MYOB EXO BUSINESS WHITE PAPER

Transitioning to the 8.7 Job Costing Work in Progress Methodology

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EXO
BUSINESS

Contents

Intended Audience

If you are an existing business using EXO Business Job Costing and are upgrading to EXO Business 8.7 or later versions from a version prior to 8.7 then you will need to understand the significant changes that have been made. You will need to take some manual steps in order to prepare to process transactions using newly introduced features and methods.

If you are not using Job Costing, or are implementing Job Costing for the first time on a version later than or including 8.7, then none of the following information will be relevant to you.

This document and associated whitepapers are intended for a technical audience, for trained EXO Business professionals who are reasonably familiar with SQL and the EXO Business Configurator.

This is not intended to go into any detail on new functionality that is in the upgrade notes and the updated manuals; simply to deal with the essentials to starting with 8.7 and ensuring a positive upgrade experience for the users from the outset.

> **Note:** At this time, this document is limited to assisting users who have a valid Work in Progress stock location and are <u>not</u> using the Essentials option **Stock to Jobs is moved out of Stock on Hand** (also known as WIPLOCZERO) whereby stock in Work in Progress is prematurely discarded from the stock system by a database trigger allowing the Work in Progress location to be a non-existent stock location (0). We will be working through transitioning these clients, who have associated add-ons and customisations and this document will be updated with common strategies based on our experience with pilot sites.

Introduction

When you install the upgrade and run the EXO Business Configurator, the upgrade process will detect if you are already using Job Costing and you will receive a warning. Shown below;
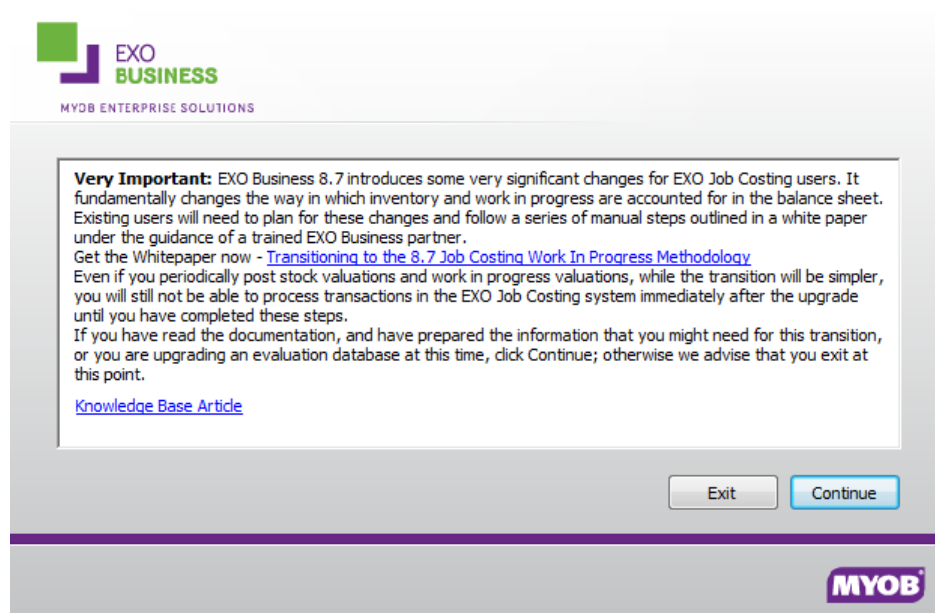
It is likely that the upgrade process for Job Costing will always need to stop at this point (sometimes referred to as a "watershed version"). The last watershed DBupdate was around version 6.162 when there was a major re-architecture of pricing and discount policies and serial numbers, which required some user interaction and a subjective decision process. If upgrading from a Job Costing version earlier than 8.7 versions as future modifications may well require appropriate settings to be in place before continuing and there is some possibility that resetting the version back and re-running the DBupdate for Job Costing may need to be prohibited in a future version as we build on features added in 8.7.

