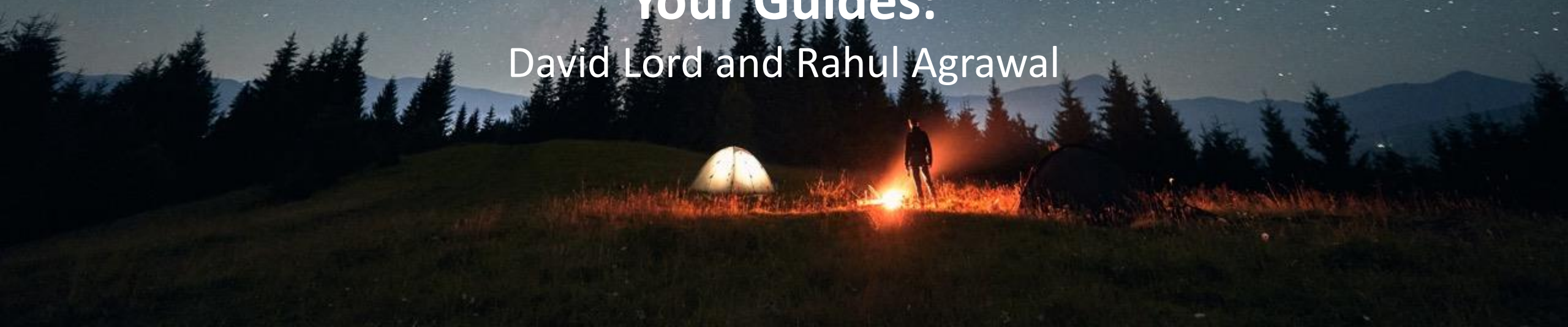




Administration | Beginner

Your Guides:

David Lord and Rahul Agrawal



Agenda

- Clarity PPM Overview
- Resources and Users
- Security Setup
- Organizational Breakdown Structures (OBS)
- Intro to Lookups
- Financials Basics
- Scheduling Jobs

Clarity PPM Overview



Let Rego be your guide.

Clarity PPM Overview

- Module-based system allowing customers to use features as needed
- Interconnected modules like Project and Resource allow real-time access and visibility of work being done and the resources doing the work
- Robust resource management provides the ability to find the correct resources to do the work with flexibility to accommodate any company size
- Financial module allows for costing of transactions, creating cost forecasts across a timescale, and entering non-labor costs
- Portfolio management lets management do real-time project ranking and evaluation in a pipeline and create “what-if” scenarios to evaluate future plans

Clarity PPM Overview #2

- Physical Components
 - Application Server
 - Jaspersoft Server
 - BG Server
 - CSA (Clarity System Administration)
 - Databases (transactional, data warehouse)
- Be familiar with the following when opening tickets with a provider
 - Clarity version
 - SQL or Oracle
 - Windows or Unix Server

Clarity PPM Overview #3

- The CA PPM application is administered by an application administrator and can be implemented out-of-the-box but typically is configured (“customized”) to match the needs of the organization
- You must have admin rights to have access to the Administration menu
- Some common administrative responsibilities:
 - Creating/Updating Resources and Users
 - Creating/Updating Project Templates
 - Adding custom fields, configuring screen and list layouts
 - Creating and executing custom processes to fill gaps in OOTB functionality
 - Scheduling jobs
 - Monitoring application health
 - Troubleshooting and Level 2 user support

Resources and Users



Let Rego be your guide.

Resources vs Users

- Resources are managed under Home->Resources
 - Types are Labor, Equipment, Material and Expense
 - Can be allocated to projects and have costs associated with them
 - Labor resources are employees or contractors (e.g. Developer, Business Analyst)
 - Resources can be Active or Inactive
- Users are managed under Administration->Resources
 - Users are people or system IDs that log in to perform a function
 - A User record is automatically created for every Labor resource defined
 - Not all Resources need access to Clarity so those User records should be locked
 - Users can be Active, Locked or Inactive

Resources vs Roles

- Resource – A person or thing (equipment, material, etc.) used to perform a task or capture a project expense
- Role – A generic description of a function performed by a resource
 - Examples are Developer, Business Analyst or Project Manager
 - Resources are assigned a primary (or default) role but can perform other roles
 - Used for planning and scheduling work effort
 - Roles are usually replaced by named resources when work commences
- Roles appear in the Resource List and share the same attributes

User Status

- There are three statuses associated with a Resource on the admin side of Clarity
 - Active – The User is an active resource and can log into Clarity
 - Lock – The User is an active resource and can be assigned to projects, but cannot login
 - Inactive – The User is no longer available as a resource in the application. This is sometimes used when a resource is no longer with the company.
- Additional notes on “Lock” status
 - This is a normal status for many resources (e.g. those who don’t enter time in Clarity)
 - Locked resources are still active and available in the application, just like Active resources
 - This status can be set manually by an administrator, automatically via a custom process, or automatically by Clarity if the user exceeds the valid number of login attempts (if using internal Clarity security).
 - ***Use whenever possible to keep license usage to a minimum***

Resource Creation

- Resources can be created from either “side”
 - Application side: Home->Resources (Resource record)
 - Admin side: Administration->Resources (User record)
 - If you create a labor Resource, Clarity will generate an associated User record for you
 - If you create a User, Clarity will generate an associated Resource record for you
 - Creation is normally done from the application side since there are many more attributes to populate than on the admin side
 - When you create a Resource record the resulting new User record is set to Lock status
 - Common attributes (e.g. email address, manager) are kept in sync automatically

