

Deltek Touch for Maconomy

Touch 2.0 Layout Configuration Guide

December 2016

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Overview

The Deltek Touch for Maconomy Layout Configuration Guide describes tasks necessary for the customization of layouts of the Deltek Touch for Maconomy 2.0 application using either MScript or RESTful Web services. For example, the customers may want to add or remove fields to/from a screen.



For technical information, such as pre-installation requirements and compatibility mode definition, see *Deltek Touch for Maconomy Release Notes*.

This document contains the following topics:

- Layout Configuration Introduction
- Customization Tasks
- Layout Components and Attributes
- Syntax Descriptions
- Screens, Layout Files, and Metadata Files
- There are topics, however, that only apply to either MScript or REST.



The official name of the application is *Deltek Touch for Maconomy*. This document only uses it at first mention. The succeeding instances of the application name display *Deltek Touch*.

In addition, the application name in *Apple App Store*, *Google Play Store*, and *Windows Store* displays *Deltek Touch for Maconomy*.

Audience

The guide is intended for the technical consultant or power users who make layout changes to Deltek Touch. This document explains only common configuration tasks and field attributes.



Once you have configured the system, you must log on again to Deltek Touch to ensure that all changes take effect.

For Additional Information

Customer Care Connect Site

The Deltek Customer Care Connect site is a support Web site for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Customer Care Connect site provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Connect Customer Forums
- Access Cloud specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Customer Care analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Use Quick Chat to submit a question to a Customer Care analyst online



For more information regarding Deltek Customer Care Connect, refer to the online help available from the Web site.

Access Customer Care Connect

To access the Customer Care Connect site, complete the following steps:

1. Go to <http://support.deltek.com>.
2. Enter your Customer Care Connect **Username** and Password.
3. Click Log In.



If you forget your username or password, you can click the **Account Assistance** button on the login screen for help.

Available Documentation for this Release

The following table lists the Deltek documentation available for this release. Except where noted, all the user guides and quick reference guides listed in this table are available for download from the Deltek Customer Care Connect site.

| Document Name | Description |
|--|--|
| Deltek Touch for Maconomy Installation Guide | This document provides instructions for the installation and configuration of application. |

| Document Name | Description |
|---|---|
| Deltek Touch for Maconomy Release Notes | This document contains a summary of the technical considerations, major features, and known issues of the application. |
| Deltek Touch for Maconomy User Guide | This document contains detailed information and instructions on how to use various features of the application. |
| Deltek Touch for Maconomy Upgrade Guide | <i>This document is only intended for Technical Consultants.</i> It describes necessary steps to upgrade to the latest Touch system. |
| Deltek Touch for Maconomy MScript and RESTful Web Services Comparison Guide | This document describes the differences between MScript and Representational State Transfer (REST) Web services to help technical consultants prepare for implementing Deltek Touch for new users or migrate their current Touch installation to REST. |
| Deltek FPU Release Notes for Maconomy Touch | <i>These documents are only intended for Technical Consultants.</i> There are four FPU release notes, each of which applies to the supported Maconomy core version. Each document contains a summary of the pre-installation information, enhancements, and API changes to Touch for each supported Maconomy version. It is part of the Deltek Touch for Maconomy product information suite and should only be distributed internally within the Maconomy organization and to partners. |

Customization Tasks

This chapter discusses several customization tasks that you can perform on Deltek Touch screens as well as the customization process itself.

You can now customize Deltek Touch by using Maconomy Extender 1.5.3 or later.

Using Extender for customizations is highly recommended, since it allows easy deployment, user friendly editor and source control for your customizations.

Customization Process Using Maconomy Extender

Maconomy Extender 1.5.3 and later supports Touch customizations, including the following items:

- **Layout Configuration** – This allows changes to screen layouts (such as adding, removing and reordering fields on screens). In your Extender project, create a Custom folder with the Layouts sub-folder in the Touch directory. Drag and copy the standard layout file into the said folder, and make necessary changes to the file.
- **Server-Side Settings** – This allows changes to settings relevant for the business functionality in Deltek Touch (such as submit mode, week start, SSO, and custom submit timesheet action). In your Extender project, create a Custom folder in the Touch directory, if it does not yet exist. Drag and copy the standard DeltekTouch.I file into the said folder, and change the settings.
- **Search and Query Configuration** – *This item only applies to MScript.* This allows changes to queries used for search screens (such as Task List and Find Job) and list screens (such as Expense Sheets, Rejected Timesheets, and Timesheets to Approve). In your Extender project, create a Custom folder in the Touch directory, if it does not yet exist. Drag and copy the standard DeltekTouch.I file into the said folder, and change the search layouts and/or queries.
- **Maconomy CGI Settings** – *This item only applies to MScript.* This allows changes to the MaconomyTouch CGI program used for Touch Web service (such as, timeout and logging). In your Extender project, create a server-specific mapping file. Drag the standard MaconomyTouch.I into the said file, and change the settings. Make sure that the mappings are set properly so that the file is deployed on the correct Maconomy Web server.



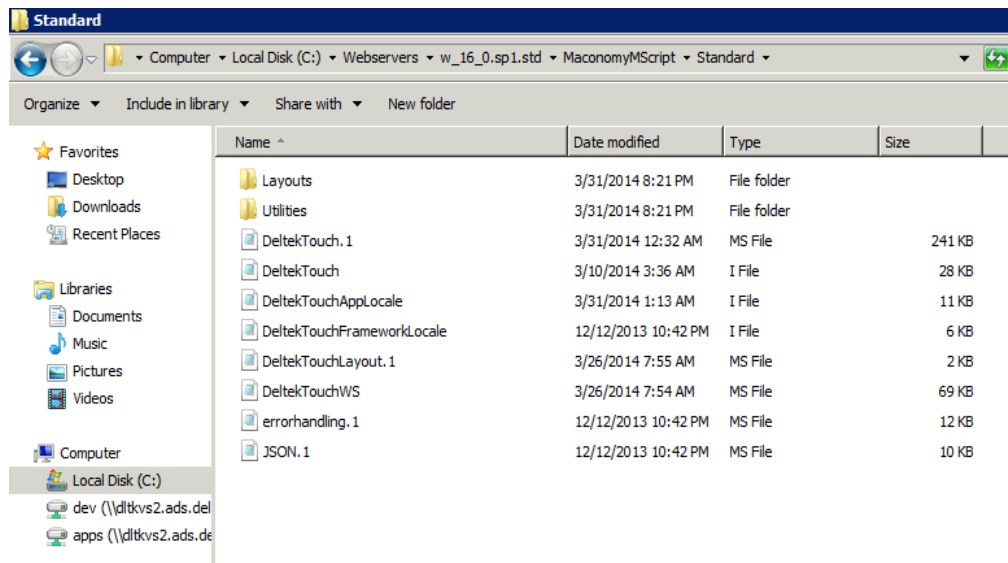
For additional details please check out the [Configuration Guide and Extender Handbook](#).

Customization Process Using a Text Editor

In case you do not have access to Extender, you can still customize Touch using any text editor.



All layout files are saved in the [MaconomyMScript/Standard/Layout](#) folder.



Maconomy Server-Side

Standard/Layouts

Custom/Layouts

Copy the layout file you want (for example, TimesheetLayout.I)

Open and modify the layout

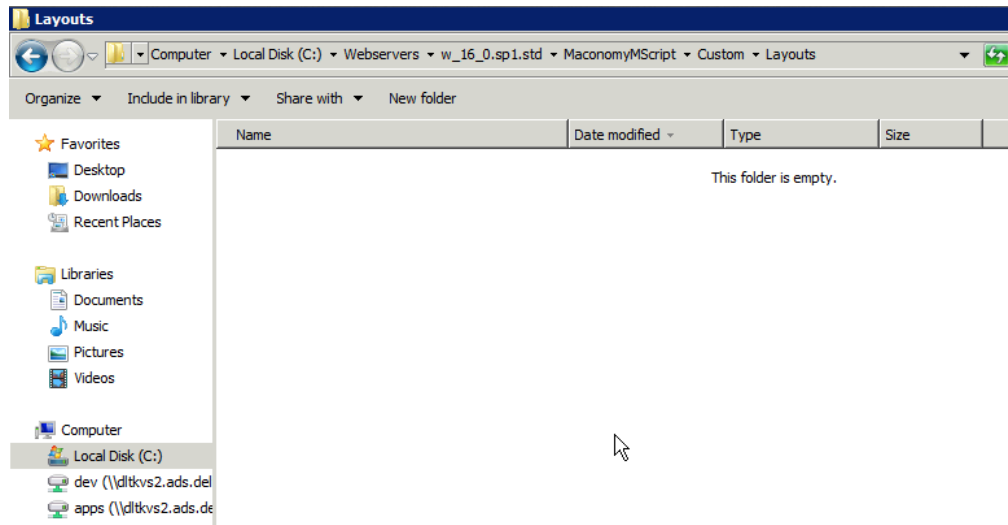
```

{
  layoutname: #N"TimesheetLayout",
  layout: [
    {
      region: #N"ToolBarArea",
      protectedregion: true
    },
    {
      region: #N"StatusArea",
      protectedregion: true
    },
    {
      region: #N"CalendarCarousel",
      protectedregion: true
    },
    {
      region: #N"TotalHoursRegistered",
      protectedregion: false,
      purpose: #N"For total hours registered.",
      type: #N"lineartext",
      style: {
        textalignment: #N"right",
        color: #N"00488a",
        fontsize: #N"9pt"
      },
      items: [
        {
          type: #N"label",
          title: #T"Total hours registered:"
        },
        {
          type: #N"field",
          targetnode: #N"{DayTotals}",
          source: #N"TotalRegisteredHours",
          mask: #N"hours"
        }
      ]
    }
  ]
}

```

- 

Touch 2.0 Layout Configuration Guide



2. Open the layout file and make the necessary changes.



Deltek recommends that you give careful consideration to the syntax, declaration, and rules.

3. When you are done, save the layout.
4. Log in again to Deltek Touch to validate if the customization has already been applied to the screen.

Configure the Timesheet Line or Add Job Screen

To configure the Timesheet Line or Add Job screen, complete the following steps:

1. In the **MaconomyMScript** folder, create a new folder called **Custom**. The **Custom** folder displays on the same level as the **Standard** folder.
2. Create a Layouts folder under the Custom folder
3. Copy **TimesheetLogEntryLayout.I** from **Standard/Layouts** to **Custom/Layouts**.
4. In the **Custom** folder, edit **TimesheetLogEntryLayout.I** in any text editor.
 - Make sure that you remove license lines. If present, these lines display on the top.
 - Change the file accordingly to your needs

Configure an Approval or a Summary Screen



For the list of layouts and corresponding metadata files, see the [Appendix: Screens, Layouts, and Metadata Files](#) section of this document.

To configure the Approval or Summary screen, complete the following steps:

1. In the **MaconomyMScript** folder, create a new folder called **Custom**. The **Custom** folder displays on the same level as the **Standard** folder.
2. Copy the particular layout file that you need to customize from **Standard** to **Custom**.

3. In the **Custom** folder, edit the layout file in any text editor.
4. If you want to add or update the fields in the layout file, you can use the corresponding metadata file of this layout file. It uses the file name format **[layoutfilename]MetaData**, for example, TimesheetMetaData.l.

Heavyweight Configuration

If you need to make changes to the business processes supported by Touch, we have what we call heavyweight configuration; meaning, changes to the MScript source code.

Depending on the nature of your requirements, you need to change the following files:

- **Time.1.ms** — For changes to the time registration workflow (open timesheet, save timesheet line, copy timesheet line, and submit timesheet)
- **DeltekTouch.1.ms** — For changes to the approval, expense, and mileage flows
- **DeltekTouchWS.ms** — For login changes

Regardless of the nature of your requirements, you should always create a custom version of the file you change and place it in the .../MaconomyMScript/Custom folder.

The most typical heavyweight configurations are used for the following tasks:

- Saving timesheet lines, creating a new line, editing existing line
- Submitting timesheets
- Showing timesheets

In these cases, you need to perform the following steps:

1. Create MaconomyMScript/Custom folder (if it does not yet exist).
2. Copy MaconomyMScript/Standard/DeltekTouchWS.ms to MaconomyMScript/Custom folder.
3. Change MaconomyMScript/Custom/DeltekTouchWS.ms to have the proper file links:
 - uses Standard::errorhandling(1) as errorHandler;
 - uses Standard::JSON(1) as JSON;
 - uses Standard::DeltekTouch(1) as DeltekTouch;
 - uses Standard::Utilities::DateCalculation(1) as dateCal;
 - uses Standard::DeltekTouchLayout(1) as DeltekTouchLayout;
 - uses .::Time(1) as Time;
4. Change configuration.ini to use Custom/DeltekTouchWS.ms instead of Standard/DeltekTouchWS.ms, in the URL.
5. Copy Time.1.ms from Standard to Custom.
6. Change Custom/Time.1.ms to have the proper file links:
 - uses Standard::DeltekTouch(1) as DeltekTouch;
 - uses Standard::Utilities::DateCalculation(1) as dateCal;
7. Change Custom/Time.1.ms based on your requirements.



When upgrading Touch, you need to update all your custom files manually.

Query Configuration

This section only applies to MScript.

In Touch 1.4, we are opening the relevant queries used in Touch for customization to help you easily control which fields you would like in lists, condition to be used for fetching the content of the list, and sort order. This is achieved by adding so called “queries” to DeltekTouch.I.

The following screens are using queries:

- Timesheet Approval
- Timesheet Line Approval
- Job (opened from Timesheet Line Approval)
- Expense Sheet Approval
- Expense Line Approval
- Expense Sheet Lines (opened from Expense Line Approval)
- PO Approval
- PO Line Approval
- POs job (opened from PO Line Approval)
- Vendor Invoice Approval
- Invoice Allocation Approval
- Vendor Invoices (opened from Invoice Allocation Approval)
- Draft Invoice Approval
- Items for Approval
- Rejected Timesheets
- Expense Sheets (in Maconomy 2.0 and later)
- Mileage Sheets (in Maconomy 2.0 and later)

You can now perform the following actions on the mentioned screens:

- Add more fields to the layout
- Change the ordering of the items in the list
- Change the condition used to fetch the items in the list



Each screen displays a list of items. These items are fetched using a query (typically to a universe; sometimes directly to the database). These queries are now available for customizations in DeltekTouch.I setup file.

For the abovementioned changes, you need to change the corresponding query in your custom Touch setup file (...\\Custom\\DeltekTouch.I). A query has three parts to which you can make changes:

- **MSELECT**– This part allows you to add fields.
- **WHERE**–This part allows you to change the condition for the data
- **ORDER BY** –This part allows you to change the ordering of the items in the list.



In general, Deltek recommends that you do not delete information from the queries.

Example of query in DeltekTouch.I:

```
// List of time sheets to be approved
```

```
SupervisorApprovalListQuery:
```

```
{
```

```
  Operation: #N"getTimesheetsToApprove",
```

```
  Layout: #N"SupervisorApprovalListLayout",
```

```
  Metadata: #N"SupervisorApprovalListMetadata",
```

```
  Title: #T"Timesheets To Approve",
```

```
  Fields:
```

```
  [
```

```
    {Name: #K"EmployeeNumber", Title: #T"Employee Number"},
```

```
    {Name: #K"EmployeeType", Title: #T"Employee Type"}]
```

```
  ],
```

```
  searchInfo:
```

```
  {
```

```
    mqlQuery: 'MQL',
```

```
    MSELECT
```

```
      TimeSheetHeader.EmployeeNumber as EmployeeNumber,
```

```
      TimeSheetHeader.EmployeeName as EmployeeName,
```

```
      TimeSheetHeader.PeriodStart as StartDate,
```

```
      TimeSheetHeader.PeriodEnd as EndDate,
```

```
      TimeSheetHeader.WeekNumber as WeekNumber,
```

```
      TimeSheetHeader.TheYear as Year,
```

```
      TimeSheetHeader.Part as Part,
```

```
      TimeSheetHeader.InstanceKey as TimeSheetHeaderInstanceKey
```

```
      TimeSheetHeader.ApprovalGroupInstanceKey as
```

```
      ApprovalGroupInstanceKey,
```

```
      TimeSheetHeader.ExternalTimeWeekTotal as ExternalTimeWeekTotal,
```

```
      TimeSheetHeader.InternalTimeWeekTotal as InternalTimeWeekTotal
```

```
FROM
```

```
  Integration::MaconomyMobile::Universes::TimeSheetHeaderApprovalU
```

```
WHERE
```

Query name

Layout file name

Metadata file name

AS EmployeeName

AS ExternalTimeWeekTotal

```

ApprovalLine.Approver = paramEmployeeNumber
or (ApprovalLine.ApproverEmployeeType = paramEmployeeType
and ApprovalLine.ApproverEmployeeType <> EmployeeTypeType 'Nil')
ORDER BY
    EmployeeName, StartDate
USING PARAMETERS
    paramEmployeeNumber: string,
    paramEmployeeType: EmployeeTypeType
MQL
parameters:
[
    { Name: #K"paramEmployeeNumber", fromField: #K"EmployeeNumber"},
    { Name: #K"paramEmployeeType", fromField: #K"EmployeeType" }
]
}
},

```



A blue callout box with a rounded rectangle shape points from the text "Clear and Edit Query" to the "ORDER BY" clause in the MQL code block above.

