

Changes from Rev D1 to Rev D2.

- **Consolidated Shipper: Made Customer and PO fields mandatory.**
- **Consolidated-Shipper Printout: Now chosen from drop-down list. By default the dialog-box will show last 10 shippers.**
- **Added 80-character string-field INVOICENUMBER.**
- **Added MISCTEXT Field to Consolidated Shipper.**
- **Added GROSS-WEIGHT, NET-WEIGHT and MEASUREMENT alpha 20 fields.**
- **Changed Consolidated Shipper Printout to show various additional fields.**
- **If a lot has already been shipped AND CONSOLIDATED in a shipment, the lot-shipment cannot be reversed without reversing the Consolidation process.**
- **Modified Customer WIP report to have a more comprehensive ship report. Changed the interface to make it user-friendlier. The hard-copy printout and text-email menus have been combined into one.**
- **If the user added a step at the end of the traveler after all processing was complete, the next-area of the previously completed step will now be forced to update.**
- **When a Lot is split or merged (before the transaction is committed) the user review will include only the two effected lots. Previously all lots in the Job were presented for a review. This was causing confusion.**
- **During Punch-In and Punch-Out the lot-list window also has a column for Date-to-Stage so that FIFO may be practiced.**

Changes from Rev D2 to D3

- The content of invisible fields will not be exported to MYSQL or ORACLE.
- The Find option in the Planning Menu can now also find lots by Consolidated Shipper Number.
- Added Starting and Ending week options in Quality Plots.
- The Step-Control Parameters of Documentation Steps cannot be changed.
- Documentation Steps cannot be deleted.
- Added Employee-Code Window In Update Traveler.
- Added User-login name and employee-code (if available) in trace-ability fields.
- Added configuration-control in HK record so that mother-lot steps are always copied in child-traveler.
- Document-Control Spread-Sheet allows user to filter by Spec-Title.
- Added Un-Merge button. A lot that was merged may receive units back into it from the lot into which it was merged. Documentation steps 521 and 522 added to document this operation.

1* * If a Lot was Punched-out via the planning menu the tools used by the LOTSTEP were not released & the real-time equipment status did not show the correct data. Fixed

- Enlarged the "Return Lot" layout so that 4 lots may be visible at one time.
- Changed Resource-Rental invoice-generation process so that customer selection is from a drop-down list.
- Replication Process FTP changed so that (a) a directory-listing is not requested on original login and (b) the data-file is first transferred as a.tmp file and then renamed to a.zip file (ON THE FTP SERVER) to make sure the file was deposited on the FTP server.

Changed from Rev D3 to D4.

Added StockNumber field in MATERIALSUSED table. 80-char string.

- **Changed WEB settings so that they are stored as cookies in the local machine vs. being saved in the Server Database.**
- **Punch-In window BOM interface changed. If BOMPULL module is installed then at punch-in, material will be (only) pulled from inventory. NEVER ordered. Previously material shortages would be ordered directly.**

Changes from Rev D4 to D4C.

- If a job is archived then the job may be viewed from the accounting spreadsheet, (by clicking on the second column).
- In the case of a traveler-based invoice the invoice charges by traveler-step are stored in a Sub-table (Sub-Table "S" of the Lots Sub-table). When an invoice is posted this information is also transferred to the LOTSTEPS table so that they are available for MYSQL & ORACLE replicated databases.
- In the case of unit-price-based invoicing the Unit-Cost and Total (Lot) Charge are now copied in the LOTINFO table so that they are available for MYSQL & ORACLE replicated databases.
- In the Planning & Accounting Spread-Sheets added a "Print Settings" dialog which allows the user to change the Font-Name and Font-Size for all Print List forms.
- In the planning menu added the option to download WIP, excluding lots on HOLD.

2* *During punch-in if the tools were changed the previously claimed tools were not always released from the QUEUE table. Fixed.

- QUEUE-table triggers deleted.
- Added a new list "Process Qualifier" to provide selection choices for the PR_Qualifier field in the LOTINFO table
- Planning and Accounting Selections provide a Process Qualifier Filter.

Changes from Rev D4C to D4D.

- I • RECEIVER PR_QUALIFIER field is now brought out in the Receiving form**

Changes from Rev D4D to D4E.

Dated: 1/15/02

3* * If a Job was closed (Invoiced and Posted) it was possible to modify the JOB record via the Planning menu. Fixed.

4* * If a Boolean-field was modified in the RECEIVER record the entry in the JOB-MEMO field was not made correctly. The entry will now show "0" or "1" for the value. Fixed.

Changes from Rev D4E to D4F.

Dated: 1/16/02

5* * Contextual Web Mode was not working. Changed OWA method to accommodate Contextual WEB Mode. FIXED.

•If date-time stamp is not zero, then Data Export will first be ordered by the date-time stamp before it is exported. This will make the changes in the order they were made.

Changes from Rev D4F to D4G.

Dated: 1/17/02

6* Division Names Array was sorted without the corresponding information. This caused a mismatch of Names & Addresses. Fixed.

7* Customer Status-Email was not selecting the Customer-Record unless a Status Report was printed first. Fixed.

- The ERP2020 Slave Station will first see if a ZIP file exists in the REPX folder before moving a newly integrated ZIP file into this folder. This will allow the MASTER to re-send an update file.

Added new LONGINTEGER field BUILDJOBNUMBER in table PO_MANY.

8* In Step-template #1 when the binning yield% was compared against the hold% in the BinningControlRecord, the binning yield in the step was not calculated as a%. Fixed.

9* If the over-all yield in a lot-step did not meet the min.-yield defined for the step in the traveler, an alert was issued & the lot was placed on hold. The alert did not include the message that the lot will be put on hold. Fixed.

- Fabless Module allows for nesting of Build Cards.

10* When a child lot was created (via a split) the documentation step in the Child Lot was erroneously set to a "revival step" with step-type 522 (same as the documentation step for an UNMERGE process). Should be 512. Fixed.

- Added 5-pixels to the width of the Job-Field in the condensed-planning-image printout.

Changes from Rev D4G to D4i.

Dated: 1/30/02

- In the Merge dialogs after the user processes the Child steps the pull-down list for the Acquiror Lot is removed.
- Added new menu for FABLESS option.
- When a shipper is made for a Job that was created via a Sales Order Line-item, upon shipping the line-item in the PO_Many table is automatically updated for ship-date.
- Customer-Shipper is encoded for inventory-pull jobs.
- Changed the name and function of a previously un-used BUT_ITEM field. It was BBL_number (Long integer) is now called "RelationalString" String (80).
- Customer-Count field in the SubTable Lots was Mandatory. Now it is made Mandatory in the Receiving Form. This is to allow tracking in the Fabless Mode where Lot-Qty can be 0 if there is an equivalent pull from inventory.

**Added Text field "BCBlobToText" in BinningControl table.
(Replication-Enhancement).**

**Added non-modifiable, String field in "UNIQUEID" BinningControl table.
(Replication-Enhancement).**

**Added the following fields to "PRODUCTS" table: "EndProduct" (Boolean),
"UNIQUEID" (String) (Replication-Enhancement).**

**Added non-modifiable "UNIQUEID" field in ATE table.
(Replication-Enhancement).**

**Added non-modifiable "UNIQUEID" field in AREADEFINITION table.
(Replication-Enhancement).**

Changes from Rev D4i to D4j.

