



**Release Notes**  
**for**



**Version 4.5**  
**(part 5)**

**Part Number E62398-02**

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# 1 Introduction

## 1.1 Document Purpose and Scope

This document contains the description of new features, changes and significantly altered functionalities introduced in ETAdirect versions 4.5.19-4.5.26 as compared to the previous versions. It also provides brief overview of minor changes and issues.

For the description of the changes and improvements introduced in versions 4.5.0-4.5.18 please refer to the corresponding separate documents.

## 1.2 Glossary

The glossary below contains the basic ETAdirect terms used in this document.

Term	Explanation
Activity	Any time-consuming work performed by a resource
API	Application Programming Interface – a particular set of rules and specifications that software programs follow to communicate and interact with each other
Bucket	Entity appearing on the resource tree which can contain resources of a defined type and be assigned activities
Capacity	Workforce possessing the necessary work skills available at a certain moment of time
Capacity bucket	Bucket used for Quota management
Capacity category	Predefined set of work skills, work skill groups and time slots within which they are considered by the Capacity API
Context	ETAdirect or API screen showing all available properties and action links
Daily Extract	Functionality used to extract data from ETAdirect for further analysis and reporting (previously referred to as DWH)
Daily Extract	ETAdirect tool intended for data extracting from the system
Delivery window	Statistically calculated time period in which a resource is expected to start an activity
Dynamic Routing	Routing option allowing to assign only a predefined number of activities to resources and/or assign activities only for a predefined period of time
ETA	Predicted time at which a resource will arrive at an appointment and start an activity, calculated dynamically for current and historical data
Field	Property present in the system by default
Forecasting	New feature of ETAdirect allowing to forecast the company workload on the basis of historical data
Geocoding	Process of finding geographic coordinates from street addresses or postal codes
Group	Feature on the resource tree identifying a particular type of resource
GUI	Graphical User Interface, allowing people to use software by manipulating images rather than by issuing text commands
Historical data	Data of the past periods available in the database or from other sources
Inventory	Equipment that can be installed or deinstalled during an activity
Linked activities	Two separate activities related so that the completion or start of one is dependent on the completion or start of the other
Manage Application	Product that allows to manage workforce and activities in realtime. Usually serves

	as an interface for dispatcher
Mass activity	Activity involving 2 or more resources
Message (Notification)	Communications within software (which may or may not be readable by humans), as well as person-to-person communications delivered via computer software
Mobility Application	Product that allows field personnel to interact with the system
Not scheduled	Activity not assigned to a specific date
Not ordered	Activity with an unspecified order of execution in a route, so that it can be executed at any time during the working day. Not-ordered activities do not have defined ETAs or delivery windows
Ordered	Activity with a defined place in a route, which must be performed at a specified time of day. The order of activities can be changed; ordered activities can be changed to not-ordered activities, vice-versa
Penalty	Relative scale representing the expected increase of total cost which a particular factor brings into routing result
Planning	Company's estimation of the workforce or workload required at a certain moment
Preassigned activity	Activity which was assigned to a specific resource before the routing run
Property	Field and field value, assigned to an entity in ETAdirect (to user, resource, activity or inventory). There are fields and custom properties
Quota	Amount of work that can be accepted for the bucket
Repeating activity	Activity recurring with a predefined frequency in a predefined period
Resource	Element in the resource tree representing a defined company asset
Resource Tree	Hierarchy of company resources, showing "parent-child" relationships
Route	List of activities assigned to a resource for a specific date, or a list of non-scheduled activities assigned to a resource
Routing	Process of assigning activities to resources (usually automated)
Service Window	Time frame expected by the customer for an activity as scheduled by the company
SLA window	Interval of time (that may involve a range of dates) within which certain work has to be performed according to the Service Level Agreement
Teamwork	Feature allowing resources to assist each other in an activity or on an on-going basis
Time Slot	1) Fixed service window, defined with a name and label, specifying when certain types of activities can be performed 2) Service Window (if the activity type does not support time slots)
User	1) Person using ETAdirect 2) Entity used for authentication and authorization, allowing people or external software to access ETAdirect
Work Skill	1) Activity that a resource is qualified to perform (resource property) 2) Qualification required to perform an activity (activity property)
Work Zone	Defined geographical area in which a resource can perform an activity

## 2 ETAdirect Version 4.5.19

### 2.1 Changes Overview

['Close' button available on both top and bottom Map View panels](#)

[Permissions applied correctly in showing resource trace](#)

[Alerts shown for future mass/repeating/shift activities](#)

[Correct message displayed on activity move to inactive or non-working resource](#)

[Inactive enumeration property values no longer displayed](#)

[Activity hints shown regardless of language](#)

[Temporary work zones handled correctly by 'Move Activity' functionality](#)

[Resource tree scroll bar position restored properly](#)

[Activities ordered correctly by 'Move' action](#)

[Time View works properly for resources with no activities](#)

[Activity duration shown correctly](#)

[Overnight handled correctly by Quota Management](#)

['doesn't contain' condition displayed correctly](#)

[Colors copied properly in 'Identify ... by' context](#)

[Group actions visible according to visibility rules](#)

[Font style settings kept during display profile export/import](#)

[Map uses distance measurement units set in 'Business Rules'](#)

[Driving directions shown from latest GPS coordinates](#)

['Routing Profiles' permissions applied properly](#)

[SLA overdue calculated correctly](#)

[Daily Extract configuration – added field remains highlighted](#)

[Daily Extract configuration – correct number of files displayed](#)

[Activity history shows all properties](#)

[Customer inventory synchronized properly](#)

[Inventory adding improved](#)

[Future mass/repeating/shift activities displayed properly](#)

[Image upload improved](#)

[Customer signature displayed correctly](#)

[Online plugins work properly](#)

[Internet Explorer 8 – login improved](#)

[Inventory shown correctly for activities moved from non-scheduled to scheduled pool](#)

[Multiple chats no longer created](#)

[Default statistics improved](#)

[Cross-area travel calculated correctly by Routing Engine and ETAdirect](#)

[Capacity Management API – 'set\\_quota\\_close\\_time' method checks 'Quota Can Be Closed for' settings](#)

[Capacity Management API – bucket status check implemented](#)

[Action links export/import implemented](#)

[Activity suspension no longer resets its duration](#)

## 2.2 Activity Details

### 2.2.1 Improvements

#### 2.2.1.1 'Close' Button Available on Both Top and Bottom Map View Panels

If the bottom panel was opened in the Map View by clicking the 'plus' button, the bottom panel had no 'close' button. There was no way to close the bottom panel except closing the top panel and leaving the bottom one on the screen. However, in this case the bottom panel became the main view which was not always the desired result.

This issue has been resolved in version 4.5.19. The 'close' button is available in both top and bottom panels in the Map View (Figure 1).

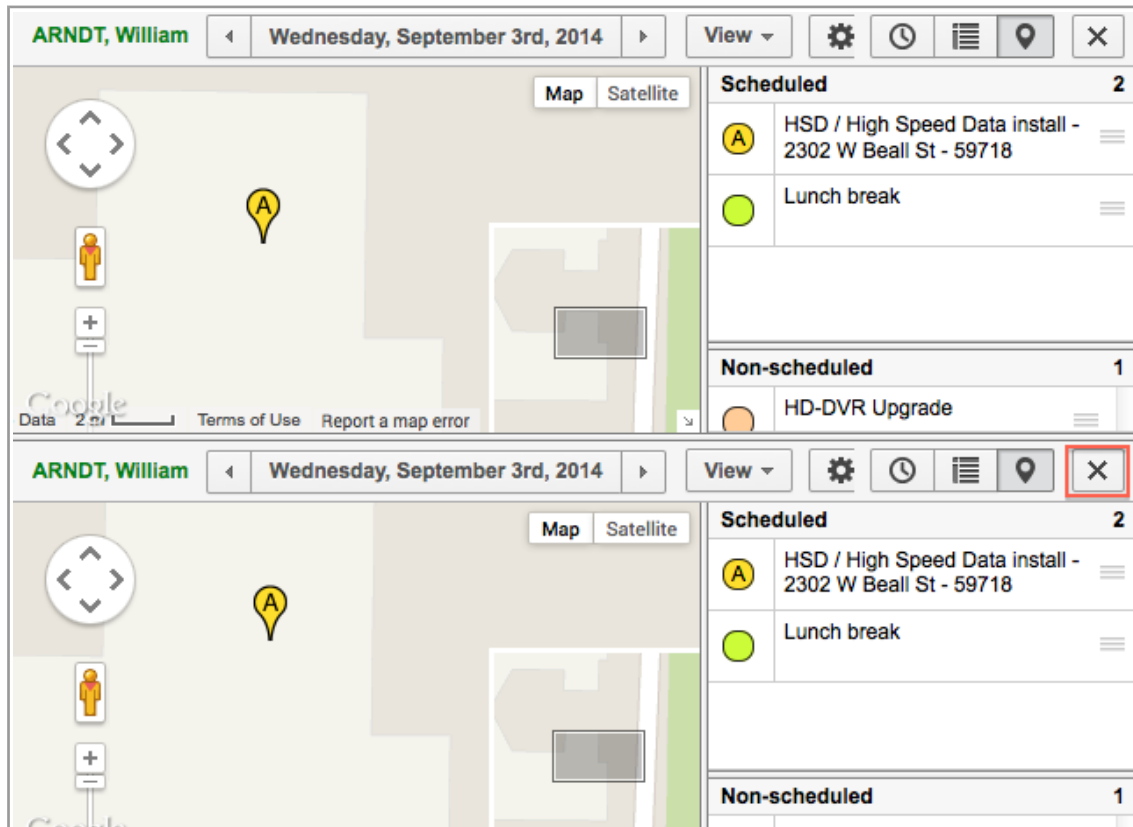


Figure 1: 'Close' button of bottom panel

#### 2.2.1.2 Permissions Applied Correctly in Showing Resource Trace

In the previous versions the resource trace display on the Map required the 'SmartLocation' permission (Manage → Map → GPS → SmartLocation). However, the Manage → Map → GPS permission should have been enough to display the resource trace.

In version 4.5.19 this issue has been fixed, and now resource trace is displayed to the user having the Manage → Map → GPS permission enabled.

#### 2.2.1.3 Alerts Shown for Future Mass/Repeating/Shift Activities

If a future mass/repeating/shift activity was not placed in a particular route, its hint had no 'Activity alerts' field. The Resource Tree showed no alerts for such activities, either.

As of version 4.5.19 alerts are shown properly for future mass/repeating/shift activities regardless of whether they are assigned to a particular route or not.

## 2.3 Manage Application

### 2.3.1 Improvements

#### 2.3.1.1 Correct Message Displayed on Activity Move to Inactive or Non-Working Resource

Previously, when an activity was dragged and dropped to an inactive or non-working resource, the system responded with a 'Wrong data' error message. Such error message did not carry a clear message on the reason of the error.

The error message text has been changed, and now on moving an activity to an inactive resource the user gets the following message: 'Error occurred: - Resource is inactive. Cannot move activity'. When an activity is moved to a non-working resource, the error message reads: ' Error occurred: - Resource is non-working. Cannot move activity' (Figure 2). These messages give the user a clear idea of the reason why the activity cannot be moved.

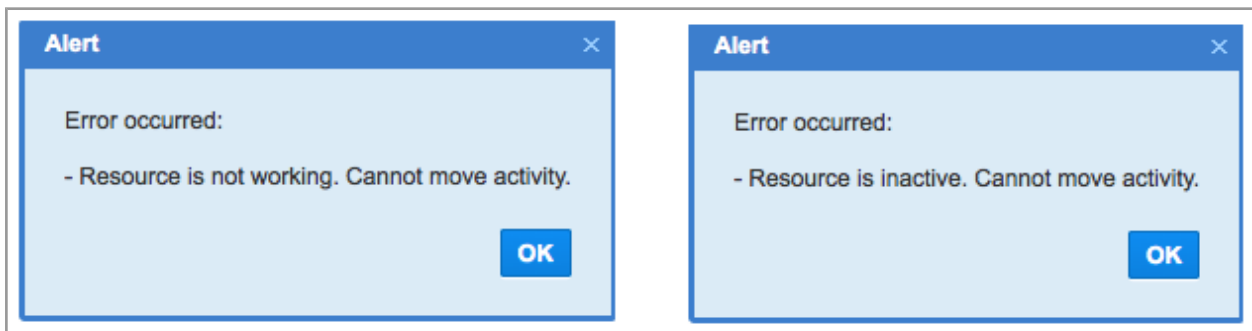


Figure 2: Error message returned on move to non-working (left) and inactive (right) resource

#### 2.3.1.2 Inactive Enumeration Property Values No Longer Displayed

If an enumeration property had an active value and an inactive value with indexes [1] and [01], both values were shown as active.

An additional check has been implemented, and now only active values are shown for enumeration properties.

#### 2.3.1.3 Activity Hints Shown Regardless of Language

If an activity had a property in the Swedish language, no hint was displayed for such activity.

In version 4.5.19 this issue has been fixed. Now activity hints are displayed properly regardless of the selected language.

#### 2.3.1.4 Temporary Work Zones Handled Correctly by 'Move Activity' Functionality

If a resource had a work zone assigned to it and then a temporary work zone overriding the first one, such resource was still available in the list of resources available for activity move in the first work zone. However, when such resource was selected for activity move, a 'Workzones mismatch' warning was issued.

The issue has been fixed. Now temporary work zones are taken into account in activity moves. Only the resources having applicable work zones are available for activity move.

#### 2.3.1.5 Resource Tree Scroll Bar Position Restored Properly

When the Resource Tree is longer than one screen, it has a vertical scroll bar used to reach resources beyond the screen edge. When scrolling was used to open a resource located far down the Resource Tree



and then the details of one of its activities were opened, the scroll bar returned to the top position afterwards with the resource outside the screen again. The user had to scroll down again to view the resource with which they were working.

The mechanism of scroll bar position restoring has been improved. Now the Resource Tree shows the same resource which was shown before the activity details display.

### 2.3.1.6 Activities Ordered Correctly by 'Move' Action

If an activity was moved to a route containing future mass or repeating activities, the newly-moved activity was always added at the beginning of the route, regardless of its service window and of the service windows of the mass or repeating activities. As the result, activities could be placed outside their service windows. The user had to rearrange the activities manually to keep their service windows. In version 4.5.19 activities ordering has been improved. Activities are auto-ordered according to their service windows.

### 2.3.1.7 Time View Works Properly for Resources with No Activities

If a resource had no activities in their route but had final travel time, such resource was not shown on the Time View when the 'Apply hierarchically' option was selected.

The issue has been resolved. The Time View shows resources correctly when they have no activities but have final travel time.

## 2.4 Activity Views

### 2.4.1 Improvements

#### 2.4.1.1 Activity Duration Shown Correctly

When the resource had both 'Working time includes travel from last activity' and 'Working time includes travel to first activity', duration of activities assigned to such resource was shown incorrectly on the Time View. Particularly, the duration on the Time View was shorter than the actual activity duration (Figure 3). Also, when the mouse cursor was pointed on the activity, the duration bar became longer and overlapped the final travel bar (Figure 4).

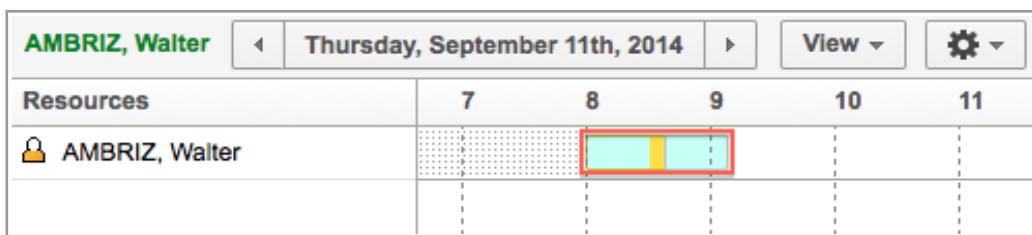


Figure 3: Activity duration too short

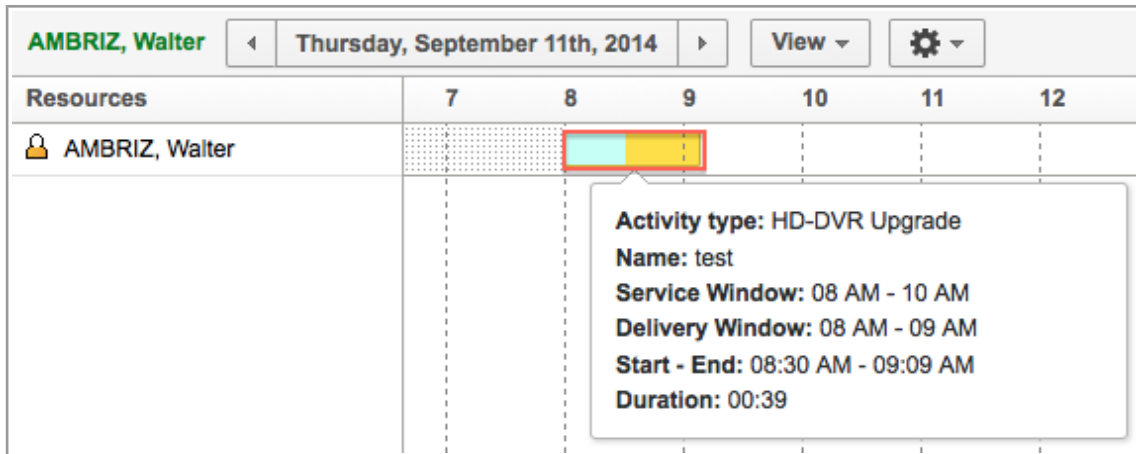


Figure 4: Activity duration overlapping final travel

The travel time calculation has been improved, and now activity duration and travel time are shown correctly on the Time View.

## 2.5 Quota Management

### 2.5.1 Improvements

#### 2.5.1.1 Overnight Handled Correctly by Quota Management

If the Overnight mode was set for the company, Overnight was not taken into account by the Quota functionality. The Quota functions responded as if the 'Working time since midnight' parameter was set to '0'. Particularly, the 'Quota' values for yesterday were ReadOnly while they should have been ReadWrite with Overnight enabled.

As of version 4.5.19 the Quota functionality takes into account the Overnight settings, and the Quota values are displayed properly.

## 2.6 Displays

### 2.6.1 Improvements

#### 2.6.1.1 'doesn't contain' Condition Displayed Correctly

If visibility for a property was set with a 'doesn't contain' condition, such condition was shown incorrectly in the 'Visibility' table on the 'Context layout structure' screen. The special character was not converted (Figure 5).

[WO Number] visibility		
<a href="#">Add new visibility</a>		
<input type="checkbox"/>	Access	Conditions
<input type="checkbox"/>	ReadWrite	ZIP doesn't contain 555

Figure 5: Incorrect condition display

Now the special character is converted correctly, and the condition is properly shown on the 'Context layout structure' screen (Figure 6).

[Popup notification] visibility		
<a href="#">Add new visibility</a>		
<input type="checkbox"/>	Access	Conditions
<input type="checkbox"/>	ReadWrite	Language <b>doesn't contain</b> Portuguese

Figure 6: Correct condition display

### 2.6.1.2 Colors Copied Properly in 'Identify ... by' Context

If the 'Identify ... by' context layout was copied from another similar context layout with colors defined, the resulting context layout had no color settings.

The issue has been fixed in version 4.5.19. When a context layout is copied, the copied layout has its full structure, including text colors.

### 2.6.1.3 Group Actions Visible According to Visibility Rules

If a group action had a visibility condition on the 'Visible list columns' context layout, such group action was invisible even when the visibility condition was satisfied.

The visibility calculation for group actions has been improved. Now they are visible or hidden according to the conditions set for them on the context layout.

### 2.6.1.4 Font Style Settings Kept during Display Profile Export/Import

Previously, if a display profile was exported and then imported into an empty one, font style settings (Bold, Italic, Color, etc.) were reset to default settings in the imported display profile.

Now the display profile export/import functionality has been improved. Font style settings are copied properly during export/import and are applied in the imported display profile.

## 2.7 Map

### 2.7.1 Improvements

#### 2.7.1.1 Map Uses Distance Measurement Units Set in 'Business Rules'

When the Map shows nearby activities, the distance to such activities was shown not in the units set in 'Business Rules' → 'Distance measurement units'. For example, if the 'Distance measurement units' parameter was set to miles, the Map still showed distances in kilometers.

As of version 4.5.19 the 'Distance measurement units' settings are used in the nearby activities functionality, as intended.

