

PipeChain 3.0.0 – ReleaseNotes

Table Of Contents

1.1	Welcome	1
2.1	Important information on 3.0.0.....	3
2.1.1.1	License key	3
2.1.1.2	Transaction interface	3
2.1.1.3	New distribution.....	3
2.1.1.4	Analyzer	3
2.2	Upgrade to version 3.0.0.....	3
2.2.1.	Before upgrading to PipeChain 3.0.0	3
2.2.2.	Upgrade from version 2.3.X, 2.2.X, 2.1.0, 2.0.X	4
2.2.2.1	This must be done after upgrade from version 2.0.X	4
2.2.3.	Upgrade from version 1.5	4
2.2.3.1	This must be done before upgrade from 1.5	4
2.2.3.2	This must be done after upgrading from 1.5	4
2.3	Platform	5
2.3.1.	New functions	5
2.3.1.1	Businesses and Site.....	5
2.3.1.2	License key	5
2.3.1.3	User Authorization	5
2.3.2.	Functions and corrections released in ServicePacks to 2.3.1 and 2.3.2.....	6
2.3.2.1	Database connections are released after use by bg-jobs (SP01).....	6
2.3.2.2	ServerAdmin doesn't see all Events (SP05)	6
2.3.2.3	ST4378185: CHG7606: Order filter (2.3.2 - SP03)	6
2.4	Setup.....	6
2.4.1.	Functions and corrections released in ServicePacks to 2.3.1	6
2.4.1.1	Failed to run script for upgrade from 2.3.0 etc (SP15)	6
2.5	Supply	7
2.5.1.	New functions	7
2.5.1.1	Businesses and Site.....	7
2.5.1.2	Partner Agreements	7
2.5.1.3	Own Site Screen name	7
2.5.1.4	Partner Agreements	7
2.5.1.5	New filter options.....	8
2.5.1.6	Define user limits in the Inventory Chart.....	8
2.5.1.7	Simulation in the Inventory Chart	8
2.5.1.8	Initial and Resulting Duration on Inbound deliveries and suggestions	9
2.5.2.	Functions and corrections released in ServicePacks to 2.3.1	9
2.5.2.1	Automatic release of recipes fails from transaction (SP01)	9
2.5.2.2	Calculation fails if max is less than min (Bucket/AAO) (SP01)	9
2.5.2.3	Shipping with customer and product fails (SP01)	9
2.5.2.4	New attributes in XML transaction Product Definition (SP02).....	9
2.5.2.5	New attributes in XML transaction FlowMeter Update (SP02)	9

2.5.2.6	CS04 failed to perform any relative update (SP02)	10
2.5.2.7	Changed color coding of Shipment Time and Receipt Time (SP03)..	10
2.5.2.8	Goods Reception fails due to transaction conflict (SP03)	10
2.5.2.9	M in the Duration Meter (SP03)	10
2.5.2.10	Add All Lines shouldn't try to add confirmed lines (SP03)	10
2.5.2.11	Red Order Sheet in the duration meter even if OK (SP03)	10
2.5.2.12	Error in order change (SP03).....	11
2.5.2.13	Customer Bucket Overview Screen - Too many rows (SP03).....	11
2.5.2.14	Error when sending Product Delivery Forecast (SP04).....	11
2.5.2.15	Missing data in Finished Outbound Delivery screen (SP05)	11
2.5.2.16	Multiple inbound agreements (SP05)	11
2.5.2.17	Automotive changes (SP05)	11
2.5.2.18	Finished Deliveries (SP05).....	12
2.5.2.19	Error in flow model split for several suppliers (APC) (SP06)	12
2.5.2.20	Changes due to workflows with demand and supplier suggs (SP07)	12
2.5.2.21	Enable Cancel of Deliveries (Automotive) (SP07)	12
2.5.2.22	New fields for Finished Deliveries (SP07).....	12
2.5.2.23	Changed definition of Suggestion Gen. Locked Until (SP08).....	13
2.5.2.24	Suggestions are one more than needed if MB and SB used (SP09) .	13
2.5.2.25	Partner Product Id optional in CS08 and CS10 on update (SP10)....	13
2.5.2.26	Outbound Despatch Advise can't handle double shipping (SP10)	13
2.5.2.27	Error message Receipt Time must not be before Shipment (SP10) .	13
2.5.2.28	Possible to keep the three latest deliveries (SP10)	13
2.5.2.29	Multiple sourcing with different share over time (SP11)	14
2.5.2.30	New formats for Duration Fields (SP11)	14
2.5.2.31	New fields in PW38 (SP11)	14
2.5.2.32	Split of outbound deliveries (SP12)	14
2.5.2.33	Outflow on non BizDays controlled via screen (SP12)	15
2.5.2.34	Order Changes Not Sent as Single Line (SP13)	15
2.5.2.35	Correction of editing in Own Business Detail (SP13)	15
2.5.2.36	Delivery suggestions excluded from customer delivery forecast (SP13) 15	
2.5.2.37	Stricter formatting rules of durations (SP14)	15
2.5.2.38	Review of formatting via property (SP14).....	15
2.5.2.39	Job Check Confirmed Deliveries fails if record deleted (SP15)	15
2.6	MACom	16
2.6.1.	New functions	16
2.6.1.1	Server, Businesses and Site functionality	16
2.6.1.2	New XML transaction layout	17
2.6.1.3	New Channel Settings.....	17
2.6.1.4	Improved filter and screens.....	17
2.6.2.	Functions and corrections released in ServicePacks to 2.3.1	18
2.6.2.1	Channel stops if no email address for sender exists (SP07)	18
2.6.2.2	Error sending email's using attachments (SP07)	18
2.7	WebAccess	18

2.7.1. New functions	18
2.7.1.1 Multisite selector.....	18
2.7.1.2 Initial and Resulting Duration on Outbound deliveries and suggestions for Web Suppliers.....	18
2.7.2. Functions and corrections released in ServicePacks to 2.3.1	18
2.7.2.1 Outbound Delivery fields opened for editing (SP01).....	18
2.7.2.2 Supplier's Customer Bucket Overview (SP05)	19
2.7.2.3 New fields for Finished Deliveries (SP07).....	19
2.7.2.4 Cancel deliveries (SP07)	19
2.7.2.5 No update of delivery suggestions (SP07)	19
2.7.2.6 Unable to change password (SP08)	19
2.7.2.7 Not Possible to Create New Delivery Agreement (SP10)	19
2.7.2.8 New checkbox in WebAccess to recalculate suggestions (SP10)	19
2.7.2.9 Unable to change Receipt Time of Outbound Suggestion (SP10)	20
2.8 LoadPlanner	20
2.8.1. Functions and corrections released in ServicePacks to 2.3.1	20
2.8.1.1 Adding suggestion together (SP12)	20
2.8.1.2 Moving of more than one line (SP12).....	20
2.8.1.3 Split of outbound deliveries (SP12)	20
2.9 FlowProduction	20
2.9.1. Functions and corrections released in ServicePacks to 2.3.1 and 2.3.2.....	20
2.9.1.1 Use actual start time as picking priority in MHS (SP01).....	20
2.9.1.2 Keep track of scheduling changes (SP01)	21
2.9.1.3 Improved warning when a Planning Resource is deleted (SP01) Description	21
2.9.1.4 Bulkorder Split operation (SP07).....	21
2.9.1.5 FlowModel Generation Error due to DST (SP07)	21
2.9.1.6 ST4657597 AutoStart (2.3.2 - SP01)	21
2.9.1.7 Manual DelivOrder start impossible if Team was not set (2.3.2 - SP01)	22
2.9.1.8 Replace Without Scheduling did not update flowmodels (2.3.2 - SP02)	22
2.9.1.9 ST4388944: HD13984: Scheduling History (2.3.2 - SP03).....	23
2.9.1.10 ST4391960: CHG7623: Insight in Supply (2.3.2 - SP03).....	23
2.9.1.11 ST4391947: CHG 7622: Manual planning (2.3.2 - SP03).....	23
2.9.1.12 ST4372306: CHG7614: Change PO when Deliv Order is started (2.3.2 - SP03)	24
2.9.1.13 ST4391914: CHG7670: Monitoring of Constraints (2.3.2 - SP03) ...	25
2.9.1.14 ST4062305: CHG6187: Shortage Analysis with Coverage (2.3.2 - SP03)	25

1 USER REFERENCE MANUAL 3.0.0

1.1 Welcome

PipeChain is a software system that automates the flow of goods between companies, in production, between production and sales within a company.

