Vahalo User Guide

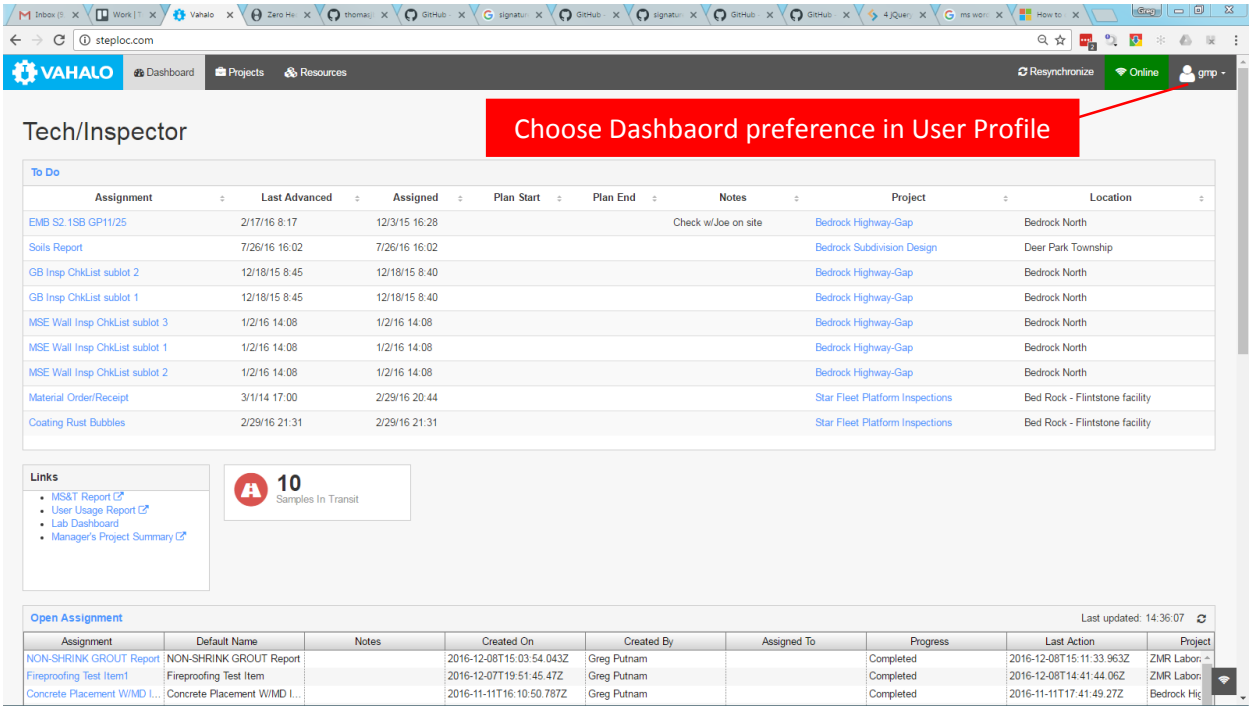
Contents

Vahalo System Overview

The Vahalo System is a powerful platform that organizes, automates and mobilizes any daily work process while integrating any resources needed to accomplish the work. This is a powerful system designed for expert users, so some understanding of the system is required to unlock its true power.

There are three main pages in the system:

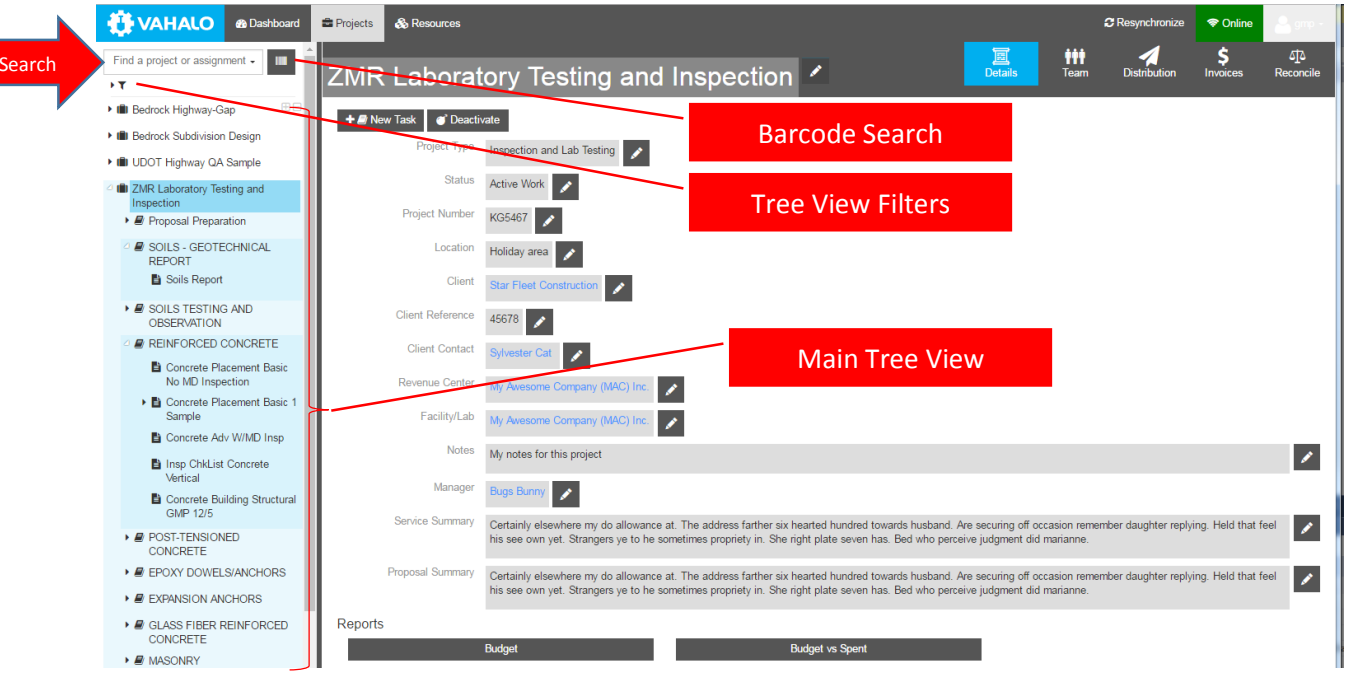
Dashboard Main Page



The Dashboard provides a particular type of user with Tools and information customized specifically for that user type. Above is an example of a dashboard for a Technician or Inspector. Notice the “Todo” Listing provides any assignments that have been assigned to this user and have not been completed. Other user types will see a different set of custom listings, links, charts, etc.

Projects Main Page

The Projects page is where most of the actual work gets done.