#### 2.7.1.2 Driving Directions Shown from Latest GPS Coordinates

If the resource set a final status to an activity in their route and then set newer GPS coordinates for their location, the driving directions to the next activity were still shown from the last activity location.

As of version 4.5.19 the driving directions are shown from the last known GPS coordinates of the resource which is the correct behavior of the functionality.

## 2.8 Routing GUI

### 2.8.1 Improvements

#### 2.8.1.1 'Routing Profiles' Permissions Applied Properly

Previously, if the 'Routing profiles' permission was set to 'ReadOnly', the 'Add routing profile' button was

still available on the 'Routing Profiles' screen. However, clicking this button resulted in the following error message displayed: 'Operation is not permitted. Please relogin. If problem persists contact technical support.'

As of version 4.5.19, when the user has the 'ReadOnly' permission to routing profiles, the 'Add routing profile' button is hidden.

## 2.9 Routing Interface

### 2.9.1 Improvements

#### 2.9.1.1 SLA Overdue Calculated Correctly

In order to achieve the 'Reduce overdue' reoptimization goal, there is an algorithm calculating SLA overdue for activities. However, in the previous versions this algorithm sometimes calculated SLA overdue for activities with SLA end in a past day and for non-scheduled activities. This resulted in incorrect reoptimization results.

In version 4.5.19 the SLA calculation algorithm has been improved. Now it no longer calculates SLA overdue for non-scheduled activities and for activities with SLA belonging to a past day.

## 2.10 Company Settings

### 2.10.1 Improvements

#### 2.10.1.1 Daily Extract Configuration – Added Field Remains Highlighted

As of version 4.5.19 a field added to the list of Daily Extract configuration structure remains highlighted with all applicable action links shown (Figure 7). The user can now easily find the newly-added field and manage it, if necessary.



Figure 7: Added field highlighted

#### 2.10.1.2 Daily Extract Configuration – Correct Number of Files Displayed

Previously, when several Daily Extract files were selected from the list, the popup window showed an incorrect number of selected files.

This issue has been resolved. Now the number of selected files shown in the popup window is correct (Figure 8).

Daily Extract Configuration			
		<a href="#">Add new</a>	<a href="#">Export</a>
		<a href="#">Import</a>	
<input type="checkbox"/>	<b>With 2 selected</b>   <a href="#">Delete</a>	<b>Entity</b>	
<input type="checkbox"/>	Activity_{COMPANY_NAME}	Activity Fields	
<input checked="" type="checkbox"/>	Message_{COMPANY_NAME}	Message Fields	
<input checked="" type="checkbox"/>	Resource_{COMPANY_NAME}	Resource Fields	

Figure 8: Correct number of files

## 2.11 Daily Extract

### 2.11.1 Improvements

#### 2.11.1.1 Activity History Shows All Properties

Previously, if some properties were absent in the 'Add activity/Activity details', 'Visible list columns', 'Visible hint columns for activities' and 'Identify activity by' contexts, such properties were sometimes missing from the Activity History. For example, a property added to the 'Start activity' context layout was missing from the 'start activity' record in the Activity History, if the same property was not added to any of the above-mentioned contexts.

In version 4.5.19 all changed properties available to the current user are correctly shown in the Activity History.

## 2.12 Mobility Application

### 2.12.1 Improvements

#### 2.12.1.1 Customer Inventory Synchronized Properly

In the Mobility Application, the customer inventory list sometimes doubled after certain time. The reason for such behavior was that during synchronization the old inventory list was not cleared while the new one was added. Therefore, duplicate entries appeared in the list.

The synchronization procedure was improved, and now the inventory list is updated correctly. Duplicate entries no longer appear in the list.

#### 2.12.1.2 Inventory Adding Improved

If the user tried to add more than one non-serialized inventory through the 'Add to Installed' action, the 'Submit' button became disabled after the first inventory had been added. No more inventory could be added afterwards.

Inventory adding functionality has been improved, and now the user can add as many non-serialized inventories to the customer pool as needed.

#### 2.12.1.3 Future Mass/Repeating/Shift Activities Displayed Properly

If the resource had a non-scheduled route, their route did not show any mass/repeating/shift activities, although, they existed. This issue occurred even when the resource had no non-scheduled activities at the moment but had them in the past.

The issue has been fixed. Future mass/repeating/shift activities are shown regardless of whether the resource has non-scheduled activities or not.

#### **2.12.1.4 Image Upload Improved**

If a file property with 'image/jpg' selected as the allowed MIME type was added to a Mobility Application context, and the form with the image file selected did not pass validation, a fake link to the image appeared instead of the file.

In version 4.5.19 the image upload functionality has been improved. If the form validation has failed, all file properties and fields in the form are cleared and no fake paths appear. If the form has been validated properly, the path to the uploaded file and its preview are displayed.

#### **2.12.1.5 Customer Signature Displayed Correctly**

When the device, on which the Mobility Application was used, was rotated to the horizontal position, the customer signature was shifted from its correct position. However, in the vertical position signature was displayed correctly.

Signature scaling has been improved, and now signatures are displayed correctly both in the horizontal and vertical position.

#### **2.12.1.6 Online Plugins Work Properly**

If an online plugin was added in the Mobility Application, it could not be used properly. When such plugin was run, it appeared and then immediately disappeared again.

As of version 4.5.19 online plugins functionality has been improved. Now such plugins can be run properly in the Mobility Application.

#### **2.12.1.7 Internet Explorer 8 – Login Improved**

When the Mobility Application was used in the Internet Explorer 8 browser, the user was sometimes unable to login. If a user with several resources tried to log in, the Mobility Application displayed the 'Synchronization in progress. Please wait' message and the progress counter which continuously showed 1%. The user could not use the application. When a user with a single resource tried to login, the resource's route was displayed, but the Application did not respond to clicking any actions on the screen. This issue has been resolved in version 4.5.19. Now the user with any number of resources is able to login to and use the Mobility Application.

#### **2.12.1.8 Inventory Shown Correctly for Activities Moved from Non-Scheduled to Scheduled Pool**

If a resource had a non-scheduled activity with customer inventory and then that activity was moved to the scheduled pool, the customer inventory was missing. The customer inventory pool was empty.

As of version 4.5.19 customer inventory is displayed correctly when the activity is moved from non-scheduled to scheduled pool.

### **2.13 SmartCollaboration**

#### **2.13.1 Improvements**

##### **2.13.1.1 Multiple Chats No Longer Created**

Previously, there were cases when SmartCollaboration created numerous, empty, simultaneous chats not prompted by the user, which made ETAdirect unusable.

This issue has been resolved in version 4.5.19. Multiple chats are no longer created in SmartCollaboration, therefore, ETAdirect can be used properly.

## 2.14 Statistics

### 2.14.1 Improvements

#### 2.14.1.1 Default Statistics Improved

Default statistics is provided as part of the product to be used when there are no past activities to draw the actual statistics from. In version 4.5.19 the default statistics has been improved to include the following:

- the default 'service\_window' statistics now contains records with 'start' equal to 'end'. Such records are used in handling the cases where the service window duration is shorter than 30 minutes
- the default 'ETA' statistics now contains narrower distribution
- the default statistics now include 'sla\_window' records which contain the same distribution as the 'service\_window' records

#### 2.14.1.2 Cross-Area Travel Calculated Correctly by Routing Engine and ETAdirect

If the resource was in one travel area but had other travel areas assigned, the Routing engine and ETAdirect calculated cross-area travel differently. The Routing engine and ETAdirect chose different travel keys from the database. This could result in the resource's route changes, overtime and overdue. In version 4.5.19 the cross-area travel calculation has been improved. Now both the Routing engine and ETAdirect use the same travel keys which ensures consistent performance.

## 2.15 Public API

### 2.15.1 Improvements

#### 2.15.1.1 Capacity Management API – 'set\_quota\_close\_time' Method Checks 'Quota Can Be Closed for' Settings

The 'Quota management' settings of the capacity bucket allow to define the level at which quota can be closed (the 'Quota can be closed for' parameter) (Figure 9).

Quota management	
Capacity categories	Deinstall, Downgrade, Install, Non-Pay, Restart/Reconnect, Service Request Order, Trouble Call, Upgrade
Time slots	08-10, 10-12, 13-15, 15-17
Quota is entered for	<input type="checkbox"/> day <input type="checkbox"/> time slot <input checked="" type="checkbox"/> capacity category
Quota can be closed for	<input type="checkbox"/> day <input type="checkbox"/> time slot <input checked="" type="checkbox"/> capacity category <input type="checkbox"/> work zone
Estimate maximum capacity for	<input type="checkbox"/> day <input type="checkbox"/> time slot <input checked="" type="checkbox"/> capacity category

Figure 9: 'Quota can be closed for' settings

However, these settings were not considered by the Capacity Management API in the previous versions. The 'set\_quota\_close\_time' method could set the quota close time at the level for which quota closing was disabled. When this request was sent, it returned no errors and no changes at the disabled Quota level were immediately visible. However, when the 'Quota can be closed for' option was enabled again for the same Quota level, close time was shown for it in the 'Quota View'.

Now the 'set\_quota\_close\_time' method checks whether quota can be closed for the selected level. If quota closing is disabled, the response now contains a new error message:

'CLOSE\_QUOTA\_IS\_NOT\_SUPPORTED'.

### 2.15.1.2 Capacity Management API – Bucket Status Check Implemented

If quota was defined for an inactive capacity bucket, the 'get\_capacity' function returned such quota. Other Capacity API method did not check the bucket status, either. Particularly, it was possible to use the 'set\_quota' method to set quota for an inactive bucket or use the 'set\_quota\_close\_time' method to set close time for an inactive bucket.

The Capacity API has been improved. Now the 'get\_capacity', 'set\_quota' and 'set\_quota\_close\_time' methods apply only to active capacity buckets.

## 2.16 Data Migration

### 2.16.1 Features

#### 2.16.1.1 Action Links Export/Import Implemented

In version 4.5.19 the ETAdirect export/import functionality has been enhanced by implementing export and import of action links. Now the action links configured in the 'Action management' screen can be exported and stored as an .xml file, which can be later easily imported when necessary.

Action links are imported and exported in the Manage Application. The permission to export and import action links is included in the general 'Action management' permission controlling the entire 'Action management' functionality (Figure 10). When it is enabled, the user can manage the action links as well as export and import them.

ID	Profile Name ↑	Denied from level	Status	Show	Hidden
71	Admin		✓	<input checked="" type="radio"/>	<input type="radio"/>
69	CSR		✓	<input checked="" type="radio"/>	<input type="radio"/>
66	Dispatcher		✓	<input checked="" type="radio"/>	<input type="radio"/>
72	File upload		✓	<input type="radio"/>	<input checked="" type="radio"/>
70	Manager		✓	<input checked="" type="radio"/>	<input type="radio"/>
115	Routing Manager		✓	<input checked="" type="radio"/>	<input type="radio"/>
68	soap		✓	<input type="radio"/>	<input checked="" type="radio"/>
67	Technician		✓	<input checked="" type="radio"/>	<input type="radio"/>
73	Users Admin		✓	<input checked="" type="radio"/>	<input type="radio"/>

Figure 10: 'Action management' permission

With the implementation of the export/import functionality, the 'Action management' screen now has two new buttons, 'Export' and 'Import' (Figure 11).



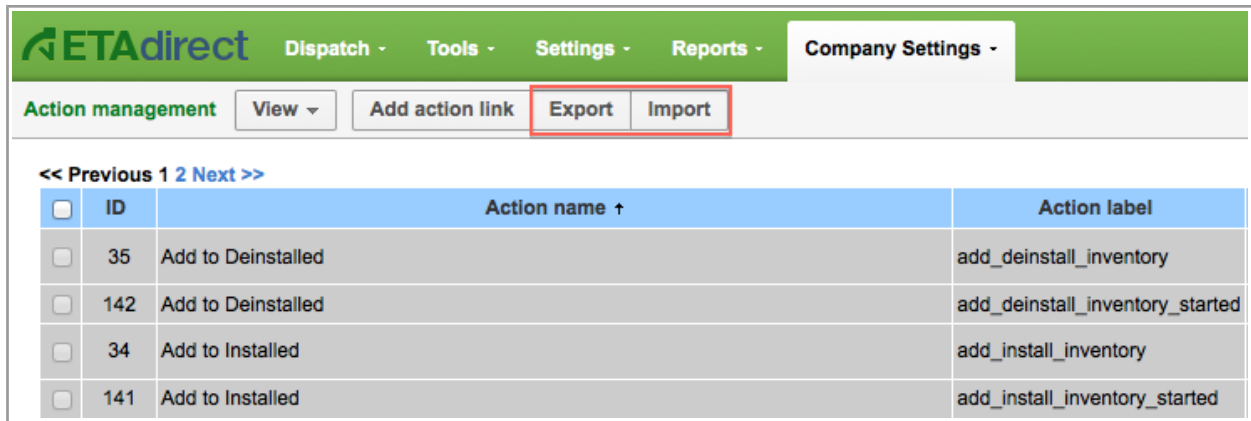


Figure 11: 'Export' and 'Import' buttons

### - Export

For standard action links only their labels and translations are exported. For custom action links their labels, translations, conditions, parameters, and plugins (if any) are exported.

When the 'Export' button is clicked, an .xml file is created immediately. The dialog window containing the name of the created file appears offering the user either to open the file or to save it (Figure 12).

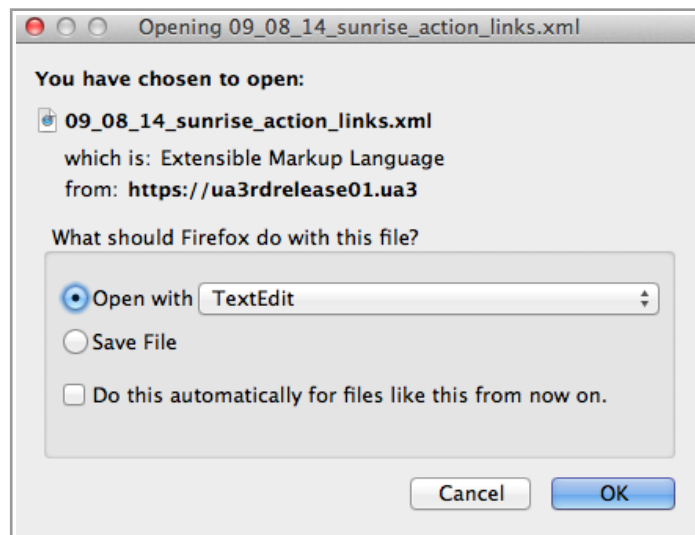


Figure 12: Export dialog window

If the action links list has been filtered before export, the user has an option to export either the whole list or only the filtered results. In this case, clicking the 'Export' button opens the window where the user can choose the export option (Figure 13).

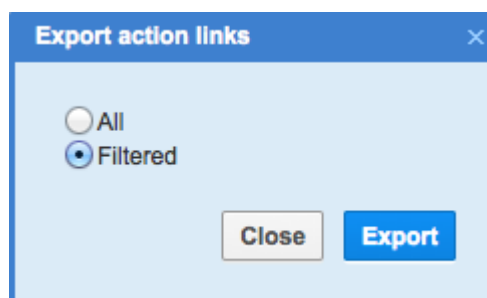


Figure 13: Export options

- **Import**

By importing the action links, the user writes the action links configuration from the .xml file to ETAdirect thus creating a similar action links list. Clicking 'Import' opens the window where the .xml file containing the action links configuration can be selected (Figure 14).

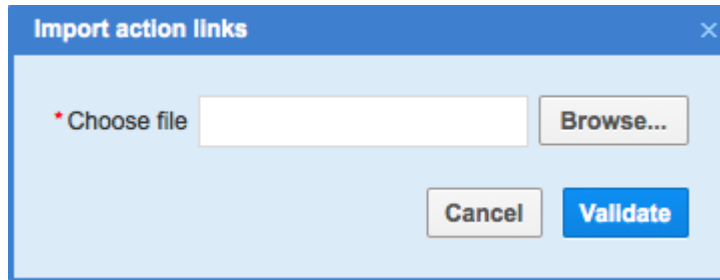


Figure 14: 'Import action links' window

The window cannot be submitted without selecting a file. If no file is selected, the 'File is not chosen' error message is displayed (Figure 15).

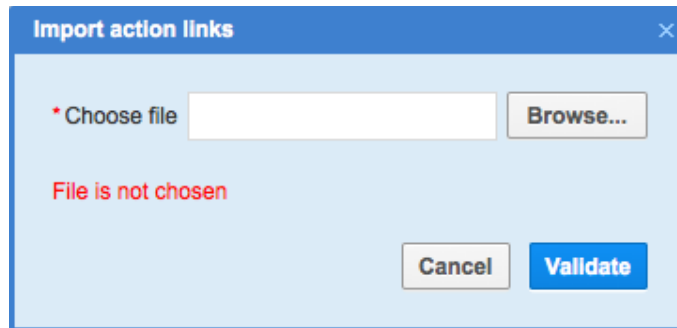


Figure 15: 'File is not chosen' error message

**Note:** only .xml files can be imported.

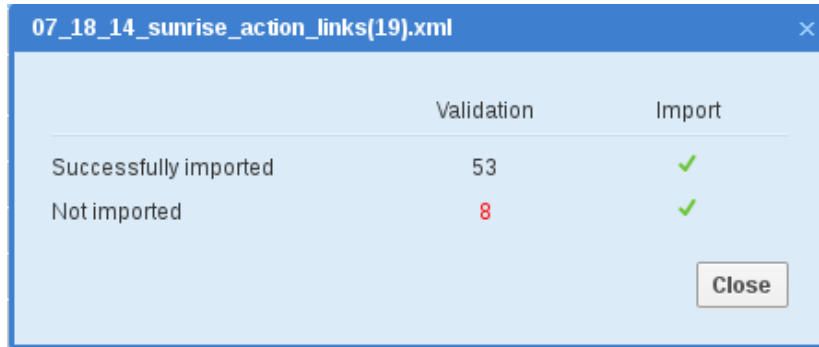
Before import the file has to be validated to check which links can be imported successfully and which cannot, due to critical data errors. To validate the import file the user has to click 'Validate'. When validation is completed, its results are shown in the window displaying the count of successfully imported and not imported action links (Figure 16).



Figure 16: Validation results

To import the action links the user has to click 'Import'. After the import is complete, the window shows the import result (Figure 17). If all validated links have been imported successfully, the 'Import' column shows two green ticks, in the 'Successfully imported' and 'Not imported' lines. If, in addition to the invalid

links, some other links were lost during import, the 'Not imported' line will have the actual number of skipped links in the 'Import' column (the sum of invalid links and the links lost during import).



	Validation	Import
Successfully imported	53	✓
Not imported	8	✓

Figure 17: Import completion window

## 2.17 System

### 2.17.1 Improvements

#### 2.17.1.1 Activity Suspension No Longer Resets Its Duration

If a started activity is suspended, its status is changed to 'pending'. By design, such pending activity is a complete copy of the suspended activity. However, in the previous versions when an activity with predefined duration was suspended, the duration of the resulting pending activity was reset to '0'. This issue has been fixed in version 4.5.19. The duration of the pending activity resulting from a started activity suspension is the same as that of the original activity.

### 3 ETAdirect Version 4.5.20

#### 3.1 Changes Overview

['Delivery window should not start earlier than' list starts with '0'](#)

[Firefox – login improved](#)

[Login possible with routes containing only internal activities](#)

[Required inventory list shown after 'Back' button is tapped](#)

['Miles' placeholder added to 'Nearby Activities' screen](#)

[Activity features matched correctly](#)

[Actions bar hidden on forms with writable fields](#)

[AM/PM selection available in Calendar](#)

['Distance Measurement Units' field no longer dependent on 'Driving Directions' permission](#)

['time\\_zone.name' property added to Daily Extract configuration](#)

[Non-serialized inventory installation in teamwork possible](#)

[Driving directions calculated from most recent coordinates](#)

[History API – history records stored for 3 months](#)

[Capacity API – 'get\\_capacity' method processes work zones correctly](#)

[Capacity API – 'get\\_capacity' method processes multi-skill activities correctly](#)

[Capacity API – 'get\\_capacity' method no longer returns capacity for level with all subordinate levels closed](#)

[Capacity API – 'get\\_capacity' method ignores inactive activity types](#)

[Capacity API – 'get\\_capacity' method checks work skills support](#)

[Capacity API – 'get\\_capacity' method checks work zones support](#)

[Capacity API – 'get\\_capacity' method returns quota correctly on time slot level](#)

[Travel time between same keys equal for all travel areas](#)

## 3.2 System

### 3.2.1 Improvements

#### 3.2.1.1 'Delivery window should not start earlier than' List Starts with '0'

The 'Statistics Parameters' screen has the 'Delivery window should not start earlier than [ ] minutes prior to start of service or SLA window' parameter defining how many minutes before the start of the service or SLA window the technician may arrive to the customer. However, the list of values started with '1', so it was impossible to set the delivery window to start simultaneously with the service or SLA window. The list had no '0' value.