You must NOT modify the parts highlighted in **red**. You can make changes to the parts highlighted in **green**, as described in the succeeding sections.

Add Fields

If you want to add fields to the any of the screens mentioned in the previous section, you need to change your custom DelttekTouch.I before changing the corresponding layout file. To do this, complete the following steps:

1. Identify the screen which you would like to change (e.g. Timesheet Approval)
2. Identify the field you would like to add (e.g. the company = CompanyNumber field)
3. Find the custom layout to change (e.g.
...\Custom\Layouts\SupervisorApprovalListLayout.I)
4. Add field to the custom layout (CompanyNumber field to SupervisorApprovalListLayout.I)
5. Find the query to change in ... \Custom\DelttekTouch.I (e.g.
SupervisorApprovalListQuery).
The easiest is to search for the layout name (e.g. SupervisorApprovalListLayout) in the file.
6. Add the field to the query, after MSELECT.

Example:

MSELECT

```
TimeSheetHeader.CompanyNumber as CompanyNumber,
TimeSheetHeader.EmployeeNumber as EmployeeNumber,
TimeSheetHeader.EmployeeName as EmployeeName,
TimeSheetHeader.PeriodStart as StartDate,
TimeSheetHeader.PeriodEnd as EndDate,
TimeSheetHeader.WeekNumber as WeekNumber,
TimeSheetHeader.TheYear as Year,
TimeSheetHeader.Part as Part,
TimeSheetHeader.InstanceKey as TimeSheetHeaderInstanceKey
TimeSheetHeader.ApprovalGroupInstanceKey as
ApprovalGroupInstanceKey,
TimeSheetHeader.ExternalTimeWeekTotal as ExternalTimeWeekTotal,
TimeSheetHeader.InternalTimeWeekTotal as InternalTimeWeekTotal
```

Change Order

Some of the screens allow you to change the order of the items in the list by changing your custom DelttekTouch.I.

1. Identify the screen which you would like to change (for examples, Timesheet Approval)
2. Identify the new ordering (for example, by StartDate)
3. Find the query to change in ... \Custom\DelttekTouch.I (for example,
SupervisorApprovalListQuery).
4. Change the order in the query, after ORDER BY.

Example:

ORDER BY

StartDate

You must NOT change the order of items on the following screens:

- **Expense Sheet Approval** (ApprovalExpenseSheetListQuery)
- **Expense Sheet Lines**, which opened from **Expense Line Approval** (ApprovalExpenseSheetLineListQuery)
- **Vendor Invoices**, which are opened from Invoice **Allocation Approval** (ApprovalVendorInvoiceListPMQuery)
- POs job, which are opened from **PO Line Approval** (ApprovalPurchaseOrderPMListQuery)

Change Condition

For those screens that you can modify, if you would pick the items in the list using a different condition, change your custom DeltekTouch.I.



Sample scenarios:

- Users want to see only items that they could approve by themselves, not by employee type (which was the functionality in Touch 1.3).
- Users would also like to view items that can be approved by All.

1. Identify the screen which you would like to change (for example, Timesheet Approval)
2. Identify the new condition (for example, approvals only by employee)
3. Find the query to change in ...\\Custom\\DeltekTouch.I (for example, SupervisorApprovalListQuery).
4. Change the condition in the query, after WHERE.
Example:

WHERE

ApprovalLine.Approver = paramEmployeeNumber



Changing condition is a difficult customization and must be treated with caution. Changes to conditions must be carried out across all approval queries, including the ItemsForApprovalQuery for the badges.

Layout Files

In Touch 2.0, we have two sets of layouts that correspond to the different Web services (MScript and REST) that Deltek Touch supports.

We needed the second set of layouts because the data structures provided by the two Web services are different.

The syntax and layout structure are the same for all layouts. The only difference is in the data. In some cases, the REST layout is a simple copy of the MScript layout with only the layout name and layout file name being different.

For a given area (for example, time, expense, and approvals), Deltek Touch always uses only one Web service. Therefore, once you identify which Web service you are going to use, you know which the set of layouts you need to customize.

For example:

Assuming that you use REST for time and expense, and MScript for approvals: if you need to customize time or expense layouts, you should change only the REST layout files. There is no need to customize the MScript layout files for time or expense because they are not going to be used. As for approvals, you need to customize only the MScript layout files.

MScript Layout Files

The Touch 2.0 MScript layout files are the same as the layout files in Touch 1.x.

These file have not changed since Touch 1.6.1 except for a minor change in ExpenseSheetLayout.I. This means that, if you have Touch 1.6.1 API and you customized any other layout than ExpenseSheetLayout.I, you do not need to update your custom layouts when you upgrade to Touch 2.0 (assuming that you continue using the MScript Web service).

REST Layout Files

The Touch 2.0 REST layout files are new files that were not present in Touch 1.x. The REST layout files are named similarly to the MScript layout files. The only difference is that the REST layout files are appended with "REST".

For example:

| MScript | REST |
|----------------------|--------------------------|
| ExpenseSheetLayout.I | ExpenseSheetLayoutREST.I |
| TimesheetLayout.I | TimesheetLayoutREST.I |

As mentioned above, in some cases, the REST layout file is almost an identical copy of the MScript layout file but with different name. There are some cases, however, when the data in the REST layout files (for example, source) is different. In addition, there are some instances when there are two REST layout files that correspond to one MScript layout files (for example, for the **Timesheet Line** screen, we have different REST layouts for the daily and weekly modes).

There are some REST layout files that have no MScript correspondent. These are mostly for search screens (for example, Find_JobHeader_Timesheet.I). In this case, we do not append the file name with REST.

Overall, the REST layout files support all configuration capabilities available in MScript layout files, allow you to perform the following tasks:

- Customize search layouts (for example: Find Job, Task List, and Mileage From)
- Have different layouts for weekly and daily timesheets
- Customize more in some screens (for example: Weeks, Calendar, and Summary)

Layout File Matrix

Time Registration

| MScript | REST |
|----------------------------|---|
| TimesheetLayout.I | TimesheetLayoutREST.I TimesheetDaysLayoutREST.I |
| TimesheetLogEntryLayout.I | TimesheetLogEntryWeeklyLayoutREST.I TimesheetLogEntryDailyLayoutREST.I |
| SummaryLayout.I | SummaryLayoutREST.I SummaryDailyLayoutREST.I |
| RejectedTimesheetsLayout.I | RejectedTimesheetsLayoutREST.I |
| - | TimeSheetWeekLayoutREST.I |
| - | TimeSheetCalendarLayoutREST.I |
| - | Find_JobHeader.I |
| - | Find_TaskListLine.I |
| - | Find_JobFavorite_Timesheet. |
| - | Find_JobHeader_Timesheet.I |
| - | Find_Activity.I |

Expense and Mileage Registration

| MScript | REST |
|-----------------------------------|--|
| ExpenseSheetsLayout.I | ExpenseSheetsLayoutREST.I |
| ExpenseSheetLayout.I | ExpenseSheetLayoutREST.I |
| ExpenseSheetLineLayout.I | ExpenseSheetLineLayoutREST.I |
| CreateExpenseSheetLineLayout.I | QuickCaptureExpenseSheetLineLayoutREST.I |
| QuickCaptureAttachReceiptLayout.I | QuickCaptureAttachReceiptLayoutREST.I |
| MileageSheetsLayout.I | MileageSheetsLayoutREST.I |
| MileageSheetLayout.I | MileageSheetLayoutREST.I |
| MileageSheetLineLayout.I | MileageSheetLineLayoutREST.I |
| - | Find_LocationFromTo.I |
| - | FindJobHeader_Expense.I |
| - | DocumentArchiveListREST.I |

Approvals

| MScript | REST |
|-------------------------------------|------|
| PmTimesheetLogEntryLayout.I | - |
| PmJobsLayout.I | - |
| PmTimeSheetsLayout.I | - |
| PmTimesheetLineLayout.I | - |
| SupervisorApprovalListLayout.I | - |
| SupervisorTimesheetLogEntryLayout.I | - |
| SupervisorTSJobLayout.I | - |
| SupervisorTSDayLayout.I | - |
| SupervisorEntriesByJobLayout.I | - |
| SupervisorEntriesByDayLayout.I | - |
| ApprovalExpenseSheetListLayout.I | - |

| MScript | REST |
|--|------|
| ApprovalMileageSheetLayout.I | - |
| ApprovalExpenseSheetLineListLayout.I | - |
| ApprovalExpenseSheetLayout.I | - |
| ApprovalExpenseSheetLineJobListLayout.I | - |
| ApprovalExpenseSheetLineLayout.I | - |
| ApprovalExpenseSheetLineEmployeeListLayout.I | - |
| ApprovalMileageSheetLineLayout.I | - |
| ApprovalPurchaseOrderLayout.I | - |
| ApprovalPurchaseOrderJobListLayout.I | - |
| ApprovalPurchaseOrderListLayout.I | - |
| ApprovalPurchaseOrderLineLayout.I | - |
| ApprovalPurchaseOrderPMLayout.I | - |
| ApprovalPurchaseOrderLinePMLayout.I | - |
| ApprovalVendorInvoiceListLayout.I | - |
| ApprovalVendorInvoiceLayout.I | - |
| ApprovalVendorInvoiceAllocationLineLayout.I | - |
| ApprovalVendorInvoiceAllocationLinePMLayout.I | - |
| ApprovalVendorInvoiceAllocationLineJobListLayout.I | - |
| ApprovalVendorInvoiceListPMLayout.I | - |
| ApprovalVendorInvoicePMLayout.I | - |
| ApprovalInvoiceDraftListLayout.I | - |
| ApprovalInvoiceDraftLayout.I | - |
| ApprovalInvoiceDraftLineLayout.I | - |
| ApprovalInvoiceDraftLinesLayout.I | - |
| ApprovalExpenseSheetLinePMLayout.I | - |

| MScript | REST |
|------------------------------------|------|
| ApprovalMileageSheetLinePMLayout.l | - |



For additional information, see the *Appendix: Screens, Layouts, and Metadata Files* section in this document.

Layout Configuration

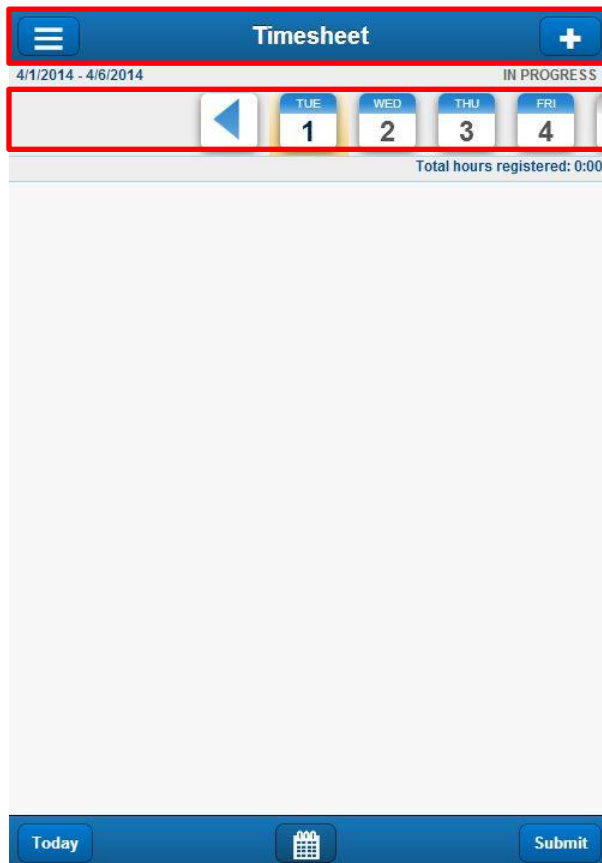
The layout customization has been introduced to help clients control fields that they want to display on and apply some styling or formatting to a Deltek Touch screen based on CSS technology.

Deltek Touch supports configuration of fields and columns on several screens (such as **Timesheet Line**, **Add Job**, **Approval**, and **Summary**), allowing you to show or hide fields that are available in the metadata. The layout customization capabilities, however, do not apply to all controls present on a particular screen. The common portion of the screen that you cannot customize is the title bar area, where you can usually find the screen name (for example, see red box with “Timesheet” in Figure 1).



The layout customization capabilities do not apply to the **Weeks**, **Calendar** (both screen and carousel), **Settings**, document viewer, and lookup screens.

Figure 2: Timesheet Screen



For each Deltek Touch release, there is a set of standard layouts that controls screens in the application. When you install the Web service (using the FPU), these standard layouts are added to the **MaconomyMScript/Standard/Layouts** folder. The first time you customize a layout, you need to copy it to the Custom folder. Performing this allows you to preserve your customization when Deltek Touch is upgraded. If you change the standard layouts, all your changes are lost when upgrading Deltek Touch.



If you upgrade Deltek Touch, you need to update manually your custom files (in the Custom folder), to reflect the potential changes in the standard files.

You can only modify the **DeltekTouch.I** configuration file if you want to customize the Log Entry screen layout (Registrations) or the server settings.

Customization Capabilities



Deltek Touch now allows you to perform the following tasks:

- Add new fields based from Metadata files, which you can also find in the **Layouts** folder.
- Format a specific element on a screen
 - Change the font color, size, or style (bold, italic, or underline)
 - Add a margin and padding
 - Apply an ellipsis for long text (truncation)
- Add a column to some screens (such as **Summary**).
- Interchange order of lines
- Remove fields from a layout.




You need to log in again to Deltek Touch for the changes to take effect.

Approval

- You cannot customize the title and icons.
- You cannot customize action buttons (such as **Approve**, **Reject**, **Undo Approve/Reject**, and **Message to Employee**).
- You cannot customize columns with  and .

Summary

- You cannot customize the upper portion of a screen, which includes the title, **Submit** button, and header details.
- You cannot customize the column with . You can only customize column headers and fields.

Log Entry

You can add any field from the table part of the SpeedSheet window (DailyTimeSheetLine database table), any field from the table part of the Time Sheets window (TimeSheetLine database table), and some of the variables from the table part of SpeedSheet window.

- Each field or variable displays on a new line.
- Variables are read-only.
- Fields can either be read-only or editable, depending on the data model from the server.
- You cannot customize fonts.

Layout Components and Attributes

This section discusses the non-editable and editable layout components and corresponding attributes used in customization of Deltek Touch.