The key changes relate to the formalisation of:

1. The way that stock movements occur between stock-on-hand and Work progress.
2. The way that stock and Work in Progress are valued.
3. The way that the value of Work in Progress is posted to and reported in the general ledger when using perpetual inventory mode with Cost of goods sold.

The changes made to Job Costing in 8.7 involve a number of introduced constraints aimed at retaining the on-going integrity of:

- The valuation of Work in Progress and Stock on Hand
- Serial number history and location
- Recorded manufactured asset costs
- Job related credit notes
- Retrospective reporting of Work in Progress value
- Cost of goods and profitability reporting at a transactional level.

The flexibility of Job Costing and its ability to be applied to a wide range of business processes should not ultimately be compromised by these changes. For example you should still be able to generate an invoice and record sales prior to any work commencing on a job, but you should now be able to more accurately allocate the costs that do occur during the progress of the job to the lines of that original invoice and expect the sales reports to reflect the gradually increasing costs and the progressively reducing margin on the invoice.

The reasons behind MYOB not providing a fully automatic transition process are discussed below.

Job Costing Data Verification and Data Cleansing

There is some likelihood of data that exists that may break the new constraint rules and would not be able to be further processed without resolution.

Configuration

It's not possible for us to reliably detect which stock locations currently in use will represent Work in Progress locations. If you are wishing to engage perpetual posting of Work in Progress and Stock on Hand value changes to the General ledger, you will need to create a Work in Progress (WIP) control account in the appropriate sections in the balance sheet section of the chart of accounts.

Valuation

To encourage a formal "stocktake", evaluation and or revaluation to establish a firm and accurate opening balance for Stock on Hand and Work in Progress. The value of Work in Progress will be at actual cost recorded on the job transaction rather than average cost. While this was possible previously, there were insufficient controls on cost price changes to rely on this to provide a reliable control figure for the value of Work in Progress. The transition will inevitably result in an adjusting revaluation due to this change in perspective that will need to be entered as a balancing entry that can be easily explained and understood by accountants, auditors and other external advisors. The value of Stock on Hand will reduce by the value of Quantity x Current Average cost moving to WIP but will remain as the sum of quantities on hand remaining x current average cost.

Training on Constraints and Changes in Procedures

Initially the plan might be to limit the use of new features and introduce them gradually; however some of the constraints introduced will be encountered quite early on and are unavoidable. For example you will not see physical stock that is in Work in Progress as available stock, you will not be able to create a credit note in debtors for an invoice that was created from a job, without resolving it on the job itself, and at this point you not be able to partially credit a line or select only some lines to credit. A number of new tabs appear, e.g. the 'Jobs' tab in Stock that lists the value of current Work in Progress, distinct from Stock on Hand. Another subtle change is that the purchase order receipt and inwards goods location in the form header will never be the WIP location – WIP locations will even be missing from the drop down list. This represents the stock location that will be used on any lines that are for physical stock not directly linked to a job. Likewise it is no longer possible manipulate any of the Work in Progress locations manually using Stock transfers or Stock Adjustments. Only Job Costing can alter the Stock in these locations.

Customisations and Add-ons

Calling attention to past customisations aimed at extending job costing to accommodate unsupported or only partially supported features. The aim is to be able to remove these customisations as features have become standard and bring installations back to a more standardised form. At the very least existing customisations will need to be reviewed to maintain the constraints for new transactions. It may take some time for add-on solution providers to come to terms with the changes and adjust their products to accommodate the new features and methodology. If you are using add-on timesheet collection or invoicing functionality your ability to upgrade may depend on this and you should discuss this with them.

The Transition Process

Pilot Upgrade

The process we recommend begins with upgrading a copy of your database to 8.7. Proceeding past the warnings. This is in order to investigate the changes required, and to be prepared in every way possible for a rapid switch-over of the live database so that you can re-commence processing with the shortest possible amount of risk and down-time.

> **Note:** If perpetual inventory mode is enabled with EXO Job Costing, reconciliation will be a lot simpler if you can ensure that all stock transactions are posted to the GL BEFORE you upgrade and transition.

