White Paper Documentation

Hospital Supply Chain Solution

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"Provida Pty Ltd: developing specialised solutions for Hospitals using the Sage Accpac™ platform"

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INTRODUCTION:

Provida has developed an Inventory and Supply Chain management solution for Australian hospitals using the Sage Accpac ERP development platform.

The supply chain solution comprises the following key elements:

- Hospital Purchasing
- General Ledger Sales Posting Account Override
- General Ledger Inter-company
- Imprest Sales Orders
- Item Price List Update
- Purchase Orders Account Override
- Purchase Order Warehouse Faxing
- Automatic Sales Order Creation
- Shipment Returns
- Purchase Order EDI

Hospital Purchasing Business Rule

Hospital Limited requires one purchase order to be created per vendor. The purchase order quantity will be obtained from the Minimum/Maximum logic of Inventory Control and sales on back order from Sales Order Entry. Standard Accpac has both of these features, however two separate purchase orders will be created ie

1. Create POs from IC;
2. Create POs from OE.

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of Create PO from IC & OE

A new program screen was designed to allow the user to select by Vendor by item and it uses this logic to create the POs.

The system to create one PO for this selection:

1) For all items with a Minimum AND/OR Maximum qty (e.g Min 0, Max 1) in the “Reorder Qty’s” screen, create a purchase order to Vendor 1, if Qty in Stock is less than the Minimum Qty. Resulting purchase qty should be Maximum Qty – Qty on Hand + quantity on back order in Sales Orders, converted to the purchase Unit (unit in Vendor Details against Vendor 1), using the conversion factor in I/C – Then reduce qty by any amount on an existing Purchase Order.

2) For items without a Maximum Qty, create a purchase order to fill any outstanding backorders from Sales Orders, converting the Purchase Qty to the Purchase Unit (unit in Vendor Details against Vendor 1), using the conversion factor in I/C – then reduce qty by any amount on an existing Purchase Order.

The program puts details from IC and OE (1 & 2) into a temporary table called “New PO”.

PO details are only used from Vendor type 1 from the Accpac IC vendor details.

Interface to Sage Accpac ERP

This program is interfaced with Inventory Control and Order Entry and Purchases Order modules.

General Ledger Sales Posting Account Override Business Rule

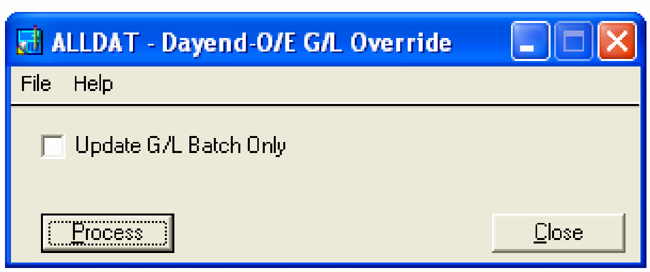
Hospital Limited requires sales of hospital items to be posted to the customer sales account in the general ledger. Standard Accpac posts sales amounts by “Account Sets”. So the GL Accounts Override program was designed to fulfill this requirement.

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of GL Accounts Override

This program runs the standard Accpac Day End of Inventory Control and then searches for all open OE type batches in GL and changes the GL account segment 2 and 3 to the number given on the customer optional field name “GLOEOVERRIDE”. (This program is similar to the GL override in Location details). The program also allows the user to only update the GL batch in place of performing Day End and then updating GL.



Interface to Sage Accpac ERP

This program interfaces with Order Entry, Accounts Receivable and General Ledger.

General Ledger Inter-company Business Rule

Hospital Limited requires a program, which transfers General Ledger batches from the hospital companies to the “Head Office” company.

Description of GL Inter-company Interface

This program allows the user to select GL batches of type “OE” which have open status and exports this information to a .CSV file format which is then imported into Intercompany module. Once the file is created the status of the processed batches is changed to “posted”. This program allows the user to enter a file name for the exported file, the system automatically creates a secondary file utilising the same name and adding “zz”. This file contains the filtered entries from the processed batch which have “zz” in GL account segment 2 and/or 3.

Interface to Sage Accpac ERP

This program is interfaced with Inventory Control module.

Imprest Sales Orders Business Rule

Hospital Limited requires sales orders to be imported from a barcode scanned file in order to process sales orders as they come in from various hospitals.

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of Imprest Sales Orders

This program reads the barcode scanned file (which is produced by a separate process by the barcode reader). Based on the scanned details, sales orders are created automatically within Accpac. When an order is created, a formula is utilised:

(Formula is calculated as Maximum Quantity – Scanned Quantity – Back Orders).

