

# Deltek Maconomy 2.2.6

## 2.2 – 2.2.6 Enhancements Guide

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## Overview

Welcome to the Deltek Maconomy 2.2 – 2.2.6 Enhancements Guide. This guide provides an overview of all of the new features in the Maconomy 2.2 release stream, as well as supporting material, including “How to...” and “Setup” information. Additionally, the Appendix provides details of fields and descriptions for new and updated workspaces.

## What's New...

This section gives a high-level summary of the key features for Maconomy 2.2.x.

### Summary of 2.2 Features

#### Application Enhancements

- **Time Registration in Hours or Days** — You can now register time in Hours or Days in Maconomy. You can also set up jobs using the time unit Days, thereby doing pricing for budgeting, invoicing, and more, using Days.
- **VAT Cash Accounting Based on Payment Date** — Maconomy now includes a **Payment Date** tax date method that allows you to postpone the tax settlement to the date the customer pays the invoice.
- **Fixed Assets Linked to Jobs** — Maconomy now allows you to post fixed asset expenses as a job entry linked to a specific job so that when it depreciates, you can use the depreciation as a cost in the project.
- **Fixed Assets Reference Fields** — Two new fields enable you to reference an asset in the General Journal and in finance entries.
- **Posting of Job-Related Intercompany Entries** — Maconomy can now post intercompany cost as accrued until invoiced.
- **Enhanced Kona Integration** — Kona Business Edition is now available in Maconomy, as is a Kona Widget.
- **Enhanced Express Purchase Orders** — This feature allows you to list the vendors that can be used for a given employee requisition type. The list can be company-specific. It is also possible to accrue purchase orders directly from the employee requisition.
- **Net Job Balance to Accruals or Deferrals** — Maconomy automatically posts the job balance to the appropriate account according to the specific criteria to address the requirement in some countries that the job balance be visible in one balance sheet account.
- **Detailed Evaluation of Work in Progress (WIP)** — This feature provides you with more accurate reporting of WIP (work in progress) at the employee level, in addition to the project level.
- **Employee Category Field in Job Employees Window** — This field enables you to specify an employee category. You can then use the Distribute to Employees action to transfer the value to rows in the Employee Control window if the employee in question is a member of the specified category.
- **Enhanced Approval by Department Management in Approval Hierarchies** — This feature simplifies the setup and maintenance of your approval hierarchies by referencing employees on the dimensions from the approval hierarchies, such as to support approval by department expenses process.
- **Automatic Posting of Intercompany Vendor Invoices** — This system parameter is now company-specific.
- **Depreciation Calculation** — You can now select a date that is different from the acquisition date as the basis for depreciation.

- **Email Alerts Standard Extension Migrated to Core** — This feature, which enables you to send out notifications and to-dos via email, and was initially released via extensions in 2.1.1, is now migrated into core Maconomy.
- **Long Text Timesheet Description** — The long text description from a time sheet is now carried to the job entries table and standard description. Up to the first 255 characters of text is transferred.
- **Data Archiving** — This feature enables you to delete inactive entries or move them to another database, as appropriate to your company's policy.

## Technology Enhancements

- **Configuration Files** — This feature helps you retain coupling service files and existing customizations during upgrades.
- **DFME Multi-Tenancy** — Better tooling supports the distribution and shipment of Maconomy in the cloud, replicating the on-premises experience of having one license key for the number of named users per Maconomy customer.
- **Performance Views** — BPM is updated to include a Performance View that makes job cost reporting simpler.
- **RESTful Web Services** — This feature enables simplified, uniform interface when integrating Maconomy to other systems and workflow, and more.
- **WebSocket Protocol** — Maconomy now supports a one port feature with a WebSocket protocol that allows us to publish the Dirmi RPC endpoint as a web service.
- **Spell Check** — Support for spell check with Workspace Client for Windows is now enabled.
- **Workspace Client Menu Search Capability** — The Search Capability feature allows you to enter terms into a search field and retrieve information for a particular workspace.
- **Ability to Distinguish Between Environments** — A new horizontal version number on the window and a color-coded scheme identify the different test, development, and live environments.

## BPM Enhancements

- **BPM Reporting on Hours and Days** — BPM Reporting and BPM Analysis are enhanced to support the new Maconomy time registration in hours and days feature. Additionally, BPM universes and reports now handle jobs with different setups, including those set up for daily and those set up for hourly registration and invoicing.
- **Customer Tax Returns – BPM Reporting** — In support of the new Customer Tax Return functionality in Maconomy, BPM now provides reports that list the status of customer tax returns.
- **BPM – Additional Features** — Additional BPM features include A/R-related dashboard definitions; time sheet universe enhancements; new user information universe; and BPM Analysis object descriptions.

## Summary of 2.2.1 Features

### Application Enhancements

- **Field Changes in Approved Transactions** — This feature enables you to specify fields in approved transactions that can be edited without the transaction having to go through the approval process again.
- **Modifying Tax Return Due Dates** — This feature enables you to make adjustments to due date derivation, ensure that due dates never fall on non-working days, and allow manual changes to due dates if needed.
- **Notifications** — A number of notifications are added to Maconomy to address unallocated vendor invoices (with or without users responsible for allocating them), and approvals based on employee type.
- **User Masking** – This feature enables you to mask personal information that is related to former employees. This feature deletes some relevant records according to your specifications and masks relevant fields in other records. You provide a masking value that replaces the instances of the user and/or employee information that you select to be masked.
- **Approve Invoice Allocation Line Workspace** — This workspace is added to facilitate approval of invoice allocation lines. It allows approvers to view only the invoices that require their approval, instead of all the invoices to which they have access.
- **Enhancements to the Approval Hierarchies Feature** — This enhancement allows you to assign super approvers to approval hierarchy lines, and to assign not just named employees but also all employees, an employee type, or an employee reference. It also gives you the option to enable/disable automatic approval when the submitter is also the approver, substitute approver, supervisor of the approver, or super approver.
- **Rejected Vendor Invoice Workspace** — This feature enables you to correct vendor invoice allocation lines that have been rejected by the designated approver. When an approver rejects a vendor invoice allocation line that you submitted, a related To-Do appears for you to indicate that you must make a correction. This workspace provides the pertinent information in a streamlined fashion that enables you to quickly identify and make the changes that are required and resubmit the corrected vendor invoice allocation line.
- **BPM Reports and Universe** — BPM has added six new reports and a new Customer Payment Universe
- **Approval Hierarchies / Super User** The **Approval Hierarchies** feature includes super approvers that can be assigned to each line in an approval hierarchy.
- **Option List on Time Sheet** This feature lets you add up to five additional fields on the time sheet for information such as city and state. This is also useful when state or local governments require that work location is included on the timesheet line.
- **Minimum Hours in Split Week** In the Employees setup, the field **Minimum Working Time** now includes the option Per Split Week. Select this option to indicate that the minimum hours worked for a time sheet is checked for each part of a weekly time sheet (part A and B) upon submission.
- **Unposted Vendor Invoice** A new feature allows you to upgrade your Maconomy system even if you currently have unposted vendor invoices.

- **Import Credit Control** You can now import setup information used for credit control. The import program is only available from the Java Client and the command prompt. There is no validation, and it is not backward-compatible.
- **Evaluation Of Work In Progress** This feature enables you to use the WIP evaluation functionality on existing (open) jobs, with entries. If you change this setup on a job with entries, Maconomy now updates internal tables with revenue recognized.
- **Project Manager Visibility of Expense Reports** — The **View Document** action is added to Approve Expense Sheet Lines, which is part of the Project Manager Approval workspace. If the line has an attached document, the action is enabled, and you can click it to open that document. If there is no document on this line, the action is disabled.

## Technology Enhancements

- **Multi-Account User** — Maconomy now allows the linking of system users, making it easy for users with multiple accounts to switch from one role to another within the Workspace Client. When a password is changed for a linked user, the change applies to all users linked to that user.
- **Override Regional Settings** — RESTapi has been extended to allow regional settings, such as date format, to be set. These settings are used by the server when printing or formatting error messages, and the settings only apply to the ongoing session.

## Summary of 2.2.2 Features

### Application Enhancements

- **Maconomy Integration with Talent Management** — A new integration enables Maconomy customers to use Talent Management to manage recruitment and other HR processes while utilizing Maconomy for their ERP solution.
- **Blocking Dissolving Companies with Open Assets** — A company-specific system parameter is added as part of this enhancement. When this parameter is enabled, Maconomy allows users to block a company with open assets.
- **Additional Selection Criteria for Exporting Data** — Maconomy now allows users to make further specifications for data export.
- **Enhanced Remarks Fields for Vendor Entries** — Maconomy now allows users to enter additional information about vendor entries.
- **Updated Import Programs** — Submission and approval are now possible in several import programs.
- **Approval Groups** — A new field, **Show Only Effective Approval Lines**, is added to the Approval Groups window

### Technology Enhancements

- **Restricting User Capability to Edit Fields in Columns** — This enhancement allows the system administrator to quickly configure Maconomy, such that any fields not part of the layout are closed by default. Even if employees choose to display closed fields using the Column Chooser, these fields are displayed as read-only.
- **Improved MDML Filtering Capabilities** — A set of filter syntax extensions are introduced to help improve MDML Filtering Capabilities.
- **Re-Implementation between People Planner and Maconomy** — A re-implementation of the authentication between People Planner and Maconomy supports the WSC login to People Planner via the Coupling service and renders People Planner content, such as Gantt Chart and MyPlan, using normal browser panes.
- **Single Sign In Available** — Single Sign In is now available with My Plan.
- **Updated Budget Time Parameter Attributes** — The job parameter attributes Budget Time by Employee and Budget Time by Employee Category are updated.
- **Input File Encoding Field** — The new input file charset field is added to standalone programs

### BPM Enhancements

- **Pentaho 5.4 Certification** — BPM is now certified for Pentaho Data Integration (PDI 5.4), the third-party tool that is used for data integration.

### Touch Enhancements

- To support updates to Touch functionality, changes were made to Maconomy's Time and Expenses workspace. New fields and actions were added to Expense Sheets and Mileage Sheets.

## Summary of 2.2.3 Features

### Application Enhancements

- **Remove Add-On Requirement for Job Charges Functionality** — The Job Charges feature is part of standard functionality, and no longer requires the Sales Order add-on.
- **Job Surcharges** — This feature in Maconomy allows surcharges to be added at invoicing instead of, as now, at registration. Additionally, you can now apply job surcharges to invoicing on account.
- **Budget Enhancements** — Numerous budget enhancements were made, including new windows and functionality for improved use of budget templates and other budget-related features.
- **Performance Enhancements** — Numerous performance and filter enhancements were made to improve functionality.

### Technology Enhancements 2.2.3

- **Ability to Cancel Long-Running Database Queries** — All database queries are now automatically cancelled if they run for longer than a pre-configured timeout value. Additionally, a new progress indicator allows users to cancel as needed.
- **Performance Enhancements in Search** — We have updated search functionality to allow for manual filtering, so that users can avoid performance-heavy searches.
- **Bind Variables for Queries** — You can now use bind variables whenever it makes sense, such as for filter queries and notification queries.
- **SQL “Hints” in MQL** — The Maconomy Server for Oracle is enhanced with new functionality to use query-specific Oracle “hints” when executing SQL for Analyzer reports, filters, value pickers and notifications.
- **Named Users for Individual Shortnames** — You can now have specific licenses for the Number of Named Users for individual shortnames of an application.

### BPM Enhancements

- **BPM Upgrade to SAP BI 4.1** — This upgrade provides numerous benefits, including reporting enhancements, usability features, and mobile capacity.

### Touch Enhancements

- To support updates to Touch functionality, changes were made to the Time tab of Maconomy’s Time and Expenses workspace. New fields and actions were added to/updated in the Week and Day sub-tabs.

## Summary of 2.2.4 Features

### Application

- Reveal real/amount value of string fields in Job Progress. (600987)

### BPM

- Simplifying Job Information universe regarding job parameters and attributes (693437)

### Technology

- Bind Variables for Queries — You can now use bind variables whenever it makes sense, such as for filter queries and notification queries. (621888)
- SQL “Hints” in MQL — The Maconomy Server for Oracle is enhanced with new functionality to use query-specific Oracle “hints” when executing SQL for Analyzer reports, filters, value pickers and notifications.
- Automatic Timeout (log off) for Maconomy (606997)
- Option to restore pre-2.2.3 WSC Filter Wildcard Search (613836)
- Performance Enhancements (572642)
  - Performance Adjustments for the Filter (highlight: Ctrl+G in filter restriction fields) (563040)

### Touch

- To support updates to Touch functionality, these changes were made in Maconomy:
  - Add rejected header statuses (572645)

## Summary of 2.2.5 Features

### Application

- **Job Budget Periodization** – The **Periodize Budget** action is added to Maconomy, which enables you to evenly distribute the non-periodic budget on a job based on its start and end date. This functionality is available only on budgets that are not submitted or approved, and on open jobs only. (773462)

### BPM Enhancements

- **BPM Upgrade to SAP BI 4.2 SP3** — Migration to the latest BI is now supported in this release. (701645)

### Technology Enhancements

- **Maconomy Portal Login Using SSO** - Because support for Java applets in the major browsers and Java 9 is being deprecated, Maconomy now uses the SPNEGO protocol for Single Sign-On (SSO). This is enabled by default. (597487)

## Summary of 2.2.6 Features

### Application

- **Job Budget Periodization** – The **Periodize Budget** action is added to Maconomy, which enables you to evenly distribute the non-periodic budget on a job based on its start and end date. This functionality is available only on budgets that are not submitted or approved, and on open jobs only. (773462)

### BPM Enhancements

- **Selection Criteria as Report Tab** – To enable you to focus on the actual report data, the selection criteria for a BPM report now displays on the new Report tab instead of the first page before the report data. (943658)
- **SAP BI 4.2 SP5 Certification** – Maconomy 2.2.6 is now certified on BI 4.2 SP5. (952608)

### Technology Enhancements

- **Maconomy Portal Login Using SSO** - Because support for Java applets in the major browsers and Java 9 is being deprecated, Maconomy now uses the SPNEGO protocol for Single Sign-On (SSO). This is enabled by default. (597487)
- **Login Log Option** – This feature enables customers to track how many of their users are using Touch, even if they use SSO. (782343)

### Touch

- **UI Enhancements** - The Touch UI is updated with an improved look and feel that is reflected in the colors, the style sheets and the simplified menu. There is also updated branding of URL and PIN screens. (842680, 985074)
- **Device Passcode Required** - With Touch 3.0 it is now required that the device is set up with a passcode. If no passcode is used on the device, Touch shows an error message. This feature is introduced to enhance security. (952945)
- **Performance** - Touch has improved performance in select areas, including: Login, Find Job screens, Save Time / Expense Sheets with many (more than 50) lines, and Submit Time / Expense Sheets with many (more than 50) lines. (841014)
- **Security Enhancements** - Deltek Touch 3.0 for Maconomy contains a number of security enhancements.
- **Migration from Sencha to EXT JS** - Sencha Touch software is de-supported and merged into EXT JS software. There are numerous benefits to working with EXT JS, including new calendar controls, multiple theme capabilities, and integration with the latest OSs, as well as numerous benefits not visible to the end-user. (766629)

# 2.2 Features

## New Add-Ons

### Maconomy iAccess

Maconomy iAccess is a new application designed for streamlined access to daily and weekly time and expense activities. The user interface is based on Maconomy concepts while featuring a simpler, easy-to-use tab design that allows you to click between tabs. The browser-based application is optimized for in-office as well as remote-access use. New look-ups provide quick and easy searches for data and favorites.

Use Maconomy iAccess for:

- Daily or weekly time sheets
- Mileage and expense reports

The following are the main features of Maconomy iAccess:

- **Weekly Time Entry** — Enter time for the week, choosing a job, task, hours, and a description. Use both the Keep and Favorites features for more efficient weekly time entry.
- **Daily Time Entry** — Enter time for the day, choosing a customer, job, hours, and description. Use both the Keep and Favorites features for more efficient daily time entry.
- **Expense Entry** — Create expense sheets and enter expenses by entering the job, task, description, quantity, price, and currency. Also, change the exchange rate, or reference a receipt attachment. Attach receipts in batch, and choose to attach individual documents to an expense sheet line. Use the same Favorites feature as in the time sheets to accommodate more efficient expense entry.
- **Mileage Entry** — Create mileage sheets and enter mileage by identifying the job, miles driven, and the From and To locations. The mileage sheet leverages the mileage rules set up in core Maconomy to establish the mileage rate.
- **Notifications** — Use basic notification coverage for Submit Time Sheets (Daily or Weekly), and Submit Expense Sheets. Select a notification to navigate to the needed record.
- **Online Help** — Access the online help directly from the iAccess menu, which opens in a new web page. Find field descriptions, workspace overviews, and step-by-step procedures.
- **Settings** — Manage your personal settings, including establishing the date format, decimal symbol, and digit grouping system, and adjusting the time setting to interpret minutes or hours in certain instances on the time sheet.
- **Change Password** — Use the change password feature to change your Maconomy login password.



See [Deltek Maconomy iAccess online help and release documentation](#) for more details.

# Application Features

## Time Registration in Days

In some organizations, employees enter time in days, rather than hours. Maconomy now allows you to enter time in days instead of hours.

### Time Unit

Maconomy now allows you to specify a time unit of either “Hours” or “Days” on employees and on week calendars. The week calendar selected on an employee must have the same time unit as the employee.

For example, if the time unit selected is “Hours,” the value 1.0 in the field means 1 hour. If the time unit selected is “Days,” the value 1.0 means 1 day.



“Days” refers to “man day”—not 24 hours. The conversion to hours, when necessary, is determined by the specified number of hours per man day on the job, whenever we are in the context of a job. When not in the context of a job, the conversion to/from hours uses the number of hours per man day specified by company.

The existing fields for specifying prices on employees also follow the time unit. These prices will be price per hour or price per day depending on the specified unit.

You can specify whether employees must enter time of check-in and check-out (always or in case of overtime). This functionality is not available for employees with time unit of “Days.”

### Time Registration

Time sheets derive their time unit from the employee. More specifically, the unit is taken from the revision of the employee, valid at the first day of the time sheet. Daily time sheets have the same time unit as the corresponding weekly time sheet.

The existing fields for entering time follow this unit. Note that Maconomy can be set up to allow entry on amount activities. Such lines are not affected by the unit for time.

The interface for time entry also has fields for showing the fixed working time and a calculated overtime relative to the fixed time. These fields are also in days if the time unit on the time sheet is “Day.”

### Price Calculation

The calculation of prices for time takes the unit into account. Any price calculation for time that relies on any of the prices specified on an employee applies those prices as price per unit as specified on the employee.

Maconomy calculates prices for time sheets for displaying the billing price on the lines in the time sheet and for transferring time for posting. Aside from employees, the existing price calculation relies on prices that are set up on price lists, job-specific price lists, employee categories, and activities. The prices that are looked up on some of these “sources” may be per hour. Maconomy takes this into account when calculating the total prices for time entered in days.

Evaluation of job progress is primarily based on job entries, but also includes the contribution from time sheets that have not been fully transferred. The cost price calculated in this process is subject to the necessary conversions of the unit, both in terms of the number entered and in terms of price calculation.

## Project Manager Time Approval

The interface for project manager time approval shows you the time sheet lines that you should approve or reject one job at a time. In the case of time sheet lines from employees who enter time in days (or more precisely, from time sheets with time unit “Day”), Maconomy presents the number entered in the time unit of the job; therefore, there may be conversion from hours to days if the job is in days and the time sheet is in hours.

## Transferring Time to Jobs

When time is transferred from time sheets to journals for posting, quantities are converted if the time sheet and the job have different time units. The conversion involves multiplication or division by the number of hours per “man day,” depending on the units. For example, if an employee with time unit “Day” enters 1 day in the time sheet on a job with time unit “Hour,” and “hours per man day” is set to 8 hours, then time is transferred to the job as 8 hours.

## Time on Jobs

The Job Overview window presents a large amount of information about a job. This includes the number of hours from time sheet lines on the job that have not been submitted. If the time sheet is in days, and the job is in hours, the entered quantity is converted to hours for presentation in the Job Overview window.

You can specify ETC (Estimate To Completion) on time sheet lines in both hours and days. For time sheets in days, the ETC in both fields is in days. The ETC contributes to the proposed ETC calculated in the evaluation of job progress and is therefore converted to the unit for time of the job.

## Time Transferred to Time Sheets

There are three “areas” of functionality in Maconomy from which time can be transferred to your time sheet:

- Accumulated time from events.
- Approved absence from the absence calendar.
- Planned time from the resource planning module (which preceded People Planner).

In the first two cases, time is converted to days if necessary. For planned time see [Planned Time](#).

## Proposed Time

You can specify “Proposed Hours” on time sheets. This defaults to the entered hours, but you can change the proposed number of hours if the job is set up to allow this. The proposed number of hours can form the basis for invoicing. For time sheets in days, the proposed quantity is also in days. Note that the project manager who is approving time is viewing the time entries one job at a time. In this context, the entered and proposed time are displayed in the time unit of the job.

## Limit for Time per Day

On activities you can specify a limit for the total number of hours or days that an employee can enter per day. This limit is in hours or days, depending on the time unit on the activity.

## Hours Expected

When setting up employee control, you can specify the expected number of hours from each employee on the job. This number is also presented to the employee in the Job Time Registration window (it is the “target” of a notification that can be generated for employees mentioned in

employee control). For employees who enter time in days, the amount of expected time is displayed in days in this window.

## Rounding in Time Entry

Maconomy now allows you to specify such the “smallest unit” in days for time entry. For example, you can specify that all time entry on a job should be in multiples of 240 minutes or 0.5 days. You can also have the time sheet rounded up/down or rounded off to the nearest multiple of the chosen unit.

## Time Sheet References

Aside from the regular entry of time, where you specify job and task on each line, you can specify up to three fixed-time activities for three corresponding fields for entering time in the time sheets. Time entered in these fields is transferred with the fixed-time activities, instead of the activity of the time sheet line itself (typically derived from the task). This form of time entry follows the time unit of the time sheet.

## Planned Time

Maconomy’s resource planning module depends on the available time for planning on employees. Maconomy calculates this as the fixed working time in a given period minus planned absence. This feature is limited to employees and jobs with time unit “Hours.”

## Time on Jobs in Days

Maconomy now supports measuring time, specifying prices, and invoicing in days, instead of hours.

## Time Unit on Jobs

You can now specify a time unit of either “Hours” or “Days” on jobs. Your choice of time unit will affect all quantities for time related activities on the job—budgeted quantity, entered quantity, proposed quantity, estimate to complete, open and invoiced quantity, and write up/down on quantity.

You can also specify time unit on template jobs. When you create a job from a template job, the new job will inherit the time unit from the template. Note that you can create opportunity budgets from templates and convert opportunities to jobs. In both of these steps, the time unit will also be inherited.

## Pricing in Days

In Maconomy, the prices specified on employees follow the time unit. If an employee is set up to enter time in days, the cost price on the employee is cost price per day, and similarly for the other price fields on the employee.

The price calculation for jobs is based on job-specific prices, job price lists, and prices set up on employees, employee categories, and activities. All of these price “sources” are extended with a field for specifying the time unit. In the case of job price lists, the time unit in the card part acts as the default time unit for new lines in the table part. Price calculations use the time unit from the lines in the table part. For job-specific prices, the default time is the time unit of the job; you can also specify the time unit at line level. You can choose job price lists on jobs independently of the respective time units.

Aside from the time unit on these price “sources,” the “targets” for the price calculation also have a time unit (Maconomy calculates prices for time sheets, job journals, and job budgets, among

others, that may have a different time unit). The price calculation applies the necessary conversion of prices between hours and days when the source and target have different time units. This conversion relies on the number of hours per man day as set up on the job.

## Invoicing in Days

You can specify a time unit on invoice layout rules. This does not affect the invoice selection, but rather the draft invoice and the actual invoice. For time-and-material invoicing, the quantity and unit price (if shown) on the invoice (and draft invoice) are in days or hours, depending on the time unit for invoicing. Printed job quotes also follow this time unit setup. If no time unit is specified on the invoice layout rule, the time unit for invoicing is the time unit of the job itself.

## Main and Sub-Jobs

There are two restrictions for the main-job sub-job feature:

- You can set up distribution from a main job to sub-jobs only if the sub-jobs have the same time unit as the main job.
- Main job invoicing includes only the sub-jobs with the same time unit as the main job. Similarly, for jobs set up to use Job Invoice Allocation, the allocation on the main job includes only the sub-jobs with the same time unit as the main job.

## Blanket Invoicing

You can specify per company whether blanket invoices should be allowed to include contributions from jobs with different time units for invoicing. This is set up using the **Blanket Invoicing Split by Time Unit** system parameter.

In addition, you can include a header line on the invoice for each job, showing the time unit. You enable this option by selecting the **Time Unit, Heading** field in Invoice Layout Rules. You set up the text in these headers in Language Texts.

## Resource Planning

The resource planning module in Maconomy is limited to employees and jobs set up with the time unit "Hour."

## People Planner

The web service in the integration between Maconomy and People Planner includes integration of data from job budget and actuals. For jobs with the time unit "Days" the budget lines and actuals transferred to People Planner are converted to the time unit "Hours."

## Rounding Transferred Time

Maconomy now allows you to ensure that time entries on a job are rounded off to a specific number of man days. For example, you can specify 0.5 to ensure that time entry is in multiples of half a day.

## Transfer of Time

You can set up a quantity on jobs so that when time is transferred to the job, the quantities are rounded up to a multiple of that quantity. You can also specify a daily upper limit for the transferred quantity. For example, you can specify that time transferred must be a multiple of 0.5 day and at most 1.0 day per day. For jobs in hours, this is set up in minutes.

The project manager who is approving time entries can view either the original quantities from the time sheet or the rounded quantities for time that are transferred to the journal.

### Effect on Job Entry

The quantity entered on the job entry is the rounded quantity that follows the rule for rounding of transferred time. The total billing price is calculated based on this quantity.

For the entered cost there will be the options to enter a total cost based on the original quantity or on the rounded quantity. In both cases, the rate (per hour or per day, depending on the time unit on the job) follows the usual price calculation.

Since the entered quantity multiplied by the unit cost price on a job entry equals the total entered cost price, there may be a difference between the cost rate that was looked up and the cost rate on the job entry if the total entered cost on the entry is based on the original quantity.

For example:

- Original entered quantity 3.0, rounded quantity 4.0.
- Cost price per hour looked up is 100.00.
- Entered quantity and total cost on the job entry: 4.0 hours and 300.00 in cost.
- Unit cost price on the job entry:  $300.00 / 4.0 = 75.00$ .

In the case of intercompany entries, the intercompany price is based on the rounded quantity.

### People Planner

The web service integration to People Planner provides the original quantity for time.

### Fixed Working Time as Maximum

You can set up employees to have a fixed working time. Maconomy calculates this per day as the minimum of the fixed working time on the employee for the given weekday and the fixed working time specified in the week calendar.

The fixed working time also serves as the maximum work time for the employee. You can then set up employees so that they cannot enter more time than the fixed working time. You enable this option by marking the Use Fixed Working Time as Maximum field on the employee.

### Posting of Job-Related Intercompany Entries

Maconomy generates intercompany postings if the executing and responsible companies are different. For example, intercompany invoicing occurs when an employee from one company (the executing company) works on a project in another company (the responsible company), and the employee's company is paid by the responsible company.

Certain countries' laws mandate that revenue and costs are posted as accrued until you have issued an intercompany invoice. To comply, Maconomy uses accrued accounts for accrued amounts until you issue the intercompany invoice.

Maconomy generates job-related intercompany entries upon approval for such items as timesheets, expense sheets, or other job entries (job journals) if the executing and responsible companies are different. You can also create job-related intercompany entries when you post a general journal or a vendor invoice journal. The intercompany invoicing is performed as a separate step, usually at month end. At that time, Maconomy balances the intercompany suspense accounts and transfers the invoiced amounts into A/R and A/P, respectively.

You can use the **Post Job Cost Intercompany Entries as Accrued until Invoiced** system parameter to specify whether or not you want to use this feature on a per-company basis. For example, if the executing company uses this feature, and the responsible company does not, the postings to the accrued accounts are only performed for the executing company, and vice versa.

## Intercompany Posting in the Executing Company

You can set up a posting reference for Billing Price, Intercompany in Job Cost Setup » Dimensions » Posting References and Activities. This posting reference is used when posting the intercompany billing price when there is a job entry for a job in a company other than the employee's company.

Certain countries' laws mandate that revenue and costs are posted as accrued until you have issued an intercompany invoice. This means that you need an account for intercompany work that is yet to be invoiced. To support this, a posting reference titled **Accrued Billing Price, Intercompany** has been added to Maconomy.

The **Accrued Billing Price, Intercompany** posting reference is used for intercompany work that is yet to be intercompany invoiced. When the intercompany invoice is issued, one posting reverses the intercompany accrued billing price posting, and another posting posts the revenue to the account from the Billing Price, Intercompany posting reference.



If the **Accrued Billing Price, Intercompany** posting reference is used, be careful about changing accounts if there are intercompany invoices that have yet to be printed.

## Intercompany Posting in the Responsible Company

Certain countries' laws do not allow you to post the intercompany cost before it is invoiced. The solution when posting the revenue in the executing company is to add an extra posting reference. However, this is not sufficient for the posting of a sale in the responsible company because in Maconomy, different posting references are used depending on whether or not the activity is invoiceable.

### Invoiceable Activities

You can set up posting references for Open Cost Price, Intercompany and Cost Price, Intercompany in Job Cost Setup » Dimensions » Posting References and Activities. These posting references are used when posting the intercompany (open) cost price that the executing company should receive for the work it has done on a job in the responsible company.

The posting method differs depending on whether the cost price is invoiced to the customer before or after the intercompany invoice is printed.

- The **Accrued Open Cost Price, Intercompany** posting reference is used when the cost has not yet been invoiced to the customer.
- The **Accrued Cost Price, Intercompany** posting reference is used when the customer has already been invoiced, but the intercompany invoice has not been issued.

Posting reference paths with the new accounts depend on whether customer invoicing or intercompany invoicing is first (or in-between):

- Accrued Open Cost Price » Accrued Cost Price » Cost Price
- Accrued Open Cost Price » Open Cost Price » Cost Price

They can also be a mix where some costs follow one path, and other costs follow the other path.



If the **Accrued Open Price, Intercompany** and **Accrued Cost Price, Intercompany** posting references are used, be careful about changing accounts if there are intercompany invoices that have yet to be printed.

The existing **Open Cost Price, Intercompany** and **Cost Price, Intercompany** posting references are used in the same manner as previously if the new functionality is not used in the responsible company. If the new functionality is used, the two new accrued posting references are used.

In addition, you can invoice only part of the invoiceable amount to the customer. This means that the intercompany invoicing can take place when only a part of the invoiceable amount has been invoiced.

### Uninvoiceable Activity

You can set up the **P&L, Intercompany** posting reference in Job Cost Setup » Dimensions » Posting References & Activities. This posting reference is used when posting the intercompany P&L that the executing company should receive for the work that the executing company has done on a job in the responsible company, and the activity is uninvoicable.

