Requirements

InnoSetup/InnoIDE installed on local PC.

Install from:

- P:\271321 - Vision_Development\Development Tools\ispack-5.4.1-unicode.exe

or download the latest version from:

- http://www.jrsoftware.org/isdl.php

Create Database Scripts

First, create the database structure and metadata SQL files. This can be done manually using MySQL Administrator or through the command line as follows:

MYSQL Administrator

Based on version 6.3

Dump the structure:

- Connect to the database
- Click *Data Export* on the **Navigator** tab
- Check the database for tables to export (productivity1)
- Check all tables and views for extraction
- Select *Dump Structure Only*
- Check *Dump Stored Procedures and Functions*
- Select *Export to Self-Contained File*. Either accept the generated dump name and rename later or name it 'CreateDB-Struct.sql' now.
- Check *Include Create Schema*
- Optional: Check or uncheck *Create Dump in a single transaction...* - it is recommended that this is checked.
- Click **Start Export**

Dump all the metadata:

- Connect to the database
- Click *Data Export* on the **Navigator** tab
- Check the database for tables to export (productivity1)
- Check all tables for data extraction as follows:
    - group_menus
    - last_numbers
    - master_plugin_parms
    - master_plugins
    - menu_groups
    - menu_screens
    - menus
    - ml_labels
    - ml_messages
    - rules
    - rule_category
    - rule_master
    - screens
    - system_auth
    - system_extract_points
    - system_extracts
    - system_styles
- Select *Dump Data Only*
- Uncheck *Dump Stored Procedures and Functions*
- Select *Export to Self-Contained File*. Either accept the generated dump name and rename later or name it 'CreateDB-Data.sql' now.
- Uncheck *Include Create Schema*
- Optional: Check or uncheck *Create Dump in a single transaction...* - it is recommended that this is checked.
- Optional: Check or uncheck *extended-insert* in **Advanced Options**.
- Click **Start Export**

Command Line

Dump all the metadata:

```
>mysqldump.exe --no-create-info=TRUE --order-by-primary=FALSE --force=FALSE
 --no-data=FALSE --tz-utc=TRUE --flush-privileges=FALSE --compress=FALSE
 --replace=FALSE --insert-ignore=FALSE --extended-insert=FALSE --quote-names=TRUE
 --hex-blob=FALSE --complete-insert=TRUE --add-locks=TRUE --disable-keys=TRUE
 --delayed-insert=FALSE --create-options=TRUE --delete-master-logs=FALSE --comments=TRUE
 --default-character-set=utf8 --max_allowed_packet=1G --flush-logs=FALSE --dump-date=TRUE
 --lock-tables=TRUE --allow-keywords=FALSE --events=FALSE --host={host} --port=5306
 --user=root --password={pwd}
 --result-file=CreateDB-Data.sql
 "productivity1"  "rules_category" "rules_master" "screens" "system_extract_points"
 "system_extracts" "system styles" "menu_groups" "menus" "menu_screens" "group_menus"
```

Note: To dump all the data from a remote server (perhaps for support), remove everything after "productivity1"

Dump the structure:

```
>mysqldump.exe --no-create-info=FALSE --order-by-primary=FALSE --force=FALSE
 --no-data=TRUE --tz-utc=TRUE --flush-privileges=FALSE --compress=FALSE
 --replace=FALSE --insert-ignore=FALSE --quote-names=TRUE
 --hex-blob=FALSE --complete-insert=TRUE --add-locks=TRUE --disable-keys=TRUE
 --delayed-insert=FALSE --create-options=TRUE --skip-extended-insert=TRUE
 --delete-master-logs=FALSE --comments=TRUE --default-character-set=utf8
 --max_allowed_packet=1G --flush-logs=FALSE --dump-date=TRUE --lock-tables=TRUE
 --allow-keywords=FALSE --events=FALSE --routines
 --result-file=CreateDB-Struct.sql
 --host={host} --port=5306 --user=root --password={pwd}
 "productivity1"
```

In these commands, replace **{host}** and **{pwd}** with your Vision Host IP address and root password.

Note: To load either file, you can use the following:

```
>mysql.exe --host={host} --port=5306 --user=root --password={pwd}
 --default-character-set=utf8 --comments <{SQL file}
```

Edit Metadata

The Data dump may contain data that is not required - edit the file.

- Remove any group_menus that are not the basic menu (group 1)
- Remove and menu_groups that are not the basic menu (group 1)
- Remove all rules EXCEPT the first two (marked with '***'). Ensure these represent the lastest version that the installer is being built from and the latest patch file (by checking the latest in P:\271321 - Vision_Installers\Releases)
- Ensure all system_extracts are disabled by default.

Collate Files

Copy these files into your Vision development Database folder.

Copy all files to be distributed (including these files) and all subdirectories to a a clean Distribution folder, for building the installer. Typically this folder is C:\Inetpub\wwwroot\Vision, which should be different to your development directory. If using this folder, the standard Installer script need not be changed.

Build Installer

Open local copy or network copy of P:\271321 - Vision_Installers\Installer\Vision.iss

Note: If not working on a local copy, ensure that your Distribution folder matches C:\Inetpub\wwwroot\Vision.

In the header of the install script, reflect the system version from which the app is being built (in *MyAppVerName*).

In the **Setup** section:

- Change *LicenseFile* to point to your Distribution folder if necessary.
- Change *InfoBeforeFile* to point to your Distribution folder if necessary.
- Change *AppCopyright* to reflect the current year.
- Change *SetupIconFile* to point to your Distribution folder if necessary.

In the **Files** section:

- If any new screens or files have been added that are not already covered in the installer script, add them here.
- Change the folder to point to your Distribution folder if necessary.

Click **Compile**. Any errors will be displayed and can be resolved from the Inno IDE.

Save all changes.

If working on a local copy, copy the changes back to the projects drive, first replacing the distribution folder as before if not set to C:\Inetpub\wwwroot\Vision.

In the project folder P:\271321 - Vision_Installers\Installer\Output, copy and zip the file *setup.exe* to the parent folder and rename to:

- INYYMMDDVision.zip

where YYMMDD is the date.

Build CD Contents

Copy the following files to P:\271321 - Vision_Installers\CD Contents.

- P:\271321 - Vision_Installers\Installer\Output\setup.exe
- *Development Directory*\Releases\Requirements.rtf
- *Development Directory*\Releases\License.rtf

Edit CDBox.doc in this directory. Edit the document Custom properties as follows:

- Date completed to the date the installer was built.
- Version set to Major and Minor version ONLY of the build.
- Optional: If building a CD for a specific client, update Client to the client name.

Update all fields in the document (CTRL-A, F9) and save.

Contents

1 Development Process

1.1 Development Environment

You will require:

- An ASP File Editor (Notepad++ recommended)
- Visual SourceSafe Client
- A Local MySQL Database instance, configured with the latest Vision database
- A Local IIS implementation, with a local copy of the *CALIDUS* Vision product.

A Notepad++ installer is available on the shared project drive in P:\271321 - Vision_Development\Development Tools\npp.5.8.1.Installer.exe.

The Visual SourceSafe Client installer is available on the shared project drive in P:\VSS\NETSETUP.EXE

For details on installing these MySQL and IIS, please see the Initial Installation process.

1.2 Development Process

- Always change code though SourceSafe, after checking out the file first.
- Always follow the examples of existing code in the project.
- Always create generic ASP and JavaScript functions where possible. Add them to CommonASP.asp and Common.js respectively.

1.3 Committing Changes

When checking code back in, check the changes you have made using SourceSafe?s Show Differences function. Ensure that all changes are detailed when checking back in. The format for these comments should be:

```
{supimix ref}/{client ref} for {client}/{Area}/{site} - {Description}
```

If there are multiple changes made for this log, separate them with semi-colons.

If there are multiple logs, add the changes made for each log subsequently, in the same format.

Example:

```
272693/SW-7YYJEU for DHL/EMEA/CHEW - Added choice of employee;
Added extended Export functionality (through to HTML-style XLS sheet).
272694/SW-7YYJNV for DHL/EMEA/CHEW - Fixed bug created during testing
regarding setting the user default values for the Productivity Settings selection.
```

Ensure where possible that the descriptions are relevant to the users, as these will form the release notes later.