Website: www.pipechain.com

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Information in this document is subject to change without notice.

2 RELEASE NOTES 3.0.0

2.1 Important information on 3.0.0

This version now supports multiple sites and business in the same server. This new functionality requires a special license to be able to define more than one site. Along with this the transaction interface to the application has been changed, there are several new functionalities such as new authorization for users and in MACom. Hence the new version, 3.0.0, has major changes to most code in the application. It is therefore recommended that PipeChain is thoroughly tested with all the normal workflows in your environment, including integration, before upgrading to 3.0.0.

2.1.1.1 License key

The new version requires a license key. Although upgrading and starting to use the new version will create a temporary license key, it is recommended that you contact PipeChain AB before upgrading to get a license key matching your license agreement. A license key may be issued for the Server of for a single Business in the Server.

2.1.1.2 Transaction interface

PipeChain 3.0.0 is backward compatible with the earlier versions of the transaction interface. If you plan to have more than one site in your server, you must either have one MACom transaction channel per site or you must upgrade the XML transactions to 3.0.0 format. As of version 3.0.0 the flat file transaction will no longer be developed. The old transaction flat file formats will still be supported but they will not be supporting the multisite environment.

2.1.1.3 New distribution

As of version 3.0.0 there will be only one distribution of PipeChain, containing all modules. The authorization of the use of different modules is determined via the license key.

The jar-file containing the code will now be PipeChain.jar instead of supply.jar or flopro.jar. The images will be delivered in the PipeChain.jar file.

The new distributions will be available on <ftp://ftp.pipechain.com/pub/PipeChain/....>

2.1.1.4 Analyzer

PipeChain 3.0.0 requires the new Analyzer version. It is very important that the instructions on the upgrade is followed;

- The System Id must be set before the upgrade.
- The Site Id's must not be changed before the upgrade.

2.2 Upgrade to version 3.0.0.

2.2.1. Before upgrading to PipeChain 3.0.0

If you are using Data Exchanges to other PipeChain servers you should verify that these use at least 2.2.0. Although the Data Exchanges probably works with previous versions of PipeChain, this is neither tested nor supported by PipeChain AB.

+ Finding Partners using old versions

You can find the Customers and Suppliers using older versions than 2.2.0 through the SQL query below:

```
SELECT 'Supplier' As BizNodeType, B.BizId, BND.PipeChainVersion, BND.BizNodeId, BND.DelivAddressId,  
BND.Name, BND.Descr, BND.ContactPerson, BND.Phone, BND.Email
```

```

FROM BizNodeDef BND, SupplBizNode PBN, Business B
WHERE BND.BizKey = PBN.BizKey
AND BND.SiteKey = 0
AND BND.BizNodeId = PBN.BizNodeId
AND BND.DelivAddressId = PBN.DelivAddressId
AND B.BizKey = BND.BizKey
AND PBN.SuppType = 10
AND BND.PipeChainVersion < 220
UNION
SELECT 'Customer' As BizNodeType, B.BizId, BND.PipeChainVersion, BND.BizNodeId, BND.DelivAddressId,
BND.Name, BND.Descr, BND.ContactPerson, BND.Phone, BND.Email
FROM BizNodeDef BND, CustBizNode PBN, Business B
WHERE BND.BizKey = PBN.BizKey
AND BND.SiteKey = 0
AND BND.BizNodeId = PBN.BizNodeId
AND BND.DelivAddressId = PBN.DelivAddressId
AND B.BizKey = BND.BizKey
AND BND.IsPipelineBiz = 1
AND BND.PipeChainVersion < 220

```

We strongly recommend that your partners use of at least 2.0.1 due to the change in warning levels in the Duration Meters. All companies using PipeChain with a valid yearly service agreement are entitled to free access to the latest version of the licensed modules.

WebAccess 2.2.1, 2.2.2, 2.3.0 and 2.3.1 requires at least Internet Explorer 5.5 or at least Netscape 7.0. WebAccess works with Internet Explorer 5 and Netscape 6.0 but not optimal.

2.2.2. Upgrade from version 2.3.X, 2.2.X, 2.1.0, 2.0.X

Run the setup program for version 3.0.0.

Important to remember during upgrade

- When running the setup program there's a step where the parameters for database access shall be entered. Check that these are correct by using the button **Check Access**.

2.2.2.1 This must be done after upgrade from version 2.0.X

- Start the background job "Update Duration Meters" from the Background Job Overview or Detail screen. (This requires system administrator privileges).

2.2.3. Upgrade from version 1.5

2.2.3.1 This must be done before upgrade from 1.5

1. You must confirm or cancel all deliver suggestions that are locked but not confirmed.
2. If there are locked but not confirmed suggestions these will disappear!
3. Important to remember during upgrade
4. When running the setup program there's a step where the parameters for database access shall be entered. Check that these are correct by using the button **Check Access**.

2.2.3.2 This must be done after upgrading from 1.5

- Update the fill rate in the Customer's *Market Buckets*: Go to the screen **Customer Market Bucket Overview**, right-click in the list and choose **Update All**. This must be performed as the fill-rate is set to zero at upgrade.

The following two actions must be taken after upgrade from version 1.5.0 for the DurationMeter's to show correct symbols, colors and values:

- Set opening and closing days and, if necessary, opening hours in the Supplier's calendar (the tab Calendar in the screen Supplier Detail).
- Start the background job "Update Duration Meters" from the Background Job Overview or Detail screen. (This requires system administrator privileges).

2.3 Platform

2.3.1. New functions

2.3.1.1 Businesses and Site

With a valid license it is now possible to create more than one Business in PipeChain. Each Business may have one or more Sites. Each Site can use one or more modules in PipeChain. A Site corresponds to the level of Own Business or one PipeChain server in the earlier versions of PipeChain.

The use of more than one Site and more than one Business in a PipeChain server requires a special multisite license to be allowed to create new Businesses and new Sites. Without this special multisite license, only one Business and one Site can exist in each PipeChain server.

Businesses and Sites are defined and maintained in the Business Detail screen.

2.3.1.2 License key

The new version requires a license key. Although upgrading and starting to use the new version will create a temporary license key, it is recommended that you contact PipeChain AB before upgrading to get a license key matching your license agreement. A license key may be issued for the Server or for a single Business in the Server. With a valid multisite license it is now possible to create more than one Business in PipeChain. Each Business may have one or more Sites. Each Site can use one or more modules in PipeChain.

The license key is entered and can be viewed in two different places depending on which type of license it is;

Server license: In the Server System Settings dialogue which is found in the View menu.

Business license: In the Business Detail screen.

2.3.1.3 User Authorization

Profiles, Users and Sites

User authorization is now made through Profiles and defining a Profile to a user for each Site a User should have access to. A Profile defines the base authorization level the user has in each module and if needed a deviating authorization on screen level.