In version 4.5.20 the '0' value has been added to the drop-down list, and now the delivery window can be set to start at the same time as the service or SLA window (Figure 18).

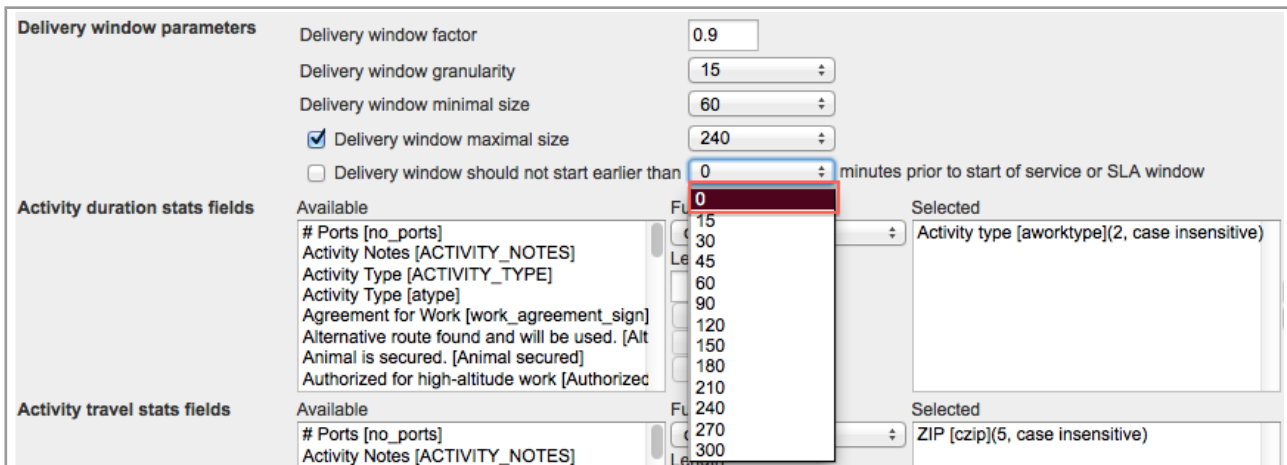


Figure 18: 'Delivery window...' list starting with '0'

## 3.3 Mobility Application

### 3.3.1 Improvements

#### 3.3.1.1 Firefox – Login Improved

When ETAdirect was used in the Firefox browser, sometimes it was impossible to log into the Mobility Application. The user was redirected to the login screen again.

The issue has been resolved in version 4.5.20. Now login to Mobility Application is possible in the Firefox browser.

#### 3.3.1.2 Login Possible with Routes Containing Only Internal Activities

If the 'Identify activity by' context contained fields with the ReadOnly visibility for mass/repeating internal activities, a technician with only internal activities in their route was unable to log into the Mobility Application. When the user tried to log in, the screen displayed the 'Undefined text' message and the application remained unusable (Figure 19).

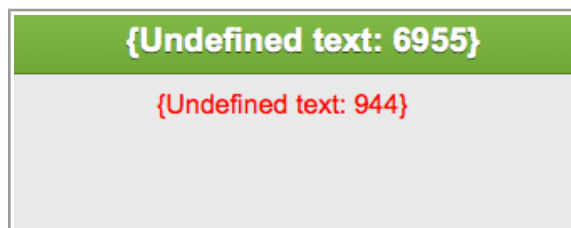


Figure 19: 'Undefined text' message

This issue has been resolved in version 4.5.20. Resources having only internal activities in their routes can log in properly.

### 3.3.1.3 Required Inventory List Shown after 'Back' Button Is Tapped

When the Mobility user opened the 'Inventories' screen showing 'Resource' and 'Required' lists and then accessed any resource inventory details, the 'Required' list was no longer shown after the user tapped the 'Back' button to return to the 'Inventories' screen.

The 'Back' button behavior has been improved. Now the 'Inventories' list shows both the 'Resource' and 'Required' lists when the user returns to it.

### 3.3.1.4 'Miles' Placeholder Added to 'Nearby Activities' Screen

The 'Nearby Activities' screen showing the activities within the certain distance from the resource had no placeholder for 'miles', therefore, the distance values were sometimes incorrect.

The 'mi' placeholder (12661) has been added to the 'Nearby Activities' screen. Now the distance values are correct (Figure 20).

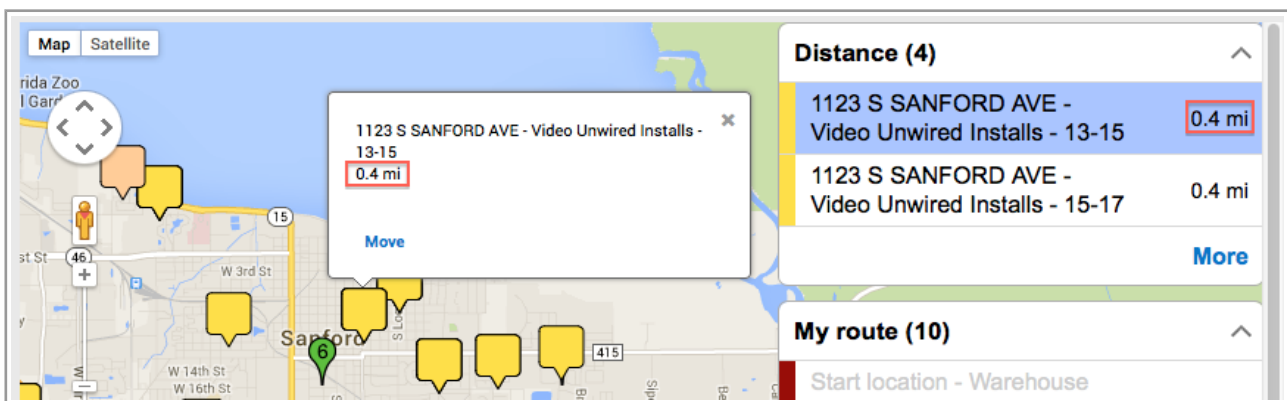


Figure 20: 'Miles' placeholder on 'Nearby activities' screen

### 3.3.1.5 Activity Features Matched Correctly

Activity features are used in many aspects of activity management in ETAdirect, such as calculation of visibilities of properties in context layouts. Previously, whenever the visibility calculation required checking whether the activity had a certain feature, such check always returned a negative result. The activity was always regarded as having no such feature, therefore, visibilities were often calculated incorrectly.

As of version 4.5.20, the activity features are checked correctly. The check returns the actual status of the requested feature – negative or positive – and the visibilities are now calculated correctly.

### 3.3.1.6 Actions Bar Hidden on Forms with Writable Fields

As of version 4.5.20 all forms in the Mobility Application (related to activity, inventory, required inventory and service requests) implement the same visibility rule: if a form has fields with the ReadWrite visibility, the actions bar is hidden (Figure 21). It appears again only when the form is submitted or discarded.

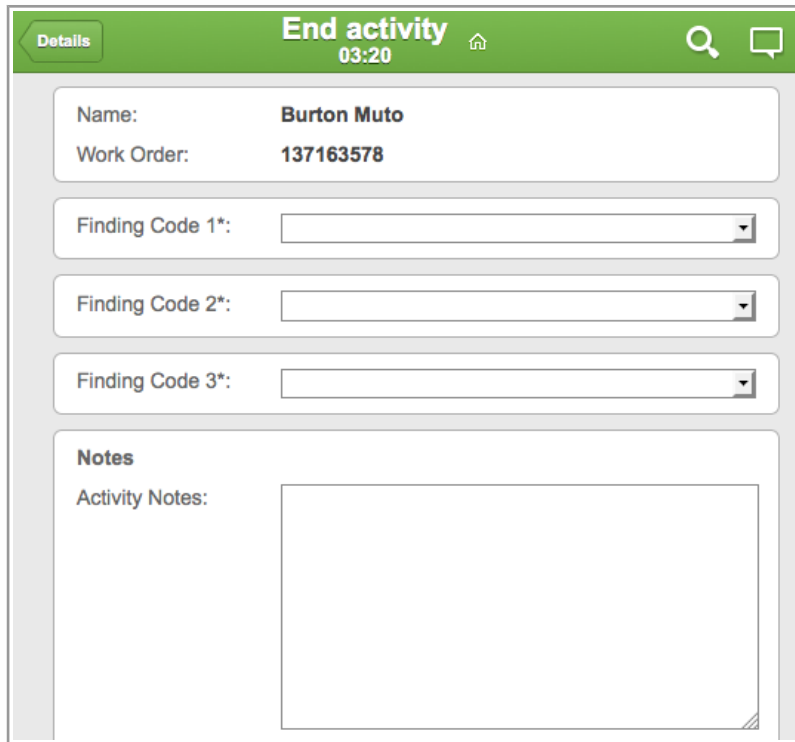


Figure 21: Action bar hidden

### 3.3.1.7 AM/PM Selection Available in Calendar

If the resource had the 12-hour time format defined in their option setting, it was impossible to set PM time in their calendar. When PM was entered as the start or end time of the resource working time, the system still saved AM instead.

This issue has been resolved by adding the AM/PM selection field to the 'Calendar' screen (Figure 22). This field is available when the resource has the 12-hour time format. Now it is possible to save time settings correctly.

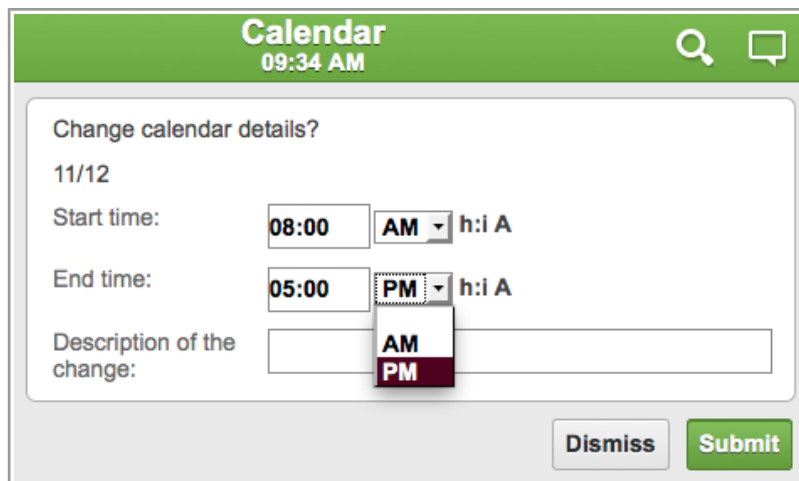


Figure 22: AM/PM selection on 'Calendar' screen

## 3.4 Company Settings

### 3.4.1 Improvements

#### 3.4.1.1 'Distance Measurement Units' Field No Longer Dependent on 'Driving Directions' Permission

In the previous versions the user was unable to edit the 'Distance measurement units' field on the 'Business Rules' screen if they had no permission to the 'Driving directions' in the Mobility Application. The unnecessary check has been removed, and now the 'Distance measurement units' field is not connected to the 'Driving directions' permission.

#### 3.4.1.2 'time\_zone.name' Property Added to Daily Extract Configuration

As of version 4.5.20, the 'time\_zone.name' property has been added to the list of fields available for use in the structure of the 'Activity Fields' entity (Figure 23). This field contains the name of the time zone of the resource to which the activity is assigned. Now this field can be included in the Daily Export.

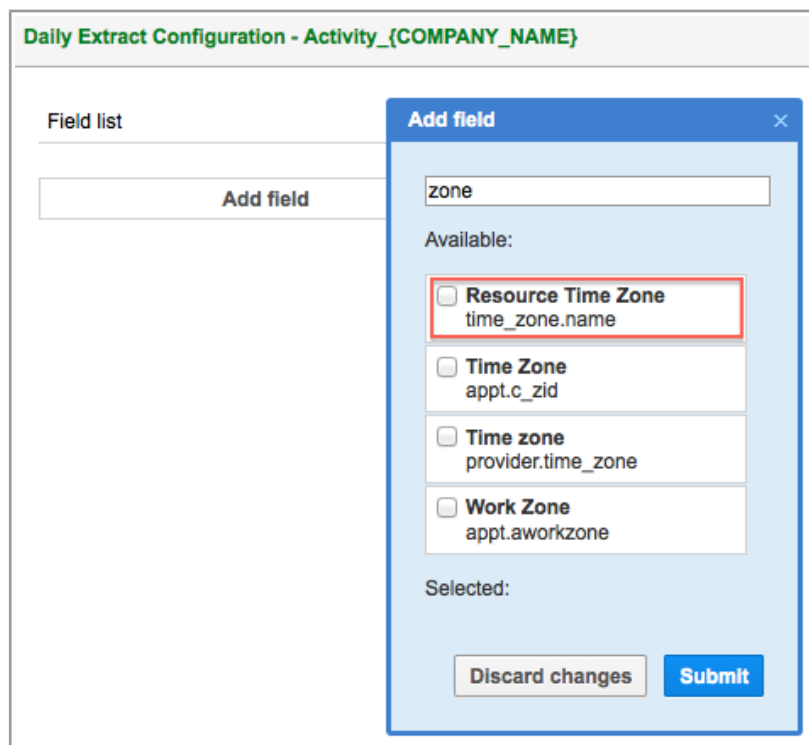


Figure 23: 'time\_zone.name' Field

## 3.5 Inventory

### 3.5.1 Improvements

#### 3.5.1.1 Non-Serialized Inventory Installation in Teamwork Possible

If in the Mobility Application a resource being a teamwork member tried to install non-serialized inventory from the other team member's pool, the inventory was not installed and the resource received the 'Internal error. Please review your route' error message.

This issue has been resolved in version 4.5.20. Non-serialized inventory can be installed by resources in teamwork if they have the 'Share inventory in teamwork' feature enabled.



## 3.6 Map

### 3.6.1 Improvements

#### 3.6.1.1 Driving Directions Calculated from Most Recent Coordinates

Previously, the driving directions calculation always used the last available GPS coordinates of the resource as the start point. However, this approach was not always correct, as sometimes the coordinates of an activity with a resolved address were newer than the resource's coordinates.

The logic of coordinates calculation has been changed, and now the driving directions are calculated from the most recent coordinates received by the system. These can be either the resource's GPS coordinates or the coordinates of the last activity with a 'started' status or any final status.

## 3.7 Public API

### 3.7.1 Features

#### 3.7.1.1 History API – History Records Stored for 3 Months

In order to increase the usability of the History API, the history storage concept has been changed.

Previously, the History API stored up to 2,000,000 records for the maximum of 12 hours.

Now all data is stored for 3 months. All records accumulated over the period of 3 months can be retrieved by the History API.

### 3.7.2 Improvements

#### 3.7.2.1 Capacity API – 'get\_capacity' Method Processes Work Zones Correctly

If the activity requires a work zone according to its 'Activity Type' settings and the capacity bucket had the 'Quota can be closed for: work zone' option enabled, the work zone key field(s) should be sent in the 'get\_capacity' request. However, if the request contained a work zone key which could not be found in the Work Zone Dictionary or no work zone key at all, the response contained open quota. Although, in such cases the system should have returned an error instead of processing the request as if the activity did not support work zones.

The issue has been resolved. When the 'get\_capacity' method is unable to find a valid work zone using the fields sent in the request, it returns the 'Unable to determine work zone for given fields' error.

#### 3.7.2.2 Capacity API – 'get\_capacity' Method Processes Multi-Skill Activities Correctly

Previously, if an activity required several capacity categories, the 'get\_capacity' method returned available quota of all capacity buckets with at least one of such capacity categories open while other required capacity categories were closed. This approach was incorrect, as all capacity categories required for an activity must be open for the activity to be booked properly.

The 'get\_capacity' method has been improved. Now it returns only the quota of the capacity buckets with all required categories open.

**Note:** the 'calculate\_work\_skill' flag must be set, and the list of capacity categories must be determined by the 'get\_capacity' method.

#### 3.7.2.3 Capacity API – 'get\_capacity' Method No Longer Returns Capacity for Level with All Subordinate Levels Closed

If quota was defined at the 'day', 'time slot' and 'capacity category' levels, the 'get\_capacity' method returned available quota for the 'day' level even if all dependent time slots and capacity categories were closed. Similarly, available quota could be returned if all dependent capacity categories were closed for an

open time slot.

In version 4.5.20 this issue has been resolved. The 'get\_capacity' method no longer returns available quota for a level with all sub-levels closed.

**Note:** As a result of this change, there is a side effect. The get\_capacity function doesn't return the quota node on the capacity category level when both the "Quota" and "Used" values are empty on the time slot level. This side effect, however, should not affect existing implementations where the quota is configured to be defined, entered, and checked on all of these levels. For more information on quota configuration, please refer to the Quota Management manual.

#### **3.7.2.4 Capacity API – 'get\_capacity' Method Ignores Inactive Activity Types**

Previously, the 'get\_capacity' method never checked the activity type status and handled active and inactive activity types equally.

As of version 4.5.20 the 'get\_capacity' method checks the activity type status and handles inactive activity types as if the request contains an unknown activity type.

#### **3.7.2.5 Capacity API – 'get\_capacity' Method Checks Work Skills Support**

If the 'calculate\_work\_skill' flag was set in the 'get\_capacity' request, the method did not check whether work skills were supported at the activity type and company levels.

Now such check has been added, and if work skills are not supported, the capacity categories are not calculated. The 'get\_capacity' response contains an error message.

#### **3.7.2.6 Capacity API – 'get\_capacity' Method Checks Work Zones Support**

If the activity to be booked required determining the work zone, the 'get\_capacity' method did not check whether work zones were supported at the activity type and company levels.

Now such check has been added, and if work zones are not supported, no work zone is calculated for the activity.

#### **3.7.2.7 Capacity API – 'get\_capacity' Method Returns Quota Correctly on Time Slot Level**

If quota was disabled on the 'day' level, the 'get\_capacity' method did not return quota on the 'time slot' level, either. The method checked the 'Quota is entered for: day' flag instead of 'Quota is entered for: time slot'.

In version 4.5.20 the method has been improved. Now it performs the correct checks and returns quota correctly according to the capacity bucket settings.

### **3.8 Statistics**

#### **3.8.1 Improvements**

##### **3.8.1.1 Travel Time Between Same Keys Equal for All Travel Areas**

When travel keys belonged to different travel areas, sometimes the travel time between the same travel keys was estimated differently in different travel areas.

As of version 4.5.20, the algorithm of travel time calculation has been improved, so that now the travel time between the same travel keys is the same regardless of the travel area. The travel time is always the minimal value (the shortest travel).

## **4 ETAdirect Version 4.5.21**

### **4.1 Changes Overview**

[Archive generation process improved](#)

[Entity structure changes saved properly](#)

[Visibility conditions based on resource type work properly for repeating activities](#)

[Visibility conditions based on custom properties work properly for repeating, mass and shift activities](#)

['Daily' screen – dialog window displayed correctly](#)

['File Storage' screen displays clear error message](#)

['Message Details' window resized properly](#)

['Every Sunday' value saved properly in 'Recurring Autofill' window](#)

['Recurring Autofill' window saved properly](#)

[Capacity buckets shown without zeroes in Resource Tree](#)

['Resource Info' screen shows correct options](#)

[Save confirmation displayed](#)

[Quota history shown for correct date](#)

[Working space in time view shown properly with shift/working time override](#)

[Irrelevant items can no longer be added to Main Menu](#)

[Map View hint no longer duplicated](#)

[Map no longer shifted during activity move](#)

[Captured images successfully saved in Firefox Browser](#)

[Non-scheduled activities started properly](#)

['Home' button no longer disappears](#)

[Nearby activities displayed properly](#)

['Time Bounds' section in Nearby Activities shown correctly](#)

['set\\_property' functionality works properly](#)

[SmartCollaboration logic improved](#)

[Re-connect message only appears when appropriate](#)

[Enumeration properties editing improved](#)

['Quota Management' checkbox changed](#)

['Time Slot' property shown in activity hint](#)

[Non-scheduled activities move improved](#)

[Inbound API – property values with encoded special characters processed correctly](#)

## **4.2 Daily Extracts**

### **4.2.1 Features**

#### **4.2.1.1 Archive Generation Process Improved**

If a company had many file properties each day, generation of the Daily Extract archive could take up to 24 hours.

