ReleaseNotes PipeChain 2.2.2

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1   RELEASE NOTES 2.2.2

1.1   Upgrade to version 2.2.2

1.1.1.   Before upgrading to PipeChain 2.2.2

If you are using Data Exchanges to other PipeChain servers you should verify that these use at least 2.0.0. Although the Data Exchanges probably works with previous versions of PipeChain, this is neither tested nor supported.

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

1.1.2.   Upgrade from version 2.2.1, 2.2.0, 2.1.0, 2.0.0 and 2.0.1

Run the setup program for version 2.2.2.

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**.

1.1.2.1   This must be done after upgrade from version 2.0.0 and 2.0.1

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

1.1.3.   Upgrade from version 1.5

1.1.3.1   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.

1.1.3.2   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).

1.2   Supply

1.2.1.   New functions

1.2.1.1   New Flow Models Types

Both these now FlowModel Types requires that the product it is created for is part of a recipe.

From FlowModel via Recipe

This FlowModel creates a FlowModel from the all the parent products in recipes where this product is a part of. The calculation sums all the parent products demands multiplied with the Recipe Factor for this product in each parent product's recipe. The FlowModel type will be decided on the flow model with lowest accuracy of the parent flow models.

If the FlowModel is an Own FlowModel, parent FlowModels will be used for the calculation and if the FlowModel is a Customer FlowModel, parent Customer FlowModels will be used for the calculation.

Descending accuracy order: Production Plan All-At-Once, Production Plan Daily, Sales Forecast.

This can be used for instance if a customer sends demand on one product and there is other products that should be delivered as well based upon this demand.

From FlowModel via Inbound Orders

This FlowModel creates a FlowModel from the all the parent products in recipes where this product is a part of. The calculation sums all the parent products inbound delivery quantities multiplied with the Recipe Factor and added with the Recipe Constant for each delivery for this product in each parent product's recipe. The FlowModel type will always be Production Plan All-At-Once.

Use Suggestions Only - Unchecked: The calculation will use inbound delivery suggestions and inbound deliveries.

Use Suggestions Only - Checked: The calculation will only use inbound delivery suggestions .

Usage

Use Suggestions Only - Unchecked: This can be used for instance to create raw material demand based on finished goods production orders to be used in Supply to drive the inbound raw material flow based upon the current production orders (and production suggestion).

Use Suggestions Only - Checked: This can be used for instance to calculate the current capacity demand for a production line without taking into account already planned / confirmed orders.

1.2.1.2   Partial Shipments

This functionality can only be used for outbound deliveries if the shipments are made via the Despatch Advice transaction (CS03) to PipeChain. It is activated by setting the attribute SplitOrderLineOnPartialShipment in he CS03 transaction to true.

If used a partial shipment will result in a new delivery in PipeChain. The original delivery will be decreased with the shipped quantity and still be Confirmed *. The new delivery will be fully shipped. The new delivery will have the same Delivery Id with an extension, "-X" where X will be an increasing number for each shipment.

When shipping at least the remaining quantity the original delivery will be shipped.

If more is shipped after the original delivery has been shipped, a new delivery will be created with the new shipped quantity.

NOTE   The functionality requires that the supplier ships with a Delivery Note Id. The Delivery Note Id must be unique for each customer and product. The customer must receive the goods in PipeChain with Delivery Note Id and product through the Receipt Advice (CS06).

* All quantities, Minimum and Maximum Order Quantity, Demand Quantity Suggested Quantity, Confirmed Quantity and Confirmed Quantity 2 will be changed accordingly to be able in order for PipeChain Supply and Analyzer to find any differing quantities.

1.2.1.3 Automatic Order Change

If orders are created in advance there may be a need to change these orders should the demand change. If PipeChain Supply is set to a fully automated mode PipeChain Supply can now not only create orders but also change them, and send order changes to the order system and the production system.

If the already confirmed order is outside the Frozen Margin PipeChain Supply will change it if necessary and send an order change (CS42 or CS73).

This functionality is activated on Own Business, Supplier or Agreement Level via a alternative "Automatic Sending and Change " in the Send Delivery Suggestions drop down box.

The transactions (CS08 and CS10) in XML format that creates and updates delivery agreements have been changed to allow definition of this alternative.

To prevent this automatic change by clicking Allow Order Change on the button in the Outbound Delivery Detail screen or in the right-click menu in the grids. This will toggle a status change from "Confirmed" to "Firm" and back. If the current status allows PipeChain to automatically change the delivery the check-box in the button will be checked. If the current status does not allow PipeChain to automatically change the delivery the check-box in the button will not be checked.

