




Star Finance Command Center POC

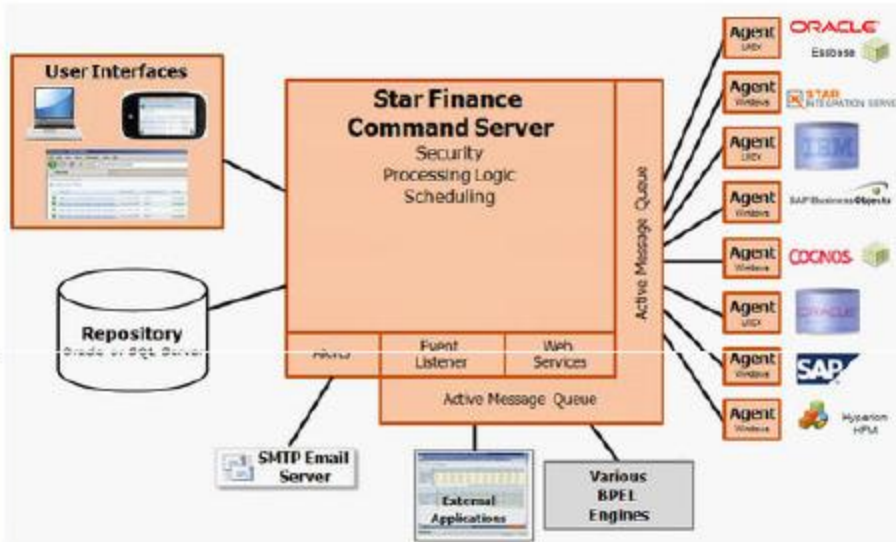
Success Criteria

1. Increase Hyperion Password Security
 - Full password encryption across all files and processes
 - Greater SOX controls
2. Simplify Hyperion Architecture
 - Reduce custom coding by using built-in standard automation tasks
 - Syntax modifications cause issues as applications are added
3. Streamline running / monitoring of daily update and maintenance processes
 - Hyperion Planning, Essbase, HFM, FDM
4. Control Hyperion Access
 - Limit user access to Hyperion tasks for running jobs and updating outline
 - Currently have “all or nothing” Hyperion admin access
5. Version Control
 - Rollback to previous versions
 - Point in time analysis (environment on a specific day or time)
 - Track file changes (calcs, batch, MaxL)
6. Automate Server Maintenance
 - Done manually now on weekends
 - Sometimes interferes with running of system jobs
7. Further Hyperion Development
 - Simplify access to functionality for Hyperion development work
 - Ability to pass parameters between Hyperion and SFCC for automation tasks
8.  Process
 - Eliminate need for keeping open session of Remote Desktop to run
 - Activation of Windows session for Excel

Star Finance Command Center POC

Star Finance Command Center Architecture

There are five software components in the Star Finance Command Center product:



POC Architecture

- Star FCC Server installed on development server (██████████)
- Agents installed on all development servers

- **Star FCC Server.** The Star FCC Server is the central component of the Star FCC environment. It handles all the processing logic, scheduling, Event Listening, and connections to the various Agents, the Star FCC Repository and E-mail servers for alerts.
- **Star FCC Repository.** A RDBMS that holds all system objects, event history, and security information for the Star FCC environment. The Star FCC repository can be on the same or different machine than the Star FCC Server.
- **Star FCC Agents.** Agents are installed on every machine (Computing Resource) where tasks such as update scripts are to be run.
- **Star FCC UI.** The Command Center UI is the main interface for users and administrators of the Star FCC environment. The Windows version provides full design, administration and monitoring features. The browser version provides the ability to run and monitor processes.
- **Active Message Queue.** The Active Message Queue handles all communication between all other components. This is a key component in a Star FCC Server High Availability configuration that handles Star FCC Server failover.

The Finance Command Center also provides integration with SMTP servers to provide email alert integration and Event Based Processing of automation requests.