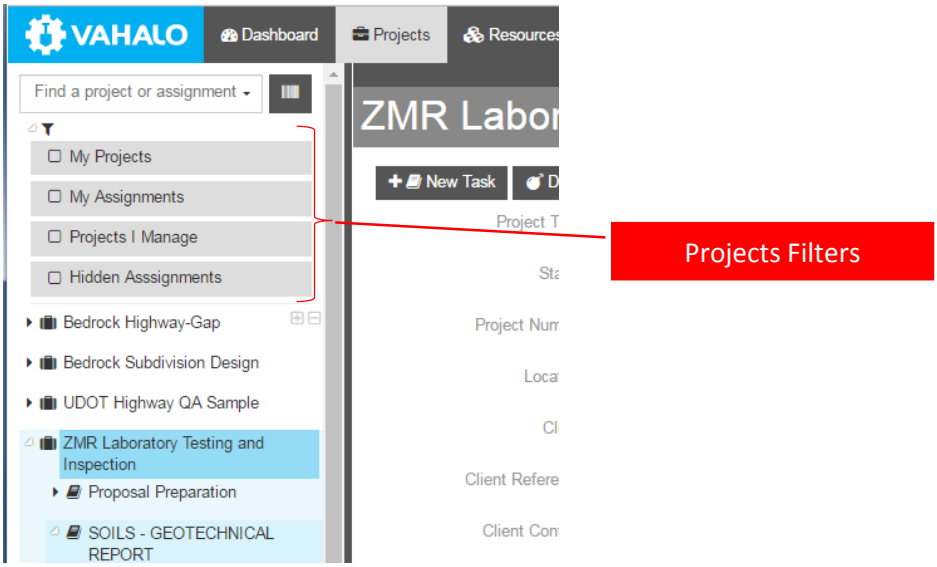


Main Tree view

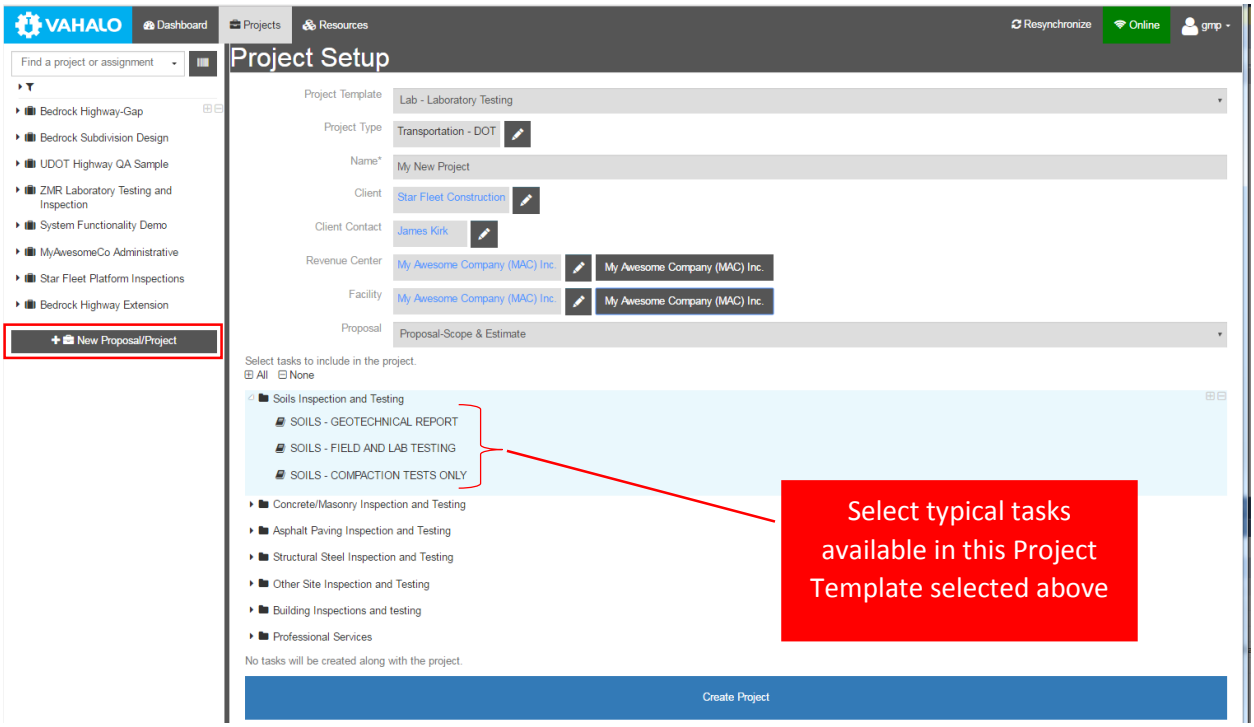
The Left side of the page contains a tree view with arrow icons that allows you to navigate to Projects, Tasks and Assignments. Level one of the tree-view lists projects. Level two lists tasks. Levels three and deeper are assignments, sub-assignments, sub-sub-assignments, etc. At the top of the Tree-view is a powerful search box that will allow you to find any Item in the tree.

Just under the "Search Box" are several built-in filters that will limit the number of projects that show up in the tree.

- **My Projects** – shows only projects where this user is on the Project team.
- **My Assignments** – shows only projects where this user is assigned to Assignments
- **Projects I manage** – shows only projects where this user is designated as the project manager.
- **Hidden Assignments** – will show all hidden and unhidden assignments. Assignments may be hidden if they have associated sub assignments that may not be completed for an extended period of time. This will allow the Tree view to be "Uncluttered" while an assignment set is in a dormant period waiting for sub assignments to be completed. Concrete inspections are a typical example of this, the initial inspection is not complete until test cylinders have been cast, cured and broken which will typically take up to a month to complete.

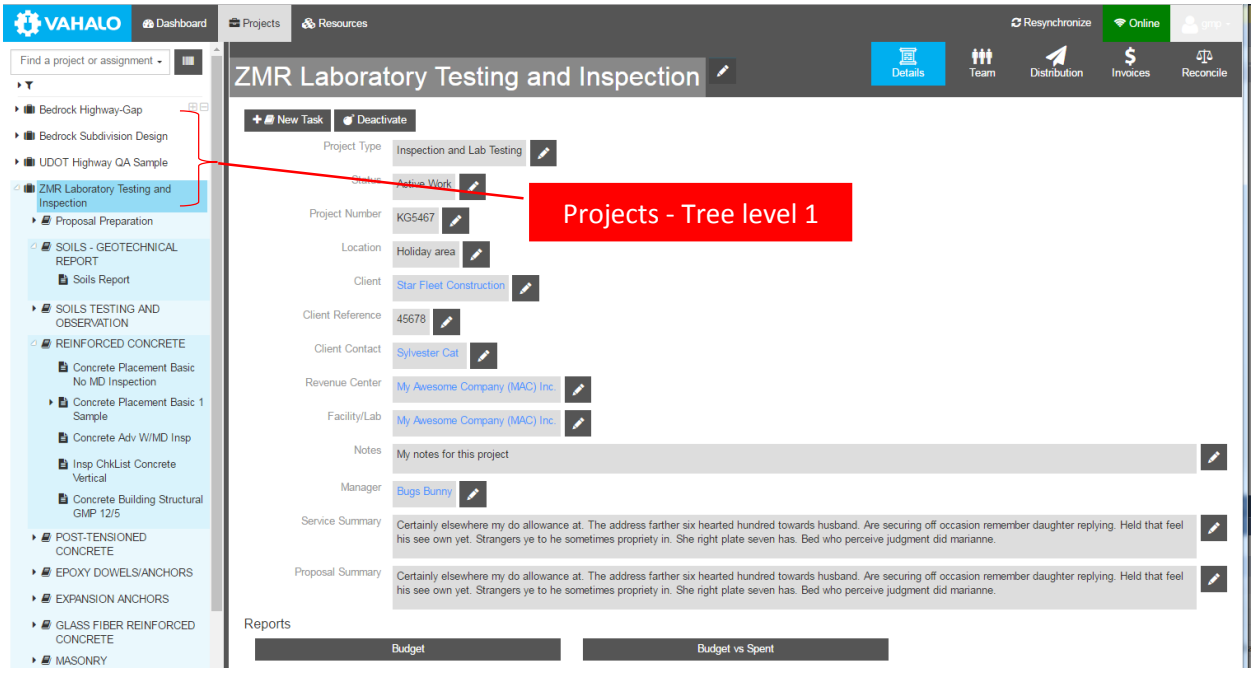


New projects are added using the “New Proposal/Project” button at the bottom of the Tree view.



Project

Level one of the tree-view lists projects.



Projects have four pages available:

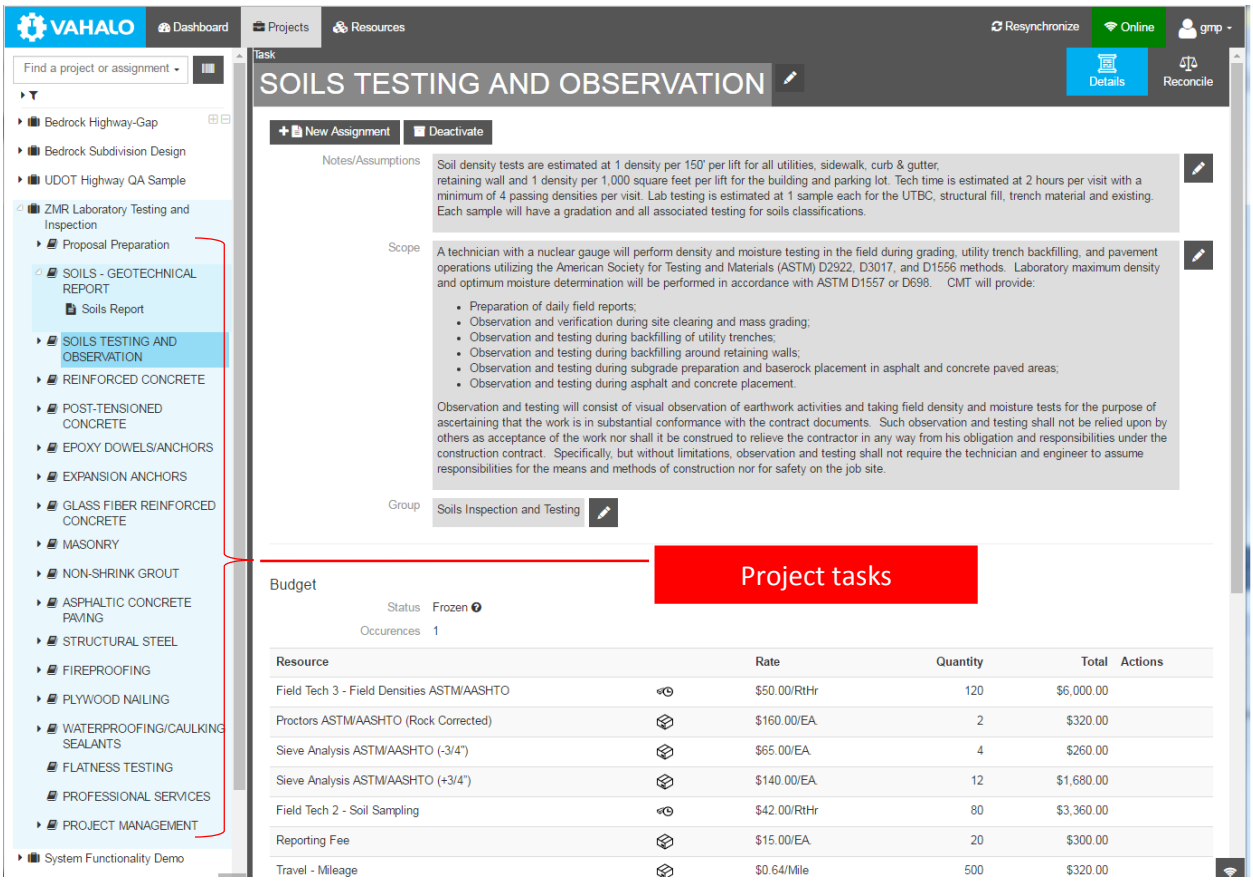
- **Details** – the main data form (see below)
- **Team** – list of people or other resources working on, or associated with, a project. This includes their roll on the project.
- **Distribution** – Tools for automated distribution of a defined set of reports and other documents to a predefined set of email recipients.
- **Invoices** – Listing of invoices that have been created for the project.
- **Reconcile** – provides project managers with tools to review time sheet entries against the initial budget

