



## **SmartForecasting User Guide**

Part Number E62344-01

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## Getting Started with ETAdirect

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ETAdirect can help you complete your day-to-day tasks faster and more accurately than traditional or manual workforce management tools. In particular, you can use ETAdirect to accomplish the following goals:

- **Understand what is happening in the field right now.** Use the Time View to see at a glance where resources are working and what they are working on. You can easily see who is at a job site and who is traveling as well as the status of their activities.
- **Reduce calls to and from the field looking for a resource to take a new job.** At a glance, you can tell whether the resource has time available for additional work.
- **Place new work on a route quickly and easily.** If the resource does have time, you can move work to the route.
- **Respond to jeopardy situations immediately.** When an activity is a risk, you can move it to avoid the service window being missed.

## About this Document

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This document describes the general principles on which the ETAdirect system is based. It is intended for the personnel who work with ETAdirect.

 **Important:** This document explains how to accomplish tasks in the Sunrise demo instance of ETAdirect. If your instance of ETAdirect is configured differently or if you have customized your instance, your screens, labels, and processes may differ from those described in this guide.

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### Contacting TOA Technologies

TOA Technologies, Inc.

333 Richmond Rd, Suite 420

Beachwood, OH 44122-4196

Contact **documentation@toatech.com** for information.

## Overview of SmartForecasting

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Forecasting is an advanced tool that enables you to analyze historical data, forecast workload and plan capacity based on historical data analysis.

Forecasting can be essential in planning performance and capacity by anticipating certain events and following certain trends. Companies use forecasting to estimate whether their workforce is sufficient to meet anticipated demand and prepare for spikes in that demand caused by various events, such as marketing campaigns and even natural disasters.

While natural disasters are admittedly difficult to predict, the company can use their past experience of handling similar situations to plan sufficient standby personnel. Advertising campaigns, on the other hand, are planned in advance and Forecasting can be an important part of that planning.

For example, if a cable television company offered a special Christmas package last year, the historical data would reflect a spike in connection activities last December. When a similar campaign is planned, forecasting can indicate the estimated workforce needed to cover the increased demand. The company can use that data to evaluate in-house capacity and, if necessary, engage contractors to cover that period. The company can also use forecasting to predict a lull in demand over the summer months and schedule vacations for its own personnel over that same period.

In addition to forecasting, ETAdirect SmartForecasting provides a centralized location with permission-based access for gap analysis information across the mobile workforce in your organization. A forecast, plan, or capacity can be viewed and compared at specific time durations or by specific working area for managers with local focus while at the same time rolled up for viewing at a corporate level, across an entire company. It is a single source of truth regardless of who accesses it.

# Chapter 1

## Getting to Know the Interface

### Topics:

- **Accessing SmartForecasting**



The ETAdirect SmartForecasting Interface is used for all forecasting and planning related activities, including importing and exporting data and modifying plans.

## Accessing SmartForecasting

To access Forecasting, Click **Dispatch** and select **Forecasting** from the drop-down menu.

The screenshot displays the ETAdirect SmartForecasting interface. On the left is a resource tree (1) with a search filter (3). The top navigation bar includes 'Dispatch' (4) and 'Forecasting' (5). A calendar (6) is visible above the main content. The central 'Workload overview' chart (7) shows minutes over time, with a legend for Capacity (11), Forecasting (12), and Plan (13). On the right, there are dialog boxes for 'Set Plan for planning from 07/26/12 to 07/25/13' (8), 'Opening Forecasting\_2012\_07\_18.csv' (9), and 'Import data' (10). The interface footer indicates '© 2003-2012 TOA Technologies. All rights reserved. Version 4.5'.

1. **Resource Tree:** Provides a hierarchical view of the organization's resources, typically sorted by geographical region. Resources are grouped into Buckets and Groups. Refer to the **SmartManage User Guide** for more information.
2. **Bucket:** A Resource Tree entity that can be assigned activities. You must select a bucket in order to manipulate data in the forecast.
3. **Resource Tree Filters / Resource Search:** Used to choose or find resources within the resource tree.
4. **Calendar:** Used to choose the data range for which data is requested.
5. **View:** Used to select filters which can be applied to restrict the data display to specific capacity categories and/or time slots.

6. **Set Plan:** Allows the plan to be adjusted by a fixed percentage. The percentage can be applied constantly or by Week/Month/Year.
7. **Export Data:** Used to export forecast data out of ETAdirect in CSV format. The exported data might be useful if you want to perform further calculations on the data or if you want to use the data in another system.
8. **Import Data:** Used to import CSV formatted data into SmartForecasting.
9.  **Chart View:** Displays data in a line chart view
10.  **Table View:** Displays data in a table view
11. **Capacity:** The number of man-minutes used for the specified date, capacity category and time slot. The Capacity line is always shown in green.
12. **Forecasting:** The number of man-minutes predicted for the specified date, capacity category and time slot. The Forecasting line is always shown in yellow.

## Chapter 2

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### Using the SmartForecasting Interface

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#### Topics:

- Resource Tree
- Using the Forecasting Toolbar
- Calendar
- View
- Set Plan
- Import / Export Data
- Import Data
- Export Data
- Chart View and Table View
- Chart View
- Table View

The ETAdirect SmartForecasting Interface allows you to select a date range, filter the data, and view it in chart or table format.

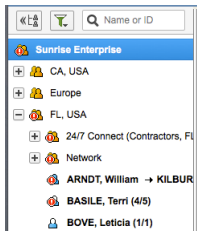
This section provides an overview of the SmartForecasting screen, and features that you can use in forecasting.

### Resource Tree

---

The Resource Tree provides a hierarchical view of the organization's resources, typically sorted by geographical region.


It displays on the left side of the screen.



There are three types of items in the Resource Tree:

- Groups
- Buckets
- Resources

Refer to the **SmartManage User Guide** for more detailed information on the resource tree.