Dated 2/1/02

- **Replication Process** changed so that if the Server is started at anytime, replication will occur within the time determined by REPDUTYCYCLE.
Before the change: If the Server was started after the first replication time, first replication would have occurred the next day.
- **Improved Condensed Planning Report.** Some fields with break-points were removed and numeric columns were expanded.
- **Print Area** for "Ship to" "Bill to" and "issued to" expanded to fit long Asian Addresses.
- **When a currency other than the US\$ is chosen, the line-items will not show a currency symbol. The currency symbol will show correctly in the total.**

Changes from Rev D4j to D4k.

Dated 2/5/02

Added "Tools" fields to EXPANDEDBINS layouts.

- **Created a large layout for EXPANDEDBINS called L_ EXPANDEDBINS.**

Changes from Rev D4K to D4L.

Dated: 2/11/02

- In the TemplateDefinition form, layouts may now be chosen via a LIST. Layout pixel-sizes are automatically attached.
- "Change_Customer_Name" procedure in HouseKeeping modified to change the customer name in the newly created tables. BinningControl, Area, Consolidated Shipper etc.
- The user may get a sample print-out of the working traveler based on the layout definition in TemplateDefinition table
- User may self-adjust pixel-size of the layouts by using a dialog loop.
- Added a 32-bin matrix in the "old" layouts of the detailed traveler.

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Changes from Rev D4L to D4M.

Dated 2/19/02

- **Changed the name of table STEPS_DIR to STEPS_FILES to mirror the documentation.**
- **In the case of the ERP2020 4D Slave Server when DATETIMESTAMP ZERO replication is received then the Slave will first delete ALL the records in the table before the importing process. After this change a new data-file is NOT needed for a ZERO DT import.**

Changes from Rev D4M to D4N.

Dated: 2/20/02

Added 4 extra fields to the INVENTORY table: CLASSIFICATIONString 80, LOCKEDBoolean, LOCKEDBYJOBLong integer, LOCKEDSTATUSString 80.

- **Added a new list "InventoryClassification" to provide selectable values for CLASSIFICATION field in the INVENTORY TABLE. Also used as a filter field in Spreadsheet.**

- **Changed Fables mode so that lots in a chain are spawned as their immediate ancestor expires. Previously all lots including the Future Lots were created simultaneously.**

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Changes from Rev D4N to D4O.

Added 2 extra fields in the PO_MANY table:

NOTES TEXT, RELEASEDBY STRING30

11* * In the choose site window an alert box flagging an error condition could not be dismissed. Fixed. BUG

***Added 4 new fields to the POMANY table:**

CUSTOMERREQUESTEDDATE DATE
CURRENTSCHEDULEDDATE DATE
HISTORY TEXT
BUILD BOOLEAN

*** Added new Field in AVL_SUPPLIES table**

UNIQUEID STRING 80

• **If the MYSQL replication data is not deposited at the FTP site on the first attempt then a second attempt is made**

• **Added an option in the LOTSTEPS spread-sheet to review un-implemented steps. Added a column to show the planned-hours for the steps**

12* * Internal PART-NUMBER was being cleared in compiled database (during AML entry). BUG (fixed)

Changes from Rev D4P to D4Q.

Dated: 3/05/02

Added new field in PO_MANY table. CREATIONID STRING 80

13* * Edited method CHECK_RUN to fix distinct array BUG introduced in last version.

- On startup the Server will now automatically place the LOGO.GIF picture in the WEBfolder defined by the HouseKeeping Record. This was done manually before. The Housekeeping record must contain the correct name of the WEB folder.

Added 2 new fields to PRODUCTS table: VOID BOOLEAN

HISTORY TEXT, and ENTEREDBY STRING

- Added forecast entry via WEB

14* * The Refresh button on the WEB could recreate a Quote. Fixed

15* * Condensed packing-slip had the gross and net weights repeated (twice). Fixed.

- Modified BINNINGCONTROL Text field so that each line is terminated with ";" and ASCII 13. Since the ASCII 13 is filtered out during the MYSQL export.

Rev Q to R. Multi-Currency update

- Renamed **UNUSED** field in Customer Log to **CURRENCY (STRING)**

- Renamed **UNUSED** field in PO Log to **CURRENCY**

Added 1 new field in SUPPLIERS Table: CURRENCY (STRING)

- Deleted internal method called **WEB_settings**. Method was discarded after Java Scripts were used in the web pages.

- Renamed **GLAC** field in Check_Register to **CURRENCY (STRING)**.

Added 1 new field in CASH table: CURRENCY (STRING)

- Changed name of table **WEB_PARAMETER_SETTING** to **CURRENCY DATA**. The **WEB_PARAMETER_SETTING** records are no longer required following the use of Java Scripts.

- Changed name of field **Alt_ShipAdd1** in **ARCHIVES** to **CURRENCY**

- Changed name of field **Alt_ShipAdd1** in **RECEIVER** to **CURRENCY**

Added new field in PO_MANY: CURRENCY

- Renamed & retyped unused field called **BACKUP_DATE (date)** in **HOUSEKEEPING** table to **CURRENCY (string)**

Added new field in RECEIVABLES: CURRENCY

Added new field in DEPOSITS: CURRENCY

Added new field in DEPOSIT_ITEMS: CURRENCY

Added new field in CREDIT_MEMO: CURRENCY

Added new field in CM_ITEMS: CURRENCY

Added new field in PO_MANY: SERVICE BOOLEAN

Added CREATIONDATETIMESTAMP field in all tables. This field stores the creation date time stamp. The field remains unchanged through the life of the record.

Changes from Rev D4R to D4s.

Dated: 3/27/02

| **Added new table: FORECASTDATA**

| • **Readjusted pixels in layout SHIPLABELSPC to optimize alignment. This layout is used for "canned" labels via templates 998 & 999.**

| **Added new table CUSTOMERRMAs (Table used in Fabless option only)**

| **Added new field DATATYPE in PO_MANY table LONGINTEGER**

| **Added 32 bins in the Contextual-Mode (Web-Interface) Binning Layout**

Changes from Rev D4S to E.

Dated: 5/1/02 5/30/02.

Added 7 extra tables to create General Ledger, Balance-Sheet and Income-Statement. Added reserved tables for future use. Total table-count: 87 (was 77)

- **During a Split documentation step 512 will have the same step-area as step 511.**

- **The ERP2020 internal mail-messages can now be read by the administrator and can also be forwarded as regular internet mail. Internal mail-messages are created by Server-Process-Exceptions. E.g. Replication error.**

- **Added Bin-Names in LOTSTEP details form when the LOTSTEP is opened from the LotSteps Spreadsheet.**

Added a Units Field in the Buy-Items table and a Units column to Buy-Order-Printout. Requires setting in the Housekeeping record.