Resource Creation Demo

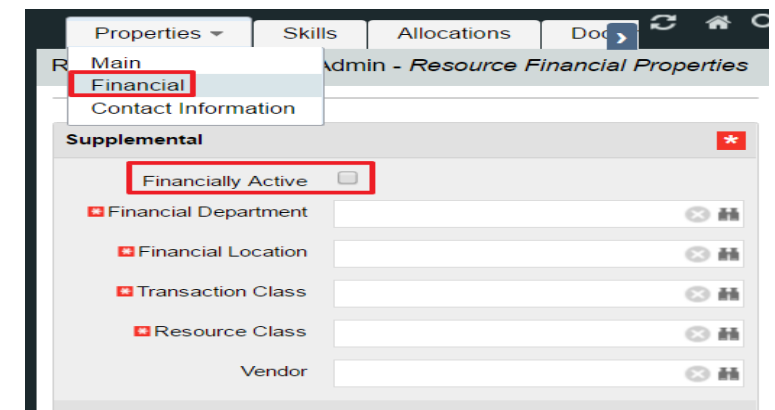
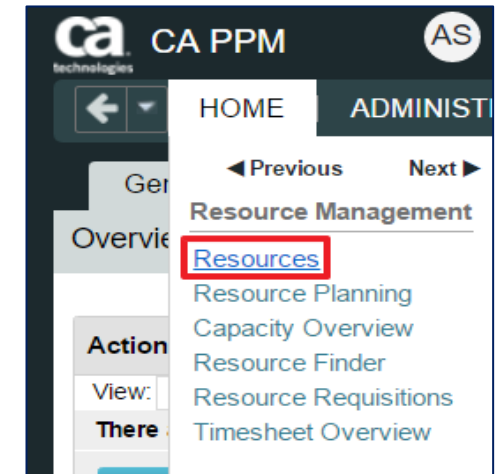
- Create a Resource record
 - Application side: Home->Resources
- Create a User record
 - Admin side: Administration->Resources

Role Creation Demo

- Create a new Labor Role
 - Select Home > Resource Management > Resources
 - Change Is Role Filter to Yes in filter options, then Filter to display existing roles
 - Click New
 - Select Role on the Select Resource Type page
 - Select Labor for Resource Type then click Next
 - Populate the required fields then click Save
- Financially Enable a Role
 - Select role using the Is Role filter as described above
 - Select Properties > Financial
 - Check the Financially Active box and populate Transaction Class and Resource Class
 - Click Save and Return

Class Exercise: Creating A Resource

- Create a new resource - Select Administration > Organization and Access > Resources
- Click New
- Enter user information on the Properties page
- Click Save
- Click the Properties tab, then select the Financial drop down
- Fill in the required fields
- Check the Financially Active box
- Click Save and Return



Security Setup



Let Rego be your guide.

Security Considerations

- Types of Rights
 - Global – all records of a given type (all projects, all resources, etc.)
 - OBS – all records of a given type associated with a specific OBS
 - Instance – one specific record (a single project, resource, etc.)
 - Inherent – automatically assigned by Clarity
- Can be assigned at group or individual level
 - Best practice is group level
 - Define groups based on needed functionality (e.g. PM Group, RM Group, Admin group)
 - Provides option to restrict access to menu options, pages and portlets
 - Provides option to secure sub-objects and sub-pages
- NOTE – the rights you grant can impact your licensing costs!

Security Rights

- Global Rights
 - Overrides any other associated instance or OBS level rights
 - Provides broad access to objects of a particular type
 - Lets users access a general area of the application to perform a specific function or to all instances of an object
 - A common global right is Resource – View All
 - Recommended where possible for performance reasons
- OBS-Level Rights
 - More limited access based on the OBS that a record is associated with
 - E.g. Project – View access to all projects where Department OBS = Corporate/Marketing
 - Common use case is to isolate resources or projects for discrete organizations

Security Rights #2

- Instance Rights
 - Provide access to a specific instance of an object (one project, one resource, etc.)
 - Can be assigned to an individual or a group
 - Can lead to performance issues if not managed carefully
 - ***Difficult to manage*** - minimal use is recommended
- Inherent/Automatic Rights
 - Automatically applied when user is first added to CA PPM or the user is associated with a particular field on an object (e.g. Resource Manager)
 - Irrevocable
 - User Favorites Menu – Edit, Project – Manager (Auto)
 - Revocable
 - Resource – Enter Time (for themselves)

Security Groups

- Groups

- A set of users who perform similar functions or roles in the tool
- Contains a collection or combination of rights applicable to each member of that group
- Can associate a single resource with any number of groups
- Can contain a collection of Instance, OBS, and Global level rights
- Quickest way to assign multiple rights to several people at once
- Much easier to manage than assigning rights to specific individuals

- Other Uses for Groups

- Can be used to determine what users see in the application
 - Menu options
 - Pages, Portlets and Tabs
- Groups can also be created for things other than granting rights
 - E.g., notifications from a workflow

Security Requirements Matrix

| | G – all items OBS – only I – Item only | Administrator | Program/ Project Manager | Resource Manager | Resource Manager Admin |
|---|--|---------------|--------------------------------|---------------------|------------------------------|
| Object / Category | Description | | | | |
| Idea Rights | | | | | |
| Ideas – Navigate (G) | Allows user to navigate to Ideas pages. User will need additional rights to view individual ideas. | | | | |
| Ideas – Create | Allows user to create Ideas. Includes the Ideas – Navigate right. | | | | |
| Idea – Edit | Allows user to edit ideas. | | | | |
| Idea – View | Allows user to view ideas. | | | | |
| Idea – Approve | Allows user to approve ideas. | | | | |
| Project Rights | | | | | |
| Project – Create (G only) | Allows user to create a new project or program specifying general project properties. Includes Project – Create from Template right. | | | | |
| Project – Create from Template (G only) | Allows user to create a new project or program using only templates. | | | | |
| Project – Approve | Allows user to approve all Projects. Includes the Project – Edit – All right. | | | | |
| Project – Delete | Allows user to delete and Project or | | | | |