1.4 Changing the Database

All changes should be made to the local development database.

When changes are complete, the SQL changes should be copied into the file

```
P:\271321 - Vision\_Installers\Releases In Progress\LatestDBChanges.SQL
```

All table changes should preserve data, so tables should never be dropped, simply altered.

Remove any reference to the schema from the code - the schema (generically Productivity1) is identified at the top of the script. If this is ever changed (or multiple schemas are used for development and release), it will be easier to change if this is only at the top of the script once. If objects are being added to other schemata, either explicitly add the schema on the SQL by exception or create a new copy of the script for changes solely for that schema.

2 Easysoft ODBC-ODBC Bridge Installation

2.1 Overview

2.2 Requirements

This requires that legacy machine has the Easysoft ODBC-ODBC Bridge Server component installed, with the required tables configured in the catalogue. The IP address and port number of the Server will be required, along with logon details, plus the catalogue's database name, user and password.

2.3 Software

The Client software required will need to be compatible with the host version of Windows and with the Server Bridge Version. Consult Easysoft support if there are issues (support@easysoft.com).

Previously used version are stored in P:\271321 - Vision_Development\Development Tools\ and are shown below:

- odbc-odbc-bridge-2_1_0-windows-x86.msi
- odbc-odbc-bridge-2_3_0-windows64.exe
- odbc-odbc-bridge-2_4_2-windows.exe (Recommended version)

Note: Client version 2.04.00.02 is confirmed as working with Server version 1.4.37 running on AIX 5.

2.4 Installation

Note: This guide is based on version 2.03.00.00 of the Easysoft ODBC-ODBC Bridge installer on Windows 7. This has been confirmed identical to version 2.04.00.02 installation on Windows 7 and Windows Server 2008.

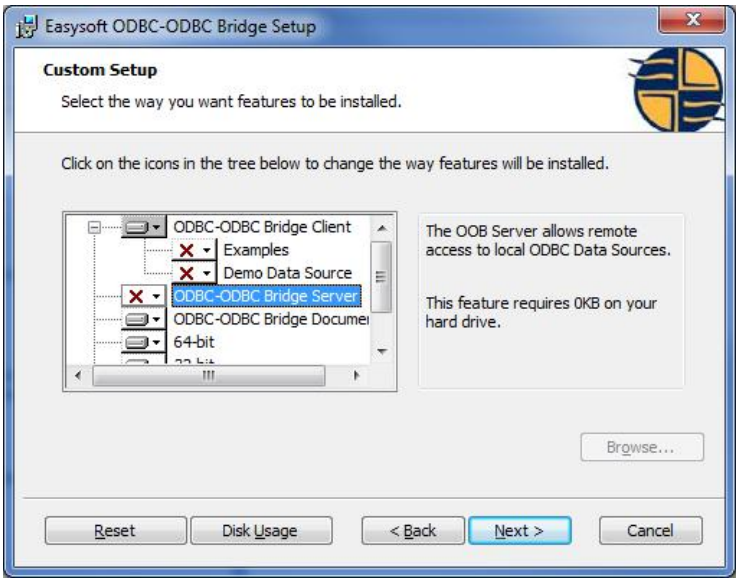
Run the recommended Easysoft installer on the machine

Click **Next**.

Accept the license agreement and click **Next**.

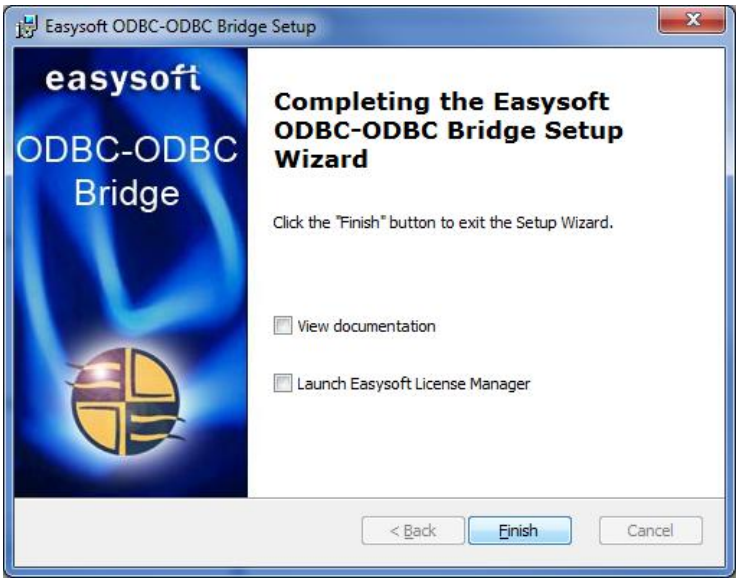
Click **Custom**.

When prompted, deselect Server components and select Documentation components, so as to match the screenshot. Click **Next**.



Click **Install**.

Deselect *Launch Easysoft License Manager* and click **Finish**.



2.5 Testing Configurations

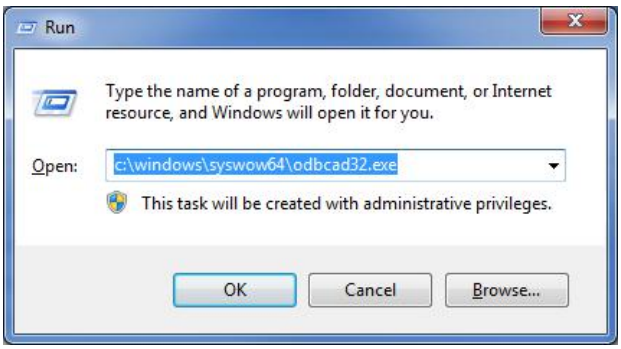
Testing of the software connections should be performed using ODBC connections on the Vision (Client) host machine.

For 64-bit ODBC connections on 64-bit machines, or 32-bit ODBC connections on 32-bit machines:

- Click *Start/Control Panel/Administrative Tools/Data Sources (ODBC)*

For 32-bit ODBC connections on 64-bit machines:

- Click *Start/Run*
- Enter "c:\windows\syswow64\odbcad32.exe" and click **OK**.



When ODBC configuration has started:

- Click *System DSN* tab
- Click **Add** button
- Click *Easysoft ODBC-ODBC Bridge*
- Enter a unique *Name* and a *Description* in the *DSN* tab
- Enter your database *Servers* and port, *Username* and *Password* in the *Server* tab. This will be the machine hosting the CISAM data and Easysoft server.
- Enter *Target DSN*, *Target User* and *Target Auth* in the *Target DSN* tab. This is the catalogue name in Easysoft server, with the user and password as configured through the administrator.
- Click **Test**. If there are no issues a screen will be displayed as below.

- Click **OK** to save the ODBC connection if required.

2.6 Configuring the datamine

Use the setting for the WMS414 data mine, with a connection string as follows, replacing the square brackets with the correct parameters as used when configuring the ODBC connection:

```
SERVERPORT=[x:y];TARGETDSN=[];UID=[];PWD=[];LogonUser=[];LogonAuth=[];
```


3 Initial Installation

3.1 System Requirements

The system should be installed on a Windows Server (2000/2003/2008) with at least 4Gb free disk space and at least 0.5Gb free memory.

3.2 Installation Procedure

Please note: These installation notes are draft and should be used as guidelines - each version of Windows and the applications contained therein are configured differently.

Note: For datamining from legacy systems (i.e. 4.14 WMS on AIX using C-ISAM files), additional installation files are required specified in the following Easysoft ODBC-ODBC Bridge Installation section.

Install MySQL database.

Files used:

- mysql-enterprise-gpl-5.1.46sp1-win32.msi
- mysql-workbench-community-6.3.3-winx64.msi
- mysql-connector-odbc-5.1.11-win32.msi

Note: the latest MySQL Enterprise binaries should be used - download from MySQL as required.

