



rego*U*niversity 2019

SAN DIEGO

Administration | Beginner

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Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself
- Business Cards



Agenda

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

Clarity 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 Overview

- 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 Broadcom
 - Clarity version
 - SQL or Oracle
 - Windows or Unix Server

Clarity Overview

- The Clarity 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

Login to Clarity

- Login to the RegoU demo environment
 - URL
 - Username
 - Password

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

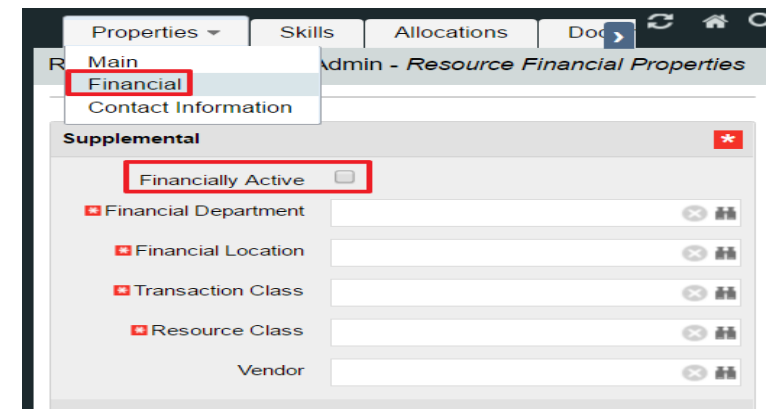
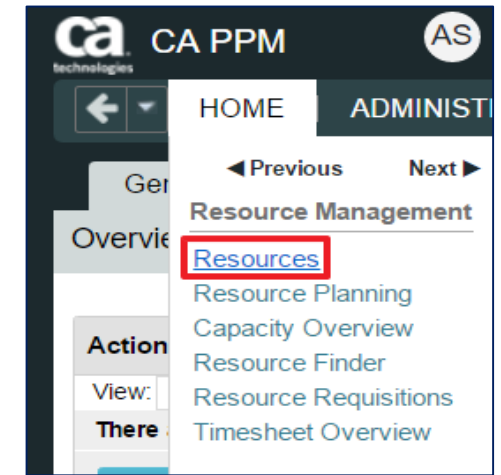
- Create a Resource record
 - Application side: Home->Resources
- Create a User record
 - Admin side: Administration->Resources

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.

Open Discussion

- Any experience with Security setup?
- Do you think you handle security well?
- Do you find yourself spending too much time managing security?
- What works for your organization?

Security Considerations

- Types of Rights
 - Instance – one specific record (e.g. one project, one resource, etc.)
 - Global – all records of a type (all projects, all resources, etc.)
 - OBS – all records of a type associated with a specific OBS
 - 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 may impact your licensing costs!

Security Rights

- Inherent Rights

- Automatically applied when user is first added to Clarity or the user name is associated with a particular field on an object
- Revocable
 - Resource – Enter Time (for themselves)
- Irrevocable
 - User Favorites Menu – Edit

- Instance Rights

- Provides access to specific instance of particular object type
- Assignable to an individual or group
- ***Difficult to manage*** - minimal use is recommended

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
- Some rights have requisite rights
 - Granting the right to create Security Groups is meaningless if the user cannot access Admin pages
 - Access to the Admin pages is therefore a requisite right for creating Security Groups

Security Groups

- Groups

- Defined as a set of users who perform a similar set of functions (role based)
- 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
- Easy way to assign multiple rights to several people at once
- Much easier to manage than assigning rights to specific individuals

- Optional Uses

- 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

Securing Fields

- Read-Only Field
 - Not editable in the UI
 - Useful when populated by a process or auto-numbered
 - Consider using this option on Views rather than on Attributes for flexibility
- Locked Field
 - Not editable when locked
 - A field is typically locked/unlocked by a process at certain points in the object lifecycle
- Calculated Field
 - Displays a dynamically-calculated, read-only value
 - This type of field is virtual and not stored in the DB
 - Tip: Place an editable field on a secure sub-page, then create a calculated field based on that field on a common page to give the appearance of a read-only field