Field-Level Security

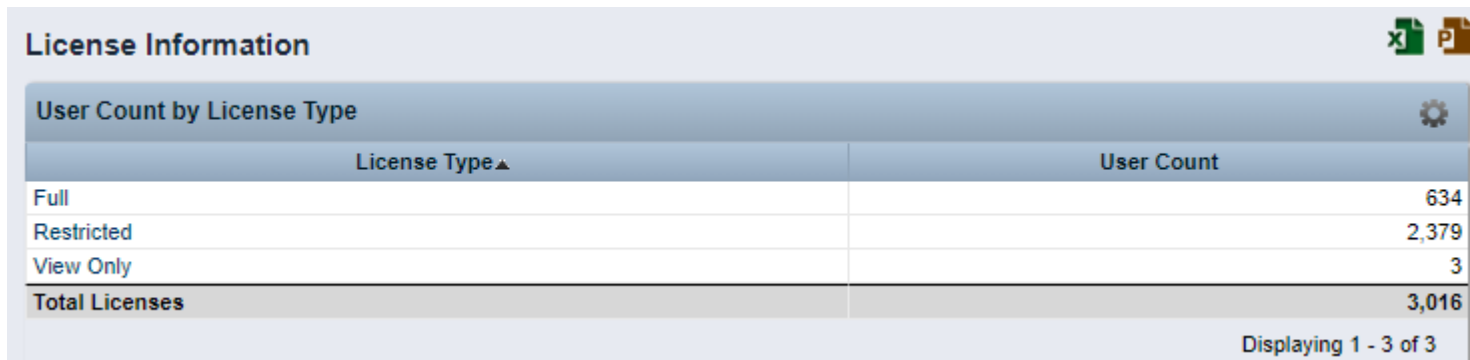
- Robust capabilities available in the modern UX (15.8 or later)
 - MUX Field-Level Security always takes precedence over global, OBS and instance rights
 - Controls who can view and/or edit fields
 - Can only be granted to Groups, not to individual users
- Options for securing fields in the classic UI
 - Define field as Read-Only on the object Attributes or Views tab
 - Turn field to Read-Only by locking it via a process
 - Create a calculated field as a copy and place the copy on the page
 - Create a secured subpage and place the field(s) on the subpage

Security Design

- Design philosophies
 - Open by default – restrict only as needed as use auditing to enforce compliance
 - Closed by default – open only when absolutely needed
 - Can create unnecessary overhead for the admin team
 - Forces the system to run more logic to determine access
 - Blended – e.g., open by default for everything but Financial information
 - Choice often driven by standards and compliance (SOX)
 - Use Global rights whenever possible to optimize performance
 - Track your license counts before and after any security rights change
 - Target Global rights to a Group (for example, the RM Group can edit any resource)
 - Auditing of updates
 - Use when there is a need to know who altered a field, especially in an “open” model
 - Too much auditing can cause performance issues (don’t audit everything)

Security and Licenses

- The rights assigned to an individual or group determine the type of license consumed and counted by Clarity
- Use the License Information portlet (Administration->License Information) to monitor usage and maintain compliance
- Audit this usage periodically



| License Information | |
|----------------------------|------------|
| User Count by License Type | |
| License Type ▲ | User Count |
| Full | 634 |
| Restricted | 2,379 |
| View Only | 3 |
| Total Licenses | 3,016 |
| Displaying 1 - 3 of 3 | |

Security Best Practices

- Assign people their rights only once
 - Granting the same rights at different levels or through multiple groups can slow down performance in some pages/views
- Only use Instance rights as a last resort and try to keep at a Group level
- Minimize security maintenance
 - It's better to create more Groups with a relatively small number of rights than to create a few Groups with rights to many different objects.
 - This approach makes it easier to add and remove rights when people change roles, you can simply add them or remove them from the appropriate groups
- Understand what each right means
 - Know the definition of each right
 - Understand the licensing implications of different rights

Security Best Practices #2

- Think about security “roles”
 - Not the same as Primary Role
 - Theoretical, not in the system (examples: Timesheet user, Project approver)
- Document your security model design before building it
 - Use OOTB groups as a reference but most likely you will create your own groups
- Set up the model in Clarity
 - Create dummy data
 - Create generic test users – one per functional “role”
- Log in as each test user and verify the model is working as designed
 - Can you see and do what you expect for each role?
 - Can you see or do anything that shouldn't be allowed?

Security Exercise

- Select Administration->Groups
- Click New
- Complete Required fields (*ID must be unique)
 - For class, use your name (e.g., Angie's Group)
- Click Save and Continue
- Hover over the Groups Access Rights Tab
- Choose Global, click Add
- Use the Filter section to search for and add the following:
 - Timesheets – Navigate
 - Resource – Navigate
- Click on the Resources Tab, Click Add
- Search for a resource and click Add

Group: Properties

Group Name

Group ID

Description

Active ☒

Save and Continue Save And Return Return

* = Required ■ = Enter Once * = Unique

Access Right timesheets

Filter Show All Clear

| | Access Right▲ |
|-------------------------------------|--------------------------|
| <input type="checkbox"/> | Timesheets - Approve All |
| <input type="checkbox"/> | Timesheets - Edit All |
| <input checked="" type="checkbox"/> | Timesheets - Navigate |

♥ Add ♥ Add and Select More Return

Organizational Breakdown Structures (OBS)



Let Rego be your guide.