MySQL Workbench Installation Notes:

- **Note:** Workbench requires a number of Microsoft redistributable files to be installed, that may require the machine to be rebooted. These may be downloaded on demand as part of the Workbench install. The files are:
  - wic_x86_enu.exe (not required on most machines - try the vcredist first)
  - vcredist_x86.exe or vcredist_x64.exe (Studio 2013 version)
  - dotNetFx45_Full_setup.exe (may not be required on some machines)
- Install the files in this sequence.
- Install workbench to default directory.
- Complete install

MySQL Connector Installation Notes:

- **Note:** Microsoft Windows Server 2008 (and any other 64bit version) require the 64bit versions of the ODBC connectors - the latest file is mysql-connector-odbc-5.1.11-winx64.msi)
- Complete install to default directory.

MySQL Server Installation notes:

- Install MySQL server accepting defaults.
- Ensure that the database and bin areas are installed away from the root drive if possible.

MySQL Server Configuration Notes:

- Detailed Configuration
- Server machine
- Transactional Database Only (InnoDB)
- Ensure that the database area is installed away from the root drive if possible.
- Manual Setting of concurrent connections, 50.
- Enable TCP/IP networking. **Note:** Default port is 3306, which is fine, unless there are other databases installed on the server. If so, it is recommended to set the port to 5306.
- Add firewall exception. Enable strict mode.
- Best support for multilingualism
- Install as a Windows service. Include Bin directory in PATH.

- Set root password and enable root access from remote servers.
- **Warning**: No anonymous access.
- **Warning**: **NOTE THE ROOT PASSWORD.**
- Execute.

Note: In order to help with the preservation and allocation of space to tables, it is recommended that each table is set within it's own data file. In order to do this:

- Stop the MySQL service.
- Edit the *my.ini* file created in *{Program Files}\MySQL\MySQL Server 5.1*
- Add the text *innodb_file_per_table* to the end of the file.
- Save the *my.ini* file.
- Re-start the service.

This must be done before any tables are created within the database.

MySQL Workbench Configuration:

- Edit/Preferences
- SQL Editor
- Disable Safe Updates

Install Microsoft Internet Information Services (IIS) at this stage, if not already installed, from the Add/Remove Windows Components control panel screen (**Note:** IIS can also be installed as part of the Vision installation package).

Note: If this is not already installed, this may require the Windows Installation disks.

Install the Vision package. The latest version can be found in the project driver under _*Installers**Installer*.

- Latest version: IN180406Vision.zip
- Previous version: IN110627Vision.zip

Note: Install the Vision application files away from the root drive.

Change the settings in Global.asa (used in Connection.asp and Productivity.asp) to the port number you chose for database connections when installing MySQL. Settings available:

```
' Connectivity settings - change if the DB server changes or this is a test/dev implementation with a diffe
Application("connServer") = "localhost"
Application("connPort") = 5306
Application("connDB") = "Productivity1"

' App settings - these are the defaults for the cookies created and the style setup - change at least appDe
Application("appDefStyle") = "OBS2"
Application("appMenu") = "N"
Application("appFrame") = "800"
Application("appFont") = "m"
Application("appTimeout") = "60"
Application("appTitle") = "CALIDUS Vision"
Application("appPinned") = "Y"
Application("appRedirect") = "N"

' Availability setting - change to "N" if you want to administer the site or install a patch
Application("appAvail") = "Y"
' A notify message that will appear in the footer if set
Application("appNotify") = ""
```

Add Roles to Server

Start Server Manager:

- Ensure that Web Service Extensions are enabled for Active Server Pages (From *Server Manager/Roles/Add Role*).

Configure IIS:

Settings used:

- Stop the default web site (as it will be using port 80)
- Create a new web site named CALIDUS Vision, pointing to the virtual directory where you installed the Vision application. Ensure you enable the ability to execute scripts). Accept the standard Application Pool if this is the first install. If multiple installs on this machine, consider using the same pool for both.
- Set the Idle Timeout on the Application Pool to your required value, in minutes, through Advanced Settings.
- Set the port for the application. Note: If there are other sites or web servers on the machine, you may need to change this or them away from the standard port 80. That includes the Default Web Site for IIS - change it 8080 if there are no other web servers on the machine (for example Apache, which defaults to port 8080) or 8081.
- Change the properties of the new Website (**Advanced Settings**). Change the connection timeout to your required timeout in seconds.
- Ensure that Daily **Logging** is enabled - use the Advanced tab or **Select Fields** button to ensure that all elements are being reported. The information contained in these logs will be used for bandwidth and system efficiency.
- For IIS 6.0 or greater, ensure that Parent Paths are enabled, by enabling the flag 'Enable Parent Paths' from the web site's properties/Home Directory/Configuration/Options screen (**ASP** option).
- Change the **Default Document** to Productivity.asp
- **Warning**: If necessary, ensure that the pages expire immediately, to force reload. (**HTTP Response Headers/Set Common Headers**). This should happen automatically with server-derived pages, but may be required for some systems. **Note:** Enabling this results in much larger bandwidth requirements, as every page (and item on the page) is resent to the browser at all times. Either leave this disabled or enable it at the web-site level, then enable content expiration of 1 day on the folders Files, Releases, Charts and jQuery. This will ensure that the bulk of the traffic is only resent per day. (Expand the Site on the left, click the folders specified above, use **HTTP Response Headers** as directed previously).
- Enable 32bit apps from the Application Pool assigned to this website, from Application Pools above Sites, select the application pool created for the site).

Stop and start the Website created.

Note: Set the permissions on the database so that the default IIS user (IUSR) for the machine has access to the folders:

- Windows Explorer to ..\MySQL Datafiles, right-click, Properties, Security, Edit, Add, "IUSR", OK. **Note:** If not found, use Advanced, Name Starts With IUSR, Find Now, double-click on the user.
- Click IUSR added, click Full Control, Apply, OK, OK.

Warning: On IIS 6.1, this may not work. In this case, when you attempt to connect to the system through the browser, you receive an error 401.3 (Authentication error). In this case:

- Check the application Pool, Advanced settings. In **Identity**, should be set to "ApplicationPoolIdentity".
- On Vision Site, Authentication, select *Anonymous Authentication*, click *Edit...*, select 'Application pool identity', then **OK**.

This should allow the system to run.

Note: If you want to see the proper errors on the system when it stops, then you need to set the following setting:

- On Vision Site, ASP, select *Debugging Properties*, **Send Errors to Browser...**, set to *True* then **Apply**.

Load the database structure through the MySQL Workbench.

File used:

- {Vision}/Database/CreateDB.sql

or

- {Vision}/Database/CreateDB-Struct.sql
- {Vision}/Database/CreateDB-Data.sql

These files can also be loaded through the following command:

```
>mysql.exe --host=127.0.0.1 --user=root --password={password} --default-character-set=utf8 --comments <{SQL
```

Note: If you have any updates or patches to install, do this now.

Create any users with localhost permissions through the MySQL Workbench.

Create user permissions in the database using MySQL Workbench.

Alternatively, run the following procedure through the MySQL Browser or Workbench:

```
CALL InitialiseInstall(<site>, <systems>, <Comp>, <WH>);
```

Parameters:

- <site> - The site code used as a base, for example, CHE, BHS, COV, etc.
- <systems> - The systems to be set up, comma-delimited. They can be WMS, WMS414, WCS, CTMS.
- <Comp> - The Company Code
- <WH> - The Warehouse ID

This procedure will create all data-mining parameters required, as well as a default user, based on the site.

Check that the system is working using a web browser.

Set up the Scheduled tasks as follows (through *Administrative Tools/Task Scheduler* on Windows 7/2008+ or *Control Panel/Scheduled Tasks* on other versions of Windows):

- Vision Mining - Daily, from 00:10, for 23 hours 50 minutes. The interval could be anything from 5-15 minutes. It is not recommended that it be any more frequent than every 5 minutes.
- Vision Cleardown - Daily, once at 00:00.

The two scheduled items above may be tested be right-clicking and selecting *Run* from the pop-up list of actions.