The archive generation process has been optimized. Now Daily Extract archives are created within reasonable time, even with a lot of file properties.

### **4.2.2 Improvements**

#### **4.2.2.1 Entity Structure Changes Saved Properly**

If an entity was created from the export.dwh.xml file and its structure was then changed on the 'Daily Extract Configuration' screen, the exported fields disappeared from the entity structure.

The issue has been resolved. Now the Daily Export entity is saved properly after any changes have been made to its structure.

## **4.3 Activity Details**

### **4.3.1 Improvements**

#### **4.3.1.1 Visibility Conditions Based on Resource Type Work Properly for Repeating Activities**

If visibility conditions for linked properties were based on resource type, such conditions did not work for repeating activities in the Manage Application.

As of version 4.5.21 resource types can be used as the basis for visibility conditions in repeating activities. Such conditions are applied properly.

#### **4.3.1.2 Visibility Conditions Based on Custom Properties Work Properly for Repeating, Mass, and Shift Activities**

If visibility conditions for linked properties were based on any custom property, such conditions did not work for repeating, mass, and shift activities in the Manage Application.

As of version 4.5.21 custom properties can be used as the basis for visibility conditions in repeating, mass, and shift activities. Such conditions are applied properly.

#### **4.3.1.3 Repeating Activity Details Displayed Properly with 'Field Restrictions' Applied**

If a display profile included 'Field Restrictions' based on activity fields or custom properties, it was impossible to view the details of a future repeating activity. The system responded with the 'Non-existent activity' error.

This issue has been resolved in version 4.5.21. Now the details of repeating activities can be viewed properly in display profiles with 'Field Restrictions' based on activity fields or custom properties.

#### **4.3.1.4 'Daily' Screen – Dialog Window Displayed Correctly**

When in the 'Daily' screen a future day was selected with the 'Apply hierarchically' option enabled, entry windows were displayed incorrectly for cells loaded after page scroll. The windows could not be edited (Figure 24).

06 AM - 06 PM	06 AM - 06 PM
06 AM - 06 PM	06 AM - 06 PM
06 AM - 06 PM	06 PM
07 AM - 06 PM	06 PM
06 AM - 06 PM	06 PM
06 AM - 06 PM	06 PM
06 AM - 06 PM	06 AM - 06 PM
06 AM - 06 PM	06 AM - 06 PM

Figure 24: Dialog window with no editable fields

Now the 'Daily' screen behavior has been improved, and the dialog window has all relevant fields allowing to set the calendar parameters (Figure 25).

08 PM - 05 AM (Overnight)	08 PM - 05 AM (Overnight)	08 PM - 05 AM (Overnight)
08 AM - 05 PM (First shift 8-17)	08 AM - 05 PM (First shift 8-17)	08 AM - 05 PM (First shift 8-17)
		-
		-
		-
		09 AM - 06 PM
08		05 PM (First shift 8-17)
01		06 PM (Second shift 13-
		-
		-

Figure 25: Dialog window displayed properly

#### 4.3.1.5 'File Storage' Screen Displays Clear Error Message

If the user attempted to download a file which had been removed, the system responded with the 'Wrong data' error message. This message did not give a clear idea of the reason of the error.

As of version 4.5.21 the error message has been changed to 'The requested file does not exist, or service is unavailable. Please try again later'. This message immediately informs the user of the reason why the requested file could not be downloaded.

#### 4.3.1.6 'Message Details' Window Resized Properly

In the previous versions the 'Message details' window was not automatically resized according to the browser screen size. If the browser window had the resolution of 1400\*900 or less, the 'Close', 'Resend', and 'X' buttons were not visible and, therefore, could not be used.

As of version 4.5.21, the 'Message details' window is automatically resized to fit the current screen size. All buttons and related functions are available.

### 4.4 Quota Management

#### 4.4.1 Improvements

##### 4.4.1.1 'Every Sunday' Value Saved Properly in 'Recurring Autofill' Window

If 'Every Sunday' was selected in the 'Recurring Autofill' window as the recurrence of the rule application, the value was not saved. When the window was opened again, it showed the value used previously.

In version 4.5.21 this issue has been fixed. Any value available in the 'Recurring Autofill' window can be selected and is properly saved and applied (Figure 26).

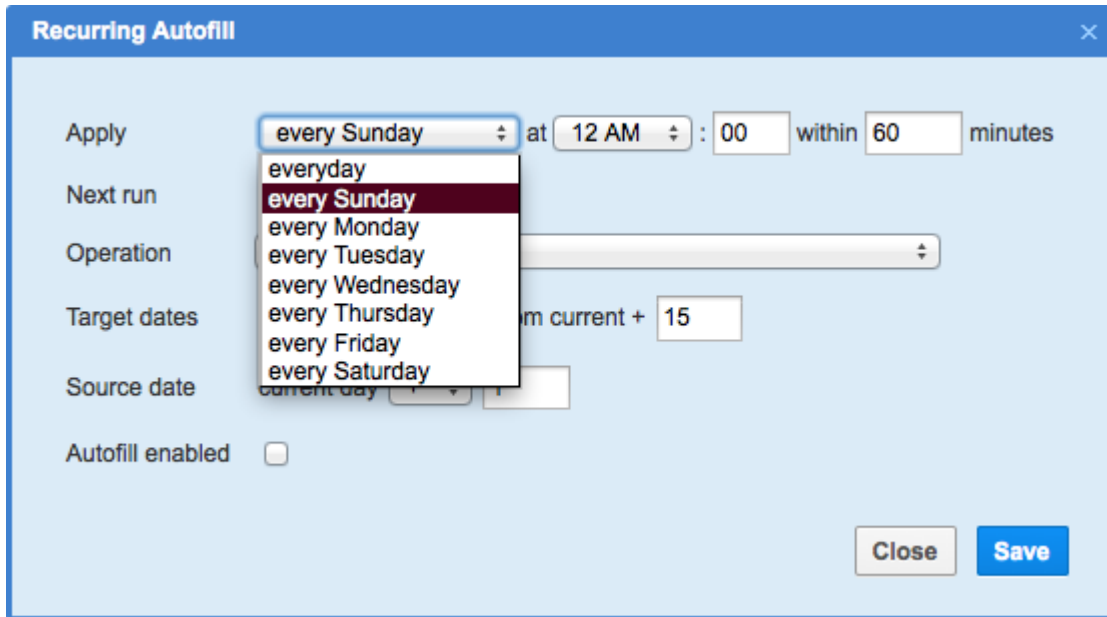


Figure 26: 'Every Sunday' selected in 'Recurring Autofill' window

#### 4.4.1.2 'Recurring Autofill' Window Saved Properly

When the Quota View was set to 'Time Slot', the 'Recurring Autofill' form could not be saved at the 'day' level. The 'Inconsistent data' error message was displayed. The same response was returned at an attempt to save the 'Recurring Autofill' form at the 'time slot' level in the 'Capacity Category' View. This issue has been resolved in version 4.5.21. The 'Recurring Autofill' window is now saved properly at all Quota View levels.

#### 4.4.1.3 Capacity Buckets Shown without Zeroes in Resource Tree

Previously, the capacity buckets in the Resource Tree on the 'Quota' screen were shown with zeroes in parenthesis – (0). These zeroes had no actual meaning and could not be used for any purpose (Figure 27, left).

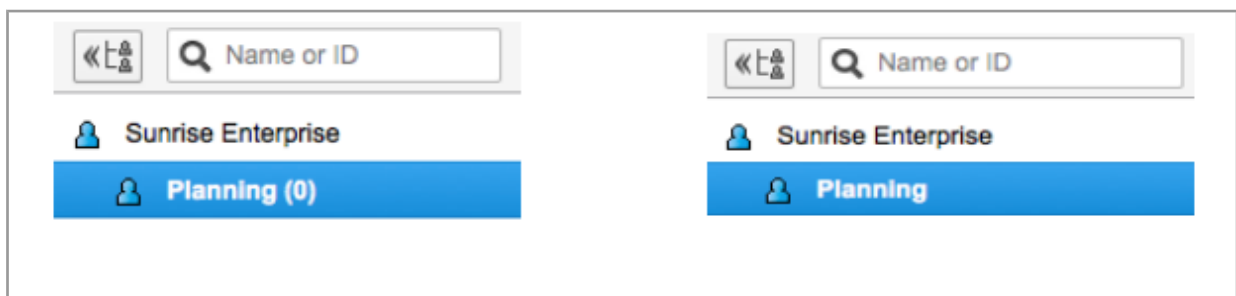


Figure 27: Bucket names with zeroes (left) and without zeroes (right)

As of version 4.5.21, zeroes have been removed from bucket names, and now the Resource Tree shows capacity buckets by their names only (Figure 27, right).

#### 4.4.1.4 'Resource Info' Screen Shows Correct Options

If, according to the 'Resource Info' settings, Quota was to be entered only for 'day' and the maximum capacity was to be estimated only for 'time slot', the whole 'Time slot' section was hidden, together with the 'Estimate capacity used by activities that might affect capacity in this time slot' checkbox. However,

this checkbox should be available, as it is related to the 'Estimate maximum capacity for: time slot' setting.

The dependencies in the 'Resource Info' settings have been improved. Now the 'Estimate capacity used by activities that might affect capacity in this time slot' checkbox is available when the 'Estimate maximum capacity for: time slot' option is enabled (Figure 28).

**Quota management**

Time slots: 08-10, 10-12, 13-15, 15-17

Capacity categories: Deinstall, Downgrade, Install, Non-Pay, Restart/Reconnect, Service Request Order, Trouble Call, Upgrade

Quota is entered for:  day  time slot  capacity category

Quota can be closed for:  day  time slot  capacity category  work zone

**Estimate maximum capacity for**  day  time slot  capacity category

**Day**

Quota is entered:  in minutes  as % of capacity available by calendar

**Time slot**

Other activities:  Estimate capacity used by activities that might affect capacity in this time slot

Figure 28: 'Estimate capacity used by activities that might affect capacity in this time slot' checkbox available

#### 4.4.1.5 Save Confirmation Displayed

Previously, when any changes were made to the Quota values and 'Save' was clicked, no confirmation of the successful save was displayed. The user could not be sure that the changes they had made were applied.

As of version 4.5.21 the system responds with the 'Save successful' message when the changes made on the 'Quota' screen are properly saved (Figure 29).

Time slot Capacity categories	Wednesday, November 26th, 2014							
	Max available	% Quota	Plan	Quota	Used	% to stop booking at	Status	Close time
10-12	11040				8465		✓	
Install	10440	24%	3672		895		✓	10 AM
Trouble Call	10320	38%	770		1895		✓	
Upgrade	10920	38%	4296		5511		✓	
<b>Total</b>	<b>31680</b>		<b>8738</b>		<b>8301</b>			

**Save successful**

Figure 29: Save confirmation

#### 4.4.1.6 Quota History Shown for Correct Date


If the capacity bucket had a time zone other than UTC (UTC - N), the Quota history showed records for the previous day rather than for the selected day. Sometimes no records were shown at all.

The issue has been resolved in version 4.5.21. The Quota history shows data for the selected day, regardless of the time zone of the bucket.

## 4.5 Activity Views

### 4.5.1 Improvements

#### 4.5.1.1 Working Space in Time View Shown Properly with Shift/Working Time Override

If a resource's calendar was set up to shift override or working time override, with the start time at midnight (i.e. 12 AM), the entire timeline for that resource on the Time View would be color-coded in  which indicates the non-working time.

This has been fixed in version 4.5.21. Now, the working time that starts at midnight is displayed properly on the Time View.

## 4.6 Displays

### 4.6.1 Improvements

#### 4.6.1.1 Irrelevant Items Can No Longer Be Added to Main Menu

In the previous versions some inappropriate items could be added to the 'Main menu items' context layout. They are the following SmartCollaboration permissions (Figure 30):

- 'Move activity via chat' (for both Manage and Mobility Applications)
- 'Move inventory via chat' (for both Manage and Mobility Applications)

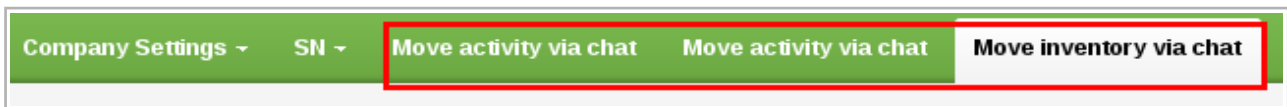


Figure 30: Irrelevant items added to Main menu

This issue has been fixed. As of version 4.5.21 there are only relevant menu items available to be added to the Main menu of the Manage Application.

## 4.7 Map

### 4.7.1 Improvements

#### 4.7.1.1 Map View Hint No Longer Duplicated

When clicking on an activity from the list on the Map View, two duplicated pop-up hints would open simultaneously: one hint under the selected activity and the other one by the activity location on the map (Figure 31). Such behavior is incorrect as there should have been only one pop-up hint shown on the map near the activity marker.



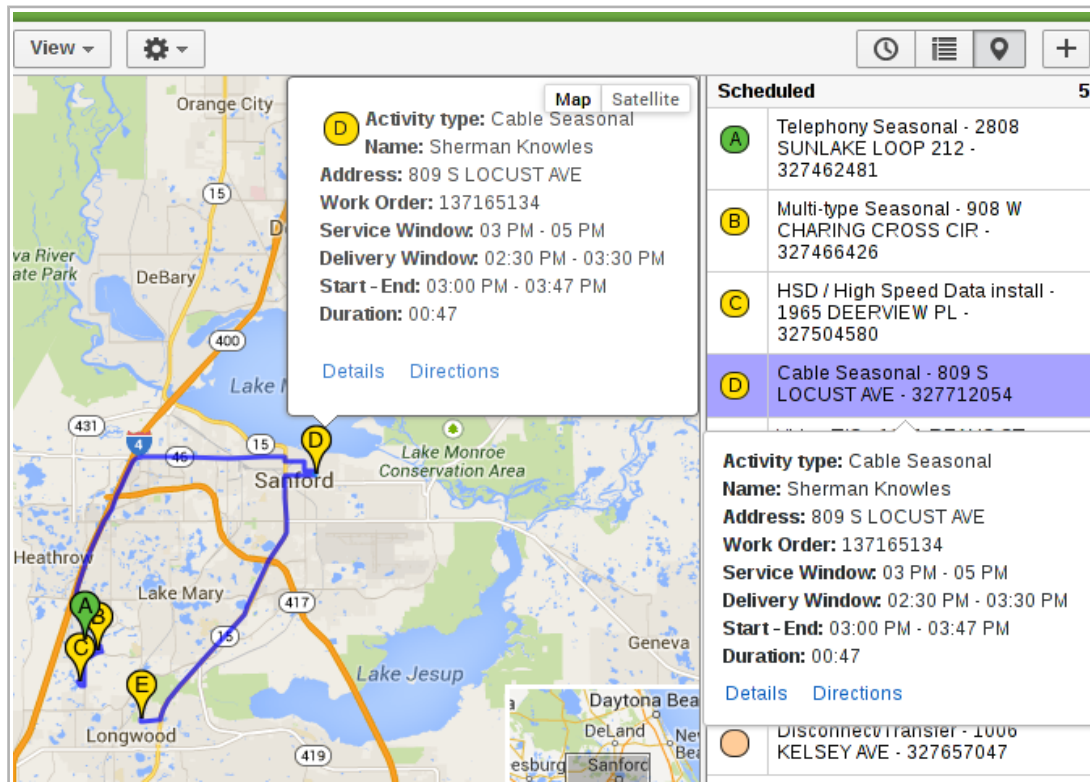


Figure 31: Duplicated pop-up hints on Map View

As of version 4.5.21 this issue has been fixed, so that there is a single pop-up hint showing up in the appropriate place on the map.

## 4.8 Move

### 4.8.1 Improvements

#### 4.8.1.1 Map No Longer Shifted During Activity Move

Previously, at an attempt to move an activity to another resource by drag-and-dropping the activity marker on the Map View, the map would move along with the cursor.

The issue has been fixed in version 4.5.21. Now, the map is no longer dragged during the activity move.

## 4.9 Mobility Application

### 4.9.1 Improvements

#### 4.9.1.1 Captured Images Successfully Saved in Firefox Browser

There were cases when a user wasn't able to save a captured image to one of the Mobility Application contexts using the Firefox browser under certain conditions.

At an attempt to choose an image to be saved in the file property of the 'capture image element' type, the Firefox browser would ask for permission to gather the user's coordinates. If the user would not allow to share their coordinates by selecting the 'Not now' option, and then would proceed by tapping the 'Save' button, that would produce no action.

This issue has been fixed in version 4.5.21. Now, the confirmation message 'Coordinates not received or coordinates not allowed. Proceed anyway?' will appear after the user makes the 'Not now' selection. Tapping 'Save' will save the image in the 'capture image element' file property without coordinates provided to Firefox.

### 4.9.1.2 Non-Scheduled Activities Started Properly

In the previous versions the Mobility Application users couldn't start a pending non-scheduled activity because mandatory properties would not be displayed on the 'Start activity' context. At an attempt to submit the form with the missing mandatory properties, the error message 'Unable to start activity. Mandatory parameter is empty' would appear. At the same time such non-scheduled activity would automatically become scheduled.

As of version 4.5.21 this issue has been fixed, to ensure that mandatory properties are shown on the 'Start activity' context. This way, pending non-scheduled activities can be started properly, as intended. In case if a non-scheduled activity cannot be started for any other reason, it will remain non-scheduled.

### 4.9.1.3 'Home' Button No Longer Disappears

If a user was logged in to the Mobility Application as Administrator, there were cases, when the 'Home' button would disappear from the main page.

This issue has been fixed in version 4.5.21.

### 4.9.1.4 Nearby Activities Displayed Properly

In the previous versions, when the Mobility Application user would attempt to access 'Nearby activities' from the 'Activity details' screen of a started activity, the 'My route' section would contain '----' instead of the activity identifier.

As of version 4.5.21 the activity identifiers in the 'Nearby activities' are shown properly.

### 4.9.1.5 'Time Bounds' Section in Nearby Activities Shown Correctly

Previously, when a technician accessed the 'Nearby activities' screen for the second time, the 'Time bounds' section would be displayed incorrectly.

In particular, the 'More' button would be hidden, and the activities counter would show incorrect value (Figure 32, Figure 33).

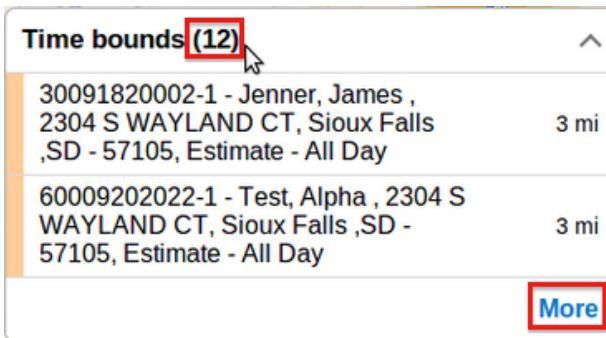


Figure 32: 'Time bounds' section: first-time access to Nearby activities

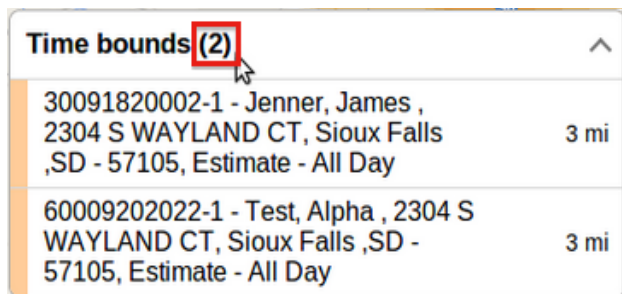


Figure 33: 'Time bounds' section: second-time access to Nearby activities

As of version 4.5.21, the 'Time bounds' section is shown correctly every time the 'Nearby Activities' screen is opened.

## 4.10 Message Engine

### 4.10.1 Improvements

#### 4.10.1.1 'set\_property' Functionality Works Properly

In the previous versions, the custom resource properties couldn't be updated using the 'set\_property' functionality. Particularly, setting a resource property would block all messages in the Message engine.

This issue has been fixed in version 4.5.21. Now, the 'set\_property' functionality allows updating resource

properties.