1.2.1.4 Product Changeover

PipeChain Supply now allows a change of own Product Id's in the supplier's PipeChain when the customer does not change Product Id's. This functionality is called Product Supersession.

When the supplier is about to change to a different own product, the new product should be defined in PipeChain. After the new own product is defined, the delivery agreement for the old agreement is set to be changed to the new own product by defining a Product Supersession.

Firm strategy: The new own product will be used after the Valid from date.

Soft strategy: The new own product will be used after the Valid from date if there is no remaining stock and no confirmed inbound deliveries for the old product. If there is unused stock and/or confirmed inbound deliveries PipeChain Supply will automatically use the old product's remaining quantity before using the new own product id's.

When the Valid from date is yesterday or older (if the strategy is soft there should also not be any remaining stock) the delivery agreement and customer buckets will be updated to the new own product in the night background job "Database Consistency Check".

In the Outbound Deliveries tab in the Customer Bucket Detail screen the own product identifiers can be seen in separate columns. These may be different is a Supersession is being performed.

Note!! **If you have defined a Safety Balance for the Inbound Agreement to the Own Bucket and only one customer is using the old product PipeChain Supply aim to have the Safety Balance in stock at the end of the Supersession. It is in this case vital that you remove the Safety Balance in this Inbound Agreement well in advance.**

If you are using the Supersession strategy "soft" PipeChain Supply use this Safety Balance in the next delivery suggestion generation. This will create a new inbound delivery to have Safety Balance again after this new delivery. This will create an "endless" loop resulting in that the product is not phased out in practice.

1.2.2. Functions released in ServicePacks to 2.2.1

1.2.2.1 Bypass of MinDelivery Qty and MultiUnit Qty check (SP04)Bypass of MinDelivery Qty and MultiUnit Qty check (SP04)

The Delivery Agreement Analysis produces a warning if Minimum Delivery Quantity or Multi Unit Quantity is more than the normal replenishment quantity, i.e. (MT - ST) * FlowMeter Value.

If Minimum Delivery Quantity is set to 1 or Multi Unit Quantity is set to 1 then Delivery Agreement Analysis will not give a warning in the above described scenario. The above described warning can also be avoided by defining the product in Own Bucket Detail as "Handle as Integer" and removing the Minimum Delivery Quantity and/or Multiple Unit Quantity.

1.2.2.2 Dialog added for Ship Order (SP04)

When doing the shipping from the Outbound Order screen the user is now asked for Delivery Note Id to be filled in on lines with empty delivery note Id. The Delivery Note Id can also be entered in advance on the lines in the grid.

It is allowed to send, confirm and ship the outbound order independent on what status the order has. If one of the lines has too low status the operation is aborted. The operation is not performed on lines that has been sent, confirmed or shipped before.

Status on the corresponding LoadPlanner shipment is updated when the lines of it is sent, confirmed or shipped in the outbound order screen.

1.2.2.3 Customer Product balance adjustm. on outdeliv deletion (SP03)

When a user deletes an outbound delivery the virtual balance is not adjusted and the duration meter still has a truck.

The error is corrected now so the customer balance is adjusted and the truck is removed.

1.2.2.4 Inbound Delivery Despatch Advise Changes (SP01)

Two new functions has been added to the processing of the Inbound Delivery Despatch Advise (PW03).

If the delivery hasn't been shipped before and the transaction states that this is the last shipping of this delivery, then the Shipment time of the delivery is updated with the time from the transaction. If the shipment time of the transaction is passed the old receipt time of the delivery, then the receipt time is recalculated. There are three different strategies for the recalculation depending on configuration:

- If the reception schedule uses receipt days the lead-time is added to the new shipment time.

- If the reception schedule uses transport times the corresponding transport for the new shipment time is looked up and the receipt time is fetched from the receipt time of the found transport.

- If the transport not is found the old lead-time (i.e. the difference between the old receipt time and the old shipment time) is added to the new shipment time.

The other new function is that if the delivery still hasn't been confirmed (i.e. it has a status like Suggestion, Locked, Required, Sent to Order System or Sent to Purchase System) the delivery is confirmed prior to the shipping.

In this case the receipt time is recalculated as described above if the shipment time is changed more than one hour and if the transaction states that this is the last shipment.

1.2.2.5 Reading of file with any extension in remote directory (SP01)

By adding a certain extension to the remote inbound directory for a FILE channel you can specify what extension the files you want to read have.

If you want to read files with extension .xml specify folder and *.xml, e.g. c:\PipeChain\Channels\input*.xml.

If you want to read all files specify folder and * e.g. c:\PipeChain\Channels\input*.

If you still want to use both semaphore and data file, don't specify the extension, e.g. c:\PipeChain\Channels\input.