 **Note:** You must select a bucket from the resource tree in order to manipulate data in the forecast.

### Using the Forecasting Toolbar

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The Forecasting Toolbar contains all the options for importing and manipulating data to produce a forecast and exporting forecasted data to other systems.

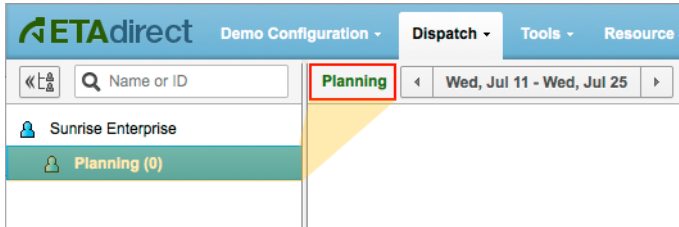




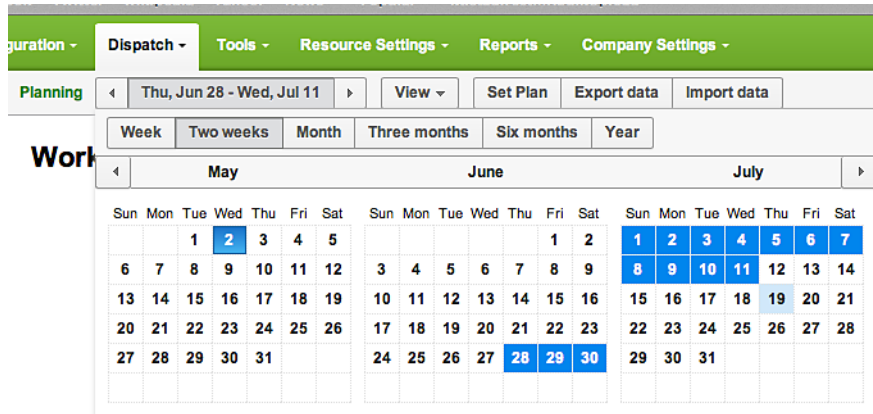
## Calendar

The calendar is used to choose the data range for which data is requested.

The date displays next to the resource name.



1. Select the **Date Field** to set the time interval for which data is requested.



2. Clicking the date opens a calendar with six options: week, two weeks, month, three months, six months, and year.
3. After selecting a time interval, click on the start date on the calendar to display the data for that period.
4. The left and right arrows in the date field move the calendar the selected number or weeks or months earlier or later, respectively.

## View

The View button allows you to fine-tune the information you see in the forecast display.

Use the dropdowns to select the filters which can be applied to restrict the data display to specific capacity categories and/or time slots.

## Set Plan

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Set Plan allows you to modify the plan above or below the forecast by a given percentage. This lets analysts make incremental changes to the plan in response to new information, such as severe weather predictions.

Use this feature to set the plan for the capacity bucket that you have selected.

1. Click **Set plan** the Set plan for [Bucket name] from [date range] window as shown above.
2. Choose the time interval that corresponds with the one you chose in the calendar. Use the Percent to set the desired difference between Forecasting values and planned values. The available range is from -100% to 100%.

**Note:** For example, you set -5%, you are setting your plan to 5% less than the Forecast. Setting 5% sets the plan to 5% more than the forecast.

The Progressive mode field defines how the planned values progress over time. Four options are available:

- **Constant:** Plan values are calculated as the fixed difference from the Forecasting values for the entire period.
- **Weekly:** Plan values increase by the specified percent on a weekly basis.
- **Monthly:** Plan values increase by the specified percent on a monthly basis.
- **Yearly:** Plan values increase by the percent on a yearly basis (annually).

3. Click **OK** to create or update the Plan chart.

## Import / Export Data

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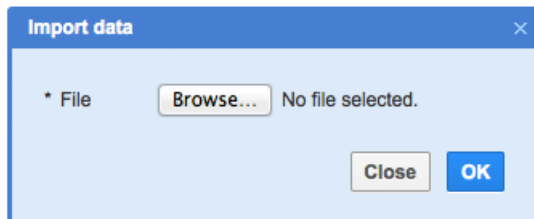
ETAdirect supports data import and export in CSV format. Exporting data allows for it to be processed within external applications.

For example, a company might choose to use ETAdirect's forecast "as is" (with only slight 'set plan' changes) for the time duration between 4 months and 12 months. However, a company's forecasting analyst may find that planning in a tighter timeframe (maybe less than 4-6 months) requires additional information from outside sources.

A marketing campaign may be planned for certain areas of the country or this year's weather patterns over the Pacific Ocean indicate a greater amount of rain in certain months over certain areas. ETAdirect provides a robust import and export tool that supports an analyst making changes to the plan in an outside system using Excel, Access, Google Spreadsheet or some other tool and then uploading the updates into ETAdirect.

## Import Data

ETAdirect supports data import and export in CSV format. Exporting data allows for it to be processed within external applications.



Imports data from CSV file. The following data types can be imported:


- History: Historical capacity data
- Forecast: Forecasted data
- Plan: Plan data
- Custom line: Additional data that can be added to a chart or table. For example, data from another bucket can be added for comparison and analysis.


The lines in the CSV file used for import must have the following format:


Bucket's external id, Data type, Name, Date, Time Slot, Capacity category, Work zone, Minutes, Deviation.

- **Bucket's external ID:** The external ID of the bucket selected in the Technician/Bucket Info screen.
- **Data type:** The type of data imported (History, Forecast, Plan or Custom Line).
- **Name:** The name of the data defined as custom line. This parameter is used to differentiate between custom lines when several custom lines are used in the same chart. For History, Forecast, and Plan data types the Name column will always contain Capacity, Forecast and Plan, respectively.
- **Date:** The date for which the data is being imported in ISO format.
- **Time slot:** The label that designates the time slot for which data is being imported. Time slot labels are set under Time Slots on the Company Settings menu.
- **Capacity category:** The label that designates the capacity category for which data is being imported. Capacity category labels are set under Capacity categories on the Company settings menu.
- **Work zone:** The label that designates the work zone for which data is being imported. Work zone labels are set under Work Zone Dictionary in the Company Settings menu.
- **Minutes:** The man-minutes needed for the specified date, capacity category, time slot and work zone. Depending on the type of data, this value can be historical, forecasted, planned or custom value.