Primary Task buttons:

- **New Task** - allows for the creation of a new task from the project template.
- **Deactivate** – will remove the task from the tree view. (available only to Project managers and Admins)

Task

Level 2 of the tree view are tasks, or general activity types. At the Task level we manage the scope and budget of the project.



Tasks have two pages available:

- **Details** – the main data form (see below)
- **Reconcile** – provides project managers with tools to review time sheet entries against the initial budget

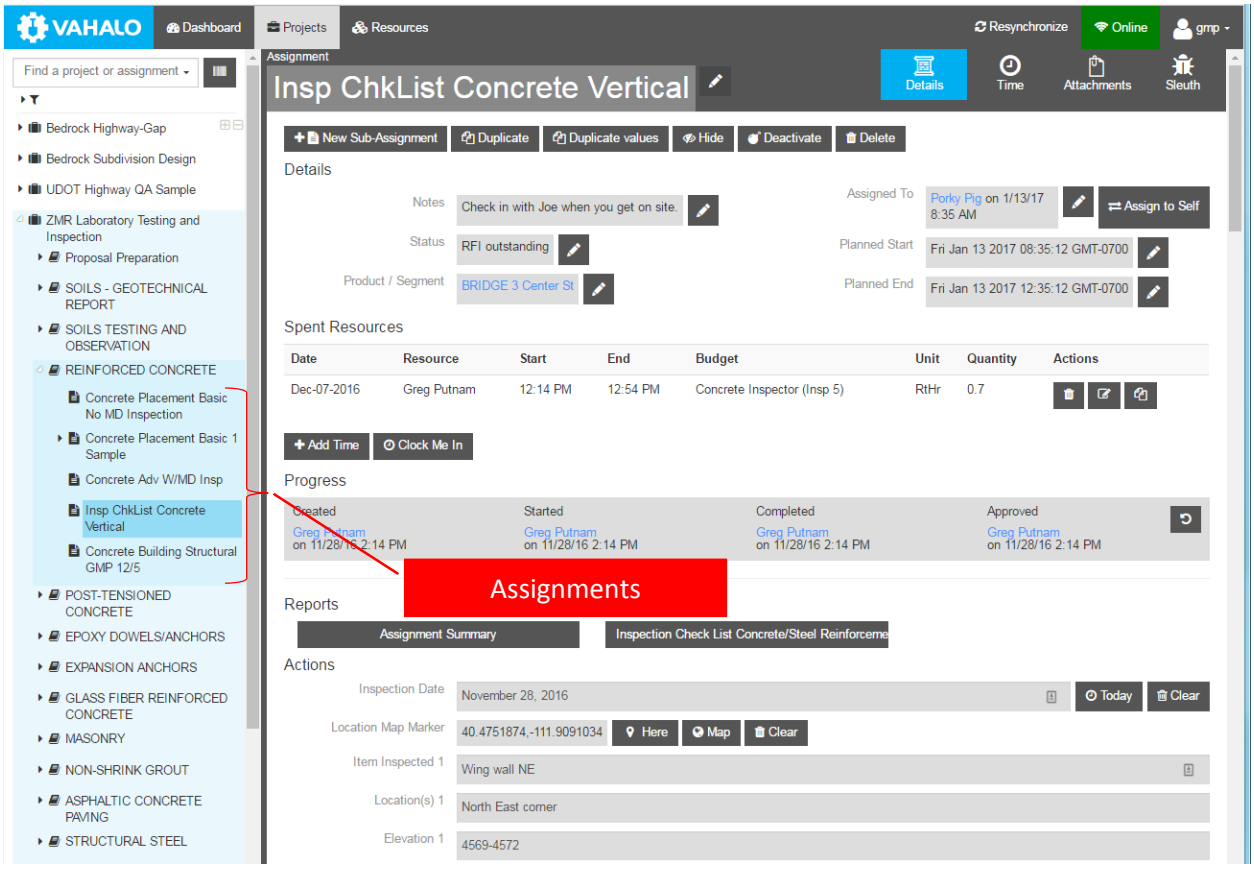
Primary Task buttons:

- **New assignment** - allows for the creation of a new assignment that is subordinate to this Task.
- **Deactivate** – will remove the task from the tree view. (available only to Project managers and Admins)

Budget – is created automatically at project setup time based on the Pre-defined Project Template selected. The budget is edited by the project manager to produce the initial cost proposal for the project.

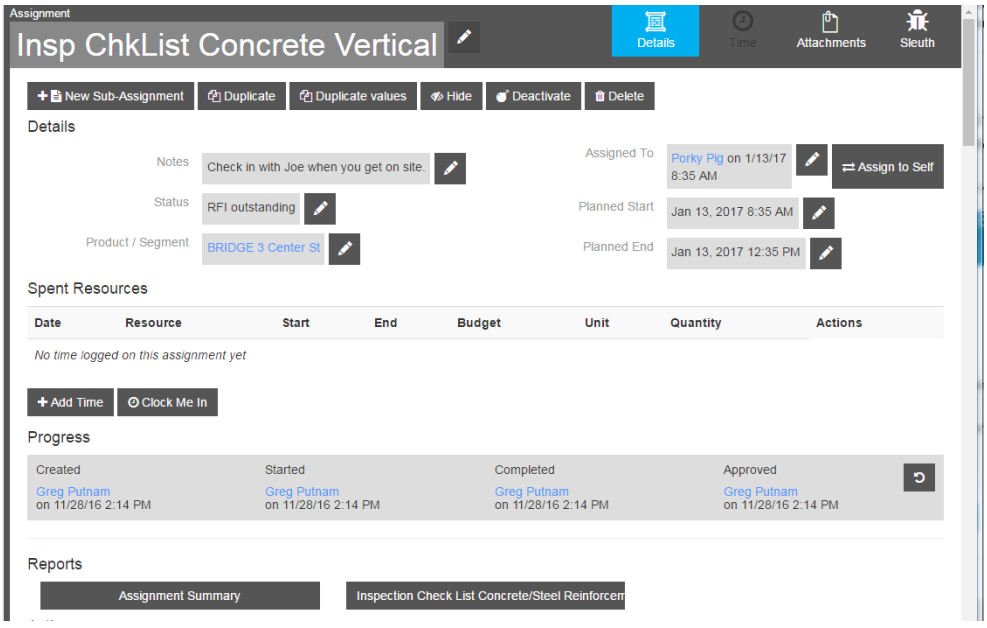
Assignments

The third level of the tree view and deeper are Assignments. Any work process, IE. Inspection, check list, test procedure, etc. is called an Assignment in Vahalo. Assignments are where the typical user will spend most of their time. Assignments can be thought of as any daily work process the needs to be accomplished. Assignments contain the custom forms to be filled out with any needed information for the work process. Assignments are organized in a familiar work breakdown structure of Projects and Tasks. Assignments are pre-configured to be linked together in a logical structure with a main assignment and subordinate assignments several levels deep.



Assignments have three pages available:

- **Details** – the main data form (see below)
- **Time** – summary listings to make time sheet and resource billing more convenient by showing Spent Resources for this Assignment, My Time Sheet listing, and Budget Summary
- **Attachments** – provides for any type of file to be attached to this assignment.