Added Device entry field in WEB pages for FIND LOT

- **Added Code128b code to allow the user to print the Group Fields in the bar-code labels in Code39 or Code128b format. Changed name Code39Group1 field to Code39orCode128Group1. Changed name Code39Group2 field to Code39orCode128Group2.**

- **Added extra variables in the personal-settings dialog to allow the administrator to set the Code128b start and stop values (by Client). Default values have been provided for BIZ fonts. These values are font-specific. Personal-Settings dialog will now automatically launch if new variables are added.**

- **Each Quote may now have its own Terms & Conditions, based on modification of the default Terms & Conditions. The user may modify these conditions for each quote.**

- **Added yield column to Lot-Recall (by tool, operator ID etc.) spreadsheet.**

- **Added hooks to allow administrator-controlled menu-access. This function will be released in a future release.**

- **Buy-Items may be queried by GLAC#**

Changes from RevE to Rev E1

Dated: 6/14/02

•Renamed Unused Field in Contacts table to AlternateEmail.

Added new field CopyToEmailAddr (String) in Quotations table. This field stores the email-address of the recipient of the copy of the Quote

Changes from RevE1 to Rev E1a

6/19/02.

•**Changed name & type of field act_check_num (longint) to BankClearance-Date (date) This field stores the date a check was cleared in the bank (for back reconciliation purposes).**

Added new field (BankClearanceDate) to the Deposit_Items table. This field stores the date a deposit was recorded in the bank (for back reconciliation purposes).

Changes from RevE1a to RevE1b

Dated: 6/30/02

•Changed the name and type of field Time-In in LOTINFO table from time-type to CustomerRequestDate (type date)

Added new BLOB field called [user_templates]ControlBlob to provide some logic for data substitution during export.

Changes from RevE1b to RevE1c.

Dated: 7/03/02

- Fixed runtime-error in SUBSTITUTVALUE procedure used during stored export procedure (using user-template).
- Added the ability to export ERP2020 DATETIMESTAMP as YYYYMMDDHY-HMMSS format (in the stored-export-procedure using user-template).
- Scheduled Reports can now be controlled via MISC data records.
- In the WEB interface merged-lots will NOT show when the user selects the OUT_BY_INTERVAL option.
- In the WEB interface merged-lots will show as "MERGED" in the DATE-OUT column when the user requests IN_BY_INTERVAL OPTION.

Changes from RevE1C to RevE1D

Dated: 7/08/02

- Punch-in and Punch-out windows will check for invalid time entry (if time entered is > 24:00:00)
- Each division may now have its own logo. If no logo is specified then it defaults to the logo defined in the picture library.

- Added the ability to add a header-line to the data exported via a user-template.
- Added the ability to schedule an FTP export at a fixed time versus a repetitive duty-cycle.

- Added the ability to EXECUTE a single-line 4D command to assign a new temporary value to an export record to provide with greater flexibility in data-export formatting and conversion.

- Field-name changed in table USER_TEMPLATE from DDE to FIXEDTIMEONLY.

- Field-name changed in table USER_TEMPLATE from DOCPATH to FTPLoginDirectory. Field was unused

- Field-Type and name changed in table USER_TEMPLATE from APP (Type String) to TriggerTime (Type: Time). Field was unused

- Field-Type and name changed in table LOTINFO from ACTUALDURATION to DTSTAMPTOLOC. (Type: LONGINT).Field was unused.

- Field-Type and name changed in table LOTINFO from BOMRESOLVED (Type Boolean) to DTSTAMPSHIPED (Type LONGINT). Field was unused

- Added the ability to specify a directory on the FTP host to replace the default home-directory of the account.

- Improved the readability of the WIP-Inventory by area report.

Changes from RevE1D to RevE1E

Dated: 7/18/02

•Added silent FTP mode on the client FTP export. All errors are now reported via the ERP2020 mail.

•In the FTP export after depositing a file on the Host the ERP2020 checks to see that the file has been deposited on the Host. Other wise an error is issued.

•In the FTP-export the user may define the padding character.

•In the FTP-export the user may override the preferred mode of padding., i.e. trailing vs. leading.

•Added new SPQQuery to provide distinct values for Device-Type to help in creation of NEC Master report.

•Added a means for the administrator to conveniently change old areas in the LOTINFO and LOTSTEPS tables (after an area-name is changed in the AreaDef-
inition table).

Changes from RevE1E to RevE1F

Dated: 7/25/02

16* A run-time error was issued when a user in the Customer's group accessed the Planning Menu.using 4D Client This was because the areas list was not being defined during a customer logon. Fixed (BUG)

17* In the Ins and OUTs (monthly plot) the backwards calculation of inventory in a previous month was returning an incorrect value because the Customer-Count field was being used in stead of the OURCOUNT field. Fixed (BUG)

•Each scheduled-report may now have its own email-recipients list.

Added two new fields in the CHARTOFACCOUNTS table: REPORTORDERMAIN (Real) and UNUSED (String).

Changes from RevE1F to RevE1G&H

Dated: 8/08/02

•Added weekly Ins and Outs plot

•Added Pareto Plots to Repair-Log

Added field to BUYITEMS. Field name CreationID, type string.

•Modified table WEB_NEW_RECORD_SETTINGS.

•Added the ability to create Buy-Order via the WEB

•In the WEB interface when a list of lots is shown the date-out column is formatted as follows: a)if lot has been merged then show "merged" b)if lot has been shipped then show "date-out" c)if lot is in-house then show the area the lot is presently in.

Added a new field to RESOURCE_CALENDAR. Field name CREATIONID, type string.

Added a new field to RESOURCE_CALENDAR. Field name entered by, type string.

Added a new field to USER_ATTRIBUTES. Field name SITE, type string

•When a new LOTSTEP is added to a lot a LOTSTEP -area becomes mandatory.

•Modified production report so that legacy areas (removed or modified from the AREAS table) are shown in the production report.

Note: This is the last revision for Rev659.

RevE1J upgraded to 674.

Dated: 9/2/02

REV E1J. New revision for 674

Added SHIPRELEASE field (integer) in LOTINFO

Added routine to export subtables in text for parent tables ARCHIVES & RECEIVER for 4D to 4D transfer. This is a designer feature and will be used in the future to migrate to a data-file to a new structure, which eliminates nested subtables.

Added routine to import subtables for parent tables ARCHIVES & RECEIVER. This is a designer feature and will be used in the future to migrate to a data-file to a new structure, which eliminates nested subtables

RevE1K

Dated 9/10/02

●Added inherited form for header logo so that logo is stored in one form only. Form is called header in Table HOUSEKEEPING

●When the user changed a site, certain division-specific variables which were updated on the first invocation of a new menu did not get updated to the new site. Now when the user changes to a new site all flags that signified access to a new-menu are reset so that division-specific variables (such as division-specific arrays for GL accounts, updated on first launch of buying menu) are reinitialized.

●In a condensed traveler if a step has not been completed the Qty-in and Qty-out columns are printed as blank instead of "0" to simulate the format of the detailed traveler.

Added 2 new fields in the Housekeeping Record. Now MYSQL, 4D and Oracle have their own Last-Export-DTStamp fields. Renamed old "Slogan" field (was redundant because this information is stored by division) to WEB_Print_ClientName. This is the name of the client used to create PDF documents for the ERP2020 web-server.

●Slave MesgText File syntax changed so that the command is specific to MYSQL, 4D or ORACLE.

●Added procedure to flag "Replication in Progress" when ERP2020 Server is Quit.