 **Note:** Data imported into ETAdirect from a CSV file should only consist of whole numbers (no decimals).

 **Note:** Due to the specific requirements for data field formatting, you should only import data using a template built from previously exported data.

 **Note:** There are size limitations to the import. A single upload cannot be larger than 1.5MB. If a data set that is larger than 1.5MB needs to be loaded, it should be done in multiple steps. The error message for loading a file that is too large is, "error occurred during file uploading".

 **Note:** There are size limitations to the import. A single upload cannot be larger than 1.5MB. If a data set that is larger than 1.5MB needs to be loaded, it should be done in multiple steps. The error message for loading a file that is too large is, "error occurred during file uploading".

## Export Data

Used to import CSV formatted data into SmartForecasting.

Click to export data in CSV format.

You can export the following types of data.

- **History:** Historical capacity data
- **Forecast:** Forecasting data
- **Plan:** Plan data
- **Custom line:** Additional data that can be added to a chart or table. For example, data from another bucket can be added for comparison and analysis.

The lines in the exported CSV file have the following format:

Bucket's external id, Data type, Name, Date, Time Slot, Capacity category, Work zone, Minutes, Deviation.

	A	B	C	D	E	F	G	H	I
1	Bucket	Data type	Name	Date	Time Slot	Capacity Cat	Work Zone	Minutes	Deviation
2	1000000	history	Capacity	6/28/12	10-Aug	Install	Port St Lucie	49	0
3	1000000	history	Capacity	6/29/12	10-Aug	Install	Port St Lucie	40	0
4	1000000	history	Capacity	6/30/12	10-Aug	Install	Port St Lucie	42	0
5	1000000	history	Capacity	7/1/12	10-Aug	Install	Port St Lucie	34	0
6	1000000	history	Capacity	7/2/12	10-Aug	Install	Port St Lucie	251	0
7	1000000	history	Capacity	7/3/12	10-Aug	Install	Port St Lucie	742	0
8	1000000	history	Capacity	7/4/12	10-Aug	Install	Port St Lucie	254	0
9	1000000	history	Capacity	7/5/12	10-Aug	Install	Port St Lucie	749	0
10	1000000	history	Capacity	7/6/12	10-Aug	Install	Port St Lucie	80	0
11	1000000	history	Capacity	7/7/12	10-Aug	Install	Port St Lucie	61	0
12	1000000	history	Capacity	7/8/12	10-Aug	Install	Port St Lucie	541	0
13	1000000	history	Capacity	7/9/12	10-Aug	Install	Port St Lucie	534	0
14	1000000	history	Capacity	7/10/12	10-Aug	Install	Port St Lucie	551	0
15	1000000	history	Capacity	7/11/12	10-Aug	Install	Port St Lucie	742	0
16	1000000	history	Capacity	6/28/12	12-Oct	Install	Port St Lucie	1164	0
17	1000000	history	Capacity	6/29/12	12-Oct	Install	Port St Lucie	1164	0

- **Bucket's external ID:** The external ID of the bucket selected in the Technician/Bucket Info screen.
- **Data type:** The type of data exported (History, Forecast, Plan or Custom Line).
- **Name:** The name of the data defined as custom line. This parameter is used to differentiate between custom lines when several custom lines are used in the same chart. For History, Forecast, and Plan data types the Name column will always contain Capacity, Forecast and Plan, respectively.
- **Date:** The date for which the data is exported in ISO format.
- **Time slot:** The label that designates the time slot for which data is exported. Time slot labels are set under Time Slots on the Company Settings menu.
- **Capacity category:** The label that designates the capacity category for which data has been exported. Capacity category labels are set under Capacity categories on the Company settings menu.
- **Work zone:** The label that designates the work zone for which data has been exported. Work zone labels are set under Work Zone Dictionary in the Company Settings menu.
- **Minutes:** The man-minutes needed for the specified date, capacity category, time slot and work zone. Depending on the type of data this value can represent History, forecasted, planned or custom value.
- **Deviation:** This value is currently set to 0 in all cases. (The field was created for further implementations.)

## Chart View and Table View

Forecasting, plan and capacity data can be represented in two modes – line chart (default) and table view. The data display modes can be switched by clicking the appropriate button in the top right corner of the screen.

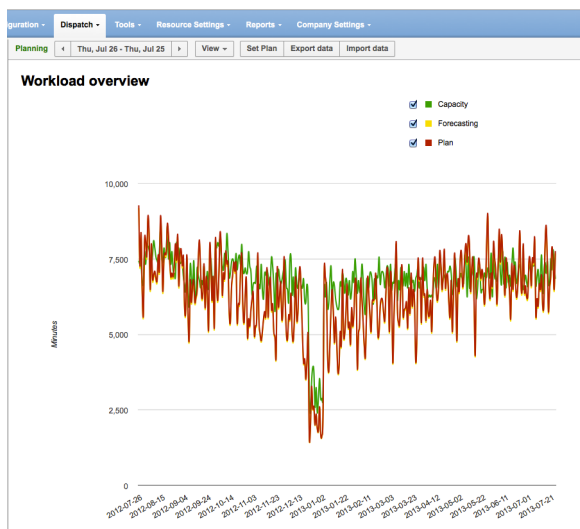


## Chart View

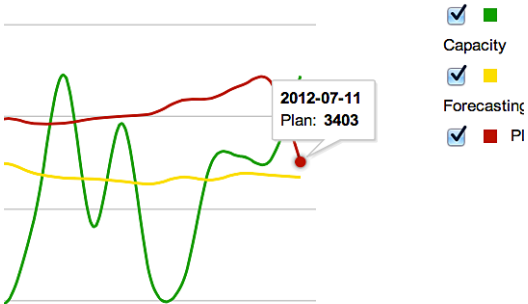
The X-axis of the chart represents time (in days), the Y-axis represents workload (in man-minutes). The chart may contain up to 3 basic lines:

- **Capacity:** the number of man-minutes used for the specified date, capacity category and time slot. The Capacity line is always shown in green.
- **Forecasting:** the number of man-minutes predicted for the specified date, capacity category and time slot in the future period. The Forecasting line is always shown in yellow.
- **Plan:** the number of man-minutes planned by the company for the specified date, capacity category and time slot in the future period. The Plan line is always shown in red.