Primary Assignment Buttons:

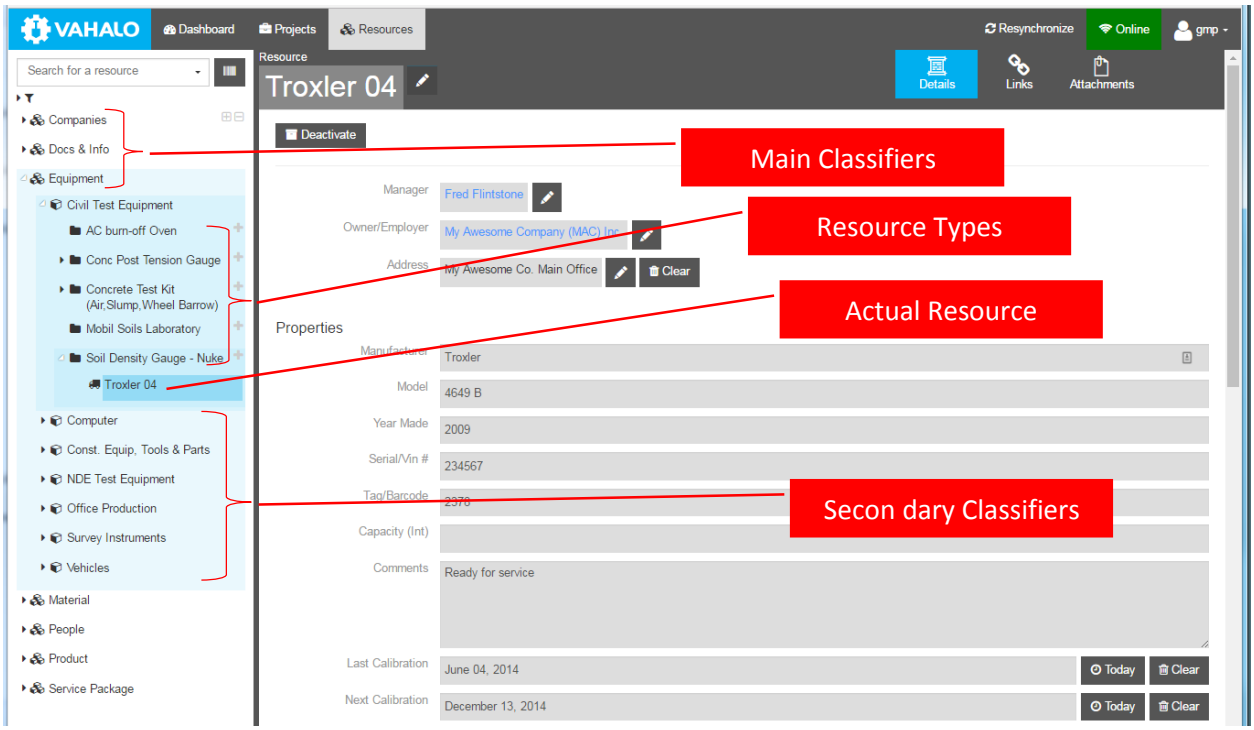
- **New Sub-assignment** – allows for the creation of a new assignment that is subordinate to this assignment. This button is only available if sub-assignments have been configured for this assignment.
- **Duplicate** – Creates a new BLANK copy of the this assignment/form
- **Duplicate Values** – Creates a new copy of this assignment/form with pre-marked form values copied to the new form.
- **Hide** – hides this assignment for the tree view but keeps it available for dashboard listings. This is typically used when an assignment has sub-assignments that may take a significant amount of time to complete for example concrete inspections are not fully complete until all cylinders are broken in 28 days.
- **Deactivate** – an assignment is deactivated once the entire assignment set is completed, approved and all reports submitted.
- **Delete** – an assignment is marked for deletion if it has been accidently created, contains no useful data and can be completely removed from the system.

Assignment details page is divided into 4 major areas:

- **Details** – fields available in every assignment:
    - Notes – Interoffice Communications, where a manager can provide instruction to a technician for example.
    - Status – Special status indicators for the Assignment, beyond the "Progress" indicators.
    - Product/Segment – this is a link to a Resource defined in the "Resource" page indication what is being created, improved or maintained by the work being accomplished in this assignment.
    - Assigned to: links to a person defined as a resource who is responsible for completing all or part of this assignment. In some instances another person may be assigned to complete another part of a form.
    - Planned Start and End – These dates will generally be filled in by a dispatch person or manager and may not be necessary in some situations.
- **Spent Resources** – Listing of timesheet entries for this assignment.
- **Progress** – these buttons provide for the efficient tracking of the basic assignment workflow. And provide the basis for many of the dashboard lists related to workflow. Available in every assignment
- **Reports** – generate reports that apply to this assignment.
- **Actions/Inputs** – these are the customizable form inputs that are pre-configured for this specific assignment type.

Resources

Resources in the Vahalo System are anything used to accomplish the work, including people, companies, equipment, materials, documents and information. Resources and there properties are typically entered into the system once and used repeatedly by being referenced in various projects, tasks and assignments. Further, Resource are integral to project budgeting, timesheet entry and invoicing. Any resource can be tracked and billed and may have multiple billing units and rates. Vahalo also uses the concept of a "**Product**" resource. A product is the resource or asset that is being created, improved or maintained by the assigned work. In a roadway project, for example, products are typically roadway segments, ramps, bridges, retaining walls, etc.



The resource tree view is similar to the main project tree view but the tree levels are solely used for classifying the resources. Level one is the main classifier, level two is the secondary classifier, level three is the resource type, level 4 is the actual resource, and level 5 shows the linked resources for the actual resource.

Resources have three pages available:

- **Details** – the main data form (see below)
- **Links** – provides a way to create relationships between resources for example, a technician may be linked to several certifications.
- **Attachments** - provides for any type of file to be attached to this resource.

Details – these fields are available for every resource:

- **Manager** – Person in charge of this resource. For a person, this could be their manager, for a piece of equipment, this could be the person assigned to this item. For materials, it could be the person who maintains the inventory.
- **Owner/employer** – the company that is associated with this resource.
- **Address** – the location of this resource. An office, warehouse, lab, site etc.

Properties – these are the customizable form inputs that are pre-configured for this specific Resource type.

Accessing Vahalo from a desktop

Vahalo is available on any computer via Google Chrome Browser. All that is needed is the Site URL (cmt.vahalo.com) and a user ID and Password.

The first time the App is run on a machine, it will take some time to load. Subsequent App Starts will be much faster. You will also be asked to allow a large amount of data to be loaded onto the machine, this must be allowed or the system will not load.

Install Vahalo on an Android Tablet.

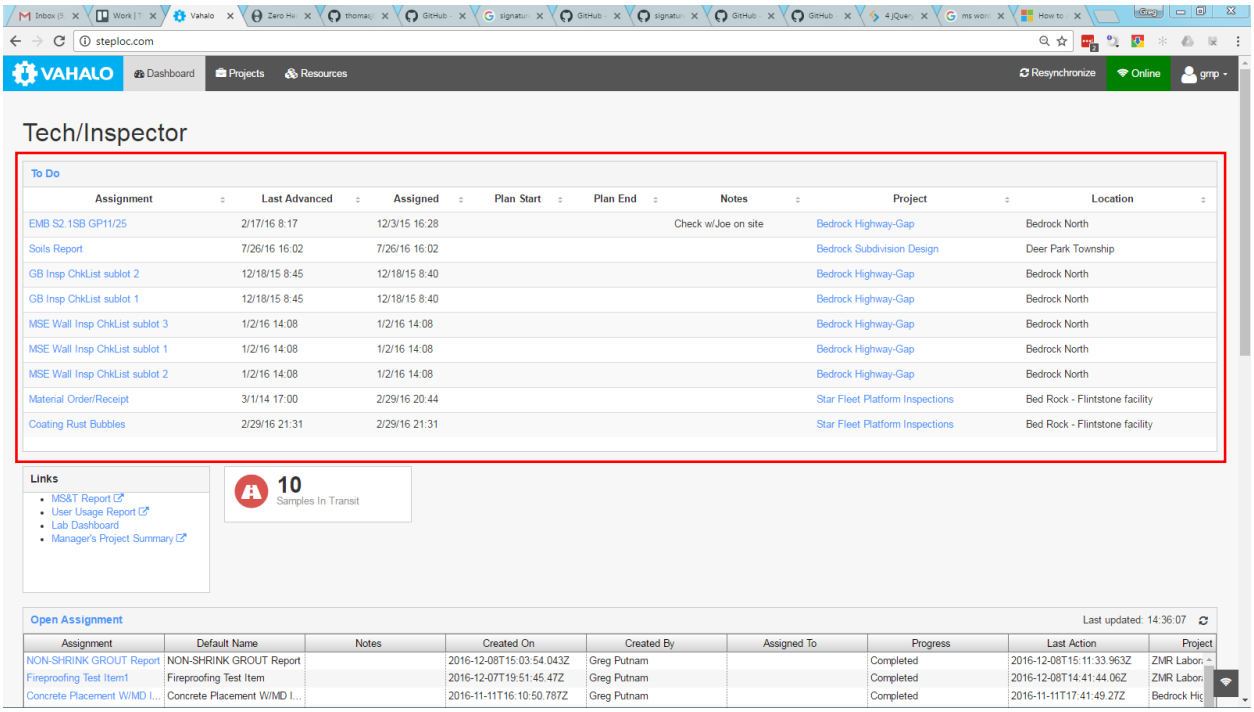
There are two options to run the system on an Android device, using an Android Package File (.apk) or run the system using Chrome for Android. To use Chrome, simply open Chrome and proceed as though you were on a desktop computer.