●Stored Procedure Name on Server appended with Replication mode. Method will now be called Replication4Dslave or Replication4dMASTER

●Added email recipient in MISCDATA record so that error messages may be directly emailed.

RevE1L

Dated 9/22/02

●Added the ability to request for a single-table export during replication. (Via the "MesgfromSlave.txt" file)

●Unsuccessful FTP after replication will issue email to recipient defined in MIS-CDATA record in addition to the internal ERP2020 email.

18* Fixed bug in internal ERP2020 email printout

●Slave ERP2020 server cannot be shutdown if the import process is not finished executing

RevE1M&N

dated 9/30/02

- Added a string field "UNIQUEID" to each table. This field will be used later to create a replication environment with multiple masters

19* During replication when the ".tmp" file is being FTPed ERP2020 now reads the size of the file in a loop with a built-in delay. Once the file-size is constant only then does it rename the file to a .zip (in addition to the test (as before) that the file is there) There was an unrelated BUG. If the first attempt failed an error flag was not being cleared. This would deposit the .zip file but did not bump the date-time stamp in the HouseKeeping record. Causing a new zip to still keep the old date-time-stamp.

- With FTP send the Server is active instead of passive

RevE10

dated 10/2/02.

- In the Quotation input form changed the format of the money fields. This new format prevents a duplicated display when the field was tabbed out of.

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- In the Quotation printout if the 3rd decimal digit does not exist then the \$amount will be printed with 2 decimal points.

- On the ERP2020 4DSlave station if all files are not found after unzip then all files in the Ftp host are deleted and a request is sent for a new zip file with the same DT stamp as the last unreadable file.

Added new field in table customer_log (InvPaymentTermsinDays Real)

Added new field in table customer_log (AbsoluteCreditAmount Real)

Added new field in table customer_log (DelinquentCreditAmount Real)

Added automatic credit-hold if credit limit is exceeded. (Via server stored procedure)

- If a step-template has a label-icon attached to it then the user may print customized labels via the step-template.

20* When a new LOTSTEP was added to a LOT and then the lot was immediately split thereafter the new step and the split-documentation step ended up having the same sequence_number. BUG. Fixed.

RevE1P

dated 10/8/02.

- Renamed file EXPORT_FILENAME to FTPTRANSFERMODE in USER_ATTRIBUTES TABLE.
- The FTP export procedure for scheduled data export can now work in the PASSIVE or ACTIVE mode. Default is passive.
- Doubled the cache from 32M to 64M

RevE1Q

dated 10/9/02.

- Added a "join" capability in c. An extra filter for Package-Type (LOTINFO) field is provided in the Lotsteps Query spreadsheet.
- Added new find by Job# and Lot# capability in the Lotsteps Query spreadsheet.
- Designer may now remotely change the Server time-out and database parameters. (Using new 674 capability)
- Added new Area_Wise Outs scheduled report. Added this report in the Lotsteps Query spreadsheet.

RevE1S-S6

dated 10/20/02

- Changed [QCAR]Dcar_num field name to [QCAR]QcarNumber.
 - Some ERP2020 messages were calling QCAR as DCAR. Changed to QCAR.
 - Added pull-down menu-item in Planning Spreadsheet to show "returned" lots.
 - Added division-specific logo to CSAS printout.
 - Changed MYSQL Script to add "local"
- Added extra fields to AZ Report.**
- Added an option in AZ report to export totals only.
 - Added a third option to AZ report to limit the export to lots selected as opposed to all lots in all the jobs (constructed from the initial selection of lots).
 - Added extra export option in LOTSTEPS Spreadsheet to include specific bin-names when available via the template-definition record, or in the case of E-test via the Binning control record.
 - Added customer-specific drop-down-list for Device filter in Lotsteps Spreadsheet.
 - Previously the user directly entered the device name to avoid construction of distinct values for device-name. The drop-down menu will dynamically create distinct device values by customer. Direct entry has been retained.
 - Added customer-specific drop-down list for Device filter in Planning Spreadsheet.
 - Previously the user directly entered the device name to avoid construction of distinct values for device-name. The drop-down menu will dynamically create distinct device values by customer. Direct entry has been retained.
 - Moved AlternateLotnumber alongside Lotnumber in Lotsteps Spreadsheet.
- Remodified Fairchild FTP report.to suppress rejects at Station 0 and also suppress them if there is a count variance.

Changed name of unused filed [RECEIVER]hourly_bill to [RECEIVER]BoxStock-Shipment. Field was not used. BoxStock shipments can now be flagged via a boolean instead of the "Process" field. User must run Data-Update procedure after structure upgrade.

Changed name of unused filed [Archives]hourly_bill to [Archives]BoxStock-Shipment. Field was not used.

- Enhancement to allow limited customization and barcoding of consolidated shipper.

RevEIT

Dated 11/01/02

- Removed requirement of checking for Final-Test yield before shipping. This has been a legacy requirement. Lotsteps spreadsheet is the new means of looking at yield by template.
- Box-stock ship-out printout now has the format of a "consolidated shipper"
- Remodified Fairchild FTP to suppress rejects as station 2 also
- Lotsteps spreadsheet has a second pane that shows related Lots for single-dialog viewing.

Changed the name of the "OutGoing" field in QCARS to "In_Line". Also changed text captions in all forms.

Changed the name of "LineSpecific" field in QCARS to "FacilitiesRelated". Also changed text captions in all forms.

- When the multi-currency option is enables in the Housekeeping record, the currency units in the BuyOrder spreadsheets are suppressed. Order-Creation and payment selection forms will also
- display the proper currency upon form-load.All output lists will display the correct currency via the currency field.

- Added a column in the condensed buyorder spreadsheet to show the limit for an open buy-order.

Changed the name of "UNUSED" field in BUYORDERS to "Attention_to". This field is set to the primary contact at the Supplier when a buy-order is first created. Field does not get modified when supplier contact is modified so that a permanent record of the buy-order is maintained.

Added two new fields to BUYORDER table: ATTENTION_EMAIL and ATTENTION_FAX (both are type string). These fields store the email and fax number of the contact at the Supplier.

Added two new fields to the SUPPLIER table: C1_Email and C2_email (both are type string).

● **Added PPM data in BinningDistribution Plot.**

Added one extra field [MISCDATA]WorkField3. This field stores the print-settings for the label.

● **Added forms for different settings of Zebra Barcode printer so that labels may default to correct size.**

21* When an employee badge was printed the certification retraining date printed on the badge added an extra year due to an extra form event. Fixed.

● **Added department-wise capability in ERP2020 calendar.**

Added new field [LOTINFO]AltDevice (type string)

Added new field [LOTINFO]TravelerBasedCycleTime (type Longint)

Added new field [LOTSTEPS]PunchOutDTStamp (type Longint)

Added new field [LOTSTEPS]PunchInDTStamp (type Longint)

RevE1U

Dated 11/16/02

Added new field [BOM]VOID. This field allows the user to void a BOM. Alerts issued for Step-Files that reference a voided BOM. Any active lots pending BOM resolution are also blocked from resolving BOM.

•Added BOM spreadsheet to browse or modify BOMs

Added extra field [MISCDATA]WorkLongint1. This field specifies the delay between each record export (during replication).