Organizational Breakdown Structure (OBS)

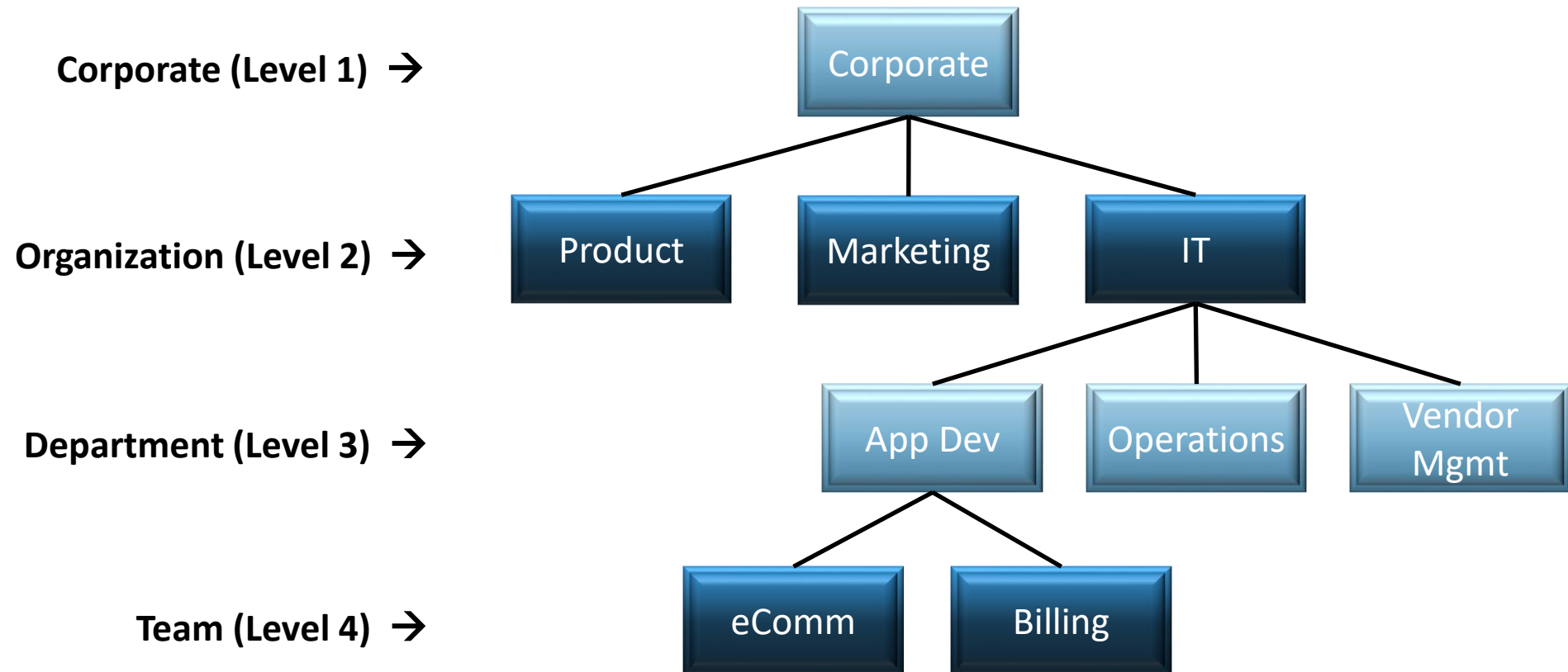
- An OBS is a company-defined hierarchical structure to categorize projects and resources
- Can be used for filtering, reporting and security (OBS rights)
- You can create any number of OBSs with up to 10 levels
- Security can be enabled for any OBS
 - Department OBS and Location OBS only on initial creation (until tied to Entity)
- Remember that every OBS created will need to be maintained which can be a time-consuming task depending on complexity
- OBS is a default filter parameter on most out-of-the-box reports

OBS Types

- Identifying what your business needs are is the first step in determining what types of OBS structures to build
 - In what ways do we need to group data for portlets and reports?
 - Are there other fields that can be used to accomplish this? (e.g. Sponsoring BU)
 - Is there a need for multi-level filtering or roll-up reporting?
- Some OBS Examples:
 - Organizational (similar to HR org chart)
 - Financial Departments / Cost Centers
 - Functional Organizations and Teams
 - Product or Product Teams

OBS Example

- Functional/Team OBS



OBS Maintenance

- Maintaining an OBS and associated records can be time-consuming
- Keep the number and complexity of OBSs to a minimum
- Changing the structure and/or labels in an OBS can affect reporting
- Deleting an OBS unit will also delete all child units under that level
- Any record tied to a deleted OBS unit will be “orphaned” (null value in OBS field)
- Units can be moved from one parent to another within a specific OBS and all child units will follow
- OBS associations can be done using a list view, but the fastest method could be from the Admin menu (OBS Unit tab “Attached Instances”)
- Look for automation opportunities (e.g., do associations via GEL script)

OBS Demo #1

- Create an OBS
 - Select Administration->OBS, click New
 - Name the OBS (this is what users see)
 - Create a unique OBS id (for example, xx_ex_obs)
 - Name the levels of the OBS (for example Department, Location)
 - Choose the Associated Objects this OBS will be associated with (e.g., Project object)
- Add Units to the OBS
 - Click on the Units tab
 - Click New
 - Name the Unit and choose the Parent Level
 - Use the Quick Create feature to speed up the process

OBS Demo #2

- Use Quick Create to add multiple units under the same parent
 - Click the Units tab and then Quick Create
- Attached Instances – assign records to the OBS
 - Click on the **Attached Instances tab**
 - Choose the **Object** from the dropdown
 - Any records already attached will display
 - Click **Add** to add additional records to the Unit

The screenshot shows the 'OBS: Organizational - Quick Create' form in the CA PPM system. The top navigation bar includes the CA PPM logo, user 'AS April Shrader', and links for 'Logout', 'Help', and 'About'. Below this is a breadcrumb trail: 'HOME | ADMINISTRATION | FAVORITES'. The form itself has a title bar 'OBS: Organizational - Quick Create'. It contains a 'Parent' dropdown menu and a 'Unit Names' section with eight text input fields. At the bottom of the form are two buttons: 'Save And Return' and 'Return'.

OBS Demo #3

- Add a Resource to an OBS (3 ways to do this)
 - On the Resource record (Home->Resources)
 - On the User record (Administration->Resources)
 - On the OBS definition (Administration->OBS) – Attached Instances tab
- Add OBS-Level Security
 - Administration->Groups
 - Groups Access Rights->OBS Unit
 - Click Add and find the desired security right
 - Click Add and Continue and select the OBS unit
 - Click Add

Intro to Lookups



Let Rego be your guide.