To comply with laws that do not allow you to post revenue before you have issued an intercompany invoice, a new posting reference has been added.

The **Accrued P&L, Intercompany** posting reference is used for intercompany work that is yet to be intercompany invoiced. When the intercompany invoice is issued, a posting reverses the intercompany accrued P&L posting and another posting posts the revenue to the account from the P&L, Intercompany posting reference.



If the **Accrued P&L, Intercompany** posting reference is used, be careful about changing accounts if there are intercompany invoices that have yet to be printed.

### Example Using Accrued Accounts with Intercompany Entries

An employee from Company 1 works on a job for Company 2 for 10 hours at 150.00/hour. The time that the employee enters on the job is intercompany invoiceable. After the timesheet is posted, you complete an external invoice for part of the job total (for example, 225.00) then approve and print the invoice. Next, you complete the intercompany invoice and print that invoice.

In Financial Analysis, on the List of Finance Entries sub-tab (using the Filter List view), you see the following cost-related entries depicting the journal transactions that occurred throughout this process.

Posting Reference	Journal Type	Debit, Base	Credit, Base
Accrued Open Cost Price, Intercompany	Time Sheet	1,500.00	
Accrued Open Cost Price, Intercompany	Invoice		225.00
Accrued Cost Price, Intercompany	Invoice	225.00	
Accrued Open Cost Price, Intercompany	Intercompany Vendor Invoice		1,275.00

Posting Reference	Journal Type	Debit, Base	Credit, Base
Open Cost Price, Intercompany	Intercompany Vendor Invoice	1,275.00	
Accrued Cost Price, Intercompany	Intercompany Vendor Invoice		225.00
Cost Price, Intercompany	Intercompany Vendor Invoice	225.00	

### Workflow

This is an example of a workflow for an intercompany invoiceable activity:

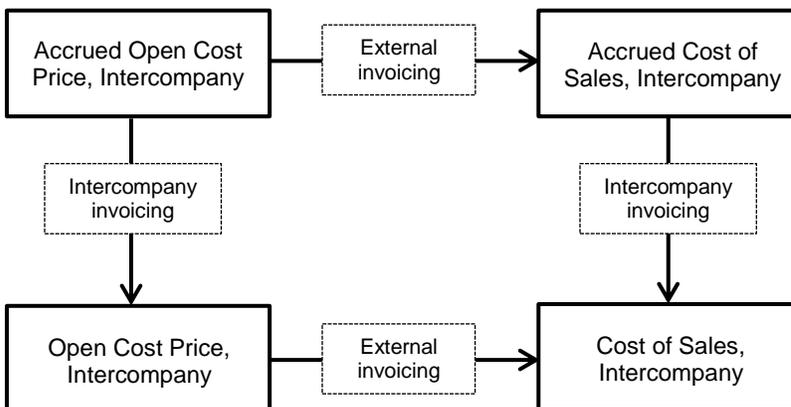
1. The employee enters time in his or her company time sheet for work done for another company.
2. The time sheet is posted; other finance entries are posted at the same time.
3. An invoice, for a portion of the amount or for the total amount, is sent to the customer.
4. An intercompany invoice is printed and sent to the other company.



The last two steps in the workflow can be performed in any order.

### Data Flow

The order in which you perform the preceding steps 3 and 4 determines which accounts are used.



### VAT Cash Accounting

The tax date method that you use determines your VAT settlement period. Some countries allow you to postpone the VAT settlement for certain items or services until the invoice has been paid. Other countries require that you settle it when the invoice is entered or posted.

Maconomy now includes a **Payment Date** tax date method in addition to the **Invoice Date** and **Entry Date** tax date methods. You can use the **Payment Date** tax date method to postpone the tax settlement to the date when the customer pays the invoice. If the customer only pays a portion of the invoice, then only tax relative to the amount paid is due on that date.

Similarly, if you receive an invoice from a vendor, you must use the same tax date method that they have used. If the vendor has used the **Payment Date** tax date method, you cannot collect the tax back from the tax authority until you have paid the invoice. If you only pay a portion of the invoice, you may only collect tax back from the tax authorities relative to the portion you paid.



If you use the **Payment Date** tax date method, then most countries require that you include a note on your invoice informing the customer that you are using the VAT cash method.

The rules for determining which date to use may depend on the customer/vendor or type of delivery. In previous releases, the VAT date method was only specified in the VAT Reporting Unit. Since you may need to use different VAT date methods for the same reporting unit, Maconomy now allows you to select a VAT date method in TAX Codes and G/L Tax Codes. The tax date method on the tax reporting unit is the default tax date method and is only used if no tax date method has been specified in the related field in Tax Code or G/L Tax Code.



The **Tax Date** field has been renamed to the **Tax Date Method** field.

## Using VAT Accrued Accounts

In addition to the tax date method, Tax Codes and G/L Tax Codes now include several accrued posting reference fields as well as a **Post Tax as Accrued Until Paid** field. When you select this option and use the **Payment Date** tax date method, the tax amount is placed into an accrued VAT account until the invoice is paid. At that stage, it is transferred to the regular VAT account to be paid to the tax authorities.

For example, if you sell something for 1,000.00 plus 200.00 VAT, you post an invoice for a total of 1,200.00.

- 1,200.00 is posted to the customer balance account.
- 1,000.00 is posted to the sales account.
- 200.00 is posted to the VAT account.

The amount that is posted to the VAT account is the amount that you have to settle with the tax authority. When you post the invoice, if the tax date method is **Payment Date** (which means that the tax is only due when the invoice is paid) and you have selected the **Post Tax as Accrued Until Paid** option, the VAT is posted to an accrued VAT account. When the invoice is paid, the amount gets transferred to the regular VAT account to be paid to the tax authority. If only a partial payment is made, then the relevant VAT percentage is moved from the accrued VAT account to the regular VAT account.

Accrued accounts have been added for:

- Tax Codes:
  - VAT amounts
  - Special Tax amounts
- G/L Tax Codes:
  - VAT amounts

- Investment tax amounts
- Basis amount for investment tax
- EU tax
- Reconciliation tax

## Fixed Assets Linked to Jobs

When you purchase a fixed asset, you may want to link it to the job for which it was acquired so that when it depreciates, you can use the depreciation as a cost in the project. Maconomy now allows you to post fixed asset expenses as a job entry linked to a specific job. If the asset is linked to a job with an invoiceable activity, you can invoice the depreciation directly to the customer or inform them of the cost.

You can now add job information (job, activity, and task) to the purchase order line or invoice allocation line. When you post the vendor invoice, an asset with the job information is created.

In addition, you can transfer the asset from one job to another or remove an asset's association with a job entirely. You can also relocate an asset to a new job, activity, and task, or perform an internal sale. For example, when a job is complete, you may want to move the asset to another job. The depreciation that has occurred up to that point remains with the first job, and the depreciation that occurs from that point forward is associated with the new job.

Use the new **Post Depreciation as Project Entry** field on the asset and the asset group to determine whether the asset is linked to a job.

### How to...

#### Associate an Asset with a Job

If the **Post Depreciation as Job Entry, if job specified** field is set to **Yes**, but there is no job specified in the **Job No.** field, the depreciation will not be posted as a job entry.

**To associate an asset with a job, complete the following steps:**

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Home**.
2. On the Information tab, in the Job Information island, enter a job number in the **Job No.** field.
3. Enter data in the **Activity** and **Task Name** fields if needed.
4. Click **Save**.

When the asset is depreciated, the depreciation is posted as a job entry for the job that you specified in **Job No.**

#### Associate an Asset with a Different Job

There are several ways to associate an asset with a different job. The way you choose to do so depends on which accounts you want the postings to end up in. The following are three different ways to associate an asset with a different job.

#### Use Internal Sales to Associate an Asset with a Different Job

**To use internal sales to associate an asset with a different job, complete the following steps:**

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Registrations**.

2. On the Internal Sales tab:
  - a. Use the Selection Criteria island to specify the assets that should have the job number changed.
  - b. In the New Job Information island, in the **Job No.** field, enter the job with which you want the asset to be associated.
3. Click **Save**.

### Use Relocation to Associate an Asset with a Different Job

To use relocation to associate an asset with a different job, complete the following steps:

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Registrations**.
2. On the Relocation tab:
  - a. Use the Selection Criteria island to specify the assets that should have the job number changed.
  - b. In the New Job Information island, in the **Job No.** field, enter the job with which you want the asset to be associated.
3. Click **Save**.

### Use the Asset Information Tab to Associate an Asset with a Different Job

To use the asset information tab to associate an asset with a different job, complete the following steps:

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Home**.
2. Select the Information tab.
3. In the Job Information island, in the **Job No.** field, overwrite the existing job number with the new job number.
4. Click **Save**.

### Perform an Asset Depreciation Adjustment

To perform an asset depreciation adjustment, complete the following steps:

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Registrations**.
2. On the Depreciations tab, click **OK** to run the depreciation.
 

A message is displayed to ask you if you want to create a depreciation adjustment for x assets.

  - a. Click **OK** to continue with the depreciation adjustment.
  - b. Click **Cancel** to cancel the depreciation adjustment.

### View an Asset Depreciation Adjustment Related to a Job Entry

To view an asset depreciation adjustment related to a job entry, complete the following steps:

1. On the Maconomy menu, click **General Ledger » Fixed Assets » Home**.
 

On the Overview tab, in the Net Book Value island, the **Hereof depreciation in job cost** field displays the depreciated amount.

2. On the Entries sub-tab, click **All Entries** to see the list of all transactions related to the selected fixed asset.
  - You can see when the asset was acquired and for what amount.
  - You can see the date the asset was depreciated and by what amount.

### Create a Fixed Asset and Link it to a Job During a Vendor Invoice Creation

To create a fixed asset and link it to a job when you create a vendor invoice, complete the following steps:

1. On the Maconomy menu, click **Accounts Payable » Vendor Invoices » Vendor Invoices**.
2. Click **New Vendor Invoice**.
3. In the Vendor Invoice Information dialog box, enter the relevant information.
4. Click **Create**.
5. On the Allocation sub-tab, in the **Purchase Line Type** column, select **Fixed Asset**.
6. In the **Job No.** column, enter the job number to which you want to link the fixed asset.
7. In the **Act. No.** column, enter the activity number.
8. Enter any other relevant data in the selected line.
9. On the Asset Drafts sliding panel, in the **Asset Group** column, select the asset group to which you want to link the asset. The activity and job numbers are inherited from the Allocation tab and cannot be changed on this tab.  
  
You can also select an asset number instead of the asset group, but then the job information will not be inherited by the draft.
10. Enter any other relevant data in the selected line.
11. Click **Save**.
12. Submit, approve, and post the vendor invoice journal.
13. On the Journals tab, click **Post** to post the vendor invoice journal.

The fixed asset is created, and you can see it listed in the List of Assets in the Fixed Assets workspace.

### Create a Fixed Asset and Link it to a Job During a Purchase order Creation

You create an asset draft at this stage because, when you create the vendor invoice with invoice allocation lines from the purchase order, asset drafts will also be created. When the vendor invoice is posted, the asset is created.

You may want to do it this way if the person who orders a purchase knows about the purchase and job, whereas the people handling the vendor invoice do not know those details.

To create a fixed asset and link it to a job when you create a purchase order, complete the following steps:

1. On the Maconomy menu, click **Accounts Payable » Purchase Processes » Purchase Processes**.
2. Click **New Purchase Process**.

3. In the Purchase Process Information dialog box, select **Purchase Order** and enter all relevant information.
4. Click **Create**.
5. On the Allocation sub-tab, in the **Purchase Line Type** column, select **Fixed Asset**.
6. In the **Job No.** column, enter the job number to which you want to link the fixed asset.
7. In the **Act. No.** column, enter the activity number.
8. Enter any other relevant data in the selected line.
9. On the Asset Drafts sliding panel, in the **Asset Group** column, select the asset group to which you want to link the asset. The activity and job numbers are inherited from the Allocation tab and cannot be changed on this tab.  
  
You can also select an asset number instead of the asset group, but then the job information will not be inherited to the draft.
10. Enter any other relevant data in the selected line.
11. Click **Save**.
12. Submit, approve, and post the purchase order.
13. Create and post a vendor invoice from the purchase order.  
  
The fixed asset is created and you can see it listed in the List of Assets in the Fixed Assets workspace.

## Fixed Assets as Reference

Two new Asset Reference fields are added to Maconomy:

- **Asset No., Reference**
- **Asset Description**

These enable you to reference an asset in the General Journal and in finance entries. This functionality is similar to that of the Customer Reference and Vendor Reference.

## Enhanced Kona Integration

Kona's integration with Maconomy allows you to share projects with team members and view related online conversations, project-related tasks, calendar events, and files. Teams can identify issues, solve problems, and keep everyone up to date on the status of deadlines and deliverables.

In addition to linking an existing Kona space to an existing Maconomy project or opportunity, if you have Kona Business Edition, you now have the option to create a Kona space in Maconomy at the same time you create a project or opportunity. Use the new **Create Kona Space** action to easily add a new Kona space.

Another feature also available with Kona Business Edition is the ability to use the Kona widget, which offers a Kona user interface that is more suitable for embedding applications.



A browser version of Kona in a Workspace Client pane works with both standard and business editions of Kona.

## How to...

### View Kona as a Browser Pane in Maconomy

To view Kona as a browser from within Maconomy, complete the following step:

1. On the Maconomy menu, click **Time & Expenses » My Kona**.

The Kona browser is displayed in the pane on the right side of the Workspace Client.



Upon initial use, a Kona user login box is displayed. Enter your Kona email address and Kona password. This is the same login prompt you receive when opening Kona in an external browser.

You must configure Maconomy to use Kona before you can view conversations, tasks, files, and events in Kona. The login information here is not propagated to the Kona Widget, and vice versa.

### Use the Kona Widget from Within Maconomy



You need a Kona Business Edition account to use the Maconomy Kona widget.

To use Kona from within Maconomy, complete the following steps:

1. On the Maconomy menu, click **Jobs » Jobs** (or **Contact Management » Opportunities** for a similar procedure).
2. Click **Home**.
3. On the **Information** tab, in the Kona island, select a Kona space from the list of all Kona spaces available to you.



Upon initial use, a Kona user login box is displayed. Enter your Kona email address and Kona password.

You must configure Maconomy to use Kona before you can view conversations, tasks, files, and events in Kona.

Kona displays the selected space as a widget. The Kona Conversations, Tasks, Files, and Events tabs display information relating to the current space.

### Create a Kona Space from Within Maconomy

To create a Kona space from within Maconomy, complete the following steps:

1. On the Maconomy menu, click **Jobs » Jobs** (or **Contact Management » Opportunities** for a similar procedure).
2. In the **Show** field, select the job for which you want to create a Kona space.
3. Click **Home**.
4. On the Information tab, click the **Create Kona Space** action. A wizard prompts you for a space name and description.

If you already have a Kona space assigned to the selected job, a message asks if you want to overwrite the existing space. Do one of the following:

- a. Click **OK** to create a space and assign it to the selected job. The current space will still exist in Kona but will not be used for the selected job anymore.
  - b. Click **Cancel** to create a space but leave the current Kona space assigned to the selected job.
5. Click **Save**.

## Express Purchase Orders

The Express Purchase Orders feature enables you to quickly and easily request courier, taxi, and car services. Now you can use Requisition Types with the Express Purchase Order feature.

To better meet the needs of multi-company systems, the **Requisition Type** field was removed from the Vendor Information tab, and is instead added as a table in the Requisition Types workspace. Now you can easily add lines to associate vendors with the requisition types in the tab. You can also use the Company Number to add lines to indicate whether the vendor can be used only by a specific company.

Additionally, this other functionality is added to the Express Purchase Orders feature:

- You can now accrue purchase orders directly from the employee requisition.
- A new building block enables you to create job accruals from the employee requisition window.
- A new building block enables you to submit the created purchase order from the employee requisition window. The **Create Purchase Order** action is added to the existing action sequences for the Car, Taxi, and Courier requisition types.
- The **Create Accrual From Purchase Order** action is added to Taxi and Car layouts.
- You can now import requisition type lines. A **Requisition Type Line** is added for each Requisition Type: Car, Courier, and Taxi.
- The requisition now closes if the requisition in Express Purchase Orders is cancelled.
- A **Line no.** field is added to requisition type vendor. If you do not specify a vendor when creating an express purchase order, the vendor from requisition type vendor with the smallest line number amount that fulfills the requirements is selected.
- The **Import** action is added to the Accounts Payable workspace in the Setup module.

## Net Job Balance to Accruals or Deferrals

When you post a job entry or an invoice/credit memo on account and capitalize at billing price, Maconomy reflects the amount posted either in an Asset account (Accrued Revenue) or in a Liability account (Deferred Revenue). You must combine these two accounts to view the job balance between work in progress and invoiced on account.

To address the requirement in some countries that the job balance be visible in one balance sheet account, Maconomy introduces the Net Job Balance feature. When you enable this feature, Maconomy automatically posts any changes to work in progress and net on account to the appropriate account according to the following criteria:

- If you post a positive job entry (or a credit memo on account), and the job balance was positive prior to posting, Accrued Revenue increases.
- If you post a positive job entry (or a credit memo on account), and the job balance was negative prior to posting, Deferred Revenue decreases.
- If you post a negative job entry (or an invoice on account), and the job balance was positive prior to posting, Accrued Revenue decreases.
- If you post a negative job entry (or an invoice on account), and the job balance was negative prior to posting, Deferred Revenue increases.

If you post an entry that shifts the job balance from negative to positive, the amount you posted is split such that Deferred Revenue is reflected as zero, with the remaining amount reflected as an increase in Accrued Revenue. The opposite happens when the job balance is shifted from positive to negative. The amount you posted is split such that Accrued Revenue is reflected as zero, with the remaining amount reflected as an increase in Deferred Revenue.

In effect, it is the current job balance that determines the posting reference.

A new **Posting References based on Job Balance** parameter is added to the Job Parameters workspace to enable this feature.

Additionally, two new parameters are added to the System Parameters workspace:

- **Job Posting Reference for Posting without Activity** — Select this parameter to refer to an existing job posting reference that is then used when posting job invoices on account without an activity number.
- **Use P&L Posting of Invoices on Account** — Select this parameter to post invoices and credit notes on account to the Billing Price and Open Billing Price P&L accounts.

You may set system parameters globally so that all of the companies within your enterprise have the same setting, or you can have unique settings for specific companies.

In addition, some existing fields are updated and some new fields and entries are added to Maconomy.

### When to Use...

This feature enables you to have the job balance appear on one balance account (one of two, depending on a positive or negative job balance).

Use this functionality when:

- The job is intended for capitalization at billing price (set up in job parameter of type **Revenue Recognition**).
- The job balance between work in progress and invoiced on account is intended to show on one finance (balance) account.

- The current job balances of two balance accounts (accrued revenue and deferred revenue) show the total balance for the job in only one of the two accounts (the other has balance zero). Before the functionality will have the desired effect, you must manually post to transfer the job balance to the appropriate account, thus setting the “starting value” to the correct amount. The net job balance functionality ensures that this remains correct, going forward.
- The **Use P&L Posting of Invoices on Account** system parameter is additional functionality, building on the net job balance functionality, to accommodate if a customer needs postings of invoices on account to be additionally posted to finance (P&L) accounts.

## Setup

- Set the **Posting References Based on Job Balance** job parameter to Yes (job parameter of type "Revenue Recognition").
- Select the **Use P&L Posting of Invoices on Account** system parameter to add postings to profit and loss accounts (billing price and open billing price) upon posting invoices on account.
- Refer the **Job Posting Reference for Posting without Activity** system parameter to a job posting reference with appropriate setup, as follows:
  - Invoices on account must be posted to appropriate accrued revenue and deferred revenue (balance) accounts. These accounts must be shared with the following setup of posting of WIP.
  - If P&L posting of invoices on account is set up in this system parameter, posting of open billing price (accrued and deferred) and open billing price adjustments (accrued and deferred) must be set up for appropriate accrued and deferred revenue P&L accounts and posting of billing price must be set for an appropriate P&L account.
- Job posting references in general for posting WIP (time / amount / adjustments) **to the balance** as accrued or deferred revenue must be set to the single accrued revenue and the single deferred revenue account, respectively.
- Job posting references in general for posting open sales price **to P&L** as accrued or deferred revenue must be set to appropriate accrued and deferred revenue accounts.
- Job posting references in general for posting billing price **to P&L** must be set to the appropriate account.

## Detailed Evaluation of Work in Progress (WIP)

The WIP Evaluation feature provides you with more accurate reporting of WIP (work in progress) at the employee level, in addition to the project level.

WIP Evaluation extends the detailed revenue recognition functionality, making the employee available for WIP evaluation. You can set the employee as a detail on the revenue recognition job parameter. When you calculate revenue recognition, Maconomy creates a job revenue journal entry for each relevant job / employee combination.

If you specify additional details (D), Maconomy creates a job revenue journal entry for each relevant job / employee / additional detail combination when you evaluate WIP.

However, because the WIP evaluation is specified at the project level, you cannot enter a different WIP amount or WIP percentage for different employees.

## Employee Category in Job Employees Window

The Employee Category field is added to the table part of the Job Employees window. This field enables you to specify an employee category. Use the **Distribute to Employees** action to transfer the value to rows in the Employee Control window if the employee in question is a member of the specified category.

If you specify one particular employee in a row in the Job Employee Specifications sub-tab, you can only specify an employee category of which that employee is a member.

The **Employee Category** field is only added in the Single Dialog; it is not included in the standard layout in the job workspace.

The existing **Employee Category** field in Employee Control is used to specify a default choice of employee category for the time entries. Adding this field in Job Employees workspace enables you to use this functionality when employee control is derived from job employees.

## Enhanced Approval by Department Management

This feature simplifies the setup and maintenance of your approval hierarchies by referencing employees on the dimensions from the approval hierarchies, such as to support approval by department expenses process.

Maconomy offers a new feature for setting up approval hierarchies for department expenses to simplify this process. Since departments are often set up as dimensions, there are ten new fields for department approvers (or other employee types) on the dimensions. These fields can be referenced through the approval hierarchies to reduce the complexity of the setup.

## Depreciation Calculation Updates

Maconomy currently enables both manual and automatic depreciation (in the Depreciation Adjustment workspace). In some countries, a regulatory requirement mandates that you can select a different date as basis for the depreciation than the acquisition date. For example, an asset bought on January 5 can be updated to have a depreciation date on January 1.

This facilitates the depreciation period during the life of an asset; the book value of the asset at the beginning of the fiscal year should be used as calculation basis, and the period from the date of the beginning of the fiscal year should be used as the period length, instead of the acquisition value and the acquisition date as previously.

The depreciation calculation now may have an alternative depreciation period during the life of an asset, with the book value of the asset at the beginning of the fiscal year used as calculation basis, and the period from the date of the beginning of the fiscal year used as the period length, in addition to the period currently used in Maconomy of depreciation calculation based on the acquisition value and the acquisition date. For the best overview for the customer, both the full number of periods from the depreciation start date and the number of remaining periods from the selected depreciation date are available.

### New Fields

Two new date fields support this feature. The first field is the date from which the depreciation should begin. It by default gets the value of the acquisition date but you can change it manually. This date field is used to show the full period length that the asset is being depreciated in. The other new date field is the date from which the depreciation is calculated; this field defaults to the

acquisition date field. The amount used as a basis for the depreciation calculation should then be the acquisition price subtracted the depreciation value for the depreciation performed until the depreciation base date plus-minus all additional changes (impairments and so forth).

### Depreciation Start Date on Asset Drafts

When an asset is created via a vendor invoice or purchase order, you can set the depreciation start date on the asset draft. This date on the created asset is used as the depreciation start date and depreciation base date.

### Email Alerts Integrated into Core Maconomy

The ability to send out notifications and to-dos via email is crucial to expediting workflows. The enhancements to the email alerts functionality that were released via extensions in 2.1.1 are now migrated into Core Maconomy.

This functionality enables you to:

- Generate email alerts based on selection criteria that use employee relation fields (from-to value ranges).
- Send Email Alerts in test mode action to run email alerts without actually sending out emails. This mode results in a list of users and of the notifications to be sent.
- Assign access levels to control access to email alerts templates.
- Log email distribution events sent to an email address when a distribution finishes.
- Log email distribution errors sent to an email address when a distribution finishes.

### Long Text Timesheet Description

The long text description from a time sheet is now carried to the job entries table and standard description fields. To enable this feature, select the **Enable Long Text Emulation in Workspaces** system parameter. After, the long weekly or daily description (up to the first 255 characters) in a time sheet line is copied to the job entry **Description** field upon transfer.



- Project Managers can approve the long descriptions in the Approval part of the Jobs workspace.
- You can still use the former “short” Daily Description functionality as usual, if needed. De-select the **Enable Long Text Emulation in Workspaces** system parameter to use short descriptions

### Data Archiving

As finance entries are generated in Maconomy, over time the number of inactive entries increases, which can ultimately result in large numbers of inactive entries. Companies must be able to remove some of these finance entries without causing errors when using Maconomy. General best practice and most statutory requirements assert that companies maintain records for up to seven years. The introduction of archiving functionality enables you to delete these entries or move them to another database, as appropriate to your company’s policy.

The archiving functionality addresses two areas:

- Identifying and marking those finance entries that should be archived.

- Making sure that when finance entries have been archived and are no longer available, Maconomy still functions without errors.



Be aware that for subsequent (post 2.2) Maconomy upgrades, you must run a special tool prior to the upgrade to ensure integrity of the integration between live and archived data.

## Archiving Log

The archiving log enables you to identify the finance entries that have been marked for archiving. Maconomy creates an archiving log entry for each company and fiscal year where finance entries have been marked for archiving.

The Archiving workspace displays information from the archiving log and enables you to use the **Mark for Archiving** action that selects the finance entries to archive. The selected entries are removed from Maconomy by an SQL statement in a standalone tool that uses a new field on the finance entry. They are deleted or moved to another database.



Maconomy is updated so that system errors do not occur related to “missing” (newly archived) finance entries.

## Setup

To use the data archiving functionality, set the **Prevent Archiving of Previous Fiscal Years** system parameter. This parameter defines the number of full fiscal years for which finance entries must be retained. This prevents Maconomy’s archiving functionality from enabling selection of finance entries that are not old enough for archiving. This parameter is company-specific with a default value of 0.

For example, if your company must retain finance entries for 5 years, set the value of **Prevent Archiving of Previous Fiscal Years** to 5. When you use the **Mark for Archiving** action, Maconomy does not include any finance entries that have an entry date within the 5 latest fully completed fiscal years.

To continue this example, if the value of **Prevent Archiving of Previous Fiscal Years** is 5 and you use the **Mark for Archiving** action on February 20, 2014, and your company’s fiscal years run from January 1 through December 31; the archiving functionality only selects for archiving those finance entries whose entry dates occurred prior to January 1, 2009. Finance entries entered in 2009, 2010, 2011, 2012, and 2013 are not included since the fiscal year 2014 has not yet ended.

## Archiving Workspace

Maconomy now includes the Archiving workspace for you to select finance entries for archiving. After you select finance entries for archiving, you can safely delete them or move them to another database. After you archive them, the finance entries are no longer available from within Maconomy.

Use the Archiving workspace (**Setup » System Setup » Archiving**) to select finance entries for archiving and then to archive the selected finance entries. The Archiving workspace includes the tabs Archiving, Logs, and System Parameters.

When you select finance entries for archiving, Maconomy creates an Archiving Log entry for each combination of company and fiscal year of the included finance entries. Each log entry contains information about who selected the entries, when they were selected, and how many finance entries were selected for this combination of company and fiscal year.

In the Archiving workspace's Archiving tab, use the Archiving island to define the cut-off date and range of companies to select when you use the **Mark for Archiving** action. You can use the Selection Criteria island to indicate which Archiving Log entries should be displayed in the Archiving Logs sub-tab.

### Mark for Archiving Action

The **Mark for Archiving** action triggers the Mark for Archiving wizard. To select finance entries for archiving, select the company or range of companies of the finance entries to include and define a cut-off date for the age of entries to archive. If you do not define any restriction on the company, all companies in the system are included.

The cut-off date that you define here is used with the fiscal year template of the company or companies, as well as the value of the **Prevent Archiving of Previous Fiscal Years** system parameter.

When you click **Mark for Archiving**, a message displays the number of finance entries to archive. Click **Okay** to continue, or **Cancel** if needed.

### Reporting on Archived Data

No standard reports support the process of reporting on archived data.

### Limitations

The archive is currently limited in regards to dimensional / contextual information, so values that are changed are not preserved, and may not be possible to compare with live. Additionally, there are limitations around changes in schematics of the database, which cannot be guaranteed, even with data conversion that is planned.

# Technology Features

## Menu Search Capability

The Search Capability feature allows you to enter terms into a search field and retrieve information for a particular workspace.

This feature lets you navigate the workspace menu easily and search for a specific workspace (in English or its localized equivalent, depending on your language settings). As you type, it provides you with a list of suggestions when it cannot find the exact match. You can also perform a wildcard search when you are unsure about the term you are looking for.

### Workflow

Maconomy switches to the tree view whenever you activate a search. This type of view allows you to view multiple search results from different folders. When you clear the **Search** field or close it, Maconomy switches back to the shelf view. Customize the **Search** field if you want it to be visible at all times, or if you prefer to see it only when you press a keyboard shortcut. By default, Maconomy keeps this field hidden.

### How to...

#### View the Search Field

By default, Maconomy keeps the **Search** field hidden.

**To view the Search field, complete the following steps:**

1. Press CTRL+ALT+F (on Windows) or CMD+ALT+F 9 (on Mac).
2. Press the same keyboard combination to hide the **Search** field, or press ESC.

#### View the Search Field Permanently

**To view the Search field permanently, complete the following steps:**

1. Click **Edit » Preferences » Search**.
2. Select the **Always show menu search field** check box.
3. Click **OK**.

#### Search for a Workspace

**To search for a workspace, complete the following steps:**

1. In the **Search** field, enter a search term. It can be the specific workspace name or the localized equivalent.



Maconomy does not allow you to search for pane names.

2. In the list of search results that appears, double-click the workspace you want to use to open it.
3. To erase the contents of the **Search** field, click **Erase** or press BACKSPACE.

## Perform a Wildcard Search

To perform a wildcard search, complete the following steps:

1. In the **Search** field, enter an \* followed by a search term. It can be in English or its localized equivalent.



Maconomy does not allow you to search for pane names.

2. In the list of search results that appears, double-click the workspace you want to use to open it.
3. To erase the contents of the **Search** field, click **Erase** or press BACKSPACE.

## Search Favorites

The Search Favorites feature enables you to take any filter restriction and custom sorting that you frequently use and save it as a "favorite" for searching purposes. These Search Favorites then function the same way as the predefined searches in the Workspace Client to quickly filter information.

Your Search Favorites metadata is saved in your local computer.

### Workflow

Add, remove, reorder, and rename Search Favorites using the heart-shaped icon found in the top right corner of the current workspace. You can also use the arrow beside this icon.