To use an Android Package File (.apk), your administrator will provide you with an Android Package File (SomeName.apk). Connect the tablet to a computer with the USB cable. Transfer the .apk file to the Device main storage to a folder you can find such as "Downloads". Open the Devices File manager and find the .APK file and open it. Select install and follow prompts to open. Login and you're ready to go.

Find an Existing Assignment

Assignments can be created by a manager or dispatcher and assigned to a technician, or a technician can create assignments and assign them to himself or others. An assignment can be started by one person and reassigned to another for completion or Approval.

You can find assignments assigned to you on the Dashboard page in the "**ToDo**" listing at the top.



Alternatively you can go directly to the "Project" page and Type in a part of the name in the **Quick Search Box**, or navigate the **Tree View** to find the assignment (See Overview above for details).

Create New Assignment

There are two ways to create new assignment

1. Create an assignment in the Project page by navigating the tree view to the appropriate project and task and click "New Assignment" select the Pre-defined assignment you want and click "Next" to give your new assignment a name.

2. Navigate to an existing assignment and click "**New Sub-Assignment**", "**Duplicate**", or "**Duplicate With Values**".

- "**New Sub-Assignment**" works the same as "New Assignment" at the task level but only pre-configured sub-assignments for this assignment are available.
- "**Duplicate**" Will simply create a blank copy of this assignment.
- "**Duplicate values**" will create a copy of this assignment but will copy forward values that were indicated as duplicate-able by the assignment template Design. This is a very powerful tool to save repeated inputs when doing an assignment repeatedly under similar circumstances.

Naming Conventions

Consistent naming of assignments is important because it can give critical initial indicators about the assignment contents and names are a primary means of quick searching. By default, the system will create a name that includes the Project Reference (which is an abbreviated client and Project indicators), an abbreviated Assignment type, your initials and a short date. This name can be edited if needed.

Work on an Assignment

Once an Assignment is selected from the Tree View, the "Details" page is displayed. Other Assignment pages are "Time", and "Attachments".

The Details Section

- Notes – Misc. notes to communicate between employees, do not show up on client reports.
- Status – Work Flow status indications when the basic "Start", "Complete", "Approve" are not sufficient.
- Assigned To - the person who should work on the Assignment next.
- Product - the resource or asset that is being created, improved or maintained by the assigned work
- Progress - See **Approval Work Flow** Below.
- Time – Enter Time sheet data linked to this assignment and against the correct budget item.
- Actions - Custom inputs/actions for this work process.
-

Attachments – Anything you want to attach can be attached

- Versioning – Any attachment can have a new version of the document added to the system and the older versions will remain in the system but only the current version will be active.
- Markups – Images can be marked up

Approval Work Flow

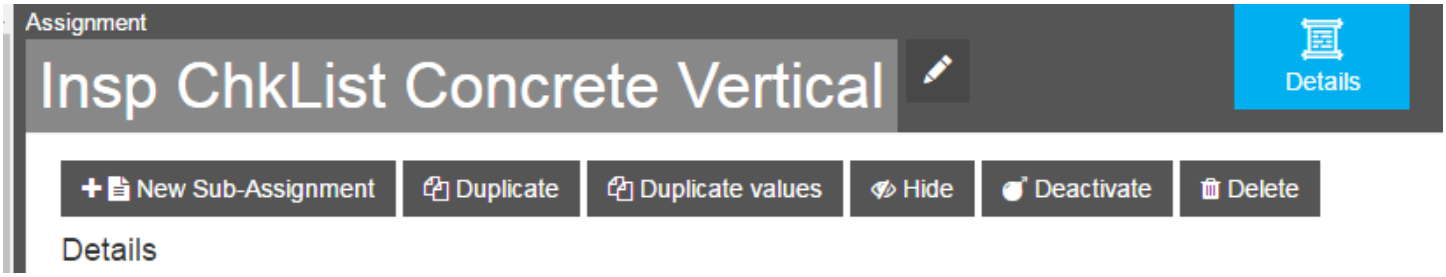
On the Assignment - Details page the "Progress" buttons provide basic "Start" – "Complete" – "Approve" work flow for each assignment.

When an assignment is created and assigned to someone, but has not been completed, it will show up in the Assignee's "ToDo" listing on the dashboard.

Once an assignment is “Completed”, It will automatically show up on the “Assignments to be Approved” listing on the Manager’s Dashboard.

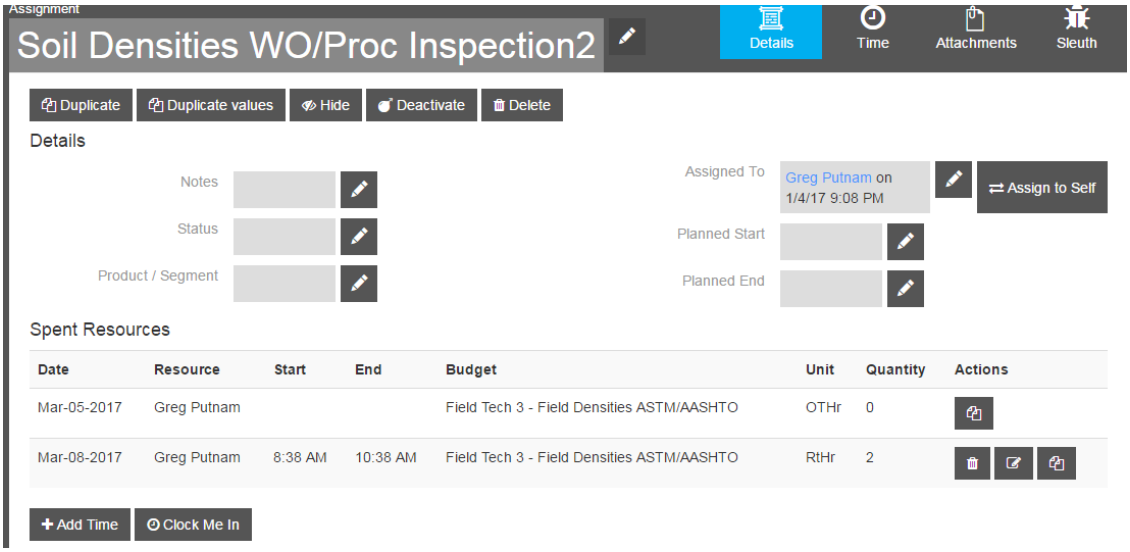
A QA manager will Review each assignment and resulting final report and approve or re-assign to Tech if changes are needed. Once approved, a final Report can be generated on Paper or PDF. The “Approved” button is also the trigger for inclusion in any automated “Distribution” Events.

The final step is to do housekeeping with the intent of reducing the number of assignments cluttering the tree-view. Housekeeping requires some understanding of the assignment set in question. An Assignment Set refers to a root level assignment along with any sub-assignments and sub-sub-assignments associated with the assignment. Once a root level assignment is complete and approved, it can be hidden to remove it from the Main tree-view but it will still remain in local data and show up in any Dashboard listings and searches. Using the “Hidden Assignment” filter will make all hidden assignments visible again if needed. “Deactivating” an assignment will remove the assignment from local data and will be stored only on the cloud server. An assignment should only be deactivated once the entire assignment set is completed and approved.