Added extra field [CAL_EVENTS]Creator. This field specifies the employee code of the user who added the event

•Added extra field [CAL_EVENTS]Division. This field specifies the division to which the event belongs.

RevE1U1

Dated 11/22/02

- Condensed traveler header changed to accommodate more barcode info. Fields "AltLotnumber" and "Device" are also barcoded.
- Detailed traveler also includes BOM details in description.

RevE1U2

•**Changed the way ERP2020 launches an external application on a Windows Client. External applications launching is used by the QA Document Control Spreadsheet to open specs that reside outside the data-base. Now the spec is opened by issuing a DOS start command. This method does not require the full path of the application (in which the spec was written) to be defined as it will be resolved by the registry. External Plugin WIN32API required.**

RevE1U3

• **Modified Display Format “|UnitPrice” to display up to five decimal digits. The modified format will display data only if extra decimal digits have been added, otherwise it will default to two decimal pages. All invoice forms affected. Also affected is the plain-text quote-email**

RevE1U4

Changed name of field [LOTINFO]ShippingRel to [LOTINFO]Property. This field is binary encoded and bit 1 signals if a lot was put on hold via a QCAR

- If a lot has been put on hold via a QCAR or CSAS then only a member of the "QA" group can remove the lot from hold. Lots put on hold via the hold menu will continue to be "releasable" by a member of the "PC" group.
- Added distribution plot and SPC for up to six parametric measurements that may be entered in traveler steps.
- When the splash screen is being updated during the launching of the application on the Server an alert will be issued if the font (used to add the company-name text to the Splash-screen) is missing.

- A new designer-configuration has been added in the Housekeeping record so that the device-name at receiving is entered via a controlled list.
- In the Planning Menu the user could see list of matching or near-matching setup-sheets. The user can now also open them (by double-clicking) in the correct format

RevE1U5

Dated 12/5/02

Changed name of field [RECEIVER]Alternate_Id to [RECEIVER]AltDevice_Number to correctly reflect its function

Changed name of field [HARDWARE]DEV to [HARDWARE]Device to correctly reflect its function.

Changed name of table [Zreserved1] to [DeviceTable] and added extra fields to this table

- QA can add to and modify the DeviceTable
- Device Table is used to enter device-number and select Traveler-File & Setup-Sheets.

Added [TEMPLATE_DEFINITION]SetupSheetType field (string).

- The function "Strip" will strip carriage returns in addition to all spaces
- If the DeviceTable is installed then Setup-Sheets may be viewed during the step punch-in and punch-out processes.

- Added Device drop-down in web-interface

- Provided mother-lot link in web-interface

22* Plain-text email status to customer had a runtime error. Fixed

- Added two user-modifiable fields to user-customizable labels

- Upgraded the SuperReports version to 2.6 from 2.5. New plug-in will be required.

23* Consolidated Shipper printout was being used for Box-stock printout even if the HK configuration did not ask for it. Fixed.

●Added additional control in AML. If the user changes a field after Error-Check then OK button is disabled to force an error-check again.

●Added counts in the AVL, AML lists presented when creating buy-order.

●Entry may be made to DeviceTable even if the DeviceTable control functionality is not installed. This is to allow the user to enter data into the table to get ready for the switch-over at a later-date.

●When the QCAR mode is being switch via the QCAR spreadsheet, the user is issued a confirmation request.

24* When emailing the plain-text traveler from the main-menu an error could result

Rev E1U6

Dated 12/10/02

- Added an "Error-Check" button for BOM resolution during punch-in. Button required when material is being manually selected.
 - Added units column in inventory spreadsheet during punch-in. Mixed units will be flagged when inventory is displayed.
 - In the QCAR closing form date entry has been simplified. EG. "T" for today, "M{onth}" for first of the month,{mont}H for last of month etc. This method will be tested before it is added to other date fields in other forms.
 - Created new entry filter called "|STDASCII". Added this filter in Supplier input form so prevent entry of non-standard ASCII characters.
 - When a traveler is re-created for a lot(s) with existing travelers, the completed steps are retained as before however the steps appended will take the correct sequence-numbers.
 - When step is manually added or deleted during the create traveler by lot/job sessions, the colors of the rows move with the rows.
 - When steps are re-pasted via a steps file into a lot with an existing traveler, the non-deletable steps will be shown (with red-background) in the steps spread-sheet.
 - Made punch-in and punch-out forms Non-Modal. The Alert and Request boxes could hide behind the windows if the user clicked outside the dialog box. This is a 4D6.74 bug.
 - Fixed traveler spelling to consistently have single L
 - Administrator control field bit 7 allows the administrator to have generic step files
 - BOM name can be modified if it is not being referenced. List of references will be provided.
 - Added spread-sheet for AML/AVL browsing.
 - The user may duplicate a BOM via the BOM spread-sheet.
 - The user can now also set the default printer with the customized label in the Work3 field of the MISCDATA record. Before printing the labels if this field is set then the default printer is set to the specified printer. After the labels have been printed it is set back to the previously set default.
- Added new field [BOM]PhaseOut {boolean}. This will allow processing of lot-steps and prevent usage of the BOM in new Steps Files.**
- List of BOM-items will be printed on a blank traveler. Once step is filled the documentation will be produced on the attachment as before. Attachment will not include a column for other (multiple) material lots. Other material lots are lots pulled in addition to the main-material-lot.
 - Added "in-operator" to condensed traveler.
 - Inventory pulls can now be traced to Lotstep in addition to Job#

- **Increased the field dimensions for forms used in the contextual WEB interface.**
- **In the punch-out window (Control + double-click) will allow modification of "materials-used" records.**

Rev E1U7

Dated 12/20/02

● **Note: To upgrade data-file administrator MUST launch the "Update Data File on Server" menu-item in the Housekeeping menu-bar.**

● **Added extra fields to Labels table to create Code128b representation of all user fields.**

● **Slave Replication pause is programmable via MISCDATA record**

● **Slave Replication query replaced by Find Indexed Key to speed up the replication. If Workfield3 is set to "NEW" then the new procedure is used. Both procedures have been left for speed bench-marking.**

Changed [EQUIPMENTFACILITIES] primary key to [EQUIPMENTFACILITIES]UNIQUEID

Changed [REPAIR_LOG]Rep_num to indexed and unique.

Changed [SAVELISTS]List_name to indexed and unique

Removed [CALEVENTS] from replication

Changed [OLDPOS] primary key to [OLDPOS]UNIQUEID

Changed [BOM_ITEMS]SequenceID to indexed and unique.

Changed [BOM_ITEMS] primary key to [BOM_ITEMS]UNIQUEID

25* BOM was not being created in a transaction so that bom-items were being saved even if the BOM was not saved. Fixed.