Security Requirements Matrix

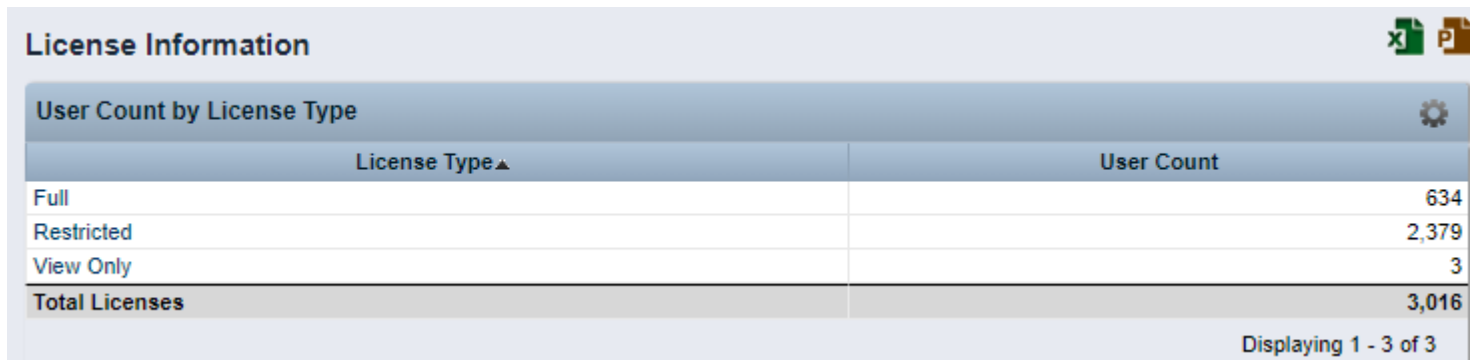
	G – all items OBS – only I – Item only	Administrator	Program/ Project Manager	Resource Manager	Resource Manager Admin
Object / Category	Description				
Idea Rights					
Ideas – Navigate (G)	Allows user to navigate to Ideas pages. User will need additional rights to view individual ideas.				
Ideas – 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				

Security Design

- Design philosophies
 - Open by default – restrict only when needed
 - 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)
 - If possible, blended approach works best
 - Global rights, but within licensing limits
 - For example, don't give timesheet users the rights to manage projects if they don't manage projects
 - Auditing versus Security
 - 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 assigned by Clarity
- Use the License Information portlet (Administration->License Information) to monitor usage and maintain compliance
- Audit this usage periodically



The screenshot shows a web interface titled "License Information" with a sub-header "User Count by License Type". It contains a table with two columns: "License Type" and "User Count". The table lists three license types: "Full" (634), "Restricted" (2,379), and "View Only" (3). A "Total Licenses" row at the bottom shows a count of 3,016. The interface also includes a settings gear icon, export buttons for Excel and PDF, and a pagination indicator "Displaying 1 - 3 of 3".

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
 - Getting security through OBS rights and group rights or through multiple groups slows down performance in some pages/views
 - Do not use single instance rights where security groups make sense
- Minimize security maintenance
 - Architect security so that adding people or changing groups or roles that change rights requires a minimum amount of effort
- Understand what each right means
 - Know the definition of each right
 - Understand the licensing implications of different rights

Security Best Practices

- Think about security roles
 - Not the same as Primary Role or security group
 - Theoretical, not in the system (e.g. timesheet user)
- Put your security model design on paper first
 - Use OOTB groups as a reference but most likely you will not actually use them
- 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 what you should?
 - Can you NOT see what you shouldn't? (often neglected in test scripts)

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

Properties Resources Group's Access Rights ▾

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

<input type="checkbox"/>	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.

Open Discussion

- Any experience with OBS maintenance or setup?
- Any experience with OBS and Security?
- What are you expecting to get out of this session?
- Do you have any specifics you would like to discuss around these topics?