Non-Editable Layout Components

Use the non-editable layout components to display a non-editable text on a screen or non-Sencha or non-HTML5 component related. It generates HTML tags-based layouts.

| Component | Description |
|------------|--|
| Label | Basic component in the layout. It is responsible for displaying a caption or title on the screen. |
| Field | This component is used to display a field from the database (using the metadata file) on the screen. |
| LinearText | This component is used for grouping components, such as “Label” and “Field”. If you want to display a group of components in one line, you need to use this component. |
| Grid | This component is used for tabulating the data (in a columns and rows). |
| Column | This component used to define column in the grid component. |

Editable Layouts Components

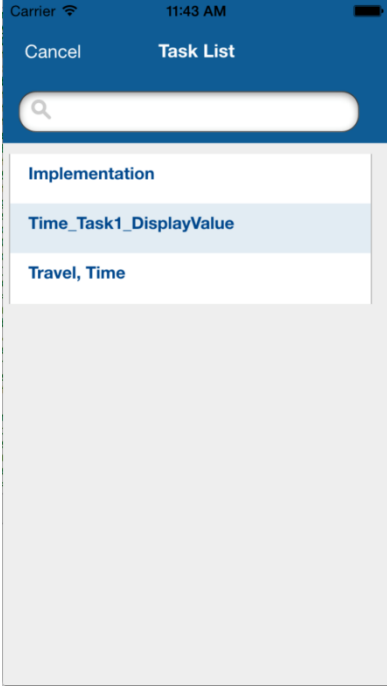
Use the editable layout components to display a server-variable controlled editable field. These components are only applicable to all Line screens, except for the **Add Job** and **Timesheet Line** screens.

| Component | Description |
|---------------|---|
| TextField | This component is used to display a text field on a Line screen (see Figure 1). |
| DocumentField | This component is used to display a field on the Line screen intended for attachments. You need to define the “DocumentName” as the source field not the “DocumentArchiveNumber” field. |
| Form | This component is used mainly for “Line Screens” (for example, the Log Entry screen). |
| Group | This component creates a field set to group the “textfield” and “documentfield” components. |

Component Layout Attributes

The following table describes component attributes, but not all of them can be used in a specific component:

| Attribute | Description |
|------------------|---|
| type | <p>This is used to specify which component to use in a layout. All of the layout files already contain the component that you can use in customizing a screen.</p> <p>This is one of the most commonly used attributes in the layouts.</p> |
| region | This is used to state the name of the portion of a screen. |
| protectedregion | This is used to identify whether the portion of the screen in the Touch client is customizable or not. |
| style | This is used to describe the formatting or styling that needs to be applied in a specific component. |
| purpose | You can use this to state the whole description of a certain component or region in the layout file. |
| detail | This is only used for “grid” component. This attribute represents the content of grid. It refers to “row” in the grid. |
| header | <p>This is only used for “grid” component. This attribute is used for describing the header title in the grid; it refers to the “column title” in the grid.</p> <p>Not all “grid” have a header component. The layout file already contains a header if the grid can have a “detail” or a “header.” This is dependent on the Sencha component used in the Touch client.</p> |
| items | This is only used for the “lineartext” and “column” components. It is a container for the other component. |
| mask | <p>This is only used in the “field” and “textfield” component. The purpose of this attribute is the following:</p> <ul style="list-style-type: none"> ▪ If the field value needs to use the device short-date formatting. ▪ If the field value is not informative but predictable (for example, Status) and you want to set a descriptive value when it displays on a screen. ▪ If the field value needs to use the Touch Standard hours formatting (for example, 2:30). ▪ If the requirements need to display the amount and currency value (for example, DKK 200.00). |
| lookuplayoutname | <p>This is only used for customizing the layout and search field of the lookup. You can customize the following components in the lookup:</p> <ul style="list-style-type: none"> ▪ Search Field Area — This area is composed of the text field |

| Attribute | Description |
|-----------|--|
| | <p>component with a magnifying glass icon (see screenshot below). By entering characters in this component, it filters the records in the list.</p> <ul style="list-style-type: none"> ▪ Lookup List Area — This area is composed of the list component used for displaying the records that are retrieved from the Web service (see the list in the screenshot below). <p>Using this attribute in the lookup field component is pointing to another layout file. You need to add this to the DeltekTouchWS.ms file.</p>  <p>Sample Code</p> <p>Adding the “lookuplayoutname” to the lookup field component:</p> <pre> { source: #T"Deliverable", label: #N"Remark", searchlayout: #N"ActivitySearch", type: #N"lookupfield", queryfieldname: #N"KeyValue", displayfields: [{ source: #N"ActivityTextVar", queryfieldname: #N"DisplayValue" },], }</pre> |



| Attribute | Description |
|-----------|--|
| | <pre> label: #N" - ", }, { source: #N"ActivityNumber", queryfieldname: #N"DisplayValue" }] Lookuplayoutname: "DeliverableLookupLayout" } </pre> <p>Adding the layout to the DeltekTouchWS.ms file:</p> <pre> If (inpJSON.operation == "getlayouts") { Sessions var Debug; localDebug = false; outputJSON.sessionid = currentsession(); outputJSON.operation = "getlayouts"; outputJSON.ok = true; new outputJSON.CustomLayout = {}; outputJSON.CustomLayout = []; new outputJSON.CustomLayout [0] = DeltekTouchLayout::getlayout ("TimesheetLayout.I", "timesheetLayout"); new outputJSON.CustomLayout [1] = DeltekTouchLayout::getlayout ("SummaryLayout.I", "summaryLayout"); new outputJSON.CustomLayout [51] = DeltekTouchLayout::getlayout ("DeliverableLookupLayout.I", "deliverableLayout"); </pre> <p>Content of a Lookup Layout File:</p> <pre> { Layoutname: #N"DeliverableLookupLayout", Layout: [{ region: #"ToolbarArea", protectedregion: true }, { </pre> |





| Attribute | Description |
|-----------|---|
| | <pre> region: #N"SearchFieldArea", protectedregion: false, type: #N"serachfield" filterkeys: "KeyValue, DisplayValue", placeholder: "Task Name, Task Description" }, { region: #N"LookupListArea", protectedregion: false, type: #N"grid", detail: [{ type: #N"column", style: { width: #N"75%" }, items: [{ type: #N"lineartext", style: { fontsize: #N"14px", color: #N"00488a", fontweight: #N"bold" }, items: [{ type: #N"field", source: #N"KeyValue" } } } } } </pre> <p>The content of the lookup layout file contains three regions::</p> <ul style="list-style-type: none"> ▪ ToolBarArea — This is a protected region. ▪ SearchFieldArea – This represents the text field component in the lookup. ▪ LookupListArea — This represents the list component of the lookup. <p>Adding this attribute to the “lookupfield” component only works if the Web method used by the lookup to retrieve the data is the “search” operation or the lookup uses the search layout from DelttekTouch.I.</p> |




| Attribute | Description |
|-----------|-------------|
| | |





Style Layout Attributes

The following table contains the style and formatting attributes in a layout. All of the styling attributes that you can define in the layout are derived from “CSS” technology, including how the styles are applied to a certain component.






| Attribute | Description |
|----------------|---|
| fontsize | <p>This is used to define the size of a font. It accepts either in “px” (by pixel) or “em” measurement unit.</p> <p>Example:</p> <pre>style: { fontsize: "12px" }</pre> <div>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_font_font-size.asp.</p> </div> |
| textdecoration | <p>This is usually used to add an underline/overline in the text.</p> <p>Example:</p> <pre>style: { textdecoration: "underline" }</pre> <div>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_text_text-decoration.asp.</p> </div> |
| textalignment | <p>This is used to define the alignment of a text. You can set one of the following common values in this attribute:</p> <ul style="list-style-type: none"> ▪ "right" ▪ "left" ▪ "center" <p>Example:</p> <pre>style: { textalignment: "left" }</pre> |

| Attribute | Description |
|--------------|---|
| |  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_text_text-align.asp.</p> |
| fontstyle | <p>This is used to define the style you want to apply to a text. The common value you can set in this attribute is "italic."</p> <p>Example:</p> <pre>style: { fontstyle: "italic" }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_font_font-style.asp.</p> |
| fontweight | <p>This is used to define how thick or thin the text will be displayed on a screen. The common value you can set is "bold."</p> <p>Example:</p> <pre>style: { fontweight: "bold" }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_font_weight.asp.</p> |
| margintop | <p>This is used to define the top margin of a component on a screen. This attribute usually accepts value in "px" (by pixel) measurement unit.</p> <p>Example:</p> <pre>style: { margintop: "12px" }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_margin-top.asp.</p> |
| marginbottom | <p>This is used to define the bottom margin of a component on a screen. This attribute usually accepts value in "px" (by pixel) measurement unit.</p> <p>Example:</p> <pre>style: { marginbottom: "12px" }</pre> |

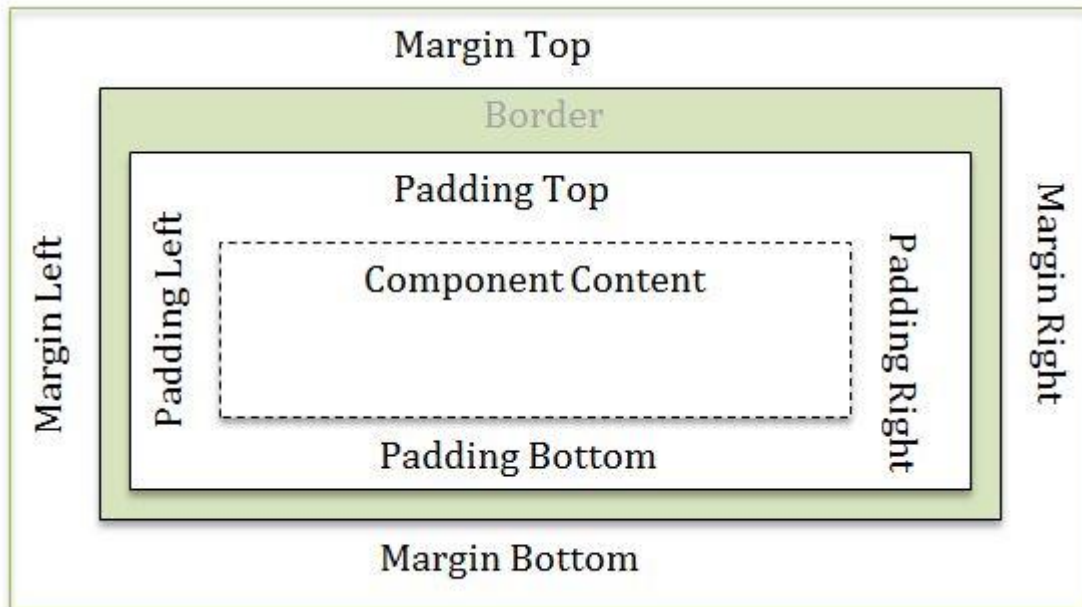
| Attribute | Description |
|--------------|--|
| |  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_margin-bottom.asp.</p> |
| marginleft | <p>This is used to define the left margin of a component on a screen. This attribute usually accepts value in “px” (by pixel) measurement unit.</p> <p>Example:</p> <pre>style: { marginleft: "12px" }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_margin-left.asp.</p> |
| marginright | <p>This is used to define the right margin of a component on a screen. This attribute usually accepts value in “px” (by pixel) measurement unit.</p> <p>Example:</p> <pre>style: { marginright: "12px" }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_margin-right.asp.</p> |
| textoverflow | <p>This is used to define the result if the text overflows in a container. The common scenario is that, if the field value you are expecting is too long and does not fit into the screen or column width, you can truncate the text by specifying an “ellipsis” (for example, This text is too long...).</p> <p>Example:</p> <pre>style: { textoverflow: "ellipsis" }</pre> <p>Sometimes, however, if you define an ellipsis styling, it does not apply automatically to the screen. The usual reason is that, there is some external styling attribute that hinders it. To apply the styling successfully, you can add another styling attribute, which is the “overflow.” The most common value you can set on this is “hidden.”</p> <p>Example:</p> <pre>style: { textoverflow: "ellipsis", overflow: "hidden" }</pre> |

| Attribute | Description |
|--------------|---|
| |  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/css3_pr_text-overflow.asp.</p> |
| paddingtop | <p>This is used to create padding at the top side of a component. This attribute usually accepts value in “px” (by pixel) measurement unit and does not accept any negative value.</p> <p>Example:</p> <pre>style: { paddingtop: "16px", }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_padding-top.asp.</p> |
| paddingleft | <p>This is used to create padding on the left side of a component. This attribute usually accepts value in “px” (by pixel) measurement unit and does not accept any negative value.</p> <p>Example:</p> <pre>style: { paddingleft: "16px", }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_padding-left.asp.</p> |
| paddingright | <p>This is used to create padding on the right side of a component. This attribute usually accepts value in “px” (by pixel) measurement unit and does not accept any negative value.</p> <p>Example:</p> <pre>style: { paddingright: "16px", }</pre> <hr/>  <p>For more details about the value you can define, see http://www.w3schools.com/cssref/pr_padding-right.asp.</p> |
| paddingbotom | <p>This is used to create padding at the bottom side of a component. This attribute usually accepts value in “px” (by pixel) measurement unit and does not accept any negative value.</p> <p>Example:</p> <pre>style: {</pre> |

| Attribute | Description |
|-----------------|---|
| | <p>paddingbottom: "16px", }</p> <p> For more details about the value you can define, see http://www.w3schools.com/cssref/pr_padding-bottom.asp.</p> |
| whitespace | <p>This is used to control how the white space inside the element will be handled.</p> <p>Example:</p> <pre>style: { whitespace: "nowrap" }</pre> <p> For more details about the value you can define, see http://www.w3schools.com/cssref/pr_text_white-space.asp.</p> |
| backgroundcolor | <p>This is used for applying a background color of an element.</p> <p>Example:</p> <pre>style: { backgroundcolor: "#00FF00" }</pre> <p> For more details about the value you can define, see http://www.w3schools.com/cssref/pr_background-color.asp.</p> |
| backgroundimage | <p>This is use for applying background images of an element.</p> <p>Example:</p> <pre>style: { backgroundimage: #N"-webkit-linear-gradient(top, #ffa1a1a,#e60000 3%,#b30000) " }</pre> <p> For more details about the value you can define, see http://www.w3schools.com/cssref/pr_background-image.asp.</p> |
| borderradius | <p>This is used for applying border radius of an element.</p> <p>Example:</p> <pre>style: { borderradius: #N"2em" }</pre> |

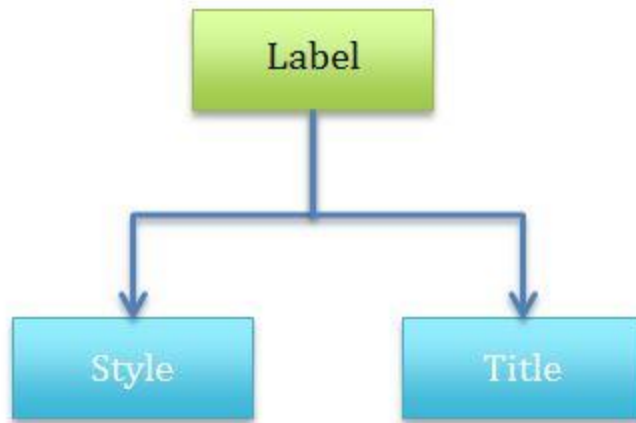
| Attribute | Description |
|----------------------|--|
| |  For more details about the value you can define, see http://www.w3schools.com/cssref/css3_pr_border-radius.asp . |
| bordercolor | <p>This is used for applying border color of an element.</p> <p>Example:</p> <pre>style: { bordercolor: #N"#ff0000 #0000ff" }</pre> <p>The border color will apply in the top and right border of an element.</p> <hr/>  For more details about the value you can define, see http://www.w3schools.com/cssref/pr_border-color.asp . |
| webkitbackgroundclip | <p>This is used to specify the painting area of the background.</p> <p>Example:</p> <pre>style: { webkitbackgroundclip: #N"padding-box" }</pre> <hr/>  For more details about the value you can define, see http://www.w3schools.com/cssref/css3_pr_background-clip.asp . |
| minwidth | <p>This is used to specify the minimum width of an element.</p> <p>Example:</p> <pre>style: { minwidth: #N"10px" }</pre> <hr/>  For more details about the value you can define, see http://www.w3schools.com/cssref/pr_dim_min-width.asp . |
| maxwidth | <p>This is used to specify the maximum width of an element.</p> <p>Example:</p> <pre>style: { maxwidth: #N"10px" }</pre> <hr/>  For more details about the value you can define, see http://www.w3schools.com/cssref/pr_dim_max-width.asp . |

Margin and Padding Box Model



Syntax Descriptions

Label



Description

Label is one of the basic components in the layout customization. It is responsible for displaying literal string or caption in the screen. It is commonly used for defining a header title in the “grid” component or often time used for description of the “field” component.

Rules

- When defining a label always declare the “title” attribute.
- The “style” attribute is optional.
- It is commonly used for defining a header title in the “grid” component or often time used for description of the “field” component.

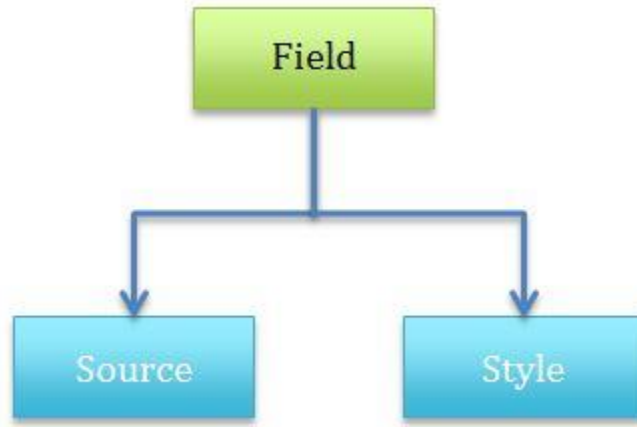
Example

```

{
  type: "label",
  title: #T "Employee Number: "
},
{
  type: "field",
  source: "EmployeeNumber"
}
  
```

- Output: Employee Number:001

Field



Description

Use to display a database field on a screen based from a Metadata file that can be found in the Standard/Layouts folder.

```

{
  {region: #K"TotalHoursRegistered",
    operation: #K"getperiod",
    metadata:
      [
        // Maconomy Web Service Variables
        // targetnode: #N"{DayTotals}"
        {source: #K"TheDate"}, // the date in long format
        {source: #K"ShortDate"}, // the date in short format
        (mm/dd)
        {source: #K"WeekDay"}, // the name of the week day
        (Monday...)
        {source: #K"ExternalRegisteredHours"}, // external
        hours registered on the given day/date, on all time sheet lines
        {source: #K"InternalRegisteredHours"}, // internal
        hours registered on the given day/date, on all time sheet lines
        {source: #K"TotalRegisteredHours"}, // total hours
        registered on the given day/date, on all time sheet lines
        {source: #K"FixedHours"}, // fixed hours on the given
        day/date (how many hours do you expect to work this day)
        {source: #K"OvertimeHours"} // overtime hours on the
        given day/date
      ]
  }
}
  
```

Rules

- The “source” attribute is very important when declaring a “field” component.

