



*AuditTrack*

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**HESS Corporation**

Corporate Business Systems

**AuditTrack**





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## 1. Application Information

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Year Developed: August 2012

Developer: Nicholas Celiano

Primary Contact: Nicholas Celiano

Web Application Description:

Package Description:

## 2. User Information

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Department: Legal

Main User:

## 3. Developer History

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Nicholas Celiano

Modified SSIS Package

- Now includes daily Invoice Extraction from SAP for E&P.
- Allows package to be run on command for specific date ranges
- Allows package to be for specific "Company Codes"

Created Web Interface

- Allows user to view failure count, success count, and invoice total for all days the package has been executed on.
- Allows the user to choose to run for either E&P or MR&C
- Allows the user to manually run the package for a specific date range
- Allows the user to run the package for particular company codes

## 4. Server Information

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### 4.1 Development

Web Server

Name: NYCSSWBDEV001



## AuditTrack

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Deployment Location: <http://nycsswbdev001/CaseTrack/>

File Location: \\NYCSSWBDEV001\es\Server\CaseTrack

### Database Server

Server Name: WDBSSSQLS08DB1\IN02\_C01

Instance: CaseTrackStage

Authentication:

Login: casetrack

Password: ??????

Job Names:

- ~~Daily Job (Laura's) - CaseTrack SAP Invoice Extract~~
- Daily Job(Nick's) - CaseTrack MR/EP Daily SAP Invoice Extract
- Website Call Job - CaseTrackSSISTest

### SSISFrameWork

Instance: SSISFramework

- PackageID = 116

### SSIS Server

Server Name: WDBSSSQLS08DB1

Authentication: Windows Authentication

Package Location:

- Nick's: MSDB\_WDBSSSQLS08DB1-IN02\_C01 >> SSISTest>> CaseTrackInvoiceExtract
- ~~Laura's: MSDB\_WDBSSSQLS08DB1-IN02\_C01 >> CaseTrack>> CaseTrackInvoiceExtract~~

## 4.2 Production

### Web Server

Name: NYCSSWBPRD001

Location: <http://nycsswbprd001/CaseTrack/>

### Database Server

Name: WDBSSDBSQLP06

Database: CaseTrackStage

Authentication: Windows Authentication

Job Names:

- Daily Job - CaseTrackSSISDaily
- Website Job - CaseTrackSSISWebsite



## SSIS Server

Server Name: WDBSSDBSQLP06

Package Location (Single package for both jobs): MSDB >> CaseTrackSSIS  
>>CaseTrackInvoiceExtract

## 5. Web Interface

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## 5.1 Web Application Screenshot

**CaseTrack Invoice Loads**  
Corporate Applications

MR

EP

Help

Welcome Nicholas Celiano

**M & R Invoice Loads**  
From Date:   
To Date:   
Company Code:

	Date	Success Count	Failure Count	Invoice Count
<input type="button" value="Run Date"/>	December 5, 2012	1	1	
<input type="button" value="Run Date"/>	December 4, 2012	0	2	
<input type="button" value="Run Date"/>	December 3, 2012	8	6	8
<input type="button" value="Run Date"/>	December 2, 2012	2	6	
<input type="button" value="Run Date"/>	December 1, 2012	2	6	
<input type="button" value="Run Date"/>	November 30, 2012	0	8	
<input type="button" value="Run Date"/>	November 29, 2012	0	11	
<input type="button" value="Run Date"/>	November 28, 2012	0	7	
<input type="button" value="Run Date"/>	November 27, 2012	0	7	
<input type="button" value="Run Date"/>	November 26, 2012	0	7	
<input type="button" value="Run Date"/>	November 25, 2012	2	6	
<input type="button" value="Run Date"/>	November 24, 2012	1	6	
<input type="button" value="Run Date"/>	November 23, 2012	1	6	
<input type="button" value="Run Date"/>	November 22, 2012	1	6	
<input type="button" value="Run Date"/>	November 21, 2012	1	6	
<input type="button" value="Run Date"/>	November 20, 2012	0	7	
<input type="button" value="Run Date"/>	November 19, 2012	23	10	2
<input type="button" value="Run Date"/>	November 18, 2012	20	10	2
<input type="button" value="Run Date"/>	November 17, 2012	3	10	
<input type="button" value="Run Date"/>	November 16, 2012	3	10	
<input type="button" value="Run Date"/>	November 15, 2012	2	13	
<input type="button" value="Run Date"/>	November 14, 2012	2	11	

## 5.2 Company Code Control

- The company code must be a 4 digit numeric value.
- No company codes are required to be entered.
- There is no maximum number of company codes that can be entered.
- If no company code is entered the system will execute the package for all company codes associated with that business (MR&C or E&P).
- If a company code is entered the system will run the package only for that particular company code.