## 4.11 SmartCollaboration GUI

### 4.11.1 Improvements

#### 4.11.1.1 SmartCollaboration Logic Improved

As of version 4.5.21 the logic of SmartCollaboration has been improved to avoid unexpected errors and interruptions, and ensure proper work of the system.

#### 4.11.1.2 Re-Connect Message Only Appears When Appropriate

In previous versions, the re-connect message appeared every 70 seconds, regardless of whether the connection had been lost or not.

This has been fixed in version 4.5.21, and now the re-connect message only appears if the connection is lost.

## 4.12 Manage Application

### 4.12.1 Improvements

#### 4.12.1.1 Enumeration Properties Editing Improved

If a zero ('0') value was added to an enumeration property, such value was incorrectly processed on 'Save'. The resulting value was corrupted or the property was not updated at all.

Processing of values of enumeration properties has been improved. Now zeroes ('0') can be used as values of enumeration properties.

#### 4.12.1.2 'Quota Management' Checkbox Changed

When 'Quota Management' was disabled for a bucket in the context layout settings, the ReadOnly 'Quota management' checkbox on the 'Resource Info' screen looked different from other checkboxes on the same screen (Figure 34).

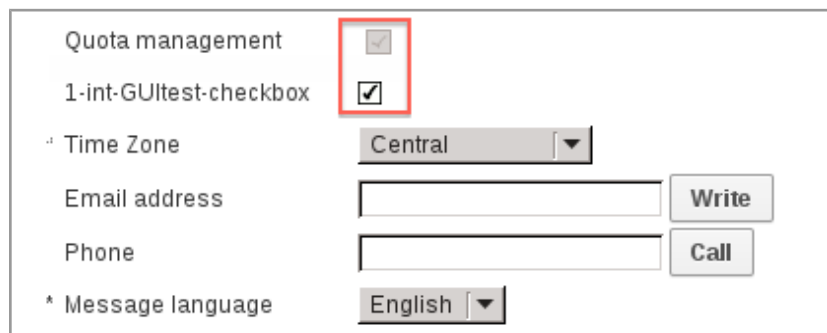


Figure 34: 'Quota management' checkbox in previous versions

In version 4.5.21 the 'Quota management' checkbox has been changed to the one used in other fields, which ensures uniform appearance of the entire screen (Figure 35).

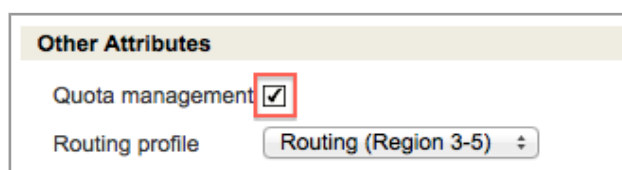


Figure 35: 'Quota management' checkbox in version 4.5.21

### 4.12.1.3 'Time Slot' Property Shown in Activity Hint

If the 'Visible hint columns for activities' context layout was configured with the 'Time Slot' property but without the 'Activity Type' property, the 'Time Slot' property was not visible in the activity hint. It appeared only when the 'Activity Type' property was added to the context layout.

The activity hint was changed to show the 'Time Slot' property independently from the 'Activity Type'.

### 4.12.1.4 Non-Scheduled Activities Move Improved

When a user tried to move a non-scheduled activity, sometimes the 'Move' window displayed the current date in the top right corner instead of the 'Non-scheduled' button. In such cases the activity could not be moved.

The activity move functionality has been improved in version 4.5.21. Now for non-scheduled activities the 'Move' window now always has the 'Non-scheduled' button, and activities can be moved properly (Figure 36).

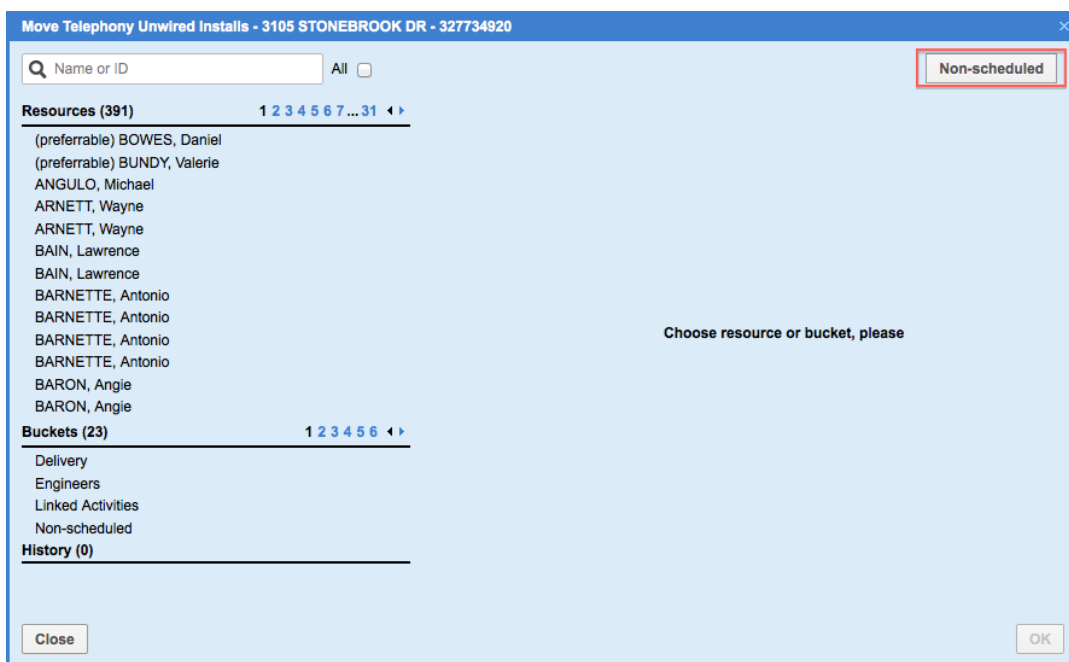


Figure 36: 'Move' window for non-scheduled activity

## 4.13 Public API

### 4.13.1 Improvements

#### 4.13.1.1 Inbound API – Property Values with Encoded Special Characters Processed Correctly

If a property was updated by the Inbound API and the property value contained an XML-encoded special character (for example, '&amp;'), the response was invalid XML.

Now XML-encoded special characters are processed correctly, and the response contains valid XML.

## 5 ETAdirect Version 4.5.22

### 5.1 Changes Overview

['Points' shown correctly on 'Work Schedules' screen](#)

[Radius and SLA constraints configuration implemented](#)

[Search area and center point displayed](#)

['Nearby Activities' functionality behavior on small screens improved](#)

[Teamwork behavior improved](#)

[Routing report calculates idle time correctly](#)

[Inbound API – 'update\\_activity' command no longer clears 'auto\\_routed\\_\\*' fields](#)

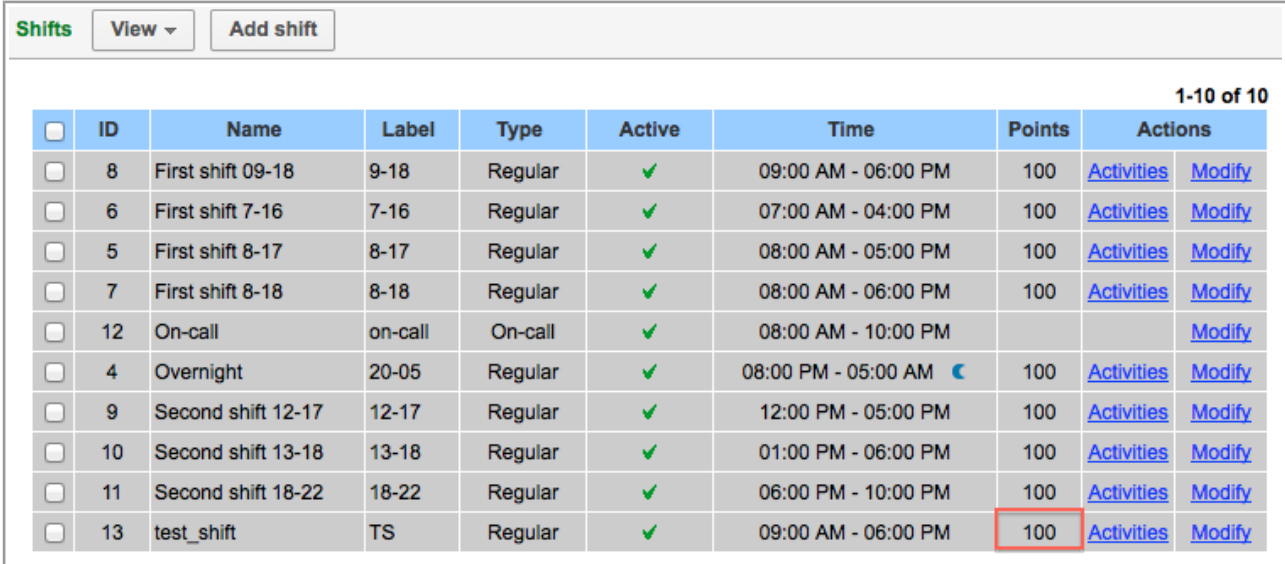
[History API – teamwork handled properly](#)

## 5.2 Company Settings

### 5.2.1 Improvements

#### 5.2.1.1 'Points' Shown Correctly on 'Work Schedules' Screen

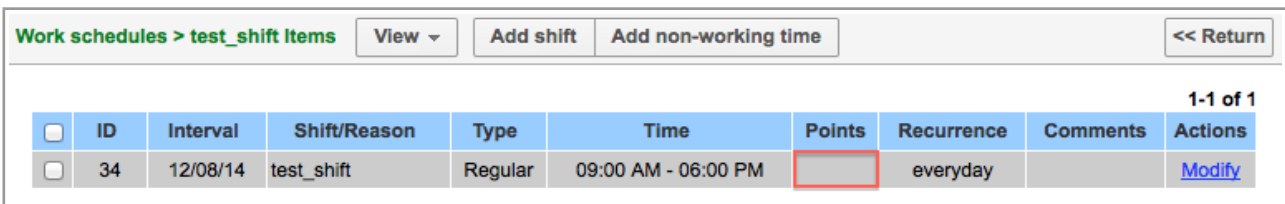
If a work schedule was based on a shift with points, the 'Points' column on the 'Work schedules' screen still was empty for such schedule (Figure 37, 38).



The screenshot shows the 'Shifts' screen with a table of shifts. The 'Points' column for the 'test\_shift' row is highlighted with a red box and contains the value '100'.

								1-10 of 10
<input type="checkbox"/>	ID	Name	Label	Type	Active	Time	Points	Actions
<input type="checkbox"/>	8	First shift 09-18	9-18	Regular	✓	09:00 AM - 06:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	6	First shift 7-16	7-16	Regular	✓	07:00 AM - 04:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	5	First shift 8-17	8-17	Regular	✓	08:00 AM - 05:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	7	First shift 8-18	8-18	Regular	✓	08:00 AM - 06:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	12	On-call	on-call	On-call	✓	08:00 AM - 10:00 PM		<a href="#">Modify</a>
<input type="checkbox"/>	4	Overnight	20-05	Regular	✓	08:00 PM - 05:00 AM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	9	Second shift 12-17	12-17	Regular	✓	12:00 PM - 05:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	10	Second shift 13-18	13-18	Regular	✓	01:00 PM - 06:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	11	Second shift 18-22	18-22	Regular	✓	06:00 PM - 10:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>
<input type="checkbox"/>	13	test_shift	TS	Regular	✓	09:00 AM - 06:00 PM	100	<a href="#">Activities</a> <a href="#">Modify</a>

Figure 37: 'Points' defined for shift

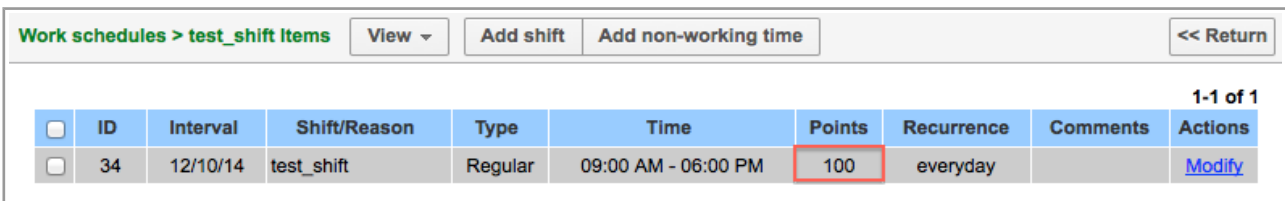


The screenshot shows the 'Work schedules > test\_shift Items' screen with a table of work schedule items. The 'Points' column for the item with ID 34 is empty and highlighted with a red box.

										1-1 of 1
<input type="checkbox"/>	ID	Interval	Shift/Reason	Type	Time	Points	Recurrence	Comments	Actions	
<input type="checkbox"/>	34	12/08/14	test_shift	Regular	09:00 AM - 06:00 PM		everyday		<a href="#">Modify</a>	

Figure 38: 'Points' column empty

This issue has been resolved in version 4.5.22. The 'Points' column now shows data in accordance with the shift settings (Figure 39).



The screenshot shows the 'Work schedules > test\_shift Items' screen with a table of work schedule items. The 'Points' column for the item with ID 34 is now populated with the value '100' and highlighted with a red box.

										1-1 of 1
<input type="checkbox"/>	ID	Interval	Shift/Reason	Type	Time	Points	Recurrence	Comments	Actions	
<input type="checkbox"/>	34	12/10/14	test_shift	Regular	09:00 AM - 06:00 PM	100	everyday		<a href="#">Modify</a>	

Figure 39: 'Points' value shown

## 5.3 Mobility Application

### 5.3.1 Features

#### 5.3.1.1 'Nearby Activities' Functionality Improved

##### 5.3.1.1.1 Radius and SLA Constraints Configuration Implemented

The previous design on the 'Nearby Activities' functionality represented the search for all activities within

the radius of 50 km from the resource's location with SLA expiring within 60 days. These values were not configurable on the company level.

As of version 4.5.22 the company administrator can define the radius within which activities are to be searched. Also, it is possible to set the SLA expiration period within which activities are to be searched. For this purpose, the 'Business Rules' screen now has two new settings, 'Nearby Radius' and 'Nearby SLA' (Figure 40).

The screenshot shows a configuration interface for 'Business Rules'. It includes several sections: 'Map parameters' with settings for preferred map service (Google), distance units (Miles), country code (US), geocoding type (manual), run times, interval, and accuracy; 'Nearby Radius' set to 50 Kilometers; 'Nearby SLA' set to 60 days; and 'Company boundaries' with fields for left and right corners (Latitude and Longitude). A red box highlights the 'Nearby Radius' and 'Nearby SLA' settings.

Figure 40: 'Nearby Radius' and 'Nearby SLA' settings

These settings are available to the users having the permission to edit 'Business Rules'.

The default values are 50 kilometers as the radius and 60 days as the SLA. The minimum values are 1 km and 1 day, respectively. The maximum values are 1000 km and 1000 days, respectively.

### 5.3.1.1.2 Search Area and Center Point Displayed

As of version 4.5.22 the Mobility Application user can actually see the area within which nearby activities are searched. The area is shown as a blue transparent circle on the map with the center in the resource location determined according to the established priority (Figure 41). The radius of the circle is the value of the 'Nearby Radius' parameter on the 'Business Rules' screen.

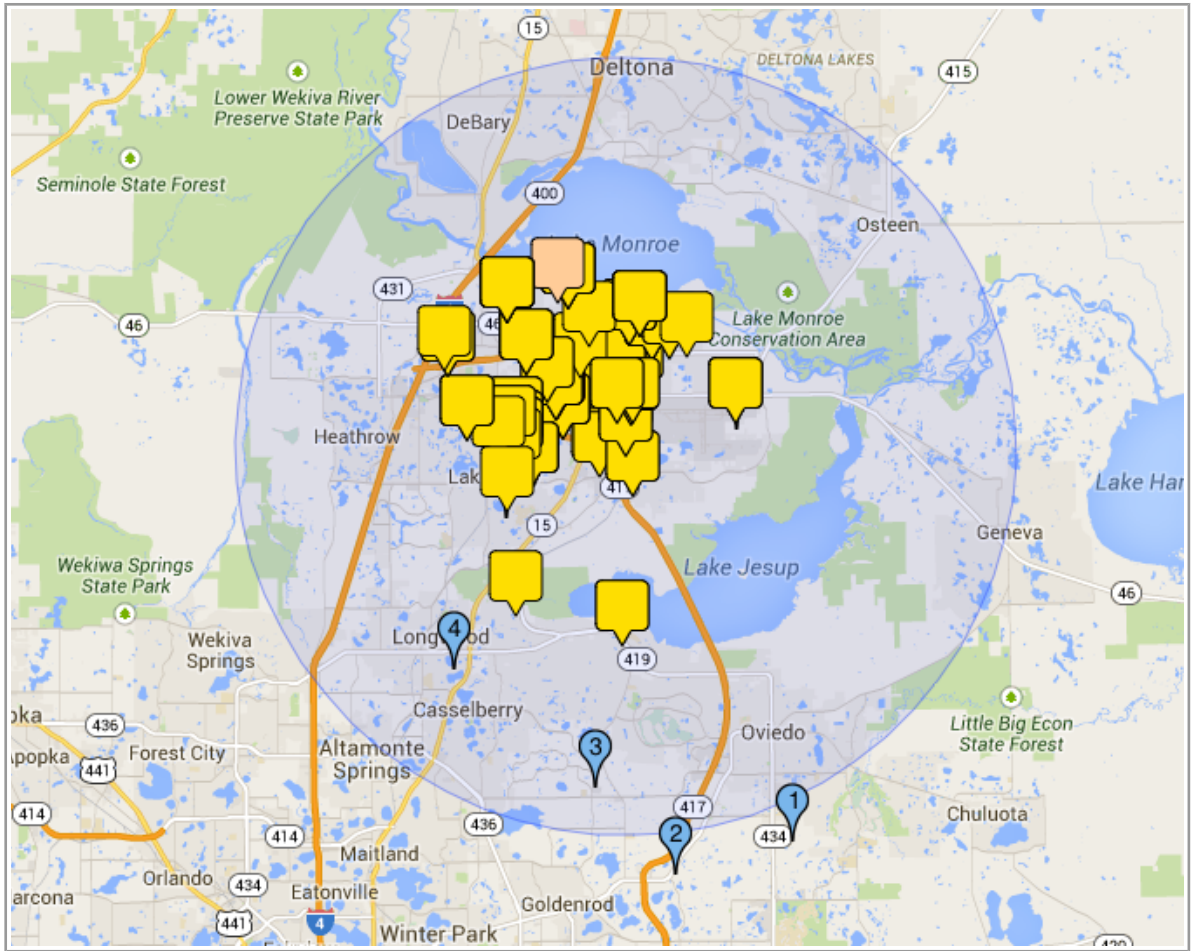


Figure 41: Area of nearby activities search

The center point around which the search area is built is now marked with a blue dot (Figure 42).

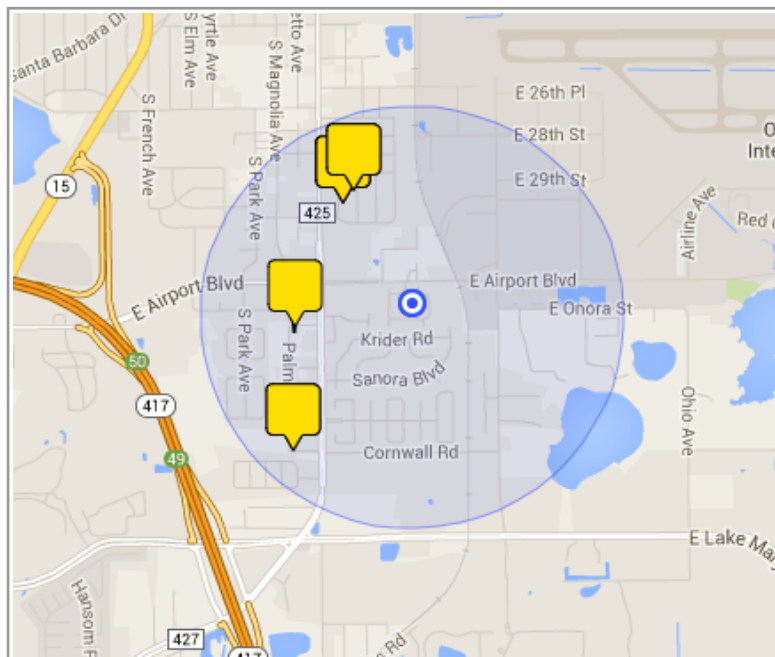


Figure 42: Center point of nearby search area



If necessary, the center point can now be moved manually by tapping the map in a new place. The new center point is marked with a red dot and a hint with two action links – 'Apply' and 'Cancel'. The new search area is shown with a red transparent circle around the new point (Figure 43).