- The “style” attribute is optional.
- The “mask” attribute can be used only for the “field” component (see the Component Layout Attributes section). As described in the Component Layout Attributes section, the mask can be used
 - If the value of the field does not give descriptive information on a screen
 - The value of the field is very predictable (for example, the Timesheet Status can have the following values: A = Approved, R = Rejected, or S = Submitted).

Examples

This is a simple way to declare a “field” component in the layout file. It displays the “EmployeeNumber” field with “Employee Number: “ label.

```
{
  type: "label",
  title: #T "Employee Number: "
},
{
  type: "field",
  source: "EmployeeNumber"
}
```

Output: Employee Number:001

If you want to set a specific styling in the “field” component, you can use the “style” attribute. For example, you want to display “EmployeeNumber” in blue.

```
{
  type: "label",
  title: #T "Employee Number: "
},
{
  type: "field",
  source: "EmployeeNumber",
  style: {
    color: "#00488a"
  }
}
```

Output: Employee Number:001



The value of color in this example is the corresponding hexadecimal value of color blue in CSS. If you want to have another styling, refer to the Style Attributes section.

Another case of the “field” component is that, when the field value is not bringing descriptive information on the screen and when you want it that field value be informative, you can use the “mask” attribute. For example, the “field” can only contain “S,” “A,” or “R” value, and you want to display it as “Submitted,” “Approved,” and “Rejected,” respectively.

```
{
  type: "label",
  title: #T "Timesheet Status "
},
{
  type: "field",
  source: "Status",
  mask: {
    Description: {
      S: #T"Submitted",
      A: #T"Approved",
      R: #T"Rejected"
    }
  }
}
```

Output

- If the “Status” field value is “S”, the output is:
Timesheet Status: Submitted
- If the “Status” field value is “A”, the output is:
Timesheet Status: Approved
- If the “Status” field value is “R”, the output is:
Timesheet Status: Rejected



- In the example above, the “Status” field is very predictable because it can only contained “S,” “A,” or “R” value.
- Appending “#T” to the corresponding string indicates that the language translation is automatic.
- You cannot specify any styling attribute on the mask attribute. In case, there is a corresponding color for each of this value, you can use the “Color” attribute of the mask (see the next example).

To continue the example of the “field” component with the “mask” attribute, we are apply the corresponding color for each value of the “Status” field, such as green, blue and red for “S,” “A,” and “R,” respectively.

```
{
  type: "label",
```

```

        title: #T "Timesheet Status "
    },
    {
        type: "field",
        source: "Status",
        mask: {
            Description: {
                S: #T "Submitted",
                A: #T "Approved",
                R: #T "Rejected"
            },
            Color: {
                S: "#53a800",
                A: "#0080ff",
                R: "#a00"
            }
        }
    }
}

```

Output

- If the "Status" field value is "S", the output is:
Timesheet Status: Submitted
- If the "Status" field value is "A", the output is:
Timesheet Status: Approved
- If the "Status" field value is "R", the output is:
Timesheet Status: Rejected

Another scenario is when the value of the field can be a "true" or "false," but instead of defining the value of that field as an attribute within the "Description" and/or "Color" attribute, you need to set the "truevalue" or "falsevalue". If the value is set directly, an error in the layout file occurs. For example, we have the "Invoiceable" field, which contains "true" or "false" value, but we want to display a "Billable" or "Non-Billable" string on a screen.

```

{
    type: "field",
    source: "Invoiceable",
    mask: {
        Description: {
            truevalue: #T "Billable",
            falsevalue: #T "Non-Billable"
        }
    }
}

```

```
}
}
```

Output

- If the “Invoiceable” field value is “true”, the output is:
Billable
- If the “Invoiceable” field value is “false”, the output is:
Non-Billable

You can also add the corresponding color for each value of that field (see example below).

```
{
  type: "field",
  source: "Invoiceable",
  mask: {
    Description: {
      truevalue: #T"Billable",
      falsevalue: #T"Non-Billable"
    },
    Color: {
      truevalue: "blue",
      falsevalue: "red"
    }
  }
}
```

Output

- If the “Invoiceable” field value is “true”, the output is:
Billable
- If the “Invoiceable” field value is “false”, the output is:
Non-Billable

Some values of the field require specific formatting requirement or need to follow the device formatting, for example, the hours and date fields.

- Most of the time, the “hours” field value is in the “numeric/decimal” format (for example, 1.5 means 1 hour and 30 minutes). In this way, you need to declare the “hours” value in the “mask” attribute (see example below).

```
{
  type: "field",
  source: "NumberOf",
  mask: "hours"
```

}

- If you have a “date” field and the date format is in the “YYYY.mm.dd” form (for example, 2014.04.02) and you want to convert the format to the device short date formatting, you can set the “shortdate” value in the “mask” attribute (see example below).

{

type: “field”,

source: “EntryDate”,

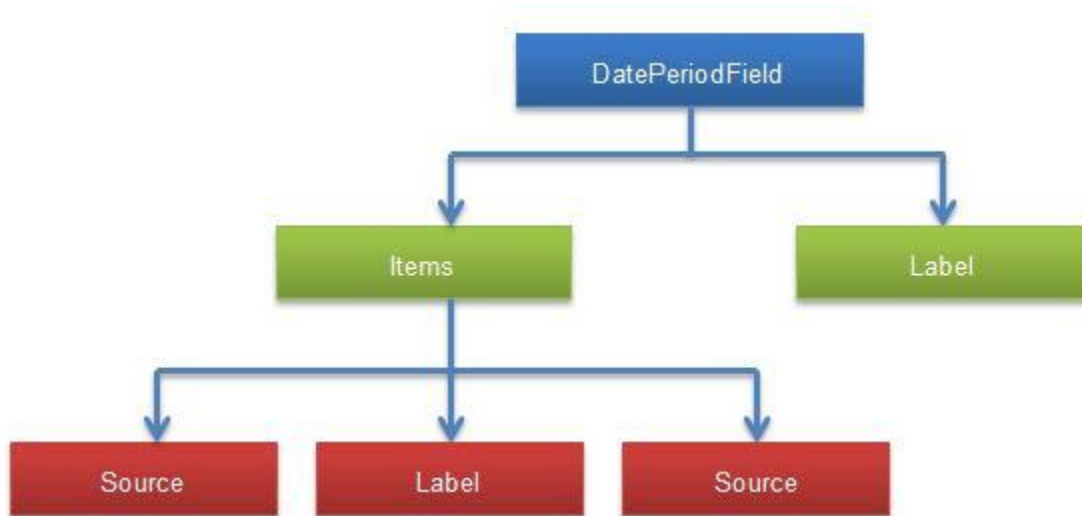
mask: “shortdate”

}



- **YYYY** represents the year (for example, 2014)
- **dd** represents the day of the month (from 00 - 31)
- **mm** represents the month of the year (from 01 – 12)

Date Period Field



Description

This component is used to enter and display a date period.

| | | |
|---------------|---|---|
| Period | - | > |
|---------------|---|---|

| Cancel | Period | Done |
|--------|--------|------|
| From | | > |
| To | | > |

Rules

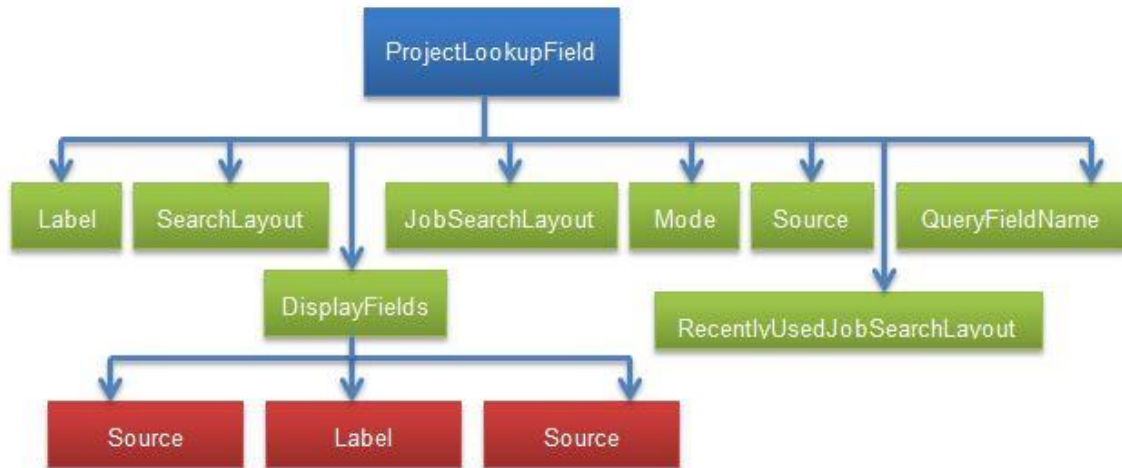
- This component does not support any styling.
- Items always contain a source, label, and another source in exact order.
- The source must be of type **Date**.
- The first label corresponds to label of the field. The second label act as a separator for the two dates.

Examples

This is a general syntax declaration of the “dateperiodfield” component:

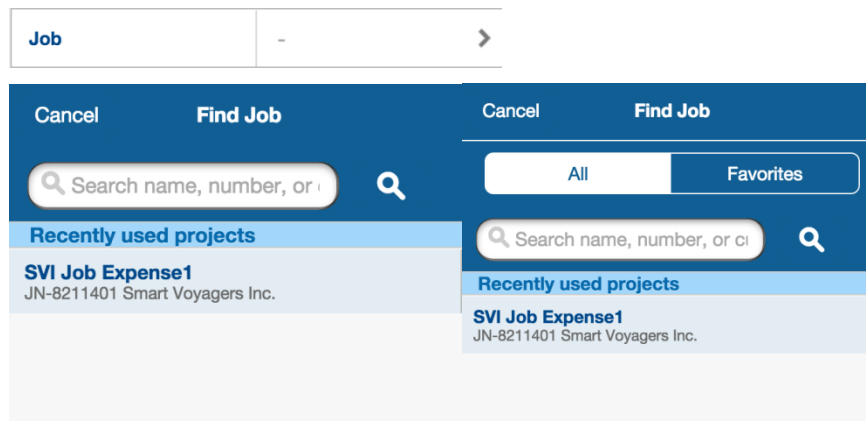
```
{
  type: "dateperiodfield",
  label: "Period",
  items: [
    { source: "FromDate" },
    { label: "-" },
    { source: "ToDate" }
  ]
}
```

Project Lookup Field



Description

This component is used for entering a job using a lookup, it could also be used to enter a job based on favorite.



Rules

- This component does not support any styling.
- This component have three modes: “project”, “favorite,” and “projectfavorite.” This would determine how the job selection would be.
- This component should have a “queryfieldname = KeyValue” attribute in the parent node.
- The source attribute inside “displayfields” should contain a corresponding “queryfieldname.”

Examples

This is a general syntax declaration of the “projectlookupfield” component:

```

{
  source: "JobNumber",

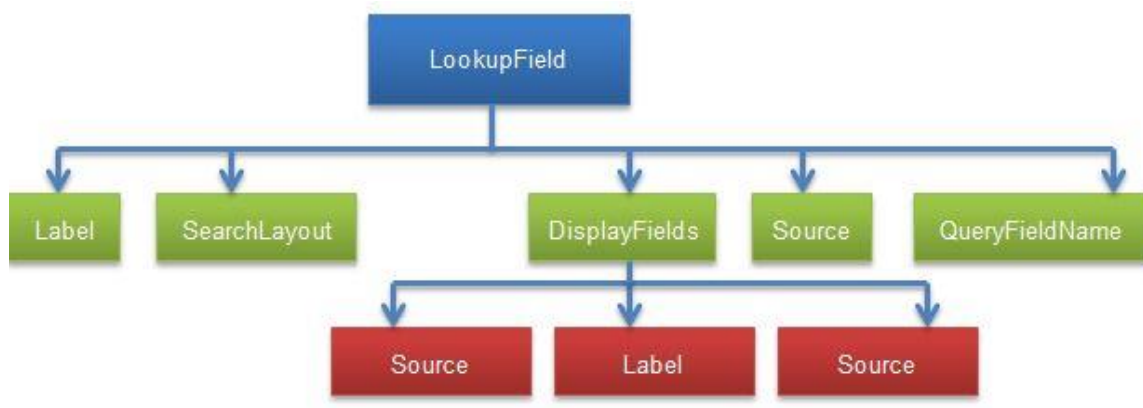
```

```

    label: "Job",
    searchlayout: "Expense_JobSearch",
    type: "projectlookupfield",
    mode: "projectfavorite",
    jobsearchlayout: "Expense_JobSearch",
    recentlyusedjobsearchlayout: "Expense_RecentlyUsedJobSearch"
    queryfieldname: "KeyValue",
    displayfields: [
      {
        source: "JobNumber",
        queryfieldname: "KeyValue"
      },
      {
        label: " - ",
      },
      {
        source: "JobNameVar",
        queryfieldname: "DisplayValue"
      }
    ]
  }

```

Lookup Field



Description

This component is used for entering a value using a lookup, which is commonly used in entering tasks and activities.

The screenshot shows a mobile application interface. At the top, there is a blue header bar with the word "Task" on the left and a right-pointing arrow on the right. Below this header is a white bar with a blue background on the left containing the word "Cancel" and the text "Task List" in white. To the right of "Task List" is a search bar with a magnifying glass icon. Below the search bar is a list of items: "Implementation", "Snail Mail", and "Travel, Time". The "Snail Mail" item is highlighted with a light blue background.

Rules

- This component does not support any styling.
- This component should have an attribute called “searchlayout.”
- The “source” attribute inside displayfields should have a corresponding “queryfieldname.”
-

Examples

This is a general syntax declaration of the “lookupfield” component:

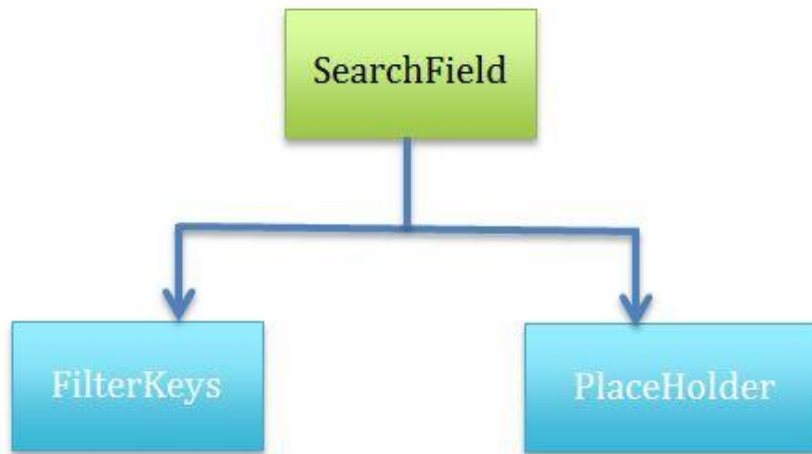
```
{
  source: "TaskName",
  label: "Task",
  searchlayout: "Expense_TaskSearch",
  type: "lookupfield",
  queryfieldname: "KeyValue",
  displayfields: [
    {
      source: "TaskName",
      queryfieldname: "KeyValue"
    },
    {
      label: " - ",
    },
    {
      source: "TaskDescriptionVar",
      queryfieldname: "DisplayValue"
    }
  ]
}
```

```

    }
  ]
}

```

SearchField



Description

This component is only used for the lookup layout file, which is being referenced from the “lookupfield” component. To control what field will be used to filter the record displays in the list of the lookup, you need to specify the field name in the “filterkeys” attribute. In case there are multiple fields set in the “filterkeys” attribute, it is recommended that you have a placeholder text in the search field so that you can enter the text in the “placeholder” attribute.

Rules

- The “filterkeys” attribute is mandatory for the searchfield component.
- Setting multiple fields in the “filterkeys” should be separated by comma character (for example, “KeyValue, DisplayValue”).
- The value that can be set in “filterkeys” is dependent on the response of the “search” operation or the fields being returned by the search layout. (Refer to the DeltekTouch.I).
- The “placeholder” attribute is optional.
- This component must only be used in the lookup layout file.