## 5.3 Date Control

- The user is required to enter a date.
- The date must be prior to the current days date (date – 1 day).
- The "From Date" must be before the "To Date" or there will be an error.
- The date parameters can be for a range of 0 days (current day only) to a maximum of unlimited anywhere prior to the current days date.

## 5.4 Column Definitions

**Date** – The date that corresponds to the data represented in the adjacent columns

**Success Count** – The amount of times the package successfully attempted to retrieve data and there were either invoices returned, or no data to retrieve



**Failure Count** – The amount of times the package successfully attempted to retrieve data and there were errors returned for the invoices present.

**Invoice Count** – The amount of invoices returned on a successful package run. This number may remain empty if there were no invoices to retrieve for a particular date.

### ***5.5 Error Definitions***

#### **Error 1: Invalid Company Code**

- Occurs if an invalid "Company Code" is entered and the "Submit" button is clicked

#### **Error 2: Data Retrieval Attempt was NOT submitted**

- Occurs when there is a failure with the SSIS package. This will if there are discrepancies with the database or "DataConn.cs" page.

#### **Error 3: No To Date Entered**

- Occurs when no "To Date" is entered and the "Submit" button is clicked

#### **Error 4: No From Date Entered**

- Occurs when no "From Date" is entered and the "Submit" button is clicked

#### **Error 5: No Company Code Entered**

- Occurs if white spaces are entered into the "Company Code" control and the "Submit" button is clicked

### ***5.6 Web Application Style***

Language Used: C#.NET

Framework: .NET 4.0

Style Used: ASP.NET Web Site

Layout Template:

- Corporate Business Systems Template
  - o tfs2010.ihess.com\Corporate\CorporateApps\Corporate Application Templates
  - o Includes Active Directory Web Reference

Technique:

- Content pages built off of a MasterPage
- Classes defined for Errors and Data Connection

### ***5.7 Controls Used***

Date Picker





- jQuery plugin from <http://www.jquery.com>.
- Allows the calendar function to run on server side code
- Allows the user to view more than one month.
- Allows the user to limit dates which a user can select

### Select 2

X 0440	X 0510	X 0590
X 3010	X 1250	

- jQuery plugin from <http://ivaynberg.github.com/select2/>
- Allows users to select predefined values from a drop down list or enter their own values
- Allows users to remove a selection by clicking the "X" button.
- All values are delimited by a "," in the code behind and must be separated and put into an array before being used.



## 6. Database Information

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### 6.1 Table Definitions

**CaseTrackRunDayDiff:**

- Temporarily stores business parameter information to allow the SSIS package to populate its variables.

**CompanyCodes:**

- Temporarily stores a list of the company codes that are to be run against from the Web App interface.

**ConnectionInfo\_BusUnits:**

- Stores the SSIS parameter details for connection to MR&C and E&P

**EPSelectDateRunStatus/SelectDateRunStatus:**

- Stores the Success/Failure/Invoice count for both E&P and MR&C respectively.

**SAPCaseTrackOutputs:**

- Temporarily restores the outputs from SAP before writing it to either the error file or invoice file.

**SAPCaseTrackReturns:**

- Returns message from SAP on data extraction

### 6.2 SAP Connections

**MR&C**

- Production: USER=DATMRDR LANG=EN CLIENT=044 SYSNR=02  
ASHOST=WDBSSAPSA3P01.ihess.com PASSWD=psvW72hm
- Valid Company Codes: 0440, 0455, 0510, 0590, 1250, 3010, 3032, 3041

**E&P**

- Production: USER=RFC\_USER\_RW LANG=EN CLIENT=100 SYSNR=04  
ASHOST=sapep1.ihess.com PASSWD=Blue\$tie9
- Valid Company Codes: 0010

### 6.3 Stored Procedures

**sp\_CheckBAPIErrorResults**

- Counts the amount of Errors returned from SAP which is stored in the SAPCaseTrackReturns table immediately after package execution.
- Errors are denoted with an 'e' in the "TYPE" column

**sp\_CheckBAPIRecCounts**

- Counts the amount of Errors returned from SAP which is stored in the SAPCaseTrackReturns table immediately after package execution.
- Records are denoted with an 'I' in the "TYPE" column

**sp\_CompanyCode\_Add/sp\_CompanyCode\_Clear**

- Either adds a Company Code to the CompanyCodes table, or removes All values from the CompanyCodes table.
- These sp's are executed on the control "Submit" click