Organizational Breakdown Structure (OBS)

- OBS is a company-defined hierarchical structure to categorize projects and resources used for reporting and filtering
- You can usually create OBS's as needed, but can attach no more than five to a DataMart
- Multiple OBS's with security enabled are possible
- If enabling security for an OBS, add all users in the system to that OBS
- OBS is a default filter parameter on most out-of-the-box reports

Organizational Breakdown Structure (OBS)

- Components to consider
 - OBS Type
 - Levels (up to 10)
- OBS Type
 - Determined by business needs
 - There can be a single corporate OBS or several OBS structures to organize and report data as needed
- Examples of Common Criteria
 - Geographic location
 - Resource roles and/or order of authority
 - Project size / type / initiative
 - Products

Best Practice

Keep it as simple as possible;
complexity creates maintenance

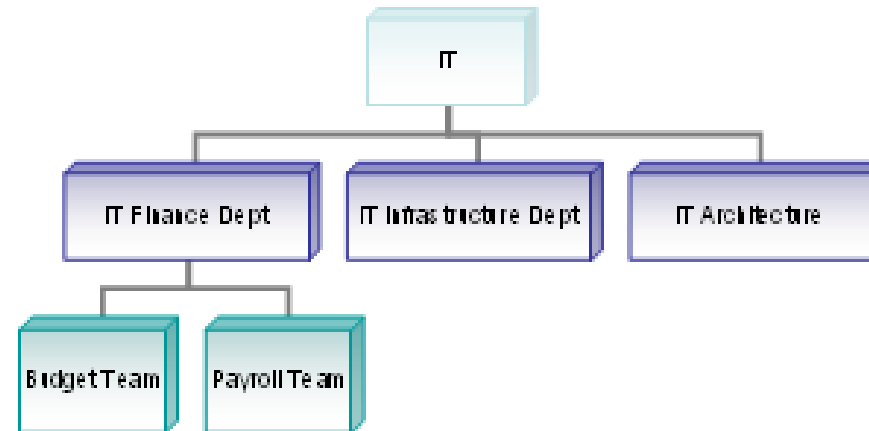
Organizational Breakdown Structure (OBS)

Organizational OBS

Level 1 (Organization) ==>

Level 2 (Dept) ==>

Level 3 (Team) ==>



OBS Demo

- 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

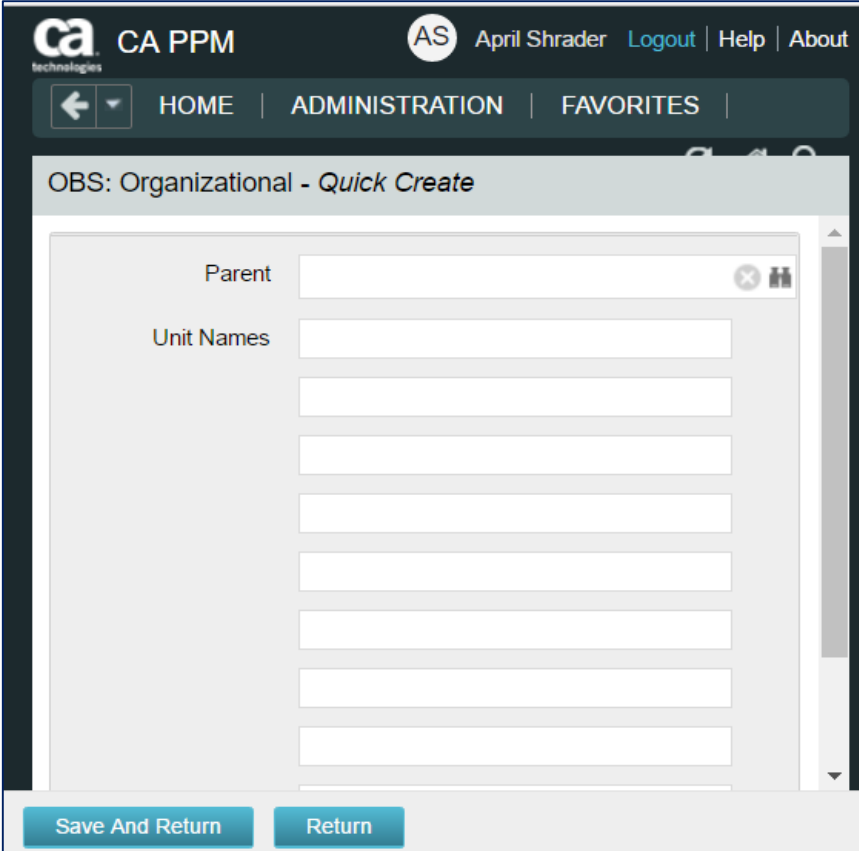
- Click on the Units tab
- Click New
- Name the Unit and choose the Parent Level
- Use the Quick Create feature to speed up the process

Best Practice

The Name of the OBS should describe how it will be used.