A Profile can belong to a single Business or is available throughout all Businesses.

Only the Business and Server Administrator may edit the Profiles. The Business Administrator may not change a profile to higher authorization than (Site) Administrator. The Business Administrator may only edit the Profiles belonging to the Business.

Authorization Levels

There are three new authorization levels, Business Administrator, Site Administrator and Not Authorized.

Dynamic Menu

If a Profile has "Not Authorized" on a module, the module menu will not be visible to the user using this Profile. If a Profile has "Not Authorized" on a screen, the screen will not be visible in the menu to the users using this Profile.

Authorization Tooltip

As the authorization can be complex with many users and profiles, there is a tooltip on the Screen Name, displaying the current Profile and the Authorization Level in the Current screen.

2.3.2. Functions and corrections released in ServicePacks to 2.3.1 and 2.3.2

2.3.2.1 Database connections are released after use by bg-jobs (SP01)

Description

Previously all 21 background jobs held two database connections each. These were kept open as long as the server was running. Since database connections may be a limited resource, this strategy has been changed so that database connections are opened and closed each time a background job may need one. The change is made entirely in the platform.

There is a performance disadvantage, though limited. It is estimated that the performance cost will normally be below 1% of the CPU capacity.

2.3.2.2 ServerAdmin doesn't see all Events (SP05)

A ServerAdmin user doesn't see all Events, but a SystemAdmin does. The error was corrected.

2.3.2.3 ST4378185: CHG7606: Order filter (2.3.2 - SP03)

Description

This is a platform change which affects all grid tabs. All grid tabs where the "owner" screen has a filter will display a "filter indicator". It contains a checkbox "Apply Current Filter Setting" which is "checked" when the client is started. If you uncheck it, the tab data is fetched WITHOUT applying the filter conditions.

An example from FlowProduction:

The user double clicks on a bar in the planning Resource per Day graph, implicitly setting a date and resource filter. In the Production Order Detail screen he clicks on the link to the delivery order. Now he may be confused since he can not see the order lines which do not have the filter resource. In this situation it was NOT easy to see the whole order without losing track of it (you had to remove the resource from the filter and add the order id).

There is however one drawback - if you display lines that do not comply to the filter conditions, and double-click on one of them, you can not jump to it. Instead you will be positioned on the first record.

2.4 Setup

2.4.1. Functions and corrections released in ServicePacks to 2.3.1

2.4.1.1 Failed to run script for upgrade from 2.3.0 etc (SP15)

Description

1. PipeChain Setup hangs when the script for upgrading from 2.3.0 to 2.3.1 is to be run. The script is not run.

The workaround is to run the script manually.

2. Release number is not set in the database when the tables are created in a new database. No record is inserted in table MADBInstallationLog.

The workaround is to insert the record manually stating Release = 020301.

3. The wheel mouse dll is not loaded in PipeChain Setup.

Comments

The errors are corrected.

Note that to fix the wheel mouse problem the wheel.jar file must be replaced with the new one released in this service pack.

2.5 Supply

2.5.1. New functions

2.5.1.1 Businesses and Site

The Supply module uses both the Site level and Business level of PipeChain. Partners (Customer and Suppliers) are defined on Business Level. Everything else is defined on Site Level. This means that;

One Partner may have relations to many Sites in a Business.

Delivery agreements, deliveries, products, demand etc always belong to one site.

2.5.1.2 Partner Agreements

Defining a Customer and Supplier does now only define the name, address and calendar. For a Customer or a Supplier to be able to interact with a site a Partner Agreement must be defined. In the In/Outbound Partner Agreement Detail screens the Replenishment Parameters are defined along with the data that previously was found in the Business Agreement tab and the Connection tab in the Partner Detail screen of 2.3.X.

Outbound Delivery Suggestion Parameters for Customers

These parameters are now defined per Customer.

Template Delivery Suggestion Parameters for Customers

The parameters defined per Customer and Supplier can now be defines "As Specified in the Own Site Screen". This choice will enable several Customers and/or Suppliers to share the same parameters for the Delivery Suggestion Generation.

Generating suggestions, generating Forecast and sending Forecast.

If a button is clicked in the Partner Agreement the desired process will be executed for the Site and Partner. If a button is clicked in the Partner Detail screen the desired process will be executed for each Site that the Partner has an Agreement to.

NOTE To delete a Partner all Partner Agreements must first be deleted.

2.5.1.3 Own Site Screen name

The Own Business screen has been renamed to Own Site screen.

2.5.1.4 Partner Agreements

Defining a Customer and Supplier does now only define the name, address and calendar. For a Customer or a Supplier to be able to interact with a site a Partner Agreement must be defined. In the In/Outbound Partner Agreement Detail screens the Replenishment Parameters are defined along with the data that previously was found in the Business Agreement tab and the Connection tab in the Partner Detail screen of 2.3.X.

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NOTE To delete a Partner all Partner Agreements must first be deleted.

2.5.1.5 New filter options

It is now possible to filter on the color of the Duration Meters and if the Agreements are Supplier Managed Inventory or Customer Managed Inventory (Purchasing)

Filtering on colors

When checking a color check box all meters with this color somewhere in the meter will be shown.

Example: Checking only the red box will show all meters with red background and all meters with red order sheet or truck and all meters with a red warning triangle. Checking all boxes except the green box will show all meters except the meters that are all green (green background and green order sheet or truck, no truck and with no warning triangle)

Default is that all check-boxes are checked and all meters are shown. Saving a Named Filter will save these check-box settings.

Filtering on Supplier Managed Inventory / Customer Managed Inventory

Checking the "Supplier Managed Inventory" check-boxes will display only meters where the delivery agreement is SMI. Checking the Customer Managed Inventory" check-boxes will display only meters where the delivery agreement is not SMI.

Default is that both check-boxes are checked and all meters are shown. Saving a Named Filter will save these check-box settings.

2.5.1.6 Define user limits in the Inventory Chart

The user can now in the Inventory Chart save the minimum number of days into the future to show and the maximum number of coverage days to show along the y-axis in the graphs.

These settings are remember until they are changed the next time if you click the "Save Settings" button.

2.5.1.7 Simulation in the Inventory Chart

It is possible to simulate the effect on changing delivery quantity in Inventory Chart's Closing Inventory tab. The fields for Inbound Deliveries and Inbound Suggestions are open for editing and changing the values in the cells will immediately display the effect of the change in Closing Balance for all days after the changed day.

These changes are only made in the "memory" of the client application and are not saved by the server. Whenever you close the Inventory Chart or move to another Product the changes are lost.

2.5.1.8 Initial and Resulting Duration on Inbound deliveries and suggestions

The fields Initial and Resulting Duration has been added to all screens for Inbound Deliveries and Inbound Delivery Suggestions. Initial Duration is the Duration just before the reception of the delivery and Resulting Duration is the Duration just after the reception. The fields are color-coded based on Critical Time, Safety Time and Max Time.

2.5.2. Functions and corrections released in ServicePacks to 2.3.1

2.5.2.1 Automatic release of recipes fails from transaction (SP01)

Description

When a recipe is defined by transaction and automatically released the release fails. It works only if it's released manually.

Comments

The error is corrected.

2.5.2.2 Calculation fails if max is less than min (Bucket/AAO) (SP01)

Description

While having an all-at-once flow model, transports defined in the reception schedule and bucket strategy in the delivery agreement and a max time/safety time difference shorter than the difference between transports the calculation fails and don't calculates as many suggestions as expected.

It fails because when a suggestion gets a min quantity bigger than the max quantity the min quantity is chosen but the next suggestion gets too small. If it gets below zero the calculation aborts and no further suggestions are created even if there is a need.