The legend to the right contains a checkbox for each line, to select the type of data and, consequently, the type of line is to be shown on the chart. When any of the lines are shown or hidden, the chart is rescaled to fit all data, and the lines are dynamically redrawn according to the new scale.



The diagram legend is interactive. When an item or colored bullet is clicked, the corresponding line in the diagram is highlighted as shown above. Hovering over a line produces a hint that describes the line name and the time and workload values corresponding to the selected point in that line as shown.



### Table View

The columns in the table correspond to the same types of data shown in the chart and are marked with the same color bullets for easier use. The left most column contains the date for which the corresponding capacity, forecast or plan value is displayed. If the checkbox for a data type in the header is checked or cleared, the values in the corresponding column are either greyed out or displayed.

Demo Configuration - Dispatch - Tools - Resource Settings - Reports - Company Settings - Admin -					
<< >> Name or ID		Planning < Thu, Jun 28 - Wed, Jul 11 > View -	Set Plan	Export data	Import data
Sunrise Enterprise	Planning (0)	Date	<input checked="" type="checkbox"/> Capacity	<input checked="" type="checkbox"/> Forecasting	<input checked="" type="checkbox"/> Plan
		2012-06-28	2896	3269	3386
		2012-06-29	2872	3336	3479
		2012-06-30	3037	3351	3519
		2012-07-01	2784	3396	3590
		2012-07-02	3149	3354	3570
		2012-07-03	3782	3333	3571
		2012-07-04	3122	3329	3591
		2012-07-05	3568	3318	3602
		2012-07-06	2870	3307	3614
		2012-07-07	2871	3337	3671
		2012-07-08	3400	3324	3680
		2012-07-09	3427	3353	3736
		2012-07-10	3412	3345	3751
		2012-07-11	3777	3336	3403

## Chapter 3

### Viewing the Plan within SmartCapacity

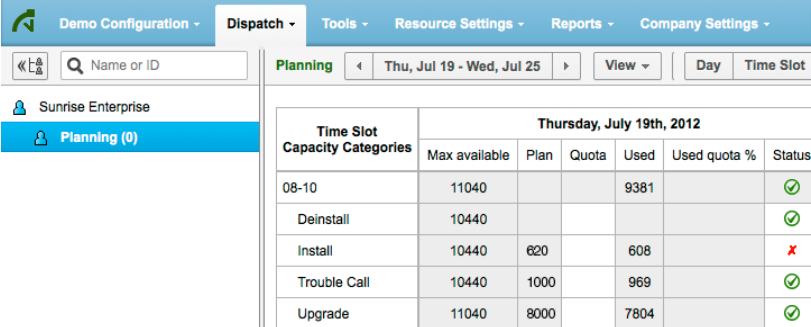
#### Topics:

- Example
- Smartforecasting in SmartCapacity

ETAdirect has many integrated modules which enables actionable analytics between the different tools. One example of this information exchange (inputs and outputs) is the sharing of data developed within SmartCapacity and SmartForecasting.

#### Example

One example of this information exchange (inputs and outputs) is the sharing of data developed within SmartCapacity and SmartForecasting.



The screenshot shows the SmartCapacity interface. The top navigation bar includes 'Demo Configuration', 'Dispatch', 'Tools', 'Resource Settings', 'Reports', and 'Company Settings'. Below this is a search bar and a date range selector set to 'Thu, Jul 19 - Wed, Jul 25'. The left sidebar shows 'Sunrise Enterprise' and 'Planning (0)'. The main content area displays a table for 'Thursday, July 19th, 2012' with columns for 'Time Slot Capacity Categories', 'Max available', 'Plan', 'Quota', 'Used', 'Used quota %', and 'Status'.

Time Slot Capacity Categories	Thursday, July 19th, 2012					
	Max available	Plan	Quota	Used	Used quota %	Status
08-10	11040			9381		✓
Deinstall	10440					✓
Install	10440	620		608		✗
Trouble Call	10440	1000		969		✓
Upgrade	11040	8000		7804		✓

### Smartforecasting in SmartCapacity

A primary input to SmartForecasting (from the SmartCapacity modules) is referred to as “Max Available” time in the SmartCapacity modules and in the SmartForecasting modules it is referred to as “Capacity.”

These terms refer to the same concept: The time available for resources to perform work based on working calendars and work skills for those resources who have “quota management” turned on in their profile **SmartCapacity User Guide** for more information.

This volume of time, regardless whether it is referred to as “Max Available” or “Capacity” demonstrates both the time required to perform the work as well as travel time. A primary output from SmartForecasting to SmartCapacity is the Plan number.

Whether this plan is based solely on a relationship with the Forecast (using the “set plan” function) or whether it is based on a file upload, the Plan number is applicable by capacity category, day, and time slot and is “read only” from within SmartCapacity.

**Note:** Permissions and visibility that a user has within SmartCapacity limits their access to SmartForecasting’s Plan information.

Plans created in SmartForecasting can be viewed within Quota Management as an additional column in the Quota table. In order for the Plan column to appear in the Quota table, the **Show planning** checkbox must be checked under **Display** in the **Company Settings** menu.