Note that these tasks require ODBC drivers to access the various systems, as follows:

- WCS - Microsoft Access
- WMS/TMS - Oracle

These must be installed. Note that the various versions of Windows may have these installed already. If installed separately, the ODBC driver may have a different name to the one in the script and therefore may need changing in the various scripts. See *Administrative Tools/Data Sources (ODBC)/System DSN*/**Add** for the naming of the ODBC drivers.

If the system is running on a 64bit version of Windows (natively 7/2008+), the ODBC drivers may not be found, as evidenced by an error when running these scripts. Also, they will not be visible in *Administrative Tools/Data Sources (ODBC)/System DSN*. If they are visible when executing *c:\windows\syswow64\odbcad32.exe*, then the items must be scheduled differently. Set them up as follows:

- "c:\windows\syswow64\wscript.exe" "{name of script}"

In certain version of Windows, this will request that the script name be added as a parameter instead of in the program to be run - this also works.

Note: Windows 2012: Also specify the *Start In* folder, but DO NOT enclose in quotes.

3.3 Upgrading to a new server

If the server being installed is a copy of an older server, follow these instructions after you have installed the system above:

On the old server:

- Back up the Vision folder and all sub-folders and place in a safe folder
- backup the entire database:

```
mysqldump --host=127.0.0.1 --port=5306 --user=root --password={} --result-file=VisionDBBackup_YYYYMMDD.sql
```

- Copy all the users, passwords and grants with this code:

```
$ mysql -uroot -N -p -s > myfile
Enter password:
select Distinct CONCAT('show grants for , user, @, host, ;') as query from mysql.user;
quit
$ mysql -uroot -N -p -s -r < myfile > grantfile
Enter password:
```

- Add a semicolon to the end of every line in grantfile.
- Copy the grantfile and the Vision and database backup files to the new server.

On the new server:

- Copy the Vision backup over the new installation of Vision.
- Create the database from the backup:

```
mysql --host=127.0.0.1 --port=5306 --user=root --password={} --comments Productivity1 <VisionDBBackup_YYYYM
```

- Create all users, password and grants:

```
$ mysql -uroot -p < ./grantfile
```


4 Introduction

4.1 Introduction

The purpose of the *CALIDUS* Vision product is to allow visibility of productivity, system and business information through the use of graphs, charts and data lists.

There is a business need to extract and see information regarding the operation and its performance within the warehouse.

Therefore the Calidus Vision product will be used to display this information.

As *CALIDUS* Mobile (the WCS) is highly used and must remain responsive at the highest level at all times, the data for *CALIDUS* Vision is mined (extracted) into a new database, where productivity analysis begins.

5 Product Architecture

Vision is generally installed on E:\Vision.

The file structure is:

Vision\

- Admin\ - Sys Admin ASP forms
- MTS\ - MTS ASP forms
- Releases\ - Folder to do upgrades in - see Release Process for details.
- Scripts\ - Data Mining scripts
    - ♦ Vision_Mining.vbs - scheduled script that runs the datamines
        - ◊ GetSysDetails_MySQL.asp - the WCS datamine script
        - ◊ GetSysDetails_WMS.asp - the WMS datamine script
        - ◊ Vision_Cleardown.vbs - scheduled script to clear down data
- Settings\ - User Settings ASP forms
- TMS\ - TMS ASP forms
- WCS\ - WCS ASP forms
- WMS\ - WMS ASP forms
- Charts\ - Flash objects for Graphs and Charts
- Database\ - for releases and initial installation - the database structure.
- Files\ - GIFs, CSS, etc
- Includes\ - common ASP/JS files
- jQuery\ - JavaScript extension and plugins used in some screens

The database is installed on the machine, under port 5306. This is accessible through MySQL Workbench remotely. Install workbench through MySQL website (latest mysql-workbench-gpl-5.2.26-win32.msi).

6 Release Process

6.1 Prerequisites

Ensure all code is back in SourceSafe and any new files have been added to SourceSafe in the appropriate sub-solders.

Ensure that all database modifications have been documented in

- `P:\271321 - Vision\_Installers\Releases In Progress\LatestDBChanges.SQL`

A template of this script is available called:

- `P:\271321 - Vision\_Installers\Releases In Progress\LatestDBChanges_Template.SQL`

6.2 Create Patch

Copy folder P:\271321 - Vision_Installers\Releases In Progress\Vision_UPYYMMDD to the new release patch name, replacing YYMMDD with the current date. This is referred to as the Patch folder and is denoted as {patch} in the following instructions.

Copy P:\271321 - Vision_Installers\Releases In Progress\LatestDBChanges.SQL to {patch}\Releases\UPYYMMDD.SQL, replacing YYMMDD with the current date. Add this file to SourceSafe, in the Database sub-folder.

Label the programs being released in SourceSafe as follows:

In the left-hand pane of SourceSafe, right-click the 'ProductivityWIP' folder and choose 'Label...' from the pop-up menu.

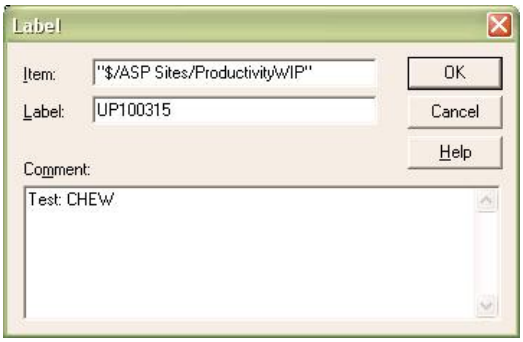


Figure 1 - SourceSafe Label Creation screen

Enter the patch name in the "Label" field, and comment the patch with the client(s) to whom the patch is being released, from the Supimix Client/Site fields.

Find the programs changed since the last release (labelled in SourceSafe) using the SourceSafe history function, as follows:

In the left-hand pane of SourceSafe, right-click the 'ProductivityWIP' folder and choose 'Show History...' from the pop-up menu.

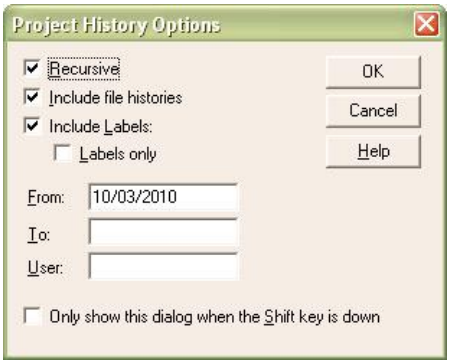


Figure 2 - SourceSafe Project History Options screen

Ensure 'Recursive' is checked. Enter a 'From' date if you know when the last release was completed, to speed things up. SourceSafe will then show a list of all changes made, matching the parameters entered.

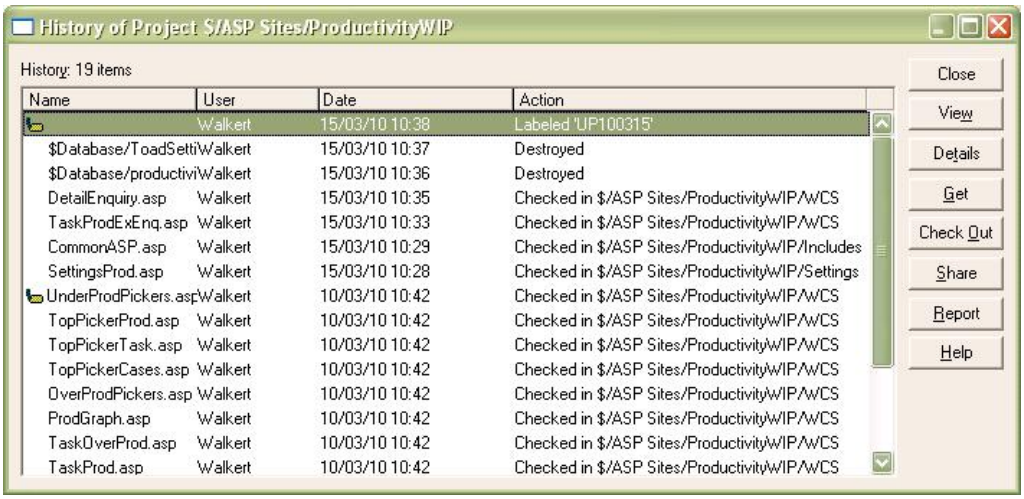


Figure 3 - SourceSafe History screen

For each program changed or added, copy them into sub-folders of the Patch folder. Each program should go into the subfolder required for the program, as specified in SourceSafe.