Some of the results from the data cleansing section would be best corrected in the live data via the user interface or by update scripts run in versions prior to 8.7 as there are fewer constraints preventing you from manipulating data on screen in these prior versions of Job Costing. For example, you can do manual stock adjustments on WIP locations in 8.6, but in 8.7 only Job Costing can adjust stock in WIP stock locations.

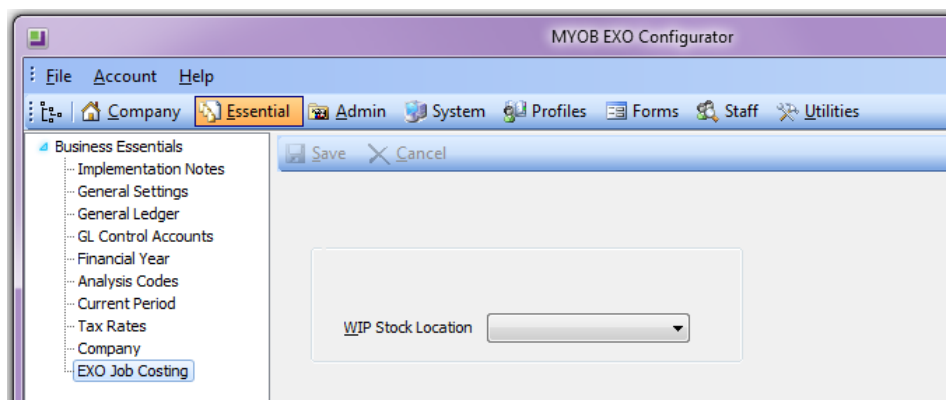## Taking a Snapshot of Stock on Hand Values

This involves running SQL scripts contained in the data cleansing section (See Appendix 1) to establish the value of Stock on Hand at the point of transition and record this for reference if required. Make sure to follow this step not only during the pilot, but also during the go live process as we will rely on this as an opening position for recalculation of average cost if required.

You might also wish to print off a stock valuation report and keep this in a file for reference in a more user friendly format.

Configuration

After you upgrade there are a few simple setting changes you will need to make via the EXO Business Configurator.

In the essentials section of the EXO Configurator, under Job Costing there is a singular setting that controls the default Work in Progress Stock location. Immediately after the upgrade this will appear blank because it requires that the default WIP location being used is defined as such.

You will need to distinguish active Work in Progress stock locations from active Stock on Hand locations. You may have multiple WIP locations. Set the flag on each as illustrated below:
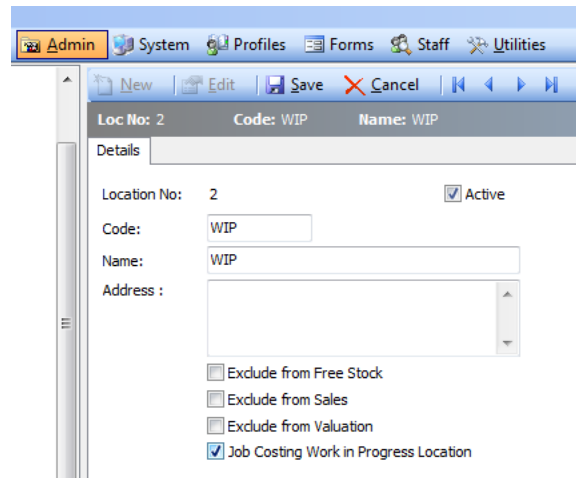
The default WIP location can also be set individually for each computer. So you should check the computer profile settings 'default job Work in Progress default stock location' to make sure that these are set to a location that is defined as Work in Progress.