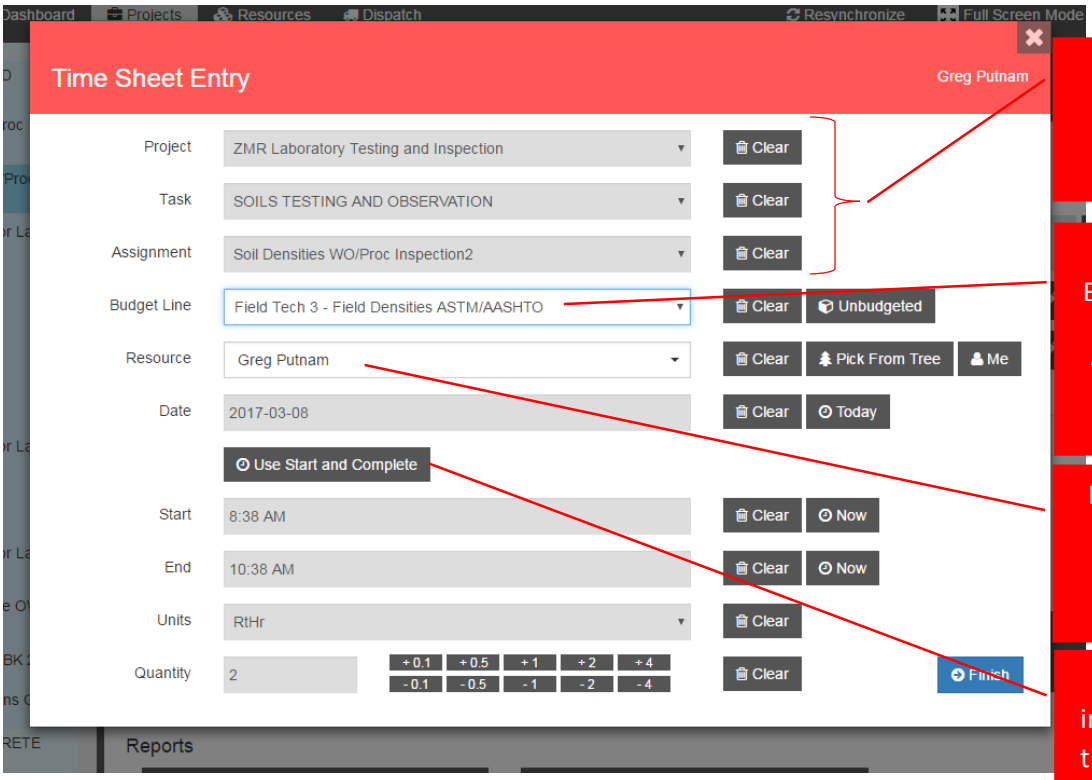


Time sheet entry

The efficient and accurate entry of Time Sheet information is critical to the success of any technical service business. Vahalo provides fully integrated time sheet entry tools to assist in this process. In order to maximize the usefulness of a time sheet entry, Vahalo requires that each time sheet entry includes not only the hours worked and the employee, but also includes a link to a budget item and an Assignment. In Vahalo, Assignments are where the work happens, so the assignment is where time sheet entries happen.



The “Add Time” button is the normal way to enter time into the system. This brings up the time sheet entry Popup Box:



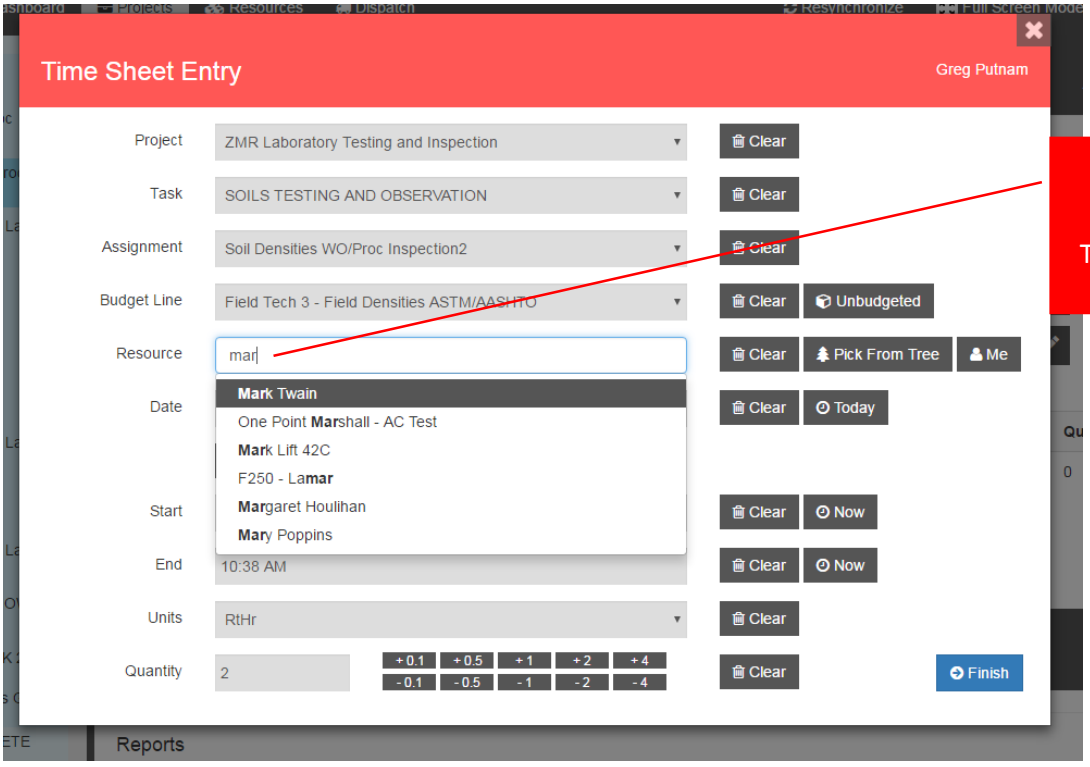
Defaults to Current Assignment, but can be changed if needed

Defaults to most logical Budget Item, but may need to be changed. Use "Unbudgeted" if appropriate budget item doesn't exist

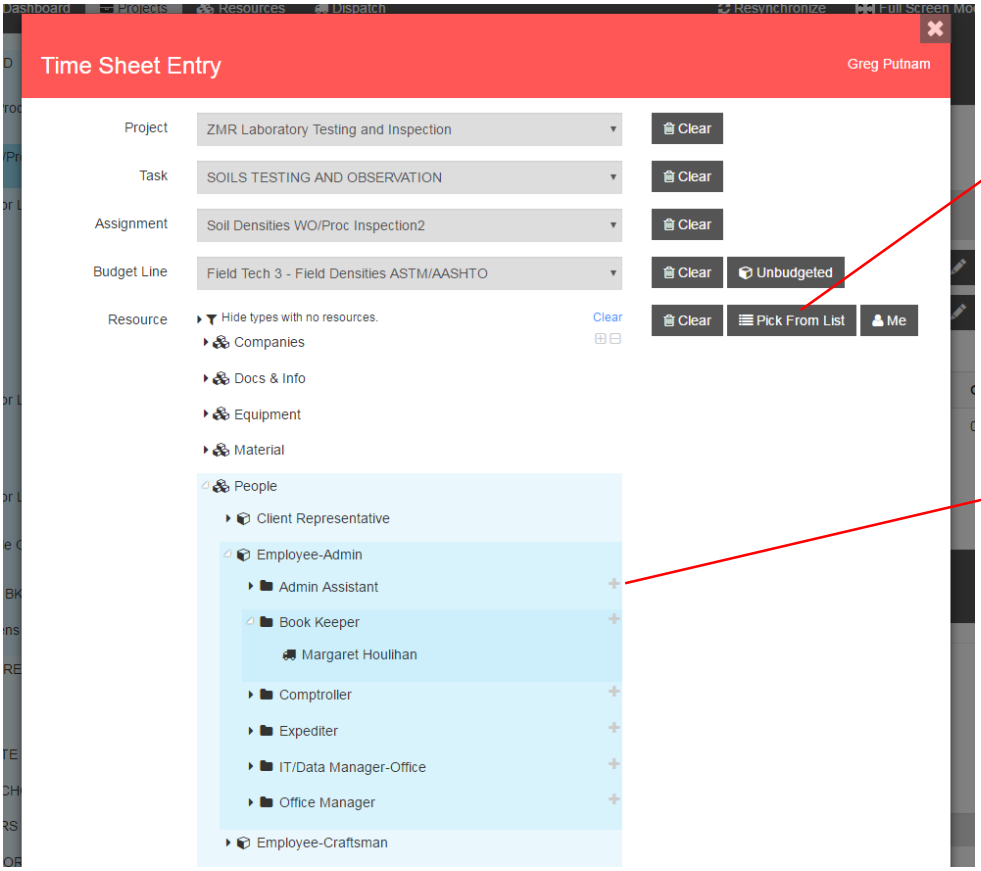
Defaults to Current User, but any Resource or Service Package can potentially be billed

Convenience button that inserts the Start and Complete times from the Progress Bar of the current Assignment

You have Options for selecting another resource if necessary.