After the file is found it is moved to the rcv-directory, a semaphore file is created and the files are sorted according to their last modified date.

It's still more safe to use both semaphore and data file, but if the file is created somewhere else and then moved to the input directory it's not probable that the content is lost.

1.2.3. Correction of known errors

1.2.3.1 Doubled suggestions caused by error in CS02 (SP08)

The virtual balance wasn't updated when the delivery was confirmed by a CS02 in Fixed position.

An additional suggestion was created for each suggestion that has been created, sent to the order system and was confirmed with a CS02 in Fixed position format by the order system. The error occurs if a new suggestion generation is preformed after the confirmation via the CS02 and before the background job "Update Duration Meters" is executed.

The error has been corrected.

1.2.3.2 CS08 overwrites Balance and FlowMeter in Supply (SP05)

The CS08 (Product Definition) transaction overwrites the Balance and FlowMeter in PipeChain when updating an existing product. The error occurs both for the XML format and the flat file format. The correct logic is to use the Balance and FlowMeter in the transaction when defining the product and leave the Balance and FlowMeter Value as they are in Supply when updating the product. The Balance should be updated via CS04 (Product Balance) and CS13 (FlowMeter). The error was introduced in 2.2.0.

The error is corrected.

1.2.3.3 Null-pointer error in delivery suggestion generation (SP05)

For some cases (Bucket Strategy with large Safety Balance, possibly other), delivery suggestion generation aborts with a null-pointer exception.

The error vas introduced in 2.2.1 Sp03, and is now corrected.

1.2.3.4 CS37 not sent after generating outbound suggestions (SP04)

If the Own Business is configured so summed suggestions are sent after each suggestion generating process the Outbound Delivery Forecast Report (CS37) should be sent when new delivery suggestions have been generated. But no CS37 appears.

The transaction was not sent because there was an faulty condition on having PW38 (the new customer delivery forecast) connected to any channel.

The error is now corrected.

The workaround is to connect PW38 to any channel. This will not affect anything else as long as this channel isn't connected to a customer and somebody manually generates a customer delivery forecast for this channel.

1.2.3.5 Customer product variant opened for editing again (SP04)

Once the outbound delivery agreement was created the customer product variant wasn't editable in the screen.

The error is corrected.

1.2.3.6 Filtering on name (SP04)

When filtering on product name not only the product with the selected name is shown but also other products with the same ID as the one for the name but a different variant.

When filtering on supplier name not only the supplier with the selected name is shown but also other suppliers and customers with the same ID as the one for the name but a different delivery address.

The filtering on name has been corrected so only products/customers/suppliers with the selected name are shown.

1.2.3.7 WebAccess user language not possible to change (SP04)

It is not possible to change web user language, after the original web user configuration. You have to remove the web user and add it once more, with the correct language.

The error is corrected. It is now possible to change language on a web user.

1.2.3.8 Combination of Reception days and From Outbound Deliveries (SP03)

Until now it hasn't been accepted to configure a delivery agreement with reception days together with a flow model of type All-at-Once or From Outbound Deliveries. That rule is now removed and some minor changes have been done to get a correct result.

At the same time it is now allowed to have a delivery agreement with transport strategy without having transports defined in the reception schedule. The minimum order quantity is calculated as what is needed until the next possible receipt day (never less than 24 hours). This alternative is needed when the lead-time is longer than 7 days because a weekly transport can't have lead-time longer than a week. With the new configuration you will get both what is needed as minimum to handle the demand until next possible transport as well as quantity needed according to the max time.

1.2.3.9 Correction of available balance (SP03)

When looking at a the available balance for a certain delivery the amount is not correct if the shipment time for the delivery is passed. The reason is that the available balance was based on calculation of outbound deliveries before now and not before the shipment time if the shipment time was passed.

The available balance is now based on calculation of outbound deliveries before the shipment time even if the shipment time is passed.

For inbound deliveries all late deliveries are summed up as the were received now. The actual (passed) receipt time is not compared with the (also passed) shipment time of the outbound delivery.

So if there are two outbound deliveries in passed time the available balance for the second is the current own balance minus the first delivery plus all inbound

1.2.3.10 Not possible to add new Web Customer User (SP03)

It's not allowed to add a new web user for a customer. The message says "Web users may only connect to suppliers or customer".

The error is corrected.

1.2.4. Transaction Changes XML

1.2.4.1 Split deliveries on partial shipments

To support the scenarios for partial shipments a new optional attribute SplitOrderLineOnPartialShipment has been added to the transactions CS02 and CS03 in XML format. Read more...