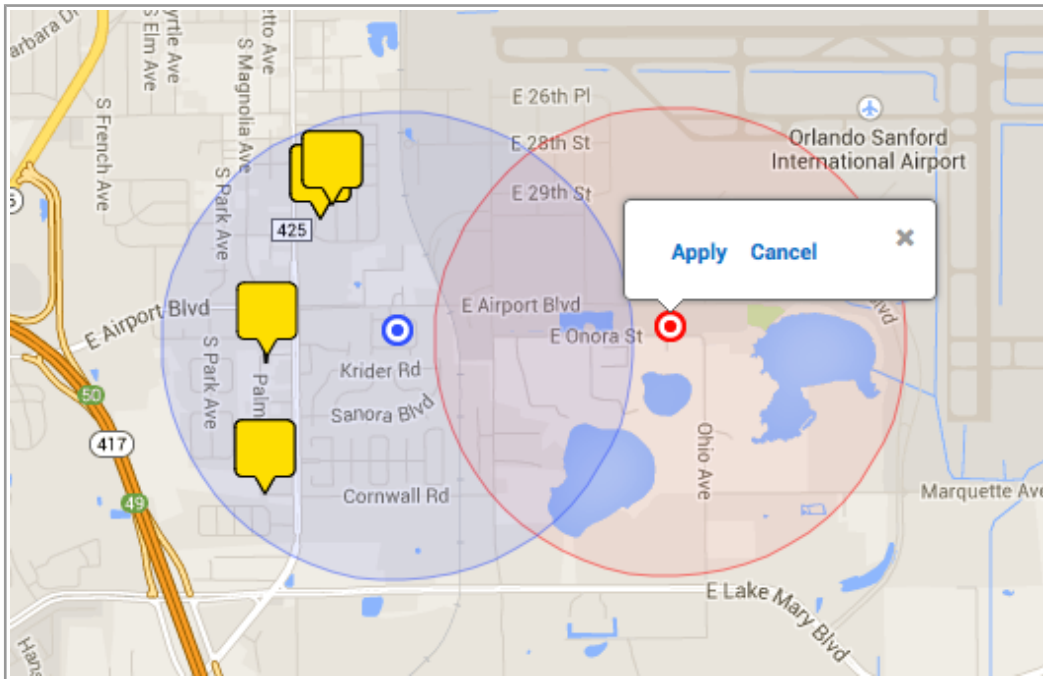


Figure 43: Manual move of center point

If the user taps 'Apply', the center point is moved to the new place, its color and the search area change to blue and the map displays a new set of nearby activities found in the new area according to the defined settings. The activity lists are updated accordingly.

If the user taps 'Cancel', the new center point and search area are removed from the map. Tapping the cross in the top right corner of the hint hides the hint leaving the new center point and search area on the map.

### 5.3.1.1.3 'Nearby Activities' Functionality Behavior on Small Screens Improved

When the Mobility Application is used on a device with a narrow screen, only the activities list or the map can be shown at any particular moment. Previously, the activities list was opened first and the map could be accessed by tapping an activity in the list.

With the introduction of the manual selection of the center point and search area the behavior of the 'Nearby activities' screen has been changed to better suit the expanded functionality. Now the map is opened first, offering the possibility to define the center point and recalculate the nearby activities accordingly without switching to the activities list. When the user opens the activities list, it already contains the activities selected in accordance with the center point settings.

## 5.3.2 Improvements

### 5.3.2.1 Teamwork Behavior Improved

Previously, a team member was unable to view the team holder's route. When the team holder's name was clicked in the 'Activity details' screen, the route appeared for a moment to be immediately replaced with an empty page and a 'Page not found' error message.

This issue has been fixed in version 4.5.22. The team member can now view the team holder's route

properly.

## **5.4 Reports**

### **5.4.1 Improvements**

#### **5.4.1.1 Routing Report Calculates Idle Time Correctly**

If a routing report was displayed after the resource's route had been activated or after the route had been changed, idle time was calculated incorrectly in such report. Particularly, if an activity was moved from the route creating a gap between activities, such gap was not counted as idle time.

The logic of idle time calculation has been changed. Now idle time is the working time minus the sum of travel time and activity durations. Working time is the difference between day start and day end. Day start, in this case, is the earlier of the first activity start and the working time start according to the resource's calendar. Day end is the later of the last activity end and the working time end according to the resource's calendar plus travel time, if any.

## **5.5 Public API**

### **5.5.1 Improvements**

#### **5.5.1.1 Inbound API – 'update\_activity' Command No Longer Clears 'auto\_routed\_\*' Fields**

If an activity was automatically assigned by Routing, it received the 'auto\_routed\_\*' fields, for example, 'auto\_routed\_to\_date'. If the activity was afterwards updated by the Inbound API with the 'update\_activity' command, the values of all 'auto\_routed\_\*' fields were cleared.

This issue has been resolved in version 4.5.22. The 'update\_activity' command no longer clears the fields related to auto-routing.

#### **5.5.1.2 History API – Teamwork Handled Properly**

When the history information contained teamwork data, the History API request returned only error code 500 and no actual history data.

The History API has been improved. Now the response contains the "team\_id" field when teamwork was used.

## 6 ETAdirect Version 4.5.23

### 6.1 Changes Overview

[Teamwork displayed properly on Resource Tree](#)

[Resource Tree performance improved](#)

[Manage Application Screen Gets Refreshed in Accordance with the Refresh Rate Settings](#)

[Calendar behavior improved](#)

[Driving directions displayed correctly](#)

['Nearby Activities' screen - 'More' link shown only when appropriate](#)

['Nearby Activities' screen shows activities according to settings](#)

[Nearby Activities Map works correctly with empty routes](#)

[Resource preferences observed by 'Nearby Activities' functionality](#)

[Activities with SLA start equal to route date shown on 'Nearby Activities' screen](#)

['Deactivate Route' link available with non-scheduled activities remaining](#)

[External plugins creation in Main Menu improved](#)

[Routing report no longer shows negative idle time](#)

[History API - 'create\\_customer\\_request' response contains activity data](#)

[SmartCollaboration no longer Creates Empty New Chats with the Same User](#)

## 6.2 Manage Application

### 6.2.1 Improvements

#### 6.2.1.1 Teamwork Displayed Properly on Resource Tree

If a teamwork was created by resources from different branches of the Resource Tree, opening the assisting resource's branch caused the assisted resource to be displayed as a single resource rather than teamwork.

This issue has been resolved in version 4.5.23. Teamwork is now displayed properly.

#### 6.2.1.2 Resource Tree Performance Improved

When there were many teamworks on a particular day with team members and team holders having shift, mass, and repeating activities, the Resource tree loaded very slowly. The system had to process lots of shift activities and the overrides they created in the routes of team members and team holders. As of version 4.5.23 many redundant calculations have been removed, and the Resource Tree loads properly.

#### 6.2.1.3 Manage Application Screen Gets Refreshed in Accordance with the Refresh Rate Settings

Previously, Time Line would not get updated in accordance with the refresh intervals set in My Display > Refresh Rate, and thus the time would not get changed on the Activities Screen.

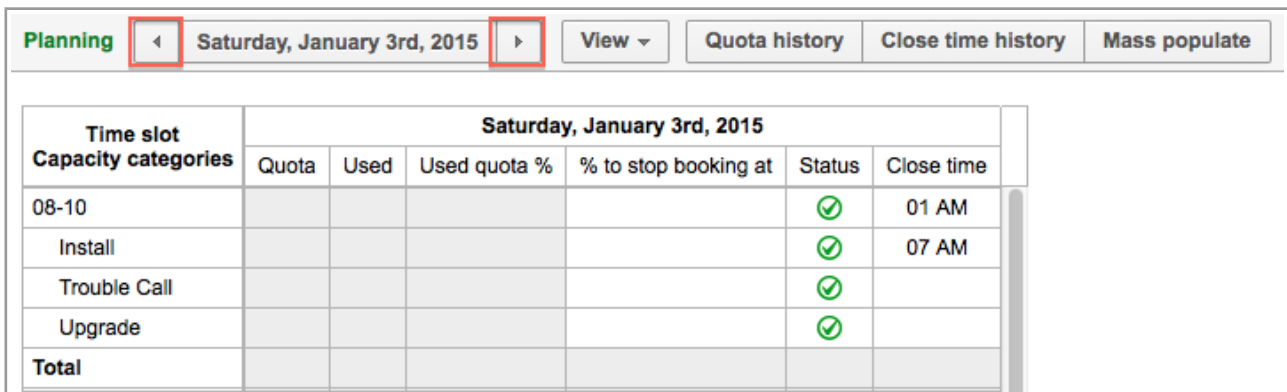
This has been changed in version 4.5.23 and now the Manage Application screen changes as specified in My Display > Refresh rate.

## 6.3 Quota Management

### 6.3.1 Improvements

#### 6.3.1.1 Calendar Behavior Improved

If the Calendar on the 'Quota' screen was set to the earliest or the latest date allowed, the calendar left and right scroll buttons (Figure 44) stopped responding. Clicking these buttons had no effect on the Calendar which remained set to the last allowed date.



The screenshot shows the 'Planning' section of the Quota Management interface. At the top, there is a navigation bar with a left arrow button, the date 'Saturday, January 3rd, 2015', and a right arrow button, both highlighted with red boxes. To the right of the date are buttons for 'View', 'Quota history', 'Close time history', and 'Mass populate'. Below this is a table with columns for 'Time slot', 'Capacity categories', 'Quota', 'Used', 'Used quota %', '% to stop booking at', 'Status', and 'Close time'. The table contains data for '08-10' and 'Install' categories, all with green checkmark status and specific close times.

Time slot	Capacity categories	Saturday, January 3rd, 2015					Status	Close time
		Quota	Used	Used quota %	% to stop booking at			
08-10						✓	01 AM	
	Install					✓	07 AM	
	Trouble Call					✓		
	Upgrade					✓		
	<b>Total</b>							

Figure 44: Calendar scroll buttons

The calendar processing has been improved. Now, when a maximum date is selected, the calendar can be shifted using the left or right button.

## 6.4 Mobility Application

### 6.4.1 Improvements

#### 6.4.1.1 Driving Directions Displayed Correctly

Sometimes, activity addresses were resolved incorrectly, and no driving directions were displayed in the Mobility Application, even if the activity coordinates were entered correctly.

The functionality has been changed to use activity coordinates if they are available, and to use addresses only if no coordinates can be found. Therefore, the driving directions are now displayed properly.

#### 6.4.1.2 'Nearby Activities' Screen – 'More' Link Shown Only When Appropriate

When the nearby activities search has found more activities than can fit the screen simultaneously, the list of such activities contains the 'More' link loading the next batch of activities. However, in the previous versions the 'More' link appeared also when the search returned only one or two activities and there were no other activities to load.

The behavior of the 'More' link has been improved. This link is now shown only when more activities are available (Figure 45).

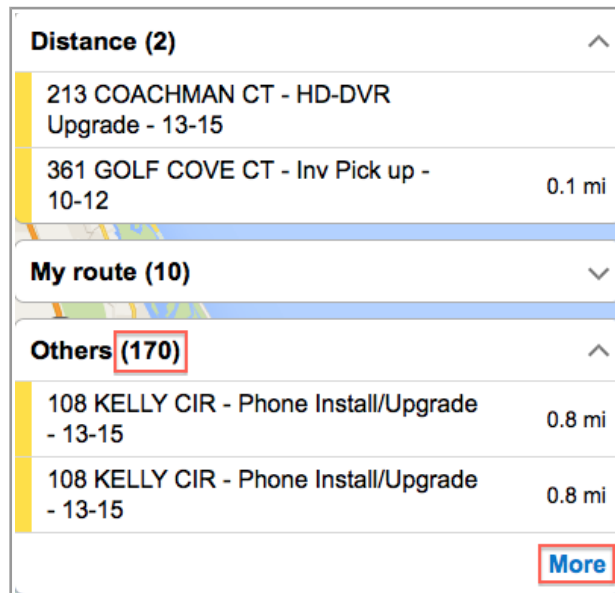


Figure 45: 'More' link shown only with more activities available

#### 6.4.1.3 'Nearby Activities' Screen Shows Activities According to Settings

There were cases when activities included in the nearby activities search results were shown on the map but were not included in the nearby activities list. Their markers could be found on the map, but tapping such markers did not lead to highlighting the corresponding activity in the list as it was not there. This was caused by incorrect processing of the 'Nearby Radius' setting of the 'Business Rules'.

The issue has been resolved. If an activity satisfies the nearby activities search criteria, it can be found both in the list and on the map (Figure 46).

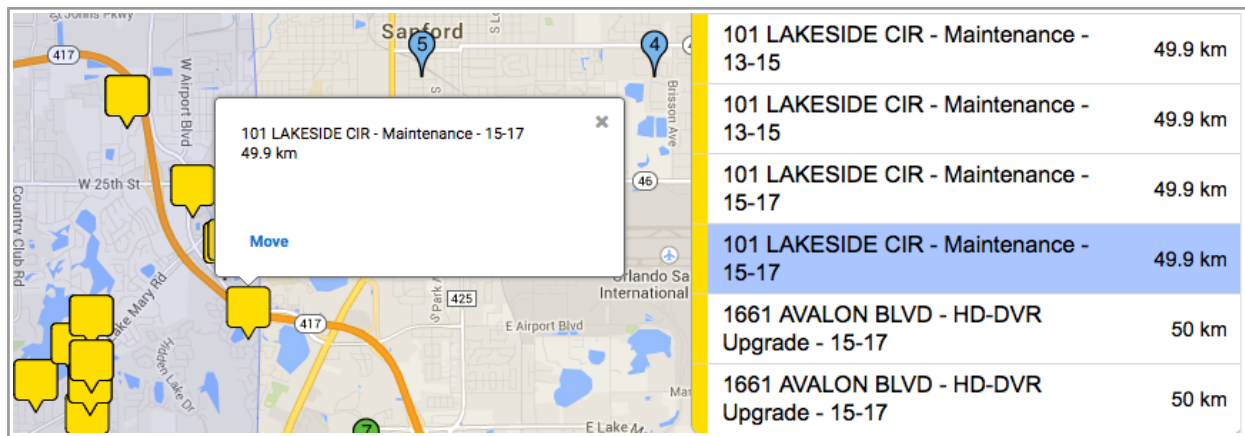


Figure 46: Activity marker and list record

#### 6.4.1.4 Nearby Activities Map Works Correctly with Empty Routes

If a resource had no activities in their route but only a start/end location, the Nearby Activities Map was centered on the (0,0) coordinates (near Africa). At the same time, the map should have been centered on the resource start location.

This issue has been resolved in version 4.5.23. Now the Nearby Activities Map is centered on the resource's start location when the resource has no activities in their route.

#### 6.4.1.5 Resource Preferences Observed by 'Nearby Activities' Functionality

When the user was attached to one or several groups and was able to access multiple branches of the Resource Tree, the 'Preferred/Required/Forbidden Resource' constraint was not taken into account when the nearby activities were displayed in the Mobility Application. As the result, the resource was able to access also the activities for which they were forbidden.

As of version 4.5.23 the resource preferences are processed correctly by the 'Nearby Activities' functionality. The resource can no longer see the activities for which they are specified as 'forbidden'. The 'Nearby Activities' only displays the activities for which the resource is 'preferred' or 'required'.

#### 6.4.1.6 Activities with SLA Start Equal to Route Date Shown on 'Nearby Activities' Screen

If the SLA start date of an activity coincided with the date of the selected route, and the SLA start time of that activity was anything more than 00:00, such activity would not get into the scope of the nearby activities and, thus, would not be shown in the 'Nearby Activities' screen.

As of version 4.5.23 the validation of nearby activities has been improved. Now, activities with SLA date equal to the route date are shown on the 'Nearby Activities' screen, as intended.

#### 6.4.1.7 'Deactivate Route' Link Available with Non-Scheduled Activities Remaining

If the resource's route contained non-scheduled activities in the route, the 'Deactivate route' link was not available. The system regarded non-scheduled activities as pending and did not allow deactivating the route. However, the resource should be able to deactivate their route when there are no pending scheduled activities.

The conditions of the 'Deactivate route' action link have been changed, and now it is available when the route contains no pending scheduled activities (Figure 47).

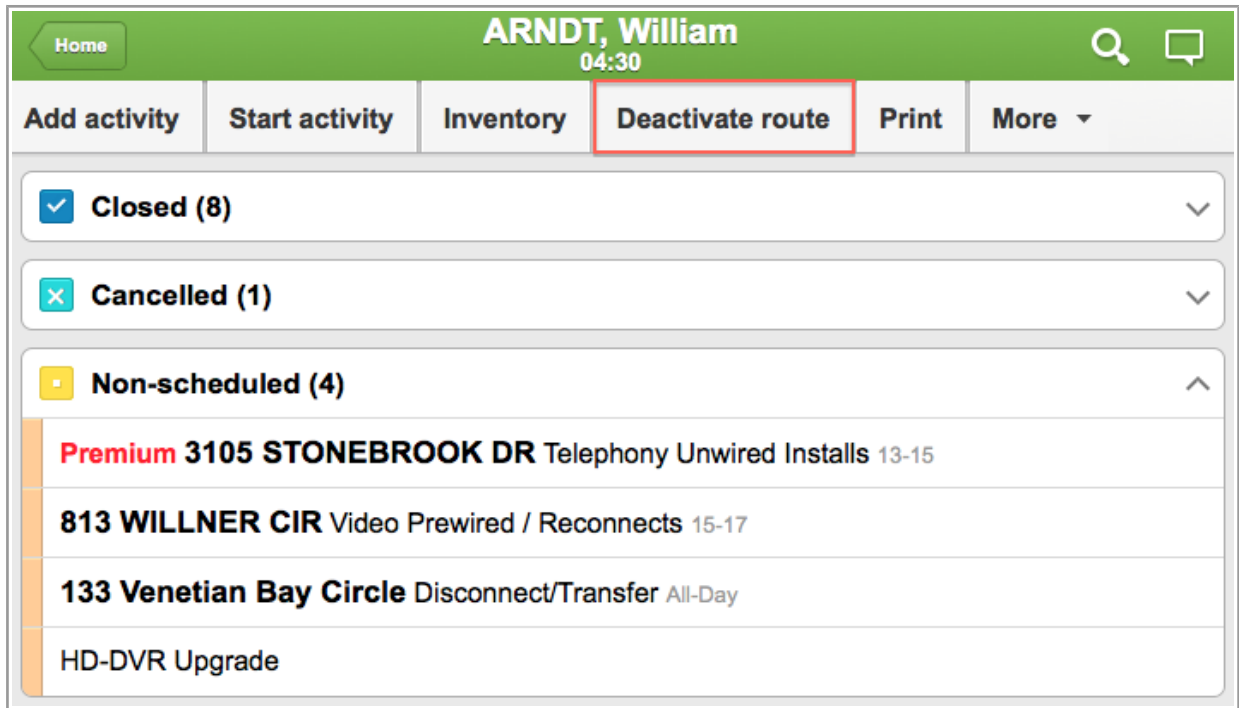


Figure 47: 'Deactivate route' link available

## 6.5 Plugin API

### 6.5.1 Improvements

#### 6.5.1.1 External Plugins Creation in Main Menu Improved

Previously, external plugins created as Main Menu items did not work. When such plugin was used, it had no effect – no browser tab or window corresponding to the defined URL was opened.

This issue has been fixed in version 4.5.23. External plugins created as Main Menu items can now be used properly.

## 6.6 Reports

### 6.6.1 Improvements

#### 6.6.1.1 Routing Report No Longer Shows Negative Idle Time

In the previous versions the Routing report calculated idle time incorrectly. It showed the resource's overtime as negative idle time. Such issues occurred when an activity was moved from the resource's route creating a gap between activities.

As of version 4.5.23 idle time is calculated correctly. The Routing report no longer shows negative idle time when the resource ended their working day with overtime.

## 6.7 Public API

### 6.7.1 Improvements

#### 6.7.1.1 History API – 'create\_customer\_request' Response Contains Activity Data

In the previous versions the 'create\_customer\_request' response contained no activity data, although all activity-related messages should always contain such information.