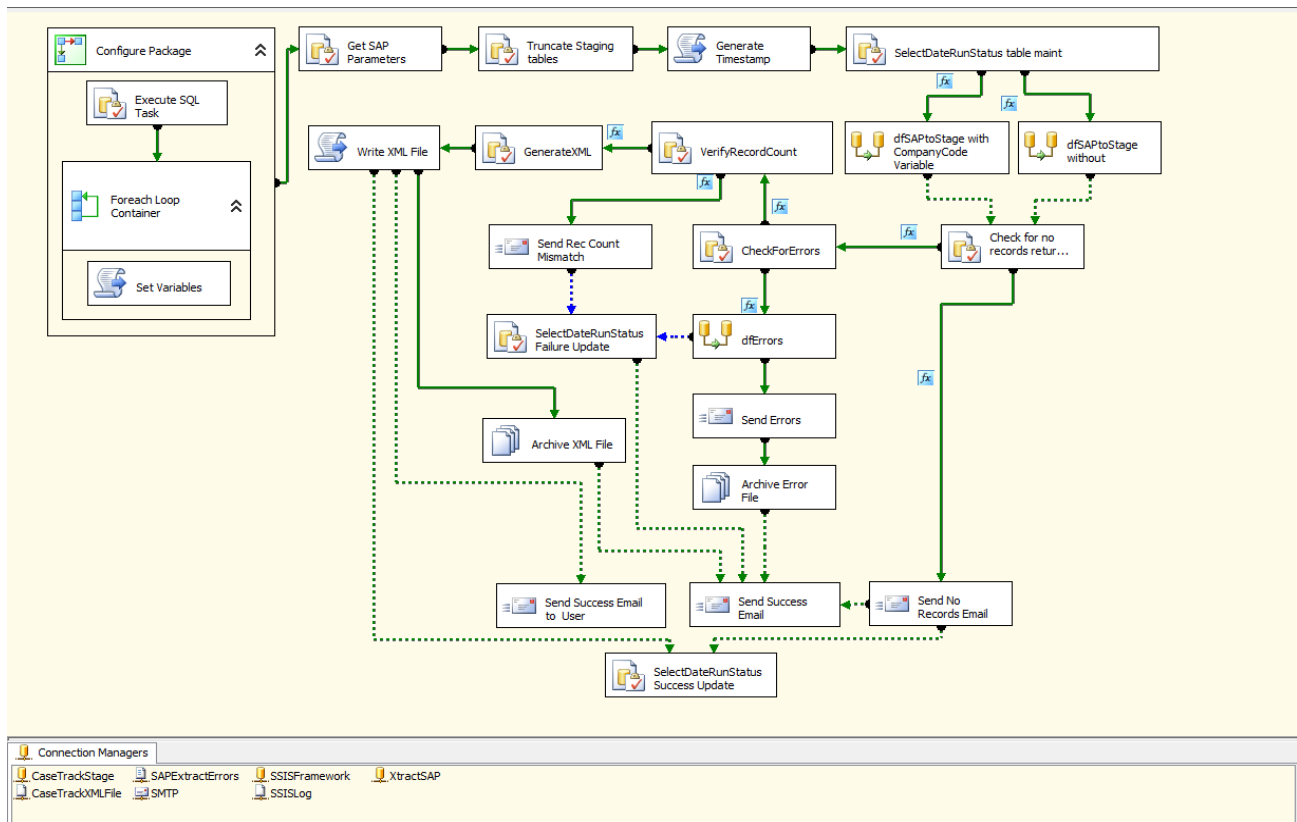
**sp\_EPcheckInvoiceCount/sp\_checkInvoiceCount**



- Selects the invoice count for a particular date for either MR&C or E&P
- sp\_EPSelectDateMaintenance/sp\_SelectDateMaintenance
- Adds a new date row into EPSelectDateRunStatus/SelectDateRunStatus where that date does not already exist.
- sp\_EPSelectDateStatusUpdate/sp\_SelectDateStatusUpdate
- Sets the failure or success count on EPSelectDateRunStatus/SelectDateRunStatus depending on whether the package succeeds or failed.
  - Neither a fail count nor success count will be added if the package does not complete its execution.
- sp\_EPsetInvoiceCount/sp\_setInvoiceCount
- Sets the invoice count on EPSelectDateRunStatus/SelectDateRunStatus returned with the Invoice Count from SAP for a specific date.
  - An Invoice Count is not required to be returned for a specific date. Only on a date where invoices are present.
- sp\_ExecuteSSISPackageDaily
- Executes sp\_setMRConnectionInfo and passes parameters which will run the package for yesterday's date with MR&C Connection Info
  - This is followed by a one minute delay to wait for this job to finish
  - Finally, the sp\_setEPConnectionInfo will execute and run the package for yesterday's date with E&P Connection Info.
  - This package holds the ability to either set the run status for a set of company code or run the package for all the company codes. This is done through passing the @CompanyCodeParam.
    - o 'Y' reads the Company Codes from the CompanyCodes Table
    - o 'N' runs the package for all company codes.
- sp\_ExecuteSSISPackageOnDemand
- Enables the Job 'CaseTrackSSISTest', then executes the package, then disables the job again.
- sp\_Populate\_EPGGrid/sp\_PopulateMRGrid
- Selects columns from the SelectDateRunStatus/EPSelectDateRunStatus table and binds the data to the gridview on both the MR&C and E&P Pages
- sp\_SetEPConnectionInfo/sp\_SetMRConnectionInfo
- Updates the CaseTrackRunDayDiff table with information for either MR&C or E&P and executes the package