●

● **Web_Param_Create_BuyOrder was changed to SEND HTML BLOB to allow more the 32K characters.**

● **Web_lotQuery was changed to SEND HTML BLOB to allow more the 32K characters.**

26* If a blank consolidated shipper was saved without including any lots in it the last selection of lots could be included under a certain condition. Fixed

● **Barcoded fields in the Condensed and Detailed travelers will automatically switch to Code128b if non-Code39 characters are being used.**

- **Picture in DeviceTable is now a 4DDraw picture allowing the inclusion of data-base fields and variables.**
- **Marking picture will be displayed in top-half of condensed traveler.**
- **Max font-size in consolidated traveler changed to 8 (to make sure data doesn't truncate)**
- **Header section of condensed traveler changed for more compaction.**
- **Added ultra condensed option via HK record**
- **Added user graphics for condensed traveler header and footer**
- **Added new raw-material table at the top of the header in the condensed traveler**
- **Added user customizable Super Report traveler.**

Rev E1U8

Dated 1/20/03

- I •Redesigned condensed and ultra-condensed travelers.**

Rev E1U9

Dated 1/23/03

- Reduced row padding in condensed traveler BOM printout
 - Added Step-number column in condensed traveler BOM print out and sorted list before printing
 - Moved OriginalQty-in to top header of page
- Added [LOTSTEPS]AuxiliaryCountOut1, [LOTSTEPS]AuxiliaryCountIn1, and [LOTSTEPS]AuxiliaryCountOut2 (long-integer) fields to data-base.
- Ultra-condensed traveler has 4 extra columns for auxiliary-count-in and auxiliary-count-out
 - Phased-out BOMs may be viewed in BOM spread-sheet.
 - Added extra counts to ultra-condensed travelers.
 - Disallow database reference in Picture records via 4D Draw for security reasons.

- Allow substring command in 4D Draw in Device-Table
- Added incrementing sequenceID field for [LABELS] table to provide unique ID for each printed table.
- Ultra-condensed traveler has 3 extra columns for auxiliary-count-in and auxiliary-count-out.
- Allowed Generic BOM in non Fables-mode
-
- BOM data is printed after the traveler graphics footer.
- Maximum font-size of Printlist in ultra-condensed traveler is 8 pixels.
- Added text export for label printing via BarTender (3rd party application)
- Added AlternateDevice#2 to ultra-condensed traveler header.
- Added BOM and BinningControl info to StepsFile printout

27* UniqueID of BOM resolution record was non-modifiable.

- Label-Printing via the label's menu in Shipping & Recv will look for the labels-enabled step-types defined in the Template-Definitions instead of step-types 998 or 999.
- Using The Windows Control Key when invoking this menu, the user may choose any step in the traveler.
- Added extra commands (insert, delete, upper case lower case etc.) to be usable in Packing Picture references

Renamed [DeviceTable]UniqueID to Renamed [DeviceTable]UniqueDeviceID

| Added new string field [DeviceTable]UniqueID

Rev E1W1

Dated 1/28/03

28* When creating traveler in Device-table mode the Device-Table record for a job was recalled by Device-Name only. This would show multiple traveler files for the same device across multiple customers. The record is now called by Device-Name and Customer-Name.

●Added AltDevicename1 and AltDeviceName2 filters in Planning Spread-Sheet. The lot-selection in the Planning Spread-sheet is further reduced by these filters. This search is NOT optimized. This may be done later (with additional fields) if necessary.

29* Substring reference command in 4D Draw marking picture was broken.

●Device-Table printout marking-picture is the same size as printed on the traveler.

●Added headers to Binning Record and Device-Table record printouts.

Rev E1W2&W3

Dated 1/29/03

30* When inventory was being manually added the AVL parts scroll-box elements were not properly sorted causing the description to be incorrect. Fixed.

- AML Entry may be modified directly from the AML spread-sheet
- Increased header margin of Ultra condensed traveler by a couple of pixels and rearranged date-code to create more room vertically.
- Added company name in ultra condensed traveler.

UniqueID has been indexed and is now the primary-key and is being updated in trigger of [StepsFile]

UniqueID has been indexed and is now the primary-key and is being updated in trigger of [Step_Temps]

Via the planning menu, the user may print the alternate version (not the default version chosen via the HK record) of the condensed traveler.

BOM list array on traveler is now sorted by Step# & description.

Changed ultra-traveler code so that font size can be set for individual columns.

Reduced maximum column size of columns 1 and 2 (only) in ultra-condensed traveler to 7 points to allow room for extra column.

Added extra MRB column in ultra condensed traveler.

31* The selection of Code39 versus code128 barcoding did not consider "-" and "." as being valid code39 characters. Unnecessary switch to code128 was being made.

Rev E1W4

Dated 2/03/03

- User may view Steps-File in Device-Table spread-sheet.
- User may view Setup-sheets in Device-Table spread-sheet.
- When an archived invoice is displayed via the planning menu or General Journal the display mode uses AreaList instead of PrintList.
- DeviceTable list is sorted in the [RECEIVER] and [LOTINFO] forms.
- If AML part-description is modified the user may optionally update all BOM-items associated with the AML. User cannot change part-number or supplier is a valid (non-void) BOM(s) exist(s).

32* In the Planning spread-sheet if a customer was being chosen the package-type list was being reset. This error was introduced when the DeviceTable filters were added.

Rev E1W5

Dated 2/09/03

- **Ship to box-stock may be automated in last step of traveler.**
- **Added barcoded-printout of customer's current inventory in box-stock.**
- **In Box-stock pull lot# or AltLot# may be directly entered (scanned) in addition to being chosen from a list.**
- **Split and Merge buttons are disabled if the automated move-to-box-stock option is selected.**
- **Barcoded job-number & device# in detailed traveler header**

Rev E1W6

Dated 2/19/03

33* Fixed bug in box-stock input shipper where carton number was not being correctly remembered.

- Doubled marking picture in documentation printout from 200x100 to 400x200
- Improved interface to scan in Alternate Lotnumber when creating box-stock-pull-job
- Reduced pixels from header and footer of detailed traveler. Total landscape page size if now assumed to be atleast 550 pixels.
- When creating a box-stock-pull job the [RECEIVER]Device-Number is automatically filled when the record is saved. If a unique Device_number has been pulled then [RECEIVER]Device-Number field will be set to this Device_number otherwise it will be set to "mixed"

Rev E1W7&W8

Dated 2/24/03

- **Added currency to manual-entry-of inventory form.**
- **If a box-stock-pull-job is being invoiced then the invoice-format is automatically set to Lot-Qty-Amount and the Pull Traveler Steps alert is suppressed.**
-
- **If a box-stock-pull-job is being invoiced then multiple unit-price records are applied when multiple devices are contained in the Job. Unit Price selection is not necessary and therefore disabled.**
- **Added DateTimeStampToLocation in LotList dialog presented during punch-in and punch-out. Provided sorting functionality for this column. Note some legacy data may show 0 for date-time-stamp.**

34* When an inventory part-number was being purchased the description entered in the purchase-order could be wrong.

- **For a box-stock-pull shipper the SHIP_MEMO may be directly entered and is added to the "Remarks" of the printout.**

35* If the Ship-to-box-stock-from-last-step-of-traveler option was not installed the "ship-to-Box-stock" button was still visible.

When a lot is shipped to box-stock the newly created box-stock lot retains the process of the original lot. Previously the process field was being set to "Box-Stock-In". The Box-Stock lot can now be distinguished by the boolean field.