The default WIP location should now appear in essentials.
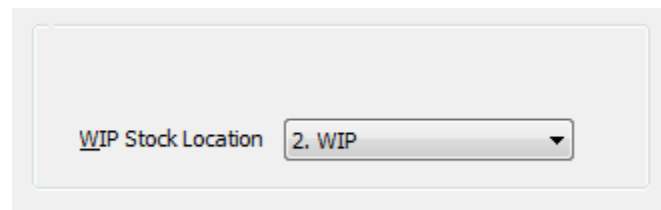
Data Verification and Data Cleansing

This involves running SQL scripts contained in the data cleansing section (See Appendix 2) to establish the extent of active transactions that break newly added business rules and would not be able to be processed in 8.7 or later versions and running update scripts as appropriate to resolve these. We are primarily concerned only with current Work in Progress jobs and transactions in those jobs that will be subject to further processing.
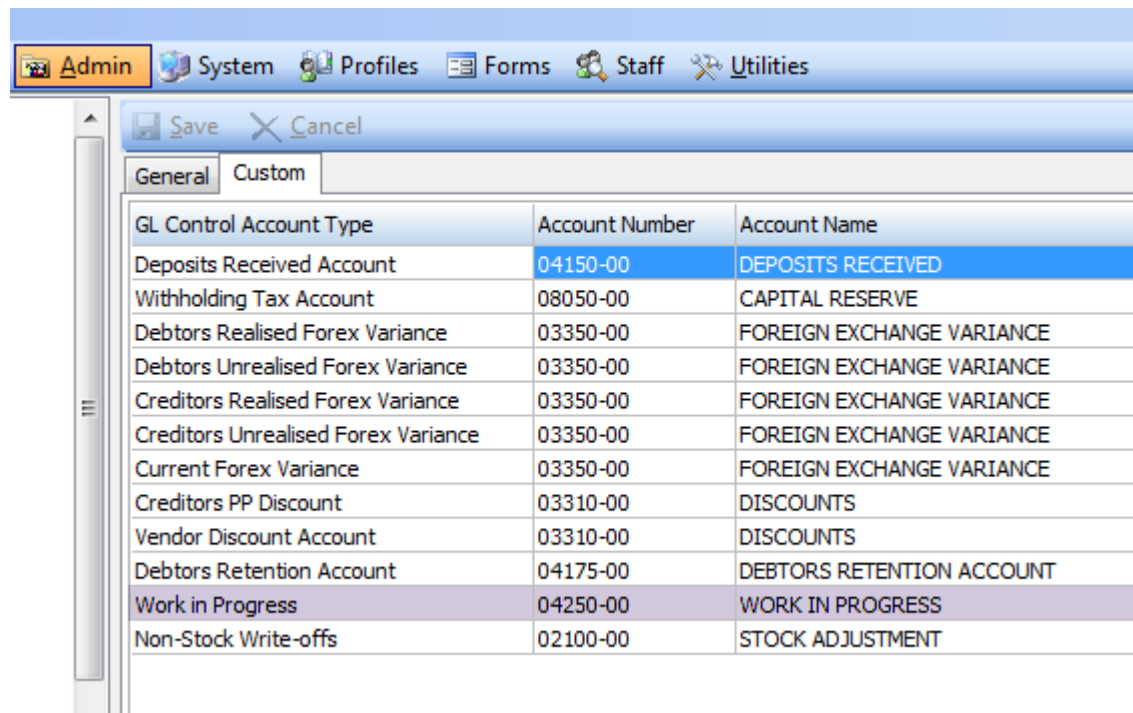
 A simple example of a check might be, you have nominated a non WIP location as the default location for a job (as you were previously able to do if the option for the user to override the default WIP location was enabled).

This is an ideal opportunity to deal with any unrounded average cost value son stock items, as you are going to be posting a re-valuation adjustment.

After the data cleansing exercise, you should run the **job totals recalculation script**. This is not run as part of the dbupdate process partly because it can cause a delay at that time, also to allow for this data cleansing process. There are some additional running totals that are calculated in 8.7.

General ledger Integration and Key Control Accounts

This section is essential only if you are not using periodic (Post closing Stock method) posting to the general ledger for the value of Stock on Hand and Work in Progress. You may already have a Work in Progress current asset account in the balance sheet of the general ledger, in which case you should select this as your **Work in Progress control account** in the general ledger control account section. Otherwise you will need to create a balance sheet account with the same characteristics as your current Stock on Hand Control account.

A new control account link **Non-Stock write-offs** is also created, by default it will link to your current stock adjustments control account, but you may wish to create an account an link it in order to separate write-offs of labour and other non-stock costs from normal stock adjustments.