In version 4.5.23 the History API has been improved, and now the 'create\_customer\_request' response contains activity data as follows:

```

{
  "operation": "create_customer_request",
  "action_time": "2014-02-05 12:04:24",
  "user": "admin",
  "request": {
    "type": "SR",
    "date": "2014-02-06",
    "resource_id": "routing",
    "activity": {
      "activity_id": 3952162,
      "appt_number": "#137167846",
      "customer_number": "019892755"
    },
    "changes": {
      "sr_body": "asfd"
    }
  }
}

```

## 6.8 SmartCollaboration

### 6.8.1 Improvements

#### 6.8.1.1 SmartCollaboration no longer Creates Empty New Chats with the Same User

In the previous versions there were cases when SmartCollaboration would create a new conversation with the same user if the conversation window was opened but no messages were sent for some period of time (Figure 48).

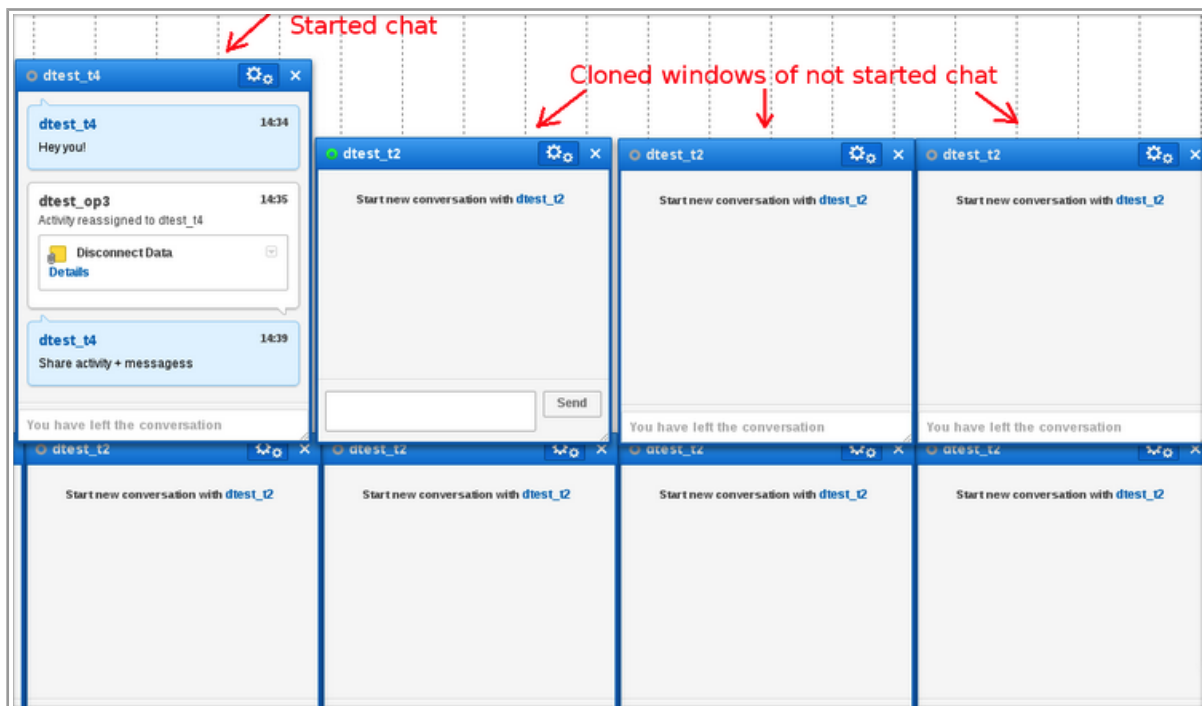


Figure 48: Empty chats created for the same user



This issue has been fixed in 4.5.23 and now neither extra chats are created nor messages sent without respective user action.

## 7 ETAdirect Version 4.5.24

### 7.1 Changes Overview

[Text values containing umlauts sorted correctly](#)

[Action links without entities work properly](#)

[Permissions for 'Login Policies' modified](#)

['Selected' user profiles list labeled properly](#)

[Linked activities handled correctly](#)

[Illegal characters in user data no longer affect Routing performance](#)

[Inactive work zones no longer affect quota status calculation](#)

[Quota Map shows only active work zones](#)

['Journey to the end location' shown correctly](#)

[Calendar no longer changes on Activities View mode change](#)

['View More' button in Inventories List works properly](#)

[Telemetry – only positions resolved with high accuracy stored](#)

[Tab/iframe layout for external plugins works properly](#)

[Time zones handled correctly](#)

[Message template validation alert displayed properly](#)

[Capacity API – logic of 'get\\_capacity' method changed](#)

## 7.2 Manage Application

### 7.2.1 Improvements

#### 7.2.1.1 Text Values Containing Umlauts Sorted Correctly

If text values contained umlauts, such values were sorted in a wrong order. The alphabetical sequence was incorrect.

This issue has been fixed. Now text values are sorted in the correct order.

#### 7.2.1.2 Action Links without Entities Work Properly

If a plugin action link was created without specifying the entity, such action link could not be added to any context layout. The newly-created action link was not shown in the list of the available action links. This issue has been resolved in version 4.5.24. If an action link has been created without specifying the entity, such action link can be added to a context layout.

## 7.3 Company Settings

### 7.3.1 Features

#### 7.3.1.1 Permissions for 'Login Policies' Modified

As of version 4.5.24 permissions for the 'Login Policies' have been modified. The former Show/Hidden options are now expanded to ReadWrite/ReadOnly/Hidden (Figure 49, 50). This enhancement provides more flexibility in setting access levels to the functionality.

Particularly, the 'ReadOnly' permission option implemented allows the user to check the settings and at the same time prevents unauthorized changes to the login policies.

ID	Profile Name ↑	Denied from level	Status	Show	Hidden
71	Admin		✓	<input checked="" type="radio"/>	<input type="radio"/>
69	CSR	Company settings	✓	<input type="radio"/>	<input checked="" type="radio"/>
66	Dispatcher		✓	<input type="radio"/>	<input checked="" type="radio"/>

Figure 49: Permission settings for 'Login Policies' in previous versions

ID	Profile Name ↑	Denied from level	Status	ReadWrite	ReadOnly	Hidden
71	Admin		✓	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
69	CSR	Company settings	✓	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
66	Dispatcher		✓	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Figure 50: Permission settings for 'Login Policies' in version 4.5.24

### 7.3.2 Improvements

#### 7.3.2.1 'Selected' User Profiles List Labeled Properly

Because of the incorrect placeholder used, the list of selected User Profiles in the Permissions section of the 'Modify filter' screen ('Company Settings' → 'Filters' → 'Modify') was labeled as 'Available' instead of 'Selected' as it should have (Figure 51).

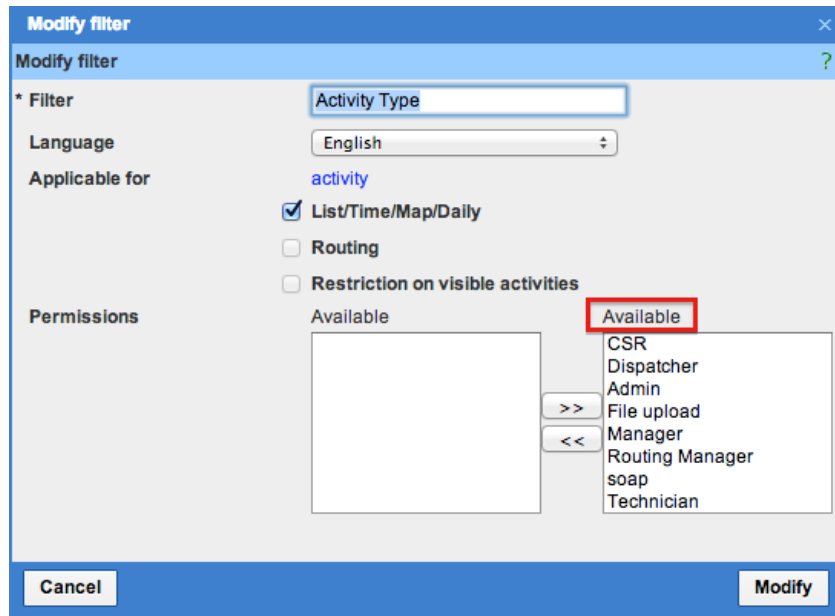


Figure 51: Irrelevant label for selected User Profiles

This issue has been fixed in version 4.5.24. The list of the selected User Profiles is now labeled properly.

## 7.4 Routing Interface

### 7.4.1 Improvements

#### 7.4.1.1 Linked Activities Handled Correctly

In the previous versions successor activities in finish-to-start and start-to-start links could be assigned to resources when their predecessors were still in the bucket. In such cases Routing no longer regarded the link as valid and assigned the activities without the constraints set in the link.

After the necessary improvements have been made, successor activities in finish-to-start and start-to-start links are not assigned if their predecessors are in any bucket or in the resource's unscheduled pool. At the same time, if one of the activities of a simultaneous link is in any bucket or in the resource's unscheduled pool, such activities are not assigned, either. This way, activity links and the constraints imposed by them are observed.

#### 7.4.1.2 Illegal Characters in User Data No Longer Affect Routing Performance

If the user data contained illegal Unicode characters, the Routing module did not work.

As of version 4.5.24 all illegal characters are replaced with spaces, and Routing works properly.

## 7.5 Quota Management

### 7.5.1 Improvements

#### 7.5.1.1 Inactive Work Zones No Longer Affect Quota Status Calculation

If a work zone was deactivated or unassigned, it was not explicitly removed from the automatic close schedule. This could cause incorrect calculation of the quota status and, as the result, incorrect representation of the quota status on the Quota View. When the quota was closed, the quota status was not visually changed and the quota remained shown as open. It was impossible to manually close the quota for the inactive work zone, either.

As of version 4.5.24, the auto-close and auto-populate functions check the statuses of work zones, time

slots and capacity categories. Inactive work zones, time slots and capacity categories are no processed by these functions. Also, the status of a work zone can now be changed manually.

### **7.5.1.2 Quota Map Shows Only Active Work Zones**

Previously, the Quota Map showed both active and inactive work zones assigned to a resource. This could be misleading, as the Quota Map should show only the area in which the resource can execute activities. This issue has been fixed. Now the Quota Map shows only the active work zones of a resource.

## **7.6 Activity Views**

### **7.6.1 Improvements**

#### **7.6.1.1 'Journey to the End Location' Shown Correctly**

If the activity bar width was changed with the help of the 'Activity width' slider, the 'Journey to the end location' bar became detached from the last activity bar and placed far off along the timeline. The same behavior was observed for deactivated routes.

Now any changes to the activity width have no effect on the position of the 'Journey to the end location' bar which is placed immediately after the last activity in the resource's route.

#### **7.6.1.2 Calendar No Longer Changes on Activities View Mode Change**

In the previous versions the Calendar widget showed a wrong date when the Activities View was switched between Time and Map modes. If a date other than today was selected on the Calendar and then the view mode was changed, the screen showed the activities corresponding to the selected date but the Calendar switched to the today's date.

The Calendar synchronization mechanism has been improved, so that the Calendar shows the same date which was selected before the Activities View mode change.

## **7.7 Inventory**

### **7.7.1 Improvements**

#### **7.7.1.1 'View More' Button in Inventories List Works Properly**

The 'View more' button in the 'Inventories list' screen of the Mobility Application would not work if inventories in the selected resource's pool were of the type having a space sign in its label.

Tapping the 'View more' button in such event would produce no result while it should have showed more items in the list.

This issue has been resolved in version 4.5.24. The 'View more' button works as intended.

## **7.8 General**

### **7.8.1 Improvements**

#### **7.8.1.1 Telemetry – Only Positions Resolved with High Accuracy Stored**

When the resource type had the 'Calculate coordinates with high precision' option enabled, this caused HTML5 geolocation to calculate only the coordinates received from the GPS sensor. However, it allowed using other sources when the GPS sensor was unavailable which could degrade the coordinates accuracy. This issue has been resolved in version 4.5.24 by setting the acceptable coordinates accuracy at 100 m, when the 'Calculate coordinates with high precision' option is enabled. Positions with coordinates satisfying this condition are stored. Any coordinates resolved with poorer accuracy are rejected.

#### **7.8.1.2 Tab/Iframe Layout for External Plugins Works Properly**

If an external plugin was created with the 'Tab/Iframe layout' option enabled, such plugin was not

working properly in the Manage Application. The plugin was not visible on the screen at all, although the visibilities were set correctly.

The behavior of plugins in the Manage Application has been improved as follows:

- External plugins with the 'Tab/Iframe option layout' checkbox unchecked open in a new window/tab (such as a popup)
- External plugins with the 'Tab/Iframe option layout' checkbox checked open in the same window/tab
- External plugins with the 'Tab/Iframe option layout' and 'Main menu items' checkboxes checked which are added to the 'Main menu items' context layout open as any other Main Menu item taking the entire screen space except the Main Menu itself and the Resource Tree

## **7.9 Message Engine**

### **7.9.1 Improvements**

#### **7.9.1.1 Time Zones Handled Correctly**

Previously, when a message scenario was created using a time zone other than UTC, the message creation time was calculated incorrectly for non-scheduled activities. It was calculated as UTC rather than the recipient's time zone.

This issue has been fixed in version 4.5.24. Message creation time is calculated correctly for non-scheduled activities.

#### **7.9.1.2 Message Template Validation Alert Displayed Properly**

If a message pattern was created incorrectly, the validation alert informing of incorrect entries was displayed in a single line with unnecessary tags.

As of version 4.5.24 multiline alerts are processed correctly with tags replaced with line breaks.

## **7.10 Public API**

### **7.10.1 Improvements**

#### **7.10.1.1 Capacity API – Logic of 'get\_capacity' Method Changed**

Previously, when the 'Quota can be entered for' parameter was checked for all quota levels (day, time slot and capacity category) for the bucket, the 'get\_capacity' method returned available quota on the capacity category level even when no quota was available on the time slot and day level. This logic was changed in version 4.5.20 where the 'get\_capacity' method no longer returned available quota on a lower level when no quota was available on higher levels. This prevented activity booking with unavailable quota.

As of version 4.5.24 the 'get\_capacity' method has been further improved to ensure backward compatibility with the previous versions. Now it returns quota on the capacity category level when both the 'Quota' and 'Used' values are empty on the time slot level. At the same time, it also returns the time slot node with both 'Quota' and 'Available' values equal to '0'. This prevents activity booking when the 'Quota can be entered for' parameter is checked on the time slot level. However, when this parameter is unchecked on the time slot level, the activity can be booked.

The same logic applies to the 'time slot / day' case.

## 8 ETAdirect Version 4.5.25

### 8.1 Changes Overview

[Travel Time to First Activity Calculated Correctly](#)

[Final Travel is No Longer Calculated Without Resource's End Location](#)

[Inactive Capacity Categories No Longer Shown in the List](#)

[New Empty Chats No Longer Duplicated](#)

[Resource Hint Shown Promptly](#)

[Assigned User Profiles Saved Correctly](#)

['Activities' Screen Gets Refreshed in Accordance with the Refresh Rate Settings](#)

['Activity width' Translation Added](#)

[Routing Profiles List Displayed Correctly](#)

['Add activity' Link Shown For Non-Scheduled Routes](#)

['+ Symbol on Time View Works Correctly in Firefox 32](#)

[Creating Link Template with Identical Link Labels No Longer Possible](#)

[Special Characters in Capacity Category Name/Label No Longer Affect 'Mean time to deliver' Report](#)

[Work Skill/Work Zone Mismatch Alerts Displayed](#)

[Proper Loading Indicator Shown During Image Upload](#)

[Names with Apostrophe No Longer Affect the Search](#)

[Nearby activities: Activities with SLA Start Equal to Route Date Validated Correctly](#)

[Forms with Mandatory Radiogroup Properties Validated Properly](#)

[Deleting Activity Templates from the Shift is No Longer Possible](#)

[List View Works Properly After Session Expiration](#)

[XSLT Property Error Does Not Affect Other XSLT Properties Display](#)

[Custom Reports Display Data in the Selected Language](#)

[Routing Report Displayed Correctly](#)

[Blocks of 'linked activities' Types Processed Correctly](#)

[Inventory Without Type can be Deleted using 'delete\\_inventory'](#)

[No Duplicate Records are Created When Modifying a Repeating Activity for Future Days](#)

## 8.2 Routing Interface

### 8.2.1 Improvements

#### 8.2.1.1 Travel Time to First Activity Calculated Correctly

In the previous versions, if the 'Working time includes travel to first activity' feature was disabled for the resource type, travel time to the first activity was still included by Routing – it was equal to the default travel time.

This issue has been resolved. As of version 4.5.25, travel time to the first activity is always equal to '0', if the 'Working time includes travel to first activity' feature is turned off.

#### 8.2.1.2 Final Travel is No Longer Calculated Without Resource's End Location

As of version 4.5.25 final travel for the resource is not calculated unless end location has been set for that resource, regardless of whether 'Working time includes travel from the last activity' feature is enabled for the resource type or not.

## 8.3 Quota Management

### 8.3.1 Improvements

#### 8.3.1.1 Inactive Capacity Categories No Longer Shown in the List

Previously, when capacity categories were calculated for an activity, the result list showed inactive capacity categories along with the active ones which was confusing. Such behavior was observed in the List View and the Activity hint.

This issue has been fixed. As of version 4.5.25 inactive capacity categories are no longer included in the result list.

## 8.4 Smart Collaboration GUI

### 8.4.1 Improvements

#### 8.4.1.1 New Empty Chats No Longer Duplicated

When a user opened a new chat and didn't send any messages for some time, and there was a connection interruption during that period, the chat window would be automatically duplicated after reconnection, resulting in two or more identical chat windows displayed on the screen (Figure 52).

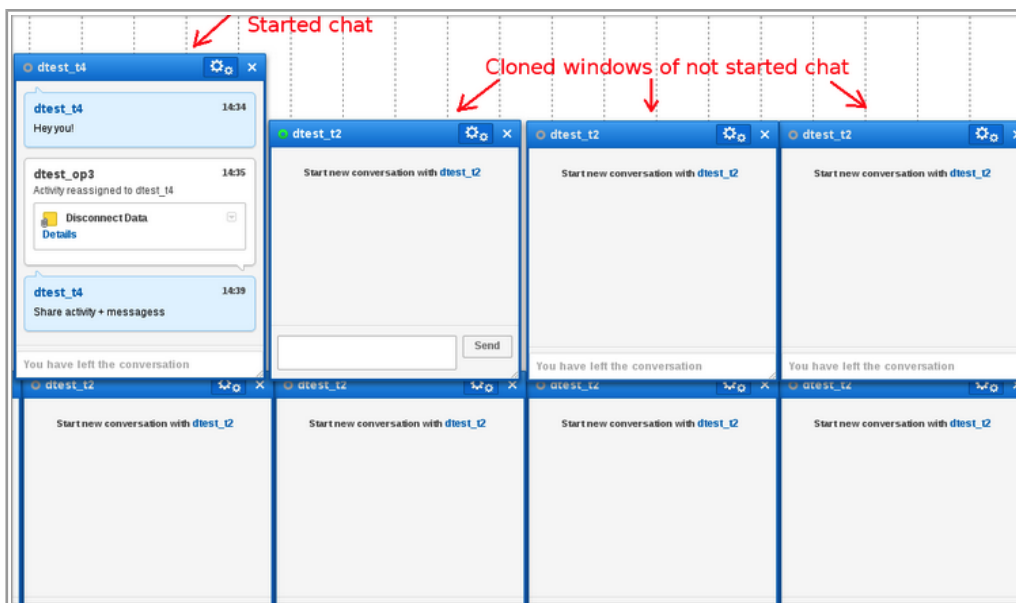


Figure 52: Empty chats created for the same user



This issue has been fixed in 4.5.25 and now neither extra chats are created nor messages sent without respective user action.

### 8.4.1.2 Resource Hint Shown Promptly

There were cases where it would take more than 10 seconds for the resource hint to open, if the 'Start chat' action link was added to the resource hint (the 'start\_chat' or 'start\_chat\_with\_resource' action was configured for the 'Visible hint columns for resource' context).

In some cases, the 'Processing your request...' alert message would appear before the hint actually opened.

This issue has been addressed. As of version 4.5.25, the resource hint always shows in about 1 second upon click, regardless of the action links configured for it.

## 8.5 User Management

### 8.5.1 Improvements

#### 8.5.1.1 Assigned User Profiles Saved Correctly

If at least one of the profiles in the 'Selected Profiles' list was highlighted when assigning and/or modifying user profiles in the 'User' screen ('Settings' → 'Users' → 'Modify'), this would result in the user being saved without any profile assigned (Figure 53), which is incorrect since it is a system requirement that every ETAdirect user has at least one profile assigned to them.