Lookups

- A Lookup is a list of pre-defined values that users can select from
- Lookups are attached to fields in an object's configuration (Admin->Studio->Objects)
- Many system-defined lookups are included, but some are not editable
- Clarity admins can define new lookups as needed
- Pros:
 - Improved data consistency as users are limited to a set of choices
 - Enhanced capabilities for filtering and reporting
 - Helps users understand the meaning or purpose for a specific field
- Cons:
 - Requires more planning and management to maintain an effective and complete list
 - Less flexibility in the data that can be entered in a field

Lookup Types – Static List

- Static List
 - Simple list of values
 - The order of the values can be maintained manually by an admin, or set automatically by the system in alphanumeric order
 - Values can be added but not deleted
 - Deactivate a value to prevent it from appearing in the UI
 - The list can be a dropdown (pull-down) or a browse window - use the [Fields] link on the object configuration to set it:

| Properties | Attributes | Linking | Actions | Views | Audit Trail | Access to this Ob |
|-------------------------|-------------|---|----------|-------|-------------|-------------------|
| Object: Project - Views | | | | | | |
| View | Category | Setup | | | Modified | |
| Project Properties | Properties | [Layout: Create] [Layout: Edit] [Actions Menu] | [Fields] | ✓ | | |
| Program Properties | Properties | [Layout: Create] [Layout: Edit] [Actions Menu] | [Fields] | ✓ | | |
| Project List | List Column | [Layout] [Options] [Aggregation] [Actions Menu] | [Fields] | ✓ | | |

Object: Project | Partition: System | View: Project Properties - *Property Field*

| | |
|----------------|---|
| Attribute | percent_calc_mode |
| Data Type | Lookup - Number |
| Property Label | % Complete Calculation |
| Display Type | Pull-Down ▼ |
| Hint | Changing this method will affect how Task |

Lookup Types – Static Dependent List

- Static Dependent List
 - A multi-level list of values
 - Similar options as Static List except it can only be displayed in a browse window
 - Useful for guiding users through a long list of values that can be logically grouped

General Levels Values

Lookup: Investment Type - Values

| Lookup Value | |
|--------------------------|--|
| INV_TYPE | |
| + Application Investment | |
| + Asset Investment | |
| + Other Work | |
| + Product Investment | |
| + Project Investment | |
| + Service Investment | |

General Levels Values

Lookup: Investment Type - Values

Top

| Lookup Value | |
|--------------------------|--|
| Application Investment | |
| + Application Management | |

New Activate Deactivate Return

General Levels Values

Lookup: Investment Type - Values

Top Application Investment

| Lookup Value | |
|------------------------|--|
| Application Management | |
| Proposal | |
| Bid-Vendor Selection | |
| Configure | |
| Deploy | |
| Maintain | |
| Retire | |

New Reorder Activate Deactivate

Lookup Types – Dynamic Query

- Dynamic Query
 - Selection list is built from a real-time query of the Clarity database
 - Ideal for large lists or for lists that change frequently, some examples:
 - All Active Projects
 - All Active Managers
 - All Departments
 - Fiscal periods for current year
 - Requires some knowledge of Clarity database schema and SQL language
 - Queries are written in NSQL, an extension of SQL specific to Clarity
 - Out-of-the-box dynamic queries are a good source of information but should not be modified, create a custom copy instead.

Financials Basics



Let Rego be your guide.

Financials – Considerations

- Keep as simple as possible
- Invest time to develop the right architecture
 - Include PMO, finance, PM's
 - Start with desired outputs and work backwards to build architecture
- CA PPM is not the financial system of record
- CA PPM is not an accounting tool
- Provide enough financial information to make decisions

Financials – Basic Requirements

- Entity
 - Boundary for a unique set of departments, locations, fiscal periods, etc.
- Fiscal Time Periods
 - Units for reporting and financial processing (e.g. Weekly, Monthly, Quarterly, Annually)
 - Not the same as Time Reporting Periods
- Departments / Department OBS
 - Represent units in the organizational structure of the company
- Locations
 - Represent geographical locations where a company conducts its business
 - Typically linked to departments for resource and investment assignment
- Rate Matrix
 - Used during financial processing to determine cost and billing rates
 - Assigned columns identify the criteria used to match rates and costs to transactions
- Scheduling Financial Jobs

Financials – Fiscal Time Periods

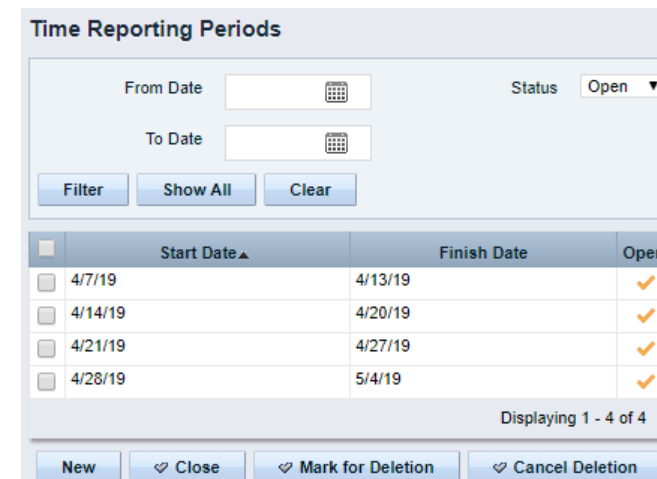
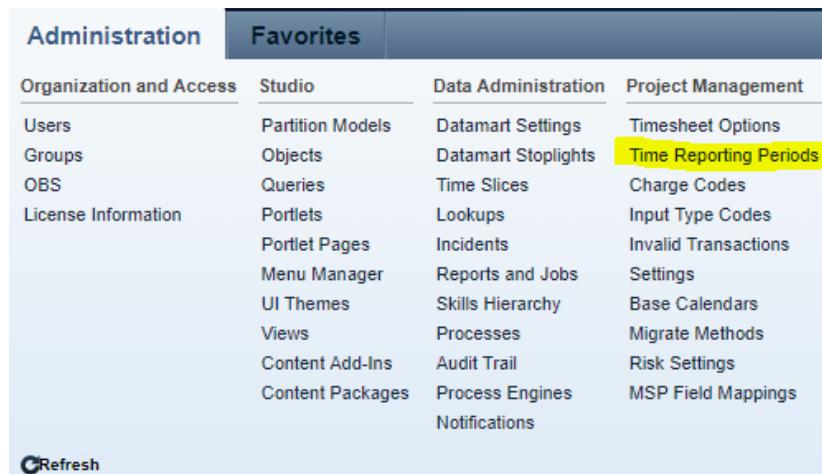
- Created by administrators, often an annual activity
- Required for financial plans
- Used in portlets and reports for financial data
- Not the same as time reporting (timesheet) periods
- Defined at the entity level under Administration->Finance->Setup->Entities