- **Consolidated-Shipper format for a shipment from box-stock to customer now has carton information such as weight, measurements and Remarks etc. stored in [RECEIVER]SHIP_MEMO. These fields are available in the footer of the print-out. [RECEIVER]SHIP_MEMO is not directly enterable.**

- **When scanning lots to pull from box-stock if an invalid alternate-lotnumber is entered then the error will be regarded as fatal and the scan loop will be aborted.**

Consolidated-Shipper for a shipment from box-stock will now require the user to "SHIP-OUT" a Job. This will allow the user to retain the date when the lot was physically shipped out

Rev E1X

Dated 2/27/03

- Added an extra column for "Machine" in ultra-condensed traveler.
- User may now customize the font-size by column in ultra-condensed traveler.
- Added capability to adjust inventory without the need to create a "Dummy" Job.
- Kitting form now provides inventory filters.
- Added units and currency in Inventory-Pulls spread-sheet and export
- Added units and currency in Inventory Spread-sheet and export.
- Added units in Kitting spread-sheet.

Added Procurement and Issue(Inventory) units in AML

- Buy-order printout will always show units.
- The consolidate yield function which consolidates the electrical test yield by adding the bins in step-types 1 and 1001 now stores bins 11 through bin 32 in a single LOTINFO field called Bins11thru32. This allows the consolidate-yield function to work properly when 32bins are used in the traveler.

Added [AVL_Supplies]ENTEREDBY field.

36* Equipment-Spreadsheet calendar was causing a crash.

- Added unit-cost to unit-cost spreadsheet.
-
- Lot-Qty-Amt invoice format has 4 decimal points for unit-cost

Rev E1X4

Dated 3/07/03

- **Added "Delete" button in Binning Control record. Will allow delete if record not referenced by Steps File.**
 -
 - **Added "Pull-Mode" filter in inventory pulls spread-sheet.**
 -
 - **Added the ability to "stage" inventory to "Line" from ware-house. Via configuration option in HK record, the user pull may be restricted to items staged to the "Line"**
 -
 - **Added the ability to split inventory-items to allow for multiple vendor-lot-numbers for a single shipment from vendor.**
 -
 - **Changed RMA method so that a fraction of material received may be returned.**
 -
 - **Added configuration option in HK record so that the user may block the pull of "non-piece parts" via BOM resolution.**
- Added new boolean field [BINNINGCONTROL]DISCONTINUE to suppress availability of Binning control record during Steps-File creation.**
- **When creating a Steps-File a "Semicolon" character in the Description-field has always been an invalid character, however the system did not replace it. Now upon saving the Steps-File a "Semicolon" entered in the description will be replaced by a "comma"**

● **Vendor-Lot-number is automatically entered in the [MATERIALSUSED] record during BOM resolution.**

● **Human-readable text fields below the barcoded fields in the traveler are being dynamically re-positioned right under the barcode representation during a traveler print-out process.**

● **Allow user to make global-change to Steps-File description fields when modifying the description in the Step-Template (in the QA menu)**

● **Disallow change of unit in AML is inventory already exists.**

Added "[BUYORDER]ATTENTION_TEL string field

Rev E1X5

Dated 3/12/03

- **Added Calibration and PM techs to equipment spread-sheet, spreadsheet-export and hardcopy printout.**
- **Added multiple-sort capability to Equipment Spreadsheet**
- **Added multiple-sort capability to Inventory Spreadsheet**
- **Added "Warehouse" list to "Add Inventory" form**
- **Added telephone-information for Buy-Order contact in both input form and hardcopy printout**

Rev E1X6 to E1y

Dated 3/13/03

- **Added [PARTSDATA]UNITS and [PARTSDATA]CURRENCY fields. Now each part is uniquely identified by PartNumber+Units+Currency**
-
- **Raw-Materials-used traceability records are made and SAVED in the background without user-intervention (when the BOM Pull option is installed)**
- **Automatic BOM-pull cannot be performed unless the eligible-list is created first.**
- **Rearranged Currency field in Deposit-Slip, Credit-Memo and Check-Register spread-sheets to precede the Amount field. Made similar changes in exports & print-outs. Amounts are displayed and printed as currency-neutral.**
-
- **Added currency to payables-re-conciliation export.**
- **Added Barcode labels to Inventory Spread-sheet**
-
- **Added Barcode labels to Catalog Spread-sheet**
- **Added Barcode-scanning capability to Bom-Pull**
- **Added filtering for extra lines and line-feeds in Replication-command file**
- **Added Barcode labels to Assets Spread-sheet**
- **When a Receiver is being created or modified, the system will now check-for and flag duplicate LotIDs in addition for duplicate Lot-numbers. Errors will be reported by Error-Dialog instead of a simple alert.**
- **When Specs or Forms are read via the QA specs spreadsheet the document is put into the read-only state before it is opened.**
- **In the AML modification form affected-inventory-records are also shown along with affected BOMs**
- **- Non-contextual WEB-interface: Sub-Menu "Lots In Box-Stock" added to menu View WIP Database.**
-
- **-Non-contextual WEB-interface: When a lot is shipped to inventory (as a sub-assembly) the Date-Out column shows "Inv" appended to the date.**
- **In the Large-Expanded-Bins layout of the detailed traveler if Program-name, Hardware1 & Hardware2 are not defined as mandatory then these fields and their captions are not printed on the detailed traveler.**

Rev E1y1

Dated 3/25/03

Added Device-Filter in Box-Stock pull form.

Added sorting capability in Manual-Inventory-Addition form.

37* When Box-Stock shipper was printed the Carton-#s were not being sorted. FIXED.

38* When the create Box-Stock Shipper menu is invoked for an existing shipper the previously entered carton numbers were not sorted before the form was displayed. FIXED.

- •Expanded the Address fields in the Customer & PO forms to show all 80 characters.

Rev E1y3

Dated 3/31/03

In the non-contextual web-interface mode a remote user may view company specs & forms if the spec-server is mounted on the ERP2020 server.

Revised Consolidated-packing-slip in a major way. Now all information pertaining to the lots is saved in the Consolidated-Shipper record so that archiving constraints are removed.

Added Master labels in ERP2020 Consolidated-packing-slip.

In the Punch-out form Time-in and Time-out cannot be in the future. If a user sets future time then the system will automatically set it to the CURRENT TIME (instead of NULL)

Blocked saving of the step-Punch-out form if implementation time is negative.

When time is being displayed in the punch-out form it will also show seconds although data-entry will continue to require Hours and Mins only.

The [Lotsteps]PunchInDTStamp and [Lotsteps]PunchOutDTStamp fields are now also being populated via triggers. These fields will allow a single query for date and time instead of the present dual query. Queries will be optimized later.

Rev E1y4

Dated 4/03/03

39* When Lot-Step control parameters were being modified the Binning-Control record for a step with template#1 was being reset. Fixed.

- When printing labels to a fixed printer (defined via the MISC data record) if the printer does not exist on the Client machine an alert is issued.
- MiscData record field captions will now reflect the type of control-data being stored (dependent upon the STRID parameter).
- In the planning-menu when time-based selections are made box-stock lots are excluded. These lots may be viewed via the Inventory/box-stock menu

Rev E1y5

Dated 4/07/03

[LABELS]PackageType1,[LABELS]Device,[LABELS]AltLotnumber,[LABELS]PackageType2,[LABELS]Qty,[LABELS]DATE_CODE changed to text fields to accommodate grouping of lots in Master labels.