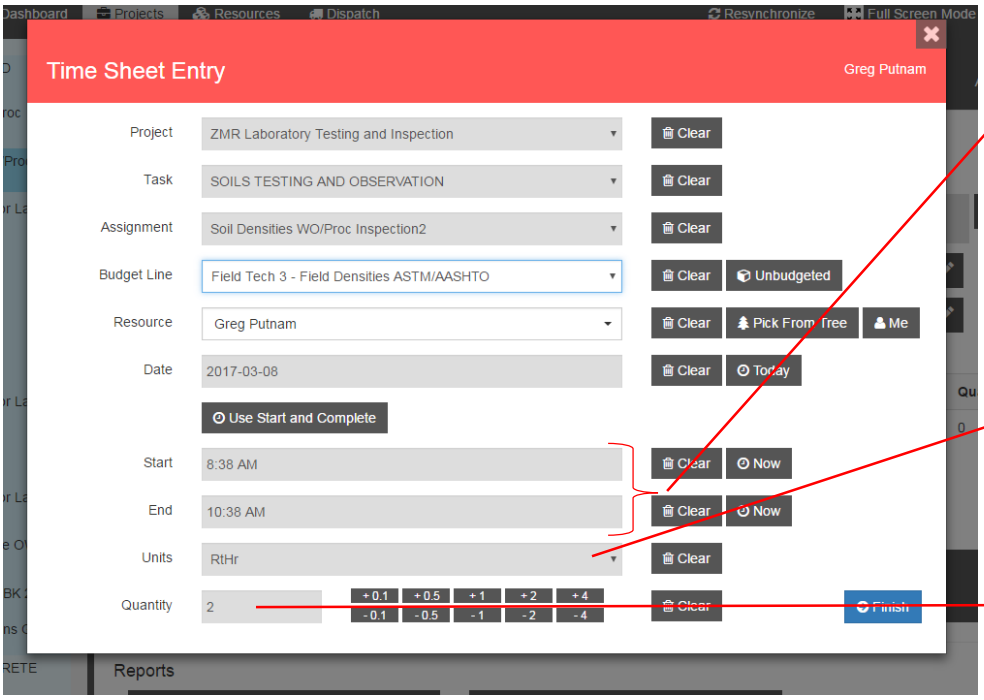


If you have an Idea who or what you're looking for, the Type ahead search works well



If you need to browse a list to select the resource use "Pick From List" and navigate the Tree view.

The "+" plus button allow you to add a resource that is not in the system yet. Be sure to enter the resource under the correct resource type

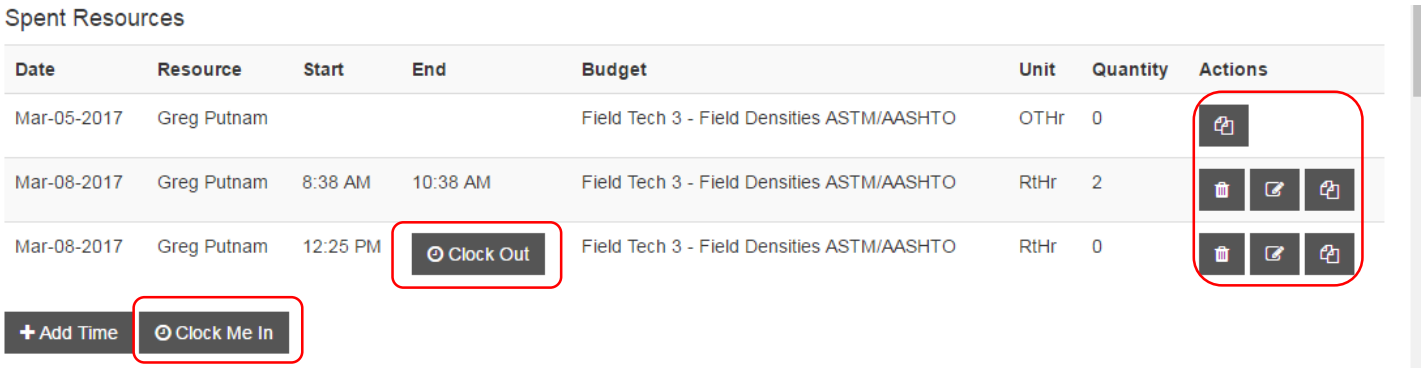


"Start" and "End" entries are optional for the system but may be required admistratively. A default "Quantity" value is calculated from these entries. Odometer readings can also be entered here to get the mileage for the day

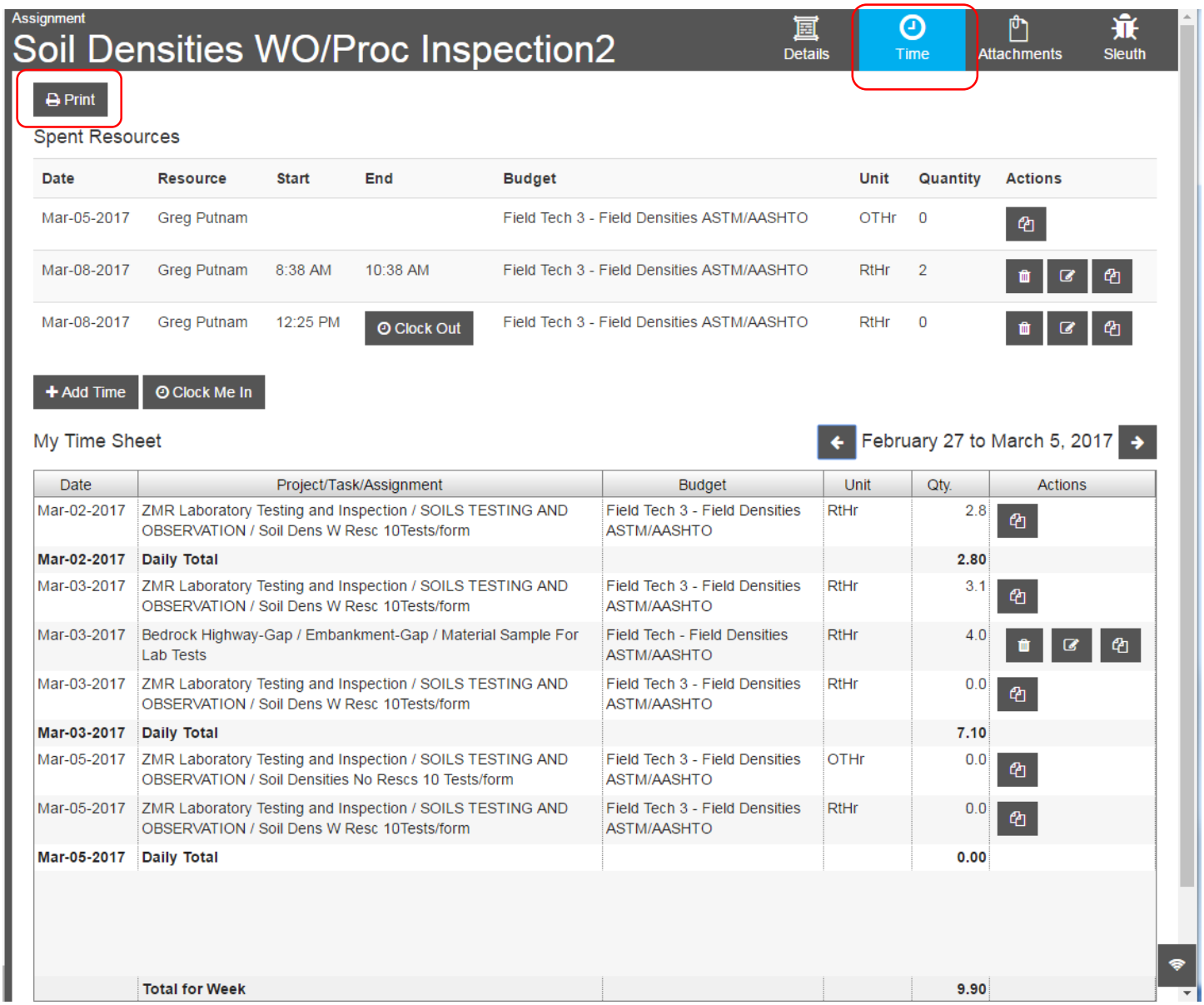
"Units" is a required field and will usually provide a default. ALWAYS check to be sure it is correct.

Quantity can always be entered directly through the system will always attempt to save key strokes by calculating a value if possible

The "Clock Me In" Button will start an entry and wait for a single click completion of the entry. Also notice that in the "Actions" column, some entries provide the "Trash", "Edit" and "Duplicate" Icons, while others only have the "Duplicate" Icon. This protects against editing an entry that has already been invoiced. Or editing items that do not belong to you.



There is also a "Time" page for an assignment that provides more time entry tools. This page provides a duplicate of the time sheet information for this assignment, and also provides a weekly summary of this user's time sheet. At the top is a "Print" button that will generated a full time sheet Report for this user.



Daily Inspection Checklists

The first level Assignment is generally a Daily Inspection Checklist or Report. In Vahalo, these inspection forms are customized to the specific task or activity that is being performed. (i.e. Embankment, GB, MSE Select Fill, UTBC Placement, concrete placement etc.) These Custom Inspection Forms collect all of the typical data included in a DIR.

