JD Edwards

INFOCUS

ENVISION

Options for Configuring Project Cost Detail within JDE

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Grant Thornton

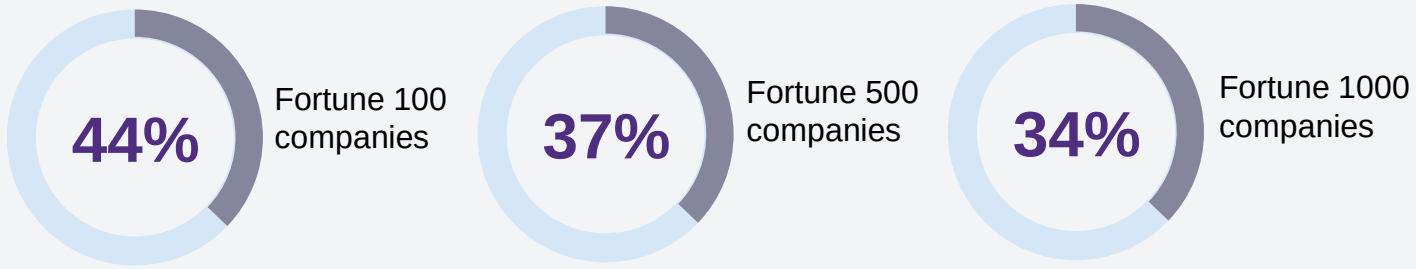
Session ID

102560

About Grant Thornton

Thriving since 1924, our U.S. firm is people-focused and purpose-driven. We believe business should be more personal and that the strongest results start with trust.

Who we serve:



$1.92bn
in revenue

8,459
people, including 595 partners

53
offices

* Statistics as of July 31, 2020

Our Oracle Practice

ERP and SCM

Financials | Revenue management | Accounting hub | Project accounting | Risk management | Project execution
Procurement | Inventory management | Cost management | Maintenance | Manufacturing | Order management | Product lifecycle and data management | Supply chain collaboration and planning

EPM Analytics

Planning and budgeting | Profitability and cost management | Financial close and consolidation | Tax reporting and provisioning
Management and operational analytics | Narrative reporting | Account reconciliation | Enterprise data management

HCM

Culture journey | Talent acquisition | Workforce administration | Talent management | Workforce development
Alumni network

Data governance & cloud integration

PaaS

Solution delivery center (off-shore and on-shore)

Industries

Construction, Real Estate & Hospitality	Consumer And Industrial Products	Energy	Financial Services	Healthcare And Life Sciences	Not-For-Profit Organizations	Private Equity	Public Sector	Technology

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About Grant Thornton JDE

JD Edwards practice – 80+ dedicated professionals in U.S.

Project management and functional expertise

- Specialized functional resources
- Project management office
- Implementations
- Upgrades
- Mobile applications
- Third party integration architecture
- Business process re-engineering
- Managed services (functional)
- User materials and training
- Financials
- Distribution
- Manufacturing
- HR / Payroll
- CAM
- Project advisory

Technical

- CNC
- Development
- Workflow
- Security management
- Technical management
- Database management
- Infrastructure / hosting
- Managed services (technical)
- Private cloud
- Disaster recovery
- Security
- Development (FRICE)

Trusted business advisor

- Gap assessment
- Transformation
- Industry point of view
- Proven methodologies
- Process excellence
- Benchmarking
- ERP governance
- Data governance
- Master data management
- Reporting strategy
- Change management
- Cloud roadmap / strategy
- FASB planning
- Chart of accounts optimization

Oracle leadership

- The Leading Oracle Platinum Partner presenter at COLLABORATE, INFOCUS and OpenWorld conferences (more presentations than any other Platinum partner in the past 3 years)
- Featured in PROFIT magazine – JD Edwards Special Issue
- Teaming with JDE product development – we work with JD Edwards on enhancing the code base for customers (e.g. OneView Reporting, Revenue Recognition, Leasing Standards, Configurator)

Experience and recognition

- More than 250 JD Edwards implementations and upgrades as a practice
- Over 20 implementations in the past 5 years
- Over 50 upgrades in the past 5 years
- 2017 JD Edwards Partner Excellence Award for **User Adoption**
- 2016 JD Edwards Partner Excellence Award for **Vertical Industries**
- Oracle JD Edwards recognized Grant Thornton with its 2014 and 2015 JD Edwards Partner Excellence Award for Outstanding **Upgrades**

Objectives of Session

- To gain an overall understanding of the following costing functionality within JD Edwards:
  - General Ledger
  - Work Order Management
  - Job Cost Accounting
  - Engineer To Order (ETO)
- To gain knowledge of how I can establish various frameworks for my costing level of detail needs in my areas of work.