## 7. Package Information

### 7.1 SSIS Package Screenshot



### 7.2 Description of Package

- Pull parameters from SSISFramework and CaseTrackStage → ConnectionInfoBusUnit table
- Checks if the CompanyCodeParam is Y or N in CaseTrackStage → CaseTrackRunDayDiff table
- Checks for records returned from the date range entered in CaseTrackStage → CaseTrackRunDayDiff table
  - If no records sends email
  - If there are records
    - Returns Errors in .txt file OR Returns Invoices in a .xml file



- Stores Files in [\\hacssapcasp01\CaseTrack\\_InvoiceUpload\\_PROD\](\\hacssapcasp01\CaseTrack_InvoiceUpload_PROD\)

- Sends Email

### 7.3 Description of Emails

- SMTP Location and email recipients are set through the SSISFramework

- Support email - Variable 111 is CaseTrackSupportTo.

- Recipient email –

### 7.4 How to Install Xtract IS

- Install **xTractIs** from: <\\wdbdd624711\share\XtractIS.>
- Request SAP client from Software Store:  
<http://softwarestore.ihess.com/appDetail.aspx?applID=310>
- Software installs to C:\Program Files\XtractIS
- The file **XtractIS.License.dll** must be in two locations:
  - C:\Program Files\XtractIS\BINotificationReceiver\1033
  - C:\Program Files\XtractIS
- Run C:\Program Files\XtractIS\ XtractLicenseManager.exe pointing at the license dll in the 1033 location above

### 7.5 Variables

- Certain variables are set on execution and gathered through the SSISFramework Database is located on 'WDBSSQLS08DB1\IN02\_C01'.

- These are package configuration variables that deal with data connections and email server connections.

- SQL

```
SELECT *  
FROM [SSISFramework].[dbo].[PackageVariableValues]  
WHERE PackageID = 116
```

- These variables are set in the 'Configure Package' Node

- PackageID = 116

- Scenario = PRD

- Depending on which business the SAP extraction the package is being run for, the package pulls and sets variables from the CaseTrackStage Database --> CaseTrackRunDayDiff Table.

- These variables are stored and can be modified from the CaseTrackStage Database --> ConnectionInfo\_BusUnits Table

### 7.6 SSIS Logs

Location: \\wdbsssqls08db1\SSISLogs\CaseTrack\CaseTrackInvoiceExtract - 12-4-2012 Latest.txt



## 8. Job Information

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### 8.1 CaseTrackSSISTestJob

**Description:**

- Set up to execute the package on command.

**Steps:**

- Executes SSIS Package located at:
  - o Server: WDBSSSQLS08DB1
  - o Package: \MSDB\_WDBSSSQLS08DB1-1N02\_C01\SSISTest\CaseTrackInvoiceExtract
- Must be executed in 32-bit mode

**Schedule:**

- The Job is set to disable and only set to enable when a job is executed. After the execution is complete, the job is set to disable.
- The Schedule is set to run every hour, but this is just a place holder to allow the execution of the package. This never initiates because the package is enabled, executed, and then set to disable in less than one minute.

### 8.2 ~~CaseTrack SAP Invoice Extract~~

### 8.3 CaseTrack MR/EP Daily SAP Invoice Extract

**Description:**

- Set up to execute sp\_ExecuteSSISPackageDaily.

**Steps:**

- Executes the stored procedure sp\_ExecuteSSISPackageDaily

**Schedule:**

- Runs daily at 8 AM
- The Job is always enabled

## 9. Additional Information

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**XML + Error Message Location:**

Development: [\\hacssapcast01\CaseTrack InvoiceUpload TEST](#)

Production: [\\hacssapcasp01\CaseTrack InvoiceUpload PROD](#)

## 10. Source Control

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Server: tfs2010.ihess.com\Corporate

Path: Legal\CaseTrack

Package: \SSIS Package

Web Application: \CaseTrack Invoice Return Webpage