Increase Hyperion Password Security (Full password encryption and SOX controls)

Current

- Administrator password stored in multiple locations
- Passwords are not encrypted

```

REM *****
REM * File Name: SetEnvironment.cmd
REM * Created By:
REM * Created Date: November 4, 2008
REM * Last Updated: November 17, 2008
REM *
REM * Sets all of the DOS Environment variables for
REM * PandL Essbase Application and databases.
REM *
REM *****
REM ***** PARAMOUNT ULTIMATE PRODUCTION ENVIRONMENT *****
SET HypSrv=
SET HypUID=
SET HypPWD=
SET HypApp=
SET HypDB1=
SET HypDB2=
SET HypDB3=
REM Using drive letter conversion
SET HypPathHomeDir=D:\Prod_Process
SET HypPathLog=%HypPathHomeDir%\BACKUPS\LOGS
SET HypPathBat=%HypPathHomeDir%\BACKUPS\DATA
SET HypPathFile=%HypPathHomeDir%\BACKUPS\FILES
SET HypPathBat=%HypPathHomeDir%\BATCH\BATFILES
SET HypPathMaxL=%HypPathHomeDir%\BATCH\MAXL
SET HypPathMSH=D:\Hyperion\AnalyticServices\
SET HypPathEsb=D:\Hyperion\AnalyticServices\app
    
```

```

MAXL> login Hyperion_Process
OK/INFO - 1051034 - Logging in user [Hyperion_Process].
OK/INFO - 1051035 - Last login on Tuesday, March 02, 200
OK/INFO - 1241001 - Logged in to Essbase.
    
```

Proposed

Administrator password stored in central repository and encrypted for security. No longer resides in batch or log files.

Benefit

Greater security across applications. No longer expose Hyperion administration password in files, especially for SOX apps (such as [redacted]).

Ecosystem Properties - System Administration

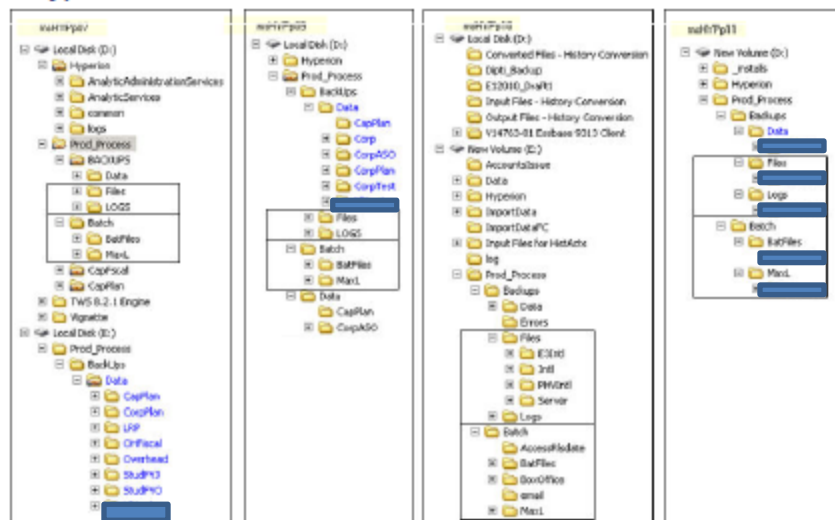
Name	Environments				
System Administration	Dev Prod QA				
Description	Ecosystem used to administer the local system				
Environment Variables	Environments				
Variable	Encrypt	Prompt	Dev	Prod	QA
WINDOWS_SYS_DIR	<input type="checkbox"/>	<input type="checkbox"/>	C:\WINDOWS\system32	C:\WINDOWS\...	C:\WINDOWS\...
AUTOMATION_DIR	<input type="checkbox"/>	<input type="checkbox"/>	D:\Prod_Process\SACC	C:\automation	C:\automation
ESSBASE_DIR	<input type="checkbox"/>	<input type="checkbox"/>	D:\Hyperion\AnalyticServices	C:\Hyperion\ess...	C:\Hyperion\ess...
ESS_SERVER	<input type="checkbox"/>	<input type="checkbox"/>	[redacted]	STAR-TRN1	STAR-TRN1
ESS_USER	<input type="checkbox"/>	<input type="checkbox"/>	[redacted]	admin	admin
ESS_USERPW	<input checked="" type="checkbox"/>	<input type="checkbox"/>	*****	*****	*****

Simplify Hyperion Architecture

Current

- Hyperion batch, MaxL and log files stored locally on each server.
- Processes are duplicated as new apps are added. Errors occur as code is copied and modified across servers.
- Custom coding; no centralized standard processes