Definitions:

- Maximum Quantity – the standard maximum quantity field from the min/max reorder quantity inside Accpac Inventory Control
- Scanned Quantity – taken from the barcode scanned file
- Back orders – the standard outstanding sales orders quantity inside Accpac

Once the orders are successfully imported the barcode scanned file is automatically saved into an “archived orders” folder and the file is renamed with the suffix of import date. If the file is not successfully imported error messages will be logged to a “notepad” file. This file will automatically open after the import process is complete eg. “Invalid customer”. Only lines with errors will be logged to the file, the remainder will be imported.
The tables can also be created manually using the script to create the database can also be found at H:\Apps\accpac\provida support\ source code\scripts\providascan.txt

Interface to Sage Accpac ERP

This program is interfaced with Inventory Control and Order Entry modules.

Item Price List Update Business Rule

Hospital Limited requires the selling price of an item to be the same as the cost price. This process is used where hospitals supplies are transferred between hospitals in a group.

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of Item Price List Update

This is a program, which runs in the background so no user input is required. When a user clicks on the “Shipment” tab in “Order Entry” screen, this program updates the sales price of each line detail of the order based on the average price of that particular item. This logic only works if the price list code of each specific line item is “HSP”. If the user does not want the selling price to be calculated from the average cost they select a different price list.

Interface to Sage Accpac ERP

This program is interfaced with Inventory Control and Order Entry modules.

General Ledger Accounts Override for Purchasing Business Rule

Hospital Limited processes receipts of non-stock items, but does not ship these items, as is the regular process. The requirement is to simply record the expense account for these items.

When purchase orders are entered into Accpac, the default expense account is entered automatically. The expense Account will be changed to the first segment of the account set and the 2nd and third segment to come from Customers' Optional field.

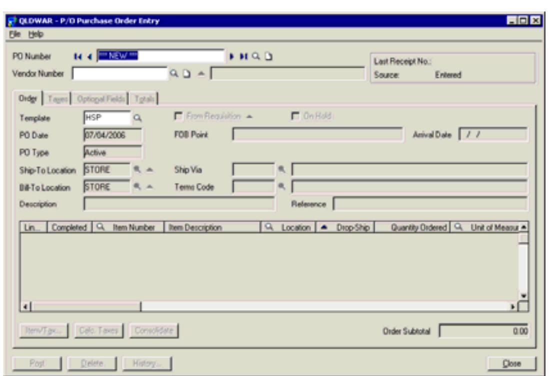
Summary of information flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of PO Accounts Override

Each customer is also set up as a location. Based on the bill to location field in the PO screen the customer will be identified. Once the user selects a non-stock item the program (running in the background) will replace the default expense account for that item by linking the bill to location selected to the customer number field in accounts receivable. Segment 2 and 3 of the GL accounts details will be obtained at this point. Also obtain the first segment from the Account Set field for that item and replace the first segment of the expense account.

The screen will appear to be exactly the same as the Purchase Order screen and should be used in the same way. However the General Ledger expense account will be overwritten once the item number is selected.



Interface to Sage Accpac ERP

This program interfaces with Purchase Orders, Accounts Receivable.

Purchase Order Warehouse Faxing Business Rule

Hospital Limited would like to fax purchase orders to vendors in a timely and efficient manner.

The application includes an input screen, which would allow users to specify a range of purchase orders to be faxed and also whether to fax purchase orders already faxed. A log of the fax transmission is stored on a designated FTP site.

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of PO Warehouse Faxing

Hospital Limited requires the faxing of purchase orders to multiple vendors at one time. It has been decided that Hospital Limited will not run any local faxing software on site but instead that they will use a hosted internet faxing provider.

The setup and configuration of the hosted faxing software is separate to this project and will not be included as part of the scope of this application.

The proposed faxing solution would allow users to specify a range of purchase orders that are required to be faxed it will also allow the user to specify whether purchase orders that have already been faxed should be faxed again.

Once a selection of purchase orders has been made an email will be sent to the hosted fax provider. Each email will have the Accpac purchase order attached and will include the necessary information required by the faxing provider.

How to Use PO Warehouse Faxing

Faxing purchase orders will be done from a screen very similar to the standard print purchase orders screen as pictured below.

Purchase Order From and To can be selected as well as whether to include purchase orders already printed, purchase order spec will also be able to be selected from this screen.

When necessary parameters are selected and the user clicks the button to fax the purchase order an individual email will be sent for each purchase order with the PO as an attachment. Details required by the faxing provider for faxing will also be included in the email.

The program can be configured to use SMTP directly, in case Microsoft Outlook or Exchange is not being used.

The options screen can be used to maintain email details, this will allow Hospital to configure information if details change and make the system more flexible.

Each time an email is sent an entry will be added to the log file. The log file will include a timestamp of when the email was sent the purchase order and vendor number, whether the email was sent successfully and the recipient of the email.

Interface to Sage Accpac ERP

This program interfaces with Purchase Orders.