| Administration | Favorites | | | | |
|-------------------------|------------------|---------------------|------------------------|------------------------------|-----------------------|
| Organization and Access | Studio | Data Administration | Project Management | General Settings | Finance |
| Users | Partition Models | Datamart Settings | Timesheet Options | System Options | Processing |
| Groups | Objects | Datamart Stoplights | Time Reporting Periods | Site Links | WIP Settings |
| OBS | Queries | Time Slices | Charge Codes | Client Downloads | Setup |
| License Information | Portlets | Lookups | Input Type Codes | Feature Enablement | Cost Plus Codes |
| | Portlet Pages | Incidents | Invalid Transactions | Data Warehouse OData Service | Manage Matrix |
| | Menu Manager | Reports and Jobs | Settings | Integrations | GL Accounts |
| | UI Themes | Skills Hierarchy | Base Calendars | | |
| | Views | Processes | Migrate Methods | | |
| | Content Add-Ins | Audit Trail | Risk Settings | | |
| | Content Packages | Process Engines | MSP Field Mappings | | |
| | | Notifications | | | |

| Financial Organizational Structure | |
|------------------------------------|------------------------|
| Organizational Structure | |
| | Defaults |
| | Entities |
| | Locations |
| Transactions | |
| | Vendors |
| Currency | |
| | Currency |
| | Foreign Exchange Rates |

Financials – Time Reporting Periods

- Weekly periods for timesheets, normally starting on Sat, Sun or Mon
- Administrators create and open/close time periods per accounting needs
- Multiple weeks can be created at a time (NOTE: they are **open** by default)
- Use caution - periods cannot be changed once a timesheet is posted!



Financials – Classification Options

Financial reporting needs should drive which classifications you will use

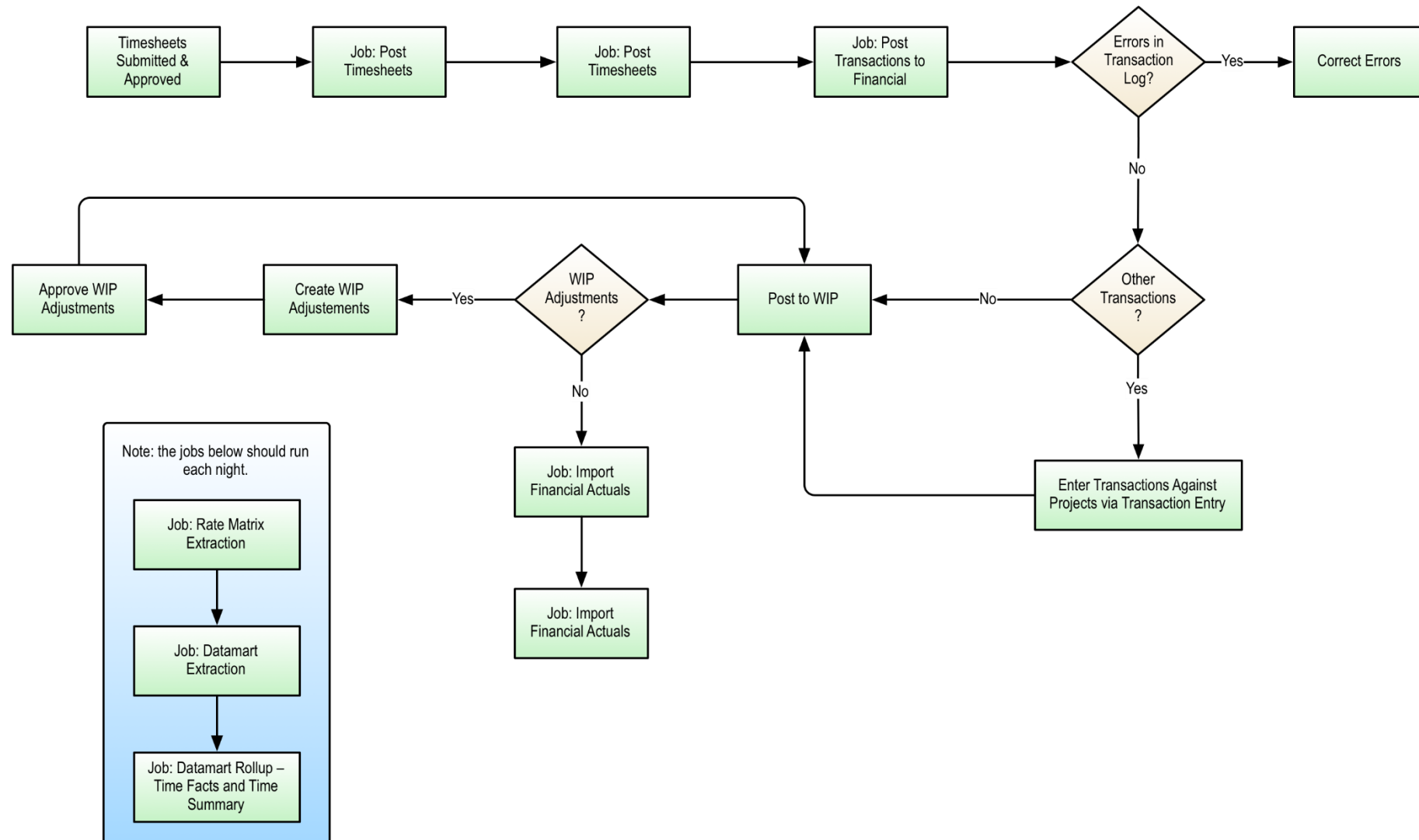
- Resource Classes – type of resource (Labor, Equipment, Onshore, Offshore, Executive, Staff, etc.)
- Company Classes – clients or lines of business within your organization
- Transaction Classes – user-defined values that group transaction types
 - Examples are Labor, Hardware, Software, Consulting
- Investment Classes – categorize work logically within an organization (rarely used)
- Input Type Codes – represents a breakdown of work associated with resources
 - Can be used to determine the rates and costs applied to financial transactions
 - Examples are billable/non-billable, exempt/non-exempt, regular time/overtime
- Charge Codes – represents a breakdown of work associated with investments
 - Can be used to determine the rates and costs applied to financial transactions
 - Examples are capital/expense, billable/non-billable, project phase
- Cost Type – used in Financial Plans for grouping (Capital or Operating)