Examples: DetailEnquiry.asp exists in a project subfolder called WCS - create a sub-folder called {patch}\WCS and copy the file into this folder.

CommonASP.asp exists in a project subfolder called Includes - create a sub-folder called {patch}\Includes and copy the file into this folder.

GetSysDetails_MySQL.vbs should be copied to a sub-folder called {patch}\Scripts.

Once all changed or added programs are copied into their respective Patch sub-folders, the release notes should be built.

Rename the file {patch}\Releases\UPYYMMDD_RelNotes.txt, replacing YYMMDD with the current date.

Replace the change content with change descriptions from SourceSafe. To do this:

From the SourceSafe History screen (see Figure 3), click the 'Report' button.

Figure 4 - SourceSafe History Report Options screen

Ensure 'Include details' is checked, and 'Clipboard' is selected and then click 'OK'.

SourceSafe will drop this history to the clipboard, ready for pasting.

Paste this into the release notes. The format will look as follows:

```
$/ASP Sites/ProductivityWIP
```


```
*****************  Database  *****************
User: Walkert         Date: 15/03/10  Time:  10:37
Destroyed ToadSettings

*****************  Database  *****************
User: Walkert         Date: 15/03/10  Time:  10:36
Destroyed productivity1

*****************  DetailEnquiry.asp  *****************
User: Walkert         Date: 15/03/10  Time:  10:35
Checked in $/ASP Sites/ProductivityWIP/WCS
Comment:
  272693/SW-7YYJEU for DHL/EMEA/CHEW - Added choice of employee; Added
extended Export functionality (through to HTML-style XLS sheet); Added Task Type
to display; Added selection of All task types; Added ability to choose a
specific date/week/month/quarter or range, including validation and popup
calendar; Added ability to summarise the data reported (as well as a detail
option to report as now).

*****************  TaskProdExEnq.asp  *****************
User: Walkert         Date: 15/03/10  Time:  10:33
Checked in $/ASP Sites/ProductivityWIP/WCS
Comment:
  272693/SW-7YYJEU for DHL/EMEA/CHEW - Added choice of employee; Added
extended Export functionality (through to HTML-style XLS sheet); Added Task Type
to display.

*****************  CommonASP.asp  *****************
User: Walkert         Date: 15/03/10  Time:  10:29
Checked in $/ASP Sites/ProductivityWIP/Includes
Comment:
  272693/SW-7YYJEU for DHL/EMEA/CHEW - Added translation of 'ALL' when
converting task types.

*****************  SettingsProd.asp  *****************
User: Walkert         Date: 15/03/10  Time:  10:28
Checked in $/ASP Sites/ProductivityWIP/Settings
Comment:
  272694/SW-7YYJNV for DHL/EMEA/CHEW - Fixed bug created during
testing regarding setting the user default values for the Productivity Settings
selection.
```

1. Remove the initial project line
2. Remove any deletion notifications.
3. Remove the lines beginning "User:", "Checked in" and "Comment".
4. Remove the asterisks.
5. Remove any blank lines
6. Format the remaining text by joining the lines, removing white space and tabbing and returning at each semi-colon, as follows:

```
DetailEnquiry.asp       272693/SW-7YYJEU for DHL/EMEA/CHEW - Added choice of employee;
                        Added extended Export functionality (through to HTML-style XLS sheet);
                        Added Task Type to display;
                        Added selection of All task types;
                        Added ability to choose a specific date/week/month/quarter or range,
                        including validation and popup calendar;
                        Added ability to summarise the data reported (as well as a detail option to report
TaskProdExEnq.asp       272693/SW-7YYJEU for DHL/EMEA/CHEW - Added choice of employee;
                        Added extended Export functionality (through to HTML-style XLS sheet);
                        Added Task Type to display.
CommonASP.asp           272693/SW-7YYJEU for DHL/EMEA/CHEW - Added translation of 'ALL' when converting tas
SettingsProd.asp        272694/SW-7YYJNV for DHL/EMEA/CHEW - Fixed bug created during testing regarding
                        setting the user default values for the Productivity Settings selection.
```

Save the release notes.

From within the Patch folder, zip all the contents into a release patch, named "Vision_UP{YYMMDD}.zip", where YYMMDD is the current date. Copy this patch to the "P:\271321 - Vision_Installers\Releases In Progress" folder. The working directory {patch} can now be deleted.

6.3 Releasing

Send the patch out to the client - usually this is through FTP. A shortcut will be provided in the "P:\271321 - Vision_Installers\Releases In Progress" folder. This shortcut will connect and set the release folder and file type correctly. Usually this is through the commands:

```
cd Vision
bin
```

Release the patch with the command:

```
send Vision_UP{YYMMDD}.zip
```

where YYMMDD is replaced with the patch number.

Exit FTP with the command 'exit'.

Inform the clients of the release with and email, as follows:

```
"Subject: Vision Release
Attachments: UP{YYMMDD}_RelNotes.txt

All,

A new release patch, Vision_UP{YYMMDD}.zip, is available for your Vision installation.
Release notes are attached.

{Notes}"
```

Replace {YYMMDD} with the patch date and attach the release notes.

Any specific notes, installation or testing instructions can be added at the {notes} point, or in the release notes themselves.

Update the Supimix entry for the changes associated to the release with:

- Status: 5
- Sub-status: 70
- Patch: UP{YYMMDD}

Enter the Analysis and fault codes if these have not already been done.

Enter the full Vision patch name in the comments when confirming - ensure that these are "USE" type comments.

If this is a log rather than a development, send the fix notification email when Supimix has finished updating the log status.

6.4 Installing

Ensure that the users are aware of the installation.

Depending on the size and content of the installation, this may take from 15 minutes to an hour.

- Pause any data mining scripts
- Stop the web server for the Vision application.
- Alternatively, set the system unavailable flag in Global.asa in the Vision folder.
- To install the patch, log on to the Vision server and move to the Vision folder, hereafter referred to as {Vision}.
- Depending on the complexity of the patch, a backup copy of all the programs and the database should be made, as follows:
    - Backup the {Vision} folder to a safe area in a file called VisionBackup_YYYYMMDD.zip.
    - Backup the current database - Many tools can be used for this, but the best tool would be mysqldump, as follows:

```
mysqldump --host={host} --port=5306 --user=root --password={password}
  --result-file=VisionDBBackup_YYYYMMDD.sql Productivity1
```


- Move to the {Releases} subfolder. Get the patch and place it in this subfolder - this is usually through FTP, as before.
- Extract the patch to a subfolder Releases\{Patch}. **Note:** Alternatively, if the version of windows allows, explore into the zip file instead of extracting it.
- Copy the subfolders of {Vision}\Releases\{Patch} to {Vision} - this will copy all of the required programs, scripts and notes into the correct folders. Note: Each program and component may be released separately by manually copying each item, if necessary.
- Move to the {Vision}\Releases folder - the release notes and database update script (if included) will be there.
- To commit the changes to the Vision database:
    - Start the MySQL Query Browser and log on to the Productivity1 database.
    - Click *File/Open Script...* and open the script {Vision}\Releases\UPYYMMDD.SQL script file, where YYMMDD is the patch number.
    - Click the **Continue** button on the toolbar to make the changes. Note: If there are any problems with the script, the script will pause at the point it failed and display the error. If the error is fixed at this stage and **Continue** is pressed again, the script will continue from the point it left off.
- Delete the {Vision}\Releases\{Patch} folder - it is no longer required. If space is at a premium, also delete the patch zip file.

Once the installation steps above have been followed, the patch has been installed.

Depending on the contents of the patch, it may be necessary to test the installation incrementally - do this by enabling each component it turn and testing, in this order:

- Database and data checks
- Data Mining script checks
- Vision Application checks

The steps to re-enable the system are as follows:

- Start the web server for the Vision application and/or make the system available again (if disabled at the start of the process).
- Re-enable Data Mining.