Examples

```

{
  region: #N"SearchFieldArea",
  protectedregion: false,
  type: #N"searchfield",

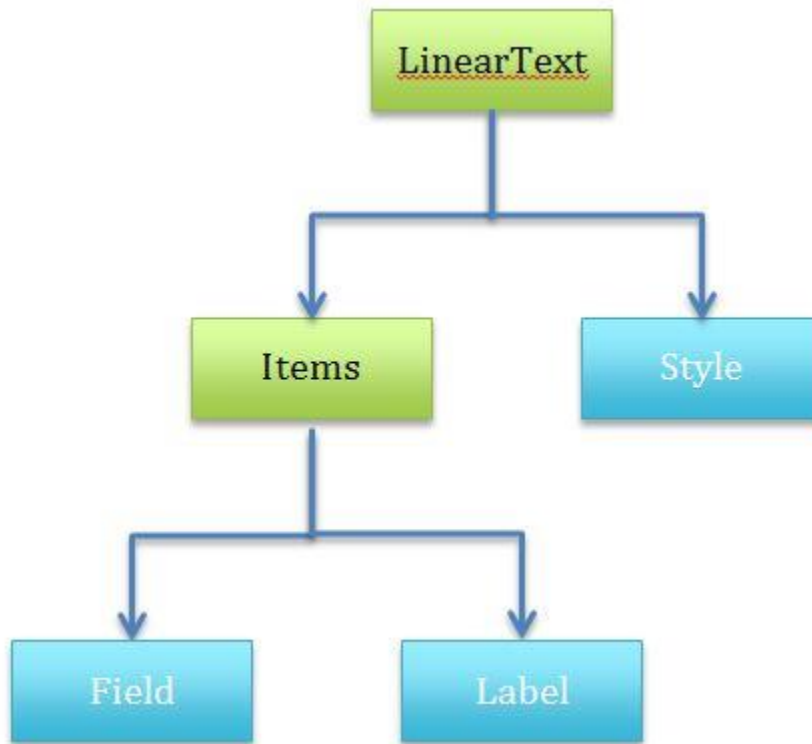
```

```

    filterkeys: #N"KeyValue, DisplayValue",
    placeholder: #T"Task Name, Task Description"
}

```

LinearText



Description

This component is used to group components, such as **Label** and **Field**, and display them in a single line. It can only group **Label** and **Field**.

Rules

- If there is a “style” defined in the “lineartext” component, this means that it applies to all items. For example, the style contains “fontsize:14px” and the items of the “lineartext” contained two (2) labels and one (1) field; those will have a 14px of font size.
- If the styling in the item is present, it overrides the styling of the “lineartext” component.
- You need to declare the “items” attribute for the component.
- The “style” attribute is optional.

Examples

The following example is a simple way to declare a “lineartext” component in the layout file:

```
{
```

```

    type: "lineartext",
    items: [
      {
        type: "label",
        title: #T"Employee Number:"
      },
      {
        type: "label",
        title: #T"
      },
      {
        type: "field",
        source: #N"EmployeeNumber"
      }
    ]
  }
}

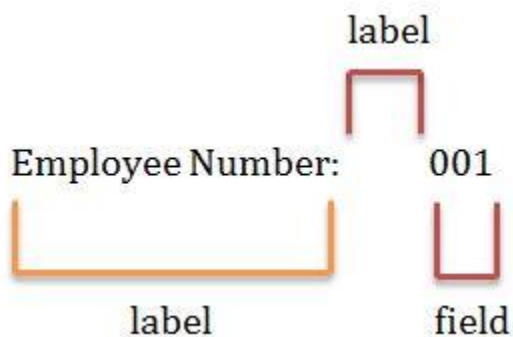
```



There are 10 spaces added in the following line, between "and":

Title: #T" "

Output



To apply "style" to the "lineartext" component (using the example above) by making the "field" item in blue, see the following example:

```

{
  type: "lineartext",
  style: {
    fontsize: "14px",
    fontweight: "bold"
  },
}

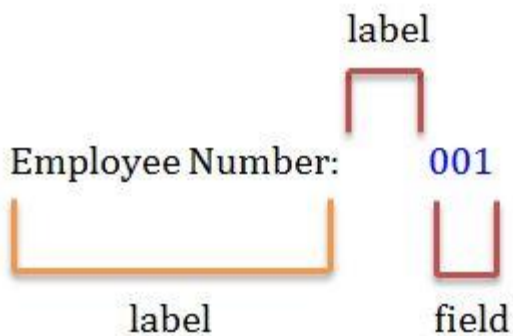
```

```

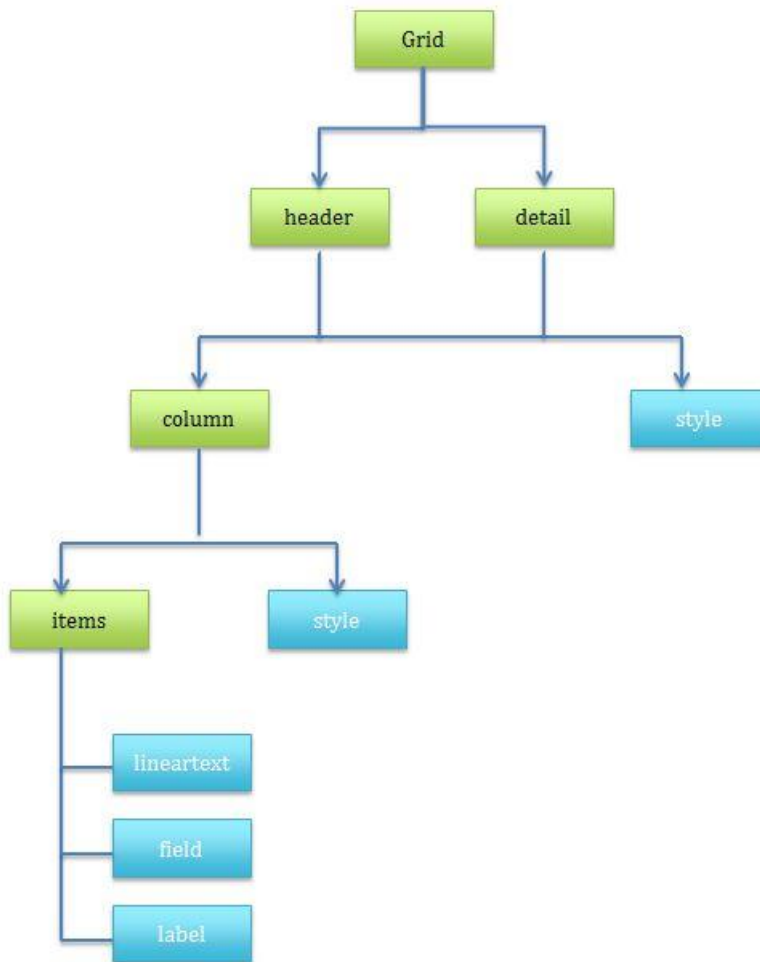
    items: [
      {
        type: "label",
        title: #T"Employee Number:"
      },
      {
        type: "label",
        title: #T"
      },
      {
        type: "field",
        source: #N"EmployeeNumber",
        style: {
          color: "blue"
        }
      }
    ]
  }
}

```

Output



Grid



Description

This component is mainly used to display the data in a tabular representation. The “header” and “detail” are the main attributes of this component. Not all of “grid” in the layout file contains the “header” attribute. You only need the said attribute if the control you are targeting to customize on a screen contains the column title (for example, the **Summary** screen).

Grid is one of the very useful components in the layout customization. It is also being used on the “Line Screens” if one of the requirements is to group a set of fields in one section of the screen.

Figure 3 Sample Line Screen: Expense Sheet Line

Carrier 10:59 AM

Back Expense Sheet Line

csk 1 - 1
601 Opmagasinereng
Expense Sheet No. 10760001

| | |
|-----------------------------|---------------|
| Employee | Jorgen Jansen |
| Employee No. | 11 |
| Quantity | 0.00 |
| Unit price, currency | DKK 600.00 |
| Unit price, base | DKK 600.00 |
| Amount Base | DKK 600.00 |
| Tax Base | DKK 120.00 |
| Date | 2014.02.11 |

Receipt test1.BMP

Grid Component
- The grid component consists of "detail" with three (3) "lineartext" items.

The "grid" component can support multiple columns, but there are some screens you should not apply any additional columns because some of the portions in the grid component are not customizable (for example, the **Timesheet** screen). You can try to customize this, but doing so displays a bad representation of data on the screen.

Rules

- Do not specify the "header" or "detail" attributes if the particular layout file do not contain any of these attributes. Doing so might cause some problematic rendering of the layout on the screen or Deltek Touch would not be able to read it.
- The "header" or "detail" attributes must contain at least one "column" component.

- By default, if there are two (2) “column” specified in the “header” or “detail” attributes, the first column width occupies the 70% width of the screen and the second column 30% width of the screen.
- If there are more than two (2) columns, the width is divided evenly.
- Most of the styling aspects (for example, Font Size and Font Color) in the “header” attribute are built-in in the Touch Application.

Examples

The following example is a general syntax declaration of the “grid” component that consists of the “header” and “detail” attributes:

```
{
  type: "grid",
  header: [
    {
      type: "column"
    },
    {
      type: "column"
    }
  ],
  detail: [
    {
      type: "column"
    },
    {
      type: "column"
    }
  ]
}
```

The following example is a general syntax declaration of the “grid” component that consists of the “detail” attribute:

```
{
  type: "grid",
  detail: [
    {
      type: "column"
    },
    {
      type: "column"
    }
  ]
}
```



```

    }
  ]
}

```

Complete syntax declaration of the “grid” component that consists of the “header” and “detail” attributes.

```

    }
  ],
  detail: [{
    type: "column",
    items: [{
      type: "lineartext",
      style: {
        fontsize: "14px",
        color: "#00488a"
      },
      items: [
        {
          type: "field",
          source: "ShortDate"
        },
        {
          type: "label",
          title: " - "
        },
        {
          type: "field",
          source: "WeekDay"
        }
      ]
    }
  ]
},
{
  type: "column",
  style: {
    textalignment: "right",
    fontsize: "14px",

```

```

paddingright: "10px",
color: "#00488a",
fontweight: "bold"
},
items: [ {
type: "field",
source: "TotalHoursRegisteredHours",
mask: "hoursnozeroes"
}
]
}
]
}
}
}

```

Output



Here is another example of the “grid” component syntax declaration that consists of the “detail” attribute, wherein the second column is not customizable.

```

{
  type: "grid",
  detail: [{
    type: "column",
    items: [{
      type: "lineartext",
      style: {
        fontsize: "14px",
        color: "004488a",
        fontweight: "bold"
      },
      items: [{
        type: "field",
        source: "JobNameVar"
      },
      {
        type: "label",
        title: " - ",
      },
      {
        type: "field",
        source: "JobNumber"
      }
    ]
  },
  {
    type: "lineartext",
    style: {
      fontsize: "12px",
      color: "#6b6b6b"
    },
    items: [{
      type: "field",
      source: "TaskName"
    },
    {
      type: "label",

```

```

        title: " - "
      },
    {
      type: "field",
      source: "TaskDescriptionVar"
    }
  ]
},
{
  type: "lineartext",
  style: {
    fontsize: "12px",
    color: "#6b6b6b"
  },
  items: [
    {
      type: "field",
      source: "CustomerNameVar"
    }
  ]
},
{
  type: "lineartext",
  style: {
    fontsize: "12px",
    color: "#6b6b6b"
  },
  items: [
    {
      type: "field",
      source: "Invoiceable",
      mask: {
        Description: {
          truevalue:
"Billable",
          falsevalue: "Non-Billable"
        }
      }
    }
  ]
}

```

```

    }
  }
]
}
]
},
{
  type: "column",
  region "HourField",
  protectedregion: true
}
]
}

```



The following last three lines refer to the second column, but it is not customizable. The Touch client handles the code and display of the hour field on the Timesheet screen. In short, it is hard-coded in the client-side:

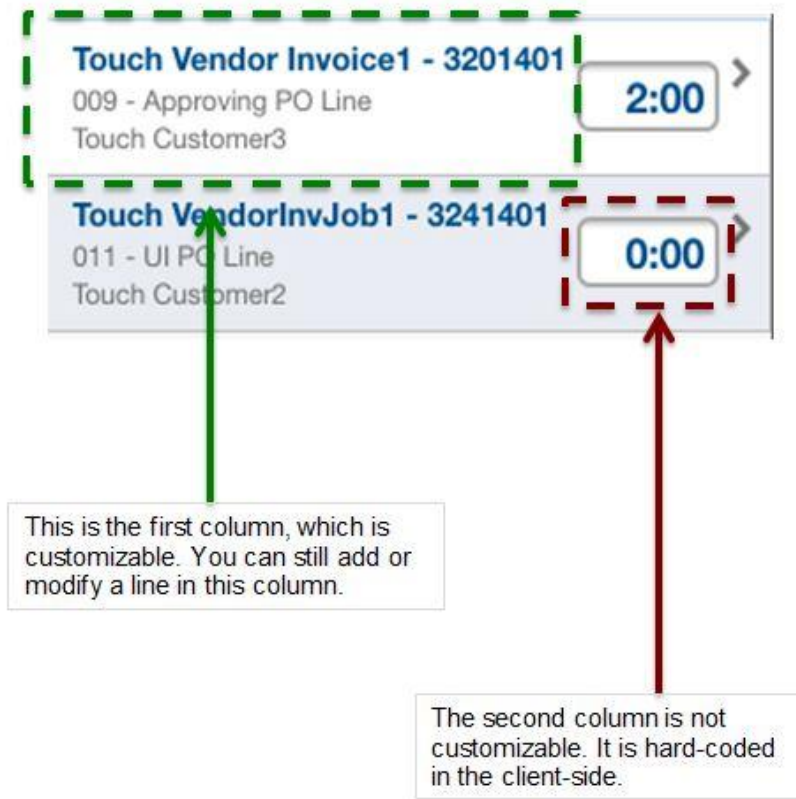
```

{
  type: "column",
  region "HourField",
  protectedregion: true
}

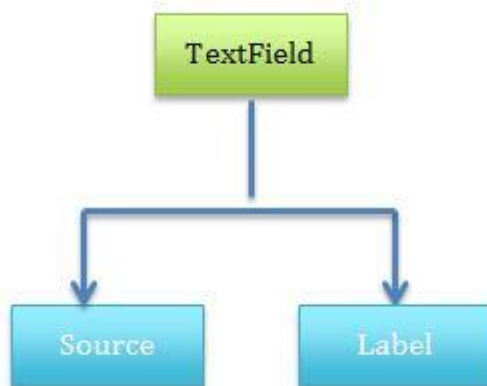
```

Output

The following is a portion of layout on the **Timesheet** screen:



TextField



Description

This component is used to display database field and label on “Line Screens.” For example, Expense Sheet Line:

| | |
|-----------------|-------------------|
| Employee | Abcdee Touch Emp2 |
|-----------------|-------------------|

Rules

- Always specify the “source” and “label” attributes as well as the corresponding values.
- This component does not support styling. The formatting of the font used in a label is provided automatically by the client-side.

Examples

This is a general syntax declaration of the “textfield” component:

```
{
  type: "textfield",
  source: "EmployeeNumber",
  label: "Employee No."
}
```

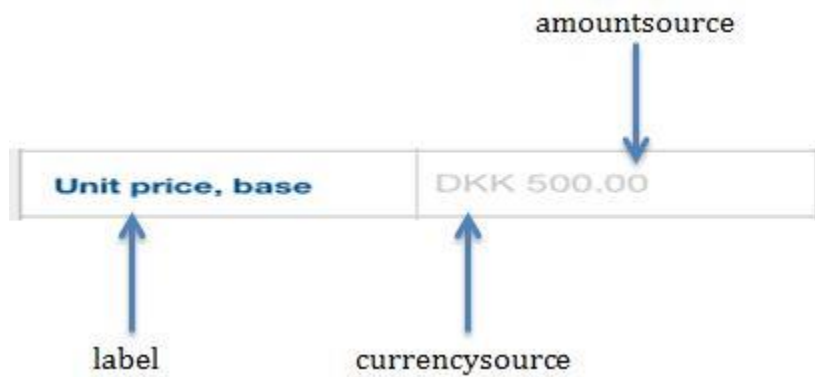
Output



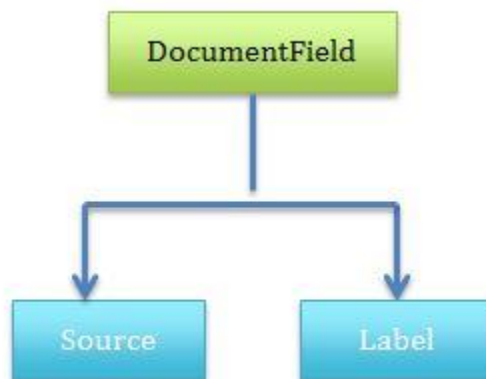
If there is a currency and an amount field that need to display in a single “textfield” component, use the “mask” attribute.

```
{
  type: "textfield",
  source: "UnitPriceCurrency",
  label: "Unit price, currency",
  mask: {
    Description: {
      currencysource: "Currency",
      amountsource: "UnitPriceCurrency"
    }
  }
}
```

Output



DocumentField



Description

This component is used for displaying attached document on a separate screen once a user taps a field (for example, PDF, PNG, or IMG files).



Rules

- Always specify the “source” and “label” attributes as well as the corresponding values.
- The “documentfield” component only works properly if the “source” attribute contains “DocumentName” value (see image below).