- Location Data
- Material being placed
- Spec Criteria
- Checklist of critical inspection issues.
- Test summary data
- General acceptance
- Signoffs – Tech and Manager.

Each Checklist item in a form uses three parts:

- Area of Concern heading – Summary of items the inspector should be looking for.
- Accept or Report toggle - Is the work acceptable or is there an issue that needs to be reported.
- Comment Speed Notes – Pre defined notes that can be selected to fill in the Comment field. Direct entry and edits are also allowed in these fields.

Other Subordinate Assignments to the Inspection Checklist would include Field tests conducted, Lab Samples taken, Issues to be resolved etc.

Field Density Tests

Placement of Soil materials require in-place density and moisture field tests. Field Density Tests will be available as subordinate assignments to any of the Soils placement related Inspection Checklist Assignments. These Inspection Check lists will provide the option of auto generating Field Density Test Sub-Assignments based on data entered. Field Density Test Sub-Assignments can always be created manually if needed or preferred. Input fields used to calculate and create the Field Density Test Sub Assignments Include:

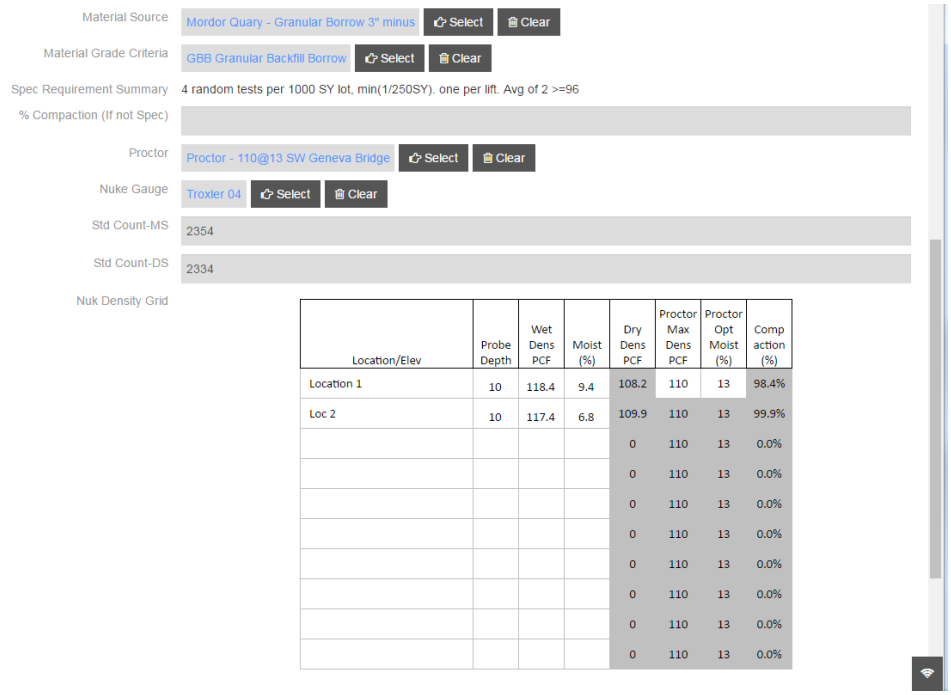
- Station Begin
- Station End
- Offset Begin
- Offset Begin Left/Right
- Offset End
- Offset End Left/Right
- Default Proctor
- Default Nuke Gauge
- Default Probe Depth (in)
- Default Lift Thickness (inches)
- Material Installed
- Material Grade Criteria
- Test Frequency OR (Leave Blank if # SubLots is filled in)
- Number of Sublots (Leave Blank if Test Frequency is Filled in)

When the Button “Auto-Create Sublots” is clicked, Field Density Test Sub Assignments are created based on the number of sublots needed or requested.

Each Field Density Test Sub Assignment can now completed by the Inspector or assigned to a Technician with the greatest degree of flexibility possible.

Approvals can be performed on each Test and on the overall inspection check list.

A simple version of the soils density form is also available for smaller retail projects. This version doesn't use resource reference in some cases and uses an input grid for actual density tests rather than sub assignments.



Location/Elev	Probe Depth	Wet Dens PCF	Moist (%)	Dry Dens PCF	Proctor Max Dens PCF	Proctor Opt Moist (%)	Comp action (%)
Location 1	10	118.4	9.4	108.2	110	13	98.4%
Loc 2	10	117.4	6.8	109.9	110	13	99.9%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%
				0	110	13	0.0%

Soil Sample Process

Getting properly identified samples from the field to the Lab has always had presented occasional challenges. With Vahalo we have that ability to use barcode technology and direct field entry of sample data to help us streamline the process. Pre-Printed Barcode tag sets are key to this process:

Each barcode tag set is pre-printed in the office with unique numbers and distributed to all inspectors and technicians. Each technician or inspector needs to be sure to have a stack of Barcode Tag Sets and a few Tag holders in their pickup or briefcase.

When a soil sample is taken in the field, an assignment “Material Sample for Lab Tests” is created and filled out in the field.

- Fill out by hand the Project number, Your Initials and short date MM/DD. This will provide additional information to help locate missing samples and records.
- A set of Sample ID (Barcode) labels are attached to the sample Container. Barcode labels come in sets of 5 or 10 and the individual Sticky labels are used in the lab to attach to the various tests that are done on the sample or to the individual Concrete cylinders that are going into the cure room. Field Techs should be sure to use a 10 label barcode set when more than 5 lab tests are anticipated on the sample or more than 5 cylinders have been cast.
- The Sample form “Progress” is Marked “Started”. (Dashboard List Item moves from “My Assignments” to “Samples in transit to Lab”)

Sample is transported to the Lab or assigned to a runner for pickup. Pick up Instructions Can be entered in the Assignment “Notes” Field.

Sample is received at the Lab and Lab Test forms are created for each requested test (Sub-Assignments to the Sample Form). Once a test form Assignment is created it will automatically show up in the Dashboard list “Lab Tests to be Completed”.

- Lab test can be assigned to a specific Lab Tech by a manger or dispatcher or
- Tests can be adopted by a Lab Tech and assigned to himself as time is available

The Sample is divided for the various tests. A tag with Set ID Sticker is attached to each test process container and a container ID is added to the Test Name.

Once initial Sample division and processing Material Sample Record is marked “Complete”.

Each individual test is performed and marked “Complete” which will automatically add it to the” Dashboard List “Lab Tests to be Approved”.

Engineer or Manager approves each test, creates a Final report and distributes it. Hides the test

Concrete Cylinder Sample Process

As Concrete Cylinder sets are created in the field a "Sample Cylinder Set" is filled out and cylinder Break records are automatically generated. Progress is marked "Start" and “Sample Cylinder Set” record now appears on the “Samples in Transit to Lab” Listing on the Dashboard. Assignment "Notes" can be filled out indicating where to pick up the Samples if needed.

Sample cylinders are transported to the Lab or assigned to a runner for pickup. Pick up Instructions can be entered in the Assignment “Notes” Field.

Cylinders are processed, labeled and put into cure room.

“Sample Cylinder Set” Assignment is marked as “Complete”

Sample cylinder Record shows up in “Conc Samples in Cure Process” Listing on the Dashboard.

Cylinders show up on “Cylinders to be broken today” Dashboard List on the “Break Day”

Cylinder Break Tech fills in:

- Diameter (if needed)
- Max Load
- Fracture Type
- Broken By (auto updated to current User)

Once all breaks, for a “Sample Cylinder Set” have been broken, it shows up on the “Lab Tests to be Approved” Dash Board List.

Engineer or Manager Approves Final report and distributes it.

HMA Field Tests

Placement of HMA require in-place density tests using a field gauge, in addition, core samples are taken to verify thickness. The cores are sent to the lab for density verification. Field Densities and Matt Cores Tests are entered in the system as subordinate assignments to the HMA Inspection Checklist Assignments. These Inspection Check lists will provide the option of auto generating Field Density/Core Test Sub-Assignments based on data entered. Field Density Test Sub-Assignments can always be created manually if needed or preferred. Input fields used to calculate and create the Field Density Test Sub Assignments Include:

- Station Begin
- Station End
- Offset Begin
- Offset Begin Left/Right
- Offset End
- Offset End Left/Right
- Default Marshall/Rice Lab#
- Default Marshall/Rice Density
- Default Nuke Gauge
- Default Lift Thickness (inches)
- Installed HMA Mix design
- Material Acceptance Criteria
- Number of Sublots

When the Button “Auto-Create Sublots” is clicked, Field Density/Core Test Sub Assignments are created based on the number of sublots requested.

Each Field Density/Core Test Sub Assignment can now be completed by the Inspector or assigned to a Technician with the greatest degree of flexibility possible.

Approvals can be performed on each Test and on the overall inspection check list.