Establishing current valuations for Stock and WIP

This involves running SQL scripts contained in the data cleansing section (See Appendix 3) to establish the Current value of Stock on Hand.

The key values are;

A - Current Value of Stock on Hand in Work in Progress locations (*QTY* CURRENT AVERAGE COST*)

B - Current Value of Stock on Hand in Work in Progress locations (*QTY* CURRENT AVERAGE COST*)

C - Current value of stock in Work in Progress (*job transactions actual Line Cost for stocked items*)

D - Current value of non-stock in Work in Progress (*job transactions actual Line Cost for lookups*)

E- The current value of Stock on Hand in the GL. (assumes all transactions are posted)

Entering Balancing Journals

Here is a sample journal set for commencing with perpetual inventory posting to GL that can be reviewed in the Australian Demo database:

	DR	CR
Move the value of stock currently on un-invoiced jobs, out of Stock on Hand and into the new WIP balance sheet account.		
Stock on Hand		5021.79
Work in Progress	5021.79	
Revaluation/correction of Current Stock on Hand at current average cost.		
Stock Adjustments		2,949.75
Stock on Hand	2,949.75	
Value the labour on jobs as a recovery of expenses		
Labour recovery		1026
WIP	1026	
	8997.54	8997.54

Balance of WIP		6047.79
Balance of SOH		$306,007.52

Configuring and Adapting Clarity Forms and Reports

The billing schedule on jobs has a number of new documents defined some of these are widget content.

A key business form is the JOBBILLINGSHEDULEQUOTE.CLF. This form is based on the header tables DR_TRANS_PARK, JOB_CONTRACT_BILLINGS and details Table DR_INVLINES_PARK and NARRATIVES. It is totally new to 8.7 and a samples are provided in the masters folder; this will likely require definition to suit the business before being used in a live scenario. It also has associated form control profile settings that you may need to set.

During the upgrade, the JOB_CONTRACT_BILLINGS.NOTES field has been dropped and a new field NARRATIVE_SEQNO has been added to JOB_CONTRACT_BILLINGS table with a link back to NARRATIVES table. All existing notes from pro forma invoices that haven't been invoiced have been migrated to the NARRATIVES table and link back to the narratives created. For existing pro forma invoices that have been billed the NARRATIVE_SEQNO field points to the narrative on the invoice that was created.

Extra Fields Default Values

In 8.7, extra fields will attempt to use the default values in the database when saving. This applies not only to Job Costing, but to all extra fields defined throughout the system. Previously Database default values would be overridden if the value wasn't specifically set; now the extra fields are set specifically before saving.
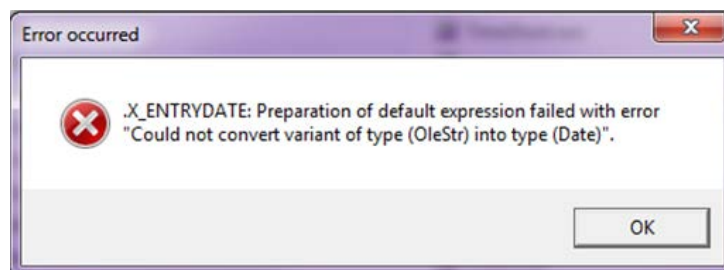
There are limitations however as to the defaults it can handle, for instance it cannot interpret some custom formulas as a default value. The most common problems with defaults seem to be associated with DATETIME type extra fields, where efforts have been made by partners to set default dates, in the case below the default for a null value is being converted to a string. The Extra fields logic in EXO Business can't interpret this as a valid Datetime to apply the default before save.

Data Type	datetime
Default Value or Binding	(CONVERT([datetime],CONVERT([char](10),getdate(),(101)),(0)))
▲ Table Designer	

The script provided in Appendix 5 will list DATETIME type extra fields that may be issues.

An example of an error you might encounter might be:

Error occurred

.X_ENTRYDATE: Preparation of default expression failed with error "Could not convert variant of type (OleStr) into type (Date)".