Besides, if there is a shortage in the bucket the shortage quantity is not added to the suggestion.

Comments

The errors are now corrected.

2.5.2.3 Shipping with customer and product fails (SP01)

Description

Sometimes when shipping a delivery with customer and product as keys it fails and says the delivery must be confirmed to be shipped even if there is a confirmed delivery waiting to be shipped.

Comments

The error is now corrected.

Also the inbound despatch advice has been corrected for the same problem.

2.5.2.4 New attributes in XML transaction Product Definition (SP02)

Description

The delivery unit description can now be set with the product definition XML transaction. The new attribute in the DeliveryUnit element is DeliveryUnitDescription. Example:

... DeliveryUnitDescription="Big Box" ...

2.5.2.5 New attributes in XML transaction FlowMeter Update (SP02)

Description

The flow meter sensitivity can now be set with the flow meter update XML transaction. The new attribute in the FlowMeter element is FlowMeterSensitivity.

Example:

... FlowMeterSensitivity=0.0 ...

2.5.2.6 CS04 failed to perform any relative update (SP02)

Description

Reception of an Inventory Report transaction (CS04) with relative update mode (that uses ProductBalanceAdjustment) always failed yielding a null-pointer exception.

The error was corrected.

2.5.2.7 Changed color coding of Shipment Time and Receipt Time (SP03)

Description

Some screens and grids have been reviewed to have consistent color coding. The changed screens are Inbound Delivery Suggestion Detail and Outbound Delivery Suggestion Detail. The changed grids are Inbound Deliveries grid in Supplier Detail, Inbound Order Detail and Own Bucket Detail screens and the Outbound Deliveries grid in Own Bucket Detail, Outbound Order Detail, Customer Detail and Customer Bucket Detail.

2.5.2.8 Goods Reception fails due to transaction conflict (SP03)

Description

When two or more order lines on the same order has the same product and are received (and finished) in the same transaction the reception registration fails due to transaction conflict.

This can happen both with inbound orders and outbound orders.

Comments

The errors are now corrected.

2.5.2.9 M in the Duration Meter (SP03)

Description

The M in the Duration Meter indicates that manual work is needed to calculate replenishment for the product. The M is shown if the supplier doesn't manage the inventory and there is no replenishment engine on the supplier.

The error is that even if there is a replenishment engine on the supplier (type: Production) there is still an M in the Duration Meter in the detail screen for own product.

Comments

The error is corrected.

2.5.2.10 Add All Lines shouldn't try to add confirmed lines (SP03)

Description

The order screens show lines belonging to the order and suggestions that has the same date and supplier/customer as the order. It also shows confirmed deliveries that has the same date and supplier/customer as the order but doesn't belong to any order (has no order line).

When adding new lines to the order the confirmed lines w/o order are "included in the list", but the business logics doesn't allow them to be added to the order. So if there is such a line in the screen the Add All Lines command doesn't work. The error also affects the Send and Confirm buttons.

Comments

Confirmed order lines not belonging to any order are now excluded from the list of lines to be added to the order.

2.5.2.11 Red Order Sheet in the duration meter even if OK (SP03)

Description

There is a red order sheet in the duration meter even if there is no red order line.

Comments

The error occurred sometimes. The calculation didn't result in zero, but a value just below, like -8.8E10-16. The error was corrected by comparing the result with -5E-6 instead of zero. Thereby the order sheet gets red only if the balance after the delivery is below -5E-6.

2.5.2.12 Error in order change (SP03)

Description

Some errors in the order change logics has been found:

- When there are two inbound confirmed deliveries to be changed at the same time a transaction conflict (internal conflict) occurs and no change is made.
- When an outbound confirmed delivery is zeroed due to no customer demand the field "Remaining to ship" is not set to zero. This field is the one used for flow models of type "From Outbound Deliveries" so the corresponding inbound delivery is not changed.
- The grid for own flow periods doesn't show "Remaining to ship" if the delivery status is above confirmed.
- Confirmed Quantity2 is not set to 0 at cancel.
- The order change doesn't work if the demand corresponding to an inbound delivery in status Scheduled is removed and the scheduled delivery is outside the frozen horizon. Instead of changing/cancelling the next delivery, the next delivery is kept because it has the same time as the calculated suggestion. Thereby the scheduled delivery quantity will be "overstock".

Comments

The errors are now corrected.

2.5.2.13 Customer Bucket Overview Screen - Too many rows (SP03)

Customer Bucket Overview Screen - Too many rows

2.5.2.14 Error when sending Product Delivery Forecast (SP04)

Description

The Product Delivery Forecast could not be sent from PipeChain. The Supplier and Product Delivery Forecast also generates wrong data of there is one inbound and one outbound agreement for a product with the same Supplier and Customer ID.

Comments

The error is corrected.

2.5.2.15 Missing data in Finished Outbound Delivery screen (SP05)

Description

All rows in the Finished Outbound Delivery screen was not properly filled with data. Only after selecting a row the correct data appeared. The error has been corrected.

2.5.2.16 Multiple inbound agreements (SP05)

Description

When a product has more than one agreement all rows in the In. Deliv. Agreement tab in the Own Bucket Detail screen was not properly filled with data. Only after selecting a row the correct data appeared.

Comments

The error has been corrected.

2.5.2.17 Automotive changes (SP05)

Description

To better work with non-vmi products in the Automotive industry some changes has been made. When "Send Purchase Suggestion" is set to "Automatic Request" and "Send Delivery Suggestion" is

set to "Automatic Confirmation" the following is changed: Suggestions can be confirmed without having to create an order and deliveries can only be edited by the customer (quantity, shipment and reception time).

2.5.2.18 Finished Deliveries (SP05)

Description

The Finished Inbound Delivery Overview screen has been changed to be more similar to the other Finished Deliveries screen. The fields Demand, Suggested, Confirmed and Confirmed2 was added. The Demand Qty has been added to the Finished Outbound Delivery Overview screen. The color coding of quantity difference has been review to be the same for any change in quantity from demand for received.

2.5.2.19 Error in flow model split for several suppliers (APC) (SP06)

Description

This function is used when balance is decreased automatically based on the flow meter or based on bill of material. A new strategy for product supersession has been added for use as a substitution link. The strategy doesn't affect the normal product change over function. The substitution records must be removed manually.

It is now possible to sort on "Product Supersession" in Outbound Delivery Agreement Overview. A message (text id 120052) is logged when an order line is confirmed while the product has a substitution link.

2.5.2.20 Changes due to workflows with demand and supplier suggs (SP07)

Processing of Purchase Order (CS40) and Order Response (PW02) has been enhanced to support a new scenario where the supplier calculates and sends in delivery suggestions with PW02. PipeChain forwards the suggestions with CS39. The purchase system confirms them with CS40. When CS40 is processed the suggestions are confirmed and sent to the supplier with an Order (PW01). The supplier responds with an Order Response (CS02), which is forwarded to the purchase system with CS05. The scenario ends with Receiving Advices (CS05).

The news are:

CS39 is sent when PW02 is processed if it contains suggestions.

PW02 can contain suggestions

PW02 can contain confirmed deliveries not referring to suggestions

If the Send Delivery Suggestion Strategy is "Automatic Confirmation" the deliveries are confirmed and sent to the supplier in a PW01 (if mapped)

If the Purchase Order (CS40) contains multiple orders all these orders are sent in the same Order (PW01) to the supplier

2.5.2.21 Enable Cancel of Deliveries (Automotive) (SP07)

Description

When Purchase deliveries are fully managed by the customer it is not possible to Cancel a delivery.

