Free support
 - Contact support@appliedolap.com for assistance

Q & A



Next Generation Outline Extractor Tips and Tricks

Tim Tow, Oracle ACE Director
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Thank you



FDME toolbox