6.5 Updating Documentation

This *CALIDUS* Assist guide will require modification after release:

- New pages creating for all-new functionality
- Menu pages amended for new pages
- Existing pages modified with new functionality
- New images created and uploaded if appropriate
- If new rules are added, rules documentation changed - see following
- If new screens are added, screens documentation changed - see following

All changes to documentation should be created with a comment as follows:

```
Updated based on version x.y.z
```

The Title and Appendix page should then be updated.

After this, the guide can be exported as PDF. Navigate to the category Category:Vision User Guide Doc then extract to PDF using the link on the left. Save this to

```
P:\271321 - Vision\Documents
```

in format:

```
UG 236343 Vision User Guide vx.y.z.pdf
```


6.5.1 Self-documenting Rules

Rules should always be created on an appropriate menu with descriptive text.

When that is complete, the following SQL can be used to extract the data:

```
SELECT
IF(rm.Menu_Flag = 'Y', IF(rm.rule_parent <> 'SY00001', '**', '*'), IF(rm.rule_parent <> 'SY00001', '**', '
CONCAT('\'\'', rm.Rule_Label, '\'\'') AS Label, ' - ' as delim, rm.Rule_Description
FROM rules_master rm
Where rm.rule_type = 'SYS' and rm.Rule_Parent <> ''
order by IF(rm.menu_flag = 'Y', rm.rule_name, rm.rule_parent), (rm.menu_flag <> 'Y'), rm.rule_name;
```

Note that this does not correctly deal with sub-menus, so this will need some slight modification after production.

Once complete, this can be pasted into the Rules screen

6.5.2 Self-Documenting Screens

Screens should always be created on an appropriate menu with descriptive text.

When that is complete, the following SQL can be used to extract the data:

```
SELECT
Screen_Label, `Screen Description`, Screen_Type, Group_Code
FROM Screens
WHERE Screen_Type = 'Summary'
ORDER BY Screen_Type, Group_Code, Screen_Label;
```

Screen_Type can be:

- Summary
- Single
- Graphs
- Enquiry
- Settings
- Monitor
- Admin

Paste the results into the appropriate screen, formatted as a table, e.g.:

```
{| class="wikitable" border="1"
|- bgcolor="silver"
!Name   !!Description
|-
|colspan="2"| '''Group1'''
|-
| Name1 || Description1
|-
| Name2 || Description2
|-
|colspan="2"| '''Group2'''
|-
| Name1 || Description1
|-
| etc || etc
|}
```

Resulting in:

Name	Description
Group1	
Name1	Description1
Name2	Description2
Group2	
Name1	Description1
etc	etc

7 System Overview

7.1 Introduction

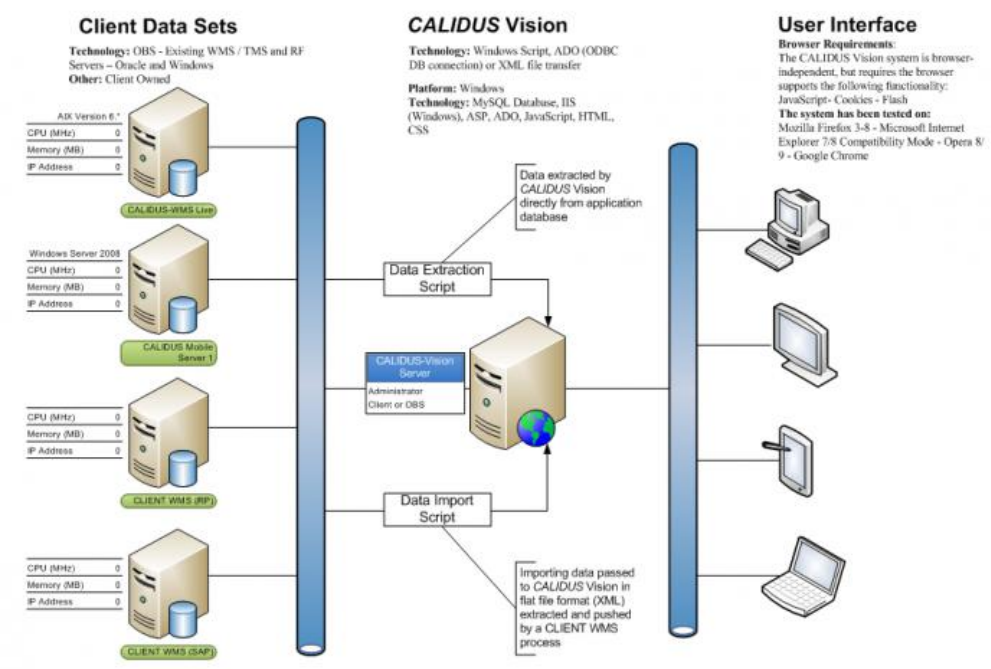
The purpose of the ***CALIDUS*** Vision product is to allow visibility of productivity, system and business information through the use of graphs, charts and data lists.

There is a business need to extract and see information regarding the operation and its performance within the warehouse.

Therefore the ***CALIDUS*** Vision product will be used to display this information.

As ***CALIDUS*** Mobile (the WCS) is highly used and must remain responsive at the highest level at all times, the data for Vision is 'mined' into a new database, where productivity analysis begins.

7.2 Network Diagram



In this instance, ***CALIDUS*** Mobile exists on one server and the Data Mining process and ***CALIDUS*** Vision are on a separate server, for simplicity. As all of the processes are Windows-based, all could co-exist on the same server or be distributed to separate servers as required. Additionally, although the Data Mining Process and Application Server databases are separate in the diagram, they are normally combined.

This diagram shows a standard LAN configuration, with the Vision server separate from any ***CALIDUS*** Mobile server. Additionally, this shows data being mined from systems accessible only from the WAN.

Although the systems can co-exist in one server, in this more complex set-up, it is assumed that the central configuration will require more processing power and time, and therefore will require its own server.

CALIDUS Mobile Server 2 is being mined over a WAN so, rather that link to the database directly, link database(s) are in place to protect the **CALIDUS** Mobile databases from file corruption due to network disconnection events.

The other server shows data being mined from other systems, or through file imports. It should be noted that file imports may be from systems external to any client network, with the file being transferred via FTP to a network-accessible location.

7.3 Data Mining

OBS have created data mining processes for the extraction of system, activity and productivity data from the ***CALIDUS*** Mobile database. This includes (but is not limited to):
System Data:

- Receipts in Progress
- Total Cases SKUs on Receipts
- Total number of SKUs on Receipts
- Number of Putaways and total quantity.
- Number of Moves and total quantity
- Number of Replens and total quantity
- Number of Full-pallet Picks and total quantity
- Number of Part-pallet picks and total quantity
- Number of Stock Take tasks
- Number and Status of loading tasks (Pending, Held, In Progress, Ready for Despatch)

Activity Data:

- All Activities performed by RF users

Productivity Data (Calculated from the Activity Data):

- Summary of number of tasks completed per day
- Detail of number of tasks completed per session
- Productivity figures derived from tasks per hour, per day.

Monitor Data:

- Various (depending on system.

Platform: Windows Technology: Windows Script, ADO, MySQL Database

7.4 Parameters

The data mining database has been created to allow the entry of parameters to show Minimum and Desired Productivity rates for each functional area.

As the data mining tools are further developed, this will also include:

- Historical analysis of productivity in functional areas, to learn productivity rates and predictions.

For more details, please consult the product road map.

7.5 *CALIDUS* Vision Front-End

The ***CALIDUS*** Vision web front end displays the data on timed changing display, optionally displaying the data in forms, graphs and tables.