Comments

Users may now Cancel the Delivery. Accordingly web users are in this case not allowed to Cancel the delivery (See WebAccess ServicePack Notes).

2.5.2.22 New fields for Finished Deliveries (SP07)

Description

New fields have been added to the Finished In and Outbound Delivery Overview screens in Supply and WebAccess. The new fields are Announced Receipt Time and Last Shipped At. It is possible to

sort on these new fields. All Overview screens now contain the four fields Shipment Time, Last Shipped At, Announced Receipt Time and Received At.

2.5.2.23 Changed definition of Suggestion Gen. Locked Until (SP08)

Description

The definition of the Delivery Suggestion Generation Locked Until is now changed to be the following:

Existing delivery suggestions within before the Locked Until date are not changed or deleted during the delivery suggestion calculation. No new suggestions are created before the Locked Until date. Suggestions can be updated manually and recalculated according to a new reception time.

2.5.2.24 Suggestions are one more than needed if MB and SB used (SP09)

Description

The suggestions are often one more than what is needed if the quantity should be controlled by max balance and safety balance.

Comments

The error has been corrected.

2.5.2.25 Partner Product Id optional in CS08 and CS10 on update (SP10)

Description

Partner Product Id is now optional in CS08 and CS10 when the transaction is used to update an agreement. Partner Product Id is still mandatory when the transaction is used to create an agreement.

2.5.2.26 Outbound Despatch Advise can't handle double shipping (SP10)

Description

If there are two lines concerning the same delivery in PipeChain in a CS03 with two delivery note IDs, you will get a transaction conflict and the transaction fails. It occurs when the first line creates a split and therefor updates the delivery, and the second tries to set the status to shipped.

Comments

The error is corrected. It's now possible to have two lines concerning the same delivery in PipeChain in a CS03 with 2 delivery note IDs. Unfortunately it's not possible to have more than two lines concerning the same delivery.

2.5.2.27 Error message Receipt Time must not be before Shipment (SP10)

Description

The following error message is logged:

Background job failed at 10.10.05 13:15. Job id is Recalculate Delivery Suggestions, param is Customer '580335' '001'. Error cause is: Receipt Time must not be before Shipment Time
But there is no such delivery in the database.

Comments

The error is corrected. It came from the background recalculation of following suggestions when a user changed a delivery or suggestion to such a low quantity that the recalculated quantity needs to be as soon as possible.

2.5.2.28 Possible to keep the three latest deliveries (SP10)

Description

It's now possible to set a property for how many finished inbound or outbound deliveries that should always remain per product and supplier/customer.

To keep the three latest finished inbound deliveries, add the following line to the property file:

```
se.masystem.pipeline.cleanup.keep.finInDelivs=3
```

To keep the three latest finished outbound deliveries, add the following line to the property file:
 se.masystem.pipeline.cleanup.keep.finOutDelivs=3

Note: This functionality is not supported on Oracle.

2.5.2.29 Multiple sourcing with different share over time (SP11)

Description

It's now possible to have multiple suppliers to a products and to set different shares starting at certain dates. For example two supplier can have 50% each starting from today, but starting at next month one has 80% and the other has 20%.

The button "Update Share" in Own Product Detail now shows a dialog with one column for each supplier. When a new period is created the user enters the start date and the shares for suppliers. The sum must be 100%. The first record in the dialog updates the share shown in the delivery agreement grid.

The flow model is split when the dialog is closed if there have been changes in the shares (this is indicated with a * in the dialog title). A flow model with one period with flow model source is created if there wasn't a flow model before the enable the flow model to be split.

The shares for a supplier are shown in a tooltip when the mouse is kept over the share figure in both delivery agreement overview and detail. In Delivery agreement detail a * indicates that there are other share figures in the future for this supplier.

If there are more than one period starting before now, the first records are purged during the night and the share in the supplier partial product is updated.

To use this new function the table "ReplenShuntBizPeriod" must be created in the database. If there is no such table the system will continue to work as normal, but there will be errors logged to the log file.

2.5.2.30 New formats for Duration Fields (SP11)

Description

The Duration format (also used for Critical, Safety and MaxTime) can now be altered via a new property in the client properties file. There are 5 new options apart from the dynamic standard format, described below. The property is named se.masystem.pipeline.useFixedDurationFormat. Valid values of the property and examples are described below. If an invalid value or no value is given the built in standard formatting will be used.

Value => Examples

0d 0h 0m => 2d 0h 0m, 1d 6h 0m, 0d 0h 45m, 0d 0h 0m

*d *h *m => 2d, 1d 6h, 30m 0m

0d 0h => 2d 0h, 1d 6h, 0d 1h, 0d 0h

*d *h => 2d, 1d 6h, 1h

0h 0.0d => 2.0d, 1.5d, 0.0d, 0.0d

2.5.2.31 New fields in PW38 (SP11)

Description

Fields for Sales Order Id, Sales Sub Order Id and Sales Order Line Id have been added to the Element CustomerDeliveryForecastLine.

2.5.2.32 Split of outbound deliveries (SP12)

Description

It is now possible to split a delivery suggestion into two parts. The functionality is available in the Outbound Delivery Suggestion screens, The Outbound Order Detail screen and in the LoadPlanner's Shipment Detail. In the LoadPlanner it is possible to, at the same time, Split and Move a delivery.

2.5.2.33 Outflow on non BizDays controlled via screen (SP12)

Description

The property OutflowOnNoNBizDays for controlling calendar function for Customer Flowmodels of ProductionPlan Daily has been moved from the property file to the Customer Detail screen/Advanced Tab. The property will be ignored.

2.5.2.34 Order Changes Not Sent as Single Line (SP13)

Description

Order Changes (CS42) and Production Requisition Changes (CS72) contain multiple lineitems, where you would expect one segment per message (e.g. 1 line per message) even if Order Generating Strategy is "Single Line" in Own Business/Supplier Business Detail.

Comments

Both errors are corrected so if Order Generating Strategy is "Single Line", only one delivery is sent per message.

2.5.2.35 Correction of editing in Own Business Detail (SP13)

Description

When in the Own Business Detail screen the Suggestion Generating Strategy is changed to "Automatic Sending and Change" the field "Order Generating Strategy" is locked from editing.

Comments

The error has been corrected.

2.5.2.36 Delivery suggestions excluded from customer delivery forecast (SP13)

Description

The settings on the customer currently doesn't give the option to exclude the delivery suggestions from the customer delivery forecast (PW38) as the checkbox for visibility of Delivery Suggestions only controls the WebAccess and not the transaction.

Comments

The logics in the transaction is now changed so if the checkbox isn't checked the suggestions are not included in the transaction.

The screen layout has been changed to reflect the change.

The settings can be changed by a configuring user.

2.5.2.37 Stricter formatting rules of durations (SP14)

Description

Stricter formatting rules now apply when entering data in "Duration" format, like Safety Time and Max Time. It is no longer allowed to input data with thousand separator instead of decimal separator. It is also not allowed to use decimal separator for hours and minutes. This will only be allowed for days. Acceptable formats (sv): '0,5d', '6h 30m' Not acceptable formats (sv): '0.5d', '6,5h' Acceptable formats (en): '0.5d', '6h 30m' Not acceptable formats (en): '0,5d', '6.5'

2.5.2.38 Review of formatting via property (SP14)

Description

Changed formatting of durations for DurationMeters if property is used to set a static duration format.

2.5.2.39 Job Check Confirmed Deliveries fails if record deleted (SP15)

Description

If the order confirmation is followed by a goods reception, the job for checking the delivery fails if the goods reception is processed and the delivery is deleted prior to the check.

Comments

The error is corrected.