•Removed an extraneous "DD" caption in the "Find-Lot" WEB interface.

Added two additional "Interest" fields in Contacts table. Now each contact may have three "interests" associated with it for focussed mail-merge

•Renamed Mail-Merge menu-items to more meaningful captions and revised mail-merge forms. During the mail-merge process the user may also attach documents that are external to the data-base.

.....Last release of 6.74 {E1Y6 released for 6.8}.....

Rev E1Y6 to Rev E2

Dated 4/17/03

- **Upgraded to 6.84**
- **Added option to disallow time-overlapping in Resource Calendars**
- **Modified pictorial display of time-bookings in Resource Calendar to break it into 8-hour shifts, 1/2-hour intervals.**
- **Web-Interface for adding time changed accordingly.**
- **Resource-Calendar spread-sheet will now show entries made or modified via WEB. List will show all entries created or modified on a given day.**

Rev E2A1

Dated 4/20/03

- Added web-logoff option. Needs some further development.
- Added "Find by Serial Number" option in Equipment spread-sheet
- When an equipment record is being created the Serial-Number field will be mandatory.
- Expanded Ultra-condensed traveler-header by one extra line.
- The user may now define the font and font-size of the Headers and Body sections of the condensed & ultra-condensed travelers.

- Employees may also be scheduled via the Resource Calendars. This is useful for time-billing purposes for time not associated with the traveler.

40* If a file was imported on a ERP2020 slave-server just before midnight and the imported zip file did not properly expand, the 5-minute time-out loop could become infinite. Time-out is now based on a date-time calculation instead of time-only calculation.

41* The consolidated-shipper format for a box-stock shipper was broken after a change was made to the consolidated shipper in RevE1Y1.

- - Level1 archiving process is run on the Server.
 - Improved the month-selection process during Archiving by presenting a single dialog instead of multiple dialogs.
-
- Improved the record-lock checking process by making it server savvy.

Rev E2A2

Dated 5/6/03.

Added [CATALOG]OWNER field. An item in the catalog may belong to a customer. Also added CUSTOMER filter in Catalog Spreadsheet.

When adding new equipment the ERP2020 will suggest a unique serial-number and ERP2020-number.

If the [RECEIVER]ReceiverNumber field is not being properly assigned the correct sequence-number by the system (due to a 4D error) the offset-value in the HK record will be automatically adjusted and all the clients will be forced to update the value of the sequence-number-offset-variable. User is provided an alert when this happens. Requires no user intervention.

UpgradeD 4D_ InternetCommands to 6.82

Administrator may request for a license via the HK MENU so that Client login is not required by designer.

42* Lot Expect out date could not be reset to null (00/00/00). Fixed.

•The administrator may broadcast a message to all registered clients via the HouseKeeping Menu.

43* In the rare case when a transformation was requested via a lot-step punch-out and then immediately cancelled in the same session and the user accepted the transaction, the package-type field was getting reset. Fixed.

•If master labels are being printed for a Consolidated Shipper WITHOUT lots then a run-time error message was being displayed which could be confusing to the user. Suppressed message.

Rev E2A3

Dated 5/28/03.

- **When modifying a Consolidated-Shipper, a lot in Consolidated-Shipper-list can be deleted with a mouse-right-click.**
-
- **When a Consolidated shipper is modified the box-distribution arrays are cleared.**
- **Policy Statement has been moved to Mail-Merge documents.**
- **Detailed-Traveler printout will now show bin-names from a Binning Control record if one exists.**
- **Added control-option in HK record to delete Resource-Calendar entries via a user-selectable time-period and user-selectable customer.**
- **Added option to label-export file to export one label only, leaving processing for third-party software**

ERP2020 Revision History.

Rev E2A4

Dated 6/06/03.

Changed Lot-Dialog form in WEB-Contextual interface. Added Java Drop-Down calendar.

Rev E2A5

Dated 6/18/03.

Added City, State and ZIP fields to Billing and Shipping Address in RECEIVER and ARCHIVES tables

Added SalesTaxCode field in RECEIVER and ARCHIVES tables

•Renamed POSTEDTOPO field in ARCHIVES to SUBSUBTABLEDATATRANSFERRED. Field was unused. The field will reflect that old Archived data was updated. If this field is set then multi-traveler-based invoice will retrieve data from BLOB.

•Re-defined UNUSED2 field in Archives Table to Blob. Blob field will be used to save sub-sub-table data so that sub-sub tables may be removed in ERP2020 2003 version.

•Removed EZPRINT plug-in. Not used. Unnecessary memory constraint.

•Indexed UNIQUEID field for DEPOSIT_ITEMS and CM_ITEMS tables.

•Changed Primary Key for DEPOSIT_ITEMS and CM_ITEMS tables to UNIQUEID

•Re-added legacy traveler-header (form detailed traveler) as a Admin-Control option in the HK record. Specific-customer request.

Rev E2A6

Dated 6/27/03.

44* Added conditional IF in "LoopToCheckifFileisReady" method used during replication export to suppress error type 2. This error could be generated if another application touched any of the files being used during the replication-export process.

- Default FTP export method "SPQLotsWIPAnd7dayShip" used by the User-Export-Template will now exclude all BOX-STOCK lots

- Device-Table name field will allow embedded spaces. Only trailing spaces will be suppressed.

Changed field name or type [Customer_Log]Log_date (date) to [Customer_Log]ConsolidateBoxStockByAltLotNum (boolean). Data-update-procedure will reformat field data.

- Added ability to consolidated Box-Lots by Alternate-lotnumber. This is conditional upon setting in customer-record. During the pull-process if mutiplebox-stock lots exist with the same device-number and for the same customer then they are automatically consolidated. Documentation steps are created during the consolidation process.

- Added barcode for [LOTINFO]DATECODE in ultra-condensed header.

- Added Box-Stock Pull-Jobs spread-sheet to allow easy access to Box-Stock Pull-Jobs.

- Modified box-stock pull process so that sub-lots (portion of lots) can be pulled. Each pull will be a distinct sub-lot so that it may be assigned its own carton-number. This replaces the previous method of allowing a whole-lot to be split into a maximum of two consecutive cartons. Now each pull or partial-pull can be assigned to any carton-number.

Rev E2A8

Dated 8/04/03.

45* Resized AP12 array to 80-characters to suppress a rare runtime-error during export of invoices.

•Added two new fields in the Housekeeping record to define the size of the barcode-fonts.

Rev E2A9

Dated 9/18/03.

Defined primary-key for [RESOURCE_CALENDAR} replication. The Slip_Number field is now indexed and Unique.

46* In the employees spreadsheet, when displaying employees by the certification-filter, the certification date did not reflect the certification-type.

- Group-update button -script of training courses in Employee Spreadsheet has been improved to terminate immediately if the user cancels.

- Employee SpreadSheet interface improved.

Rev E2A9

Dated 2/10/04.

- **Method Unarchive One was re-pasted from Rev E2.**

This is the last development release of 6.84

ERP2020 Revision History.

First release of 4D2003

Rev F

Dated 6/01/03.

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