Financial Jobs

- Clarity provides several jobs for processing financials
- Common daily schedule:
 1. Post Timesheets
 2. Post Transactions to Financial
 - Job may flag invalid transactions that should be reviewed and fixed as needed
 3. Post to WIP
 4. Import Financial Actuals
- Jobs that should only be run off-hours
 - Rate Matrix Extraction
 - Datamart Extraction
 - Datamart Rollup – Time Facts and Time Summary

| Administration | Favorites | | |
|-------------------------|------------------|---------------------|------------------------|
| Organization and Access | Studio | Data Administration | Project Management |
| Users | Partition Models | Datamart Settings | Timesheet Options |
| Groups | Objects | Datamart Stoplights | Time Reporting Periods |
| OBS | Queries | Time Slices | Charge Codes |
| License Information | Portlets | Lookups | Input Type Codes |
| | Portlet Pages | Incidents | Invalid Transactions |
| | Menu Manager | Reports and Jobs | Settings |
| | UI Themes | Skills Hierarchy | Base Calendars |
| | Views | Processes | Migrate Methods |
| | Content Add-Ins | Audit Trail | Risk Settings |
| | Content Packages | Process Engines | MSP Field Mappings |
| | | Notifications | |
| | | | |

Financial Process Flow



Scheduling Jobs



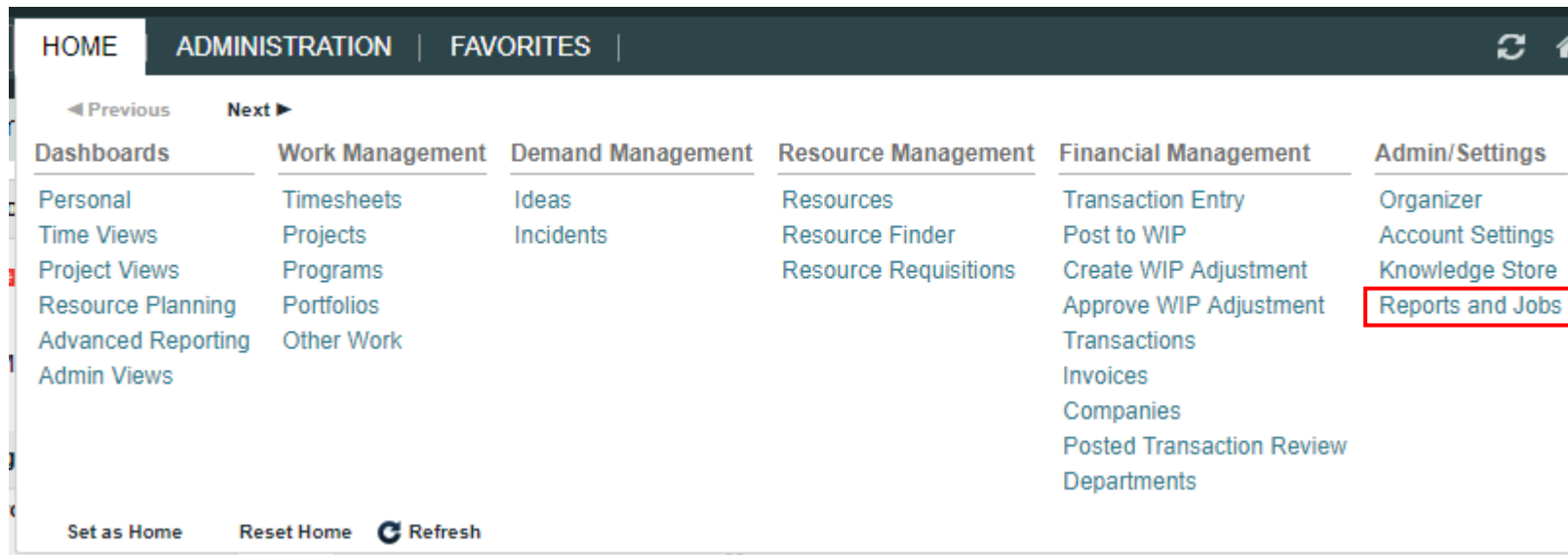
Let Rego be your guide.