Hyperion EPM file locations



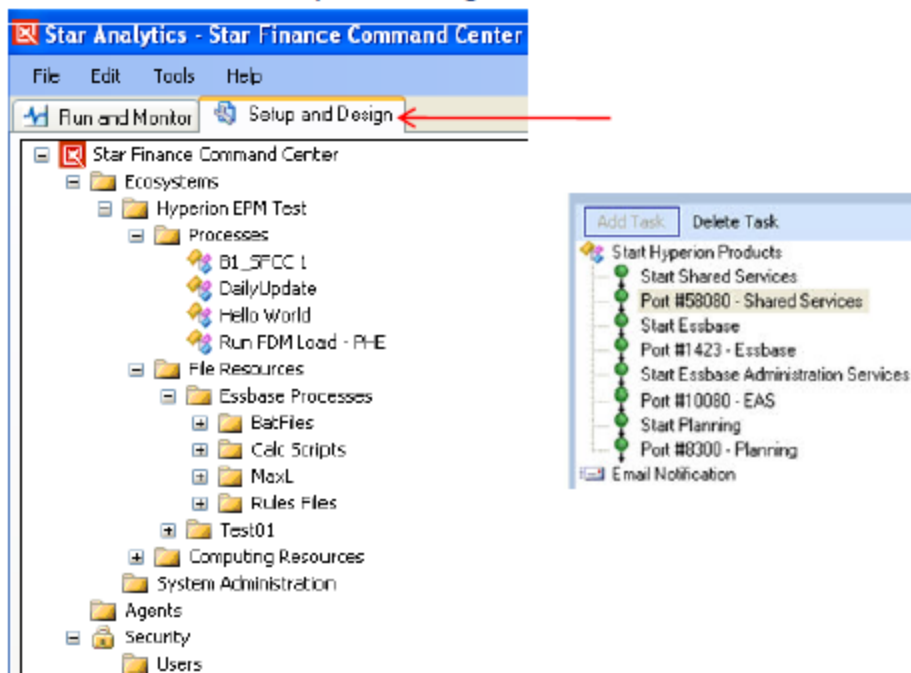
Proposed

“Setup and Design” portion of SFCC centralizes batch, MaxL, Calc scripts, rules files and log files.

Benefit

Improve architecture and simplify all production, DR/QA and dev processes. Consistent location for all files that impact all applications. Reduce confusion of where items are located.

SFCC “Setup and Design” Interface



Streamline running /monitoring of daily update and maintenance processes

Current

- No quick method to view Hyperion jobs status.
- Combination of email alerts, discussions with TCS Production Control (to obtain Maestro logs) and searching for job logs on servers.

Proposed

“Run and Monitor” portion of SFCC centralizes knowledge of jobs run across environments.

Benefit

- Straightforward web access to Hyperion job status across environments. Immediate access to Maestro log files when errors occur (embedded in SFCC messages).
- Control HFM, Planning, Essbase, FDM, Maestro processes across all environments
- FIS to HFM reconciliations can be automated
- Anything run by command line can be automated with SFCC

STAR FINANCE COMMAND CENTER

Logged In: default [Log Off]

The screenshot displays the STAR Finance Command Center interface. The main window is titled 'Process Overview' and contains a table of processes. A red box highlights the 'Run FDM Load - PHE' process in the 'Dev' environment, which has a failed status. A red arrow points from this entry to a 'Task Detail' window on the right. The 'Task Detail' window shows the task 'Run FDM IVEL Process' with a 'Failed' status and a 'General Error' result. The task output shows a connection attempt to a load balance server that failed.

Status	Process	Ecosystem	Environment	Last Started	Last Successful Run
○	B1_SFCC_1	Hyperion EPM Test	QA	-----	-----
●	B1_SFCC_1	Hyperion EPM Test	Dev	07/29/10 02:48:56 PM	07/29/10 02:48:56 PM
○	DailyUpdate	Hyperion EPM Test	QA	-----	-----
○	DailyUpdate	Hyperion EPM Test	Dev	-----	-----
○	Hello_World	Hyperion EPM Test	QA	-----	-----
○	Hello_World	Hyperion EPM Test	Dev	08/03/10 11:11:13 AM	07/29/10 01:32:52 PM
○	Run_FDM_Load - PHE	Hyperion EPM Test	QA	-----	-----
●	Run_FDM_Load - PHE	Hyperion EPM Test	Dev	07/29/10 04:13:46 PM	-----

