

## Course: Advanced Essbase

Duration	Cost	Prerequisites
4 Days	£2,700	Planning Bootcamp, Essbase Fundamentals

## Course Description

**This course is designed to add to the toolset of Planning or Essbase users who already have at least a fundamental understanding of Essbase.**

You will go deep into Essbase and through interactive discussions, demonstrations, and hands-on exercises, will learn methods to improve design decisions, ease the maintenance workload, and add value to your current and future Essbase projects, and strengthen your understanding and ability to maintain your Planning applications.

Discussion areas include choosing between Block and Aggregate storage options, member and dimensional storage options, advanced calculation development and testing techniques, ASO development options, MDX, MaxL, backup and recovery, tuning for optimal performance across all aspects of the application, configuration strategies, and security.

## Course Content

- Important modeling decisions – BSO vs ASO, storage properties, time series options, Attribute dimensions/Shared/UDAs
- Dimension building best practices – dimension build options for Essbase using load rules, exploration of other build options, incremental vs complete rebuild approaches, 24 x 7 cubes
- Loading data – loading data with load rules, optimizing loads, ASO load strategies
- Smart View – gotchas and the things you need to know to support it in your organization
- BSO architecture and calculations – Dense/Sparse and why you need to know it, advanced calculations including, FIXs, Ifs, cross dimensional operators, range functions, XREF & XWRITE, export calcs, counting calculations, and more.
- Partitioning – replicated and transparent partitions. Other means of pushing data/sharing data across cubes
- Server settings – Essbase.cfg, Server.properties, diagnostic logs
- Tuning – outlines, loads, BSO calculations, ASO aggregations, reports, process
- Security – best practices. Differences between Essbase and Planning. Filters, roles for Essbase and Planning
- MaxL – automating the build, load and aggregation process. Explore other useful MaxL commands.
- ASO architecture and aggregations
- MDX for ASO – solving similar problems as presented in BSO using MDX formulas.
- ASO allocations – write back calculations using ASO allocations
- MDX for report writing out of Essbase

## Course Outcomes

- A good understanding of the architecture of both BSO and ASO cubes.
- Best practice approaches for modeling Essbase and Planning environments.
- Ability to write calculation scripts for BSO and MDX formulas for ASO.
- A good understanding of System Administration topics including security, metadata management, partitioning, backup/recovery, data load options, automation, integration options between cubes, and basic tuning and configuration options.

## Advanced Essbase - Agenda

### Day One

- Choosing between BSO and ASO
- Property choices – stored or dynamic, labels and implied shares
- Time decisions
- Scenario scenarios
- Formulas
- Duplicate member names
- ASO modeling vs BSO
- Exploration of different models: Financial, Planning, HR, Daily Shipments
- Smart View Q&A – the most important things you need to know about Smart View and supporting it in the organisation

### Dimension Building Best Practices

- Review of the mechanics of dimension builds
- Strategies for outline maintenance
- Manual maintenance, TEMP databases, incremental and rebuild approaches
- Controlling builds – an exploration of the most important settings
- Exploring load rule parsing – field manipulations and what the load rules can and cannot do
- Discussion of DRM, EPMA, outlineload utility and other options available for outline maintenance
- Load strategies – high or low, no buckets
- Load strategies

## Our training

All of our courses are taught by our certified Oracle Consultants, and have been developed by the leading Oracle Hyperion training providers, 123OLAP. We share real-life examples of implementations and all training manuals have been developed for later use as comprehensive reference manuals.

### Loading Data

- Distilling the mechanics of data loads
- The most important properties of data loads
- SQL interface or raw data dumps
- Architecting for optimal loads
- Automating Smart View spreadsheets with VBA
- ASO load considerations

## Day Two: Architecture & Calculation

### BSO Architecture

- Architecture – choosing the best Dense/Sparse settings for BSO databases
- Essbase data file types – piecing it all together
- Backup and recovery
- Understanding the statistics and performance implications of those settings
- Restructuring and database fragmentation
- Backup and recovery

### Applied Calculations

- Calc All – understanding a full consolidation, effects of calculations on Dense and Sparse
- FIX...ENDFIX
- IF..ENDIF
- The cross-dimensional operator ->
- Ratio calculations – an exploration of relationship functions

## Agenda Continued...

- Working with the RANGE functions
- Statistical function alternatives
- Export
- Allocation methods
- Consolidating rates
- Dynamic calculations
- Stored vs. Dynamic calculation
- Dynamic calculation ordering
- Guidelines for setting dynamic calculations
- Understanding the multi-dimensional nature of calculations
- Focused calculations
- Member set functions explored
- Block creation and allocations
- Creative calc solutions
- Currency conversion solutions

## Day Three: Deployment

### Relating Different Databases

- Managing test and production environments
- XREF, XWRITE, export, reporting and other solutions
- Partitioning – an exploration of unique solutions with partitioning
- Cubes on the fly; replication security
- Relating databases with different dimensionality

### Configuration Setting and Optimisation

- Essbase.cfg, server properties, diagnostic logging
- Other important server and database settings
- Setting up an optimization environment – tips and automation techniques
- Load tuning, outline tuning, BSO calculation tuning, ASO aggregations tuning, process tuning, report tuning
- Cache settings for optimal performance

### Security Best Practices

- Security organizational strategies
- Filters and how Essbase security and Planning security is different

### MaxL

- Setting up a nightly job to build, load, and aggregate data
- Other uses of MaxL for automation

## Day Four: ASO Advanced & MDX

### ASO Fundamentals

- Understanding how ASO is different than BSO
- Converting from BSO to ASO
- Aggregations in ASO

### ASO Aggregations and Modeling

- Aggregation tuning and settings
- Getting around ASO limitations
- Time design
- Balance sheet members

### MDX

- MDX introduction
- Syntax rules and different alternatives
- Advanced common formula requirements:
- YTD/QTD solutions
- Variance analysis
- Relationship based ratios
- Working with ranges of members
- Cross-referencing dimensions
- Recursive functions
- Understanding solve order
- ASO allocations