Scheduling Jobs - Overview

- Clarity provides many built-in jobs that are run in the background to perform key data-management tasks and to improve system performance
- Some examples are:
 - Financial jobs (e.g. Post Transactions, Post to WIP)
 - Data Warehouse jobs
 - Rate Matrix Extraction
 - Time Slicing
 - Synchronize portfolio investments
 - Delete/Purge jobs (e.g. audit trail, job history, process instances)
 - **Execute a Process** – commonly used by admins to run custom scripts (processes)

Scheduling Jobs - Access

- Jobs are accessed under the Home menu (Reports and Jobs)
- Access is often restricted to administrators but can be granted to others using the “Jobs - xxx” security rights



Available Jobs

- The “Jobs” tab allows you to see what jobs are available in the system and the jobs that are currently scheduled to run
- The Log option in the dropdown provides some historical job details but you will usually only see jobs that were run by you (even admins can’t see all log info)

| Jobs ▾ | | |
|--|--|------------------|
| Available Jobs | | |
| Scheduled Jobs | | |
| Log | | |
| | Description | Executable Type |
| Assign Incident | Assign the incident | Stored Procedure |
| Autoschedule Project | Create/Overwrite the tentative project schedule | Java |
| Batch Printing | Batch Printing | Java |
| Clean User Session | Job definition for cleaning user session | Java |
| Content Add-In Installer | Job installs the Content Add-In | Java |
| Content Packager Job | Job installs the Content Package Definition. This does not include the installation of Content Items. | Java |
| Convert Mixed Booking Status | Converts allocations with mixed booking status and disables the 'Allow Mixed Bookings' option in Administration | Java |
| Copy Cost Plan of Record Charge Code with Cost | Job copies the Investment Plan of Record and adds Cost Type to existing grouping attributes of the new plan. Optionally, it can set the new cost plan as the Plan of Record, and also can copy the latest approved budget and set it as the current budget. For full impacts, review the "CA PPM Administration Guide" | Java |

Running a Job

- Jobs can be run immediately, run at a future time, or run on a recurring schedule
- Click on an Available Job to see the execution options
 - After submitting a job, Clarity will display the “Scheduled Jobs” screen below

Job Type: Delete Investments - Job Properties

General

Job Name

When

When ☐ Immediately ☒ Scheduled

Start Date

Start Time

Recurrence

[Set Recurrence]

Jobs: Scheduled Jobs

Job Name

Job Type

Job ID

Category

Job Status

From Scheduled Date

To Scheduled Date

Recurrence

| <input type="checkbox"/> | Job | Job Type | Job ID | Job Status | Scheduled |
|--------------------------|--------------------|--------------------|---------|------------|-----------------|
| <input type="checkbox"/> | Delete Investments | Delete Investments | 7160667 | Scheduled | 3/31/19 6:30 PM |

Displaying 1 - 1 of 1

Recurring Jobs

- Recurring jobs are configured using the “Set Recurrence” link at the bottom of the Job Properties page


Job Type: Delete Investments - Job Properties

General

★ Job Name

When

★ When ☐ Immediately ☒ Scheduled

★ Start Date 

★ Start Time

Recurrence

[\[Set Recurrence\]](#)

Scheduling Options

- Three options are available for setting a schedule
 - Weekly – specify weekdays and months
 - Monthly – enter specific days of the month (and months)
 - UNIX Crontab
 - Provides more flexibility and granularity
 - Allows you to specify down to the minute and multiple runs per hour
 - Seems cryptic until you get the hang of it

The screenshot displays a scheduling configuration interface with the following elements:

- Recurrence** (selected) and **Run Once** (unselected) radio buttons.
- Weekly** (unselected) radio button.
- On** section with checkboxes for **Sunday**, **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, and **Saturday**.
- Months** dropdown menu showing **January**, **February**, **March**, **April**, **May**, and **June**.
- Recur Until** field with a calendar icon.
- Monthly** (unselected) radio button.
- Days of the Month (1-31)** text input field with a note: *(Enter multiple days separated by a comma.)*.
- Months** dropdown menu showing **January**, **February**, **March**, **April**, **May**, and **June**.
- Recur Until** field with a calendar icon.
- Use UNIX crontab entry format** (unselected) radio button with an adjacent text input field.
- A legend at the bottom left: **[Red square icon]** = Required.

Scheduling With Crontab

- UNIX Crontab format requires 5 values, separated by blanks
- An asterisk (*) means “all” (every month, every day, etc.)

| Minute | Hour | Day of the Month | Month | Day of the Week |
|--------|------|------------------|-------|-------------------|
| 0-59 | 0-23 | 1-31 | 1-12 | 0-6 (0=Sunday) |

- A forward slash denotes an interval (e.g., */15 - every 15 mins)
- Examples
 - 45 6,18 * * * (every day at 6:45am and 6:45pm)
 - 0 */2 * * * (every 2 hours on the hour)
 - 30 4 * * 0 (every Sunday at 4:30am)
 - 30 20 * * 1-5 (every Mon-Fri at 8:05pm)

Tips for Scheduling Jobs

- Use Save Parameters
- Save Jobs as a Favorite
- To avoid re-defining a job, schedule it in the future and pause it
- Use the Notify options to learn of failures
- Remove your name from Notify on Completion if you get tired of emails
- Execute a Process always runs successfully (you must check the process)

Class Exercise – Schedule a Job

- Select Home->Reports and Jobs
- Click Jobs tab and select Available Jobs
- Scroll to the Post Timesheets job and click on it
- In the When section uncheck Immediately and check Scheduled
- Select a Start Date and Start Time ***in the future***
- Click [Set Recurrence]
- Set your desired schedule
- Click Save And Return
- Click Submit and find the job on the Scheduled Jobs screen

Questions?



Let Rego be your guide.

Thank You For Attending regoUniversity

Instructions for PMI credits

- Access your account at pmi.org
- Click on **Certifications**
- Click on **Maintain My Certification**
- Click on **Visit CCR's** button under the **Report PDU's**
- Click on **Report PDU's**
- Click on **Course or Training**
- Class Name = **regoUniversity**
- Course Number = **Session Number**
- Date Started = **Today's Date**
- Date Completed = **Today's Date**
- Hours Completed = **1 PDU per hour of class time**
- Training classes = **Technical**
- Click on **I agree** and **Submit**



Let us know how we can improve!
Don't forget to fill out the class survey.



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