OBS Demo

- 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 form is displayed within a browser window with a dark header. The header includes the CA PPM logo, the user name 'AS April Shrader', and links for 'Logout', 'Help', and 'About'. Below the header is a navigation bar with a back arrow, 'HOME', 'ADMINISTRATION', and 'FAVORITES'. The main content area of the form has a title bar 'OBS: Organizational - Quick Create'. Inside the form, there is a 'Parent' field with a dropdown arrow and a 'Unit Names' section with a list of eight empty text input fields. At the bottom of the form, there are two buttons: 'Save And Return' and 'Return'.

OBS Demo

- 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

OBS Maintenance

- Maintaining an OBS and associated records can be time-consuming
- Keep the number and complexity of OBS' 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
- Units can be moved from one parent to another within a specific OBS and all child units will follow
- The fastest way to update OBS associations is from a list view (Resource List, Project List, etc.)
- Look for automation opportunities (e.g. do associations via GEL script)

Class Exercise: Create An OBS

Creating an OBS

1. Select **Administration->OBS**
2. Click **New**
3. Name the OBS (this is what users see)
4. Create a unique OBS id
5. Name the levels of the OBS (for example Department, Location)
6. Choose the Objects this OBS will be associated with (e.g. Resource object)

Add Units to the OBS

1. Click on the **Units** tab
2. Click **Quick Create**
3. Choose the Parent Level and add the Unit

The image displays three overlapping screenshots from a software application, illustrating the steps to create an Organizational Breakdown Structure (OBS).

The top-left screenshot shows the 'OBS: Organizational - OBS Properties' window. The 'General Information' tab is active, showing fields for 'Name' (set to 'Organizational'), 'Description', and 'Business Organization'. The 'Levels' section lists five levels: 'All Groups', 'Group', 'Subgroup', 'Sub Group 2', and 'Sub Group 3'. The 'Associated Objects' section lists various object types like Application, Asset, Idea, Other Work, Portfolio, Project, Resource, and Service, each with an 'Association Method' dropdown set to 'Any Unit'. Buttons for 'New', 'Delete', 'Save', 'Save And Return', and 'Return' are visible at the bottom.

The top-right screenshot shows the 'ADMINISTRATION' menu. The 'OBS' option is highlighted under the 'Organization and Access' section.

The bottom-right screenshot shows the 'OBS: Organizational - Quick Create' window. It features a 'Parent' dropdown menu and a list of 'Unit Names' for input. Buttons for 'Save And Return' and 'Return' are at the bottom.

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
 - 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:

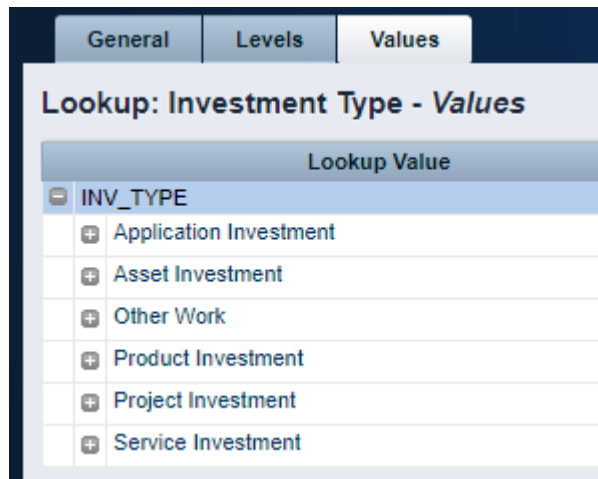
Properties	Attributes	Linking	Actions	Views	Audit Trail	Access to this Ob
Object: Project - Views						
View	Category	Setup			Modified	
Project Properties	Properties	[Layout: Create] [Layout: Edit] [Actions Menu]	[Fields]	✓		
Program Properties	Properties	[Layout: Create] [Layout: Edit] [Actions Menu]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