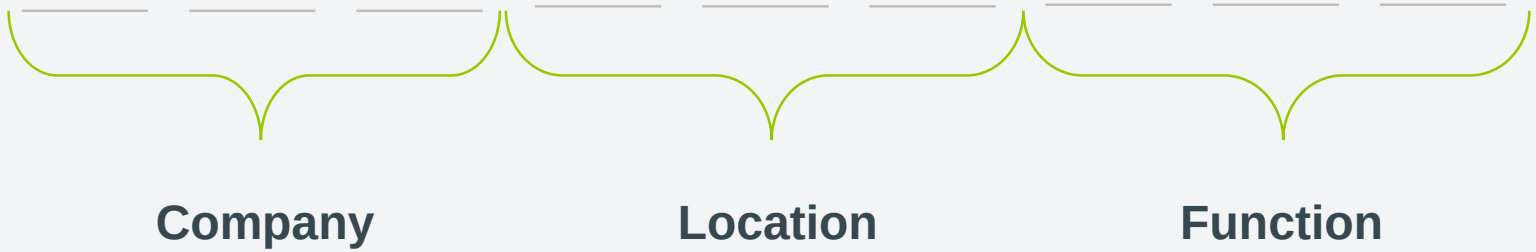
General Ledger

1. Business Units
2. Chart of accounts
3. Subledgers
4. Ledger Types
5. DMAAIs
6. Flex Accounting
7. Advanced Cost Accounting

Business Unit Conceptual Design

General Ledger Business Unit Structure

- Up to 12 Position Field / Multiple Segment Options:



Company

- segment will be non leading zero values only

Location

- segment for locations; make sure to leave room for future growth
- would be able to have up to 999 different Locations for each company

Function

- segment for functions; make sure to leave room for future growth
- would be able to have up to 999 different Functions for each company

Business Unit Conceptual Design

Types of Business Units:

- Balance Sheet (Assets, Liabilities, Retained Earnings) = **Company #**
- Income Statement (Revenue & Expense) = **Company**, **Location**, **Function**
- Warehouse/Location for PO Ship To = **Company**, **Location**

Chart of Account Conceptual Design

Account Ranges (Object Format)

- An object can be between 4-6 alphanumeric characters. Six is the maximum length and is recommended to allow for future growth.
- This field is required on G/L transactions.

Account Range	Description
100000-199999	Assets
200000-299999	Liabilities
300000-399999	Equity
400000-599999	Revenue
600000-799999	COGS
800000-899999	SG&A
990000-999999	Statistical