Saved Search Favorites are shown as radio buttons in the top portion of the workspace, together with any predefined searches for that workspace. Select the Favorite that you want to use to filter the information.

If the number of Search Favorites makes it impossible for Maconomy to display them as distinct radio buttons, Maconomy simply uses the compacted filter options drop-down list. If you want to use a Search Favorite, and you cannot find it in the row of visible radio buttons, select the **Others** option and choose the Favorite from the drop-down list beside this option.

This feature is enabled by default.

### How to...

#### Add a Search Favorite

To add a Search Favorite, complete the following steps:

1. Enter a search filter restriction in any workspace column.
2. Click **Search Favorites (or the arrow beside it) » Add Search Favorite**.
3. In the **Name** field, enter a name for this search filter restriction.



If you use the name of an existing option, saving is disabled.

4. Click **Save**.

## Remove a Search Favorite

To remove a Search Favorite, complete the following steps:

1. Click **Search Favorites (or the arrow beside it) » Manage Search Favorites**.
2. In the table that appears, select the row of the Search Favorite to remove.
3. Click **Remove » OK**.

## Remove All Search Favorites

To remove all Search Favorites, complete the following steps:

1. In a workspace, click **Search Favorites (or the arrow beside it) » Manage Search Favorites**.
2. In the window that appears, click **Remove All » OK**.
3. Click **OK** to return to the workspace.

## Remove All Search Favorites for All Workspaces

To remove all Search Favorites for all workspaces, complete the following steps:

1. Click **Edit » Preferences » Metadata**.
2. Click **Clear search favorites » OK**.
3. Click **OK** to return to the workspace.

## Reorder Search Favorites

To change the order in which your Search Favorites are listed, complete the following steps:

1. In a workspace, Click **Search Favorites (or the arrow beside it) » Manage Search Favorites**.
2. In the table that appears, select the row of the Search Favorite to move.
3. Click **Up** or **Down** to move the Search Favorite to the appropriate position.
4. Click **OK** to save changes and return to the workspace.

## Rename a Search Favorite

To rename a Search Favorite, complete the following steps:

1. Click **Search Favorites (or the arrow beside it) » Manage Search Favorites**.
2. In the table that appears, click the **Name** field of the Search Favorite to rename.
3. Enter a new name.



If you attempt to use an existing name, saving is disabled.

4. Click **OK** to save changes and return to the workspace.

## Use a Search Favorite

To use a Search Favorite, complete the following step:

1. In a workspace, select a Search Favorite to filter the information.

## Use a Search Favorite from the Compacted Filter Options Drop-down List

To use a Search Favorite from the compacted filter options drop-down list, complete the following steps:

1. In a workspace, select the **Others** filter option.
2. In the drop-down list beside this option, select the Search Favorite to use.

## Disable Search Favorites

To disable Search Favorites, complete the following steps:

1. Click **Edit » Preferences » Search**.
2. Clear the **Enable search favorites** check box.
3. Click **OK**.
4. Close all open workspaces.
5. Reopen the workspaces that you want to use.

## Configuration Files

The Configuration Files feature addresses an existing issue in Maconomy. Previously, when an administrator installed a new service pack, Maconomy automatically updated configuration files. Any customizations previously applied to these files were usually lost. At most, Maconomy deactivated these configuration files and saved a back-up copy.

This feature helps you retain coupling service files and existing customizations. It uses the existing MConfig program for installing any new service packs.

## DFME Multi-Tenancy

In Maconomy's multi-tenant cloud, it has not been possible to have different license keys for different customers for the number of named users. The workaround has been to have one common license key so that all customers have the same number of named users.

A new multi-tenancy feature resolves this issue. This new feature provides better tooling to support the distribution and shipment of Maconomy in the cloud, replicating the on-premises deployment experience of having one license key for the number of named users per Maconomy customer.

## Miscellaneous Tooling – Performance Views

BPM is updated to include a Performance View that makes job cost reporting easier. With the addition of this Performance View and plans to add more, Maconomy has updated the way that these are managed through MConfig.

Installing and uninstalling the Performance Views now requires that you accommodate multiple views. In addition, corresponding changes, such as a total compile, must be implemented in MWBTools when performance views are applied.

## RESTful Web Services

Maconomy 2.2 introduces a new RESTful Web Services platform that exposes the Maconomy application functionality for integrations with other systems.

The platform builds on top of widely used standard technologies such as HTTP, JSON, and XML.

This enables:

- Simplified, uniform interface when integrating Maconomy with other systems and workflows.
- Writing customer-specific integrations in a variety of programming languages and environments that fit well with customers' existing infrastructures.
- Programmatic access to *all* of Maconomy's standard functionality as well as to custom functionality implemented with the Extension Framework.

## New WebSocket Protocol for HTTP Traffic

The Workspace Client communicates with the server through both a set of web services and the Dirmi RPC protocol. Previously, the Dirmi RPC endpoint was a separate TCP port, making it necessary for customers to set up firewalls, proxies, and other infrastructure components to handle HTTP and Dirmi, which are two distinct kinds of traffic. Maconomy now supports a one-port feature with a WebSocket protocol that allows the Dirmi RPC endpoint to be published as a web service. This removes the need for two separate TCP ports, because everything now is HTTP traffic.



WebSocket protocol is not the default configuration for Maconomy. However, you can use MConfig to set up the configuration of Dirmi RPC over WebSocket, as detailed in the following information.

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## Ability to Distinguish Between Environments

Maconomy now features the ability to easily distinguish the difference between test and development environments, as well as a live environment, via a horizontal version number on the window as well as a color-coded scheme for the different environments.



See the MCSL Guide (*Delttek Maconomy Quick Ref MCSL*) for details about setup.

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## BPM

### BPM Reporting on Hours and Days

Maconomy is now enhanced to allow Job Cost entry and invoicing in days in addition to hours. BPM Reporting and BPM Analysis are enhanced to support this functionality, reporting on the entry and invoicing in days. Additionally, BPM universes and reports now handle jobs with different setups, including those set up for daily and those set up for hourly entry and invoicing.

The BPM universes are flexible so that all objects related to Job Cost entry and invoicing of time activities offer reporting both in hours and in days.



Customers who do not use the new functionality are not required to customize standard reports.

### Updated BPM Functionality

BPM Reporting and Analysis reports are updated to accommodate Job Cost entry and invoices of time that are displayed in days instead of in hours. The functionality introduces the following general changes in some universes:

- The normal quantity objects for time activities now display either a number of days or a number of hours, depending on how the job is set up.
  - Days and hours are distinguished by a new time unit object that shows whether figures are in hours or days.
  - To best use this functionality, a section on a new time unit object is added to reports so that numbers of days are not mixed with numbers of hours.
- Additional objects are introduced for displaying quantities in a number of days only or in a number of hours only. This is done by converting days to hours and hours to days according to the job settings stating the number of hours per man day.

### Reports

The BPM Standard reports are enhanced to group on the time unit so that days and hours are kept separate. However, utilization reports, which require a consolidated view on employee time, use the new objects that always display time figures in hours.

The job cost related dashboard components (BPM Reporting) are updated so that they always display time entry and invoicing in a number of hours.

### Excelsius Dashboards

The Excelsius Dashboards are *not* enhanced to support the distinction between hours and days. As a result, they assume that all entries and invoicing remain in hours.



Customizations are needed to change them to convert days to hours (similar as done for the dashboard components).

## Universes

The following universes are updated to reflect the new functionality:

- Job Invoicing (BPM Reporting)
- Job Budgeting (BPM Reporting)
- Time Sheet (BPM Reporting)
- Utilization (BPM Reporting)
- Job Cost (BPM Analysis)

In the business layers of the universes, we define objects for reporting on which time unit figures are expressed in, the number of hours per man day and measure objects displaying time (either hours or days determined by the time unit object), as well as measure objects converting figures so that they always display in hours or days, respectively.

The Utilization universe also defines objects for reporting on the fixed time of employees. The fixed time objects are defined on the employee revisions of employees. The hours per man day objects are defined on the company-specific **Hours Per Man Day** system parameter.

The Time Sheet universe does not include objects that display figures in days, because reporting on this universe is often hourly focused.

## Data Warehouse

The BPM Analysis data warehouse is updated to support and pre-calculate entries and invoices in days. These are the highlights of the enhancements:

- The D\_JOB dimension now includes a field for distinguishing jobs for entering in days from jobs for entering in hours.
- The D\_JOB dimension now includes a field for stating the number of hours per man day, as set up on the job.
- The existing F\_KEY\_MEASURES table and associated transformations are deprecated. They are now excluded from creation and drop and load, but the transformation and create/drop scripts are included in the folder Deprecated.
- A new fact table F\_FIXED\_EMPLOYEE\_TIME is introduced for replacing the F\_KEY\_MEASURES table. The table states the fixed employee time for each date and employee.
- The new transformation for F\_FIXED\_EMPLOYEE\_TIME does *not* consider changes to fixed time from time sheets.

The new F\_FIXED\_EMPLOYEE\_TIME has the following fields:

- **DATE\_ID** — This holds the key of the entry in the D\_DATE table.
- **EMPLOYEE\_ID** — This holds the key of the entry in the D\_EMPLOYEE table.
- **EMPLOYEE\_NUMBER** — This holds the number of the employee in question.
- **TIME\_UNIT** — This states either Days or Hours depending on whether the fixed time is given in days or hours.
- **TIME\_UNIT\_CODE** — This is the internal integer value representation of the TIME\_UNIT value.
- **FIXED\_TIME** — This holds the number of fixed time for the employee on the given date. The field TIME\_UNIT states whether the value is in hours or days.

- **FIXED\_HOURS** — This holds the number of fixed time for the employee given in hours. The **Hours By Man Day** system parameter is used for deriving this value.

## Customer Tax Returns – BPM Reporting

To support the new Customer Tax Return functionality in Maconomy, BPM now provides reports that list the status of customer tax returns. In addition, the Job Information universe is enhanced with objects for this kind of reporting. This functionality is part of BPM Reporting but not BPM Analysis.

### Updated Functionality

This section describes the updated functionality in BPM.

#### Customer Tax Return

A Customer Tax Return is a special kind of task that CPA companies do for their customers. In Maconomy it is not defined as a task on a task list. Instead a collection of Customer Tax Returns is defined and associated with a job. Customer Tax Returns have various status fields and dates that are important in the follow-up and planning of such work.

#### Reports

Two new reports are introduced in BPM Reporting:

- **Customer Tax Return** — This report lists the customer tax returns for each job and displays the overall information that provides an overview of the status of the customer tax returns.
- **Customer Tax Return Details** — This report is a sub-report of the Customer Tax Return report and displays, for each Customer Tax Return, additional detailed information. There is a link from the Customer Tax Return report to the Customer Tax Return Details report.

### Customer Tax Returns Report

This report consists of the following tabs:

- **By Customer** — Lists customer tax returns by customer.
- **By Type** — Lists customer tax returns by tax return type.
- **By Approver** — Lists customer tax returns by actual approver.
- **By Receiver** — Lists customer tax returns by actual receiver.

In each of the tabs shows the same table. This table shows data grouped by different dimensions as described previously.

All tables are sorted first by Due Dates, Current.

Above each table the job number, name, and year are stated.

The data in the tables is as follows.

Item	Description
Line No.	This column displays the line number of the customer tax return.
Tax Return, Name	This column displays the name of the customer tax return.

Item	Description
Tax Return Description	This column displays the description of the customer tax return.
Due Dates, Current	This column displays the current due date of the customer tax return.  In Maconomy this is the original due date if no extension is requested. If an extension is requested, it is the extension due date.
Due Dates, Original	This column displays the original due date of the customer tax return.
Due Dates, Extension	This column displays the extension due date of the customer tax return.
Reference Dates, Received	This column displays the date the customer tax return was received.
Reference Dates, Committed	This column displays the date the customer tax return was committed for work.
Reference Dates, Extension Filed	This column displays the date any possible extension request was filed.
Reference Dates, Completed	This column displays the date the customer tax return work was completed.

This report defines a traffic light that is displayed to the left of each Customer Tax Return Name. The traffic light has the following values.

Color	Description
Green	If the number of days from Statement Date to Due Dates, Current is greater than 60.  All Customer Tax Returns that are completed (despite the statement date) are marked as green.
Yellow	If the number of days from Statement Date to Due Dates, Current is less than 60 days and greater than 15.
Red	If the number of days from Statement Date to Due Dates, Current is less than or equal to 15.

## Customer Tax Return Details Report

The main report Customer Tax Returns links to the sub-report, Customer Tax Return Details.

This report consists of the following tabs:

- **By Customer** — Lists customer tax returns by customer.
- **By Type** — Lists customer tax returns by tax return type.
- **By Approver** — Lists customer tax returns by actual approver.

- **By Receiver** — Lists customer tax returns by actual receiver.

Each of the tabs shows the same table with data that is grouped by different dimensions as described previously.

All tables are ordered by Due Dates, Current.

Above each table the job number, name, and year are stated.

The data in the tables is as follows

Item	Description
No Line	This column displays the line number of the customer tax return.
Tax Return, Name	This column displays the name of the customer tax return.
Tax Return Description	This column displays the description of the customer tax return.
Details, Status	This column displays the status of the customer tax return.
Details, Disposition	This column displays the disposition of the customer tax return.
Details, Filing Status	This column displays the filing status of the customer tax return.
Details, E-filing Date	This column displays the date when an electronic filing was performed.
Details, Processing Code	This column displays the processing code of the customer tax return
Details, Eng. Letter Rec	This column displays the engagement letter record.
Details, Customer Status	This column displays the customer status of the customer tax return.

## Updated Reporting Restrictions

In Maconomy you can now set up customers and vendors so that certain facilities are blocked. This functionality is enabled with a collection of **allow** fields on customers and vendors, as well as on the company-specific versions of these fields.

One of the **allow** fields is significant for BPM in that it controls whether it is permissible to report on a customer or vendor.

In addition, functionality is introduced to Maconomy that distinguishes between active and inactive customers and vendors.

Both of these features (allowed for reporting and distinguishing active and inactive customers and vendors) are relevant for BPM’s standard reports and universes. In addition, the other **allow** fields make the relevant universes more flexible to build reports on. This is not relevant for standard reports, but it is relevant for standard BPM universes to offer this reporting capability.

To support these new features, BPM has enhanced reporting capabilities that allow reporting restrictions in A/R and A/P Reports.

The AR Aging and AP Aging universes are enhanced with the new **allow** fields and distinction between active and inactive customers and vendors. Universe enhancements enable reporting on customers and vendors that are not allowed for reporting results in excluding these customer and vendors.

The standard reports on AR Aging and AP Aging that entirely relate to customers make it possible to include/exclude customers and vendors that are inactive.

## Data Warehouse

BPM Analysis does not have A/R- or A/P-specific reports. Thus, BPM tracks this dimension historically for customers and vendors so that when you report, you can choose to apply filtering of the non-active customers/vendors.

## Historical Data

Additionally, you can report historically on customers and vendors according to whether they are active or inactive in different periods.

## Transformations

The **Customer** transformation includes the new fields in the selection of the input step **Company Customer**.

The **Vendor** transformation includes the new fields in the selection of the input step **Company Vendor**.

The **Supply Values for Generated Rows** transformation required an update to the new fields as well, both for customers and vendors.

## Report Definitions

In BPM Reporting, all dedicated customer and vendor reports (such as all reports of the A/R Aging and A/P Aging BIARs) are enhanced as follows:

- Apply a filter on **Allow Reporting = "Yes"** in all queries where relevant.
- Apply the new **Include Inactive Customers** filter in all queries where relevant; for vendor reports it is the **Include Inactive Vendors** filter.
- Add the title and user value of the **Include Inactive...** filter in Selection Criteria.
- Pass the user value of the **Include Inactive...** filter in links to any sub-reports, if relevant.
- While report layouts remain the same, all reports are updated with these selection criteria.

## Dashboard Definitions

All dashboard components, which are specifically A/R-related (none are currently A/P-related) are enhanced as follows:

- Apply a filter on **Allow Reporting = "Yes"** in all queries where relevant.
- Apply a filter on **Active = "Yes."**

## Time Sheet Universe Enhancements

The Time Sheet universe in BPM Reporting is updated to include employee-specific contact information objects and more objects on generic fields. This new functionality makes it more useful for general reporting on time sheets.

The following objects are introduced:

- Initials — The employees initials as stated on the employee.
- Remarks and other generic fields stated on the employee — The generic fields are Remark 1-5, Employee Popup 1-5, Statistic 1-4, Date 1-5, Amount 1-10, Text 1-10, Substitute 1-5 and Real 1-5. Furthermore some basic contact information objects are defined on: Name 2-5, Telephone, CNR No., Country and Country Code.
- Company No. and Company Name of the employee — Currently we only have the company of the time sheet but that could differ from the company of the employee. For this we need a dimension table on COMPANYINFORMATION joined to the employee table on companynumber.
- Employee Type and corresponding Code object.
- Must Use Time Sheets

## BPM Analysis Object Descriptions

With the Maconomy 2.2 release, all BPM Analysis objects have object descriptions (as in BPM Reporting today).

## 2.2.1 Features

## Application Features

### Field Changes in Approved Transactions

The approval hierarchies feature addresses a company's need to manage the approval of transactions and master data. Apart from allowing you to specify approvers for a transaction and the order in which they approve it, Maconomy also allows you to specify fields in approved transactions that can be edited without the transaction having to go through the approval process again. These are called allowed changes.

In previous releases, any allowed changes you made reverted the approved transaction's status to "Unsubmitted". You then had to resubmit the transaction, so that Maconomy could process the change you made, recognize it as an allowed change, and update the transaction's status as "Approved."

With release 2.2.1, you can now make allowed changes to fields without having to resubmit the transaction. The transaction's "Approved" status is retained.

Currently, this enhancement only applies to draft invoices, vendor invoices, and purchase orders.

### Modifying Tax Return Due Dates

The Customer Tax Return feature allows companies to track tax-related services for their clients. You can enter a tax return type (for example, Form 1065) in the tax return table, and Maconomy automatically computes the date the form is due for submission to the US government.

However, there may be instances when your company needs to apply due dates different from those automatically computed by Maconomy. This enhancement addresses such circumstances by allowing you to do the following:

- Decide if you need the tax return due date derived from the tax return type, or adjusted according to your client's fiscal year.
- Ensure that due dates never fall on non-working days.
- Enter due dates manually.

#### How to ...

##### Enter Due Dates Manually

To enter tax return due dates manually, complete the following steps:

1. In the Jobs workspace (**Jobs » Jobs**), select a job from the filter list.
2. Navigate to **Home » Customer Tax Returns » Tax Return** panel.
3. On a blank tax return line, click **Search**.
4. In the Tax Return Type dialog box, select a tax return type that allows manual changes to due dates, then click **OK**.
5. In the **Tax Return Status** field, select the applicable status from the drop-down list.
6. In the **Original Due Date** field, edit the date provided or select a new value from the drop-down calendar.
7. In the **Extension Due Date** field, edit the date provided or select a new value from the drop-down calendar.

8. In the **Current Due Date** field, edit the date provided or select a new value from the drop-down calendar.



Depending on the value of the **Tax Return Status** field, Maconomy fills out the **Current Due Date** field automatically. The user still has the option to edit the date.

9. Click **Save**, or press ENTER.

## Setup Instructions

The enhancement is part of the standard CPA functionality. No add-ons or parameters need to be enabled.

For the system administrator or controller setting up tax return types, set up the following whenever applicable:

- Derive due dates from the tax return type, or adjust the dates according to the client's fiscal year.
- Allow manual changes to a tax return type's due dates.
- Apply a holiday calendar to tax return types.

## Notifications for 2.2.1

Notifications are added to Maconomy to address the following:

- Vendor invoices are unallocated, and the user logged in is the one responsible for allocating them.
- Vendor invoices are unallocated because there are no users assigned to allocate them.
- An employee type is specified as an approver or substitute approver for transactions or master data.

The new To-Dos are:

- Vendor Invoices for allocation To-Do
- Vendor Invoices without responsible To-Do
- Approve Employee by Type To-Do
- Approve Employee by Type (Substitute) To-Do
- Approve Expense Sheet by Type To-Do
- Approve Expense Sheet by Type (Substitute) To-Do
- Approve Expense Sheet Line by Type To-Do
- Approve Expense Sheet Line by Type (Substitute) To-Do
- Approve Invoice Allocation Line by Type To-Do
- Approve Invoice Allocation Line by Type (Substitute) To-Do
- Approve Purchase Order by Type To-Do
- Approve Purchase Order by Type (Substitute) To-Do
- Approve Purchase Order Line by Type To-Do
- Approve Purchase Order Line by Type (Substitute) To-Do

- Approve Time Sheet by Type To-Do
- Approve Time Sheet by Type (Substitute) To-Do
- Approve Time Sheet Line by Type To-Do
- Approve Time Sheet Line by Type (Substitute) To-Do
- Approve User Information by Type To-Do
- Approve User Information by Type (Substitute) To-Do
- Approve Vendor Invoice by Type To-Do
- Approve Vendor Invoice by Type (Substitute) To-Do
- Approve Company Customer by Type To-Do
- Approve Company Customer by Type (Substitute) To-Do
- Approve Customer by Type To-Do
- Approve Customer by Type (Substitute) To-Do
- Approve Invoice Drafts by Type To-Do
- Approve Invoice Drafts by Type (Substitute) To-Do
- Approve Job Budget by Type To-Do
- Approve Company Vendor by Type To-Do
- Approve Company Vendor by Type (Substitute) To-Do
- Approve Vendor by Type To-Do
- Approve Vendor by Type (Substitute) To-Do

Details about these notifications are found in the Deltek Maconomy Concepts Guide.

## Approve Invoice Allocation Line Workspace

The Approve Invoice Allocation Line workspace is added to Maconomy to facilitate approval of invoice allocation lines. It allows approvers to view only the invoices that require their approval, instead of all the invoices to which they have access.

The workspace allows approvers do the following:

- See the approval status of each invoice allocation line. In addition to a status field, gray text indicates approved lines, while red text indicates rejected lines.
- Approve allocation lines in one step, or approve/reject and specify the reason for approval/rejection.
- Approve or reject all allocation lines assigned to them for a particular vendor invoice.

### “How to” Section

#### Approve Invoice Allocation Lines

**To approve allocation lines for a vendor invoice, complete the following steps:**

1. In the To-Do portion of the Workspace Client, double-click an Approve Invoice Allocation Line To-Do to open the Approve Invoice Allocation Line workspace.
2. In the Allocation sub-tab, click an allocation line.

3. Click the **Approve** action.



You can quickly approve an allocation line from the filter list of the workspace. To do this, click the green check mark in the **Approve** field of the line you want to approve.



To approve all the allocation lines assigned to you for a specific vendor invoice, click the **Approve all** action in the Vendor Invoice tab.

4. In the Approve dialog box, enter a comment in the **Remark** field, then click **Approve**.



The check boxes for overwriting the existing approval status and remark are selected by default.

5. To undo approval, click the **Undo Approval/Reject** action.



To undo approval of all the allocation lines assigned to you for a specific vendor invoice, click the **Undo All Approvals/Rejections** action in the Vendor Invoice tab.

## Reject Invoice Allocation Lines

To reject allocation lines for a vendor invoice, complete the following steps:

1. In the To-Do portion of the Workspace Client, double-click an Approve Invoice Allocation Line To-Do to open the Approve Invoice Allocation Line workspace.
2. In the Allocation sub-tab, click an allocation line.
3. Click the **Reject** action.



To reject all the allocation lines assigned to you for a specific vendor invoice, click the **Reject all** action in the Vendor Invoice tab.

4. In the Reject dialog box, enter a comment in the **Remark** field, then click **Reject**.



The check boxes for overwriting the existing approval status and remark are selected by default.

5. To undo rejection, click the **Undo Approval/Reject** action.



To undo rejection of all the allocation lines assigned to you for a specific vendor invoice, click the **Undo All Approvals/Rejections** action in the Vendor Invoice tab.

## Setup Instructions

This enhancement is part of the standard Maconomy system. No add-ons or parameters need to be enabled.

## Enhancements to the Approval Hierarchies Feature

The Approval Hierarchies feature allows users of Maconomy to customize the approval process for their transactions and data.

This enhancement improves on that feature by allowing the following:

- Super approvers can be assigned to each line in an approval hierarchy. Previous to this release, you could only assign one super approver to the header (that is, for all the lines) of an approval hierarchy.
- The super approver specified on an approval hierarchy line can be specified in the same way as an approver or a substitute approver. This means the super approver can be a named employee, all employees, an employee type, or an employee reference.
- Companies have the option to enable/disable automatic approval when the submitter is also an approver, substitute approver, supervisor, or a super approver.

### Setup Instructions

There are no changes to the usual procedures for setting up approval hierarchies. Assign super approvers to hierarchy lines if required by the company. Assign them as you would approvers and substitute approvers.

## Masking User Information

The user, employee, and company masking feature enables you to mask personal information that is related to former employees. This feature deletes some relevant records according to your specifications and masks relevant fields in other records.

User names and employee names are stored in multiple places in Maconomy, such as contact person information, vendor information, user-specific selection criteria, setup and transaction data, documents, and various logs.

When you enable masking, only the user and/or employee information is masked, even when you use the company masking functionality. When you use the company masking functionality, the user and employee information that is associated with the specified company is masked.

This feature performs the following activities to mask personal information:

- Changes the user name to the value that you specify as the masking value. Updates all occurrences of the user name to the masked value. Deletes the user if it exists.
- Changes the name of the corresponding employee (including revisions), contact person, and vendor to the masked name and updates all occurrences of the original employee name to the masked name. Retains the employee record, but with all personal information masked.
- Clears all of the personal information for the employee, contact person, vendor, and many other relevant fields.
- Clears any personal information in logs of field changes to the user, employee, employee revisions, contact person, and vendor who are associated with the user.



The masking feature does not affect documents that may have been attached in Maconomy or other data that could hold employee names.

For example, if you set up a G/L dimension named Entity that contains account manager information, and you need to mask the personal information for a former employee who is listed as an account manager (in the Entity dimension), and you have enabled the logging of changes to the Entity dimension, the personal information in the Entity dimension for the former employee **is not masked**. In addition, when you make a change in the Entity dimension, the original employee name appears in the log of changes.

If you have the correct access privileges you can:

- Mask information for one or more users and/or employees.
- Mask all user and employee information for one or more companies.

Masking-related workspaces and options are not displayed to users who do not have the correct access privileges.

## Workflow

The high-level workflow for using masking is as follows:

1. In the System Setup workspace, set the value of the **Allow User Masking for Company** system parameter to enable masking. See ***Error! Reference source not found.***
2. In the Masking workspace, on the **User Masking** tab, enter the user and employee masks to be used and select the user names and/or employee numbers whose information is to be masked. See *Mask Users* on page 52.
3. In the Masking workspace, on the **Company Masking** tab, enter the user and employee masks to be used and select the company whose user and/or employee information is to be masked. See *Mask Companies* on page 53.
4. Run the masking routine via the appropriate action button.

When the masking routine finishes, it displays a log file that contains a list of all of the major instructions that were executed. You can save the log file to a location that you choose. This is helpful if you need to retain proof that you performed the masking.

5. Examine the log file to check for any errors.

You can remove these log files manually if no problems occurred.



If a log file indicates that there were problems in the masking operations, send the log file to Deltek Customer Care.

## How to ...

### Mask Users

To perform user/employee masking, ensure that the following conditions are met:

- At least one of the columns **User Name** and **Employee No.** must contain a value.
- The values in those columns must be unique.
- The current user cannot be included in the list of users to mask.
- The user named Administrator cannot be included in the list of users to mask.

**To mask a user name, complete the following steps:**

1. Navigate to **Human Resources » Masking » User Masking** tab.
2. In the **User mask** field in the **Set default values** island, enter the string to use as the mask.  
The masking routine replaces all selected user names with this string. You can enter any string, with a maximum length of 50 characters.
3. In the **Employee mask** field in the **Set default values** island, enter the string to use as a mask.  
The masking routine replaces all employee names that have the selected numbers with this string. You can enter any string, with a maximum length of 50 characters.
4. Enter or search for a user name in the **User Name** column in the **User Masking** sub-tab.  
You can enter any string; the value in this field is not validated. This enables you to locate and mask information for user names that have already been removed from Maconomy, but that still exist in various locations, such as change logs and database tables.
5. Enter or search for an employee number in the **Employee No.** field in the **User Masking** sub-tab.  
The value in this field is validated; the employee number must exist in Maconomy.



You can enter just a user name, just an employee number, or both user name and employee number.

6. Click the **Perform User and Employee Masking** action button.  
A warning dialog box prompts you to confirm that you want to run the masking routine. If you do not click OK or Cancel, the action is automatically canceled.



Masking actions are not reversible. Be sure that you want to run the masking routine with the values that you have specified before you click OK.

7. Click **OK** in the warning dialog box to run the masking routine.



After you click OK, **do not interrupt the execution** of the masking routine.

The masking routine runs; this can take up to an hour or longer to complete, depending on the speed and the size of your database. A progress bar indicates how processing is going.

When the masking routine is finished, it displays a log file. You can save this log file.

If the masking routine encountered any errors, a message warns you that there are exceptions in the log file. If you receive this message, send the log file to Deltek Customer Care.

### Mask Companies

To perform user/employee masking for a selected company (or companies), ensure that the following conditions are met:

- The **Company No.** column must contain a valid company number that exists in Maconomy.
- The value in the **Company No.** column must be unique.

- You can perform masking only for companies for which the **Allow User Masking for Company** system parameter is selected. See *Error! Reference source not found.* for information about setting this parameter value.
- The current user cannot be included in the list of users to mask.
- The user named Administrator cannot be included in the list of users to mask.

**To mask user and/or employee information that is associated with the specified company or companies, complete the following steps:**

1. Navigate to **Human Resources » Masking » Company Masking**.
2. In the **User mask** field in the **Set default values** island, enter the string to use as the mask.  
  
The masking routine replaces all selected user names with this string. You can enter any string, with a maximum length of 50 characters.
3. In the **Employee mask** field in the **Set default values** island, enter the string to use as a mask.  
  
The masking routine replaces all employee names that have the selected numbers with this string. You can enter any string, with a maximum length of 50 characters.
4. Enter or search for a company number in the **Company No.** field in the **Company Masking** sub-tab.  
  
The company number must exist in Maconomy, and masking must be enabled for this company via the **Allow User Masking for Company** system parameter. See *Error! eference source not found.* for information about setting this parameter value.
5. Click the **Perform User and Employee Masking** action button.  
  
A warning dialog box prompts you to confirm that you want to run the masking routine. If you do not click OK or Cancel, the action is automatically canceled.



Masking actions are not reversible. Be sure that you want to run the masking routine with the values that you have specified before you click OK.

6. Click **OK** in the warning dialog box to run the masking routine.



After you click OK, **do not interrupt the execution** of the masking routine.

The masking routine runs; this can take up to an hour or longer to complete, depending on the speed and the size of your database. A progress bar indicates how processing is going.

When the masking routine is finished, it displays a log file. You can save this log file.