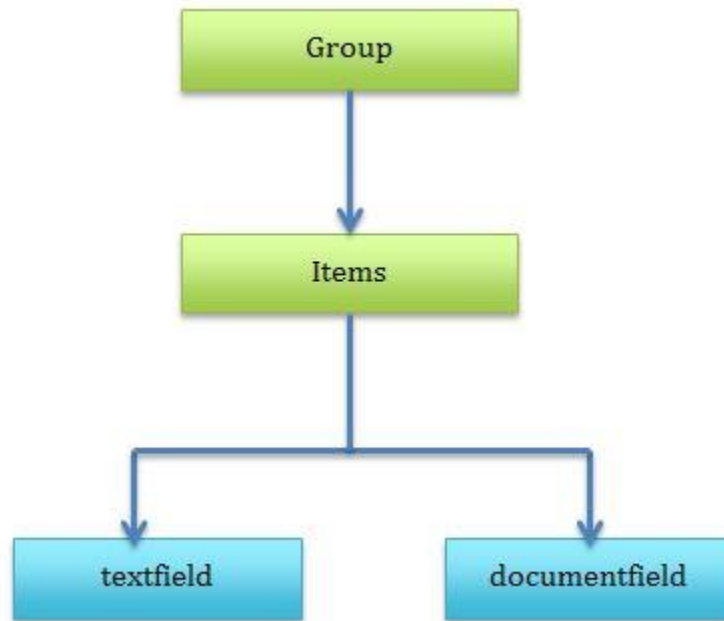

```
{
  type: #N"group",
  items: [
    {
      type: #N"documentfield",
      source: #N"DocumentName",
      label: #T"Receipt"
    }
  ]
}
```

- The “mask” attribute is not applicable in this component.
- This component does not support styling. The formatting of the font of a label is provided automatically by the client-side.
- The separate screen that displays the attached document is not customizable (see Figure 4 below).

Figure 4: Preview Screen



Group



Description

This component is used to group a set of fields into one component.

Rules

- This component does not support any styling.
- Only “textfield” and “documentfield” can be set in this component.
- This is a required component if you need to add a single or multiple “textfield” or “documentfield” components.

Example

This is a general syntax declaration when using the “group” component.

```

{
  type: "group",
  items: [{
    type: "textfield",
    source: "EmployeeNameVar",
    label: "Employee"
  },
  {

```

```

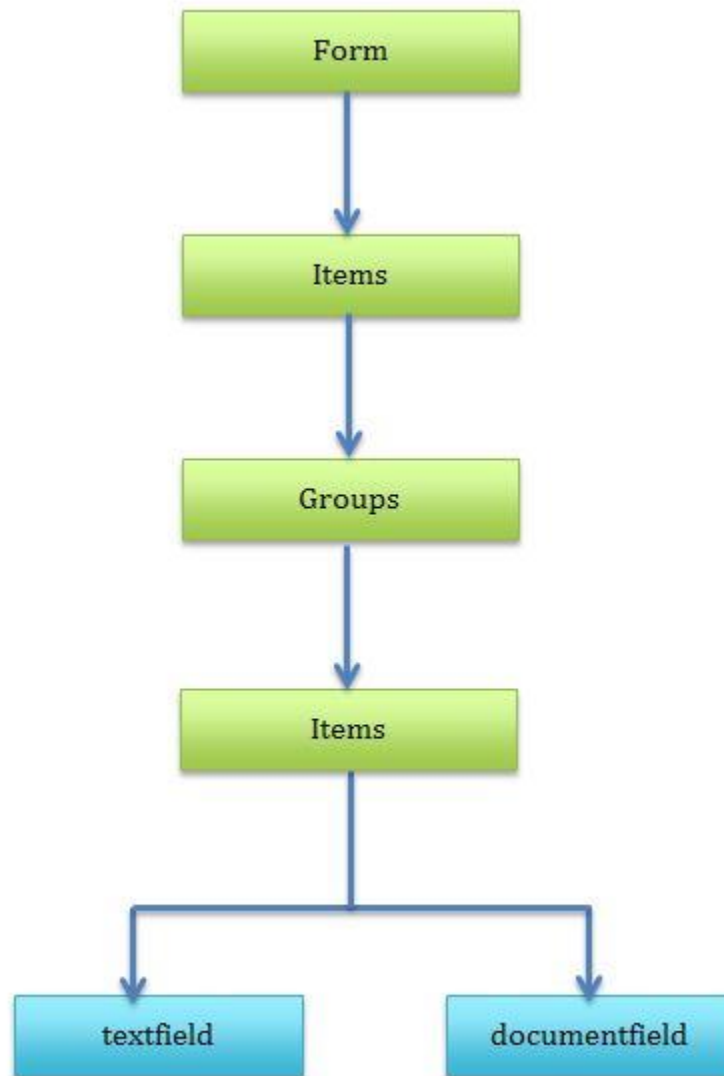
        type: "textfield",
        source: "EmployeeNumber",
        label: "Employee No."
    },
    {
        type: "textfield",
        source: "UnitPriceCurrency",
        label: "Unit price, currency",
        mask: {
            Description: {
                currencysource: "Currency",
                amountsource: "UnitPriceCurrency"
            }
        }
    }
  ]
},
{
  type: "group",
  items: [{
    type: "documentfield",
    source: "DocumentName",
    label: "Receipt"
  }]
}

```

Output

| | | |
|----------------------|---------------|--------------|
| Employee | Jørgen Jansen | First group |
| Employee No. | 11 | |
| Unit price, currency | NZD 112.00 | |
| Receipt | | Second group |

Form



Description

This component is used to tell the Touch Client that the component it is encapsulating in the “items” attribute is designed for “Line Screens.” Typically, it is using the HTML5 or Sencha Touch native controls (for example, textfield).

Rules

- This component does not support any styling.
- Always defined a “group” component in the “items” attribute.
- You cannot set a “textfield” or a “documentfield” directly in the “items” attribute.
- You cannot set a “form” component inside the “items” attribute.

Example

This is a general syntax declaration when using the “form” component.

```
{
  type: "form",
  items: [{
    type: "group",
    items: [{
      type: "textfield",
      source: "EmployeeNameVar",
      label: "Employee"
    },
    {
      type: "textfield",
      source: "EmployeeNumber",
      label: "Employee No."
    }
  ],
  {
    type: "textfield",
    source: "UnitPriceCurrency",
    label: "Unit price, currency",
    mask: {
      Description: {
        currencysource: "Currency",
        amountsource: "UnitPriceCurrency"
      }
    }
  }
  ]}]
},
{
  type: "group",
  items: [{
    type: "documentfield",
    source: "DocumentName",
    label: "Receipt"
  }
  ]}]
}
```

}

1}

Output

csk 1 - 1
601 Opmagasineri
Expense Sheet No. 10760005

| | |
|----------------------|---------------|
| Employee | Jørgen Jansen |
| Employee No. | 11 |
| Unit price, currency | NZD 112.00 |
| Receipt | |

Form, contains two groups component.

Attachment Icon



Description

This component is used for displaying an icon that represents “attachment.”

Test
2/13/2015



DKK 9.31



Rules

- This component should be used inside a column component.
- This component does not contain any attributes.

Examples

This is a general syntax declaration of the “attachmenticon” component:

```
{
  type: "column",
  items: [
    {
      type: "attachmenticon"
    }
  ]
}
```

Location Picker



Description

This component is used for entering and displaying addresses.

| | |
|------|--|
| From | |
|------|--|

Rules

This component does not support any styling.

Examples

This is a general syntax declaration of the “locationpicker” component:

```
{
  source: "MileageFrom",
  label: "From",
  type: "locationpicker"
}
```


Metadata Files

Each layout has a corresponding metadata file. The metadata and layout files have the same name, but the former ends with Metadata.I while the latter is Layout.I (for example, **TimesheetMetadata.I** and **TimesheetLayout.I**).



The metadata file is for informational purposes only. Deltek Touch does not use these files. For light-weight customizations, it does not make sense to customize the metadata files.

The metadata file contains the list of fields and variables you can use in the corresponding layout. This file is relevant, if you want to perform any of the following tasks:

- Add fields to the layout
- Change fields in the layout
- Find out which fields or variables you can add to the layout



In case your layout customization is only about formatting, the metadata file is irrelevant.

The information in the metadata file is structured similarly to the layout in regions. For each region, you have the list of fields or variables you can use, starting with the ones included in the standard layout.

In some cases, the metadata contains additional comments related to the source of the fields or variables.

Example

```
// Fields from TimeSheetLine
// Variables from SpeedSheet dialog, table part
```

If you want to show additional data on a Deltek Touch screen, you should check if the data is available in the metadata.

- If the data is in the metadata, you can add it to the layout. This process is called light-weight customization.
- If the data is not in the metadata, you need to customize the Web service to include this data first, extend the metadata, and, finally, change the layout. This process is called heavy-weight customization, which is outside the scope of this document.

Example

Show the Location dimension on Time Sheet lines. To do this, perform the following steps:

1. Find the **Timesheet** screen.
2. Find the **TimesheetLayout.I** layout file.
3. Find a region in the layout, where you want to add the Location dimension:
RegistrationList
4. Find the **TimesheetsMetadata.I** metadata file.
5. Find the Location dimension in the metadata, in the RegistrationList region:

```
{region: #K"RegistrationList",
```

```
operation: #K"getperiod",
metadata:
[
    // Fields from DailyTimeSheetLine
    {source: #K"ActivityNumber"},
    {source: #K"TaskName"},
    {source: #K"NumberOf"},
    {source: #K"DailyDescription"},
    {source: #K"EmployeeNumber"},
    {source: #K"TheDate"},
    {source: #K"EntryText"},
    {source: #K"ActivityType"},
    {source: #K"NumberTransferred"},
    {source: #K"Remark"},
    {source: #K"Description"},
    {source: #K"InternalJob"},
    {source: #K"LocationName"},
    {source: #K"EntityName"},
    {source: #K"ProjectName"},
    ...
]
```

6. Change the layout by adding **LocationName** to the **RegistrationList** region in **TimesheetLayout.I**.

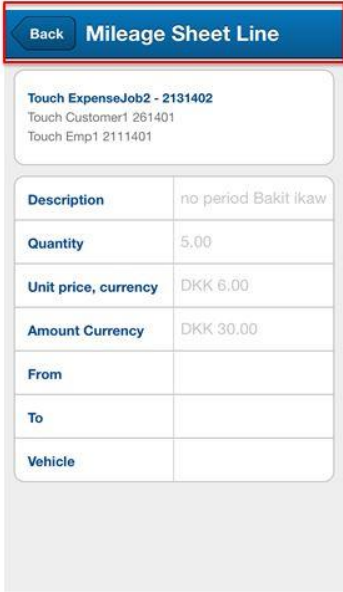

Appendix: Screens, Layouts, and Metadata Files


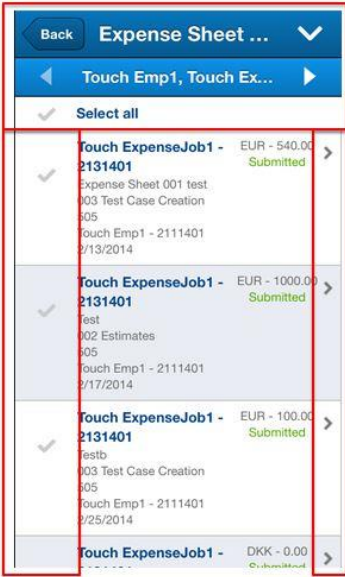
The following table displays the customizable layouts for Deltek Touch screens and their corresponding layout and metadata files:

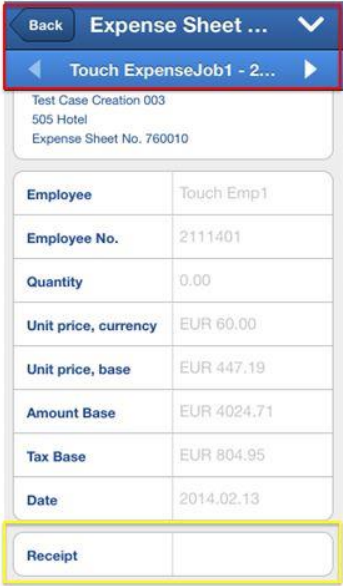




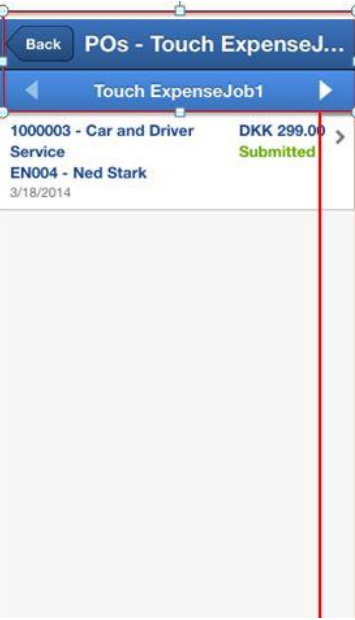
- In case your layout customization is only about formatting, the metadata file is irrelevant.
- The regions in red box are not subject for customization. Deltek recommends that you do not customize the regions in yellow box.


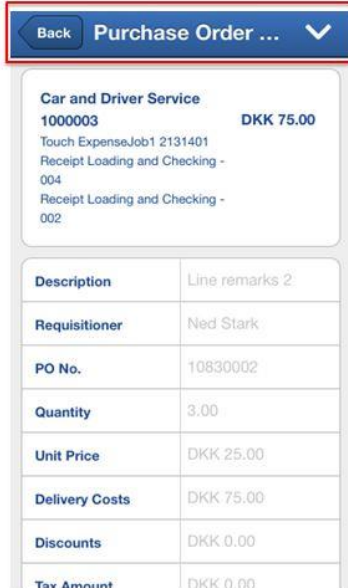
| Screen | MScript | REST |
|--------|---|----------------|
| | <p>Layout:</p> <p>ApprovalExpenseSheetListLayout</p> <p>Metadata:</p> <p>ApprovalExpenseSheetListMetadata</p> | Not Applicable |
| | <p>Layout:</p> <p>ApprovalExpenseSheetLineLayout</p> <p>Metadata:</p> <p>ApprovalExpenseSheetLineMetadata</p> | Not Applicable |

| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalMileageSheetLineLayout.I</p> <p>Metadata:</p> <p>ApprovalMileageSheetLineMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalExpenseJobListLayout.I</p> <p>Metadata:</p> <p>ApprovalExpenseJobListMetadata.I</p> | <p><i>Not Applicable</i></p> |

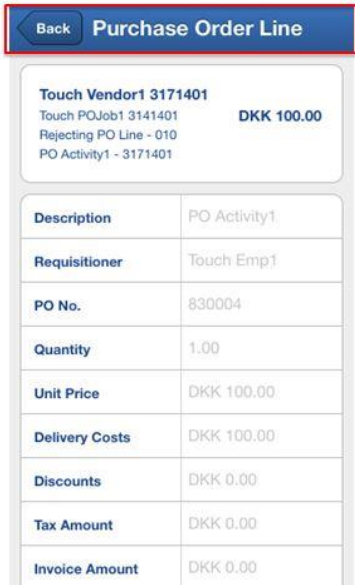

| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalExpenseSheetLineEmployeeListLayout.I</p> <p>Metadata:</p> <p>ApprovalExpenseSheetLineEmployeeListMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalExpenseSheetLineListLayout.I</p> <p>Metadata:</p> <p>ApprovalExpenseSheetLineListMetadata.I</p> | <p><i>Not Applicable</i></p> |

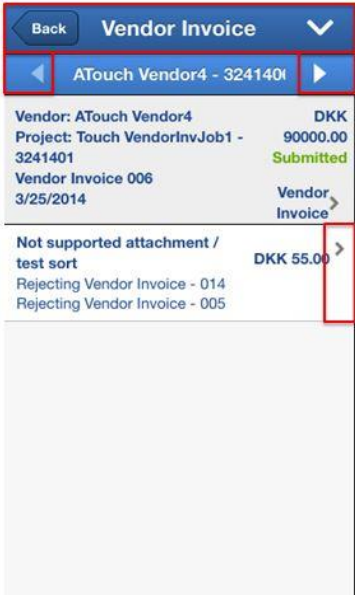
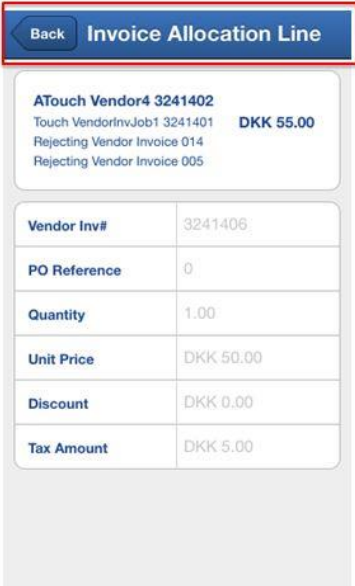
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout: ApprovalExpenseSheetLineLayout.l</p> <p>Metadata: ApprovalExpenseSheetLineMetadata.l</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout: ApprovalMileageSheetLineLayout.l</p> <p>Metadata: ApprovalMileageSheetLineMetadata.l</p> | <p><i>Not Applicable</i></p> |