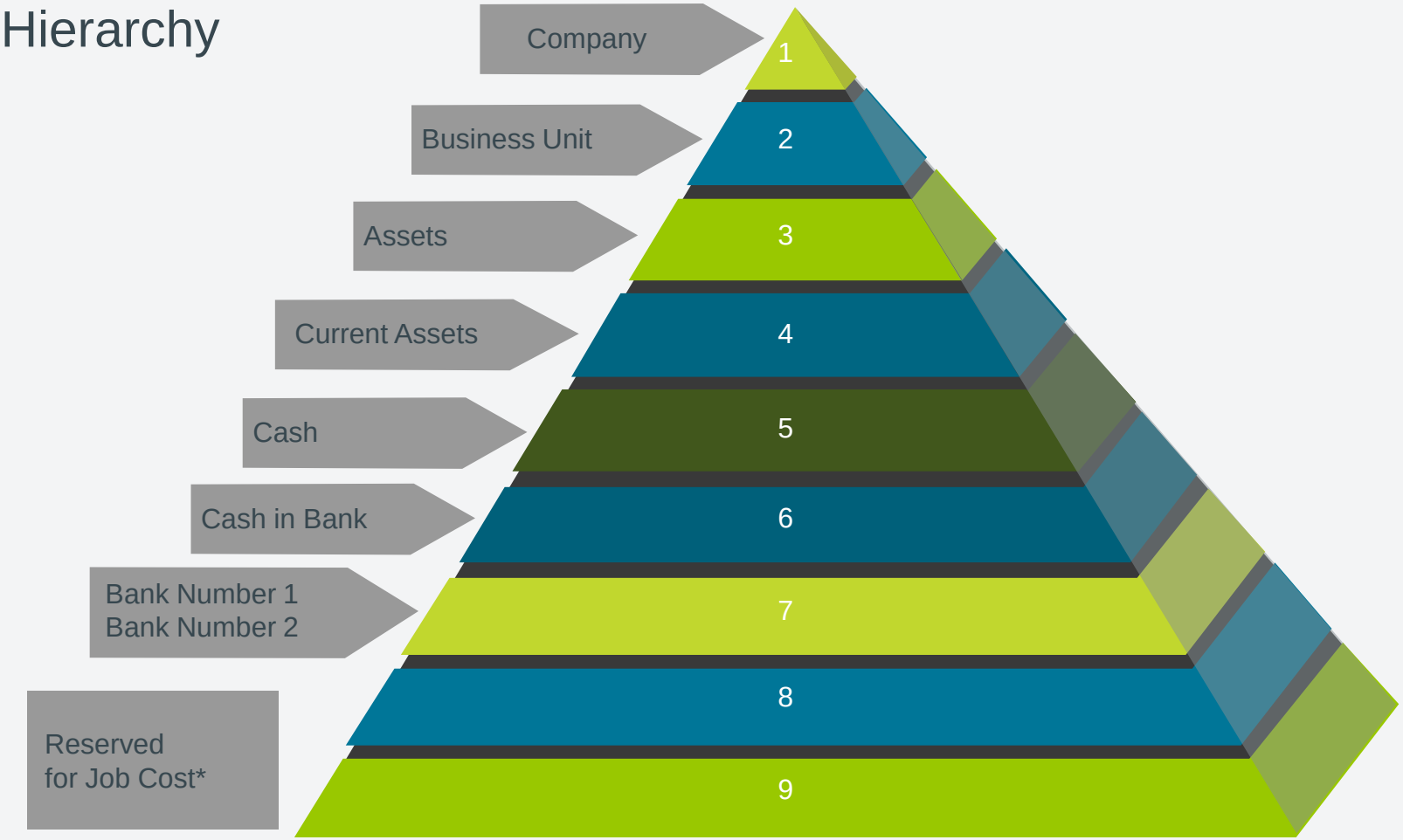
Chart of Account Conceptual Design

Subsidiary Format

- Subsidiaries can be up to 8 alphanumeric characters. They can vary in length between sections of the chart.
- This field is NOT required on G/L transactions; Only optional to provide additional detail if needed
- Account Level Category Codes are another option (discussed later in this presentation)

Chart of Account Conceptual Design

Level of Detail: Reporting Hierarchy



Subledgers

Subledger Format

- Address book – 'A' subledger type
- Work order – 'W' subledger type
- Unassigned – 'X' subledger type
  - Vendor/Customer Name – change to 'A' type and leverage address book
  - Allocations "From" – change to 'C' type and leverage business units
  - Item category code – change to 'I' type and leverage all attributes of item master
  - Project Code – change to 'C' type and leverage job cost business units
- Structured – ‘S’ subledger type

Note: The Subledger field has a limit of 8 characters. Business Units > 8 characters will not populate correctly.

Ledger Types

Key features:

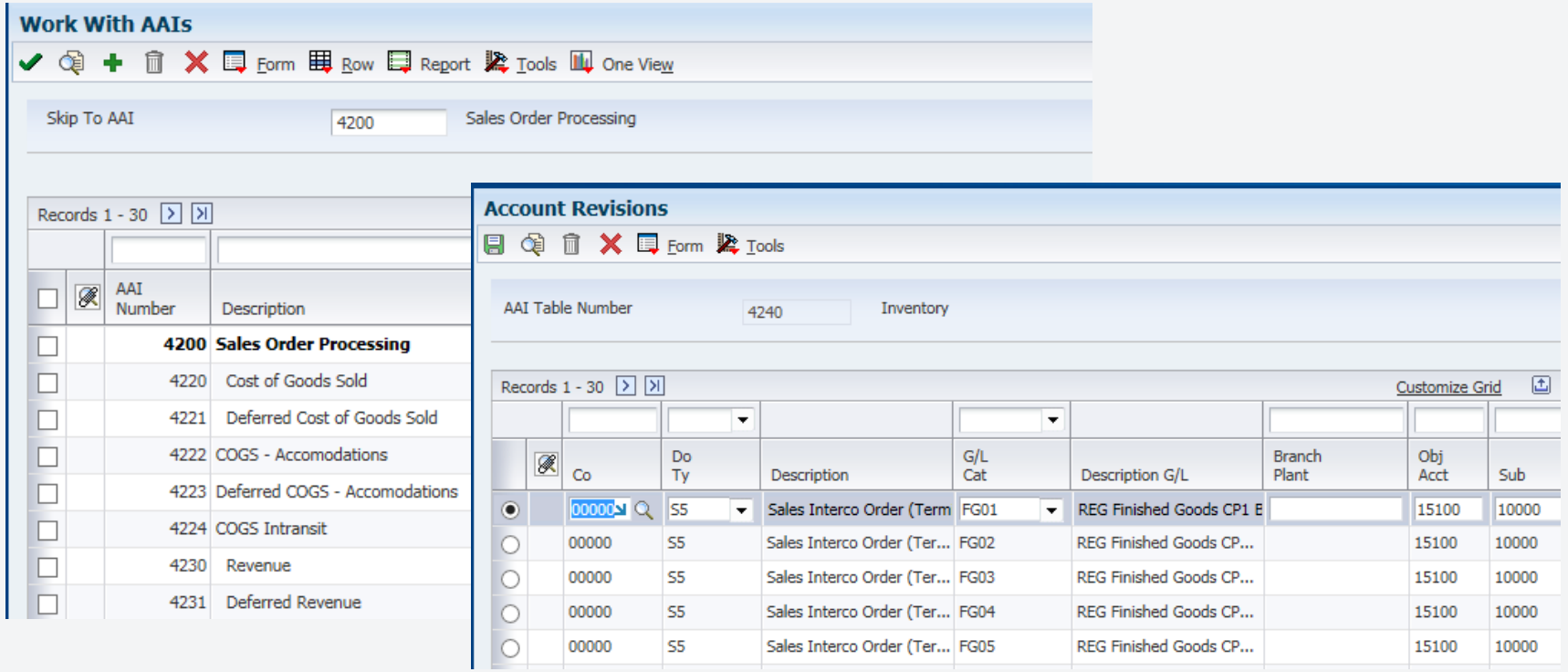
- Ability to track budget to actual information by fiscal year
- Inquiry applications available to show budget to actual, and variance information but business unit for specific G/L account.
- Ability to roll budget information from one year to the next.

Standard ledger types used with General Ledger:

Ledger type	Amounts	Units
Actual	AA	AU
Budget	BA	BU

DMAAIs

Distribution / Manufacturing AAIs:



Setup by Company / Order Type / G/L Class Codes

Branch Plant, Subsidiary, and Subledger can be "flexed"

Flex Accounting

Flexible accounting provides greater flexibility in recording accounting information associated with manufacturing / distribution transactions.