If the masking routine encountered any errors, a message warns you that there are exceptions in the log file. If you receive this message, send the log file to Deltek Customer Care.

## Setup Instructions

To enable user, employee, and company masking you must set the value of the **Allow User Masking for Company** system parameter.

**To enable masking, complete the following steps:**

1. Navigate to **Setup » System Setup » Parameters and Numbers » System Parameters** tab.
2. Select **All Parameters** in the **Show** field.  
The table displays the list of all system parameters.
3. In the **Description** column, scroll to **Allow User Masking for Company** and double-click to open the **System Parameter** tab for that parameter.
4. Select **Allow User Masking for Company** in the **System Parameter** island in the **System Parameter** tab. The default value is false (not selected).
5. Enter any appropriate remarks in the **Remarks** field. Remarks are not required.
6. Enter or search for a company number in the **Company No.** column in the **Company Specific Values** sub-tab.  
This column is validated; the company number must exist.
7. Select the **Allow User Masking for Company** column to enable masking for this company. The default value is false (not selected).
8. Enter any appropriate remarks in the **Remark 1 – 3** columns. Remarks are not required.
9. Repeat this process to enter the company numbers for all of the companies for which you want to enable masking.

## Rejected Vendor Invoice Workspace

The Rejected Vendor Invoice workspace enables you to correct vendor invoice allocation lines that have been rejected by the designated approver.

When an approver rejects a vendor invoice allocation line that you submitted, a related To-Do appears for you to indicate that you must make a correction. In the associated remarks, the approver describes the changes that are needed before the allocation line can be approved.

You double-click the To-Do to access the Rejected Vendor Invoice workspace so that you can make the required changes and resubmit the allocation line.

The functionality that the Rejected Vendor Invoice workspace provides is similar to that of the Vendor Invoices tab of the Vendor Invoices workspace. However, the Rejected Vendor Invoice workspace provides the information in a more streamlined fashion that enables you to quickly identify and make the changes that are required and resubmit the corrected vendor invoice allocation line.

## Option Lists in Time Sheets

The Option List feature gives you the opportunity to add up to five additional fields on a time sheet. The new fields are an easy way to gather relevant information on a time sheet, such as city and state. This is also useful when state or local governments require that work location is included on the time sheet line to identify where the employee worked for a given job and task. You can identify up to five values that you want to track on the time sheet. Option List Fields (1-5) are included in the Employee workspace and appear on the time sheet.

## BPM

### New BPM Reports

Six new reports are added to BPM (listed below).



Note the following:

- In the CPA Solution, the new reports replace the existing reports.
- The new reports have a drill hierarchy: Purpose > Client Level 1 > Client Level 2 > Job
- The reports include two additional tabs that show the same data as the main report tab of the report but sort the data by the Account Manager (Client Manager in CPA Solution).
- The reports have been reorganized and / or streamlined, while retaining core functionality similar to their origin reports.
- A new universe is developed for the Cash Receipts report.

The new reports are:

- **Cash Receipts, by Account Manager** (in CPA: Cash Receipts, by Client Manager) — Based on the existing standard report Cash Receipts.
- **AR Aging, by Account Manager** (in CPA: AR Aging, by Client Manager) — Based on the existing standard report AR Aging.
- **WIP Aging, by Account Manager** (in CPA: WIP Aging, by Client Manager) — Based on the existing standard report WIP Aging. Renamed the "Invoiced On Account" section to "WIP," and added three new fields:
  - **Exposure** — This field is a calculation of Total (formerly called Balance) less Net On Account columns. For example, if you have \$8,000 in Total WIP and \$5,000 in Net On Account, then Net WIP is \$3,000.
  - **Net On Account** — This field is the total amount that has been invoiced on account but not yet reconciled against normal time and material invoices.
  - **Total** — This field shows what has been registered (job entries) but not yet invoiced as of the statement date, using the date type (Job Cost or G/L) selected by the user.
- **Job Budget to Actuals YTD, by Account Manager** (in CPA: Job Budget to Actuals YTD, by Client Manager) — Based on the existing standard report Job Budget to Actuals YTD, and in the CPA solution replaces that report.
- **Realization, by Account Manager** (in CPA: Realization, by Client Manager) — Based on the existing standard report Realization.
- **WIP Rollforward, by Account Manager** (in CPA: WIP Rollforward, by Client Manager) — Based on the existing standard report WIP Periodic.

### New Customer Payment Universe

A new Customer Payment universe is released to support the Cash Receipts report. It enables you to tie individual payments to individual invoices. In addition, when one payment covers multiple invoices—or vice-versa—and cash discounts are involved, this universe enables invoices and payments to appear on the same line in cash receipt reports.

## New User Information Universe

One of the most customized items in BPM is the ability to report on the current user and employee. For example, it is convenient to define My Reports like My Utilization. This requires that a standard Utilization report is enhanced with a restriction on the employee being equal to the current employee. Thus one of the objects needed is the employee number that is already in the universe restricted to that of the current user.

Rather than enhancing all reporting universes with the same user classes and objects, BPM now includes a new dedicated User Information universe. This universe provides two types of information: General user information and objects that are restricted to the current user.

This universe supports reporting on user and employee setup. It enables you to report on various properties of a user such as administrator rights and action capabilities. You can also report on various user properties such as whom the associated employee is, and who the supervisor, tutor, and secretary are. You can also report on who the current user (and employee) is who is running the report in question. This makes it easier to customize reports using the current user and his or her properties.

## Additional BPM-Related Application Enhancements

Two reports have changed names:

- WIP Periodic is now called WIP Rollforward
- AR Periodic is now called AR Rollforward

In the Workspace Client, this affects the Customer Reporting and Job Reporting workspaces.

## WIP Tie to G/L

Previously, when you selected a Finance Entry Date to restrict by, WIP reports would not tie to General Ledger, since WIP reports did not include negative WIP. Aging principles and previously Maconomy have restricted the aging date to the job entry's date. However, some situation occur when job invoice lines have a date before the statement date, if the corresponding job entry has a date after the statement date. Therefore, this update separates the date used for aging and the date used for restriction. The date for restriction can now be either the Entry Date or the Finance Entry Date, as follows:

- **Entry Date** — Select **Entry Date** to base the restriction entirely on the job entry's entry date. This restriction is in prompts referred to as Job Cost.
- **Finance Entry Date** — Select **Finance Entry Date** to restrict registrations on the job finance job entry's finance entry date and restrict invoices on the job invoice line's finance entry date. This restriction is in prompts referred to as G/L.



### Note the following:

- WIP reports may include negative WIP.
- Total WIP column may not match aged columns. This is the case if including job invoice lines where corresponding job entries are excluded, and non-due periods are not shown and restriction is by finance entry date but aging is by entry date.

## Consistency in Date Prompting

For consistency in date prompting throughout the Maconomy system, related changes separating the date used for aging and the date used for restriction are applied to other aging reports as well

(AP and AR aging reports). Additionally, many reports no longer require the user to enter an aging principle.

The reports that do require an aging principle now retrieve one based on option list and selected option (see the *Deltek Maconomy Installation Guide* for Maconomy setup.). Previously, many reports prompted the user for an aging principle even though it was not needed for that report, but only to pass the value on to through hypertext links to reports that did. In some reports, we replace the parameter of **Aging Principle** with that of **Date Type** so that they do not pass along aging principle links.

To streamline date restriction in AR reports with Job Invoicing reports, we made the following updates:

- Added a new General Date object which prompts the user for a date type as Entry Date or Due Date. The object resolves to either of these two objects depending on the user choice.
- Added a class with detail objects, which are similar to what was introduced in Job Invoicing.

## Miscellaneous Features 2.2.1

### Option List on Time Sheet

The Option List on Time Sheet feature gives you the opportunity to add up to five additional fields on the time sheet. The new fields are an easy way to gather relevant information on a time sheet, such as city and state. This is also useful when state or local governments require that work location is included on the timesheet line to identify where the employee worked for a given job and task.

Identify up to five values you would like to track on the time sheet. Option List Fields (1-5) are included in the Employee workspace, and appear on the time sheet.

### Minimum Hours in Split Week

In the Employees setup, the field **Minimum Working Time** now includes the option Per Split Week. Select this option to indicate that the minimum hours worked for a time sheet is checked for each part of a weekly time sheet (part A and B) upon submission.

### Unposted Vendor Invoice

A new feature allows you to upgrade your Maconomy system even if you currently have unposted vendor invoices.

### Override Regional Settings

RESTapi have been extended to allow regional setting, such as date format, to be set. These settings are used by the server when printing or formatting error messages and the setting only apply to the ongoing session.

### Import Credit Control

It is now possible to import setup information used for credit control, including Event Flow Type, Overdue # Days, Credit Limit %, and Credit Controller.

The import program is only available from the Java Client and the command prompt. There is no validation.

Use the Credit Control Setup workspace to setup up data information, and the Credit Control workspace to set the Credit Controller.

### Evaluation Of Work In Progress

In version 2.1 we introduced an enhancement to evaluation of Work in Progress to perform WIP adjustments at a more detailed level than job level, such as by employee. The new feature with this release enables you to use the functionality on existing (open) jobs, with entries. If you change this setup on a job with entries, Maconomy now updates internal tables with revenue recognized.

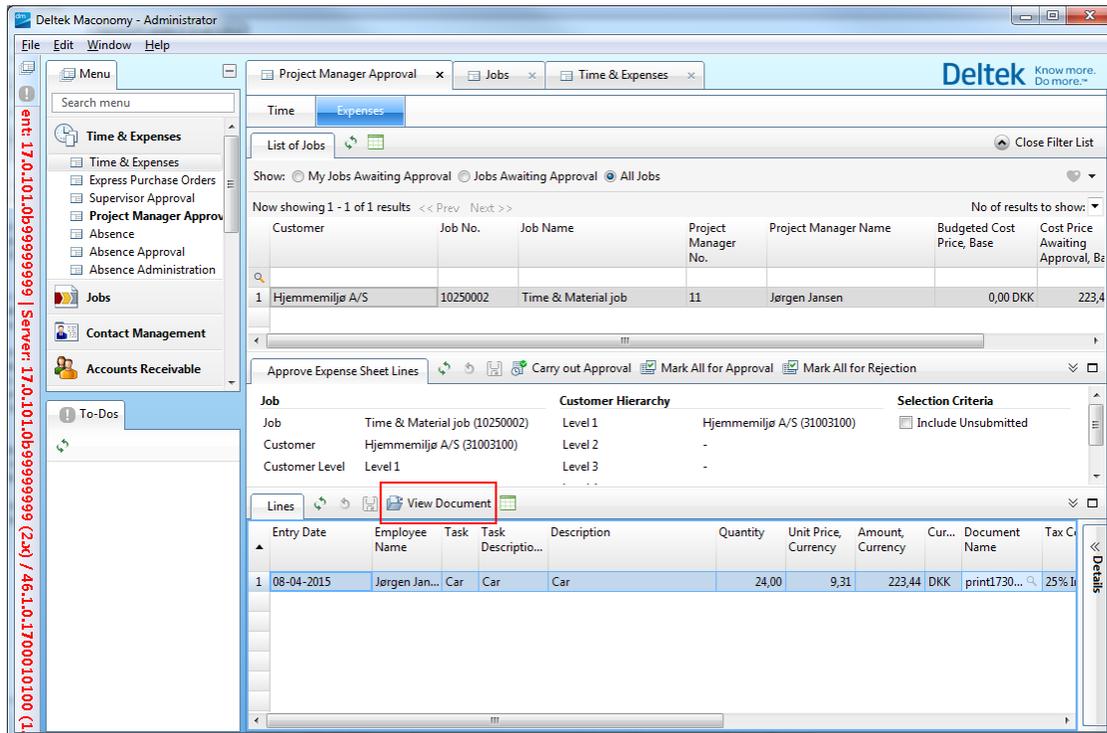
For example, say that you have a job set up with Evaluation of Work in Progress and already have some WIP adjustments from before upgrading to 2.1. Those entries will have no employee number. Now, you change the setup to use WIP evaluation by employee. In itself, this will not change the WIP adjustments, but the first WIP adjustment after the change of setup will then reallocate the adjustment to be by employee.

## Project Manager Visibility of Expense Reports

The action **View Document** is added to Approve Expense Sheet Lines, which is part of the Project Manager Approval workspace. If the line has an attached document, then the action is enabled, and you can click it to open that document. If there is no document on this line, then the action is disabled.

**Single Dialogs » Job Cost » Registration » Approve Expense Sheet Lines**

**Project Manager Approval workspace » Expenses » Approve Expense Sheet Lines**



While it is possible for employees in the Time & Expenses workspace to attach more documents to an expense sheet instead of a particular line, those extra documents are not visible here since the Project Manager Approval workspace is dedicated to approving individual expense lines, and not the expense sheet as a whole. Additionally, this workspace only lists lines that can be approved by the current employee. One expense sheet might contain lines that need to be approved by different project managers.



### Customizing this Feature

If your company would like the PM to see the additional documents, then you can customize this workspace. A foreign-key "DocumentArchiveNumberVar\_DocumentArchiveHeader" is introduced to allow for easy customization of the workspace to show all documents associated with the current line's expense sheet

## Vendor Information Card

A new subworkspace is created and added to the Vendors workspace listing some entries that reference that vendor. This includes:

- Subcontractor on employees

- Outlay vendor on employees
- Refill vendor on petty cash accounts
- Transfer vendor on petty cash accounts
- Intercompany settlement vendor on companies
- Vendor on suppliers (ItemSupplier relation)
- Supplier on item purchase orders
- Payment supplier on item purchase orders
- Vendor on stock items/warehouses (WarehouseInformation relation)
- Vendor of company vendors
- Vendor on budget journal lines

This makes it easy to see when a vendor is used, for example to quickly see if the vendor is used as a subcontractor. This is useful when changing the "Allow for use as..." fields.

## Window Layouts

When upgrading to 2.2.x, the old MAS and MCS solutions are no longer available. A standalone program RemoveSolutionWindowLayouts can be used to remove the layouts from these solutions left in the database.

To run the program use a command similar to this:

```
MaconomyServer_17_0 -Smyshort -xRemoveSolutionWindowLayouts
```

The program should be run after attaching the database being upgraded to the new application, but before installing any new layouts i.e. just after `-xRemove_Old_Layouts` in the current chapter 10.3 Reinstalling Standard Layouts in the Upgrade Guide

So far the new step is only relevant when a legacy system is upgraded.

## Fixed Assets

### Asset Ledger Card

A new **Sub-Type** field is added to the selection criteria part of Asset Ledger Card. This field allows users to limit the lines shown in the table by Sub-Type.

## Integration

### Report layouts

The "Aging Principle" prompt has been removed from all report workspaces.

## Job Cost

### Absence Calendar Lines

A new variable AbsenceStatusHalfDayVar is added to Employee Absence Overview and Team Absence Overview windows. It contains a status string for color coding of calendar views. Each day in the month is represented by two consecutive characters in the string, holding a status code for the first and last half of the day, respectively.

## Blanket Invoice Selection

As this window performs invoicing actions on all open jobs on a customer, the actions can sometimes take more than just a few seconds, depending on the number of jobs and the total number of open entries being processed.

To improve the experience when there are many jobs being processed, we added a progress bar to the following actions: Close All, Delimit, Approve, New Invoice Selection, Remove Approval, Invoice To Credit Memo, and Undo Invoice To Credit Memo.

## Employee Absence Calendars

The “Absence” pane in the Absence workspace shows available absence days for up to five absence types in the “Available” column in the “Absence Information for Period” island. The data in that column is dependent on the day selected in the calendar; that is, it could change as we navigate to a different day in the calendar.

A new field has been introduced that contains similar information, but for the whole period—and therefore it does not change if we navigate to a different day within the same period.

The Absence workspace now includes both the old field (for a specific day) and the new one (for the whole period). The “Available” column in the island “Absence Information for Period” now contains the new field, while the old field has been moved to the “Available Days” island.

## Evaluation Of Work In Progress

If a job is set up for detailed evaluation of work in progress, and some registrations on the job are made, then Maconomy will not allow changing the specification of details used for evaluation.

This restriction has now been lifted.

## Import Job Journal

It is now possible to specify both Billing Price Base and Billing Price Currency when importing job journals. The functionality is enabled by a new system parameter "Allow Job Journal Billing Price Base Import."

## Import Jobs

The Import Jobs program is extended to support reverting a job invoice allocation, with the action "Revert Job Invoice Allocation."

## Invoice Draft Status

A warning is now given when the user deletes the selection criteria in the card part to warn that all drafts display, as this could potentially take a long time.

## Invoice Selection

The CPA solution has been extended with a new menu section "Billing" with workspaces related to billing specifically. The Batch Billing workspace is accessible only by a user with a Controller role.

## Job Favorites

A new Remark field is added so that you can add remarks on job favorites. The remark is also passed on to a time sheet line when a favorite is selected on it.

## Job Invoice Overview

A new field **Employee Name** is added to table part of the window "Job Invoice Overview." In the Workspace Client, this window shows the foundation of invoices in the Invoice History tab in the Jobs workspace.

## Jobs

**Jobs** — Three new fields are available in the Jobs pane: Current Baseline Job Budget, Current Fixed Price Basis Job Budget, and Current Completion Percentage Job Budget.

The fields show the name of these currently selected job budgets.

Following is the internal name and the related foreign key name:

- CurrentBaselineBudgetTypeVar  
FKName=CurrentBaselineBudgetTypeVar\_JobBudget
- CurrentFixedPriceBudgetTypeVar  
FKName=CurrentFixedPriceBudgetTypeVar\_JobBudget
- CurrentCompletionPercentageBudgetTypeVar  
FKName=CurrentCompletionPercentageBudgetTypeVar\_JobBudget

## Technology Enhancements 2.2.1

### Multi-Account User

Due to the way Maconomy's data access control views are designed, the access requirements of some users cannot be captured by a single set of access control rules. For example, a high-end controller might have full access to a single company within the organization, but also require read-only access to all companies to be able to do cross-company reporting.

This cannot be achieved with a single set of access control rules, as Maconomy can restrict access by company but does not support company-specific access control. As a result, the user will have to have two different user accounts in Maconomy: one with read-write access restricted to a single company, and one with read-only access to all companies.

The "multi-account" feature is the first step in an ongoing effort to make it easier for such users to change between their different "roles" within Maconomy.

This feature allows linking system users together, to more easily switch between the linked users in the Workspace client and change passwords for all the users when changing the password for any of the linked users. The change password part of the functionality requires that all the linked users have the same passwords initially.

### Multi-Account User Setup

This section details the setup functionality for the multi-account user feature. Setup follows this general process:

- Configuration
- Linking users
- Verification

### Configuration

To turn on the multi-account user support, you must first edit the XML file, and then add a new binding element.

**To edit the XML file, complete the following steps:**

1. Open the **couplingconfiguration.mcsi.xml** file located in MaconomyDir/Definitions folder.
2. Select a field (referred to as the linking field) in the UserInformation entity.



Choose a field that is not used to store any other data in the system. The contents of this field will be used to establish the link between the users.

3. Include this field in the Binding with **user: info** namespace, if it is not already there.

### Example

In the example below, field **Text1** is selected as a linking field and it was thus included into the Binding with **user:info** namespace.

```
<Binding entity="UserInformation" namespace="user:info">
  <Restriction condition="NameOfUser = userName() " />
  <Fields>
    ...
```

```

        <Field source="Text1"/>
    </Fields>
</Binding>

```

**To add a new binding element, complete the following steps:**

1. Access the Environment element so that you can add a new Binding element within.
2. Set up the information for the Binding to follow these requirements. It will include:
  - An entity called **UserInformation**
  - A namespace called **user:accounts**
  - A field with the source **NameOfUser**



The purpose of this entry is to establish the link between the users, and the NameOfUser field will hold all the usernames that satisfy the given restriction. The restriction is assumed to select all the users that have the same value in a linking field (Text1), and the restriction condition Text1 != " and Text1 = envVar('user.info.Text1') states that all the UserInformation records from the UserInformation entity should be selected, such that the field Text1 is not empty ( Text1 != " ) and that the value of Text1 is the same as the value for the user current logged in (Text1 = envVar('user.info.Text1') ).

**Example**

```

<Binding entity="UserInformation" namespace="user:accounts">
  <Restriction condition="Text1 != '' and Text1 = envVar('user.info.Text1')" />
  <Fields>
    <Field source="NameOfUser"/>
  </Fields>
</Binding>

```

3. Restart the Coupling Service and restart the Workspace Client in order to verify that there are no errors in the specification. A syntax error will result in an Internal Error being thrown when starting the Workspace client.

**Linking Users**

Once the field used for linking users is added to the Users layout, you can go into the Workspace Client to link the users together by adding the same value to this field for the linked users.



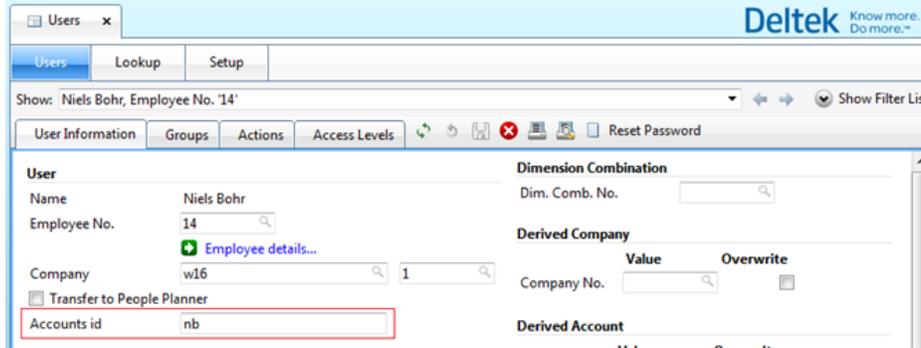
See related documentation in the *MDML Quick Reference Guide* for details on adding a field to the MDML layout

**To create the link between users, complete the following steps:**

1. In the Users workspace, add the previously selected field to the layout. This enables the Administrator to easily link the field in the Workspace Client.

**Example**

Below is a screenshot from the Users workspace that was modified by adding the field with **Accounts id** title and source Text1 that corresponds to the example presented above.



2. Insert a non-empty value into that field with the same value for different users. This creates a link between those users that enables the Multiaccount Users feature to work.
3. Check that the environment contains the Binding specified during Configuration by opening the Properties window (right-click in any workspace and select Properties or by using Ctrl+Alt+P shortcut).
4. Navigate in Environment tree under Browse Environment item and verify that the contents under the path **user.accounts.NameOfUser** are present. It should be not empty if the user currently logged in is linked to other users in the system.

### Verification

As a final step, verify the updates.

**To verify the updates, complete the following steps:**

1. Logging into Workspace Client as one of the linked users. There is an additional menu item **Change User** in the **File** upper menu bar.



2. Select the Change User menu item. A dialog opens to let you change user. It is pre-filled with all the other user names that are relevant to the logged-in user.



3. Select the user.
4. Enter the password and click Change User. The client restarts to complete the user change.



When changing the password of any of the linked users, an automatic attempt is made to also change the passwords of all the linked users. If this fails for one or more of the linked users, then an error displays, pointing to the linked users for which the password change was not possible. If you receive this error, you must manually process passwords re-align user accounts.

---

# 2.2.2 Features

## Application Features 2.2.2

### Blocking Dissolving Companies with Open Assets

Ideally, dissolved companies are blocked in the system so that users cannot access and select them for transactions. Previous to 2.2.2, Maconomy did not allow users to block a company if it still had assets that were not fully depreciated. Since the dissolution of a company typically takes time, users often had to resort to various workarounds. For example, they could transfer those assets to another company, write off the assets, or use access levels to prevent other users from accessing the dissolved company.

As part of this enhancement, a company-specific system parameter is added. When this parameter is enabled, Maconomy allows users to block a company with open assets.

#### “How to” Section

##### Block a Company with Open Assets

To block a company with open assets, complete the following steps:

1. Navigate to **Setup » System Setup workspace » Parameters and Numbers tab » System Parameters sub-tab**.
2. Select the **Allow to Block Companies with Open Assets** system parameter from the filter list.  
This opens the Company Specific Values portion of the System Parameter panel.
3. In the **Company No.** field, enter the number of the company you want to block.
4. Select the **Allow to Block Companies with Open Assets** check box.
5. If needed, enter additional information in any of the **Remarks** fields.
6. Press ENTER to save your changes.

#### Setup Instructions

This enhancement is part of the standard system. No add-ons need to be enabled.

##### System Parameters

The “Allow to Block Companies with Open Assets” system parameter is enabled by the users as needed.

### Additional Selection Criteria for Exporting Data

When setting selection criteria for data export, Maconomy now allows you to specify the following:

- The executing company for a job entry
- The dimensions for finance and job entries

#### Setup Instructions

This enhancement is part of the standard system. No add-ons or system parameters need to be enabled.

## Enhanced Remarks Fields for Vendor Entries

Maconomy now allows users to enter additional information about vendor entries. They can enter this information in the **Remarks 1-5** fields, which were previously read-only.

### Setup Instructions

This enhancement is part of the standard system. No system parameters or add-ons need to be enabled.

## Updated Import Programs

Submission and approval are now possible in the following import programs:

- Vendors
- Company vendors
- Customers
- Company customers

## Re-Implement Authentication Between People Planner and Maconomy

A re-implementation of the authentication between People Planner and Maconomy supports the WSC login to People Planner via the Coupling service and renders People Planner content, such as Gantt Chart and MyPlan, using normal browser panes.

A new system parameter, URL for Planning Assistant, is added. Use this parameter to specify the URL to the People Planner planning assistant. When a URL is specified, the planning assistant is shown as an assistant to job budget lines in the pane Jobs » Budgeting » Budget » Time. The Planning Assistant is available in People Planner from version 3.6.

## Single Sign In Available with My Plan

Single Sign In (SSI) logon is now available with My Plan. Select the system parameter Enable Silent Sign In to enable the SSI authentication in My Plan. This change also requires People Planner version 3.6.

## Maconomy Integration with Talent Management

A new integration enables Maconomy customers to use Talent Management to manage recruitment and other HR processes while utilizing Maconomy for their ERP solution.



See the [Delttek Maconomy Integration with Talent Management Guide](#) for details on the integration, and the online help for fields / descriptions.

Following provides more detail on the underlying concepts around Country Mapping.

## Country Mapping Concepts

Maconomy has an open list of countries which you can add to at any time. For CPA and PSO solutions, this list may also contain the states of the countries. Talent Management has two lists: one for countries and the other for states. The states and the countries must be mapped to synchronize the Talent Management user with Maconomy employee.

## Maconomy Country Derivation

Maconomy derives a country when synchronizing Talent Management users with Maconomy employees. As first derivation, it uses country mappings created in Maconomy.

- By default it will use Country value if it is not empty and Name 5 value even if it is empty from country mapping (card pane).
- If a state mapping also exists, then it will use Country value if it is not empty and Name 5 value if it is not empty from state mapping (table pane).

If the mapping does not exist in Maconomy country mappings, then Maconomy will try to derive the mappings in this order:

1. Find a Maconomy country with the same country ISO code as a Talent Management country.
2. If the match is not found, find a Maconomy country with the same country name as a Talent Management country.

If the match is not found the synchronization will fail, because the country is a mandatory field on Maconomy employee.

## Creation of Country Mappings

The Maconomy employee uses two fields used for the country and the state: **Country** and **Name 5** fields.

- The **Country** field can represent a country or a state, and the **Name 5** field can represent a country or a state.
- You can create a mapping to specify which of these two fields to which you choose to map the Talent Management country and state.

A Talent Management Country ID must be entered and must map to either Maconomy Country or Maconomy Name 5 or to both fields. Once the country mapping is created, the state mappings for this country can be created. A Deltek Talent Management state id has to be entered. It has to be mapped to either Maconomy Country or Maconomy Name 5 or to both fields.

When you create a country mapping, Maconomy then imports related states automatically from Talent Management, loading all states for the current country. If the Talent Management country is mapped to a Maconomy Country, then Maconomy does not only create the state lines in the table, but it copies the Talent Management state name to Maconomy Name 5 field as the suggested mapping.



The fields mapped from Talent Management to Maconomy will be closed on employee. Thus the only way to update them will be in Talent Management.

## Updated Budget Time Parameter Attributes

Two job parameter attributes are updated.

- Budget Time by Employee
- Budget Time by Employee Category

The updates affect how actuals are matched against job budget lines when running job progress evaluation.

**Previous behavior:**

If these attributes were set to **No**, then Maconomy matched actuals to budget lines based on activity and task only.

- If *Budget Time by Employee* were set to **Yes**, then Maconomy matched based on activity, task, and employee.
- If *Budget Time by Employee Category* was set to **Yes**, then Maconomy matched based on activity, task, and employee category.
- If both were set to **Yes**, then Maconomy matched based on activity, task, employee, and employee category.

Enabling one of these attributes changed how duplicate budget lines were identified in the planning budget. Normally, in the planning budget, duplicate lines are not permitted, as there can only be one line with the same combination of activity and task.

However, if *Budget Time by Employee* was set to **Yes**, then Maconomy looked at activity, task, and employee when checking for duplicate lines.

If *Budget Time by Employee Category* was set to **Yes**, then Maconomy look at activity, task and employee category.

Another consequence of enabling these attributes is that employee (or employee category) is mandatory on the lines of the planning budget.

This last condition was found to be too restrictive, and updates were made in this parameter as follows.

**Updated behavior:**

You can now omit an employee (or employee category) on the budget line of the planning budget even if *Budget Time by Employee* or *Budget Time by Employee Category* is set to **Yes**.

For lines that do not have an employee (or employee category), Maconomy does not apply the duplicate check. Therefore, you can create many lines with the same combination of activity, task, and empty employee (or empty employee category).

The lines that have no employee (or employee category) are not updated with actuals when running job progress.

- If *Budget Time by Employee* is set to **Yes**, then Maconomy matches based on activity, task, and employee.
- If *Budget Time by Employee Category* is set to **Yes**, then Maconomy matches based on employee category.

**Approval Groups**

A new field, **Show Only Effective Approval Lines**, is added to the Approval Groups window to control whether the table part should only show effective approval lines or both effective and ineffective approval lines in the table.

By default the field is selected, meaning that only effective lines will be listed in the table.

## BPM 2.2.2 Features

### Pentaho 5.4 Certification

BPM is now certified for Pentaho Data Integration (PDI 5.4), the third-party tool that is used for data integration. The certification process ensures that customers can safely upgrade to the newer versions of Pentaho Data Integration. This also includes details of any additional setup that maybe necessary after installing the new version. With the newer version, customers will benefit from the bug-fixes implemented for version 5.4 (and previous versions); it also ensures continued support from Pentaho. Also, PDI 5.4 has been redesigned with more modern and intuitive user-interface with the possibility of creating custom icons.

---



See the *Delttek BPM Analysis Installation Guide* for updated instructions on installing Pentaho data integration tools as well as new instructions for optimizing servers with low memory (RAM).

---

## Touch

### Expense Sheet Functionality for Touch

To support updates to Touch functionality, changes were made to Maconomy's Time and Expenses workspace. New fields and actions were added to the following tabs:

- Expenses
- Mileage

These fields and action are not displayed by default, but the view can be customized to display them.