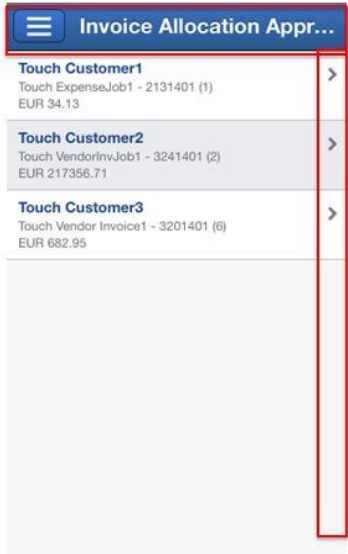
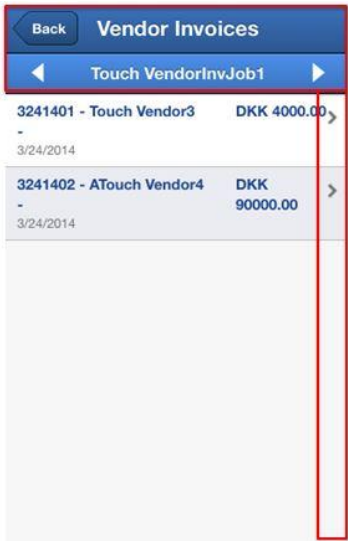
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalPurchaseOrderJobListLayout.I</p> <p>Metadata:</p> <p>ApprovalPurchaseOrderJobListMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalPurchaseOrderListLayout.I</p> <p>Metadata:</p> <p>ApprovalPurchaseOrderListMetadata.I</p> | <p><i>Not Applicable</i></p> |

| Screen | MScript | REST |
|--|---|--------------------------------|
|  | <p>Layout: ApprovalPurchaseOrderPMLa yout.l</p> <p>Metadata: ApprovalPurchaseOrderPMM etadata.l</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout: ApprovalPurchaseOrderLineP MLayout.l</p> <p>Metadata: ApprovalPurchaseOrderLineP MMetadata.l</p> | <p><i>Not Applicable †</i></p> |



| Screen | MScript | REST |
|--|---|---------------------------|
| <div><div><div>☰</div><div>PO Approval</div></div><div><div><div>3241402 - ATouch Vendor4 2111401 - Touch Emp1 3/31/2014</div><div>EUR 14088.00 Submitted</div><div>></div></div><div><div>10000001 - BTouch Vendor5 2111401 - Touch Emp1 3/24/2014</div><div>EUR 53.60 Submitted</div><div>></div></div><div><div>3171401 - Touch Vendor1 2111401 - Touch Emp1 3/18/2014</div><div>EUR 0.13 Submitted</div><div>></div></div><div><div>3171401 - Touch Vendor1 2111401 - Touch Emp1 3/20/2014</div><div>EUR 53.68 Submitted</div><div>></div></div><div><div>3171401 - Touch Vendor1 2111401 - Touch Emp1 3/19/2014</div><div>EUR 0.00 Submitted</div><div>></div></div><div><div>3171401 - Touch Vendor1 2111401 - Touch Emp1 3/19/2014</div><div>EUR 40.26 Submitted</div><div>></div></div><div><div>3201401 - Touch Vendor2 2111401 - Touch Emp1 3/25/2014</div><div>EUR 93.92 Submitted</div><div>></div></div></div></div> | <div><div>Layout:</div><div>ApprovalPurchaseOrderListLayout.l</div><div>Metadata:</div><div>ApprovalPurchaseOrderListMetadata.l</div></div> | <div>Not Applicable</div> |
| <div><div><div>Back</div><div>Purchase Order</div><div>▼</div></div><div><div>◀</div><div>Touch Vendor1 - 3/20/201</div><div>▶</div></div><div><div>Touch Vendor1 3171401 Touch Customer3 3114101 Purchase Order 002 Touch PO Line1 3141401</div><div>DKK 400.00 Submitted</div><div></div></div><div><div>PO Activity1</div><div>Rejecting PO Line - 010 PO Activity1 - 3171401 1.00</div><div>EUR 100.00 ></div></div><div><div>Approving Expense Sheets</div><div>Approving Expense Sheets - 005 Approving Expense Sheets - 002 3.00</div><div>EUR 300.00 ></div></div></div> | <div><div>Layout:</div><div>ApprovalPurchaseOrderLayout.l</div><div>Metadata:</div><div>ApprovalPurchaseOrderMetadata.l</div></div> | <div>Not Applicable</div> |

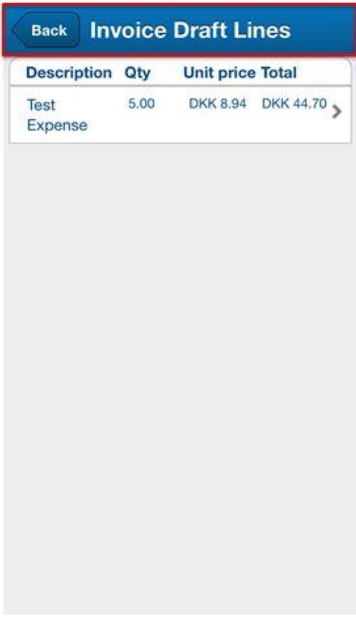
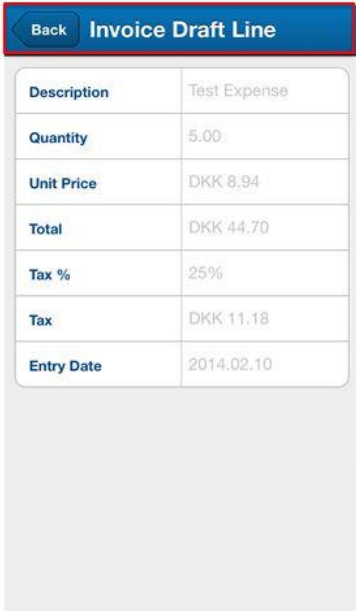
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalPurchaseOrderLineLayout.I</p> <p>Metadata:</p> <p>ApprovalPurchaseOrderLineMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalVendorInvoiceListLayout.I</p> <p>Metadata:</p> <p>ApprovalVendorInvoiceListMetadata.I</p> | <p><i>Not Applicable</i></p> |


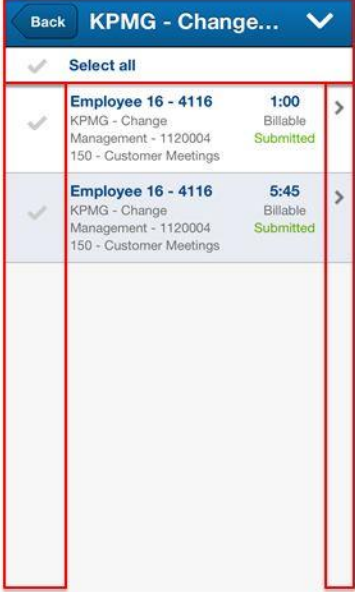
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalVendorInvoiceLayout.l</p> <p>Metadata:</p> <p>ApprovalVendorInvoiceMetadata.l</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalVendorInvoiceAllocationLineLayout.l</p> <p>Metadata:</p> <p>ApprovalVendorInvoiceAllocationLineMetadata.l</p> | <p><i>Not Applicable</i></p> |



| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalVendorInvoiceAllocationLineJobListLayout.I</p> <p>Metadata:</p> <p>ApprovalVendorInvoiceAllocationLineJobListMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalVendorInvoiceListPMLayout.I</p> <p>Metadata:</p> <p>ApprovalVendorInvoiceListPMMetadata.I</p> | <p><i>Not Applicable</i></p> |

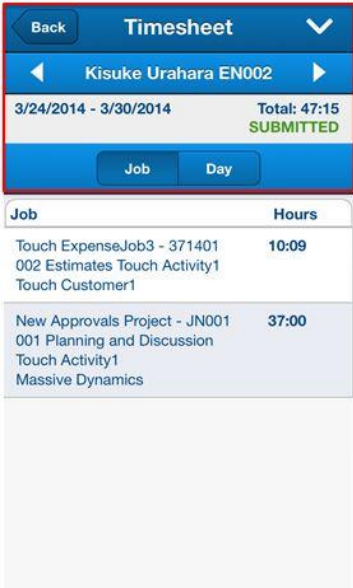

| Screen | MScript | REST |
|--------|---|------------------------------|
| | <p>Layout: ApprovalVendorInvoicePMLayout.I</p> <p>Metadata: ApprovalVendorInvoicePMMetadata.I</p> | <p><i>Not Applicable</i></p> |
| | <p>Layout: ApprovalVendorInvoiceAllocationLinePMLayout.I</p> <p>Metadata: ApprovalVendorInvoiceAllocationLinePMMetadata.I</p> | <p><i>Not Applicable</i></p> |


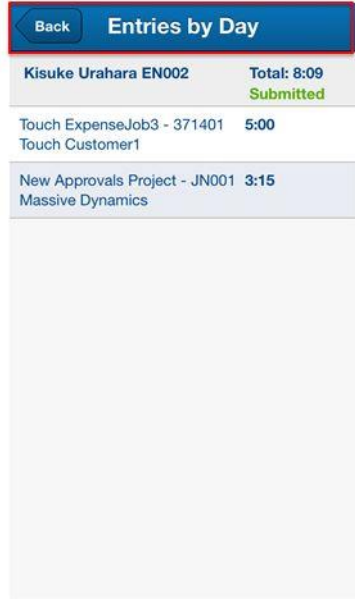
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalInvoiceDraftListLayout.I</p> <p>Metadata:</p> <p>ApprovalInvoiceDraftListMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalInvoiceDraftLayout.I</p> <p>Metadata:</p> <p>ApprovalInvoiceDraftMetadata.I</p> | <p><i>Not Applicable</i></p> |


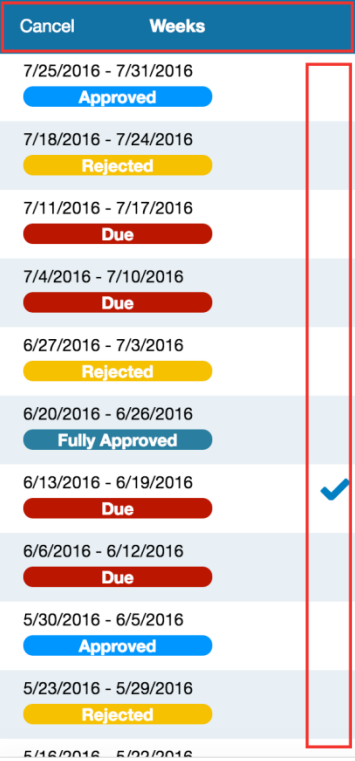
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout:</p> <p>ApprovalInvoiceDraftLinesLayout.l</p> <p>Metadata:</p> <p>ApprovalInvoiceDraftLinesMetadata.l</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout:</p> <p>ApprovalInvoiceDraftLineLayout.l</p> <p>Metadata:</p> <p>ApprovalInvoiceDraftLineMetadata.l</p> | <p><i>Not Applicable</i></p> |

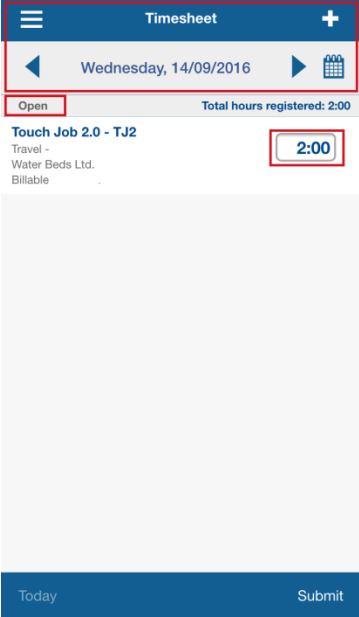
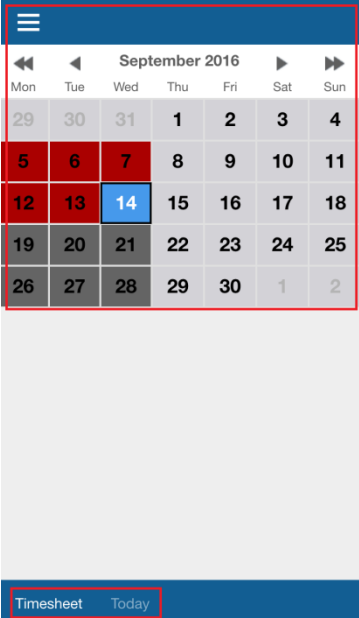
| Screen | MScript | REST |
|--|---|------------------------------|
|  | <p>Layout: PmJobsLayout.I</p> <p>Metadata: PmJobsMetadata.I</p> | <p><i>Not Applicable</i></p> |
|  | <p>Layout: PmTimeSheetsLayout.I</p> <p>Metadata: PmTimeSheetsMetadata.I</p> | <p><i>Not Applicable</i></p> |

| Screen | MScript | REST |
|--|---|----------------|
|  | <p>Layout: PmTimesheetLineLayout.I</p> <p>Metadata: PmTimesheetLineMetadata.I</p> | Not Applicable |
|  | <p>Layout: SupervisorApprovalListLayout.I</p> <p>Metadata: SupervisorApprovalListMetadata.I</p> | Not Applicable |

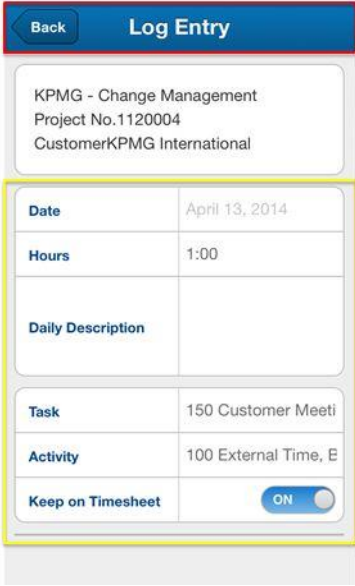
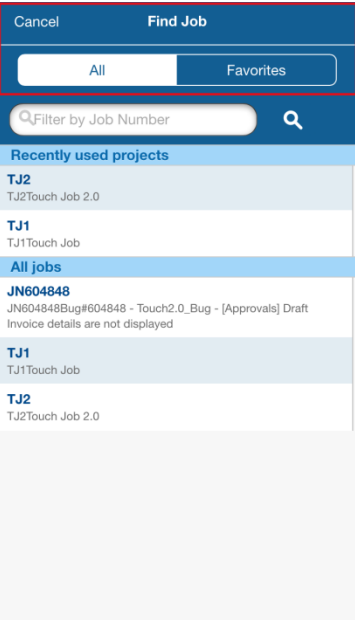
| Screen | MScript | REST |
|--|--|-----------------------|
|  | Layout: SupervisorTSJobLayout.I Metadata: SupervisorTSJobMetadata.I | <i>Not Applicable</i> |
|  | Layout: SupervisorTSDayLayout.I Metadata: SupervisorTSDayMetadata.I | <i>Not Applicable</i> |

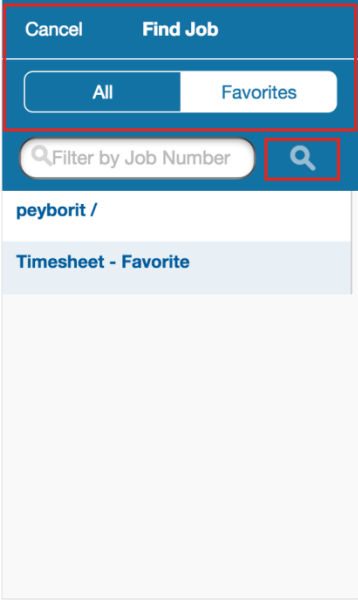
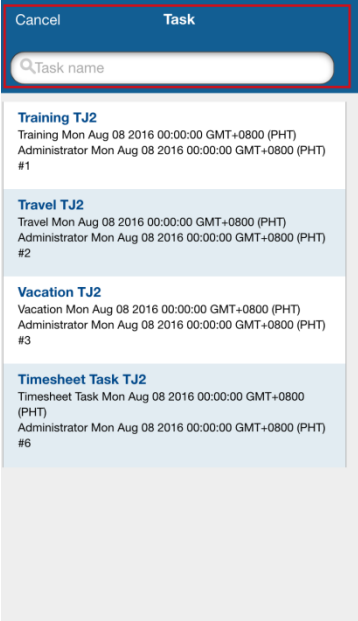
| Screen | MScript | REST |
|--|---|----------------|
|  | <p>Layout: SupervisorEntriesByJobLayout.l</p> <p>Metadata: SupervisorEntriesByJobMetadata.l</p> | Not Applicable |
|  | <p>Layout: SupervisorEntriesByDayLayout.l</p> <p>Metadata: SupervisorEntriesByDayMetadata.l</p> | Not Applicable |