2.6 MACom

2.6.1. New functions

2.6.1.1 Server, Businesses and Site functionality

A Channel can be server-wide, business restricted or site restricted. The restrictions are used for both outbound and inbound transactions.

Channel Restrictions

Inbound Transactions

Inbound transactions will be restricted to update data within the defined restriction. A Site restricted channel will only be able to see data related to this Site. A Business restricted channel will only be able to see data related to this Business.

Outbound Transactions

Outbound transactions will be sent on all valid Channels, i.e:

- For an outbound Site transactions, a copy of the transactions will be send on all channels with the current transaction type defined and that are either restricted to this Site, the Site's Business or is unrestricted (server-wide).
- For an outbound Business transactions, a copy of the transactions will be send on all channels with the current transaction type defined and that are either restricted to this Business or is unrestricted (server-wide).
- For an outbound Server transactions, a copy of the transactions will be send on all channels with the current transaction type defined and that is unrestricted (server-wide).

Business, Site and Partner Information

When a Site transaction is received the Business Id and Site Id will be set in PipeChain from either the Channel restrictions, the transaction data or to the only site in a single site server. If there are more than one site in the server, the Business Id and Site Id must be defined either via the Channel restrictions or transaction data. If not the transaction will not be processed as it is unclear of what data should be updated.

When a Business transaction is received the Business Id and Partner Id will be set in PipeChain from the Channel restrictions and the transaction data or to the only business in a single site server. If there are more than one site in the server, the Business Id and Partner Id must be defined via the Channel restrictions and transaction data. If not the transaction will not be processed as it is unclear of what data should be updated.

Receiver Id

The incoming transactions are verified against the Server Id, as defined in the Server System Settings.

Visibility

- Server Administrators can see all transactions and channels in the server.
- The Business Administrator can see all the transactions and channels in the Business.

- A user with Site Administrator privileges or less will be able to see all the Site's transactions and all Business transactions from Partners with Partner Agreements to the Site.

2.6.1.2 New XML transaction layout

To follow the new levels in PipeChain on Businesses and Sites the XML layout has been changed accordingly. All transactions (except Event and Acknowledged) now have two new levels in the transaction, Business and Site, Customer or Supplier.

Message

```

|-- Head minOccurs 1, maxOccurs 1
|-- Data minOccurs 1, maxOccurs 1
    |-- Business minOccurs 1, maxOccurs unbounded
        |-- Customer minOccurs 1, maxOccurs unbounded
            Transaction types to/from customer ERP's here
        |-- Supplier minOccurs 1, maxOccurs unbounded
            Transaction types to/from supplier ERP's here
    |-- Site minOccurs 1, maxOccurs unbounded
        Transaction types to/from own ERP's here

```

Defragmentation

If a message consist of transactions for more than one Transaction Type and/or more than one Site, Customer and/or Supplier, the transaction will be fragmented into a fragment for each Transaction Type and each Site, Customer and Supplier. Each fragment will thereafter be processed separately. For more information see the System Interface XML for 3.0.0.

2.6.1.3 New Channel Settings

Process transaction with new Receiver Id.

If this checkbox is checked incoming transactions without Receiver Id will be processed. If unchecked these transactions will not be processed.

Process only defined Transaction Types.

If this checkbox is checked only incoming transactions defined on the channel will be processed. If unchecked incoming all transactions will processed.

Save unfragmented transaction.

If this checkbox is checked the original incoming transaction with multiple transactions types and/or Sites, Customer and Suppliers will be saved. If unchecked the only the fragmented transaction parts will be saved.

Polling Interval.

For file, ftp and email channels the Polling Interval is now defined in the Channel Detail screen.

2.6.1.4 Improved filter and screens

Filter

It is now possible to filter on Business Id, Site Id, Partner Id and , Address, Sender Id and Address and External Transaction Reference in the Transaction screens.

Screens

The Transaction Reference Overview screen has been removed and the External Transaction Number can now be found in the Transaction Overview and Detail screens along with Business Id, Site Id, Partner Id and , Address, Sender Id and Address and User Name for email transactions sent to a User defined in the Partner Agreement or in the User Detail (Events).

2.6.2. Functions and corrections released in ServicePacks to 2.3.1

2.6.2.1 Channel stops if no email address for sender exists (SP07)

Description

An email channel stops if there is an email to send and the email address for where to send the email is either missing or invalid.

Correction: If the email address is missing or invalid the error will be logged and the process continue with the next message to send.

2.6.2.2 Error sending email's using attachments (SP07)

Description

Messages sent in email using user's address and attachment will be sent to the first user found. There is no check for messages to other users.

The error is corrected and messages will now be sent collected per user if attachment is used.

2.7 WebAccess

2.7.1. New functions

2.7.1.1 Multisite selector

If a Web User belongs to a Customer or Supplier(s) with relations to more than one site, a drop-down selector will appear in the top of the screen where a user can switch between the Sites. To be able to do this the user must be authorized for more than one Site.

Authorization is defined per site via profiles and for each partner - site relationship in the "Partner" Detail screen.

2.7.1.2 Initial and Resulting Duration on Outbound deliveries and suggestions for Web Suppliers

The fields Initial and Resulting Duration has been added to all screens for Outbound Deliveries and Outbound Delivery Suggestions in the Web Suppliers screens. Initial Duration is the Duration just before the reception of the delivery and Resulting Duration is the Duration just after the reception. The fields are color-coded based on Critical Time, Safety Time and Max Time.

2.7.2. Functions and corrections released in ServicePacks to 2.3.1

2.7.2.1 Outbound Delivery fields opened for editing (SP01)

Description

In the Outbound Delivery Detail screen (for a Web Supplier), the following fields are opened for editing:

- Delivery Note
- Sales Order Id
- Suborder Id
- Line

- Alternative Delivery Address

2.7.2.2 Supplier's Customer Bucket Overview (SP05)

Description

Some sort orders did not work. It was not possible to sort on the Supplier's Product Id (The field Product Id in the screen).

The sort order error has been corrected and a sort order for the Supplier's Product Id has been added.

2.7.2.3 New fields for Finished Deliveries (SP07)

Description

New fields have been added to the Finished In and Outbound Delivery Overview screens in Supply and WebAccess. The new fields are Announced Receipt Time and Last Shipped At. It is possible to sort on these new fields. All Overview screens now contain the four fields Shipment Time, Last Shipped At, Announced Receipt Time and Received At.

2.7.2.4 Cancel deliveries (SP07)

Description

Web users who are not allowed to edit a delivery in the Outbound Delivery Detail screen are allowed to cancel the delivery.

Comments

Users who are not allowed to edit a delivery are no longer allowed to Cancel the delivery.

2.7.2.5 No update of delivery suggestions (SP07)

Description

When saving a delivery suggestion the entered Delivery Quantity, Shipment Time and/or Receipt Time is not updated.

Comments

The error is corrected.

2.7.2.6 Unable to change password (SP08)

Description

Web Users cannot change password in the User Detail screen in the WebAccess client.

Comments

The error has been corrected. A new version of the WebUser.jsp-file should be updated in the WebAccess web application(s) to correct the error.

2.7.2.7 Not Possible to Create New Delivery Agreement (SP10)

Description

It's not possible to create a new delivery agreement in the WebAccess because you get an error when the delivery agreement is saved. Copy works as it should though.

Comments

The error is corrected.

2.7.2.8 New checkbox in WebAccess to recalculate suggestions (SP10)

Description

When a WebAccess Supplier changes a delivery, the automatic recalculation of the following suggestions may create new suggestions with the same time as the updated one.