1.2.4.2   Automatic Order Change Attribute Values (CS08 and CS10)

The transactions CS08 and CS10 now have a new optional value "Automatic Sending and Change" for the attribute DeliveryConfirmationStrategy.

1.2.4.3   Changed Delivery Status Attribute Values (CS72)

The Delivery Status attribute value "Fixed" have been replaced with a new value name "Scheduled" as part of the redesign for Automatic Order Changes. The old Delivery Status attribute value "Fixed"can still be used for CS72 to PipeChain in format 2.2

1.3   LoadPlanner

1.3.1.   Functions released in ServicePacks to 2.2.1

1.3.1.1   Ship button in screen Shipment Detail (SP04)

It's now possible to ship a whole shipment from the shipment screen. If the shipment includes several customers separate despatch advises will be sent to both. When doing the shipping the user is asked for Delivery Note Id to be filled in on lines with empty delivery note id. The Delivery Note Id can also be entered in advance on the lines in the grid. It is now allowed to update a delivery with delivery note id etc in screen Outbound Delivery Detail even if the shipment time is passed. It is allowed to ship the shipment independent on what status the shipment has. The shipment will get status shipped after the shipment.

It is also allowed to send and confirm the shipment independent of shipment status. When confirming a shipment the user is prompted for sales order id, purchase order id and delivery note id. This data is filled in on the lines where these fields are empty. If one of the lines has too low status the operation is aborted. The operation is not performed on lines that has been sent, confirmed or shipped before.

Status on the corresponding order is updated when the lines of a shipment is sent, confirmed or shipped in the shipment screen.

1.3.2.   Correction of known errors

1.3.2.1   Update shipment status on ship and confirm orders (SP03)

When an order is confirmed or shipped, the status of the corresponding shipment is not updated.

When all lines of a shipment is cancelled one by one the shipment is not cancelled.

When a shipment is shipped using the despatch advise transaction (CS03) the status of the corresponding shipment is not updated.

The shipment status is now updated.

The background job started to update the shipment status now has information about who started it (if interactive) or what transaction started it (type and number).

1.4   FlowProduction

1.4.1.   Functions released in ServicePacks to 2.2.1

1.4.1.1   Possible to select joined/non-joined in scheduling dialog (SP05)

The ability so select if automatic scheduling should be "joined" or not (i e if all production orders must be produced on the same date) is added to the delivery order reschedule dialog. If non-joined is selected, the production period can also be specified.

This function is primarily intended to be used for very large orders which can not be produced on a single day, although "joined" scheduling may be preferable for the majority of orders.

1.4.1.2 Changed Resource selection in Order Filter (SP04)

Previously, a resource (supply bucket or Planning Resource) was selected in a list box where Resource Id and Resource Variant were concatenated. In addition, there were two radio buttons which controlled if the list box should contain all resources or only Planning Resources.

The radio buttons were added assuming that the total number of resources would high, but in most cases a Planning Resource would be selected. Many users have misinterpreted these radio buttons.

The new solution does not use the radio buttons. The list box is replaced with two text fields and a Resource Browser, which fills in Resource Id and Resource Variant in separate text fields. The consequences are:

- the browser contains Resource Groups as well as Supply Buckets and Planning Resources

- both text fields may use "wildcard" character (%)

- the Resource Variant field is only significant if a checkbox is checked

You may filter out all orders which contain "TRU%" (any resource beginning with TRU), or all orders which contain a certain resource regardless of variant.

Note for advanced users: To simplify the GUI for less advanced users, we have always adopted as a filter "standard" that an empty string attribute implies "no filter" rather than "show objects where this attribute equals an empty string". In most cases this is not a problem, however empty variant strings are common and it is crucial to be able to filter out a specific resource with an empty variant. Hence, we introduce the checkbox to imply "no filter for variant".

1.4.1.3 Planning Resource Filter added (SP04)

Since the number of Planning Resources may be large (>1000), a filter has been added.

The filter applies to the Resource Id (with wildcard ability, but no filtering on Resource Variant), Resource Check and Shortage attributes.

The filter is used by the Planning Resource Overview and Detail screens.

Planning Resource Filters (like all other filters) may be saved with names for the users to easily recall different filter settings

1.4.1.4 Optimization of FlowModel generation (SP03)

Previously, the algorithm was calling the database twice for each day where Planning Resource Allocation quantities were needed. Now it calls twice regardless of the time period.

This means that the time for computing Flow Models will be

- around 3-10 times faster than before (depending on number of flow periods)

Since FlowModels are computed automatically by the Scheduler, this optimization will primarily be noticeable as

- better response time for clients-.

- lower CPU usage for database server when (re)scheduling orders resulting in a flow model update.