**Quota settings**

Major Capacity Usage Expected duration comprises 90 % of quota

Critical Capacity Usage Expected duration comprises 98 % of quota

Show Planning

Alert settings

When Show planning is enabled, the Plan checkbox appears in the View drop-down list on the Quota screen. Show planning must be checked for the Plan column to be displayed.

Source Settings - Reports - Company Settings -

View ^ Close Time History

Category

Time Slot

- Max available
- Other activities
- % Quota
- Plan
- Quota
- Booked activities
- Used
- Used quota %
- Status
- Close time

Apply

When Plan is checked, the Plan column containing the planned values appears in the Quota table at the Capacity Category level.

Configuration - Dispatch - Tools - Resource Settings - Reports - Company Settings - Admin -

Planning < Sun, Jul 15 - Sat, Jul 21 > View - Close Time History Day Time Slot Capacity category

Time Slot Capacity Categories	Sunday, July 15th, 2012					Monday, July 16th, 2012					Tuesday, July 17th, 2012			
	Plan	Quota	Used	Used quota %	Status	Plan	Quota	Used	Used quota %	Status	Plan	Quota	Used	Used quota %
08-10			12110		✓			12125		✓			12198	
Deinstall					✓					✓				
Install	429		836		✓	430		743		✓	430		802	
Trouble Call			1174		✓			1179		✓			1166	
Upgrade			10100		✓			10203		✓			10230	
10-12			9149		✓			9204		✓			9279	
Deinstall			130		✓			102		✓			93	
Install	537		836		✓	538		888		✓	538		865	
Trouble Call			2530		✓			2620		✓			2644	
Upgrade			5611		✓			5544		✓			5636	
13-15			13563		✓			13451		✓			13577	
Deinstall			1604		✓			1637		✓			1646	
Install	806		2278		✓	807		2404		✓	807		2214	



## Glossary

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### Action Link

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A link that opens a screen where you can perform an action in the ETAdirect system. Common examples include Add Activity, View Details, Delete, and Modify.

### Action Management

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A screen in ETAdirect where action links are managed. The information in this screen determines which links appear in which locations in the interface.

### Activate Queue

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A link or button that starts the resource's workday in ETAdirect. For ETAdirect to monitor delivery in real time and respond to updates, a resource must activate his or her queue, or route.

### Activity

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Activity is any type of things service provider does (such as: customer-related job, network maintenance, lunch break, warehouse visit, meeting, etc). Every Activity has Type, start and end time. Activity type defines specific parameters of the activity (flow, attributes, color on screen, etc)

- A **Non-scheduled Activity** is an Activity not assigned to a specific date.
- A **Not-ordered Activity** is an Activity that its order of execution in the queue is not defined at the moment, so it can be executed at any time during the working day; Not-ordered activities do not have ETA and Delivery window defined.
- An **Ordered Activity** is an Activity that its place in the queue is defined, and it has to be performed in the correspondent moment of the working day. Order of activities can be changed; Ordered activities can be set not-ordered and the other way round.

### Activity Types

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A label that defines the specific parameters of the activity such as which time slot this activity normally takes place in. Examples include installation, deactivation, delivery, and lunch break.

### Add Time

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Delay A feature in ETAdirect that allows a resource or other user to add additional time to an activity when the activity extends beyond the estimated end time.

### Agent

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In ETAdirect implementation methodology term "Agent" is used for any standalone application that interacts with the ETAdirect platform via ETAdirect API or ETAdirect kernel

## Aggregator

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An Aggregator is a high level entity on the resource (provider) tree that functions as a parent directory for other providers. An Aggregator cannot be assigned appointments.

## All Day Appointment

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All-day appointment is an appointment that can be done any time during the day without violating any obligations of the company. In ETAdirect terminology, All-day appointments are appointments without a Service window. Pay attention that sometimes people mix All-day appointment (without service window) and Not ordered appointment (without ETA).

## All Day Activity

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An activity without a service window that has been called in that day and marked **Urgent** for same day service.

## Appointment

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Appointment is one of the fundamental entities of the ETAdirect system. It represents one segment of work (usually it is a synonym to work order) that is related to a specific customer. Appointment attributes include customer and an address where work takes place. If work order is not related to a specific customer, another entity that can be referred to as an Activity.

## Appointment Status

---

Appointment status (do not confuse with Appointment type) defines a stage in the appointment flow. Possible values:

- *Pending*: appointment is planned to be executed, provider has not arrived on site yet. This is the initial status appointment has on creation. From this status appointment can be started, canceled or deleted
- *Started*: provider has arrived to the place of appointment. Only one appointment can be started in providers route at a given time. Started appointment can change status either to suspended, completed or not done.
- *Completed*: provider has successfully finished work. This is a final status and can't be changed (only Reopen appointment can be created based on this one)
- *Not done*: provider could not finish work successfully. This is a final status and can't be changed (only Reopen appointment can be created based on this one)
- *Suspended*: appointment could not be finished successfully but provider plans to return later and resume work. Appointment gets to this status using the Suspend command that creates a clone of this appointment in the same queue (as a Not ordered appointment with pending status)
- *Canceled*: customer asked to cancel the appointment or it was canceled for a different reason. This is a final status and can't be changed (only Reopen appointment can be created based on this one)
- *Deleted*: similar to canceled but such appointments are not shown in ETAdirect. They look like they have been physically erased.

## Appointment Type

---

Appointments can be of one of the following types:

- *Regular*: typical appointment. Originally every work comes as regular appointment (? this is not clear/ Irad)

- *Prewrite*: appointment created by the Prewrite command. This command is applied to a regular appointment and creates a clone of it with the type prework to distinguish between the two. Prewrite appointments are created as already started (see Appointment status).
- *Reopened*: appointment created by the Reopen command applied to some completed, not done or canceled appointment (see Appointment status). This command clones the appointment creating a new Not ordered appointment with type reopen and status pending for the same provider.