Comments

When the WebAccess user edits the quantity on delivery suggestions or deliveries, he can now choose to not recalculate the following suggestions by unchecking the checkbox "Recalculate the Following Suggestions" close to the quantity field. Default is that the checkbox is checked and the following suggestions are recalculated.

2.7.2.9 Unable to change Receipt Time of Outbound Suggestion (SP10)

Description

When changing a suggestion it is possible to change Quantity and Shipment Time but not Receipt Time.

Comments

The functionality to change a suggestion introduced in SP08 did not correctly change the Receipt Time. The error has been corrected and requires that (apart from applying the jar-file to the web application(s)) the changed jsp-file from SP08 is replaced with the old file. This corrected file is shipped with ServicePack 10.

2.8 LoadPlanner

2.8.1. Functions and corrections released in ServicePacks to 2.3.1

2.8.1.1 Adding suggestion together (SP12)

Description

If a suggestion is moved to another delivery already containing a suggestion with the same product going to the same customer the suggestion will be added together of both of them are in status Suggestion or Locked. This functionality is also triggered if more than one delivery is moved at the same time.

2.8.1.2 Moving of more than one line (SP12)

Description

In the Shipment Detail screen more than one delivery can be moved to another shipment at the same time. The deliveries to be moved is selected by checking the check box "Mark". If one or more deliveries are selected they will be moved when choosing "Move to other Shipment" in the right-click menu. If you right-click on a delivery that is not marked a warning will notify the user that the marked deliveries will be moved, and not the delivery that was right-clicked upon. The marked check-boxes are not stored in the database. If the screen is refreshed or if you move from this screen to another screen and then back the marked check-boxes will be cleared.

2.8.1.3 Split of outbound deliveries (SP12)

Description

It is now possible to split a delivery suggestion into two parts. The functionality is available in the Outbound Delivery Suggestion screens, The Outbound Order Detail screen and in the LoadPlanner's Shipment Detail. In the LoadPlanner it is possible to, at the same time, Split and Move a delivery.

2.9 FlowProduction

2.9.1. Functions and corrections released in ServicePacks to 2.3.1 and 2.3.2

2.9.1.1 Use actual start time as picking priority in MHS (SP01)

Description

In the Production Business screen, tab "Reports and Production", field "Set Actual Production Date", it is possible to declare that the "Start" (production) operation should write the actual date and time into the Production Date of the Production Order.

The main consequence is that the Production Date is sent to the production system, where it is used as production priority in the MHS system.

The Production Date is written by the "Start" operation and restored if production is "Cancel"-led. It works the same regardless if the operations are executed on the Production Order or Delivery Order level.

2.9.1.2 Keep track of scheduling changes (SP01)

Description

Since repeated scheduling changes is annoying to the customer, it is desired that previous scheduling changes can be taken into account when deciding on production plan changes. Each time a change is reported to the order system, the "Report Change Count" is incremented. The field is found in the "Delivery Order Detail" screen, in the "Scheduling History" tab. After the first successful scheduling response, the value is zero.

This counter is NOT cleared by order replacement.

2.9.1.3 Improved warning when a Planning Resource is deleted (SP01) Description

A new (platform) feature has been added. It is used by the Planning Resource.

When an object is deleted, the delete-message may now be constructed on the server side, and may then contain information about other affected objects, in this case Planning Resource Allocations. This allows the user to better understand the consequences of deleting the Planning Resource.

2.9.1.4 Bulkorder Split operation (SP07)

Description

The previous "Production Order Split" operation used the Production Order Quantity to split a Production Order into smaller parts. This did not work at all for "Bulk Orders" which are "loose" component lines bundled together into a single DelivOrderLine/Production Order with Quantity=1. "Bulk Orders" are created by the FlowProduction order transaction converter, and they are possible to detect using the "Picking Report Strategy" attribute. Thus, the system can safely and automatically detect which Split/Merge-operation is appropriate.

When splitting a Bulk Order, a dialog is displayed with all resource demands and their respective quantity. Any part of these quantities can be moved to a new Production Order. Unlike the "normal" split operation, only one new Production Order can be created by each split, although a split order may be split again any number of times.

Split/Merge can be performed by a user with at least "Configuring" privileges, on orders in status "Ready to Start" or "Not Scheduled", although a "Ready to Start" order may only be split/merged while Order Reception is switched off.

2.9.1.5 FlowModel Generation Error due to DST (SP07)

Description

The two days each year when DSP (Daylight Savings Time) is changed, the day length is not 24h. When computing Flowmodels extending over 30/10, the parts after 30/10 will be missing. The error probably occurs in the spring too.

There is no workaround.

The error was corrected by using a DST-aware object in date computations for FlowModel.

2.9.1.6 ST4657597 AutoStart (2.3.2 - SP01)

Description

The purpose of this function is to support the order start process currently used by Ericsson Borås:
 "Orders are normally started in an order controlled by LastProductionDate (date priority) and ScheduledShippingDate (time-of-day priority). If there is a shortage, the order is not started. The Shortage attributes of the Planning Resources are used so that succeeding orders using that resource will not be started. A shortage list is maintained. After replenishment of shortage resources, the procedure is repeated."

Implementation:

The algorithm is executed by a repetitive background job, which is controlled by three new parameters in the Production Business.

Autostart Constraints

[No Autostart, Start all, Start all w/o shortage, Reserve if shortage (by day), Reserve if shortage (by minute)]

When reservation is used, all demands for both started and non-started orders are reserved.

Reserve by day = despite shortage, allow a succeeding order (with less demand) to start if its start day is the same (but not later)

Reserve by minute = despite shortage, allow a succeeding order (with less demand) to start if its start day+time is the same (but not later)

If the sort order uses two dates, e.g. ProductionDate + SchedShippingDate, both are significant in the date equality test.

Autostart Sequence (the sort order)

"PO by Production Date" - 1:st ProductionDate, 2:nd SchedShippingDate, 3:rd OrderId

"DO by Last Production Date" - 1:st LastProductionDate, 2:nd SchedShippingDate, 3:rd OrderId

"DO by Sched Due Date" - 1:st SchedDueDate, 2:nd SchedShippingDate, 3:rd OrderId

"DO by SchedShipping Date" - 1:st SchedShippingDate, 2:nd OrderId

Autostart Period

[whole day, preceding start time]

The algorithm does not check/set the Shortage attribute. The algorithm checks the new Hold attribute of the Delivery Order, and if it is set, Delivery Order autostart is not possible.

Error, shortage and reservation information for non-started orders are written to the message log.

The Autostart algorithm can be started manually at any time from the FlowProduction Overview screen and from the Delivery- and Production Order Overview screens. Operative privileges is enough for executing the algorithm, but Configuring privileges are necessary to change the parameters in the Production Business.

2.9.1.7 Manual DelivOrder start impossible if Team was not set (2.3.2 - SP01)

Description

If one or more Production Orders did not have any Production Team set, it was not possible to start a Delivery Order manually, even though a Production Team was selected in the dialog box.

Manual Production Order start was not affected.

The error was introduced in 2.3.2 Sp01. The error was corrected in versions 2.3.2 and 3.0.0.

2.9.1.8 Replace Without Scheduling did not update flowmodels (2.3.2 - SP02)

Description

Orders in FlowProduction are sometimes moved/replaced from the Order System, using the Order Replacement functions.

In some cases, when an order is not moved in time, the order structure is unchanged, and no replacement quantity exceeds the original quantity, this Order Replacement is performed without

any rescheduling (this guarantees that the order stays in place even if there is a severe shortage situation that day).

In this replacement case, flowmodels will not be updated.