Figure 53: Highlighted 'Selected Profiles' in the 'User' screen

This issue has been addressed. As of version 4.5.25 the profiles selected to be assigned to the user are saved correctly.

## 8.6 Manage Application

### 8.6.1 Improvements

#### 8.6.1.1 'Activities' Screen Gets Refreshed in Accordance with the Refresh Rate Settings

Previously, Time Line would not get updated in accordance with the refresh intervals set in My Display > Refresh Rate and thus the time would not get changed on the Activities Screen.

This has been changed in version 4.5.25 and now Manage Application screen changes as specified in My Display > Refresh rate.

#### 8.6.1.2 'Activity width' Translation Added

In the previous versions the 'Activity width' text on the resize slider in the 'Activities' screen had no translation in the Glossary. Therefore, it could not be translated into languages other than English and could not be changed to any custom text.

As of version 4.5.25 the translation for the 'Activity width' has been added to the Glossary, so the text

can be translated, if needed.

### 8.6.1.3 Routing Profiles List Displayed Correctly

There were cases, when the number of Routing profiles displayed per page would not correspond to the number of rows set in the 'View' menu of the 'Routing Profiles' screen and would vary from page to page. This issue has been fixed. In version 4.5.25 the number of Routing profiles is the same on every page and is consistent with the view preferences.

## 8.7 Activity Views

### 8.7.1 Improvements

#### 8.7.1.1 'Add activity' Link Shown For Non-Scheduled Routes

It was not possible to add an activity for a technician's non-scheduled route in the Manage Application, because the 'Add activity' link wasn't shown on the screen.

The issue has been resolved in version 4.5.25. The 'Add activity' link is now available for non-scheduled routes to allow activity creation.

#### 8.7.1.2 '+' Symbol on Time View Works Correctly in Firefox 32

When the Manage Application was used in the Firefox browser version 32, the '+' symbol on the 'Activity width' slider was misaligned and, thus, was not functional.

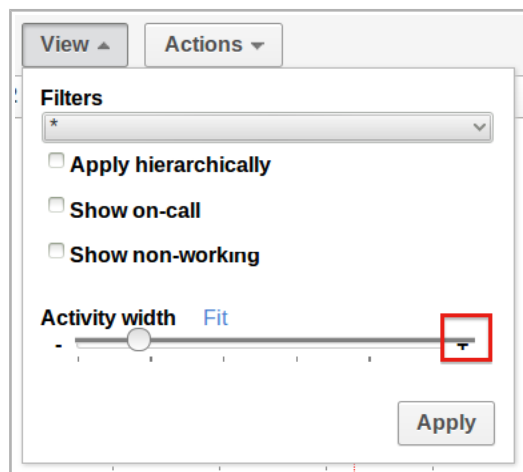


Figure 54: '+' symbol misaligned

The 'Activity width' slider has been adjusted for different browser types. Now, the '+' symbol has proper location in Firefox 32 and works as intended.

## 8.8 Company Settings

### 8.8.1 Improvements

#### 8.8.1.1 Creating Link Template with Identical Link Labels No Longer Possible

When creating/modifying a link template in 'Company Settings' → 'Link Templates' → 'Add Link Template'/'Modify' it was possible to save the template with two identical links for the first and second activity (applicable to all link types except the 'Simultaneous' link type). This behavior is incorrect as it interferes with the logic of the 'Linked Activities' functionality.

Validation of link labels has been improved in version 4.5.25. Now, an attempt to save a link template with two matching link labels is rejected with the corresponding 'Labels cannot be identical' validation message displayed.

## 8.9 Dashboard

### 8.9.1 Improvements

#### 8.9.1.1 Special Characters in Capacity Category Name/Label No Longer Affect 'Mean time to deliver' Report

The 'Mean time to deliver' report in the 'Dashboard' screen didn't work correctly if the name or label of a capacity category contained special characters.

In particular, the 'ERROR: Unknown error has happened. Try again or change parameters' alert message was displayed instead of the report.

As of version 4.5.25 the special characters escape has been added, and the issue has been fixed.

## 8.10 Mobility

### 8.10.1 Improvements

#### 8.10.1.1 Work Skill/Work Zone Mismatch Alerts Displayed

By design, the 'Ignore rules mismatch on Move activity' permission allows to assign activity to a resource even if the selected resource doesn't have required work skills and/or work zones. At the same time, there should be a corresponding warning about work skill/work zone mismatch shown before the actual move is performed. However, such warning was not shown in the Mobility Application which is incorrect.

As of version 4.5.25 the alert message is displayed in the 'Move activity' screen at an attempt to move an activity to a resource with work skills and/or work zones mismatch (Figure 55).

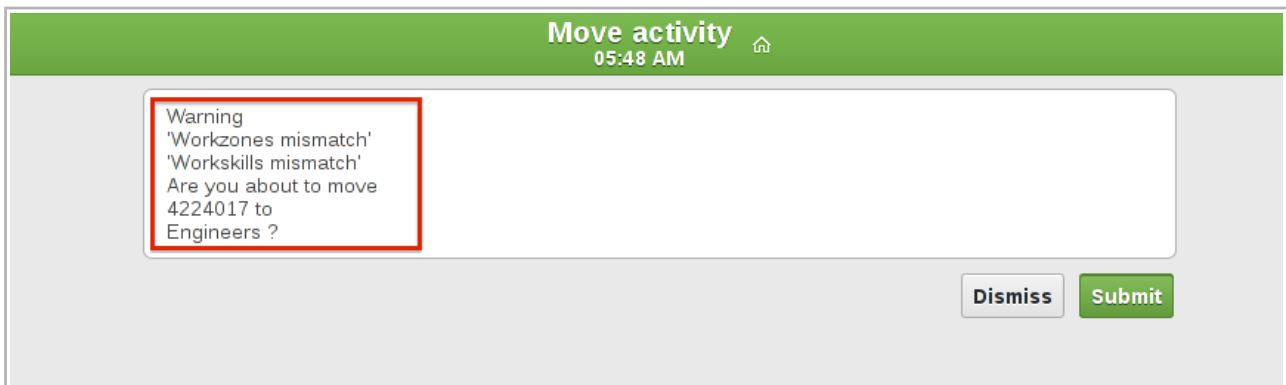


Figure 55: Example of Workzones/Workskills mismatch alert

#### 8.10.1.2 Proper Loading Indicator Shown During Image Upload

At an attempt to upload a file to the Mobility Application, the '{Undefined text:5514}' text message would appear instead of the loading indicator.

This issue has been resolved. Now, the proper 'Loading...' message is displayed during file upload, as expected.

#### 8.10.1.3 Names with Apostrophe No Longer Affect the Search

If a resource's name contained an apostrophe, the attempt to search for such resource in the Resource list of the Mobility Application would produce no results.

As of version 4.5.25 the necessary changes have been made to ensure that the apostrophe sign does not affect the search process.

#### **8.10.1.4 Nearby activities: Activities with SLA Start Equal to Route Date Validated Correctly**

If the SLA start date of an activity coincided with the date of the selected route, and the SLA start time of that activity was anything more than 00:00, such activity would not get into the scope of nearby activities and, thus, would not be shown in the 'Nearby Activities' screen.

As of version 4.5.25 the validation of nearby activities has been improved. Now, activities with SLA date equal to the route date are reflected in the 'Nearby Activities' screen, as intended.

#### **8.10.1.5 Forms with Mandatory Radiogroup Properties Validated Properly**

If the 'End activity' form contained a mandatory enumeration property of the radiogroup GUI type, and such property was not filled when submitting the form, the activity was not completed with the corresponding 'Validation failed, please review your form' error message.

However, if the user attempted to re-submit the form having filled this mandatory property, the activity still was not completed with the 'Internal Error, please review your route' message displayed. This behavior is incorrect as the form should have been submitted once all mandatory fields were filled. As of version 4.5.25 the necessary changes have been made. Now, the forms containing radio buttons with mandatory visibility are validated correctly.

### **8.11 General**

#### **8.11.1 Improvements**

##### **8.11.1.1 Deleting Activity Templates from the Shift is No Longer Possible**

When a user first modified one of the activities assigned to a shift and then tried to cancel that activity, the user had an option of canceling all of the activities in the template. This way, the whole activity template could be deleted from the shift.

As of version 4.5.25 this issue has been addressed. Now, if a user doesn't have a 'Read/Write' permission for the 'Shifts' screen, they will not be allowed to cancel or delete an entire shift activity series via the Manage Application. At the same time, the 'Cancel all' option is no longer available for the shift default activities.

##### **8.11.1.2 List View Works Properly After Session Expiration**

If the user tried to access the List View for the first time after logging in to the Manage Application, but the user session had already expired, the 'Your session expired. Please relogin.' prompt appeared together with the 'Loading...' indicator that would be shown on the screen indefinitely. At the same time, the List View didn't display activities until the browser refresh even after relogin.

This issue has been fixed in version 4.5.25. After the session expiration the user can successfully relogin to the Manage Application with the List View working properly.

##### **8.11.1.3 XSLT Property Error Does Not Affect Other XSLT Properties Display**

If a context in the Mobility Application contained several properties with XSL transformations configured, and one of those properties contained an invalid XML data and, thus, could not be resolved, the rest of the XSLT-formatted properties were not shown either.

This issue has been fixed. As of version 4.5.25 XSLT properties formatting does not affect the following XSLT properties on the context.

## 8.12 Reports

### 8.12.1 Improvements

#### 8.12.1.1 Custom Reports Display Data in the Selected Language

Previously, some custom reports displayed data only in English instead of being translated to the language selected for the user in '[User]' → 'My Display' → 'Language'.

The reports are as follows:

- Work Order Statistics
- Activities by statuses
- Average number of calls per customer

As of version 4.5.25, this issue has been fixed. The custom reports data is now shown in the language currently selected for the user.

#### 8.12.1.2 Routing Report Displayed Correctly

If the 'Working time includes travel from the last activity' feature was enabled for the resource type and the technician's final travel time exceeded the their total idle time, the Routing Report was not shown and the error message was displayed.

This issue has been resolved. The Routing Report is now shown correctly.

## 8.13 Message Engine

### 8.13.1 Improvements

#### 8.13.1.1 Blocks of 'linked\_activities' Types Processed Correctly

In case there was a linked activity with identical link labels for the first and the second activity in the link template (applicable to all link types except the 'Simultaneous' link type), the corresponding message blocks of the 'linked\_activities' type were not correctly expanded by the Message Engine.

The additional check of all related activity links has been added, and now the blocks of the 'linked\_activity' type are handled properly.

## 8.14 Public API

### 8.14.1 Improvements

#### 8.14.1.1 Inventory Without Type can be Deleted using 'delete\_inventory'

Previously, when an existing inventory had no type, then it could not get deleted using the 'delete\_inventory' command and the "Cannot delete – inventory does not exist" error would produce.

This has been fixed in version 4.5.25 and now the inventory with no type can get deleted using the 'delete\_inventory' command.

## 8.15 System

### 8.15.1 Improvements

#### 8.15.1.1 No Duplicate Records are Created When Modifying a Repeating Activity for Future Days

There were cases when a repeating activity was being updated and changed to a future date by a user selecting the "Starting from <day>" option, this operation could create instances of the given activity in routes for previous days. So, when a route contained an already started instance, a new record would get created.

This has been changed in version 4.5.25, so now when a repeating activity gets terminated by being edited, this will not affect the routes for previous days.

## 9 ETAdirect Version 4.5.26

### 9.1 Changes Overview

[Signature property saved correctly](#)

['Last Login' filter processes dates correctly](#)

[Non-scheduled activities canceled/deleted properly](#)

[Display settings saved properly](#)

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## 9.2 Manage

### 9.2.1 Improvements

#### 9.2.1.1 Signature Property Saved Correctly

Previously, there were some issues with saving properties of a signature element type, namely:

- If the user submitted a form (e.g. 'Add activity/Activity details') with some file properties filled but a signature element property left empty, the signature element was saved as filled with a fake image file.  
Now, a signature element is saved empty if the user has not filled the signature property.
- If the user attempted to submit a form with unacceptable file uploaded for a signature element property, the error message was shown. However, if the user still submitted the form with the error, the signature property was saved as filled with a downloaded fake image file.

As of version 4.5.26, at the attempt to upload any unacceptable file for a signature property, the property is saved empty with no files uploaded.

#### 9.2.1.2 'Last Login' Filter Processes Dates Correctly

If the date in the 'Last login' filter was set to a future date for one of the resources, and another resource was selected in the Resource Tree, the date changed to one day before. This occurred immediately after the date change (00:00). The reason was that the date calculation also took into account the time zone of the resource. Such behavior could cause incorrect filtering of the users list.

In version 4.5.26 the date calculation has been changed. Now the date selected in the 'Last login' filter does not depend on the resource time zone and remains the same for any resource. This way the 'Last login' filter works correctly.

## 9.3 Activity Details

### 9.3.1 Improvements

#### 9.3.1.1 Non-Scheduled Activities Canceled/Deleted Properly

A non-scheduled activity could not be canceled or deleted in the cases when the current day's route had been deactivated or the current day was non-working.

This issue has been fixed. As of version 4.5.26, non-scheduled activities are canceled and deleted properly regardless of the route status for the day.

## 9.4 Display

### 9.4.1 Improvements

#### 9.4.1.1 Display Settings Saved Properly

If any settings were changed on the 'Display' screen and then the 'Save' button was clicked, the screen displayed the 'Loading...' message indefinitely. If the user switched to a different screen and then returned to 'Display', the changes were not saved.

As of version 4.5.26, changes made to the 'Display' settings are saved and applied properly.

## 9.5 Reports

### 9.5.1 Improvements

#### 9.5.1.1 'Apply Hierarchically' Option Works Correctly for Messages Report

If the Messages Report was requested with the 'Apply hierarchically' option selected, the report contained only the data of child resources while the parent resource data was missing.

Figure 56: 'Apply hierarchically' option

The issue has been resolved. Now, if the 'Apply hierarchically' option is enabled, the report contains both child and parent data.

## 9.6 Daily Extract

### 9.6.1 Improvements

#### 9.6.1.1 GPS Coordinates for Deleted Activities Recorded Correctly

If an activity was canceled, the coordinates which belonged to that activity were recorded with the 'queue\_id'=0, making it impossible to locate the resource associated with that activity.

This issue has been fixed. Now coordinates of the canceled activities are stored with the correct 'queue\_id'.

#### 9.6.1.2 GPS Positions Added after Last Completed Activity Recorded Correctly

If new GPS positions were added to a resource's route, after the last activity in the route had been completed, these positions were recorded with the 'queue\_id'=0, which is incorrect.

This issue has been addressed in version 4.5.26. GPS positions are now recorded in the Daily Extract files with correct 'queue\_id' values.

#### 9.6.1.3 GPS Positions Now Related to Correct Activities

Previously, GPS positions were added to wrong activities in the Daily Extract files. For example, if there was a new GPS position added on the Map after an activity had already been completed, this position was stored to such completed activity record. This position should have been related a following activity instead.



The necessary changes have been made, so that the GPS coordinates are now related to correct activities.

## **9.7 Mobility**

### **9.7.1 Improvements**

#### **9.7.1.1 File and Image Validation Improved**

Previously, the user could upload a file not included in the MIME types specified for the file or image property.

As of version 4.5.26, files and images uploaded to Mobility (except the 'Signature' field) are validated to check whether their type corresponds to the list of MIME types specified for the property. Files of other types are rejected.

#### **9.7.1.2 Internet Explorer 8 – Activity List Displayed Properly**

If a user with several resources opened Mobility from Internet Explorer 8, no activity list was displayed for any resource selected from the list. Clicking a resource name from the list of available resources produced no result.

The compatibility with Internet Explorer 8 has been improved, and now the activity list is properly displayed to the user.

#### **9.7.1.3 Signature Field Has Correct Size and Is Resized Properly**

In the previous versions, the signature field in the Mobility forms was too small and had incorrect proportions – its height was greater than its width. At the same time, the signature field was not resized automatically with the screen size change.

In version 4.5.26 the size of the signature field has been fixed at 450 x 300 px (width x height). This way, the field has correct proportions. When the screen size changes, the signature field is resized accordingly.

#### **9.7.1.4 Safari, Chrome – Scrolling Improved**

On some mobile devices vertical scrolling worked incorrectly – it was not smooth, did not continue when the user removed their finger from the screen and, generally, did not work like native scroll should work. Vertical scrolling has been improved. Now, when ETAdirect is running on a mobile device in the Safari or Chrome browser, scrolling works like native scrolling.

#### **9.7.1.5 iPhone/Safari – Uploaded Images Scaled Correctly**

When the user attempted to capture an image from the iPhone camera in Safari browser, such image was not properly scaled and was out of proportion on preview. In some cases the image had a different orientation.

This issue has been fixed in version 4.5.26. The images from iPhone are now captured and cropped correctly.

## **9.8 Mobility Offline**

### **9.8.1 Improvements**

#### **9.8.1.1 Inventories Sorted in Correct Order**

If an inventory type was configured with a certain model property and the same property was used as the inventory identifier, the Inventory Grid showed inventory items in incorrect order – they were sorted by their type names and were not sorted by identifiers.

Inventory sorting has been improved. Now inventory items are sorted by their types and identifiers.

### **9.8.1.2 Route Deactivation Synchronization Conflict Autoresolved Correctly**

If the same route was completed both in Manage and Mobility in the offline mode, but the completion time of the last activity in Manage was later than the route deactivation time in Mobility, the route was not actually deactivated in Mobility. The conflict was not autoresolved.

Now the conflict is autoresolved correctly. In the situation described above the route is deactivated in Mobility with the deactivation time set to the last activity completion time + 1 minute.

## **9.9 Routing Interface**

### **9.9.1 Improvements**

#### **9.9.1.1 SLA-Based Adjustment of Cost Parameters Performed Both for Scheduled and Non-Scheduled Activities**

Before a non-scheduled activity is sent to Routing, the system adjusts the non-assignment cost and overdue cost parameters on the basis of the time remaining till its SLA end. However, in the previous versions these parameters were not adjusted for preassigned and scheduled activities in the bucket, which led to inconsistent results when Reoptimization was used – an activity assigned in one Routing run could be unassigned in the next one.

This issue has been resolved by introducing the same adjustment rules both for scheduled and non-scheduled activities. Now scheduled and non-scheduled activities are routed in the same way.

## **9.10 Routing GUI**

### **9.10.1 Improvements**

#### **9.10.1.1 Routing Plan Filters Saved Correctly**

When Routing plan contains several filters, their order is important, as they are applied one after the other starting from the top. If the order of filters was changed and the Routing plan was then updated, the new order was not saved. When the Routing plan was opened again, the filters were in the previous order.

The filters sorting has been improved. Now filters are saved and applied in the same order in which they have been arranged.

## **9.11 System**

### **9.11.1 Improvements**

#### **9.11.1.1 Time View Displays Only Resources of Selected Bucket**

If a bucket was selected on the Time View with the 'Apply hierarchically' option enabled, such bucket could sometimes include technicians from other buckets.

This issue has been fixed in version 4.5.26. Now buckets show only the technicians belonging to them.

## **9.12 Public API**

### **9.12.1 Features**

#### **9.12.1.1 History API – Token Can Be Found by Past Date**

As of version 4.5.26, the History API offers the possibility of finding the token by the date and time in the past. This option allows requesting history data for past periods. The request for a token for past date has the following format:

```
GET /rest/history/v1/route/?since=2015-01-12T09:29:57
```

where 'since' is the date and time starting from which the nearest token has to be found.

**Note:** the request must contain the authentication parameters usually containing `company=<INSTANCE>`

The response has the following format:

```
{
  "found": true,
  "next_token": "150113-7,0"
}
```

The 'GET' request must not contain the 'token' and 'since' values at the same time. In this case an error response is returned. When the request contains neither the 'token' nor 'since' value, the current token is returned.

## 9.12.2 Improvements

### 9.12.2.1 Inbound API – 'update\_activity' Command No Longer Erases 'time\_of\_booking' Value

If the Inbound API request had the 'properties\_mode' set to 'replace', the 'update\_activity' command' erased the value of the 'time\_of\_booking' field. The same result was obtained when the 'properties\_mode' was not defined at all, as 'replace' is the default value.

As of version 4.5.26 the 'update\_activity' command does not erase the value of the 'time\_of\_booking' field.