The following appointment types are used for the different entities that share the same database table:

- *Activity*: this is an appointment that does not have a customer associated with it. Usually it is a break, assistance another provider or non-customer related work (network maintenance). See Activity for more details.
- *Team work*: this is specific type of activity where one provider assists another provider (is a member of the team). See Team work for details.

## API

---

An Application Programming Interface (API) is a particular set of rules and specifications that a software program can follow to access and make use of the services and resources provided by another particular software program that implements that API. It serves as an interface between different software programs and facilitates their interaction, similar to the way the user interface facilitates interaction between humans and computers. All ETAdirect APIs are based on standard protocol – SOAP (version 1. 1). The interfaces process SOAP requests received by HTTP protocol. APIs have no limitations on the location, technology or platform used for integration (i.e.: Java, . Net, C/C++ on Windows or Unix).

## Assigning

---

**Dispatch** Attaching an individual activity or a queue of activities to a resource.

## Assistant

---

In a Teamwork activity, the resource that assists another resource. In the Resource Tree, the arrow points away from the Assistant. See **Teamwork** and **Team Leader** for more information.

## Billing System

---

System where customer details are held, customer billing takes place, and/or activities are entered.

## Booked Activities

---

The number of activities that are either in an ETAdirect bucket or located on a route.

## Bucket

---

Element of the Resource tree representing place where jobs are kept before they are assigned (manually or automatically) to specific providers.

## Business Rules

---

A number of settings in ETAdirect that align the functions of the system with the strategies and practices of your company.

## Capacity Categories

---

A set of work skills and time slots that are bundled together to estimate the time and skills required for a particular task. This information is sent through an API to your company's appointment system so that agents can tell whether qualified resources are available before they book an appointment.

## Calendar

---

A view of the schedule for a resource, group or bucket.

## 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.

## Capacity Management

---

A process of managing a workforce to ensure that a company has enough people with the specific skills to do a certain amount of work. There is a related process, Quota management, that defines the reverse relationship.

## Company Boundaries

---

The area where your company performs customer service. Company boundaries are defined using the coordinates of the upper left corner and the lower right corner of the area.

## Company Settings

---

A screen in ETAdirect that contains many of the configuration settings. To change your configuration settings, contact TOA support.

## Compliance

---

Following the route as predicted by ETAdirect. A resource is in compliance if he or she starts the activity at the estimated arrival time, completes the activity at the estimated completion time, has minimal idle time, and does not detour from the calculated driving directions.

## CSR

---

Customer Service Representative. A person who speaks with customers and sets appointments.

## Customer-Facing Activity

---

A task that must be performed for a customer. Typically performed at the customer's home or business. Examples include installations, upgrades, and deliveries. See **Activity** for more information.

## Daily View

---

A view that shows to see the calendar of a resource, group, or bucket for a whole week. This view is useful for making small changes to individual calendars in the current week.

## Delivery Window

---

The time that ETAdirect estimates that the resource is expected to arrive at the customer's home or business. The window includes a buffer to account for travel time and the potential for delay. This timeframe is shorter than the Service Window.

## Dispatcher

---

A person who allocates activities and monitors the progress of activities and resources.

## Display

---

A screen in ETAdirect that contains configuration settings used to control what properties and layout structures users can actually see within the forms of the interface. These settings also control the format of some information, for example, the first day of the week in calendar views.

## Equipment

---

See [Inventory](#).

## Estimation

---

A term used in Capacity Management also referred to as "capacity estimation" which determines the number of man-minutes available for a particular time slot based on resource calendars.

## ETA

---

**Estimated Time of Arrival** The time that ETAdirect predicts that the resource will arrive at the customer's location. ETA for pending activities is calculated dynamically from historical data. For completed activities, the ETA is the time when the resource actually arrives at the customer's location.

## Field

---

Property present in the system by default

## Filters

---

Typically, a set of parameters used to reduce the results of a search. Filters are also used in routing plans to predefine the information that routing uses to distribute activities to resources.

## Forecasting

---

New feature of ETAdirect allowing to forecast the company workload on the basis of historical data

## Glossary

---

The configuration dictionary that maps default names, labels, and phrases use in the interface to the client's preferred names, labels, and phrases. **Note:** Property names are managed in the Properties screen.

## GUI

---

Graphical User Interface, allowing people to use software by manipulating images rather than by issuing text commands.

## Group

---

A container in the Resource Tree used to sort and organize the other items in the Resource Tree. Groups are typically used to sort resources by location. Groups cannot own a route and you cannot assign activities to them.

## Hint

---

A pop-up window that displays additional information about the activity or resource that you select. Hints also contain actions links that can take you directly to the action that you want to perform on the item.

## Historical data

---

Data of the past periods available in the database or from other sources

## Holidays

---

A screen in ETAdirect where you can define the dates that outgoing communications of certain messages are blocked.

## Idle Time

---

Any time that a resource spends not in transit or not working on an activity.

## Internal Activity

---

A task that is not performed directly for the customer. Internal activities typically do not take place at the customer's home or business. Examples include vehicle maintenance and company meetings. See **Activity** for more information.

## Inventory

---

A list of items managed within ETAdirect and can include various inventory pools as well as serialized and non-serialized parts. See **Inventory Pools**, **Trunk stock**, **Non-serialized Inventory**, and **Serialized Inventory** for more information.

## Inventory Pools

---

Inventory associated with a resource, typically **Trunk stock**, end customer, or warehouse.

## Jeopardy Situation

---

A situation in which ETAdirect predicts that the activity will miss its promised service window. Predicted jeopardy situations are colored pink in the ETAdirect interface.

## List View

---

A chronological list of the day's activities for the selected resource, group or bucket. Activities are ordered by estimated start time.

## Login Policies

---

A screen in ETAdirect that sets the requirements for logging in and for usernames and passwords.

## Manage

---

The core module of ETAdirect. Includes all of the main functions including monitoring, routing, and reporting.