This supports:

- System Choice (through system popup menu) and multiple system access.
- Productivity views (per task, per Warehouse/Owner/Employee, in days, weeks, months and quarters).
- System views, showing the current state of the system mined in terms of tasks outstanding.
- Enquiries on the data in tabular form.
- Filtering (enter values in Search box provided), paging (use buttons below table), sorting (click or shift-click on column headers) and CSV or Formatted File extract (using the button provided) through Enquiries.
- Graphs (including drill-down to data, through clicking graph points).
- RAG Colour-highlighting (through Productivity Enquiry and Order Status screens).
- Quick Menu (contents can be modified through the User Settings screen).
- Definable menu structure.
- Dashboard (through Timed Display), including configurable dashboard display (through Run Settings).
- Assist help.
- Multi-owner/warehouse access (through User Settings).
- Client look & feel styling and display configuration (through Web Settings).
- Configurable productivity targets (through Productivity Settings) at each level (company/Warehouse, owner).
- Multiple information streams displayed on one form (2 horizontally, 2 vertically, 4 corners).
- Task Completion prediction.

Platform: Windows/Linux **Technology:** IIS (Windows), ASP, ADO, JavaScript, HTML, CSS

Browser Requirements:
The ***CALIDUS*** Vision system is browser-independent, but requires that the browser support the following functionality:

- Frames
- JavaScript
- Cookies
- Flash

The latest version of the system is validated to HTML 4.01 Strict standards and tested on:

- Mozilla Firefox 8
- Microsoft Internet Explorer 8/Compatibility Mode
- Opera 11
- Google Chrome 15

Note: OBS Logistics continue to test against the most common platforms and the latest version of each browser available on those platforms.

7.6 Productivity Measurement Method

One of the main functions within Vision is to collate and display productivity rates for various tasks within the mined systems. This is dependent on the data mined. The current productivity figures displayed within ***CALIDUS*** Vision come from the data stored within ***CALIDUS*** Mobile, the OBS Logistics RF solution.

The detailed activity data is mined from ***CALIDUS*** Mobile, which includes the following information:

- The type of activity, for example:
  - Task information (receipt, pick, putaway, etc).
  - Log-on/off information.
- The start date/time of the activity
- The end date/time of the activity
- Who performed the activity.
- For task-based information, this also includes:
  - Pallet information
  - Company/Warehouse/Owner information
  - Location information

This is mined and loaded into ***CALIDUS*** Vision's database, then analysed to produce productivity figures for the company, warehouse, owner and employee for the following intervals:

- Daily
- Weekly
- Monthly
- Quarterly

The Productivity data is calculated in tasks/hour (and quantity of stock/hour) by storing the total quantity of tasks completed, the quantity of stock moved and the total time taken for these tasks in summary form for each of the time intervals.

A task in Vision is defined as as single movement to or from a location, for that defined type.

So:

- A movement of a single pallet from goods in to a putaway location is one task.
- A movement of a single pallet from goods in, through a P&D to a putaway location is two tasks.
- A single order pick from a pick face is one task.
- A consolidated pick of several orders from one pallet in a pick face is one task (although Vision can be configured to count these as individual picks)

An exception to this would be the movement of many part pick tasks to their eventual marshalling location. The pick tasks have already been counted as part picks, so this is not a task, although the time taken to do this is added to the part pick time.

The productivity of a user on a task type is calculated as:
The total time taken on the task (in seconds)
divided by
the number of seconds in an hour, multiplied by the number of tasks completed

The case productivity of a user on a task type is calculated as:
The total time taken on the task (in seconds)
divided by
the number of seconds in an hour, multiplied by the number of cases in the tasks completed.

There are two methods of calculating the time taken for a task, configurable within the system.

7.6.1 By Core System

In this method, Vision calculates the time taken to complete each task by using the core system's start and end time stamps for each individual task and producing a number of seconds taken for each task. These are stored against the summary values.

7.6.2 To Next Task

In this method, Vision calculates the time taken to complete each task as the elapsed time from the start of this task to the start of the following task, in seconds, if the next task is the same type as the current task, or a log off activity.

So, for example:

Task #	Start Time	End Time	Type	Current Time Elapsed	New Time Elapsed
1	0	5	Putaway	5	10
2	10	15	Putaway	5	10
3	20	-	Log Off	0	0
4	30	-	Log On	0	0
5	40	45	Putaway	5	10
6	50	55	Putaway	5	5
7	60	65	Pick	5	10
8	70	75	Pick	5	10
9	80		Log Off	0	0

This method then accounts for time when the user may have finished one task but not yet started the next. Only time changing tasks is seen as inactive time.

7.7 Extended Productivity Measurement

Vision currently breaks tasks down by a general task type field, which identifies each task with an action, for example, for ***CALIDUS*** Mobile, the list is as follows:

- Receipt
- Putaway
- Pallet Move
- Replen
- Part Pick
- Full-pallet Pick
- Pre-Deconsolidation
- Deconsolidation
- Loading

CALIDUS Vision has the capability of breaking down these tasks by a selection of criteria. So, for example, where part picks would normally come from a pick face, it is not unusual for an operation to pick cases or units from a pallet that is high in the racking. In this case, the productivity rates for these tasks may need to be measured separately from the normal task counts. The extended productivity measurement functionality allows for this.

The process extracts both the current system tasks and the productivity information that matches the criteria provided, from the following:

- Task Type
- Source Location
- Destination Location
- Company
- Warehouse
- Owner
- Priority (for system data only)

Each activity that matches the criteria specified is collated and stored separately to the generic data and can be viewed within Vision.
Example:

Certain of owner ABC's orders for export are always taken to a specific marshalling location "MAREXP", as they are packaged differently. Additionally, all picks taken from locations not in level 1 need to be recorded separately, resulting in two extended data extracts:

- Export Low
- Export High

The criteria matched is:

To match orders as Export:

- Company = "X"
- Warehouse = "Y"
- Owner = "ABC"
- Task Type = "Part Picks"
- Destination Location = "MAREXP"

In this criteria, if the task details match explicitly, the task is marked as "Export", otherwise it is not marked for extended data extract.

To match orders as from High or Low (pick face) locations:

- Company = "X"
- Warehouse = "Y"
- Owner = "ABC"
- Task Type = "Part Picks"
- Source Location's right-most character = "1" = "Low", else "High"

In this criteria, if the Task's source location's right-most character is "1", the task is marked as "Low", otherwise it is marked as "High".

The criteria specified are cumulative, in that each set of criteria is matched against all tasks, and those that match are marked with the specified text from the criteria matched. In this example, the following tasks will be marked as follows:

Task #	Task	Source Loc	Dest Loc	Extended Type
1	Putaway	RECBAY	AA0011	-
2	Part Pick	AA0011	MAREXP	Export Low
3	Part Pick	AA0014	MAREXP	Export High
4	Part Pick	AA0011	MAR001	Low
5	Part Pick	AA0014	MAR001	High

It can be seen in this example that it is possible to have one group of criteria matching while the other does not, resulting in single rather than cumulative matches (see tasks 4 and 5 above). This allows for extremely flexible rules to be set and allows the data mining process to be efficient.

Note: This assumes that all the tasks are for Company "X", warehouse "Y" owner "ABC".

7.8 Product Architecture

Product Architecture

7.9 Building Installer Process

Build Installer Process

7.10 Initial Installation

Initial Installation

7.11 Release Process

Release Process

7.12 Development Process

Development Process

7.13 Vision Support

Vision Support

8 Vision Roadmap

- 
  Overview
- 

  Current Development
- 

  Roadmap

Back to Main Page

9 Vision Support

This section contains details of any common support issues and how they would be checked and resolved. This section will be added to over time.

9.1 Vision is not updating

Problem

The likely issue is that the Vision Data Mining process has stopped for some reason.

Resolution

- Log on to the machine and check that the Vision Data Mining processes are still scheduled, using the Windows Scheduler. If not, add or re-start them.
- If they are running, check the logs, found in {Vision}\Scripts\DataMining_*.log or through the Event Log Vision screen. This may point to errors or suggestions that the processes are scheduled by failing when run.
- If the processes are failing, pause all the scheduled jobs and kill any processes on the machine called Wscript.exe using the Windows Task Manager. When complete, start the Data Mining tasks again and force run them.

9.2 Vision is not updating WCS data (Log database has been renamed)

Problem

The cause of Vision not updating is is that a user renamed the WCS Logging database manually.