See the [Appendix](#) for field / descriptions.

---

## Technology Features 2.2.2

### Restricting User Capability to Edit Fields in Columns

Maconomy allows users to utilize the Column Chooser to add columns in the sub-tab of workspaces. To prevent users from adding fields and changing their values, the system administrator could create a custom layout to define which fields should be closed and non-editable for specific users. This process is time-consuming and unreliable, since some workspaces often have 200-300 fields and this number also changes frequently.

This enhancement allows the system administrator to quickly configure the system, such that any fields not part of the layout are closed by default. Even if employees choose to display closed fields using the Column Chooser, these fields are displayed as read-only.

#### Setup Instructions

This enhancement is part of the standard system. No add-ons or system parameters need to be enabled.

For the system administrator or consultant, you can edit the `globaldefinitions.mdml.xml` file so that all fields not in the layout are closed. Otherwise, you can perform setup for each workspace layout.

To quickly specify that fields not part of the layout should be closed, use the new “open” attribute and the new “isLayoutField()” function on a global level as follows:

```
<Global open="isFieldLayout()">
```

The new attribute specifies whether certain fields are open or editable. The new function determines if certain fields are initially available in the layout.

If a user adds a field to the layout using Column Chooser, that field is closed if it is not in the layout for that user.

The following MDML layout example uses both the “open” attribute and the new “isLayoutField()” function. The first three fields (“TaskName”, “Statistic1”, and “Statistic2”) are in the layout. The last field (“Description”) is mentioned as a comment. This field is not in the layout, but can be added via the Column Chooser.

```
<Table open="isLayoutField()">
  <Columns>
    <Field source="TaskName" />
    <Field source="Statistic1" />
    <Field source="Statistic2" />
    <!--<Field source="Description"/>--> <!--add via Columns Chooser-->
  </Columns>
</Table>
```

Whether the fields are open or closed by default is defined in the MDSL specification. To continue the example, you could use the following MDSL specification:

```
<Field name="TaskName" type="string" maxLength="255" title="Task Name"
  key="true" mandatory="true" create="true"/>
<Field name="Statistic1" type="string" maxLength="255"
  title="Statistics 1" create="true" update="true"/>
<Field name="Statistic2" type="string" maxLength="255"
  title="Statistics 2" create="true" update="true"/>
<Field name="Description" type="string" maxLength="255"
  title="Description" create="true" update="true"/>
```

Only the “TaskName” field is closed for edit by specification. The remaining fields are open by default (update=”true”, according to MDSL specification).

The “isLayoutField()” function is evaluated per field based on the preceding MDML layout. It defines whether each field will be open or closed, or if the default values will be applied.

For the example shown, the fields in the resulting workspace will have the following characteristics:

- The “Task Name” field is in the layout, so “isLayoutField()’ is initially evaluated as “true”. However, since the default value in the MDSL specifications is closed, this field is closed in the workspace.
- The “Statistic1” and “Statistic2” fields are both in the layout, and are both open in the specification. Therefore, both fields are open in the workspace.
- The “Description” field is not part of the layout. If you add it via the Column Chooser, “isLayoutField()” is evaluated as “false”, and this field is closed when shown in the workspace.

## Improved MDML Filtering Capabilities

When working with large data sets, such as GL or Job Entry transactions, you might trigger long-running queries. For instance, if you select the “All” filter option and view all transactions in GL, then that query can in the worst case take minutes to complete (if indices are not setup properly). If you decide to abort such a query, you may decide to close the workspace or perhaps even the entire WSC. This is a poor “solution” if metadata is enabled since the next time the WSC is started, it attempts to re-establish the last query by inspecting what was the last piece of metadata about this user. This means that you end up in the same situation you were trying to escape when aborting earlier.

To address this problem, we have introduced a set of filter syntax extensions. These extensions do not improve performance per se but strive to avoid the situation described above. Specifically, the new metadata attribute allows the MDML author to specify that certain filter options should not be stored in metadata, such as, do not store the “All” filter option. A more fine-grained level is provided with the sorting and filtering attributes which allow the MDML author to disable sorting and filtering on certain columns. This is particularly useful for non-indexed columns where operations such as filtering and/or changing the sort order can trigger very long running queries.

This feature consists of three attributes that are added to many of the existing MDML elements, detailed below. Customize your MDML layout as needed with the following attributes:

- **metadata** – Used to control whether metadata about user operations such as selecting a particular filter option is stored in metadata.
- **sorting** – Used for disabling sorting on column.
- **filtering** – Used for disabling filtering on column.

These attributes are expressions.

### Metadata

Set **metadata** to an expression that resolves to *false* to disable the use of metadata. With this restriction, metadata will not be used to store the state of selected user elements.

### Example

In the following example, we disable metadata for users who do not have a Sales role:

```
<Option metadata=" hasRole('Sales') ... />
```

Additionally, you can disable the restoration of the selected filter option and column sorting when reopening the workspace. This means that when the metadata attribute resolves to *false* for **<Option>** and **<Field>**, metadata is disabled. Specify this directly on the elements, or on the parent elements. Since child elements inherit values from the parent, if you disable elements in the parent, you must enable the selected child elements or disable only in the selected child elements .

Attribute **metadata** is available for:

- disabling storing filter option: <Layout>, <FilterPane>, <Filter>, <ControlBar>, <Selection>, <Option>
- disabling storing sorting: : <Layout>, <FilterPane>, <Filter>, <Columns>, <Scope> (in <Filter> and <Columns>), <Field> (in <Columns>), <UnitField> (in <Columns>)

Attribute name	Type	Usage
metadata	Expression (Boolean)	Controls if the metadata should be disabled for this element or children of this element.

## Sorting

Set **sortable** to *false* to disable sorting for the filter column.

- Use the **sortable** attribute on <Columns> (parent) to disable for all (child) columns
- Use the **sortable** attribute on <Field> or <UnitField>> to disable for a single column, or conversely, to enable a single column if it was disabled via the <Columns> specification.

## Example

In the following example, we disable sorting for all columns (sortable="false") and then enable it only on JobNumber column:

```
<Columns sortable="false">
...
<Field source="JobNumber" name="NotInvoicing_JobNumber" sortable="true" />
...
</Columns>
```

After you set **sortable** to *false*, clicking on a column header no longer initiates sorting, and now there is no action.



Currently, there are no indicators to let you know the sorting is disabled for a column.

Attribute **sortable** is available for: <Columns>, <Scope> (in <Columns>), <Field> (in <Columns>), <UnitField> (in <Columns>)

Attribute name	Type	Usage
sortable	Expression (Boolean)	Controls if sorting should be disabled for this element or children of this element.

## Filtering

Set **filterable** to *false* to disable filtering for the filter column.

- Use the **filterable** attribute on <Columns> (parent) to disable for all (child) columns
- Use the **filterable** restriction on <Field> or <UnitField>> to disable for a single column, or conversely, to enable a single column if it was disabled via the <Columns> specification.

### Example

In the following example, we disable filtering for all columns (filterable="false") and then enable it only on JobNumber column:

```
<Columns filterable ="false">
...
<Field source="JobNumber"    name="NotInvoicing_JobNumber"  filterable ="true" />
...
</Columns>
```



Disabled columns display a greyed filtering field so that the user cannot enter filter restriction.

Attribute **filterable** is available for: <Columns>, <Scope> (in <Columns>), <Field> (in <Columns>), <UnitField> (in <Columns>)

Attribute name	Type	Usage
filterable	Expression (Boolean)	Controls if filtering should be disabled for this element or children of this element.



See the *Deltek Maconomy Language Ref MDML Guide* for more information.

## RESTful Web Services Updates

TFS 500498 and 524367

RESTful web services is updated for API support and login support.



See the *Deltek Maconomy Web Services Programmers Guide* for details.

## New Function Added to M-Script

A new function is added to the MScript language: `strtruncatebytes(strVar, n)` where the string variable `strVar` is truncated after byte `n` or before, so that the resulting string is valid UTF-8, i.e. not truncated in the middle of a multibyte character.

## Maconomy Server

Previously, some POSIX signals would trigger a core dump and some would not. The behavior was non-configurable.

Now, one can set the environment variable `MACONOMY_FORCE_CORE_DUMP_ON_SIGNAL` to any value to force a core dump for all handled signals. Environment variables can either be set when invoking a command from a shell like this:

## Added Input File Charset Field to Standalone Programs

We added an input file charset field to standalone programs. The new field, **Input File Encoding**, is added to parameter dialogs for auto-generated import programs.

The encoding can be specified either in the new field or on the first line in the import file. Valid encodings can be found here:

<http://demo.icu-project.org/icu-bin/convexp>

Specifying in the import file must be done with a comment line (a leading tab), such as:

```
DefaultInputCharSet=iso-8859-5
```

Only some encodings, such as `ansi`, `iso-8859-15` and `utf-8`, can be specified in the file. `UCS-2/UTF-16` cannot be specified in the file. All supported encodings can be specified in the parameter dialog field.



In the Workspace Client, the field is not added to the layout for the import dialogs, but is available for customizations.

---

## 2.2.3 Features

## Application Features 2.2.3

### Remove Add-On Requirement for Job Charges Functionality

The Job Charges feature is part of standard functionality. You no longer need to install the Sales Orders add-on.

### Budget Enhancements

The following budget enhancements were made:

- Updates are made to ensure a better import of budget templates and all related relations. This includes import of the new Budget Specific Employee Categories and Budget Specific Distribution Keys.
- A new window **Budget Specific Employee Categories** is created. This window has Budget Employee Categories in the card part and lists all related Budget Specific Employee Categories in the table part. This is used as a building block in the Budget Templates workspace.
- New functionality is added to allow for specifying budget-specific employee categories. The Employee Categories section of the Budget Templates workspace has until this change made it possible to specify budget employee categories that would apply to employee being budgeted on all finance budgets made from this template.

With this change, a new table is available below the Budget Employee Categories table and allows for creating Budget Specific Employee Categories. For each of the lines in the new table, it is possible to specify the dimensions (with a range for each dimension) for which the individual budget specific employee category should be used.

When a user budgets on an employee on a finance budget, Maconomy looks up the budget-specific employee category table related to that employee and finds the first line (starting from the top) that matches the dimensions of the employee. If multiple lines match, then the first one (with the lowest line number) is used. If no lines match, the budget employee category from the first table in the Employee Categories section is used.

- A new window **Budget Specific Employee Category Details** is created. This window has Budget Specific Employee Categories in the card part and no table part. This is used as a building block in the Budget Templates workspace.
- A new window **Budget Allocation Keys** has been created. This window has Budget Templates in the card part and lists all allocation-related Distribution Keys in the table part (with Distribution Usage set to Allocation). This is used as a building block in the Budget Templates workspace.
- A new window **Budget Surcharge Keys** is created. This window has Budget Templates in the card part and lists all surcharge-related Distribution Keys in the table part (with Distribution Usage set to Surcharge). This is used as a building block in the Budget Templates workspace.
- A new window **Budget Distribution Keys** is created. This window has Budget Templates in the card part and lists all related Distribution Keys in the table part (both allocation and surcharge keys). This is used as a building block in the Budget Templates workspace.

- A new window **Budget Specific Distribution Key Details** is created. This window has Budget Specific Distribution Keys in the card part and no table part. This is used as a building block in the Budget Templates workspace.
- A new window **Budget Specific Distribution Keys** is created. This window has Distribution Keys in the card part and lists all related Budget Specific Distribution Keys in the table part. This is used as a building block in the Budget Templates workspace.
- New functionality is added to allow for specifying budget-specific distribution keys. The Distribution Keys section of the Budget Templates workspace has until this change made it possible to specify distribution keys that could be used on lines on finance budgets made from this template.

With this change, a new table is available below the Budget Distribution Keys table and allows for creating Budget Specific Distribution Keys. For each of the lines in the new table, it is possible to specify the dimensions (with a range for each dimension) for which the individual budget-specific distribution key should be used.

When a finance budget lines refers to a distribution key and the amounts periods on that line should be calculated by Maconomy, Maconomy looks up the budget-specific distribution key table and finds the first line (starting from the top) that matches the dimensions of the finance budget line. If multiple lines match, then the first one (with the lowest line number) is used. If no lines match, the distribution key from the first table in the Distribution Keys section is used.

- The Budget Templates workspace is updated to use the new Budget Specific Employee Category and Budget Specific Distribution Key-related windows. This change is made in the Employee Categories and Distribution Keys sections of the workspace.

Each section has two tables. The top one lists the non-budget-specific employee categories and distribution keys. The bottom table lists all budget-specific employee categories and distribution keys related to the entry selected in the topmost list.

For each of the tables, a card assistant is visible on the right showing the fields of the entry selected in the table.

- The window Budget Employee Category Details is removed and replaced by **Budget Specific Employee Categories**, which has Budget Employee Categories in the card part and the same layouts available.

## Performance and Filter Enhancements

Numerous performance and filter enhancements were made, including:

- To improve performance in the Vendor Invoices workspace, an index were added to support My Open Vendor Invoices and My Vendor Invoices options.
- To improve performance in approval group filters, an index was added to approval groups.
- Small performance improvements were made in the General Journal filter.
- Internal changes were made to improve performance in the Company Customers workspace.
- Small performance improvements were made in the Purchase Orders Filter.
- Small performance improvements when searching for Finance Entries.
- To improve performance in the Time & Expenses workspace, new filters were added or expenses and mileage.

These filters were added for expenses:

- My Open Expense Sheets
- All My Expense Sheets
- Open Expense Sheets
- All Expense Sheets

These filters were added for mileage:

- My Open Mileage Sheets
- All My Mileage Sheets
- Open Mileage Sheets
- All Mileage Sheets
- To improve the performance of expense sheets, two changes were made:
  - The calculation of vendor settlements status was optimized.
  - Blank vendor entries are now removed.

## Job Surcharges

### Deltek Tracking: 533884

This feature in Maconomy allows surcharges to be added at invoicing instead of, as now, at registration. Additionally, you can now apply job surcharges to invoicing on account.

This feature enables you to add charges to job invoices, and calculate these charges as a percentage of the total billing price or the fee, with the percentage depending on the job. Additionally, you can apply charges to both T&M and on account invoices.

Previously in Maconomy, while there were two forms of charges, Job Charges and Job Surcharges, neither of these offered this new flexibility.

You can now set up jobs to use job surcharge at invoicing. With this setup, job surcharges are not added when posting to the job, but can instead be added during invoicing.

Choose an action which calculates surcharge based on the current invoice selection. The calculation is based on the existing setup (meaning, the job surcharge rule specified on the job). This calculation of surcharge results in a surcharge placed on new entries (job entries or on account entries). You can now also inspect and modify the surcharges before approving the invoice selection. The action can be applied repeatedly each time recalculating the surcharges based on the current job setup.

## New Feature Summary

Following are the capabilities of the feature, and what it enables you to do in Maconomy.

- **Add charges to job invoices.** These charges are calculated as a percentage of the billing price for the time or amount related activities.
- **Apply different charge percentages to job entries depending on their entry date.** For example, you can add a 2% charge on entries for last year and 3% charge on entries for this year.
- **Change the charge setup** on a job at any time. The newly chosen charges then apply to new invoices. In particular, the charges on a T&M invoice are calculated based on the current choice of charges independent of the setup at the time the entries were posted to the job.
- **Add charges to invoices on account according to the on account entry task/activity dimensions.**
- **Reconcile charges on account as part of the amount**, rather than as a separate reconciliation.
- **Apply different charges to the different jobs** on a blanket invoice.
- **Apply the exact charges to the credit memo** as the invoice when an invoice with charges is credited (independently of the setup of charges at the time of crediting).

## New Feature Details

### Job Surcharge for Invoicing on Account

You can now set up jobs to apply a job surcharge to invoices on account. This requires that the job is set up to use activities for invoicing on account. The surcharge is calculated based on the specified Job Surcharge Rule in the same way as for T&M invoicing.

The surcharge is added as new lines in the window On Account Invoice Selection. These lines appear below the “regular” (non-surcharge) lines. In particular, the surcharge becomes part of the amount net on account on the job and therefore part of the subsequent on account reconciliation.

### Job Surcharge by Activity Type and Entry Date

Previously, you could set up job surcharges for different ranges of activity numbers and ranges of G/L dimensions. This functionality is extended so that you can set up job surcharges by activity type (such as Time or Amount) and entry date (a range). For example, you can specify a surcharge as a certain percentage to be applied to time activities before a certain date, and another percentage after that date.

For invoicing on account, date ranges in the surcharge rule are applied to the preferred invoice date if specified and otherwise for the current date. For job budgets, the date range is applied to the current date.

### Standard Task for Job Surcharge

You can specify a task on the lines in a job surcharge rule. This is not always ideal, as the rule may apply to any number of jobs that may not all have the given task. For this reason, you can now specify a standard task for a job surcharge on task lists (both for a job-specific task list as well as system-wide task lists).

### Reconciling Surcharge

Surcharges are not treated distinctively after invoicing. They are entries requiring payment/reconciliation like any other on account entry or job entry, unlike VAT amounts, which are shown separately on invoices and must be reconciled separately against other VAT amounts of same VAT code.

### Add Errors or Warnings

You can set up job surcharges to show an error, a warning, or nothing at all if an invoice is approved without adding surcharges for a job that is set up to use surcharges.

For example, a user might approve an invoice selection without having added surcharge for a job which is set up to use surcharge. If there is no rule that the job must apply surcharges then this *could* be deliberate. Otherwise it would be an error. To address this, you can now specify how Maconomy should handle the case that you approve an invoice selection without surcharge for a job which is set up to use surcharge. The four options will be:

1. Ignore this, meaning allow this to happen with no feedback to the user.
2. Give the warning message that the invoice selection has no surcharge, which the user may choose to ignore and continue the process.
3. Stop the user and process with an error message.
4. Calculate the surcharge automatically as part of approving the invoice selection.

You can also specify this independently for T&M invoicing, On Account invoicing and job budgeting.

### Dimensions on Job Surcharge

Dimensions on job surcharges can be set up to accommodate surcharges at registration, or at invoicing.

## Surcharges at Registration

You can add job surcharges at the point of registration (meaning when posting to jobs). The surcharge calculated for a job entry is either added to the entry itself or to a new job entry that then only carries the surcharge. This depends on the dimensions derived from the surcharge rule line as follows:

- The dimensions for the surcharge are found by first taking the dimensions of the job entry, for which we calculate surcharge, and then overwriting any dimensions that are specified on the surcharge rule line.
- If any of the resulting dimensions differ from those of the entry itself, then a new entry is created. Otherwise, the surcharge is added to the entry itself.

(Note: This is existing functionality.)

## Surcharges at Invoicing

For surcharge at invoicing, the surcharge is always added via a new job entry (or on account entry). The dimensions on this new entry are found in one of two ways, depending on the setup of the job, either:

- A. By first taking the dimensions from the job entry (or on account entry).  
Overwrite by the dimensions specified on the surcharge rule line (if any).  
Overwrite by the standard task for surcharge (if any).
- B. By first taking the dimensions specified on the surcharge rule line.  
Overwrite by the standard task for surcharge (if any).

The first method (A) for dimension calculation behaves as in previous versions of Maconomy if a standard task for surcharge is not selected on the job task list.

The second method (B) is **only applicable** if the job is set up for surcharge *at invoicing*. The method will obviously not lead to the same result as (A), but notice as the dimension fields on the job surcharge line do not include all dimensions (the setup may leave a number of dimension values blank and particularly the local specification 1-3 are not available) then missing dimension values are derived. This process **does not accept** (error message) illegal job dimension combinations for the job, such as a task name that is not already on the jobs task list or a missing activity number (for example, a task does not derive an activity number and no activity number is explicit from surcharge rule line).

When a job is set up to use job surcharge at invoicing, Maconomy will make an aggregation to add the surcharge using as few entries as possible. To take a simple example: suppose the surcharge rule specifies a 3% surcharge on all time activities. With setup (B) above, this will give rise to one single job entry for the surcharge with a billing price found as 3% of the total billing price for invoicing on the time related activities. With setup (A), the number of surcharge entries will depend on the number of different combinations of dimensions on the entries for invoicing as well as the dimensions on the surcharge rule lines.

## Blanket Invoicing

For jobs set up to be blanket invoiced, the surcharge at invoicing is added to each job separately and is shown for each job on the invoice. Notice the action in Blanket Invoice Selection and Surcharging follow each job's surcharge setup on its entries respectively, thus the setup may differ for each job though included on the same blanket invoice.

## Main Job Invoice Selection

Surcharge at invoicing on jobs with main job invoicing and *main job invoice selection* is calculated as follows: The surcharge is placed on the main job and it is calculated on the basis of all the included jobs (the main job and included sub jobs).

Notice that the job parameter selection on the main job solely decides the surcharge calculation upon invoicing when main job invoice selection is selected. Contrary to this, if job budgets are prepared on the sub jobs, then calculation of surcharge job budget lines follow the setup of the sub job.

- Main job invoice selection — follows the main job surcharge setup because you apply surcharge and approve the invoice selection entirely on the main job.
- Main job invoicing — follows each job's surcharge setup because you apply surcharge and approve on the invoice selection parts on each sub job.

## Multiple Drafts

You can change a job surcharge rule on a job set up to apply surcharge at invoicing also when there are draft invoices on the job. For jobs that are set up to allow multiple drafts, this means that the drafts may apply different job surcharge rules, and you can change the job surcharge setup in between draft approvals.

## Crediting of Invoices

When you credit an invoice with surcharges (such as, apply the action "Invoice to Credit Memo"), the invoice selection includes the surcharges of the invoice being credited. Maconomy therefore does not allow calculation of surcharges in this case.

## Show Markup Separately

Existing functionality allows you to show markup on separate lines on the invoice and having lines representing actual entries show the normal billing price as before write up.

A surcharge entry as such is pure markup, but surcharge is not shown separately like other markup when this existing functionality is used.

You may possibly show surcharge on a separate line anyway, for example, by detailing the invoice specification by task and having a dedicated task for surcharge.

## Show Write Down Separately

Existing functionality allows you to show write down on separate lines on the invoice and having lines representing actual entries show the normal billing price as before write down.

A surcharge entry for a negative surcharge (a discount) as such is pure write down, but surcharge is not shown separately like other write down when this existing functionality is used.

You may possibly show surcharge on a separate line anyway, for example, by detailing the invoice specification by task and having a dedicated task for surcharge.

## Invoice at Job Closing

It is possible to set up a job so that Maconomy produces an invoice when the job is closed. This is typically used on fixed price jobs where the fixed price is invoiced via invoicing on account and this closing invoice reconciles the invoices on account against WIP.

Job surcharges at invoicing will **not** be calculated for the closing invoice.

## Setup Instructions

To set up Job Surcharges, you must do the following:

- Job Parameter Surcharge Setup
- Set up errors or warnings
- Set up Job Surcharge Rule.
- Set up Activity Number
- Show Surcharge field in the window

### Job Parameter Surcharge Setup

New “surcharges” parameters allow you to select between adding surcharges at invoicing (new functionality) and adding surcharges at registration (previous functionality).

A new **Surcharges** job parameter type is introduced. It includes the following attributes:

- **Action on Missing Surcharges, Budget** — Select [blank], Warn, Stop, or Calculate, as follows:
  - [blank] — If the value is left blank, then the user is not given any message upon forgotten surcharge calculation when approving the selection.
  - **Warn** — (Warning) Select this option so that the user receives a warning but can continue processing.
  - **Stop**— (Error) Select this option so that the user receives an error, and cannot go forward until the error is resolved.
  - **Calculate**— (None) Select this option so the user receives no message, but surcharges are AUTOMATICALLY calculated when the user APPROVES the selection (if the user did not already perform the surcharge calculation before approval).
- **Action on Missing Surcharges, On Account** — Select [blank], Warn, Stop, or Calculate, as described above.
- **Action on Missing Surcharges, T&M** — Select [blank], Warn, Stop, or Calculate, as described above.
- **Apply Surcharges at Invoicing, On Account** — Select Yes or No to indicate whether or not users are able to apply surcharges at invoicing for On Account invoices.
- **Apply Surcharges at Invoicing, T&M** — Select Yes or No to indicate whether or not users are able to apply surcharges at invoicing for T&M invoices.
- **Keep Dimensions on Surcharges** — Select Yes to indicate that the surcharge entry will get the "same" dimensions as the entry for which it charges. Select No to indicate that the surcharge entry gets (likely incomplete) dimensions from the surcharge rule line. This prompts the deriving of remaining dimension values in order to complete dimensions on the surcharge entry.

Notice a standard job parameter of this type is available. Choose **Surcharges, Standard** to not turn on any new functionality.

**To set up job parameters:**

- **Back office manager** — Creates a new job parameter of the type Surcharges with appropriate values in the attributes (as described above), and then names this job parameter.

- **Project managers** — Create jobs and select the named job parameter among one or more premade job parameter of that type.

## Set Up Job Surcharge Rules

You may set up your surcharge rule so that surcharge entries receive a dimension combination different from normal registrations and thus the surcharges will appear on a separate (but normal) line on the invoice.

**To set up Job Surcharge Rules, follow these steps.**

1. Go to **Job Cost Setup » Pricing » Surcharge Rules**.
2. In the Surcharge Rules tab, enter a Name for the rule, and a Description.
3. Select the Show Lines check box to be able to create a line in the Rules sub-tab.
4. In the Rules sub-tab, on the Surcharge line, set surcharge margins by different fields as needed, such as Entry Dates and Activity Type.

**To apply the Job Surcharge Rule to a job setup, follow these steps:**

1. Next, go into **Jobs » Job List**, and select a job(s).
2. Go to **Jobs » Home » Prices**. In the Job Surcharge Rule field, select the name of the Job Surcharge Rule to apply.

**To apply the Job Surcharge Rule to actual registration in (on account) invoice selection:**

1. Go to **Jobs » Invoicing » Invoicing on Account**.
2. On the Specification sub-tab, enter information for the fields **Billing Price, Inv. Currency** and **Task** and / or **Activity No.**
3. Click **More Actions** then select **Calculate Job Surcharge**. The job surcharges displays as a new line on the Specifications sub-tab, with the designated percentage.

## Set Up Task List

Set up a standard task that could derive an activity or the surcharge so that it is posted appropriately.

**To set up a standard task:**

1. Go to **Jobs » Home » Tasks**.
2. In the **Surcharge** field, select the task to use as standard Surcharge task.

## Set Up Surcharge on Price List

Set up the surcharge is set up at the job level on the price list.

1. Go to **Jobs » Home » Prices**.
2. In the **Job Surcharge Rule** field, search and select the appropriate job surcharge rule.

## “How to” Section

This section details specific procedures to use with the job surcharges feature, plus a sample workflow to get you started.

### Sample Workflow

1. Create a Job Surcharge Rule.
2. Create a job that uses this Job Surcharge Rule.
3. Select job parameters for Invoice on Account and Surcharges.
  - a. Click **Jobs » Setup » Parameter Selections**, and in the Parameter Type column, select **Surcharges**.
  - b. Select from the prepared and named job parameters of the type.
4. Add the surcharge task.
5. Add the surcharge rule to the job price list.
6. Prepare an Invoice on Account (IOA) with some activity.
7. Add surcharges to this IOA, approve, and print.
8. Register some actuals.
9. Prepare invoice selection on this.
10. Adds surcharges to this invoice of WIP, approve, and print.
 

Note that the IOA reconciliation does not specially consider surcharges.
11. Credit the invoice of WIP.
 

Note that exactly the same amounts (WIP and surcharges) are credited.

### Add Surcharges to On Account Invoices

1. Go to **Jobs » Invoicing » Invoice On Account**.
2. On the Specification sub-tab, in the **Task** field, select an appropriate task for your invoicing on account entry.
3. In the **Billing Price, Inv. Currency** field, enter the appropriate monetary amount.
4. On the Invoice On Account tab, click **More Actions » Calculate Invoice Surcharge**.
5. Click **Approve for Invoicing on Account**.
6. Click **Print Draft**.
7. Review the draft and confirm surcharges and other amounts.
8. Click **Print Invoice**.

### Register Actuals on Activities

WIP is generally registered through time, expense sheets, and / or vendor invoices.

1. Go to **Jobs » Invoicing » Invoice Selection**.
2. Include/exclude and write up/down WIP as necessary in order to prepare the invoice selection for next invoicing.

3. Click **More Actions » Calculate Invoice Surcharge**. The surcharge amount displays as a line on the Selection, Billing Prices sub-tab.
4. On the Invoice Selection tab, click **Approve Invoice Selection**.
5. Continue with invoice preparation as needed, and either print or prepare a new invoice selection.

### Issue a Credit Memo on a Surcharge

1. Go to **Jobs » Invoicing » Invoice Selection**, and click **More Actions » Invoice to Credit Memo**.
2. In the Invoice to Credit Memo dialog, in the **From Invoice No.** field, select the appropriate number and click **OK**.
3. Select the **Restore Job Entries** check box and click **Invoice to Credit Memo**. The invoice now displays in the Status island.
4. Click **More Actions » Approve Credit Memo Selection**. On the Draft Invoices tab, note that the surcharge is also credited.
5. On the Invoice Editing sub-tab, click **Other Actions » Print Credit Memo**. Note that on the Selection, Billing Prices sub-tab, previous WIP entries are restored and the surcharge is annulled (as they were pure markup with no registered quantity).

### Apply Charge Percentages Based on Dates

To apply different charge percentages for different entry dates, follow these steps:

1. Go to **Job Cost Setup » Pricing » Surcharge Rules**.
2. In the Rules sub-tab, on the selected surcharge line, update the dates in the **Entry Date From** and **Entry Date To** fields as needed.

### Add / Change Surcharges by Invoice

To add or change charges to invoices on account, follow these steps:

1. Go to **Jobs » Invoicing » Invoicing on Account**.
2. On the Specification sub-tab, Surcharge line, change the amount charged in the **Billing Price, Inv. Currency** field, as needed.

## Technology Features 2.2.3

### Ability to Cancel Long-Running Database Queries

Deltak Tracking: 537042

Occasionally Users kick off large, long running queries in the database either by mistake, or without realizing that they have not entered sufficient restrictions to limit a filter or search for example. In such an example, the User may get frustrated by waiting for the system to respond, and begin to run additional searches. Each of these continues to run on the server adversely impacting performance by consuming server resources, regardless of whether the User no longer requires the result of the query to be returned. It has not previously been possible for the User or for the System to monitor and potentially close off these unwanted queries.

We are addressing the issue with two new options: All individual database queries are now monitored by a system timer and will automatically be cancelled in the background by the system if they run for longer than a pre-configured timeout value. The default value of this timeout is 5 minutes and this will be active regardless of the interface the User is using to access Maconomy, so will be enforced against queries stemming from the Workspace Client, iAccess and Touch.

In addition to this, within the Workspace Client only, a progress indicator with a cancel button will be shown whenever a database query has been running for longer than a given timeout value. This allows the user to decide at any given point if they want to cancel a long-running database request. The default value of the initial timeout is 2 seconds.