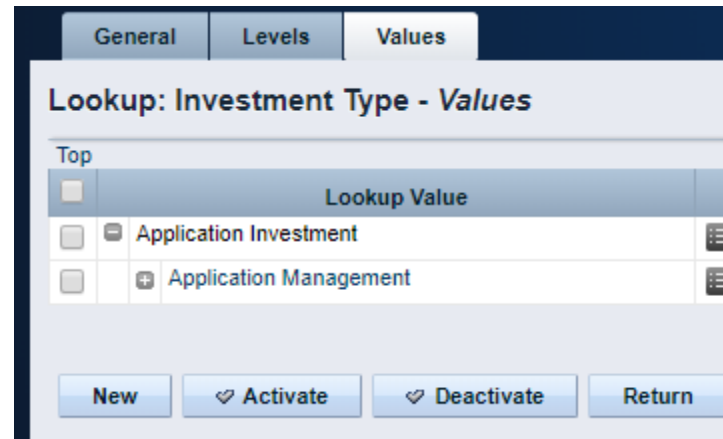
Lookup Types

- Static Dependent List
 - 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



This screenshot shows the 'Values' tab of a 'Lookup: Investment Type' window. It displays a list of investment types under the 'INV_TYPE' header. Each item has a plus icon to its left, indicating it can be expanded.

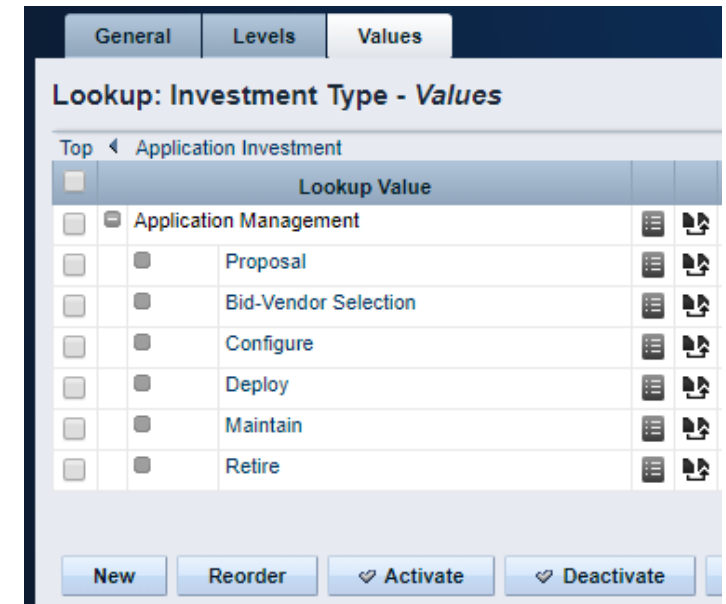
Lookup Value
INV_TYPE
+ Application Investment
+ Asset Investment
+ Other Work
+ Product Investment
+ Project Investment
+ Service Investment



This screenshot shows the 'Values' tab of a 'Lookup: Investment Type' window. The 'Application Investment' item is expanded, showing a sub-list of values. At the bottom, there are buttons for 'New', 'Activate', 'Deactivate', and 'Return'.

Lookup Value
Top
- Application Investment
+ Application Management

New Activate Deactivate Return



This screenshot shows the 'Values' tab of a 'Lookup: Investment Type' window. The 'Application Management' item is expanded, showing a detailed list of values. At the bottom, there are buttons for 'New', 'Reorder', 'Activate', and 'Deactivate'.

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

New Reorder Activate Deactivate

Lookup Types

- 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 – Best Practices

- 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
- Clarity is not the financial system of record
- Clarity 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