Sales Order Creation Business Rule

Hospital Limited requires all the outstanding sales orders where some items are available for shipment to be shipped at once and packing slip to be printed after shipment (basically to speed up the data entry process, instead of opening each order separately and clicking on “post” for each order).

Summary of Information Flows

Insert flow diagram here (use Microsoft Visio if possible).

Description of Sales Order Creation Program

This program lists all the outstanding sales orders where some items are available for shipment then it allows the user to click on “post” and the program starts shipping the orders in chronological order. When the orders are shipped the selling price of the sales order line item is updated to the current average cost per item. This average price updating process will only apply if the price list for the particular line item is ‘HSP” (basically for those line items where the price list selected is “HSP” it will sell that particular item at cost price).

Once all shipment is completed the user will receive a message “Shipment Completed”, the user can now select “Print Picking Slip”, and this process will print **all** the picking slips for the items that have been shipped using the above process.

Interface to Sage Accpac ERP

This program is interfaced with Inventory Control and Order Entry modules.

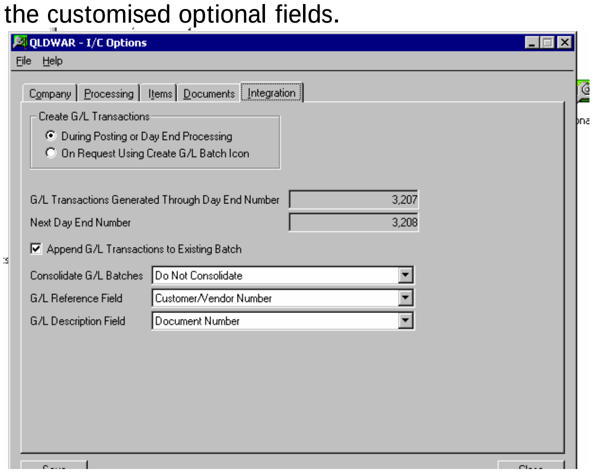
Shipment Returns Business Rule

Hospital Limited requires a Shipment Return option similar to the Order Entry Shipment. This Shipment Return will return the stock to the Inventory and utilise the average cost as the return value. The GL account for the return will be based on an optional field from the customer instead of the standard category in Inventory Control.

Description of Shipment Returns

This shipment return program is based on the standard inventory control shipment icon, with the option of the return item cost automatically being obtained from the average price. If the average price for that particular item is $0, the user will be prompted to manually enter a price.

The GL account to be updated for the particular item is not based on the standard Accpac transaction flow ie inventory category. However the GL account will be overridden by the customer's optional field. In the customer's optional field the GL segment 2 and segment 3 information is utilised. This program while posting overrides the standard GL with the GL in the customised optional fields.



Interface to Sage Accpac ERP

This program is interfaced with Inventory Control module.

Business Rule of Shipment Returns

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Interface to Sage Accpac ERP

This program is interfaced with Inventory Control and Order Entry modules.

Business Rule for Purchase Order Electronic Data Interchange (EDI)

PO Invoicing EDI module automates Purchase Order Invoice process using EDI in an efficient and reliable manner.

PO Invoicing EDI maintains separate database tables to record data such as vendor EDI information, import status, successful and rejected import invoice information

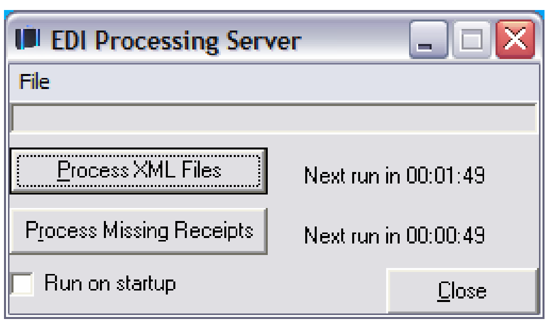
Functional Features:

- Automatically import PO invoice XML files from specify folder, the interval timing for running the program can be setup easily.
- Manually import XML files function is provided
- An XML files can be automatically e-mail to vendor and site
- Help to reduce business transaction costs by eliminating duplicate data entry
- Improve shipping and receiving accuracy
- Proof of Upload Invoice report is provided

EDI Processing Server

The EDI processing server handles the transmission of all inbound and outbound files for EDI.

The main screen of EDI Processing Server is as follow



Process XML Files Function

This function will process new XML Invoice files that have been delivered. The program will read the file and import the required information into Accpac. After that it will archives the file into the specify archive folder

This function can be setup to run automatically every the interval time that has been setup in the EDI Option screen.

Process Missing Receipts Function

This function will process missing receipts – Invoices that have been rejected after importing due to the receipt number does not exist.

This function can setup to run automatically every the interval time that has been setup in the EDI Option screen

Site Email Address Setup

Site Email Address Setup is to specify the Email address that the program will be sending an e-mail to.