- removing old multiple scheduling jobs (in Scheduling Job Overview) will succeed much more often.

- shorter execution time for the nightly Flow Model Update background job.

1.4.1.5 Resource Groups (SP03)

For a long time, it has been possible to define Supply Buckets as members of a PickLoad Class, which holds PickLoad attributes. All Local Recipe Lines with a "Has PickLoad"-flag set (normally Man Hours or similar) will have an additional quantity added. The PickLoad Class could be named freely, and its members had no additional attributes.

These objects now have a more general use. To reflect this, their names are changed to "Resource Group" and "Resource Group Member". The previous PickLoad ability remains unchanged, but the new object have added more group functions.

Consider e g different motor types, handled on the same production line. Create a suitable resource group "MotorTotal", and let all motors (Supply Buckets) be members of MotorTotal. When this is done, we can watch the "Resource Demands per Week/Day"-graph for MotorTotal. If MotorTotal is defined as a Planning Resource, it can be given Capacity Limits. These are handled at order reception/scheduling just as any other Capacity Limit. MotorTotal should not be defined as a Supply Bucket.

The Production Order structure, which is generated at order reception, will contain BOTH component demands (e g Motor2.3Turbo) and group demands (MotorTotal). Only components demands are sent to the production system. It is possible to have a Capacity Limit on both component demands and group demands. For flexibility, a group member's addition to the group demand is computed as Load Constant + Load Factor * Demand Quantity. Normally, the constant is zero and the factor is one.

All operations "reception of delivery order", "change recipe version on delivery order line", "change quantity for production order", "change resource variant for resource demand" and "change id/quantity for resource demand" manage group demands, as well as corresponding allocations and flow models.

It may be desirable to choose default Production Team depending on resource group. Starting with the default team from the local recipe (as before) at priority level zero, this will be overridden by any higher priority default team from a resource group. Empty Team Id is allowed, regardless of priority.

Editing resource groups and resource group members does NOT update the order stock at once, for performance reasons. The correct path of work is:

1. Set Order Reception Switch to Halted.

2. Perform all resource group and resource group member editing.

3. Press "Update Orders with new Resource Group settings.". All non-started production orders will be updated, which may take a while.

4. Set Order Reception Switch to Enabled.

If step 3 is omitted, a nightly background job will perform the update. Until then

- group demands with zero quantity may exist

- group demand quantity or default team may be erroneously computed

- changing recipe version or resource demand keys may fail

However, order reception will run and compute correctly.

Note that "Update Orders." may override manual production team changes (in the Production Order Detail screen), unless such changes are made just before the order is started.

"Update Orders." does not recompute PickLoad.

If delivery order reception and the background job for "Update Orders." runs simultaneously, the orders will always be received, but scheduling may fail due to "transaction conflict".

A flag "Use PickLoad" determines if a Resource Group will be used solely for PickLoad or generally. A resource may be a member of multiple resource groups, but it may have only one PickLoad.

1.4.2.   Correction of known errors

1.4.2.1   Forward Scheduling does not check Cause Code (SP08)

When Forward Scheduling is specified in the Reschedule Delivery Order Dialog, it is possible to specify a New Scheduled Shipping Date before First Responded Shipping Date, but a forward

scheduling window that goes beyond First Responded Shipping Date. In this case, Cause Code was not demanded.

This correction will demand Cause Code in the above case, however, Cause Code will only be written to the Delivery Order if it was actually moved to a date after First Responded Shipping Date.

1.4.2.2 Error in flow model generation (SP05)

An error occurred in the new optimized flow model generation if there were allocation days which had only orders with no remaining demand (started or picked), though not yet finished.

The error occurs in any flow model generation (automatic background job, automatic after scheduling or manual) with an error message similar to:

"Unexpected exception while performing transaction in class se.masystem.flopro.bo.BOPlanningRes (BOPlanningRes: PlanningRes [ResId = '...' AND ResVariant = '...'])! Error cause is: 10 >= 10"

Another flow model generation error was introduced in SP06. This error causes omitted demands for backlog and early flow model days.

The errors were corrected.

1.4.2.3 Error in rescheduling all production orders (SP05)

When the rescheduling case "Enforce Changed Production Date" was run, the allocation date "2999-12-31" was erroneously set for all planning resources. The error was introduced with the new ability to specify the scheduling window in the Delivery Order Rescheduling dialog.

The error was corrected.

1.5 Setup

1.5.1. Correction of known errors

1.5.1.1 Not possible to configure clients only (SP03)

When only clients are installed PipeChainSetup doesn't work. The program stops when clicking next in the Client Properties page.

The error is corrected.