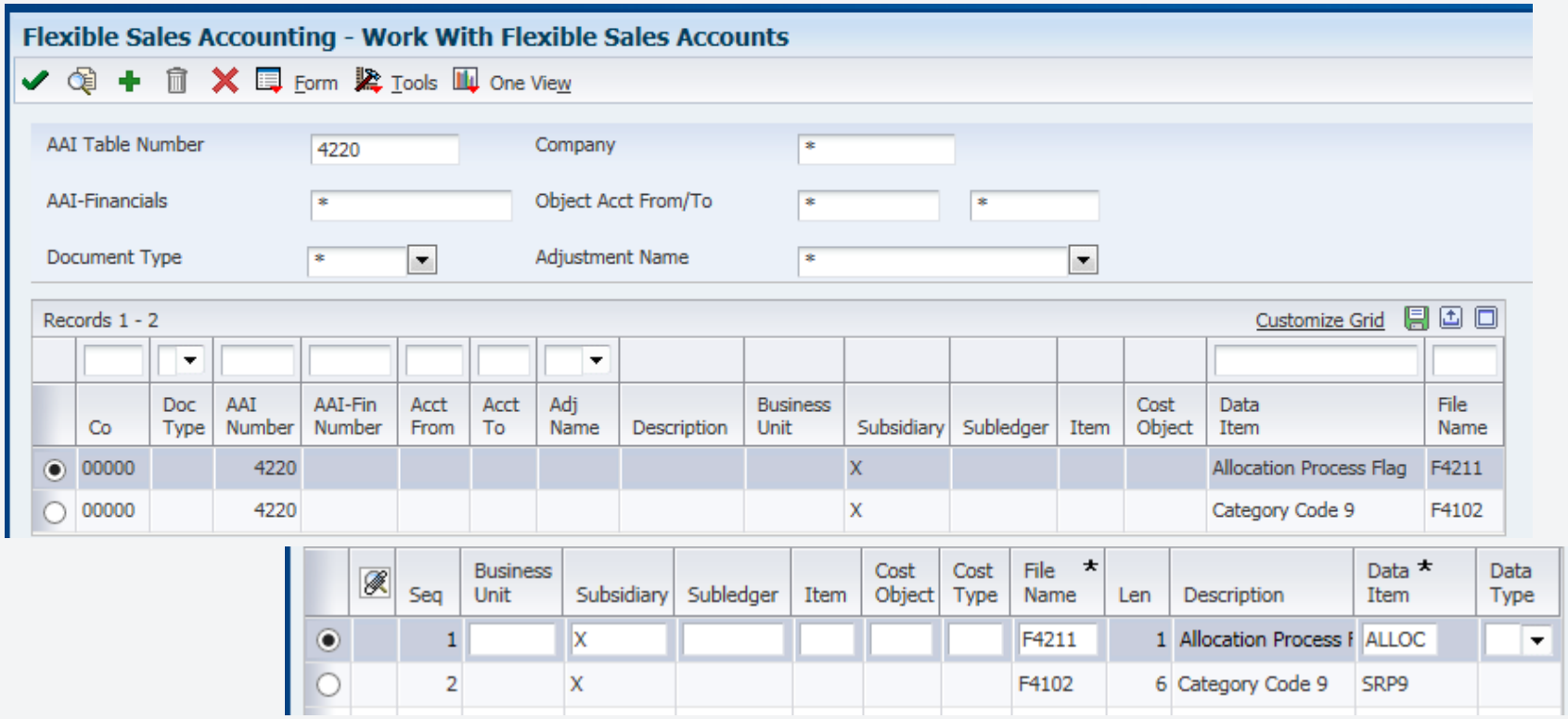
- Determine what can be flexed:

Account Segment	Works with flexible format?	Character limit
Business Unit	**Yes**	**12**
Object	**No**	**6**
Subsidiary	**Yes**	**8**
Subledger (F0911 only)	**Yes**	**8**

Note: Branch plant field can be broken into as many as 6 segments with a total of 12 characters. The subsidiary can be broken into up to 4 segments with a maximum of 8 characters.

Flex Accounting

Flexible Sales Accounting (P40296):



- Ability to "flex" key values into the General Ledger detail file (F0911)
- Branch Plant / Subsidiary / Advanced Cost Types (Not Object!)
- Specific DMAAIs utilize related key transactional and master data fields

Flex Accounting

Creates the ability to drive more detail into your CofA, thru:

- More detailed Business Units and Subsidiaries (not Objects)
- Use of Subledgers
  - No additional G/L accounts to maintain (F0901)
  - Additional records in your account balance file (F0902)

However….

- More G/L Accounts to maintain (F0901)
- More transactions in your General Ledger (F0911)
- More time during close to perform consolidation type functions

Advanced Cost Accounting

Cost Objects (Advanced Cost Accounting)

- Advanced Cost Accounting helps you identify which customers, products, activities, and internal processes add value— and which do not
- 4 cost type fields to utilize (item number takes the 5th)
- Typically track customer and/or product data in the cost objects
- Examples:
  - Departments
  - Types of services
  - Locations
  - Projects
- If any of these values can be derived from an account category code, then cost objects should not be used for this data

Advanced Cost Accounting

Cost Objects (Advanced Cost Accounting)

- Things to consider:
  - Identify transactions that require additional data
    - Financial (A/R, A/P, G/L)
    - Procurement
    - Sales
    - Transportation
  - Common data points to track
    - Customer attributes (Customer number, Region, Sales Territory)
    - Product attributes (Product Line, Product Number)
  - Guiding principle is to directly link financial transactions (F0911) to specific customers and products for additional reporting/analysis

General Ledger: Summary

- General Ledger base functionality – backbone of JDE
- Balance Sheet & Income Statement – treat as permanent G/L accounts
- Subsidiaries vs. Subledgers – differences / benefits
- Budget-to-actual ledger tracking capabilities
- Flex accounting offers ability to drive specific operational/project details into your G/L accounts.
- Advanced Cost Accounting (via Flex Accounting) enables project information at transaction level (not G/L account level).