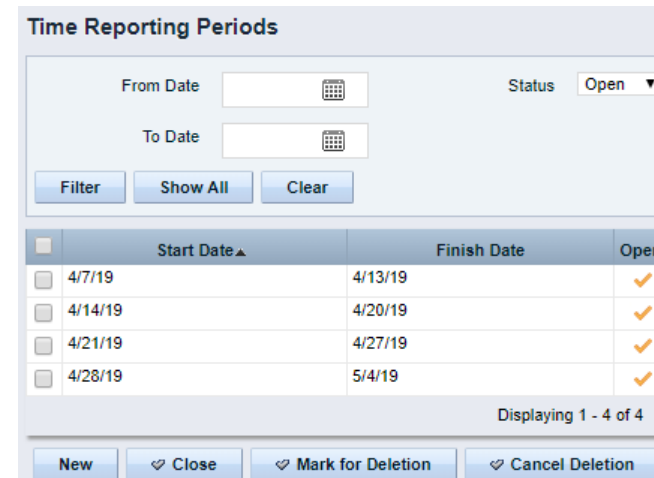
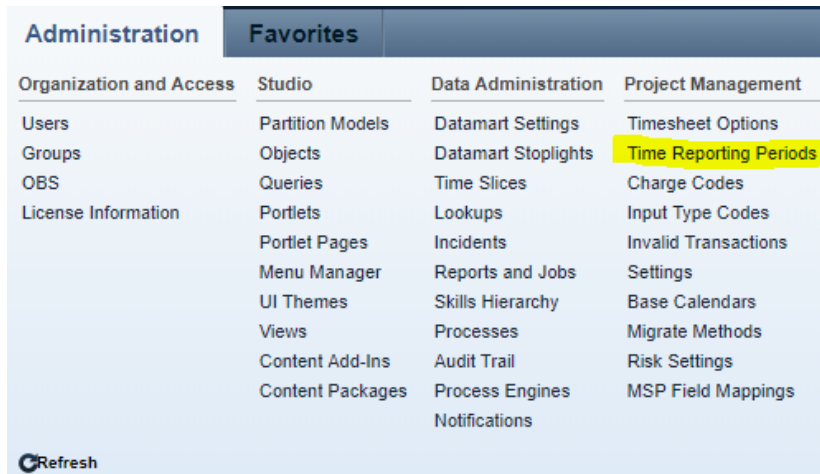
- Created by administrators, often an annual activity
- Required for financial plans
- Used in portlets and reports for financial data
- Not the same as time reporting (timesheet) periods
- Defined at the entity level under Administration->Finance->Setup->Entities

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	<u>Setup</u>
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
	<u>Entities</u>
	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 can not 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)