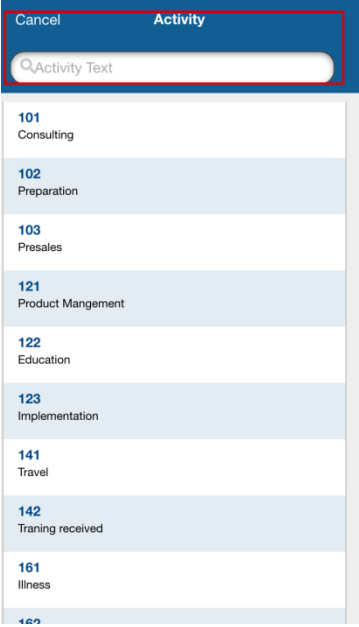
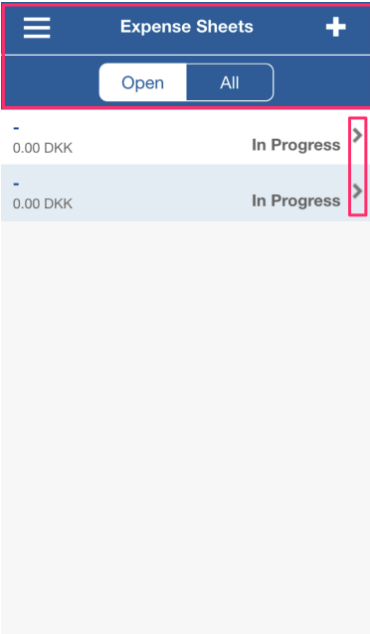
| Screen | MScript | REST |
|--|---|--|
|  | <p>Layout: TimesheetLayout.I</p> <p>Metadata: TimesheetMetadata.I</p> <p>*Weekly Mode</p> | <p>Layout: TimesheetLayoutREST.I</p> <p>Metadata: None</p> <p>*Weekly Mode</p> |
|  | <p><i>Not Applicable</i></p> | <p>Layout: TimeSheetWeekLayoutREST.I</p> <p>Metadata: None</p> |

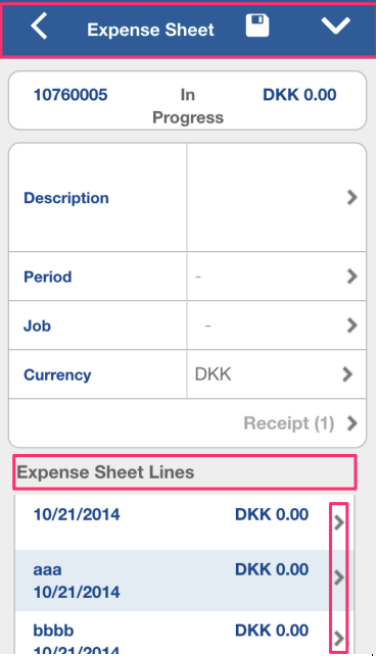
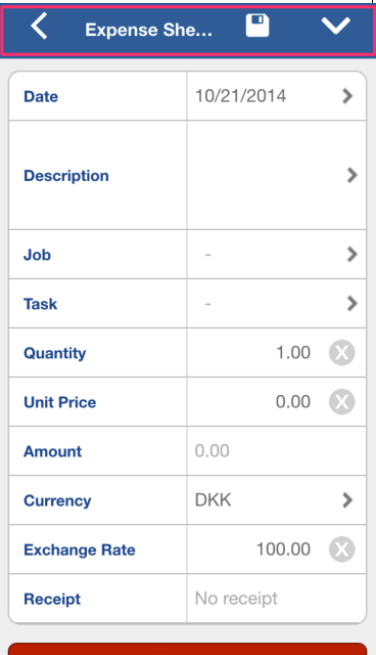
| Screen | MScript | REST |
|--|---|--|
|  | <p>Layout: TimesheetLayout.I</p> <p>Metadata: TimesheetMetadata.I</p> <p>* Daily Mode</p> | <p>Layout: TimesheetDaysLayoutREST.I</p> <p>Metadata: None</p> <p>* Daily Mode</p> |
|  | <p><i>Not Applicable</i></p> | <p>Layout: TimeSheetCalendarLayoutREST.I</p> <p><i>Only the colors for each status are customizable.</i></p> <p>Metadata: None</p> |

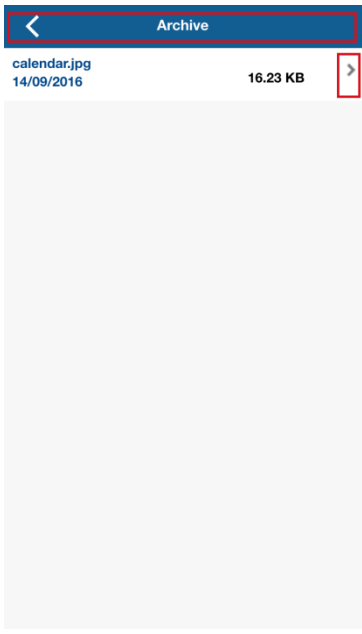
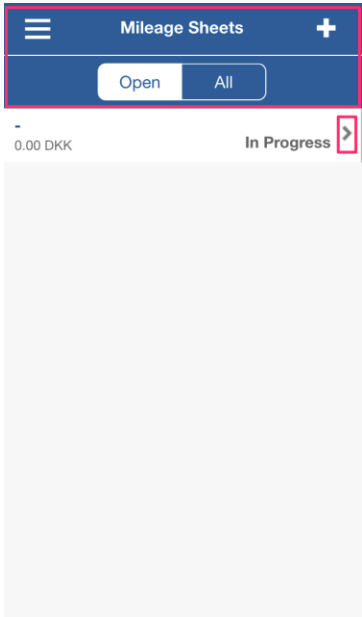
| Screen | MScript | REST | | | | | | | | | | | | | | | | | | | | |
|---|---------|-------|----------------|---|-----------------|--------|-------------------|---|------------------|---|----------------|---|------------------|---|----------------|---|-----|-------|--|------|---|---|
| <div><div><div><div><div></div><div>Summary</div><div>Submit</div></div><div><div>4/7/2014 - 4/13/2014</div><div>Total: 3:00 IN PROGRESS</div></div><div><div>Day</div><div>Job</div></div></div><div><table><tr><th>Date</th><th>Hours</th></tr><tr><td>04/07 - Monday</td><td>></td></tr><tr><td>04/08 - Tuesday</td><td>3:00 ></td></tr><tr><td>04/09 - Wednesday</td><td>></td></tr><tr><td>04/10 - Thursday</td><td>></td></tr><tr><td>04/11 - Friday</td><td>></td></tr><tr><td>04/12 - Saturday</td><td>></td></tr><tr><td>04/13 - Sunday</td><td>></td></tr></table></div></div><div><div><div><div></div><div>Summary</div><div>Submit</div></div><div><div>4/7/2014 - 4/13/2014</div><div>Total: 3:00 IN PROGRESS</div></div><div><div>Day</div><div>Job</div></div></div><div><table><tr><th>Job</th><th>Hours</th></tr><tr><td>PO Approval Job 1 - 250002 Implementation - Implementation Touch Customer1</td><td>3:00</td></tr></table></div></div></div> | Date | Hours | 04/07 - Monday | > | 04/08 - Tuesday | 3:00 > | 04/09 - Wednesday | > | 04/10 - Thursday | > | 04/11 - Friday | > | 04/12 - Saturday | > | 04/13 - Sunday | > | Job | Hours | PO Approval Job 1 - 250002 Implementation - Implementation Touch Customer1 | 3:00 | <p>Layout: SummaryLayout.I</p> <p>Metadata: SummaryMetadata.I</p> | <p>Layout: Weekly Mode - SummaryLayoutREST.I</p> <p>Daily Mode - SummaryDailyLayoutREST.I</p> <p>Metadata: None</p> |
| Date | Hours | | | | | | | | | | | | | | | | | | | | | |
| 04/07 - Monday | > | | | | | | | | | | | | | | | | | | | | | |
| 04/08 - Tuesday | 3:00 > | | | | | | | | | | | | | | | | | | | | | |
| 04/09 - Wednesday | > | | | | | | | | | | | | | | | | | | | | | |
| 04/10 - Thursday | > | | | | | | | | | | | | | | | | | | | | | |
| 04/11 - Friday | > | | | | | | | | | | | | | | | | | | | | | |
| 04/12 - Saturday | > | | | | | | | | | | | | | | | | | | | | | |
| 04/13 - Sunday | > | | | | | | | | | | | | | | | | | | | | | |
| Job | Hours | | | | | | | | | | | | | | | | | | | | | |
| PO Approval Job 1 - 250002 Implementation - Implementation Touch Customer1 | 3:00 | | | | | | | | | | | | | | | | | | | | | |

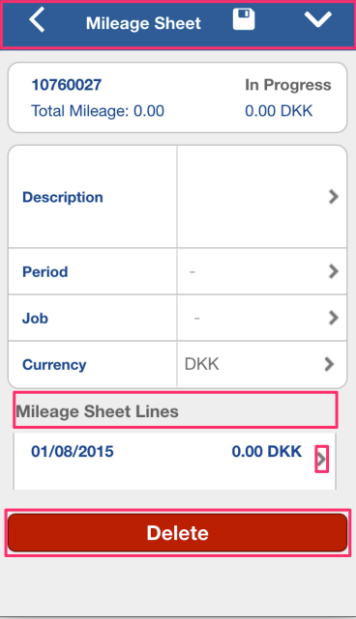
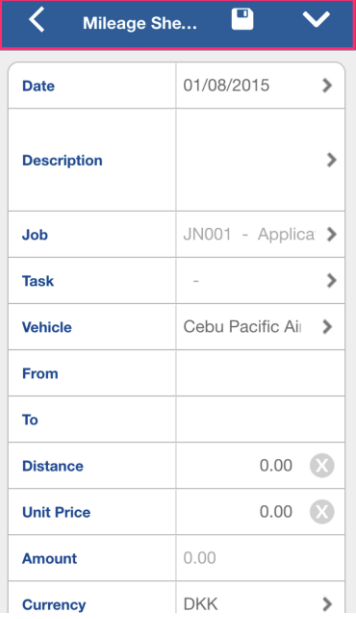
| Screen | MScript | REST |
|--|--|--|
|  | <p>Layout:</p> <p>TimesheetLogentryLayout.I, DeltekTouch.I</p> <ul style="list-style-type: none"> The new layout framework does not apply to the region in yellow box. It uses the old solution, which uses DeltekTouch.I. Three screens uses the same layout: Project Manager Timesheet Approval, Supervisor Timesheet Approval, and Timesheet <p>Metadata:</p> <p>TimesheetLogEntryMetadata.I.</p> | <p>Layout:</p> <p>Weekly Mode - TimesheetLogEntryWeeklyLayoutREST.I</p> <p>Daily Mode - TimesheetLogEntryDailyLayoutREST.I,</p> <p>Metadata:</p> <p>None</p> |
|  | <p><i>Not Applicable</i></p> | <p>Layout:</p> <p>Find_JobHeader_Timesheet.I</p> <p>Metadata:</p> <p>None</p> |

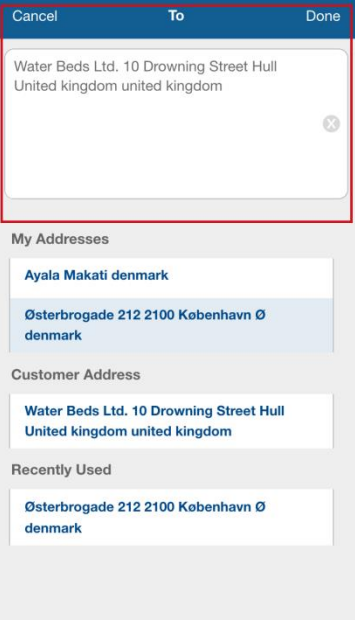
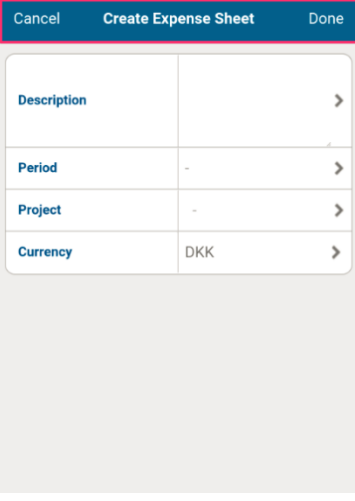
| Screen | MScript | REST |
|--|----------------|--|
|  | Not Applicable | Layout: Find_JobFavorite_Timesheet. I Metadata: None |
|  | Not Applicable | Layout: Find_TaskListLine.I Metadata: None |

| Screen | MScript | REST |
|--|---|--|
|  | <p><i>Not Applicable</i></p> | <p>Layout: Find_Activity.I</p> <p>Metadata: None</p> |
|  | <p>Layout: ExpenseSheetsLayout.I</p> <p>Metadata: ExpenseSheetsMetadata.I</p> | <p>Layout: ExpenseSheetsLayoutREST.I</p> <p>Metadata: None</p> |

| Screen | MScript | REST |
|--|---|---|
|  <p>The screenshot shows the 'Expense Sheet' screen. At the top, there is a header bar with a back arrow, the title 'Expense Sheet', a save icon, and a dropdown arrow. Below the header, there is a summary section showing '10760005 In Progress' and 'DKK 0.00'. A table follows with fields: Description, Period, Job, and Currency. Below this is a 'Receipt (1)' section. The main part of the screen is titled 'Expense Sheet Lines' and contains a list of lines. The first line is highlighted with a red box and shows the date '10/21/2014' and amount 'DKK 0.00'. The second line shows 'aaa' and '10/21/2014' with amount 'DKK 0.00'. The third line shows 'bbbb' and '10/21/2014' with amount 'DKK 0.00'.</p> | <p>Layout: ExpenseSheetLayout.I</p> <p>Metadata: ExpenseSheetMetadata.I</p> | <p>Layout: ExpenseSheetLayoutREST.I</p> <p>Metadata: None</p> |
|  <p>The screenshot shows the 'Expense Sheet Line' screen. It has a header bar with a back arrow, the title 'Expense She...', a save icon, and a dropdown arrow. Below the header is a form with fields: Date (10/21/2014), Description, Job, Task, Quantity (1.00), Unit Price (0.00), Amount (0.00), Currency (DKK), Exchange Rate (100.00), and Receipt (No receipt). Each field has a corresponding icon or button next to it.</p> | <p>Layout: ExpenseSheetLineLayout.I</p> <p>Metadata: ExpenseSheetLineMetadata.I</p> | <p>Layout: ExpenseSheetLineLayoutREST.I</p> <p>Metadata: None</p> |


| Screen | MScript | REST |
|--|---|--|
|  | <p><i>Not Applicable</i></p> | <p>Layout: DocumentArchiveListREST.I</p> <p>Metadata: None</p> |
|  | <p>Layout: MileageSheetsLayout.I</p> <p>Metadata: MileageSheetsMetadata.I</p> | <p>Layout: MileageSheetsLayoutREST.I</p> <p>Metadata: None</p> |

| Screen | MScript | REST |
|--|---|--|
|  | <p>Layout: MileageSheetLayout.I</p> <p>Metadata: MileageSheetMetadata.I</p> | <p>Layout: MileageSheetLayoutREST.I</p> <p>Metadata: None</p> |
|  | <p>Layout: MileageSheetLineLayout.I</p> <p>Metadata: MileageSheetLineMetadata.I</p> | <p>Layout: MileageSheetLineLayoutRES T.I</p> <p>Metadata: None</p> |

| Screen | MScript | REST |
|--|---|--|
|  | <p><i>Not Applicable</i></p> | <p>Layout: Find_LocationFromTo.l</p> <p>Metadata: None</p> |
|  | <p>Layout: CreateExpenseSheetLayout.l</p> <p>Metadata: CreateExpenseSheetMetadata.l</p> | <p><i>Not Applicable</i></p> |

| Screen | MScript | REST |
|--------|---|---|
| | <p>Layout: CreateExpenseSheetLineLayout.I</p> <p>Metadata: CreateExpenseSheetLineMetadata.I</p> | <p>Layout: QuickCaptureExpenseSheetLineLayoutREST.I</p> <p>Metadata: None</p> |
| | <p><i>Not Applicable</i></p> | <p>Layout: QuickCaptureAttachReceiptLayoutREST.I</p> <p>Metadata: None</p> |

| Screen | MScript | REST |
|---|---|---|
| <div><div><div>5 Rejected Timesheets</div><div><div>6/27/2016 - 7/3/20168:00></div><div>8/29/2016 - 9/4/201610:00></div><div>7/18/2016 - 7/24/20168:00></div><div>5/23/2016 - 5/29/20168:00></div><div>8/1/2016 - 8/7/2016></div></div></div><div></div></div> | <p>Layout:</p> <p>RejectedTimesheetsLayout.I</p> <p>Metadata:</p> <p>RejectedTimesheetsMetadata.I</p> | <p>Layout:</p> <p>RejectedTimesheetsLayoutREST.I</p> <p>Metadata:</p> <p>None</p> |



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