Additional Cost Mapping

This screen will map vendor's additional cost details to Accpac additional cost. The additional cost will be set by vendor. While importing the invoices, if it doesn't meet the business rule of Additional Cost, it will be sent to the Rejected Invoices screen for re-examination

Rejected Invoice

This screen will list all rejected invoices including the rejected reason. User can specify an invoice date range, rejected reason and vendor to view the list of invoice.

From this screen user can select an Action to 'Import' in order to re-import an XML file after fixing the problem. A function to send e-mail to site and vendor is provided from this screen by changing the value of filed Email to Site/Email to Vendor from 'No' to 'Yes', then click 'Process' to start Import/Email processing.

After processing, the system will record the date and time that program send an e-mail to the site and client

Import Rejected Invoice due to missing receipt number

There will be some amount of invoices that get rejected due to missing receipt number. This happens because the Receipt Transaction in PO module still doesn't get created. Basically program will automatically start up according to the interval time period specify and process those missing receipt number rejected invoices. There is also a number of day to attempt processing invoice setup in an option screen. Therefore if those missing receipt number rejected invoices are still not being process within the number of days specify, user has an option to manually process those invoices from the below screen.

View XML import files

EDI Import screen will show all new invoice XML files that located in 'Invoice File Import Location' and all processed invoice XML files that located in 'Invoice Achieve Location' which specify in the setup screen.

User has an option to browse for an XML files that located in different folder specify in the setup screen by click on 'Browse for Invoice' button

Proof of Invoice Upload

Proof of Invoice Upload will print out all invoice information within the Invoice Date range and Import Status specified.

Business Rule of Purchase Order Approval & EDI Transactions

PO Approval & EDI is an ACCPAC module that allows purchase orders to be approved by management and electronic transfers an approved order file to Vendor in a timely and efficient manner.

PO Approval & EDI maintains separate database tables to record data such as approval status, transfer status, vendor's detail of file transfer method and destination.

PO Approval & EDI screen will list non-approval Purchase Orders from Accpac PO module with the information of Purchase Order Date, Purchase Order Number, Total Amount, Ship-To Location and Ship-To Location Description.

Functional Features:

- User friendly console for easy approval and automatic transferring PO to vendor
- Electronic procurement by automatically emailing, FTP or copying PDF or XML files of Purchase Order to vendors.
- Approve multiple purchase orders at the same time
- Approve all function to set all PO line details to be Ready to Approve status
- Archive transferred files to a specified directory
- Auditing transactions of approved PO and the summary report of the changes is provided
- Analytical reports on PO approval and transfer status.

Process for PO Approval and Transfer

Step 1 – Change Approval Status

Users can change the Approval Status by *Double Click* on Approval Column. After the Approve column is changed to 'Yes', the value of Approval Status will be updated from 'Open' to 'Ready to Approve'. To change the value of Approval Status from 'Ready to Approve' back to 'Open', you can *Double Click* on Approval Column again to change the value of Approve to 'No'.

Step 2 – Process Ready to Approve Transaction

Once each line of Ready to Approve PO has been selected, to commit the approval transaction, you can click on Process button. Then the program will change the Approval Status from 'Ready to Approve' to 'Approved'.

Step 3 – Approve Status change to Approved

If the approval process is completed, the Approval Status will be changed to 'Approved'.

Step 4 – Manually change Transfer Status

If 'Perform Automatic Transfer' is not selected, user has to manually specify the transfer by *Double Click* Transfer column of each PO line. Then the transfer value will be changed to 'Yes' and the Transfer Status will be changed to 'Ready to Transfer'.

Step 5 – File Transfer Status Change Automatically

If 'Perform Automatic Transfer' is selected, Transfer Status will be changed to 'Ready too Transfer' Automatically.

Step 6 – Process Ready to Transfer Transaction

After that you can click on Process button to start doing the file transfer. The file transfer method and destination is based on the information in the setup screen.

Step 7 – Transfer Status change to Transferred

If the file transfer completed the Transfer Status will be updated to 'Transferred' as seen from picture below

Approve All Function

Instead of manually approving each line PO, user can select 'Approve All' function to change the Approve value of all PO line from 'No' to 'Yes'.

Approval & EDI Report

Approval & EDI report will print out the status information of each PO. User can specify information of Approval Date and Approval Status as parameter before printing report.

Other Features:

Log Viewer

Log Viewer screen will display errors happened during the approval and transfer process

Audit Trial

Any changes made to the **approved PO** will be logged and can be view by printing the Audit Trial Report. The program will capture the PO changes of

- PO Date
- Total Amount
- Item Number
- Item Description
- Item Quantity
- Item Unit Cost
- Item Extended Cost
- Item Ship-to Location Code
- Optional Field

Audit Trial Report

Audit Trial Report can be printed by specifying the parameter of PO Date and Action to be viewed.