OK

Appendices

Appendix 1: SQL - Taking a snapshot of your Stock Value

```sql
/*record a snapshot of stock value at the point of transition to separate
WIP from Stock on Hand*/
SELECT SLI.STOCKCODE,
       SLI.LOCATION,
       SLI.QTY,
       SI.AVECOST INTO STOCK_WIP_TRANSITION_VALUES
FROM STOCK_LOC_INFO SLI
JOIN STOCK_LOCATIONS SL ON SL.LOCNO = SLI.LOCATION
JOIN STOCK_ITEMS SI ON SLI.STOCKCODE = SI.STOCKCODE
AND SI.STATUS = 'S'
```

```sql
/*You can recall this snapshot at any time*/
SELECT *
FROM STOCK_WIP_TRANSITION_VALUES
```

```sql
/*The upgrade process records a milestone marker of the last transaction
processed prior to the transition*/
SELECT STOCK_TRANS_SEQNO_8700
FROM GENERAL_INFO
```

Appendix 2: SQL - Data Cleansing

```sql
/*JOBS with a NON-WIP Location*/
SELECT WIPLOC,
       JOBNO,
       MASTER_JOBNO
FROM JOBCOST_HDR
WHERE WIPLOC NOT IN
    (SELECT LOCNO
     FROM STOCK_LOCATIONS
     WHERE IS_WIPLOCATION ='Y')
/*if the job is Complete (no unresolved WIP lines)- they can be ignored*/
```

```sql
/*Job Transactions with an invalid WIP location*/
SELECT LOCATION,
       *
FROM JOB_TRANSACTIONS
WHERE LINE_STATUS NOT IN ('W',
                          'X',
                          'I',
                          'A')
  AND (LOCATION NOT IN
        (SELECT LOCNO
         FROM STOCK_LOCATIONS
         WHERE IS_WIPLOCATION= 'Y'))
```

```
/*Recalculate job totals*/
Execute dbo.RECALC_ALL_JOB_TOTALS
```

Appendix 3: SQL – Stock and WIP Valuations

A - Current Value of Stock on Hand in all locations (QTY* CURRENT AVERAGE COST)

B - Current Value of Stock on Hand in non- Work in Progress locations (QTY* CURRENT AVERAGE COST)

C - Current Value of Stock on Hand in Work in Progress locations (QTY* CURRENT AVERAGE COST)

D - Current value of stock in Work in Progress (job transactions Sum of Line Cost for stocked items)

E - Current value of non-stock in Work in Progress (job transactions Sum of Line Cost for lookups)

F - Current balance of Stock on Hand in the balance sheet

A - Current Value of Stock on Hand in all locations (QTY* CURRENT AVERAGE COST)

```
SELECT Sum(SLI.QTY*SI.AVECOST) AS SumvalueofSOHLocations
FROM STOCK_LOC_INFO SLI
JOIN STOCK_LOCATIONS SL ON SL.LOCNO = SLI.LOCATION
JOIN STOCK_ITEMS SI ON SLI.STOCKCODE = SI.STOCKCODE
AND SI.STATUS = 'S'
```

B - Current Value of Stock on Hand in non- Work in Progress locations (QTY* CURRENT AVERAGE COST)

```
SELECT Sum(SLI.QTY*SI.AVECOST) AS SumvalueofallLocations
FROM STOCK_LOC_INFO SLI
JOIN STOCK_LOCATIONS SL ON SL.LOCNO = SLI.LOCATION
AND SL.IS_WIPLOCATION ='N'
JOIN STOCK_ITEMS SI ON SLI.STOCKCODE = SI.STOCKCODE
AND SI.STATUS = 'S'
```

C - Current Value of Stock on Hand in Work in Progress locations (QTY* CURRENT AVERAGE COST)

```
SELECT Sum(SLI.QTY*SI.AVECOST) AS SumvalueofWIPLocations
FROM STOCK_LOC_INFO SLI
JOIN STOCK_LOCATIONS SL ON SL.LOCNO = SLI.LOCATION
AND SL.IS_WIPLOCATION ='Y'
JOIN STOCK_ITEMS SI ON SLI.STOCKCODE = SI.STOCKCODE
AND SI.STATUS = 'S'
```