#### Default Database Query Timeout

The default database query timeout might interfere with Maconomy Analyzer report queries which are expected to run for more than 5 minutes. In you are using such Analyzer reports you can increase the database query timeout with the following setting in 'MaconomyCustom.ini':

```
[ServerConfig]
```

```
DB_Cancellation_DefaultTimeout = <timeout-in-seconds>
```

It is not currently possible to specify different timeout defaults for different query types (i.e. search or filtering queries compared to queries stemming from an Analyzer).

## Performance Enhancements in Search

### Deltek Tracking: 563039

Many workspaces feature a top-level filter as the root panel. This filter is used as a starting point when the user drills down into the workspace. When the workspace is opened, an automatic search is initiated in this filter and the result feeds data to the visible panels below. The initial search restriction is decided by the MDML author who can choose a default, pre-defined search restriction, such as a radio button. If metadata is enabled, the Workspace Client will, however, try to restore the last search that the user initiated.

Although this is aimed at giving the User a positive User experience there are cases (particularly for large databases, or where indexes are not correctly configured) where using such default restrictions results in a significant load time for the workspace due to a performance-heavy search. To resolve this issue, we have updated the functionality so that you can now specify that a workspace should open with no automatic search performed, and instead the User should enter restrictions in the filter manually. This allows users to initiate the search based on much more refined restrictions, avoiding the creation of a broader performance-heavy search.

Numerous enhancements are made to improve Search functionality, including:

- MWSL manualSearch attribute
- ODL/DDL manualSearch attribute
- Manual Search as default in advanced search windows
- Search button presence for manual search
- Ability to disable Search altogether
- Revised end-user preferences

### MWSL manualSearch Attribute

A new MWSL manualSearch attribute enables you to specify the top level filters as manual, so that the user has to explicitly invoke the search (either by pressing Enter in the search restriction line or clicking the Search button). This new attribute is not added to the standard workspaces, but is facilitated via a layout extension per customer per workspace when performance issues are experienced.

To enable this feature, use the MWSL boolean attribute **manualSearch** on the <Filter> tag. This attribute evaluates top-level filters (as opposed to deep path filters). The default for this attribute is false. This means that searches starts automatically as they do today. It also means that all string fields use a wildcard search (according to the end-user's preferences). ). In other words, nothing has changed by default, but this is a powerful to use when performance tuning.

If the attribute, on the other hand, is set to True then searches do not start automatically, and the default search mode becomes exact match rather than wildcard-based. Thus, when the MWSL author declares that a certain workspace is expensive, the user can then specify search restrictions with greater care and manually decide when it is the right time to start the search.



Although all string fields change to exact match, you can still start a wildcard search by manually entering a star-character as part of the search term.

We have added support of operators:

`>`, `<`, `>=`, `<=`, `<>`

### and the range operator ...

The string field also reacts in manual search mode, changing from exact match to enable the use of those operators.

For example, you can search the Project Manager Name using `>=D` to get names starting from D,E, and so on, but not including A,B, or C.

The following MWSL disables automatic search for a given workspace:

```
<?xml version="1.0" encoding="UTF-8"?>
<MWSL xmlns="http://www.deltek.com/ns/mwsl" version="0.23">
  <Workspace name="Jobs" title="Jobs">
    <Filter name="Jobs_Filter" source="Jobs" title="Job List" view="JobHome"
    manualSearch="true">
      <Formation>...
```

Manual search is a default in the advanced search windows, by using Ctrl+G.

End users click the Ctrl+G shortcut from various places in the Workspace Client to bring up an advanced search interface.

## Search Button On Manual Search

A new Search button in top-level filters and in advanced search windows is available. It can be both enabled and disabled to indicate whether the filter data is in sync with the current restriction. If the WSC considers the data out of sync with the current restriction, then the button is enabled. Otherwise, it is disabled. If automatic search is enabled, the Search button is not present, to prevent user confusion.

When the new Search button is enabled, the Enter key also triggers a search if the focus is in the search restriction row.

## Revised End-User Preferences

The previous end-user preference page on Search in the Workspace Client has an option called Delimit text searches by which the two possible values are *Matching prefixes* (the default) and *Matching anywhere*. These options correspond to what we have called prefix search and infix search. This preference is now removed. The default search option for automatic search filters is prefix, and for non-automatic search filters it is exact match. We introduce a boolean preference on the same preference page where the end-user can turn on automatic search for all top level filters and Ctrl+G searches. This preference can be used to enable automatic search even in filters where the specification states that **manualSearch** is enabled and force automatic search in all Ctrl+G searches.



It is not possible to administer or otherwise restrict the default preferences for users. Training should be provided to users to ensure they understand the impact of these options, especially on a system where performance is seen to be impacted.

## Bind Variables for Queries

### Deltek Tracking: 563048

You can now use bind variables whenever it makes sense, such as for filter queries and notification queries.

The Maconomy Server for Oracle is enhanced with new functionality to use Oracle to "bind" variables when executing SQL for Analyzer reports, filters, value pickers and notifications in the Workspace Client and notifications in the Java Web Start client.

This functionality is disabled by default.

### Enable Bind Functionality

#### To enable the bind variable functionality:

1. Add the following option to Maconomy(Custom).ini file(s):  
`MqlBindVariables="true" | "false" (default is "false")`

When enabled, the Maconomy Server for Oracle uses Oracle "bind" variables to increase the chance of any given SQL generated by a query will be cached and reused, since the particular constants of queries are no longer part of the generated SQL script.

#### To test the effect of enabling this option:

1. Turn on debugging in the Maconomy Server using the "-d" option in the .I file for the server.
2. Add the following test masks to the TestMasks file:  
`21 1`  
`22 1`  
`24 1`

This enables logging of the generated SQL by the Maconomy Server.

3. To see the SQL SELECT statement, look in the XMQL<xyz> and ROE<xyz> in the .../maconomy/tmp/... folder.
4. In the log files, search for the string "for oracle" to see the SQL.



The :1, :2, :3 (and so on) are the bind variables in the generated SQL. Below the generated SQL is the list of the values for the bind variables for the particular query.

### Rules for Creating Bind Variables

A few rules apply to the creation of bind variables, as follows:

1. Any constant has its own bind variable, that is: two or more equal constants are not merged into one bind variable. This ensure that accidental similarities do not result in SQL generated that differ from when the same "constants" differ.
2. Bind variables are only created for strings that are not null.
3. Bind variables are always created for numbers.
4. Bind variables are never created for booleans.
5. Bind variables are only created for date/times that are not null.

6. Bind variables are only created for popup values that are not null (except if configured otherwise).

### Modify the Rules

The rules above can be modified using the following options.

- **MqIBindVariablesOnlyForParameters** — This option restricts the use of bind variables to "parameters" in queries.
- **MqIBindVariablesOnlyForPopupsLargerThan** — This option restricts the use of bind variables to popup value types that have more than the specified number of popup values. This can be sometimes be an advantage because popup value types that have a low number of literals are usually "important" in the sense that including the actual popup value's in the generated SQL allows Oracle to make certain important optimizations.

#### To modify the rules:

1. Use the following options:
  - MqIBindVariablesOnlyForParameters="true" | "false" (default is "false")
  - MqIBindVariablesOnlyForPopupsLargerThan=<number> (default is 5)



The default has changed from -1 to 5 in Maconomy 2.2.3.

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## SQL “Hints” in MQL

### Deltek Tracking: 561992

The Maconomy Server for Oracle is enhanced with new functionality to use query-specific Oracle "hints" when executing SQL for Analyzer reports, filters, value pickers and notifications in the Workspace Client and notifications in the Java Web Start client.

The new functionality is always "on," as it is triggered if the Maconomy Server for Oracle detects a query against a given Universe that matches one or more query "patterns" defined by the customer. If a match is detected, any number of SQL SELECTs in the generated SQL can be embellished with Oracle "hints" defined by the customer.

Maconomy system are not released containing any query patterns , so Oracle "hints" must be added manually to the generated SQL.

### Add Hints

#### To add a “hint” to a query:

1. Create a file for the Universe for the query, naming it with the name of the Universe.
2. Put the file in the folder:

.../MaconomyDir/AnalyzeHints/...

For example, if the Universe is named "A\_\_\_:UA::FINANCEENTRIESVI" (for the "G/L Entries" Analyzer report), then the Maconomy Server will look for a file named:

"../MaconomyDir/AnalyzeHints/A\_\_\_UA\_\_FINANCEENTRIESVI.ini"

In other words: ":"s are replaced by "\_"s and ".ini" is appended to generate the file name.

3. In this file you can specify a query pattern, which is one or more Oracle "hints" to apply to one or more SQL SELECTs if the query pattern matches.

### Specifications

The specification consists of the following:

1. A option that specifies the query pattern
2. One or more options that specifies the Oracle "hint" to which the options are applied

#### Option that Specifies Query Pattern

For an option to specifies the query pattern, the option must be named in the following format:

like: "MQLHINTKEY.<suffix>"

where "<suffix>" is some short string not including the "." character, such as "MQLHINTKEY.0" or "MQLHINTKEY.a".

The value of this option must be a valid MQL query, formatted across several lines.

#### For example:

```
MQLHINTKEY.0=<MQL Version=1.6>\
<Query Universe=NotificationType>\
<Restriction>\
<SubExpression>\
```

```

    <FunctionExpression Name=Eq>\
      <FieldExpression Name=NotificationType>\
        <Constant Value='ApproveUserInformation'>\
      <End FunctionExpression>\
    <End SubExpression>\
  <End Restriction>\
<Cursor>\
  <Field Name=internalrelationname>\
  <End Field>\
  <Field Name=notificationtype>\
  <End Field>\
<End Cursor>\
<End Query>

```

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Note the use of the "\" character as a "line continuation" character.



## Specify the Oracle "Hint"

One or more options that specifies the Oracle "hint" to which the options are applied include one or more SQL SELECTs in the generated SQL.

The options must be in the following format:

```
"MQLHINTVALUE.<suffix>.<number>"
```

where "<suffix>" must match another "MQLHINTKEY.<suffix>" option. The "<suffix>" match ties the options together.

and where "<number>" of the "MQLHINTVALUE.<suffix>.<number>" specifies to which SQL SELECT in the generated SQL the Oracle "hint" is applied.

## Tips on Creating Hints

### Notes on Formatting

- The "<number>" of the SQL SELECT's starts at -2 or 0 and counts up from there.
- If a SQL SELECT is numbered using a negative number, then the SQL SELECT is considered part of SQL not generated from the query but because of other, functionalities, such as ROWNUM optimization.
- The SQL SELECT numbered 0 is always the first SQL SELECT generated from the query. So references to the SQL SELECTs generated from the query are "stable," whereas the SQL SELECT generated from other functionalities can disappear depending on the particular request parameters of a query.

For example, a set of Oracle "hints" corresponding to the "MQLHINTKEY.0" above could be:

```
MQLHINTVALUE.0.-2=Hint for outermost SQL SELECT
```

MQLHINTVALUE.0.0=Hint for query SQL SELECT

To aid in the development of Oracle "hints" add the following two options to the Maconomy(Custom).ini file(s):

MqlHintsCache=false

MqlSelectNoComments=true

### Disabling Cache

Disabling the cache makes it easier to develop "hints." Use the "MqlHintsCache" option to disable the Maconomy Server cache of the files in the "AnalyzeHints" folder. This make it easier to develop Oracle "hints" files, as the Maconomy Server rereads the files in the "AnalyzeHints" folder every time it applies an Oracle hint. If you disable the cache, there is no need to restart the Maconomy Server after every change to a file in the "AnalyzeHints" folder.

### Enabling SQL SELECT Numbers

Enable the SQL SELECT numbers to make it easier to add a helpful comment. Use the "MqlSelectNoComments" option to enable the Maconomy Server to add a small helpful comment `"/<number> */` to each SQL SELECT in the generated SQL that shows the SQL SELECT number.

This makes it easier to find out what the number of the particular SQL SELECTs are that have Oracle hints applied.

#### For example:

SQL for Oracle :

```
-----
SELECT /* -2 */ *
FROM (SELECT /* -1 */ AXXXXXXXXXXXXXXXXXXXXXZ, ROWNUM
ROWNOXXXXXXXXXXXXXXXXXXXXX
FROM (
SELECT /* 0 */ R1.F1 AS ACCESSLEVELNAME,
R1.F3 AS APPROVALPROJECTMANAGER,
R1.F5 AS APPROVEDFORINVOICEEDITING,
R1.F7 AS APPRPROJECTMANAGEREXPENSES,
R1.F9 AS BASECURRENCY,
R1.F11 AS BUDGETBILLINGPRICEBASE,
R1.F13 AS BUDGETCOSTPRICE,
R1.F15 AS CLOSED,
R1.F17 AS CURRENCY,
R1.F19 AS CURRENTBUDGETTYPE,
R1.F21 AS FIXEDPRICECURRENCY,
```



Only use the "MqIHintsCache" and "MqlSelectNoComments" during development, and do *not* use these options on a production system.

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## View Generated SQL

Use the following options while developing.

### To see the generated SQL:

1. Turn on debugging in the Maconomy Server using the "-d" option in the .I file for the server.
2. Add the test masks to the TestMasks file:  
21 1  
22 1  
24 1

This enables logging of the generated SQL by the Maconomy Server.

3. To see the SQL look in the XMQL<xyz> and ROE<xyz> files in the .../maconomy/tmp/... folder.
- 



Use this option only during development.

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## Named Users for Individual Shortnames

### **Deltek Tracking: 393478**

By default the license for the Number of Named Users for a Maconomy application is defined by the Installation Number of the application. Maconomy 2.2.3 introduces the option of having specific licenses for the Number of Named Users for individual shortnames of an application.

Acquire a license key for a shortname from Deltek Distribution, and install it by starting a Maconomy client (Java Client or Workspace Client) and entering the key in the dialog Installation Information in the **Named Users Code** field. No restart of Web Daemons or Coupling Services is necessary.

## BPM 2.2.3 Features

### BPM Upgrade to BI 4.1

**BPM is upgrading from SAP BO 3.1 to SAP BI 4.1.** This upgrade provides numerous benefits, including reporting enhancements, usability features, and mobile capacity.

Additionally, the previous four parts of BPM (Reporting, Analysis, Dashboards, and Live Office) are now consolidated into two:

- DM Reporting
- DM Analysis

Maconomy Live Office (now called Office Integration) will now move into the standard reporting offering and will no longer be a separate product with a separate charge. Also, Reporting now has standard Mobile capability. Finally, Analytics and Dashboards combine into one product and called Maconomy Analysis.



CPA Solution is remaining at BO 3.1 at this time and will move to BI 4.x at a later time.

### DM Reporting

Deltek Maconomy Reporting with \*BI 4.1 delivers a reporting environment designed for simplicity, responsive performance, best practice reports, and flexibility to use on a mobile device.

- Intuitive, systematized new charts and graphs
- Graphs completely redesigned with flexibility to choose colors, fonts and background
- Scatter Bubble, Polar Bubble, Dual Axes Charts, Heat Maps, 3D Pie Charts Box Plots, Series Pie Charts, Tag Cloud and Waterfall charts

### Chart and Graph Features

- Ability to assign a predefined color pallet or create a custom pallet
- Shadows and lightning effects, and different axis values and line width
- Flexibility to drill down, up, or by charts

### Table Features

- Customize the color pallet for rows, columns, and cellx
- Ability to Freeze rows and columns in tables

### Improved User Experience

- Notification before expiring session and refresh by simple click
- Launch pad enables users to access:
  - My recently viewed documents
  - Unread messages in the inbox
  - My recently run documents

- Enhanced Performance and Utilization
  - 64 bit provides options for enhanced performance and utilization of modern hardware and memory
  - System Configuration Wizard for quicker and better configuration of BI platform
  - Customization of WebI user interface elements based on user groups and folders
  - The ability to kill user sessions

## Cascading Style Sheets

- Better control, greater flexibility with Cascading Style Sheets (CSS)
- Define specific layout in one place, and all your reports are updated automatically
- Flexibility to select different styles for the various groups in your firm (management, staff, sales etc.)
- Update your firm branding across all report documents in a matter of minutes

## Customized Reporting

- Flexibility in customizing reports
- Hide columns and other report elements
- Reports can be easily published to Mobile devices
- Requires Business Objects Mobile BI Server
- Linking within a report, helps deal with reports on smaller devices and precious screen real-estate

## Mobile

- Utilization chart and drill-down reports available on a mobile device
- View the Utilization Pie Charts on a mobile device over a given period of time
- View Utilization Column and Line Charts on a mobile device
- Drill Up / Down in the Utilization Chart report on a mobile device

## DM Analysis

### Design Studio and SAP Lumira

A Deltek Maconomy Analysis license provide access to two additional SAP products: Design Studio and SAP Lumira.

#### Design Studio

- Dashboards are data-visualizations, but crafted by IT (or report developers)
- Dashboards are also pre-defined; designed to answer a set of specific, on-going business questions consistently raised by your managers and other staff
  - Fully HTML-5 based and Mobile ready

- For BI content developers
- Large set of design components
- Themes and customization
- Scripting – trigger multiple event on one action, control drill down
- WYSIWYG (embedded runtime to enable what you see is what you get)
- Pixel-exact layouts
- Dynamic layouts via docking position
- Proportional grid layouts
- Pre-delivered templates to enable rapid implementation
- Comfortable Scripting Engine & Editor
- Java script based command editor
- Easy-to-use scripting wizard
- Intuitive content assistance via CTRL+SPACE
- Automatic check for the correctness of the scripting

### **SAP Lumira**

- Lumira is for ‘self-service’ use; an end-user can drag in the information they want to explore, displaying information in charts, or tables
- Lumira is for savvy, end-users who can be trained to utilize the tool on their own in an ad-hoc setting
  - Access, combine & transform data
  - Access Maconomy data & data that enhances the data in Maconomy (BPM Universes, SQL Queries, Excel, CSV, Text Files, Web data)
  - Average users can cleanse, combine & refresh data
  - Group data & introduce calculations
  - Expansive library of charts and graphical representations
  - Conditional format tables
  - Drag-and-drop chart creation
  - Data movements animated
  - Easily copy, re-order, email, and print visualizations
  - Share datasets with others
  - Visualize and Annotate

### **Benefits of a Common Platform**

- Single platform for WEBI, Design Studio and Lumira
- BI administrators can now develop a single universe that leverages all of these
- Provides for a more recognizable interface (i.e. shared objects, terminology, etc.) for all your users, whether they access a report, a dashboard, or are in the process of self-discovery using Lumira

- Data processing is faster, resulting in far better performance across the board

## Revert to BO 3.1 if Needed

Maconomy 2.2.3 by default supports integration with BI 4.1. If instead you need to remain on the BO 3.1 platform, you must customize some files to revert the changes done in 2.2.3 and later versions. The two tables below list the files to update. The "Present Value" column shows what we have in 2.2.3, and the "New Value" column shows the data to enter to revert work to BO 3.1.



Xelsius dashboards have been removed completely.

## Workspace Client

File	Present Value	New Value
<p><b>maconomy.security.config</b></p> <p><b>Description of Change:</b> Change extensionId in BusinessObjects</p> <p><b>Original Location:</b> maconomy\application_name\CouplingService\configuration</p> <p><b>Copy to Custom Folder:</b> No</p>	com.maconomy.extension.bo41.BusinessObjectsLoginModule	com.maconomy.extension.bo3.BusinessObjectsLoginModule
<p><b>GlobalDefinitions.mdml.xml</b></p> <p><b>Description of Change:</b> Update Url in function urlOpenReport Update Url in function urlInfoView</p> <p><b>Original Location:</b> maconomy\application_name\MaconomyDir\DialogLayouts</p> <p><b>Copy to Custom Folder:</b> Yes</p>	stringSysPar('BPMServerURL') + '/BOE/OpenDocument/opendoc/openDocument.jsp'	stringSysPar('BPMServerURL') + '/OpenDocument/opendoc/openDocument.jsp'
<p><b>globaldefinitions_CPA.mdml.xml</b></p> <p><b>Description of Change:</b> Update Url in function urlOpenReport Update Url in function urlInfoView</p> <p><b>Original Location:</b> maconomy\application_name\CustomizationDir\Solution\DialogLayouts</p> <p><b>Copy to Custom Folder:</b> No CPA</p>	stringSysPar('BPMServerURL') + '/BOE/OpenDocument/opendoc/openDocument.jsp'	stringSysPar('BPMServerURL') + '/OpenDocument/opendoc/openDocument.jsp'
<p><b>globaldefinitions_MCS.mdml.xml</b></p> <p><b>Description of Change:</b> Update Url in function urlOpenReport Update Url in function urlInfoView</p> <p><b>Original Location:</b> maconomy\application_name\CustomizationDir\Solution\DialogLayouts</p> <p><b>Copy to Custom Folder:</b> No</p>	stringSysPar('BPMServerURL') + '/BOE/OpenDocument/opendoc/openDocument.jsp'	stringSysPar('BPMServerURL') + '/OpenDocument/opendoc/openDocument.jsp'

File	Present Value	New Value
PSO		
<p><b>ReportCriteria.mdml.xml</b></p> <p><b>Description of Change:</b>                      Update function                      CurrencyTypeToString                      Update function                      CustomerReportingCurrencyTypeToString                      Update function                      entryDateToString</p> <p><b>Original Location:</b>                      maconomy\application_name\MaconomyDir\DialogLayouts</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<p>StandardOrCPAString('Job', 'Engagement')</p> <p>StandardOrCPAString('Customer', 'Client')</p> <p>StandardOrCPAString('Job Cost', 'Engagement Cost')</p>	<p>StandardOrCPAString('Job', 'Job')</p> <p>StandardOrCPAString('Customer', 'Customer')</p> <p>StandardOrCPAString('Job Cost', 'Job Cost')</p>

## Portal

File	Present Value	New Value
<p><b>BPMReporting.I</b></p> <p><b>Description of Change:</b>                      Uncomment Url, remove BOE, replace openDocument.jsp with &lt;opendoc&gt; and add &amp;isApplication=true</p> <p><b>Original Location:</b>                      WebServer\...\MaconomyPortal\application_name\Portal\BPM</p> <p><b>Copy to Custom Folder:</b> Yes</p>	<p>url:                      "http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/openDocument.jsp?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;",</p>	<p>url:                      "http://&lt;serverName&gt;:8080/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;isApplication=true&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;",</p>
<p><b>BPMReporting.I</b></p> <p><b>Description of Change:</b>                      Uncomment Url, remove BOE, replace openDocument.jsp with &lt;opendoc&gt; and add &amp;isApplication=true</p> <p><b>Original Location:</b>                      WebServer\...\MaconomyPortal\application_name\Extension\BPM</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA / PSO</p>	<p>url:                      "http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/openDocument.jsp?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;",</p>	<p>url:                      "http://&lt;serverName&gt;:8080/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;isApplication=true&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;",</p>
<p><b>JobCostIFrame.I</b></p> <p><b>Description of Change:</b>                      Uncomment Url, remove BOE and add &amp;isApplication=true                      Uncomment opendoc parameter and change its value</p> <p><b>Original Location:</b>                      WebServer\...\MaconomyPortal\applic</p>	<p>url:                      #N"http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsJobNo:=^1^2",</p>	<p>url:                      #N"http://&lt;serverName&gt;:8080/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;isApplication=true&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsJobNo:=^1^2",</p>

File	Present Value	New Value
<p>ation_name\Extension\Packages\Composers\JobCost\JobCostIFrame</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<p>opendoc: "openDocument.jsp"</p>	<p>opendoc: "logonTrustedAuth.do"</p>
<p><b>EmployeeeIFrame.I</b></p> <p><b>Description of Change:</b> Uncomment Url, remove BOE and add &amp;isApplication=true Uncomment opendoc parameter and change its value</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\Employee\EmployeeeIFrame</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<p>url: #N"http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsSJobNo:=^1^2",</p> <p>opendoc: "openDocument.jsp"</p>	<p>url: #N"http://&lt;serverName&gt;:8080/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;isApplication=true&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsSJobNo:=^1^2",</p> <p>opendoc: "logonTrustedAuth.do"</p>
<p><b>CustomerIFrame.I</b></p> <p><b>Description of Change:</b> Uncomment Url, remove BOE and add &amp;isApplication=true Uncomment opendoc parameter and change its value</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\Customer\CustomerIFrame</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<p>url: #N"http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsSJobNo:=^1^2",</p> <p>opendoc: "openDocument.jsp"</p>	<p>url: #N"http://&lt;serverName&gt;:8080/OpenDocument/opendoc/&lt;opendoc&gt;?appKind=InfoView&amp;sPath=&lt;reportPath&gt;&amp;isApplication=true&amp;sType=wid&amp;sDocName=&lt;reportName&gt;&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;&amp;IsSJobNo:=^1^2",</p> <p>opendoc: "logonTrustedAuth.do"</p>
<p><b>BillingOverviewCollection.I</b></p> <p><b>Description of Change:</b> Remove BOE and add &amp;isApplication=true</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\JobCost\Invoicing\BillingOverviewCollection</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<p>url: #N"http://&lt;serverName&gt;:8080/BOE/OpenDocument/opendoc/openDocument.jsp?appKind=InfoView&amp;sPath=[Business+Performance+Management],[Reporting]&amp;sType=wid&amp;sDocName=Billing+Worksheet&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;^1",</p>	<p>url: #N"http://&lt;serverName&gt;:8080/OpenDocument/opendoc/openDocument.jsp?appKind=InfoView&amp;sPath=[Business+Performance+Management],[Reporting]&amp;isApplication=true&amp;sType=wid&amp;sDocName=Billing+Worksheet&amp;UserID=&lt;nameofuser&gt;&amp;CMS=&lt;cmsServerName&gt;^1",</p>
<p><b>InitiateBilling.1.ms</b></p> <p><b>Description of Change:</b> Find two instance of the line and remove BOE</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\JobCost\Invoicing\InitiateBilling</p>	<p>var url = sprintf("#N"^1/BOE/OpenDocument/opendoc/openDocument.jsp?</p>	<p>var url = sprintf("#N"^1/OpenDocument/opendoc/openDocument.jsp?</p>

File	Present Value	New Value
Copy to Custom Folder: Yes CPA		
<p><b>BillingOverview.1.ms</b></p> <p><b>Description of Change:</b> Find two instance of the line and remove BOE</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\JobCost\Invoicing\BillingOverview</p> <p><b>Copy to Custom Folder:</b> Yes CPA</p>	<pre>var url = sprint("#N"^1/BOE/OpenDocument/pendoc/openDocument.jsp?</pre>	<pre>var url = sprint("#N"^1/OpenDocument/pendoc/openDocument.jsp?</pre>
<p><b>BPMReporting.1.ms</b></p> <p><b>Description of Change:</b> Rename openDocumentSSI.jsp to openDocument1.jsp</p> <p><b>Original Location:</b> onomyPortal\application_name\Extension\Packages\Composers\JobCost\JobCostIFrame</p> <p><b>Copy to Custom Folder:</b> Yes CPA / PSO</p>	<pre>configuration.opendoc = #N"openDocumentSSI.jsp";</pre>	<pre>configuration.opendoc = #N"openDocument1.jsp";</pre>
<p><b>JobCostIFrame.1.ms</b></p> <p><b>Description of Change:</b> Rename openDocumentSSI.jsp to openDocument1.jsp</p> <p><b>Original Location:</b> onomyPortal\application_name\Extension\Packages\Composers\JobCost\JobCostIFrame</p> <p><b>Copy to Custom Folder:</b> Yes CPA</p>	<pre>configuration.iFrame.resource.openoc = #N"openDocumentSSI.jsp";</pre>	<pre>configuration.iFrame.resource.openoc = #N"openDocument1.jsp";</pre>
<p><b>EmployeeIFrame.1.ms</b></p> <p><b>Description of Change:</b> Rename openDocumentSSI.jsp to openDocument1.jsp</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\Employee\EmployeeIFrame</p> <p><b>Copy to Custom Folder:</b> Yes CPA</p>	<pre>configuration.iFrame.resource.openoc = #N"openDocumentSSI.jsp";</pre>	<pre>configuration.iFrame.resource.openoc = #N"openDocument1.jsp";</pre>
<p><b>CustomerIFrame.1.ms</b></p> <p><b>Description of Change:</b></p>	<pre>configuration.iFrame.resource.openoc = #N"openDocumentSSI.jsp";</pre>	<pre>configuration.iFrame.resource.openoc = #N"openDocument1.jsp";</pre>

File	Present Value	New Value
<p>Rename openDocumentSSI.jsp to openDocument1.jsp</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\Customer\CustomerIFrame</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>		
<p><b>BillingOverviewCollection.1.ms</b></p> <p><b>Description of Change:</b> Rename openDocumentSSI.jsp to openDocument1.jsp in two places</p> <p><b>Original Location:</b> WebServer\...\MaconomyPortal\application_name\Extension\Packages\Composers\JobCost\Invoicing\BillingOverviewCollection</p> <p><b>Copy to Custom Folder:</b> Yes</p> <p>CPA</p>	<pre>url = replace(url, #N"openDocument.jsp", #N"openDocumentSSI.jsp");</pre>	<pre>url = replace(url, #NopenDocument.jsp", #N"openDocument1.jsp");</pre>



## Touch

### Time Sheet Functionality for Touch

To support updates to Touch functionality, changes were made to the Time tab of Maconomy's Time and Expenses workspace. New fields and actions were added to/updated in the following sub-tabs:

- Week
- Day

These fields and actions are not displayed by default, but the view can be customized to display them.

# 2.2.4

## Application 2.2.4 Features

### Display Real / Amount Value of String Fields in Job Progress

**Deltek Tracking: 600987**

In Job Progress a number of amount/real values are revealed only as string types in order to support alternative messages in the field, such as "Not Applicable," when the type shown in the window is not relevant for this amount.

Job Progress now has additional fields to display the real/amount typed value of the field, thus making it easy for customization consultants to do additional arithmetic on the values.

## Technology 2.2.4 Features

### Bind Variables for Queries

**Deltek Tracking: 621888**

You can now use bind variables whenever it makes sense, such as for filter queries and notification queries.

The Maconomy Server for Oracle is enhanced with new functionality to use Oracle to "bind" variables when executing SQL for Analyzer reports, filters, value pickers and notifications in the Workspace Client and notifications in the Java Web Start client.

This functionality is disabled by default.

#### Enable Bind Functionality

**To enable the bind variable functionality:**

1. Add the following option to Maconomy(Custom).ini file(s):  
`MqlBindVariables="true" | "false" (default is "false")`

When enabled, the Maconomy Server for Oracle uses Oracle "bind" variables to increase the chance of any given SQL generated by a query will be cached and reused, since the particular constants of queries are no longer part of the generated SQL script.

**To test the effect of enabling this option:**

1. Turn on debugging in the Maconomy Server using the "-d" option in the .l file for the server.
2. Add the following test masks to the TestMasks file:  
`21 1`  
`22 1`  
`24 1`

This enables logging of the generated SQL by the Maconomy Server.

3. To see the SQL SELECT statement, look in the XMQL<xyz> and ROE<xyz> in the .../maconomy/tmp/... folder.
4. In the log files, search for the string "for oracle" to see the SQL.