Task Detail - Run FDM IVEL Process

Status: Failed
Exit Code: -1

Started: 07/29/10 04:13:46 PM
Completed: 07/29/10 04:13:47 PM

Result: General Error

Task Output

```

Attempt Connection To:
Load Balance Server: [redacted]
User ID: [redacted]
User PW: [redacted]
Domain:
Application Name: Corp
Connected to Application Server: [redacted]

Set FDM POW:
Location: PHE_to_Corp
Period: Jan - 2010
Category: E2Corp
POW Node: Global

FDM Current POW Status:
Workflow Status: Validate ERR
Lock Status: Open
    
```

Control Hyperion Access

Current

- Hyperion administrator access is “all or nothing”.
- Cannot limit user access to specific tasks (running specific jobs)

Proposed

Provide user access to SFCC web interface. Users can run and monitor their own jobs as defined by security access.

Benefits

- Users can monitor their application updates at all times.
- Users can start processes if given security access (ie PPI staging calc). Email notification and error log access if process fails.

STAR FINANCE COMMAND CENTER
Logged In: default [Log Off]

Process Overview

Process List Filters

Ecosystem: (All) | Environment: (All) | Process: (All)

Status: Running, Paused, Never Run, Succeeded, Failed, Cancelled

Next Run: Scheduled, Not Scheduled

Status	Process	Ecosystem	Environment
	Start Hyperion Products	System Administration	QA
	Start Hyperion Products	System Administration	Prod
	Start Hyperion Products	System Administration	Dev

STAR FINANCE COMMAND CENTER
Logged In: default [Log Off]

Process Overview

Process List Filters

Ecosystem: Hyperion EPM Test | Environment: (All) | Process: (All)

Status: Running, Paused, Never Run, Succeeded, Failed, Cancelled

Next Run: Scheduled, Not Scheduled

Status	Process	Ecosystem	Environment	Last Started	Last Successful Run	Next Run
	BL_SFCC_1	Hyperion EPM Test	Dev	07/29/10 02:48:56 PM	07/29/10 02:48:56 PM	
	Hello World	Hyperion EPM Test	Dev	08/03/10 11:11:13 AM	08/03/10 11:11:13 AM	

Version Control

Current

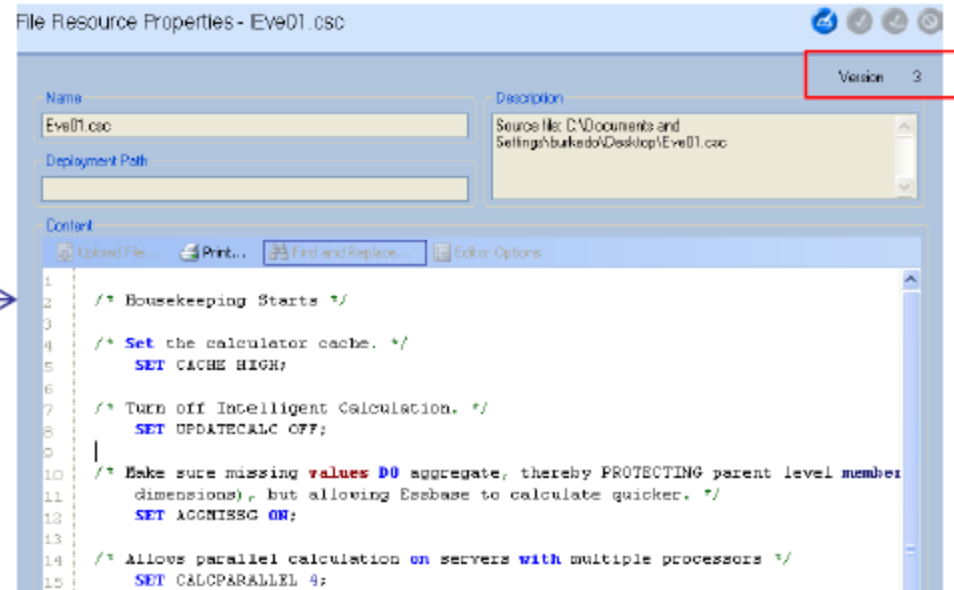
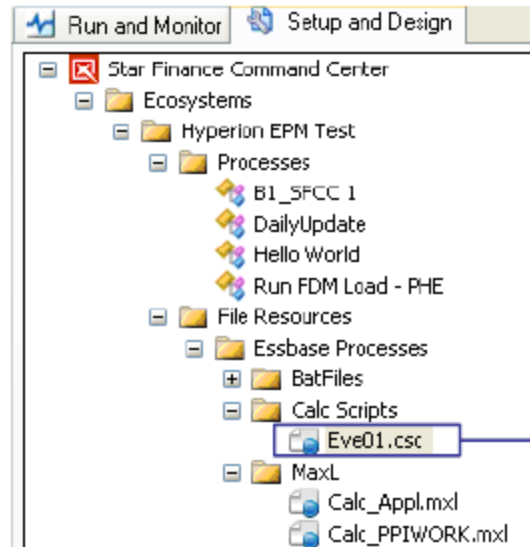
- No ability to see how a file looked at a point in time
- Starting to use SVN for version control but this will not address point in time for certain situations.