## Map View

---

A view of the day's activities for the selected resource, group, or bucket. This view tables the activities on a map.

## Mass Activity

---

An activity involving 2 or more resources.

## Max Available

---

The maximum capacity available by calendar on the selected day, time slot or capacity category

## Message Scenarios

---

A Message Scenario is a set of rules that specifies how to process a message notification or transaction. Message Scenarios are launched by Notification Triggers. See **Notification Triggers** for more information.

## Min quota

---

The minimum number of minutes to be allocated for booking of the activities belonging to the selected time slot (only on time slot and capacity category level).

## Mobility

---

The user interface for ETAdirect that is accessed through a mobile device. Field service representatives typically use this interface. It is a separate module of ETAdirect.

## Non-Instantiated Activities

---

All activities not part of quota management (for which no capacity category associated with work skills exists)

## Non-Scheduled Activity

---

An activity that is not assigned to a specific date.

## Non-Working Reasons

---

A calendar setting used when a resource is absent. Typical non-working reasons include illness, vacation and bereavement.

## Non-Serialized Inventory

---

Inventory associated with a part that is generically defined within ETAdirect so that Trunk stock might be decremented based on required inventory associated with activities. (Nota bene: Any part can be defined as "non-serialized inventory" even those parts with serial numbers on them. For example, a cable modem with a serial number, can be "Non-serialized inventory" within ETAdirect so that Trunk stock inventory levels can be managed daily and associated with a route). See **Serialized Inventory** and **Required Inventory** for more information.

## Not Done Activity

---

A status used to identify an activity that cannot be completed today. For activities that cannot be completed right away, but can be completed today. See **Suspend** for more information.

## Not Ordered appointments

---

Are the ones which order of execution was not defined. Such appointments do not have ETA. Provider, dispatcher or routing may define the order (for example command change order in mobile interface or edit appointment command in web interface).

## Notification

---

**Message** Activity related information sent by ETAdirect to a customer, a resource, a dispatcher, or another system. Notification can be received through telephone, email or SMS.

## Notification Triggers

---

Workflow events that invoke Message Scenarios when a particular internal event occurs. As a result, messages are delivered to customers. For example, if you use a post activity survey, you might have a notification trigger to launch the post activity survey message. In this case, when a customer-facing activity



is completed, a Notification Trigger launches a Message Scenario that sends the post activity survey message to the customer. See **Message Scenarios** for more information.

## Ordered appointments

---

Means that the order of execution is defined - resource, SmartRouting or dispatcher have already defined that this appointment will be executed after another defined appointment. In this case appointment gets an estimated time of arrival and is classified as ordered.

## Other activities

---

Include only repeating, mass and shift activities including those without instances. See **Non-instantiated Activities** for more information.

## PAS

---

**Post Activity Survey.** A survey that you might send to your customer after the activity is completed to measure their satisfaction.

## Pending Activity

---

An activity status used for activities that are scheduled but not yet started.

## Percent Quota

---

Percent of the capacity that is available for booking.

## Percentage to Stop Booking

---

The percentage of the used quota at which activities booking is to be stopped. If an API call is ?????

## Permissions

---

A screen in ETAdirect where you can configure which features users can see and use. Permissions are applied to Profiles, not individual users. See **Profiles** for more information.

## Placeholder ID

---

A number used to identify names, labels, and phrases used in the ETAdirect interface. Each name, label, and phrase has a unique number.

## Planning

---

Company's estimation of the workforce or workload required at a certain moment.

## Post Activity Survey

---

A survey that you might send to your customer after the activity is completed to measure their satisfaction.

## Profiles

---

A screen in ETAdirect where you can configure groups of users. Those groups are then assigned Permissions to control which features they can see and use. See **Permissions** for more information.

## Properties

---

A screen in ETAdirect where user interface fields are defined. You can specify details such as field length, field type, and valid values.

## Provider

---

**Technician Resource Person** who performs work at the customer's premises (the one who provides the service). A low-level entity on the Resource Tree, a child of a bucket or group. A resource can also represent regular work teams, equipment, trucks etc.

## Quota

---

A limitation set on the number of activities booked within a selected day, time slot or capacity category.

## Quota Management

---

A process of defining the amount of work (per work skill and time slot) that a company should perform for a specific area (example: bucket) for a specific day. There is a related process, Capacity management, that defines the reverse relationship.

## Quota Matrix

---

The number and type of appointments that you book directly affects the ability of the SmartRouting module to optimize the routes. For example, if you overbook your activities, you will not have enough time and resources to accomplish all of them. If you book a lot of activities that require the installation work skill, but you only have a few resources who are qualified to perform that skill, then the SmartRouting module will not be able to make good matches for those activities.

## Repeating activity

---

An activity recurring with a predefined frequency in a predefined period.

## Regular Work Zone

---

A region where a resource's activities are typically located.

## Required Inventory

---

When a particular resource's route includes activities associated with non-serialized inventory, ETAdirect can highlight where Trunk stock is insufficient. In the event that a resource's Truck stock is insufficient for a particular route, required inventory highlights the job and indicates which Non-serialized inventory components are missing.

## Resource

---

An element in the resource tree representing a defined company asset. Put another way, a Resource is the ETAdirect entity representing someone (or something) which provides service on behalf of the company.

## Resource Calendars

---

A view of a resource's calendar that displays the details about an individual resource's schedule. This view is useful for making changes that involve more than one day or more than one resource. See **Calendar** and **Daily View** for more information.

## Resource Tree

---

A hierarchical view of the organization's resources, typically sorted by geographical region. It is displayed on the left side of the screen in Manage.

## Resource Types

---

A set of characteristics that you can apply to a resource. Default Resource Types are Groups, Buckets, and Resources. See **Group**, **Bucket**, and **Resource** for more information. If you want to change the Resource Types that you use in ETAdirect, contact TOA support.