The :1, :2, :3 (and so on) are the bind variables in the generated SQL. Below the generated SQL is the list of the values for the bind variables for the particular query.

### Rules for Creating Bind Variables

A few rules apply to the creation of bind variables, as follows:

1. Any constant has its own bind variable, that is: two or more equal constants are not merged into one bind variable. This ensure that accidental similarities do not result in SQL generated that differ from when the same "constants" differ.
2. Bind variables are only created for strings that are not null.
3. Bind variables are always created for numbers.

4. Bind variables are never created for booleans.
5. Bind variables are only created for date/times that are not null.
6. Bind variables are only created for popup values that are not null (except if configured otherwise).

### Modify the Rules

The rules above can be modified using the following options.

- **MqlBindVariablesOnlyForParameters** — This option restricts the use of bind variables to "parameters" in queries.
- **MqlBindVariablesOnlyForPopupsLargerThan** — This option restricts the use of bind variables to popup value types that have more that the specified number of popup values. This can be sometimes be an advantage because popup value types that have a low number of literals are usually "important" in the sense that including the actual popup value's in the generated SQL allows Oracle to make certain important optimizations.

#### To modify the rules:

1. Use the following options:
  - MqlBindVariablesOnlyForParameters="true" | "false" (default is "false")
  - MqlBindVariablesOnlyForPopupsLargerThan=<number> (default is 5)



The default has changed from -1 to 5 in Maconomy 2.2.3.

## SQL “Hints” in MQL

### Deltek Tracking: 623054

The Maconomy Server for Oracle is enhanced with new functionality to use query-specific Oracle "hints" when executing SQL for Analyzer reports, filters, value pickers and notifications in the Workspace Client and notifications in the Java Web Start client.

The new functionality is always "on," as it is triggered if the Maconomy Server for Oracle detects a query against a given Universe that matches one or more query "patterns" defined by the customer. If a match is detected, any number of SQL SELECTs in the generated SQL can be embellished with Oracle "hints" defined by the customer.

Maconomy system are not released containing any query patterns , so Oracle "hints" must be added manually to the generated SQL.

### Add Hints

#### To add a “hint” to a query:

1. Create a file for the Universe for the query, naming it with the name of the Universe.
2. Put the file in the folder:

.../MaconomyDir/AnalyzeHints/...

For example, if the Universe is named "A\_\_\_:UA::FINANCEENTRIESVI" (for the "G/L Entries" Analyzer report), then the Maconomy Server will look for a file named:

"../MaconomyDir/AnalyzeHints/A\_\_\_UA\_\_FINANCEENTRIESVI.ini"

In other words: ":"s are replaced by "\_"s and ".ini" is appended to generate the file name.

3. In this file you can specify a query pattern, which is one or more Oracle "hints" to apply to one or more SQL SELECTs if the query pattern matches.

### Specifications

The specification consists of the following:

1. A option that specifies the query pattern
2. One or more options that specifies the Oracle "hint" to which the options are applied

#### Option that Specifies Query Pattern

For an option to specify the query pattern, the option must be named in the following format:

like: "MQLHINTKEY.<suffix>"

where "<suffix>" is some short string not including the "." character, such as "MQLHINTKEY.0" or "MQLHINTKEY.a".

The value of this option must be a valid MQL query, formatted across several lines.

#### For example:

```
MQLHINTKEY.0=<MQL Version=1.6>\
<Query Universe=NotificationType>\
<Restriction>\
<SubExpression>\
```

```

    <FunctionExpression Name=Eq>\
      <FieldExpression Name=NotificationType>\
        <Constant Value='ApproveUserInformation'>\
      <End FunctionExpression>\
    <End SubExpression>\
  <End Restriction>\
<Cursor>\
  <Field Name=internalrelationname>\
  <End Field>\
  <Field Name=notificationtype>\
  <End Field>\
<End Cursor>\
<End Query>

```

---

Note the use of the "\" character as a "line continuation" character.



### Specify the Oracle "Hint"

One or more options that specifies the Oracle "hint" to which the options are applied include one or more SQL SELECTs in the generated SQL.

The options must be in the following format:

```
"MQLHINTVALUE.<suffix>.<number>"
```

where "<suffix>" must match another "MQLHINTKEY.<suffix>" option. The "<suffix>" match ties the options together.

and where "<number>" of the "MQLHINTVALUE.<suffix>.<number>" specifies to which SQL SELECT in the generated SQL the Oracle "hint" is applied.

### Tips on Creating Hints

#### Notes on Formatting

- The "<number>" of the SQL SELECT's starts at -2 or 0 and counts up from there.
- If a SQL SELECT is numbered using a negative number, then the SQL SELECT is considered part of SQL not generated from the query but because of other, functionalities, such as ROWNUM optimization.
- The SQL SELECT numbered 0 is always the first SQL SELECT generated from the query. So references to the SQL SELECTs generated from the query are "stable," whereas the SQL SELECT generated from other functionalities can disappear depending on the particular request parameters of a query.

For example, a set of Oracle "hints" corresponding to the "MQLHINTKEY.0" above could be:

```
MQLHINTVALUE.0.-2=Hint for outermost SQL SELECT
```

MQLHINTVALUE.0.0=Hint for query SQL SELECT

To aid in the development of Oracle "hints" add the following two options to the Maconomy(Custom).ini file(s):

MqlHintsCache=false

MqlSelectNoComments=true

### Disabling Cache

Disabling the cache makes it easier to develop "hints." Use the "MqlHintsCache" option to disable the Maconomy Server cache of the files in the "AnalyzeHints" folder. This make it easier to develop Oracle "hints" files, as the Maconomy Server rereads the files in the "AnalyzeHints" folder every time it applies an Oracle hint. If you disable the cache, there is no need to restart the Maconomy Server after every change to a file in the "AnalyzeHints" folder.

### Enabling SQL SELECT Numbers

Enable the SQL SELECT numbers to make it easier to add a helpful comment. Use the "MqlSelectNoComments" option to enable the Maconomy Server to add a small helpful comment `"/<number> */` to each SQL SELECT in the generated SQL that shows the SQL SELECT number.

This makes it easier to find out what the number of the particular SQL SELECTs are that have Oracle hints applied.

#### For example:

SQL for Oracle :

```

-----
SELECT /* -2 */ *
FROM (SELECT /* -1 */ AXXXXXXXXXXXXXXXXXXXXXZZZ.*, ROWNUM
ROWNOXXXXXXXXXXXXXXXXXXXXX
FROM (
SELECT /* 0 */ R1.F1 AS ACCESSLEVELNAME,
R1.F3 AS APPROVALPROJECTMANAGER,
R1.F5 AS APPROVEDFORINVOICEEDITING,
R1.F7 AS APPRPROJECTMANAGEREXPENSES,
R1.F9 AS BASECURRENCY,
R1.F11 AS BUDGETBILLINGPRICEBASE,
R1.F13 AS BUDGETCOSTPRICE,
R1.F15 AS CLOSED,
R1.F17 AS CURRENCY,
R1.F19 AS CURRENTBUDGETTYPE,
R1.F21 AS FIXEDPRICECURRENCY,

```



Only use the "MqIHintsCache" and "MqISelectNoComments" during development, and do *not* use these options on a production system.

## View Generated SQL

Use the following options while developing.

### To see the generated SQL:

1. Turn on debugging in the Maconomy Server using the "-d" option in the .I file for the server.
2. Add the test masks to the TestMasks file:
  - 21 1
  - 22 1
  - 24 1

This enables logging of the generated SQL by the Maconomy Server.

3. To see the SQL look in the XMQL<xyz> and ROE<xyz> files in the .../maconomy/tmp/... folder.



Use this option only during development.

## Automatic Timeout (Log Off) for Maconomy

**Deltek Tracking: 606997**

As a new security feature, Workspace Client sessions now expires after a certain period of inactivity. The default idle time is 20 minutes, after which the session is blocked until the user has logged in again. If the user is logged in via single sign-on (SSO), the Workspace Client automatically performs a new SSO login to unblock the session, and only prompts the user for a password if this login fails.

## Restore WSC Filter Wildcard Search

**Deltek Tracking: 613836**

Maconomy now has the option to restore pre-2.2.3 WSC Filter Wildcard Search. This preference (located in Search preference page) is reintroduced in 2.2.4.

## Performance Enhancements

**Deltek Tracking: 572642**

### Ctrl+G in Filter Restriction Fields

**Deltek Tracking: 563040**

Performance Adjustments for the filter now allows for you to use Ctrl+G searches in search restriction fields (that have foreign keys defined) of filters to display an Advanced Search window. You can click on the search icon or press Ctrl+G when you are in the search restriction field for which the

search should be made. Search as you type is not enabled for those fields, so that you can still enter any wildcard restrictions, while this feature is intended as an exact match restriction selection. In automatic filters, an explicit '=' operator is shown for the string fields at the beginning of the transferred result from the Ctrl+G search to indicate that an exact match restriction will be applied on that field. There is no limit on the number of embedded searches that you can do, so if the Advanced Search window that was opened from a search restriction field has Ctrl+G fields in a search row, you can use them to open another window and continue in that way. Windows will be modal and open with a shift to indicate their nesting.

### Default Search Behavior

Automatic search is always enabled for top level filters and can only be disabled via extension of MWSL on a workspace by workspace basis. For Ctrl+G searches, automatic search is disabled by default. As a result, manual search is required by default. Users can restore this behavior to the previous behavior by changing the User Preference **Enable Automatic Search**.



It is not possible to control User Preferences centrally. You cannot change the default settings to control when the WSC is installed or whether settings can be changed by individual users. If a user does change the default in User Preferences to **Enable Automatic Search**, Automatic Search is activated for Ctrl+G searches. As a result, any changes made at the MWSL level are ignored and manual search is not enforced on top level filters.

---

## BPM Features 2.2.4

### Simplify Job Parameters and Attributes in Job Information Universe

**Deltek Tracking: 693437**

Previously, the data foundation behind the ability to report on job parameters and attributes in the Job Information universe was overly complex, involving several derived tables where some had more than 20 joins. This foundation was very cumbersome to maintain when new parameters were added to Maconomy. Also, its reporting was not flexible.

Now, the data foundation for the reporting on job parameters and attributes is updated. To support this update, the following changes are made to the Job Information universe.

These objects are removed from the business layer:

- All objects in the Parameter Selection folder
- All objects in the folder and Parameter Attributes sub-folders

These (more generic) objects are added:

- In the Parameter Selection folder:
  - Job Parameter
  - Job Parameter Code
  - Effective Parameter Name
- In the Job Parameter Attribute folder:
  - Attribute Name
  - Internal Attribute Name
  - Attribute Value
  - Format
  - Format Code
  - String Value
  - Integer Value
  - Real Value
  - Amount Value
  - Boolean Value
  - Boolean Value Code
  - Date Value
  - Date Value Str
  - Time Value
  - Popup Value
  - Popup Type Value
  - Remark

With these more generic objects, the same reporting as earlier can be achieved now with improved maintenance, although it will require another kind of querying in and data treatment in report documents, as can be seen in the standard Job Information Universe.

Custom report documents that uses the standard Job Information universe (or a customized version of it), must be updated for potential rewriting using the new method of reporting on job parameters and attributes.

## Touch Features 2.2.4

### Add Rejected Header Status

**Deltek Tracking: 572645**

To support updates to Touch functionality, a change was made in Maconomy to add rejected header statuses to time sheet status options.

Two new statuses are added:

- 8: not submitted, rejected header
- 9: submitted, rejected header

In the Workspace Client, Time & Expense workspace, the Weekly and Daily tabs are updated to reflect this change. These tabs show a color-coded calendar, where the color is based on the time sheet statuses. With this update, if someone uses approval hierarchies to reject a time sheet header, then the week that corresponds to this rejected time sheet is shown as yellow, with the note *Rejected*.

Prior to this change, the weeks were shown only as submitted (green), approved/fully approved (blue) or due (red), even if the header was rejected. Now, if the header is rejected, the week is color-coded as yellow.

This changes affects customers who are using approval hierarchies on the time sheet header.

# 2.2.5

## Application 2.2.5 Features

### Job Budget Periodization

#### Deltek Tracking: 773462

The **Periodize Budget** action is added to Maconomy, which enables you to evenly distribute the non-periodic budget on a job based on its start and end date. This functionality is available only on budgets that are not submitted or approved, and on open jobs only.

For job budget lines with time activities, the periodization applies the same unit prices as the job budget line and a uniform distribution of the quantity of the budget lines over the periods.

For job budget lines with an amount activity, the periodization distributes the total cost and billing price uniformly with a value of one quantity in each period.

Periodization is determined by the planned start and end dates specified on each budget line. If you do not enter dates on a budget line, periodization is based on the dates specified on the job itself.

#### Example

Company A creates a job that starts on January 10 and ends on June 10. If you create a budget line for this job with a quantity of 100 hours, then use the **Periodize Budget** action, the quantity per month is calculated as:

$$100 / (A + B + C)$$

Where:

$$A = (31 - 10 + 1) / 31 \text{ (part of January)}$$

$$B = 4 \text{ (months between January and June)}$$

$$C = 10 / 30 \text{ (part of June).}$$

In this example, a quantity per month of  $100 / 5.0430107527 \approx 19.83$ . This is the quantity in February to May. The quantity in January and June is found by multiplying by A and C respectively, so the result for this example is 14.07 and 6.61.

### Maintenance of Periodic Forecasting

When a periodic job budget is updated, using the **Periodize Budget** action allows Maconomy to update the periodic forecast on the job.

This functionality is disabled by default. To enable this feature, you must enable the **Maintain Periodic Forecasts from Periodic Job Budgets** system parameter.

### Progress Evaluation

You can also use this action for planning budgets with ETC, the result of progress evaluation. The system distributes ETC evenly from the estimate date to the expected end date.

**Note:** When the estimate date of the progress evaluation is not the end date of a period, Maconomy updates the period containing the estimated date as the new calculated ETC per month.

## Example

Employee A creates a budget line with a quantity of 300 hours that covers three periods. Each period is initially assigned 100 hours each. When Employee A performs progress evaluation at the end date of the first period, the result is an ETC of 250 hours. When the employee uses the **Periodize Budget** action, the first period retains the initial distribution of 100 hours, while the second and third periods are updated to 125 hours each.

## Rounding Quantities in Periodization

In the periodization, the quantities for all periods add up to the quantity of the corresponding budget line. All periods are given the same unit cost and billing price as the budget line. However, it is possible that the total cost and billing price for all periods on a job differ from the total cost and billing price for the budget line. This rounding difference is at most  $\pm 0.005$  times the number of periods. These rounding differences appear as unallocated cost and billing price on the job budget line.

## System Parameters

The following system parameters are introduced:

- **Allow Job Budget Periodization Action** – Enable this system parameter to enable the use of the Periodize Budget action in Maconomy.
- **Maintain Periodic Forecasts from Periodic Job Budgets** – Enable this system parameter to allow Maconomy to propagate all changes to the periodic forecast whenever you make changes in the periodic job budget.
- **Allow Job Budgeting Outside Job Date Range** – Enable this system parameter to allow planned start and end dates on the latest job budget revision that are out of range of the job's start and expected end date. Enabling this system parameter also allows periodic budgeting outside the job's date range.

## Changes to Maconomy

The following workspace is updated:

- Jobs
- Job Budgets Card API single dialog workspace
- Job Budgets Card by Type API single dialog workspace
- Job Budgets Table by Type API single dialog workspace
- System Setup

## BPM 2.2.5 Features

### Migration to BI 4.2 SP3

#### Deltek Tracking #701645

Migration from previous versions to the latest version of BPM BI may require a few updates to existing content. For more information about the latest version of BPM BI, refer to the BPM BI 4.2 Install and Upgrade Guide.

## Technology 2.2.5 Features

### Maconomy Portal Login Using SSO

**Deltek Tracking: 597487**

Because support for Java applets in the major browsers and Java 9 is being deprecated, Maconomy now uses the SPNEGO protocol for Single Sign-On (SSO).

The SPNEGO-based SSO is now enabled by default in 2.1.8. However, the Java Applet based SSO is still available and can be enabled, if needed.

In the portal.I file, the following new settings can be set:

```
singleLoginBrowserMethod = "java" | "spnego" (default: "spnego")
javaEnabled = true | false (default "true")
```

Use the following attributes to determine your SSO:

- **singleLoginBrowserMethod** – This defines how the browser implements the SSO.
- **javaEnabled** – This defines whether Java applets are supported by the Maconomy Portal. When enabled, the Maconomy Portal automatically detects whether Java Applet components are available to the user logging in and asks to install Java, if it is not available. Setting this attribute to “false” disables this feature and disables any Java Applet components in the Maconomy Portal. It also disables Java based SSO and Java version checking.

#### Example

In this example, the portal.I file uses the SPNEGO protocol:

```
{
  menuWidth      : 193,
  logoHeight     : 71,
  bottomHeight   : 0,
  jaconomyMenu   : true,
  BrowserRememberPasswords: true,
  singleLogin    : true,
  singleLoginBrowserMethod: "spnego",
  singleLoginMethod : "external",
  portalInNewWindow : false,
  menuIcons     : false,
  javaEnabled   : false,
  javaVersionCheck : true,
  horizontalMenuHeight : 67
}
```

## Apache

The SPNEGO protocol relies on sending “Authenticate” HTTP headers to the server. However, Apache considers this header a security risk when used by cgi-programs.

To make SPNEGO work with CGI programs, the following settings can be added to the <virtualhost> in the httpd.conf file:

- For Apache 2.4.12 or older (in the <virtualhost> tag):

```
SetEnvIf Authorization "(..*)" HTTP_AUTHORIZATION=$1
```

The “..” is necessary to prevent the creation and addition of empty “Authorization” headers to all CGI-requests.

- For Apache 2.4.13 or newer (in the <directory> tag of the <virtualhost>):

```
CGIPassAuth On
```

For more information, see the following:

<http://stackoverflow.com/questions/17018586/apache-2-4-php-fpm-and-authorization-headers>

<https://httpd.apache.org/docs/2.4/en/mod/core.html#cgipassauth>

## IIS

For IIS, you must disable Windows Authentication for the cgi-bin, cgi-bin/maconomy, and maconomy folders. If it is not disabled, IIS interferes with the Maconomy Portal when doing SPNEGO.

You must also create a web.config file in the cgi-bin/maconomy folder for IIS with the following contents:

```
<?xml version="1.0" encoding="UTF-8"?>  
  
<configuration>  
  
  <system.webServer>  
  
    <httpErrors existingResponse="PassThrough" />  
  
  </system.webServer>  
  
</configuration>
```

Associate the web.config file with IIS using the Management -> Configuration Editor icon in the IIS configuration page for cgi-bin/maconomy. This file prevents IIS from hijacking the HTTP 401

result code from the Maconomy Portal and redirecting to an error page, instead of the HTML from the Maconomy Portal.

Like iAccess and BO, the Maconomy Portal now requires that the Maconomy Portal Web site is added to the AD/Kerberos using the setspn command. On the AD/Kerberos server, run the following commands:

```
setspn -a HTTP/<maconomyportalURL> <kerberosuser>
```

```
setspn -a HTTP/<maconomyportalURL><domain> <kerberosuser>
```

**Example**

```
setspn -A HTTP/myhost MACKERBEROS
```

```
setspn -A HTTP/myhost.com MACKERBEROS
```

where “myhost” is the Maconomy Portal web-server host.

## 2.2.6 Features

### Application Enhancements 2.2.6

#### Job Budget Periodization

**Deltek Tracking: 773462**

The **Periodize Budget** action is added to Maconomy, which enables you to evenly distribute the non-periodic budget on a job based on its start and end date. This functionality is available only on budgets that are not submitted or approved, and on open jobs only.

### BPM Enhancements 2.2.6

#### Selection Criteria on Report Tab

**Deltek Tracking: 943658**

To enhance BPM reports, the selection criteria has been moved to the new Report tab, so that the report data is the primary focus of the report. Previously, the selection criteria displayed before the report data.

#### SAP BI 4.2 SP5 Certification

**Deltek Tracking: 952608**

Maconomy 2.2.6 is now certified on BI 4.2 SP5.

### Technology Enhancements 2.2.6

#### Maconomy Portal Login Using SSO

**Deltek Tracking: 597487**

Because support for Java applets in the major browsers and Java 9 is being deprecated, Maconomy now uses the SPNEGO protocol for Single Sign-On (SSO). This is enabled by default.

#### Login Log Option

**Deltek Tracking: 782343**

This features enables customers to track how many of their users are using Touch, even if they use SSO.

### Touch Enhancements 2.2.6

#### UI Enhancements

**Deltek Tracking: 842680, 985074**

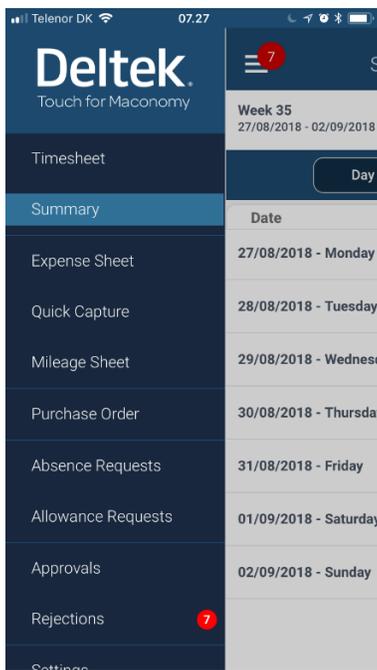
The Touch UI is updated with an improved look and feel that is reflected in the colors, the style sheets and the simplified menu.

The following updates are made:

- Consistent styling across all screens (such as background color, text color, toolbar color, and button color)
- Tab button style (updated in areas including Find Job and Expense Sheets)
- List style (updated in areas including Expense Sheets and Find Job screen)
- Hour selector (updated the vertical spacing on the labels, as well as the color)
- Delete buttons (updated on all screens for color and size)
- Progress indicator (updated to remove black box)
- Updated branding of URL and PIN screens

Below are sample screenshots from the new Touch UI.

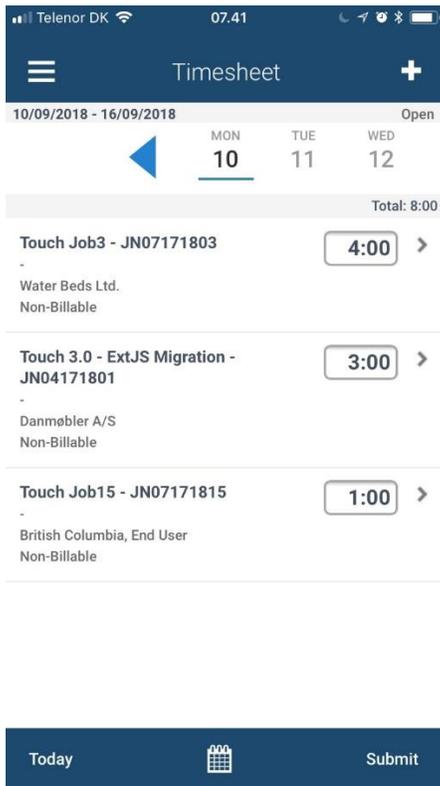
**Menu Screen**



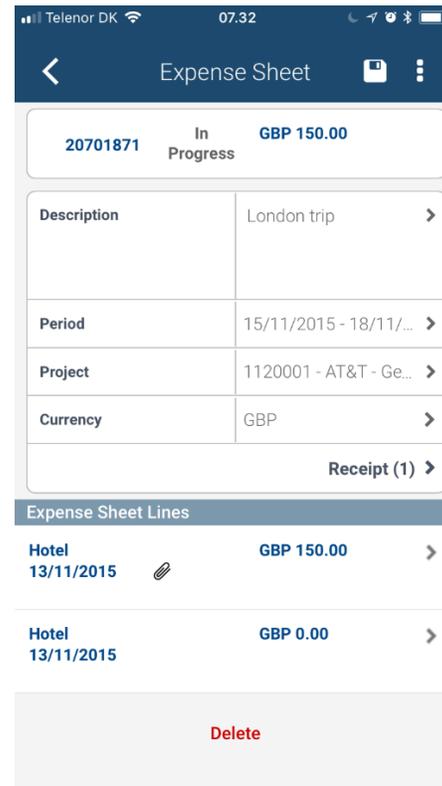
**Login Screen**



### Timesheet Screen



### Expense Sheet Screen



## Device Passcode Required

### Deltek Tracking: 952945

With Touch 3.0 it is now required that the device is set up with a passcode. If no passcode is used on the device, Touch shows an error message. This feature is introduced to enhance security.

A new server setting allows customers to disable the passcode requirement.

See the *Deltek Touch for Maconomy 3.0 Technical Installation Guide* for details.

<https://dsm.deltek.com/documentationlists/DeltekMaconomy226GA.html>

## Performance

### Deltek Tracking: 841014

Touch has improved performance in select areas, including:

- Login
- Find Job screens
- Save Time / Expense Sheets with many (more than 50) lines
- Submit Time / Expense Sheets with many (more than 50) lines

## Security Enhancements

Deltek Touch 3.0 for Maconomy contains a number of security enhancements.

## Migration from Sencha to EXT JS

### **Deltek Tracking: 766629**

Sencha Touch software is de-supported and merged into EXT JS software. There are numerous benefits to working with EXT JS, including new calendar controls, multiple theme capabilities, and integration with the latest OSs, as well as numerous benefits not visible to the end-user.

## Appendix A – Field Descriptions

### 2.2 Fields / Descriptions

This section lists fields and descriptions for 2.2 features.

#### Fixed Assets as Reference Fields

The following fields are added for the Fixed Assets as Reference feature.

Field	Description	Path
Asset No., Reference	Use this field to enter a reference to an asset. You can only specify an asset number here if the current line pertains to a finance entry and GRP=G.	Single Dialogs » General Ledger » Registration » General Journal » Table  Single Dialogs » General Ledger » Registration » Show General Journals » Table  Single Dialogs » General Ledger » Registration » Show Journal Foundation » Table  Single Dialogs » General Ledger » Registration » Show General Journal Lines » Asset
Asset Description	This field displays a description of the referenced asset.	Single Dialogs » General Ledger » Registration » General Journal » Table  Single Dialogs » General Ledger » Registration » Show General Journals » Table  Single Dialogs » General Ledger » Registration » Show Journal Foundation » Table

#### Fixed Assets Linked to Jobs Fields

The following table lists and describes the fields for fixed assets that are linked to jobs.

Field	Description	Path
Post Depreciation as Job Entry	Use this field to specify whether you want a job entry to be posted when depreciating an asset.  This is the default setting for all assets in this asset group but can be changed for each asset.	General Ledger » Fixed Assets » Setup » Groups » Group » Depreciation Information  Single Dialogs » Fixed Assets » Setup » Asset Groups » Depreciation Information

Field	Description	Path
Post Depreciation as Job Entry, if job specified	When depreciating an asset, if this value is set, a job entry is posted.	<p>Single Dialogs » Fixed Assets » Set-up » Assets » Assets » Job Information</p> <p>Single Dialogs » Fixed Assets » Lookup » Show Asset Entries » Asset Entry » Job Information</p> <p>General Ledger » Fixed Assets » Home » Information » Job information</p> <p>General Ledger » Fixed Assets » Registrations » Adjustments » Adjustment » Entries</p>
Job No.	<p>The job number for the job you want to associate with the selected asset.</p> <p>If the asset entry has the type depreciation, and Post Depreciation as Job Entry is set, a job entry with this job number is created.</p>	<p>Single Dialogs » Fixed Assets » Set-up » Assets » Assets » Job Information</p> <p>Single Dialogs » Fixed Assets » Lookup » Show Asset Entries » Asset Entry » Job Information</p> <p>General Ledger » Fixed Assets » Home » Information » Job information</p> <p>General Ledger » Fixed Assets » Registrations » Adjustments » Adjustment » Entries</p>
Activity	<p>The activity that is added to asset entries, when these are created for the selected asset. You can only use amount activities.</p> <p>If the asset entry has the type depreciation, and Post Depreciation as Job Entry is set, a job entry with this activity is created.</p>	<p>Single Dialogs » Fixed Assets » Set-up » Assets » Assets » Job Information</p> <p>Single Dialogs » Fixed Assets » Lookup » Show Asset Entries » Asset Entry » Job Information</p> <p>General Ledger » Fixed Assets » Home » Information » Job information</p>
Task Name	<p>The task that is added to asset entries, when these are created for the selected asset.</p> <p>If the asset entry has the type depreciation, and Post Depreciation as Job Entry is set, a job entry with this task is created.</p>	<p>Single Dialogs » Fixed Assets » Set-up » Assets » Assets » Job Information</p> <p>Single Dialogs » Fixed Assets » Lookup » Show Asset Entries » Asset Entry » Job Information</p> <p>General Ledger » Fixed Assets » Home » Information » Job information</p>

Field	Description	Path
Asset No.	When a job entry is created from asset depreciation, the asset number is on the job entry.	Single Dialogs » Job cost » Lookup » Job Entry Overview » Job Entry Overview » Entry Information  Single Dialogs » Job cost » Lookup » Job Entry Analysis » Entry Information
Miscellaneous	This option displays “Asset not fully depreciated” in the description field for a pending job action. You will not be able to close the job until you have removed the association of the asset to the job.	Single Dialogs » Job cost » Lookup » Pending Job Actions » Pending Job Actions » Selection Criteria » Category
Hereof depreciation in G/L	The G/L depreciation in base and enterprise currency. This field is only visible if an asset entry that is depreciated as a job entry exists (in the Workspace Client). Depreciation will not be listed here if it is listed in the <b>Hereof depreciation in Job Cost</b> field.	Single Dialogs » Fixed Assets » Set-up » Assets » Net book Value  General Ledger » Fixed Assets » Home » Overview » Net Book Value
Hereof depreciation in Job Cost	The job cost depreciation in base and enterprise currency. This field is only visible if it is a non-zero value. Depreciation will not be listed here if it is listed in the <b>Hereof depreciation in G/L</b> field.	Single Dialogs » Fixed Assets » Set-up » Assets » Net book Value  General Ledger » Fixed Assets » Home » Overview » Net Book Value
Job No.	Select the job number that is currently associated with the fixed asset.	General Ledger » Fixed Assets » Registrations » Relocation » Selection Criteria  General Ledger » Fixed Assets » Registrations » Internal Sales » Selection Criteria  Single Dialogs » Fixed Assets » Registration » Asset Relocation » Selection Criteria  Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » Selection Criteria

Field	Description	Path
Activity	Select the activity that is currently associated with the fixed asset.	<p>General Ledger » Fixed Assets » Registrations » Relocation » Selection Criteria</p> <p>General Ledger » Fixed Assets » Registrations » Internal Sales » Selection Criteria</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Relocation » Selection Criteria</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » Selection Criteria</p>
Task	Select the task that is currently associated with the fixed asset.	<p>General Ledger » Fixed Assets » Registrations » Relocation » Selection Criteria</p> <p>General Ledger » Fixed Assets » Registrations » Internal Sales » Selection Criteria</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Relocation » Selection Criteria</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » Selection Criteria</p>
Job No.	Select the job number with which you now want to associate the fixed asset.	<p>General Ledger » Fixed Assets » Registrations » Relocation » New Job Information</p> <p>General Ledger » Fixed Assets » Registrations » Internal Sales » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Relocation » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » New Job Information</p>

Field	Description	Path
Activity	Select the activity with which you now want to associate the fixed asset.	<p>General Ledger » Fixed Assets » Registrations » Relocation » New Job Information</p> <p>General Ledger » Fixed Assets » Registrations » Internal Sales » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Relocation » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » New Job Information</p>
Task	Select the task with which you now want to associate the fixed asset.	<p>General Ledger » Fixed Assets » Registrations » Relocation » New Job Information</p> <p>General Ledger » Fixed Assets » Registrations » Internal Sales » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Relocation » New Job Information</p> <p>Single Dialogs » Fixed Assets » Registration » Asset Internal Sale » New Job Information</p>

The following table lists and describes the fields for asset depreciation for a fixed asset that has job information.