Proposed

Maintain all application files within SFCC

Benefits

- SFCC stores all files in a central SQL repository
- Changes to files are stored by login, time, etc in repository. Can look back and see what was run and what changes were made and by whom (point in time).
- Load calc scripts into repository, take away EAS access and have user open calc script in SFCC console according to granular security (READ,WRITE by environment by ecosystem by file).



Automate Server Maintenance

Current

- Done manually on weekends
- Timing of weekend updates sometimes interferes with running of other system jobs

Proposed

Automate server maintenance using SFCC

Benefits

- Configure to stop and start servers and Hyperion services in correct order
- Schedule for more convenient times.
- "Listens" for Hyperion EPM services and notifies if not running

Process Properties - Start Hyperion Products

The screenshot shows the 'Automation Task > Run Program Task Properties' configuration window. On the left is a task tree with 'Start Hyperion Products' expanded, showing sub-tasks like 'Start Shared Services', 'Start Essbase', and 'Start Planning'. The main configuration area includes:

- Name:** Port #58080 - Shared Services
- Computing Resource:** Essbase
- Error Handling:** Timeout (Sec): 0, Retry Attempts on Error: 10, Pause Time Between Attempts (Sec): 2
- On Task Failure:** Pause the process
- Failure Conditions:** A table with columns 'Ignore' and 'Condition'. The 'Timeout' condition is checked under 'Ignore'.
- Exit Code Interpretation:** Do not interpret the exit code
- Output Interpretation:** Fail if pattern is not found in the output (pattern: LISTENING)

Further Hyperion Development

Current

- There are several security issues with Hyperion apps. Notably, inability to prevent users from mistakenly adding a dimension when adding a member to the outline

```

D:\Hyperion\deployments\WebLogic9\servers\HyperionPlanning\webapps\HyperionPlanning\custom
File Edit View Favorites Tools Help
ValidateData.js - Notepad
File Edit Format View Help
//=====
// Set the parameters below to match the SFCC settings
var SFCC_HostName = "mshyp001"; //e.g. "www.staranalytics.com"
var SFCC_PortNumber = 9002;
var ecoSystem = "Hyperion EPM Test";
var environment = "Dev";
//=====
function customLoad() {

```

Proposed

Pass parameter as new Planning member into Planning Util → Update Planning app with new member:

Benefits

- Stop users from performing bad updates when trying to perform good updates.
- Add a quick pop-up window to Java script so user can type in their own variable in lieu of using a page slicer. Use "ValidateData.js"

```

var url = "http://" + SFCC_HostName +
url = url + "?user=" + escape(userName)
alert (url);
//url = ("RequestTest.html");
//openPopupwin(url);

```

Example: use a Planning web form to pass parameters between the form and a text file. Create button on form to start process. Use as foundation to create dimension update process for users through web forms

Page: MKT1 [v] 02730000

Run Hello World

1010000000
WorldWide

BegBalance []

Uses the Planning web page as a slicer variable

Proves parameters are being passed





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Notes

- Proof of concept was successful. Command Center would be very helpful with managing our growing Hyperion architecture. It addresses several current problems with security, user access rights, Maestro licenses on new servers and other items.
- As complexity of architecture increases, the need for a centralized management tool also increases. Intent is to give users ability to manage their own processes when appropriate.
- Decreases our reliance on Maestro and need for Maestro licenses across prod / QA / dev
- Could be installed now or with Hyperion 11x upgrade
- Pricing quote received
- Includes time for installation and development