## Route

---

**Queue** A list of activities and activities assigned to a resource for a specific date.

## Route by Inventory

---

A concept within ETAdirect that limits routing options based on each resource's trunk stock and those activities associated with non-serialized inventory.

## Routing

---

The act of assigning activities to resources. ETAdirect routes activities to resources using a sophisticated algorithm that considers a number of factors including calendars, work zones, and work skills.

## Routing Plans

---

Routing plans provide the rules that ETAdirect uses to route activities to resources. Routing plans work together with the other ETAdirect components to apply your business goals and strategies to the routing process.

## Routing Profiles

---

Containers that hold routing plans. Routing Profiles can be assigned to buckets. You can use Routing Profiles to assign several routing plans at once.

## Scheduled Activity

---

An activity that is assigned to a particular day and a particular time slot.

## Scheduled, Not Ordered Activity

---

All Day Activity An activity that is assigned to a particular day, but is not assigned to a particular time slot.

## Serialized Inventory

---

Inventory parts that are unique and cannot be decremented based on a route's activities. See also: Non-serialized inventory, Required inventory.

## Service Level Agreement

---

The time window that the activity must be **completed** in. This window is promised to the customer.

## Service Window

---

**Time Slot.** The time window that the activity must be **started** in. This window is promised to the customer. This timeframe is longer than the Delivery Window.

## Shifts

---

Patterns of working time. You can create separate shifts for each of the different working time patterns within your organization.

## SmartCollaboration

---

A separate module for ETAdirect that provides a real-time, context-aware collaboration tool for all ETAdirect users. With SmartCollaboration, a user can, for example, locate nearby, working resource and share details about a resource, activity, or inventory item. Also, SmartCollaboration supports a confirm-receipt process for moving an activities or inventory which is always valuable but even more so when resources are in remote locations and potentially off line.

## SmartLocation

---

SmartLocation uses geo-location information to display a resource's actual location on a map in real time. In addition, the feature can compare the resource's actual route to the projected route within ETAdirect. Resource location can be derived either from a vehicle-installed GPS device communicating via API to ETAdirect and / or through a GPS-enabled mobile phone with an open HTML5 browser.

## Status

---

A term with specific and different meanings depending on the ETAdirect module used.

- Capacity and Quota management status refers to a specific work zone and whether it is open or closed.
- SmartManage and SmartMobility, the term "appointment status" (but sometimes shortened to "status") refers to whether a routed job is pending, started, completed, not done, suspended, canceled, or deleted. See **Appointment Status** for more information.

## Statistical Parameters

---

A screen in ETAdirect where you can configure the parameters used when collecting and analyzing statistics. ETAdirect uses statistical data on actual appointment and travel duration to calculate estimated time of arrival and delivery window. Additionally, Routing uses the statistics to assign appointments to resources in the most effective manner.

## Suspend

---

An activity status that allows an activity to be postponed if the work cannot be completed right away. Suspend allows the activity to be completed at a later time during the day. For activities that cannot be completed in the same day. See **Not Done Activities** for more information.

## Team Leader

---

In a Teamwork activity, the resource who is being assisted. In the Resource Tree, the arrow points to the Team Leader. See **Teamwork on page 35** and **Assistant** for more information.

## Teamwork

---

An activity that is performed by two resources. One resource is the Team Leader and the other resource is the Assistant. See **Team Leader** and **Assistant** for more information.

## Technician

---

A resource that performs technical services on behalf of the company.

## Time Slots

---

Date and time interval that defines when an activity has to be started; this time is typically agreed to between the customer and client.

1. A 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)

## Time View

---

A view of the day's activities for the selected resource, group or bucket on a Gantt table. Activities are displayed on timelines, with each activity as a block of time.

## Travel Areas

---

Travel areas define the maximum allowed travel territory for a company.

## Truck

---

A default Resource Type. See **Resource Type** for more information.

## Trunk Stock

---

Inventory carried in a vehicle. See **Inventory pools**) for more information.

## Unscheduled Activity

---

An activity that could take more than one day to complete.

## Used

---

A term in in Capacity and Quota management representing the duration of all activities booked for the selected day, time slot or capacity category.

## Used Quota Percentage

---

The percentage of the quota used by the booked activities.

## User

---

A person who uses ETAdirect. An account used by a resource, dispatcher, manager, etc. to log into ETAdirect.

1. A person using ETAdirect
2. An entity used for authentication and authorization, allowing people or external software to access ETAdirect Work Skill 1) An activity that a resource is

## Visit

---

A group of activities that are all performed at the same location on the same day.

## Web Services Description Language

---

**WSDL** An XML-based interface description language that is used for describing the functionality offered by a web service. A WSDL description of a web service (also referred to as a WSDL file) provides a machine-readable description of how the service can be called, what parameters it expects, and what data structures it returns. It thus serves a purpose that corresponds roughly to that of a method signature in a programming language. (*source: Wikipedia*).

## Work Schedules

---

Work schedules are templates made up of a combination of shifts and non-working times. When grouped as a work schedule, these shifts and non-working times can be applied all at once to a bucket or to an individual resource. To change, add, or remove Work Schedules, contact TOA support.

## Work Skill Levels

---

ETAdirect matches resources to activities through shared work skills and work skill levels. As a result, the way you configure work skills and work skill levels has a direct impact on the matches that ETAdirect creates between activities and resources.

1. An activity that a resource is qualified to perform (resource property) .
2. The qualification required to perform an activity (activity property).

## **Work Skill**

---

Work skills are sets of skills or competencies that resources are qualified to perform. To change, add, or remove Work Skills, contact TOA support.

## **Work Skill Conditions**

---

The data that ETAdirect uses to assign work skills to activities.

## **Work Zone**

---

Defined geographical area where a resource is authorized to perform service.

## **Work Zone Dictionary**

---

A screen in ETAdirect where Work Zones are defined. The Work Zone Dictionary lists all defined work zones and their associated keys. To add, change, or remove work zones, contact TOA support.