Root Cause Resolution

A script has been provided to do this easier and with Vision unaffected - a shortcut to this is usually in the WCS database folder, called WCS_Archive. When the WCS system has been stopped, simply double-click this script and the database will be archived into the ArchiveDB folder. Vision will be informed of this and take the necessary actions to mine any remaining data from here and continue in the new logging database.

The script is called *WCS_Archive.vbs* and is usually located in *{WCS Program Folder}\Database\Upgrades\Xfer\Scripts*.

If installing this manually for a new client, a short-cut is usually placed in the Database folder, with the following parameters in the Target:

```
"{WCS Program Folder}\Database\Upgrades\Xfer\Scripts\WCS_Archive.vbs" -LDB={WCS Database Folder}\log1.mdb -
```

Resolution

Note: The Data Mining should be disabled before and enabled after the steps have been taken, or ensure that the steps are taken between data mines (usually every 5 minutes).

To resolve quickly (with possible data loss):

- Enquire on table System_Extracts, to find the WCS Data Mine that is affected. This will be records with:
  - Enabled = "Y"
  - Type = "WCS"
  - DB1_Folder will be the machine name or IP address.
- Edit all records on table System_Extract_Points. Blank (i.e. not Null, Change to value Space, then Delete) the Value field on the records with the following values:
  - Extract = "ra_wcs_new", Field "ID"
  - Extract = "RDT Activity", Field "End"
  - Extract = "RDT Activity", Field "Start"
  - Extract = "Exceptions", Field "ID"
- Apply all changes.

To resolve (with no possible data loss):

- Enquire on table System_Extracts, to find the WCS Data Mine that is affected. This will be records with:
  - Enabled = "Y"

    - Type = "WCS"
    - DB1_Folder will be the machine name or IP address.
- Note the Archive Database folder.
- Log onto the WCS server.
- Find the Log database that the user created and copy into the Archive Database.
- Create a file with the same name as the database, with the additional extension ".archive". For example, if the renamed database is called "log1_12345.mdb", create a file called "log1_12345.mdb.archive".

With either resolution, the next time Vision datamining runs, it will update correctly.

9.3 Vision is not updating WCS data (WCS has been moved)

Problem

The cause of Vision not updating is is that WCS Logging database doesn't exist where it did before (i.e. the old machine).

Root Cause Resolution

- Enquire on table System_Extracts, to find the WCS Data Mine that is affected. This will be records with:
    - Enabled = "Y"
    - Type = "WCS"
    - DB1_Folder, DB2_Folder and ArchiveDB_Folder will be the machine name or IP address, which needs to be changed to the new address.

When moved, the Log database may have been recreated as well (check with the WCS team to confirm). To correct:

- Edit all records on table System_Extract_Points. Blank (i.e. not Null, Change to value Space, then Delete) the Value field on the records with the following values:
    - Extract = "ra_wcs_new", Field "ID"
    - Extract = "RDT Activity", Field "End"
    - Extract = "RDT Activity", Field "Start"
    - Extract = "Exceptions", Field "ID"
- Apply all changes.

9.4 Adding Extended Extract Parameters

For example:

We have created two new marshalling locations, 'Special Ambient High' picks using truck type MU & 'Special Ambient Low' truck type SP to marhsalling location MASPNO and 'Special OTC High' pick using truck type MU & 'Special OTC Low' truck type SO to marhsalling location MASPOT. So that will be four new Task Type IDs - 'Special Ambient High', 'Special Ambient Low', 'Special OTC High' and 'Special OTC High'

In order to do this, Extended Extract Parameters must be entered on the correct System for the new types, plus existing types should be checked that the marshalling lanes are not in use on them.

- Stop the Vision datamining.
- Start MySQL Administrator and connect to the database.
- Find the System related to the site in question (from table system_extracts).
- Retrieve the parameters from table extended_system_extract for that System.
- Add an OrderType entry for the new extract type as follows:
    - **System** - as the others for that system
    - **Extract_ID** - Normally 1 for OrderType extracts, but set to the same as others.
    - **Extract_Level** - ensure this is greater than the last extract level (excepting any extract level marked as X). For axample, if you already have level 1|1, 1|2 and 1|X, the next created extract level will be 1|3.
    - **Extract_Sequence** - Number this in Extract_Level sequence, renumbering al following records accordingly. Following the last example, 1|1, 1|2 and 1|X may be sequenced originally as 1, 2 and 3. Adding 1|3 will result in this being sequenced as 3, and the following Level being sequenced as 4. All subsequent levels will also be renumbered.
    - *Extract_Name* - As requested e.g. "Special Ambient". Note that the "Low" or "High" component is added by a further Extract ID
    - **Extract_Field** - "To Location"
    - **Extract_Values** - the marshalling lanes specified.
    - **Format** - NULL

    - **Type** - "S" (string)
    - **DB_Type** - "MSA"
    - **Operator** - "="
    - **Constant** - "Y" (cannot be modified by the users)
    - **Table** - "Truck Move"
    - **Extract_Selection** - "B" (Both)
    - **Category** - NULL
    - **Owner_Code** - NULL
- When all are added, commit the changes.
- Add the truck types required to the specific Extract Types on table system_ext_trucks:
    - **System** - As the others for that system
    - **Extended_Type** - The combination of all extract names combined, replacing spaces with underscores. So, "Special Ambient" combined with "High" and "Low" will result in two records, with Extended Types of "Special_Ambient_High" and "Special_Ambient_Low"
    - **Truck_Type** - As requested. If there are multiple truck types requested, mumtiple records for this Extended_Type should be created.
- When all are added, commit the data.

- Run the Datamining script manually:
    - Check the log file to ensure that everything worked.
    - Check the data to ensure that everything worked (remembering that no data may yet exist for these new marshalling locations).
- Re-start the data mining

Also, it is usually beneficial to ensure any existing raw data already mined in the last few days is also updated. It will have been marked as the Extended Type associated to Extract Level 1|X for that system, and should be changed.

- For each type to be updated, select data from table `RDT Activity` where the `To Location` field matches the marshalling locations expected and the `Task Type` field is "PP". **Note:** Always confirm the Company and Warehouse values are correct for the records.
- As the data has already had the Extended_Type marked as the default Extract Type by the existing default parameter (including the "High" or "Low" addendum), this is easy to update either manually, or by updating the value with a function. For example, if the default Extract Type is "Wholesale", each record will be marked as "Wholesale_High" or "Wholesale_Low". Update the field with the value *REPLACE(Extended_Type, 'Wholesale', 'Special_Ambient')*.

The next time that data mining is run, these values will be recalculated into the figures, recalculating all values from the raw data.

Inform the client that the Minimum and Target levels for these Extended Extract Types can now be entered through the system.

9.5 Disk Full

Typically issues on the machine have caused a crash of the Vision datamine processes.

These are now cyclically logging errors to the ERROR_LOG table in the MySQL database, which will be taking up the disk space.

Checks:

- Check the error log datafile (error_log.ldb) in the MySQL database area, typically C:\ or E:\, Program Data\MySQL\Database\Productivity1\
- If this is large, then it should be truncated.

Solution:

- Start MySQL Administrator.
- Click the box for the database
- Log on to the database (enter password)
- Start a new query:

    - TRUNCATE Productivity1.ERROR_LOG;
- Check that the table's datafile is now small.

Given that the disk is full, you may not be able to access the database to take this action.

So several or all of the following steps may be required, and are typically recommended:

- Stop and disable vision scheduler items.
- Kill wscript processes using task manager.
- Stop MySQL service (may take a while).
- You may need to kill the MySQL service (with Task Manager)
- Clear as much space as you can.
- Start MySQL service (may take a while).
- Truncate the error log as described above.

The disk space is cleared, so any other processes on the machine can now be started.

It is recommended that Vision datamining and cleardown remain disabled for a time, as the MySQL service will be busy catching up.

- Monitor the MySQL process - wait until this is no longer taking up masses of CPU time.
- At this point, stop and start the MySQL service again, to recover system memory and clear MySQL-specific logs.
- Re-enable the Vision scheduled processes.
- Start the Vision Datamine (NOT THE CLEARDOWN)
- Monitor this until finished - typically this will take a while.