The error was introduced in version 2.0.1 (in year 2002). It has probably been unnoticed because

- the error could never result in a "demand" lower than the correct one
- flowmodels are rebuilt by many operations, e.g. the nightly background job
- the replacement function is mainly used for MOVING orders, in which case no error occurs

The error was corrected in versions 2.3.2 and 3.0.0.

2.9.1.9 ST4388944: HD13984: Scheduling History (2.3.2 - SP03)

Description

Part 1: A new parameter "Requested Date Cause Code" is added for follow-up. It is similar to previous "Cause Code" which is renamed to "Confirmed Date Cause Code". The two parameters are prompted for and written independently.

Logic: If the Production Biz has "Mandatory Cause Code..." (the same attribute controls both parameters), "Requested Date Cause Code" is not already saved and the chosen scheduling date is later than "Original Requested Shipping Date" then "Requested Date Cause Code" should be prompted by the dialog and written to the delivery order.

Part 2: Previously, the result of the latest significant scheduling operation has been saved in the Delivery Order and displayed in the "Scheduling History" tab along with some more permanent scheduling info, e.g. the "Original..."-dates.

Now we save more of the scheduling history. A new table "SchedulingHistory" contains order keys, an integer counter, the attributes "Result Type", "Result Text", "Scheduling Time" and "Scheduled By", along with the resulting "Scheduled Shipping Date". Future additions are possible.

Failed manual scheduling attempts are NOT saved. Production Order scheduling is only saved if the Scheduled Shipping Date is changed. Multiple Scheduling saves exactly as several single scheduling attempts.

The attributes are displayed in a grid on the "Scheduling History" tab, below the more permanent attributes.

2.9.1.10 ST4391960: CHG7623: Insight in Supply (2.3.2 - SP03)

Description

Part 1: Add the ability to set Frozen Horizon in the Delivery order Reschedule dialog. The default value is fetched from Production Business. The value is only editable if automatic scheduling is selected.

Part 2: Add options for viewing resource data that reside in PipeChain Supply. The Supply Inventory Chart can now be displayed from

- Planning Resource Allocation per Week
- Planning Resource Allocation per Day
- Resource Demand per Week
- Resource Demand per Day
- Production Order Detail, tab Resource Demands
- Delivery Order Detail, tab Resource Demands (new tab)

The new tab gives the same functionality as in the Production Order Detail screen. The demands are not summed, and full editing abilities are provided.

The Inventory Chart shows exactly the same data as in PipeChain Supply.

2.9.1.11 ST4391947: CHG 7622: Manual planning (2.3.2 - SP03)

Description

For some resources (e g "förserieprodukter", "NPI och B-produkter") you NEVER want the system to schedule the order. In stead, the order should go to status "Not Scheduled", the planner should check when production is possible, then schedule the order manually (normally using the automatical algorithm).

The Planning Resource has a new attribute "Manual Acknowledge". It is displayed in both overview and detail screens, it is sortable, and possible to filter on (in the Resource Filter). It is set in the detail screen by an (at least) configuring user, though only of order reception is halted.

The attribute affects the system scheduling after order reception. If a resource with "Manual Acknowledge" is found, scheduling is aborted with the result text "Resource XYZ requires 'Manual Acknowledge'."

If the attribute is found during manual scheduling (also production order scheduling) one or more warnings are added to the Scheduling Warning Dialog. As always, such a warning may be ignored by the planner.

If the warning is ignored, the attribute has no further effect in manual scheduling. Capacity control is performed in the normal way. The attribute does not affect what is displayed by the "Display All Shortages" option.

2.9.1.12 ST4372306: CHG7614: Change PO when Deliv Order is started (2.3.2 - SP03)

Description

Some operations on Delivery Order Line, Production Order and Resource Demand have unnecessarily strict constraints, i e demand that NO part of the Delivery Order is started - when it would be sufficient to ensure that the actual production order is not started.

The following operations have for a long time been available for non-started productionorders (and are still so)

- Next Unit
- Cancel Production
- Report Production
- edit Production Team
- edit Production Date (only the time-part is editable)

The following operation will continue to be unavailable for non-started production orders of a started delivery order

- DO Reschedule

The following operations are only available if the delivery order is not started, and will remain so

- edit keys of a non-component demand
- edit quantity of a non-component demand

The following operations have not been available for non-started productionorders, but will be from now on

- edit Production Qty. Allowed always.
- Recipe Change. Allowed if the delivery order line is not started.
- edit Resource Variant on a component demand. Allowed always.
- Split. Allowed always.
- Merge. Allowed if all marked production orders are non-started.
- Reschedule. Allowed always.

It could be fatal to perform some of the operations without knowledge of the delivery order status. Thus, the delivery order status is now displayed in the delivery order line and production order screens.

The "Start" and "Cancel"-operations SHOULD refresh the whole Production Order Overview screen, since states of other Production Orders may be affected. However I have chosen not to for performance reasons.

There is a need for different names for the three statuses. I have introduced the "acronyms" ["DO", "DOL", "PO"] for clarity, yet being thrifty with "screen estate". I have removed the "old acronym" ["P. Order"].

2.9.1.13 ST4391914: CHG7670: Monitoring of Constraints (2.3.2 - SP03)

Description

New functions to enable "top down" supervision of the production plan's capacity constraints

- after receiving a CapacityLimit transaction
- after enforced scheduling operations
- when changing shifts

Today such supervision requires that numerous planning resources are checked manually in the "Planning Resource Allocations per Week/Day"-graphs.

The new function consists of three main parts:

- a background job "Order Over Capacity Calculation" which compares the current production plan with the current capacity limits. The results are saved in the CapacityLimit objects. The job is run nightly, when a CapacityLimit transaction is received, or if the operator presses a button.
- four new attributes in CapacityLimit + one in ProductionBiz
 - o WeekCapacity (was earlier computed each time it was shown, optimization)
 - o ShortageCode (set of weekdays with shortage - applies only to "daily" resources)
 - o CapacityMargin (WeekCapacity - WeekDemand, applies to all resources)
 - o HasShortage (boolean, needed for sorting)
 - o OrderOverCapacityCalcDate (in ProductionBiz)
- presentation in the Overview screen
 - o in the tab "Limited Resources Per Week" the "CapacityMargin" is shown. If there is any weekly or daily shortage, the field is colored YELLOW. In the case of a daily shortage, the field can be yellow although the margin has a positive value. For a "daily" resource, one or more of the day fields may be colored yellow.
 - o sorting can be performed on "Has Shortage" (all "yellows" on top but secondarily ordered by week) or "CapacityMargin" (least margin on top).
 - o the "Overview" tab holds an indicator "Order over Capacity" which shows the number of CapacityLimits (resource X week) with shortage. By clicking on the indicator, you jump to the "Limited Resources Per Week" tab with the sorting order "Has Shortage" preselected.
 - o the "Master Scheduling" tab holds the button for executing the job manually, and the last OrderOverCapacityCalcDate is shown.

2.9.1.14 ST4062305: CHG6187: Shortage Analysis with Coverage (2.3.2 - SP03)

Description

Addition to Shortage Analysis. For resources where the total demand exceeds the available balance, analyze if any demands are completely "covered" by the available balance. A checkbox is used to determine if such demands should be

- not shown in the grid or
- shown as "covered"

The analysis is performed in ascending "Demand Date" order. The sorting order "by Order Id" does not provide this order, so that sorting order is removed.

If a demand A is too large to be covered by "remaining available balance", a later (and smaller) demand B may be regarded as covered ONLY IF it has the same "Demand Date" as demand A - not later.

For a Delivery Order, the order's summed demands are shown against its "Last Production Date". If there are demands planned for production BEFORE "Last Production Date", these parts will not be "covered" unless all demands for the resource are "covered".