Field	Description	Path
Asset No.	Asset number, read only	<p>General Ledger » Fixed Assets » Home » Overview » Asset Information</p> <p>Single Dialogs » Job Cost »Lookup » Job Entry Overview » Entry Information</p> <p>Single Dialogs » Job Cost »Lookup » Job Entry Analysis » Entry Information</p>

The following table lists and describes the fields for creating fixed assets that are linked to jobs from vendor invoices.

Field	Description	Path
Post Depreciation as Job Entry	When depreciating an asset, if this value is set, a job entry is posted. When the asset draft is created it gets the value from the asset group. You can edit this field.	<p>Accounts Payable » Vendor Invoices » Vendor Invoices » Vendor Invoice » Allocation » Asset Drafts</p> <p>Single Dialogs » Accounts Payable » Registration » Asset Drafts » Job Information</p> <p>Single Dialogs » Accounts Payable » Registration » Vendor Invoice Asset Drafts » Allocation » Asset Draft Sub-tab</p> <p>Single Dialogs » Accounts Payable » Registration » Purchase Order Asset Drafts » Purchase Order Line » Asset Draft Sub-tab</p>
Job No.	The asset that is created gets this job number if the asset transaction type is acquisition and no asset number is on the asset draft. This field is read-only.	<p>Accounts Payable » Vendor Invoices » Vendor Invoices » Vendor Invoice » Allocation » Asset Drafts</p> <p>Single Dialogs » Accounts Payable » Registration » Asset Drafts » Job Information</p> <p>Single Dialogs » Accounts Payable » Registration » Vendor Invoice Asset Drafts » Allocation » Asset Draft Sub-tab</p> <p>Single Dialogs » Accounts Payable » Registration » Purchase Order Asset Drafts » Purchase Order Line » Asset Draft Sub-tab</p>
Activity	The asset that is created gets this activity if the asset transaction type is acquisition and no asset number is on the asset draft. This field is read-only.	<p>Accounts Payable » Vendor Invoices » Vendor Invoices » Vendor Invoice » Allocation » Asset Drafts</p> <p>Single Dialogs » Accounts Payable » Registration » Asset Drafts » Job Information</p> <p>Single Dialogs » Accounts Payable » Registration » Vendor Invoice Asset Drafts » Allocation » Asset Draft Sub-tab</p> <p>Single Dialogs » Accounts Payable » Registration » Purchase Order Asset Drafts » Purchase Order Line » Asset Draft Sub-tab</p>

Field	Description	Path
Task Name	The asset that is created gets this task if the asset transaction type is acquisition and no asset number is on the asset draft. This field is read-only.	<p>Single Dialogs » Accounts Payable » Registration » Asset Drafts » Job Information</p> <p>Single Dialogs » Accounts Payable » Registration » Vendor Invoice Asset Drafts » Allocation » Asset Draft Sub-tab</p> <p>Single Dialogs » Accounts Payable » Registration » Purchase Order Asset Drafts » Purchase Order Line » Asset Draft Sub-tab</p>

## Menu Search Capability Fields

The following Field Description is related to the Menu Search Capability feature.

Field Name	Description	Location
Search	This field allows you to search for a specific workspace in Maconomy.	Top portion of the Menu tab

## Search Favorites Fields

The following Field Description are related to the Search Favorites feature.

Field Name	Description	Location
Search	This field allows you to enter a specific search filter restriction.	<ul style="list-style-type: none"> <li>Under any of the columns in a workspace</li> </ul>
Name	This field allows you to name/rename and save a specific search filter restriction.	<ul style="list-style-type: none"> <li>To name: Search Favorites icon » Add Search Favorite...</li> <li>To rename: Search Favorites icon » Manage Search Favorites...</li> </ul>

## VAT Cash Accounting Fields

The following field descriptions are related to the VAT Cash Accounting feature.

Field Name	Description	Location
<b>Tax Date Method</b>	<p>This field shows the tax date applying to the current entry. The tax date on which the entry is based can be the:</p> <ul style="list-style-type: none"> <li>▪ <b>Entry Date</b> — Select this option if you want the tax settlement period to be the invoice entry date.</li> <li>▪ <b>Invoice Date</b> — Select this option if you want the tax settlement period to be the date of the registration on which the invoice entry is based.</li> <li>▪ <b>Payment Date</b> — Select this option if you want the tax settlement period to be the date on which the invoice is paid. This is the default value.</li> </ul>	<p>General Ledger » Financial Operations » Tax » Tax Settlement Tab » Tax Reporting Unit Sub-tab » Reporting Unit island</p> <p>Setup » General Ledger Setup » Tax » Tax Codes » Tax Code tab</p> <p>Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code tab</p>
<b>Post Tax as Accrued Until Paid</b>	<p>Select this option to post the tax amount into an accrued VAT account until the invoice is paid. At that point, the tax will be moved to the regular VAT account to be paid to the tax authorities.</p> <p>If this option is not selected, the tax is posted directly to the regular VAT account for payment to the tax authority.</p>	<p>Setup » General Ledger Setup » Tax » Tax Codes » Tax Code</p> <p>Setup » General Ledger Setup » Tax » Tax Codes » Tax Code » Detailed » Tax Code</p> <p>Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code</p> <p>Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code » Detailed » Tax</p>
<b>Accrued Tax, Posting Reference</b>	<p>If the <b>Post Tax as Accrued Until Paid</b> option is selected, the tax is posted using this accrued posting reference. When the invoice is paid, the tax is moved to the regular tax account.</p>	<p>Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code » Detailed » Tax</p>

Field Name	Description	Location
<b>Accrued Investment Tax, Posting Reference</b>	If the <b>Post Tax as Accrued Until Paid</b> option is selected, the investment tax is posted using this accrued posting reference. When the invoice is paid, the tax is moved to the regular investment tax account.	Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code » Detailed » Investment Tax
<b>Accrued Tax, Posting Reference</b>	If the <b>Post Tax as Accrued Until Paid</b> option is selected, the tax is posted using this accrued posting reference. When the invoice is paid, the tax is moved to the regular tax account.	Setup » General Ledger Setup » Tax » G/L Tax Codes » G/L Tax Code » Detailed » Other Taxes  Setup » General Ledger Setup » Tax » Tax Codes » Tax Code » Detailed » Posting References
<b>Accrued, Posting Reference</b>	If the <b>Post Tax as Accrued Until Paid</b> option is selected, the tax is posted using this accrued posting reference. When the invoice is paid, the tax is moved to the regular tax account.	Setup » General Ledger Setup » Tax » Tax Codes » Tax Code » Posting Reference  Setup » General Ledger Setup » Tax » Tax Codes » Tax Code » Detailed » Posting References
<b>Accrued, Posting Reference</b>	If the <b>Post Tax as Accrued Until Paid</b> option is selected, the tax is posted using this accrued posting reference. When the invoice is paid, the tax is moved to the regular tax account.	Setup » General Ledger Setup » Tax » Tax Codes » Tax Code » Detailed » Posting References

## Posting of Job-Related Intercompany Entries Fields

The following field and parameter descriptions are related to the Posting of Job-Related Intercompany Entries feature.

### Fields

Field Name	Description	Location
Accrued Billing Price, Intercompany	Use this field to list the account for the posting of the accrued billing price.	Setup » Job Cost Setup » Dimensions » Activities Tab  Setup » Job Cost Setup » Dimensions » Posting References Tab

Field Name	Description	Location
Accrued Open Cost Price, Intercompany	Use this field to list the account for the posting of the accrued open cost price	Setup » Job Cost Setup » Dimensions » Activities Tab Setup » Job Cost Setup » Dimensions » Posting References Tab
Accrued Cost Price, Intercompany	Use this field to list the account for the posting of the accrued cost price	Setup » Job Cost Setup » Dimensions » Activities Tab Setup » Job Cost Setup » Dimensions » Posting References Tab
Accrued P&L, Intercompany	Use this field to list the account for the posting of the accrued P&L.	Setup » Job Cost Setup » Dimensions » Activities Tab Setup » Job Cost Setup » Dimensions » Posting References Tab

### Parameters

Parameter Name	Description	Location
Post Job Cost Intercompany Entries as Accrued until Invoiced	Use this company-specific system parameter to set up Maconomy so that unbilled revenue is not posted as revenue until invoiced.	Setup » System Setup » Parameters and Numbers » System Parameters

## Depreciation Calculation Fields

The following fields are related to the depreciation calculation feature.

### Assets Workspace

Field Name	Description
Depreciation Start Date	The date from which the depreciation periods start. The default value is the acquisition date.
Depreciation Base Date	The date used in order to calculate the depreciation of the asset. The default value is the acquisition date.
Periods After Depreciation Base Date	The number of periods left from the date on which the depreciation is based. This is calculated by the number of periods minus the periods between the depreciation start date and the date on which the depreciation is based.

### Asset Drafts Workspace

Field Name	Description
Depreciation Start Date	The date the asset has as Depreciation Start Date and Depreciate Based On date when created. The default value is the acquisition date.

### Purchase Order Asset Drafts Workspace

Field Name	Description
Depreciation Start Date	The date the asset has as Depreciation Start Date and Depreciate Based On date when created. The default value is the acquisition date.

### Vendor Invoice Asset Drafts Workspace

Field Name	Description
Depreciation Start Date	The date the asset has as Depreciation Start Date and Depreciate Based On date when created. The default value is the acquisition date.

## Data Archiving Fields

The Archiving workspace is added to Maconomy to provide archiving functionality.

### Archiving Workspace Fields

Use this workspace to identify the finance entries that you want to archive and to view logs that show the information that was archived.

#### Fields / Descriptions

Field	Description	Path
Archive Entries Before Date	Enter the date on which you want stop including finance entries to be archived.	<b>Setup » System Setup » Archiving</b> Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving tab » Archiving island
Company No.	Enter a range of company numbers for those companies whose finance entries you want to archive.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving tab » Archiving island

Field	Description	Path
Show Archiving Logs	Select whether or not the archiving logs should be displayed in the [name] sub-tab.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving tab » Selection Criteria island
Date	Enter a date range to identify the archiving logs to be displayed in the [name] sub-tab.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving tab » Selection Criteria island
Company No.	Enter a range of company numbers for those companies for which you want to display archiving logs in the [name] sub-tab.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving tab » Selection Criteria island
Company No.	Enter the company number of the company whose finance entries have been selected for archiving.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Company Name	Enter the name of the company whose finance entries have been selected for archiving.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Period Start	Enter the start date of the fiscal year for which finance entries have been marked	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Period End	Enter the end date of the fiscal year for which finance entries have been marked	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Archived By	This field displays the name of the user who selected the finance entries for archiving.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Archived Date	This field displays the date on which the finance entries were selected for archiving.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab
Archived Entries	This field displays the number of finance entries that are selected for archiving.	Single Dialogs » Set-Up» Archiving » Archiving Workspace » Archiving Logs sub-tab

## Actions / Descriptions

Action	Description	Path
Mark for Archiving	Use this action to select finance entries for archiving. Enter a range of companies and a cut-off date for age of entries to include.	Set-Up» Archiving » Archiving Workspace

## 2.2.1 Fields / Descriptions

This section lists fields and descriptions for 2.2.1 features.

### Modifying Tax Return Due Dates Fields

The following fields are added for the Modifying Tax Return Due Dates enhancement.

**Jobs » Job Administration » Tax Returns » Customer Tax Return Types » Tax Return Type**

Field	Description
Due Date Derivation	Select a value from the drop-down list to either derive the tax return due date from the tax return type, or derive the due date from the tax return type and adjust that date according to the client's fiscal year.
Allow Manual Changes to Due Dates	Select this check box to allow users to edit due dates for a specific tax return type.
Holiday Calendar Name	Enter or search for the name of the holiday calendar you need to use.

### Approve Invoice Allocation Line Workspace Fields

The following fields are added for the Approve Invoice Allocation Line Workspace enhancement.

**Approve Invoice Allocation Line To-Do » Approve Invoice Allocation Line workspace » Invoice Allocations filter list**

Field	Description
Approve	Click the green check mark to quickly approve an allocation line.
Approval Status	This field displays the current approval status of the selected allocation line.

**Approve Invoice Allocation Line To-Do » Approve Invoice Allocation Line workspace » Vendor Invoice tab**

Field	Description
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Field	Description
Approve all	Click this action to approve all allocation lines assigned to you for a specific vendor invoice.
Reject all	Click this action to reject all allocation lines assigned to you for a specific vendor invoice.
Undo All Approvals/Rejections	Click this action to undo approval or rejection of all allocation lines assigned to you for a specific vendor invoice.

## Masking User Information Workspace Fields

The following fields are added for the Masking User Information enhancement.

### Setup » System Setup » Parameters and Numbers » System Parameters Tab

Field	Description
Allow User Masking for Company	Select this field to enable user, employee, and company masking.
Remarks 1 – 3	Enter any remarks as appropriate. These fields are optional.
Company No.	Enter or search for the number of one or more companies for which you want to enable masking. This field is validated; the company number must exist in Maconomy. You must enter a value in this column.
Allow User Masking for Company	Select this column to enable masking for the specified company.
Remarks 1 – 3	Enter any remarks as appropriate. These columns are optional.

### Human Resources » Masking » User Masking Tab

Field	Description
User mask	Enter the string to use to mask user names. You can enter any string, with a maximum length of 50 characters. The masking routine replaces the selected user names with this string. You must enter a value in this field.
Employee mask	Enter the string to use to mask employee names. The masking routine replaces all employee names that have the selected numbers with this string. You can enter any string, with a maximum length of 50 characters. You must enter a value in this field.

Field	Description
User Name	<p>Enter or search for the user name(s) that you want to mask. The masking routine replaces occurrences of this user name with the value that you enter in the <b>User mask</b> field.</p> <p>The value in this column is not validated. This enables you to locate and mask information for user names that have already been removed from Maconomy, but that still exist in various locations, such as change logs and database tables.</p> <p>You can specify just user names, just employee numbers, or both user names and employee numbers.</p>
Employee No.	<p>Enter or search for the employee number(s) whose associated names you want to mask. The masking routine replaces all employee names that have the selected numbers with the value that you enter in the <b>Employee mask</b> field.</p> <p>The value in this column is validated; the employee number must exist in Maconomy.</p> <p>You can specify just employee numbers, just user names, or both employee numbers and user names.</p>

**Human Resources » Masking » User Masking Tab**

Action	Description
Perform User and Employee Masking	Runs the masking routine according to the masking specifications that you provide.

**Single Dialogs » Human Resources » Registration » Company Masking single dialog workspace » Company Masking tab**

Field	Description
User mask	<p>Enter the string to use to mask all user names for the specified company. You can enter any string, with a maximum length of 50 characters. The masking routine replaces all user names associated with the specified company with this string.</p> <p>You must enter a value in this field.</p>
Employee mask	<p>Enter the string to use to mask all employee names for the specified company. The masking routine replaces all employee names associated with the specified company with this string. You can enter any string, with a maximum length of 50 characters.</p> <p>You must enter a value in this field.</p>

Action	Description
Perform Company Masking	<p>Runs the masking routine according to the masking specifications that you provide. All user and employee information associated with the specified company is masked.</p> <p>If you click this action after specifying several company numbers in the Company Masking sub-tab, all user and employee information associated with the specified companies are masked.</p>

**Single Dialogs » Human Resources » Registration » Company Masking single dialog workspace » Company Masking sub-tab**

Field	Description
Company No.	<p>Enter the number of the company whose user and employee information you want to mask.</p> <p>If you want to mask user and employee information for more than one company, you can enter several company numbers.</p>

## Project Manager Visibility of Expense Reports Fields

Single Dialogs > Job Cost > Registration > Approve Expense Sheet Lines

(Project Manager Approval workspace > Expenses > Approve Expense Sheet Lines)

Action	Description
View Document	Select this action to open the document attached to an expense sheet line. This function is used to attach supporting documentation to help the Project Manager decide whether to approve or reject the line.

## Credit Control Fields

Credit Control Setup » Information

Field	Description
Standard Credit Control Event Flow Type	You can define the Event Flow from Maconomy in the Credit Control Setup window, for each company. This ensures that the Event Flow used when registering new lines in the cash collections history table is representative of the workflow defined in the relevant event flow setup in Maconomy.
Overdue Number of Days for Traffic Lighting	This field enables a column in the Credit Control Cash Collection tab— <b>Days Overdue</b> —to become green or red, based on whether the relevant customer invoice is overdue at or beyond the number of days identified in this setup field.
Credit Limit Notification %	This field works in conjunction with a standard notification, which is sent to the Credit Controller if the customer reaches a certain percentage of their overall credit limit.

Credit Control » Customer Information

Field	Description
Credit Controller	The <b>Credit Controller</b> field is used to store the internal employee ultimately responsible for the customer's cash collections activities.

## Additional Fields

Additional field descriptions are available in the online help.

## 2.2.2 Fields / Descriptions

### Blocking Dissolving Companies with Open Assets

The following system parameter is added for the Blocking Dissolving Companies with Open Assets enhancement.

**Setup » System Setup workspace » Parameters and Numbers tab » System Parameters sub-tab**

Parameter	Description
Allow to Block Companies with Open Assets	If you enable this company-specific system parameter, Maconomy allows you to block a company even if it has assets that are not fully depreciated.

### Additional Selection Criteria for Exporting Data

The following fields are added for the Additional Selection Criteria for Exporting Data enhancement.

**Single Dialogs » General Ledger » Data Exchange » Export Data single dialog workspace**

Field	Description
Executing Company No.	In these fields, you can limit the amount of data exported to a selection of executing companies in the Maconomy system.
Location	In these fields, you can specify a range of values for the Location dimension. Only entries with values falling within the specified range are included in the export.
Entity	In these fields, you can specify a range of values for the Entity dimension. Only entries with values falling within the specified range are included in the export.
Project	In these fields, you can specify a range of values for the Project dimension. Only entries with values falling within the specified range are included in the export.
Purpose	In these fields, you can specify a range of values for the Purpose dimension. Only entries with values falling within the specified range are included in the export.
Spec. 1	In these fields, you can specify a range of values for the Spec. 1 dimension. Only entries with values falling within the specified range

Field	Description
	are included in the export.
Spec. 2	In these fields, you can specify a range of values for the Spec. 2 dimension. Only entries with values falling within the specified range are included in the export.
Spec. 3	In these fields, you can specify a range of values for the Spec. 3 dimension. Only entries with values falling within the specified range are included in the export.
Local Spec. 1	In these fields, you can specify a range of values for the Local Spec. 1 dimension. Only entries with values falling within the specified range are included in the export.
Local Spec. 2	In these fields, you can specify a range of values for the Local Spec. 2 dimension. Only entries with values falling within the specified range are included in the export.
Local Spec. 3	In these fields, you can specify a range of values for the Local Spec. 3 dimension. Only entries with values falling within the specified range are included in the export.

## Enhanced Remarks Fields for Vendor Entries

The following fields are not displayed by default, but the view can be customized to display them.

**Banking » Payments workspace » Selection tab » Approve sub-tab » Entries sliding panel**

**Banking » Payments workspace » Selection tab » Edit sub-tab » Selection sliding panel » Entries portion**

Field	Description
Remarks 1-5	These existing fields are now editable.

## Expense Sheet Functionality for Touch

The following fields and action are added as part of an enhancement to Touch Expense Sheet functionality.

These fields and action are not displayed by default, but the view can be customized to display them.

- For the tabs and filter list, the consultant or power user can display the fields and action by including them in the layouts (.mdml).
- For the sub-tabs, the user can display the fields by using the Column Chooser.

**Single Dialogs » Job Cost » Registration » Expense Sheets single dialog workspace » Expense Sheets tab**

Field	Description
Expense Sheet Header Status	<p>This field displays the status (New/Approved/Rejected/Submitted/In Progress) of the expense sheet header.</p> <p>When added to the layout, this field is found in the Status island.</p>
Document Archive Line Count	<p>This field displays the number of documents in the document archive that are attached to the expense sheet header.</p> <p>When added to the layout, this field is found in the Document Archive island.</p>
Removed Document Name	<p>In this field, you can enter the name of the document you would like to delete when you click the <b>Remove Document</b> action.</p> <p>When added to the layout, this field is found in the Document Archive island.</p>

Action	Description
Remove Document	<p>Click this action to remove the document specified in the <b>Removed Document Name</b> field from the document archive on the expense sheet header, and reset all potential links from the expense sheet lines.</p> <p>If the specified document is not used in any expense sheet lines or vendor invoices, Maconomy deletes it from the document archive.</p> <p>If the specified document is used only in expense sheet lines for that particular expense, the user receives a notification message and needs to confirm the deletion. Once the user confirms the deletion, Maconomy detaches the document from the lines and deletes it from the archive.</p> <p>If the specified document is also used in other expense sheets or vendor invoices, then it is not possible to delete it. Maconomy displays an error message.</p>

**Single Dialogs » Job Cost » Registration » Expense Sheets single dialog workspace » List of Expense Sheets filter list**

Field	Description
Expense Sheet Header Status	This field displays the status (Approved/Rejected/Submitted/In Progress) of the expense sheet header.
Base Currency	This field displays the base currency (that is, the currency of the company to which the employee on the expense sheet is attached).

**Single Dialogs » Job Cost » Registration » Mileage Sheets single dialog workspace » Mileage Sheets tab**

Field	Description
Expense Sheet Header Status	This field displays the status (New/Approved/Rejected/Submitted/In Progress) of the mileage sheet header.  When added to the layout, this field is found in the Status island.

**Single Dialogs » Job Cost » Registration » Mileage Sheets single dialog workspace » Mileage Sheet Lines sub-tab**

Field	Description
Line Customer Name1	This field displays Name 1 of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Name2	This field displays Name 2 of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Name3	This field displays Name 3 of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Name4	This field displays Name 4 of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Name5	This field displays Name 5 of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Zip Code	This field displays the zip code of the “Ship to” Customer, for the job used on the mileage sheet line.
Line Customer Postal District	This field displays the postal district of the “Ship to” Customer, for the job used on the

Field	Description
	mileage sheet line.
Line Customer Country	This field displays the country of the “Ship to” Customer, for the job used on the mileage sheet line.

## 2.2.3 Field / Descriptions

### Job Surcharges

#### Job Parameters

Note that the changes in this window are *changes in data* – not new fields.

We introduce a new type of job parameter: “Surcharge” with the following attributes:

- “Apply Surcharge at Invoicing, T&M” with a “Yes/No value”.  
Set to **No** to calculate the job surcharge at registration.  
Set to **Yes** to calculate the job surcharge as part of invoice selection.  
Note that this setting can only be set to **No** when the “Keep Dimensions on Surcharge” attribute is set to **Yes**.
  - Setup for a job can only change before job entries are registered.
- “Apply Surcharge at Invoicing, On Account” with a “Yes/No value”.  
Set to Yes to enable calculation of surcharge at invoicing for invoices on account.  
Set to No to disable calculation of surcharges at invoicing for invoices on account.
- “Action on Missing Surcharge, T&M” with four options: Left blank, “Warn”, “Stop”, “Calculate”.  
The attribute controls how Maconomy will react if you approve invoice selection without surcharge and the job is set up to apply a surcharge.
  - [blank] — If the value is left blank, then the user is not given any message upon forgotten surcharge calculation when approving the selection.
  - **Warn** — (Warning) Select this option so that the user receives a warning but can continue processing.
  - **Stop**— (Error) Select this option so that the user receives an error, and cannot go forward until the error is resolved.
  - **Calculate**— (None) Select this option so the user receives no message, but surcharges are *automatically* calculated when the user *approves* the selection (if the user did not already perform the surcharge calculation before approval).  
Setup for a job can change anytime.
- “Action on Missing Surcharge, On Account”.  
Same as the above but for on account invoicing.
  - Setup for a job can change anytime.
- “Action on Missing Surcharge, Budget”.  
Same as the above but for surcharge on job budgets. For budgets the action applies to “Submit Budget”.
  - Setup for a job can change anytime.
- “Keep Dimensions on Surcharge” of type “Yes/No value”.
  - Select **No** to indicate that the surcharge entry gets (likely incomplete) dimensions from the surcharge rule line. The dimensions of the underlying basis for the calculation of surcharge (i.e. the job budget lines, job entries or on account entries selected for invoicing) are not kept. Instead, the job surcharge entries receive dimensions derived only from the standard task for surcharge and the dimensions specified on the surcharge rule line. Maconomy first takes the

dimensions specified on the surcharge rule line, then overwrites by the standard task for surcharge (if any).

- Select **Yes** to indicate that the surcharge entry will get the "same" dimensions as the entry for which it charges, the standard task for surcharge, and the dimensions on the surcharge rule line. Maconomy first takes the dimensions from the job entry (or on account entry), then overwrites by the dimensions specified on the surcharge rule line (if any).

Note that this setting can only be set to No when “Apply Surcharge at Invoicing, T&M” is set to **Yes**.

Note that this setting affects the calculation of surcharge in job budgets and the calculation of surcharge at invoicing. **It does not affect surcharges applied at registration.**

## Job Surcharge Rules

### Card Part

#### Selection Criteria

Activity Type	Use this field to restrict on the rule lines shown in the table. If this field is completed, then the table only includes rules that either do not restrict on activity type or which restrict on the same activity type as this type.
Entry Date	Use the field to restrict on the rule lines shown in the table. The table only includes rules either without restriction on the entry date or with a restriction on entry date range which includes this date.

### Table Part

Activity Type	Use this field to specify that the given surcharge line only applies to Time or Amount activities.
Entry Date From	Use the field to specify that the surcharge line only applies to entries with an entry date including and after a given date. Surcharge at invoicing on account is calculated as of the preferred invoice date or current date, if the former is blank. Surcharge on job budgets is calculated as of the current date.
Entry Date To	The end of the date range described above.

## Task Lists

### Card Part

#### Standard Tasks

Surcharge	Use this field to specify a task for the job surcharge.
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## Job Tasks

### Card Part

#### Standard Tasks

Surcharge                      Use this field to specify a task for the job surcharge.

### Invoice Selection

#### Actions

Calculate Surcharge            Use this action to calculate the surcharge based on the Job Surcharge Rule specified on the job. The surcharge is calculated based on the current invoice selection (T&M, On Account, or both). Directly created job entries (**direct invoicing**) are included in the calculation of surcharges.

The action is enabled if the job has the job parameter “Surcharge at Invoicing” set to Yes and if the job is open for invoice selection.

### On Account Invoice Selection

#### Actions

Calculate Surcharge            Same as for Invoice Selection.

### Blanket Invoice Selection

#### Actions

Calculate Surcharge            <Almost the same as for Invoice Selection:>  
This <new> action calculates surcharge based on the Job Surcharge Rule specified on the jobs separately. The action applies only for the jobs set up to use “Surcharge at Invoicing” (a job parameter) and only for those jobs that are open for invoice selection.

### Approve Invoice Selection

#### Actions

Calculate Surcharge            Same as for *Blanket* Invoice Selection.

### Invoice Editing

### Card Part

Invoice/Credit Memo

Invoice Date For invoices on account with surcharge, the surcharge is calculated as of the preferred invoice date. However, it is not recalculated if you change the invoice date. Instead, a **warning** message displays.

## Invoice Layout Rules

### Card Part

#### General

Show Markup Separately Surcharge entries created by the action Calculate Surcharge are excluded from the markup that is shown separately.

Show Write Down Separately Surcharge entries created by the action Calculate Surcharge are excluded from the write down that is shown separately.

### Upgrading

The upgrade introduces a new standard job parameter of type **Job Surcharges, Standard** with attributes set as follows (to be backwards compatible, and turns on no new functionality):

Apply Surcharge at Invoicing, T&M	No
Apply Surcharge at Invoicing, On Account,	No
Action on Missing Surcharge, T&M	<blank>
Action on Missing Surcharge, On Account	<blank>
Action on Missing Surcharge, Budget	<blank>
Keep Dimensions on Surcharge	Yes

## 2.2.5 Field Descriptions

### Job Budget Periodization

**Jobs » Jobs » Budgeting » Budget**

**Jobs » Jobs » Progress Evaluation » Progress Evaluation**

**Single Dialogs » Job Cost » Budgeting » Job Budgets Card by Type API**

**Single Dialogs » Job Cost » Budgeting » Job Budgets Table by Type API**

**Single Dialogs » API » Job Cost » Budgeting » Job Budgets Card API**

Action	Description
Periodize Budget	Use this action to evenly distribute the non-periodic budget on a job based on its start and end date.  Note: By default, this action is disabled. You must enable the <b>Allow Job Budget Periodization Action</b> system parameter to

Action	Description
	<p>use this action.</p> <p>For job budget lines with time or amount activities, periodization is applied by:</p> <ul style="list-style-type: none"> <li>• Time activity - Periodization applies the same unit prices as the job budget line and a uniform distribution of the quantity of the budget lines over the periods.</li> <li>• Amount activity - Periodization distributes the total cost and billing price uniformly with a value of one quantity in each period.</li> </ul> <p><b>Note:</b> This functionality is available only on budgets that are not submitted or approved, and on open jobs only.</p> <p>You can also use this action to update the periodic forecasts. By default, this feature is disabled. You must enable the <b>Maintain Periodic Forecasts from Periodic Job Budgets</b> system parameter to use this feature.</p> <p><b>Note:</b> Periodization is determined by the planned start and end dates specified on each budget line. If you do not enter dates on a budget line, periodization is based on the dates specified on the job itself.</p> <p>Use this action on planning budgets with ETC to allow the system to automatically distribute ETC evenly from the estimate date to the expected end date.</p>

**Setup » System Setup » Parameters and Numbers » System Parameters**

**Single Dialogs » System Setup » Parameters and Numbers » System Parameters**

System Parameter	Description
Allow Job Budget Periodization Action	Enable this system parameter to enable the use of the Periodize Budget action in Maconomy.
Maintain Periodic Forecasts from Periodic Job Budgets	Enable this system parameter to allow Maconomy to propagate all changes to the periodic forecast whenever you make changes in the periodic job budget.
Allow Job Budgeting Outside Job Date Range	Enable this system parameter to allow planned start and end dates on the latest job budget

System Parameter	Description
	revision that are out of range of the job's start and expected end date. Enabling this system parameter also allows periodic budgeting outside the job's date range.



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