D - Current value of stock in Work in Progress (job transactions Sum of Line Cost for stocked items)

```sql
SELECT SUM(LINECOST)
FROM Job_transactions JT
JOIN Stock_Items SI ON JT.Stockcode = SI.Stockcode
AND SI.Status = 'S'
AND JT.LINE_STATUS NOT IN ('I',
                           'A',
                           'W',
                           'X')
AND JT.JOBNO > 1
```

```sql
/*As above but with line detail*/
SELECT Jobno,
       Seqno,
       LOCATION,
       JT.Stockcode,
       Jt.Unitcost,
       SI.Avecost,
       JT.Total_Quantity,
       LINECOST,
       Line_Status
FROM Job_transactions JT
JOIN Stock_Items SI ON JT.Stockcode = SI.Stockcode
AND SI.Status = 'S'
AND JT.LINE_STATUS NOT IN ('I',
                           'A',
                           'W',
                           'X')
AND JT.JOBNO > 1
ORDER BY Stockcode
```

E - Current value of non-stock in Work in Progress (job transactions Sum of Line Cost for lookups)

```sql
SELECT SUM(LINECOST)
FROM Job_transactions JT
JOIN Stock_Items SI ON JT.Stockcode = SI.Stockcode
AND SI.Status = 'L'
AND JT.LINE_STATUS NOT IN ('I',
                           'A',
                           'W',
                           'X')
AND JT.JOBNO > 1
```

```sql
/*As above but with line detail*/
SELECT Jobno,
       Seqno,
       LOCATION,
       JT.Stockcode,
       Jt.Unitcost,
       SI.Avecost,
       JT.Total_Quantity,
       LINECOST,
       Line_Status
FROM Job_transactions JT
JOIN Stock_Items SI ON JT.Stockcode = SI.Stockcode
```

```sql
AND SI.Status = 'L'
AND JT.LINE_STATUS NOT IN ('I',
                           'A',
                           'W',
                           'X')
AND JT.JOBNO > 1
```

```sql
/*All current WIP grouped by Location*/
SELECT JT.LOCATION ,
       SUM(LINECOST) AS [SUM COST VALUE]
FROM JOB_TRANSACTIONS JT
JOIN STOCK_LOCATIONS SL ON JT.LOCATION = SL.LOCNO
WHERE JT.LINE_STATUS NOT IN ('I',
                             'A',
                             'W',
                             'X')
GROUP BY LOCATION
```

```sql
/*Rounding current average costs to 2 decimal places*/
UPDATE Stock_Items
SET AVECOST = ROUND(AVECOST,2)
```

Appendix 4: SQL – Assorted Key Profile Values

```sql
SELECT Fieldname,
       FIELDVALUE
FROM Profile_Values
WHERE FIELDNAME= 'JOBMOVESTOCKONINVOICE'
  SELECT Fieldname,
         FIELDVALUE
  FROM Profile_Values WHERE FIELDNAME= 'JOBDEFWIPLOC'
  SELECT Fieldname,
         FIELDVALUE
  FROM Profile_Values WHERE FIELDNAME= 'JOBMOVESTOCKONHAND'
  SELECT Fieldname,
         DefaultValue
  FROM Profile_Fields WHERE FIELDNAME= 'JOBMOVESTOCKONINVOICE'
  SELECT Fieldname,
         DefaultValue
  FROM Profile_Fields WHERE FIELDNAME= 'JOBDEFWIPLOC'
  SELECT Fieldname,
         DefaultValue
  FROM Profile_Fields WHERE FIELDNAME= 'JOBMOVESTOCKONHAND'
```

Appendix 5: SQL - Extra Field Default Values

```sql
SELECT TABLE_NAME,
       COLUMN_NAME,
       COLUMN_DEFAULT
FROM INFORMATION_SCHEMA.COLUMNS
WHERE data_type = 'datetime'
  AND COLUMN_NAME LIKE 'X%'
  AND column_Default IS NOT NULL
ORDER BY COLUMN_NAME
```