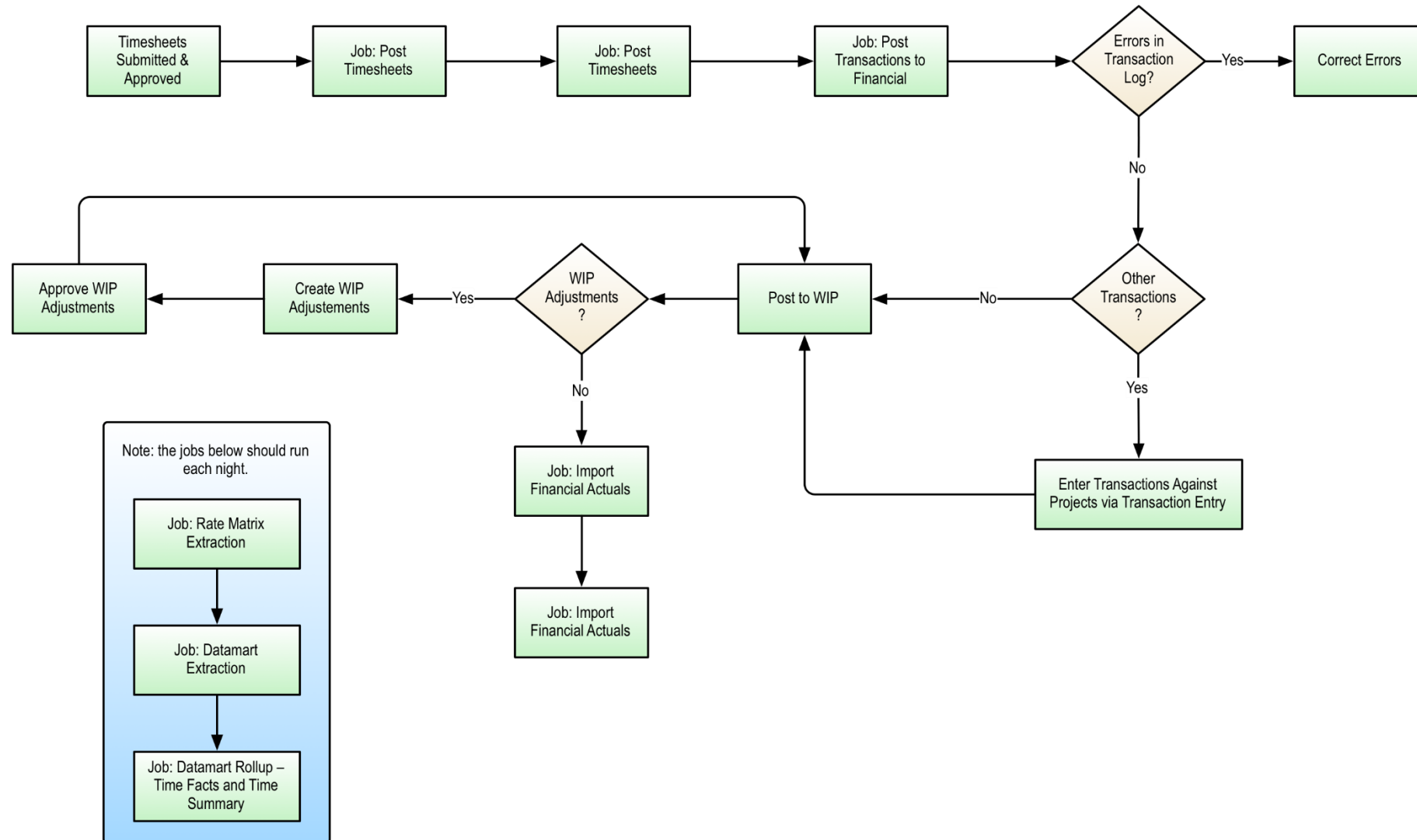
Financial Jobs

- 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	

Refresh

Financial Process Flow



Scheduling Jobs



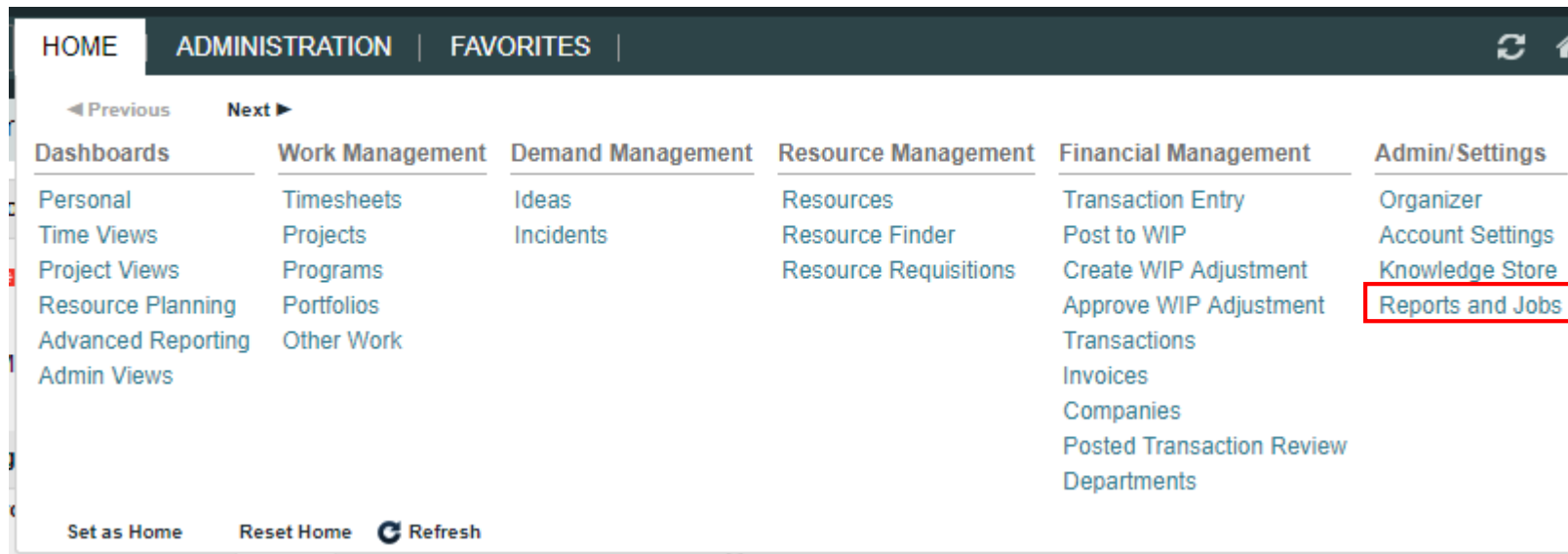
Let Rego be your guide.

Scheduling Jobs

- 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

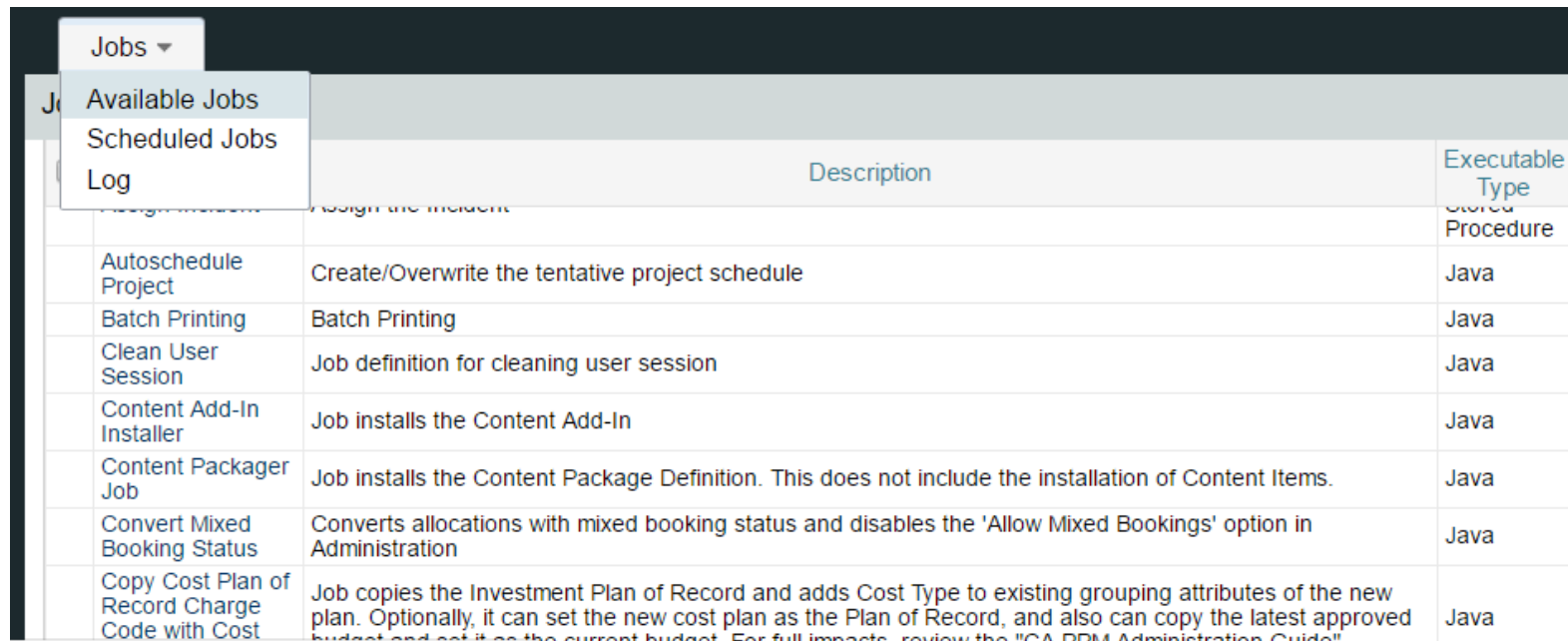
- Jobs are accessed under the Home menu (Reports and Jobs)
- Access is often restricted to administrators but can be granted to others using the “Jobs - xxx” security rights



Depending on your version of Clarity, you may see:
Reports and Jobs
or only **Jobs**

Scheduling 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)



	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

Scheduling Jobs

- 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

Scheduling 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 Jobs

- 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 job scheduling configuration window. At the top, there are three main options: **Recurrence** (with a red asterisk icon), **Run Once** (selected with a radio button), and **Weekly** (unselected). Below these, the **Weekly** section is expanded, showing a grid of days from Sunday to Wednesday, each with an unchecked checkbox. A **Months** dropdown menu is open, showing a list of months from January to June. Below this is a **Recur Until** field with a calendar icon. The **Monthly** section is also visible, featuring a **Days of the Month (1-31)** input field with a note to enter multiple days separated by a comma. It also has a **Months** dropdown menu and a **Recur Until** field. At the bottom, there is an option for **Use UNIX crontab entry format** with an associated input field. A legend at the bottom left indicates that a red asterisk icon means **= Required**.

Scheduling Jobs

- 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)

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

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)

Questions?



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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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