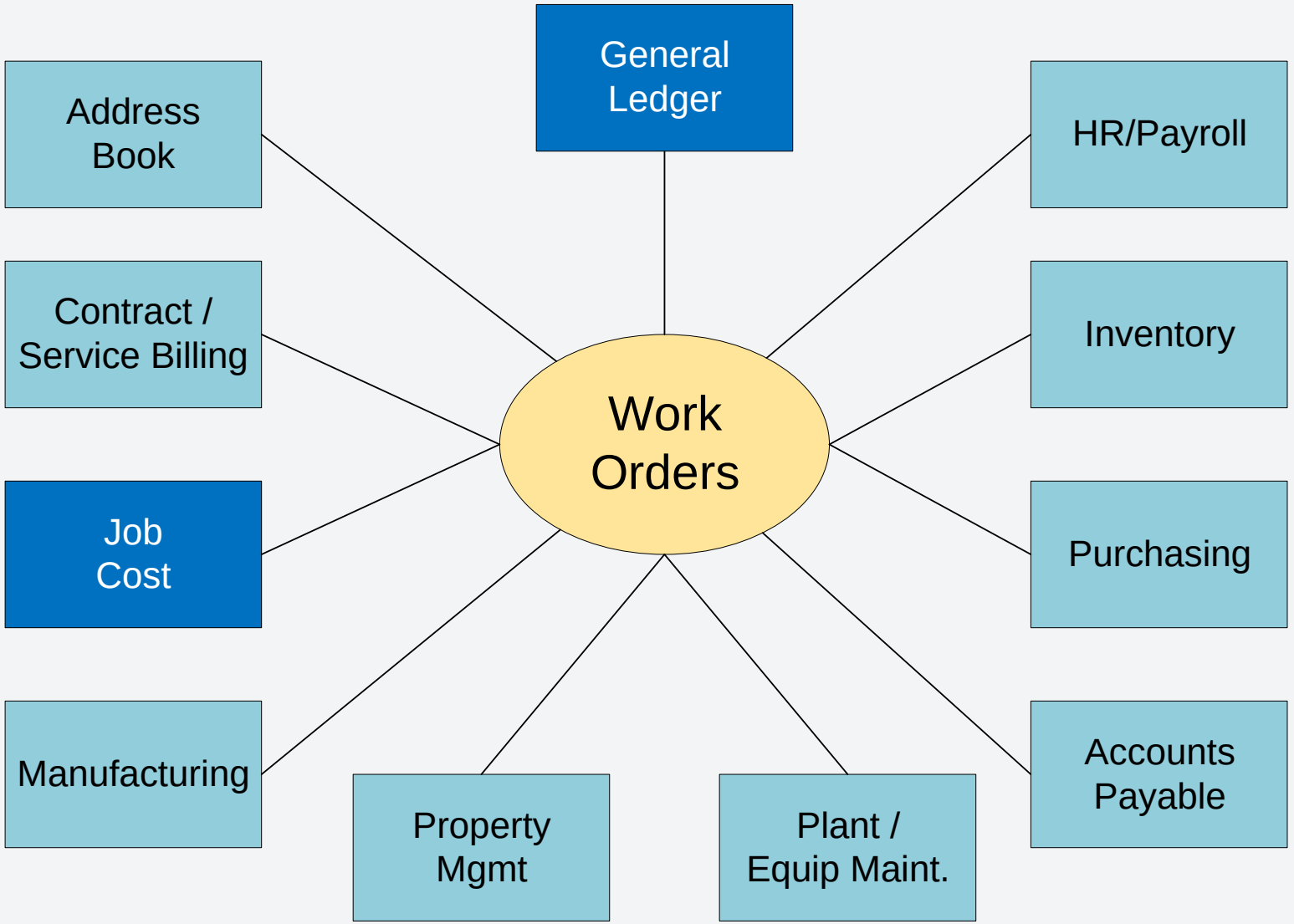
Work Order Management

1. Work order master
2. Work order details
   a) Key features / functionality
   b) Integration
   c) Costing capabilities

Work Order Overview

Key features

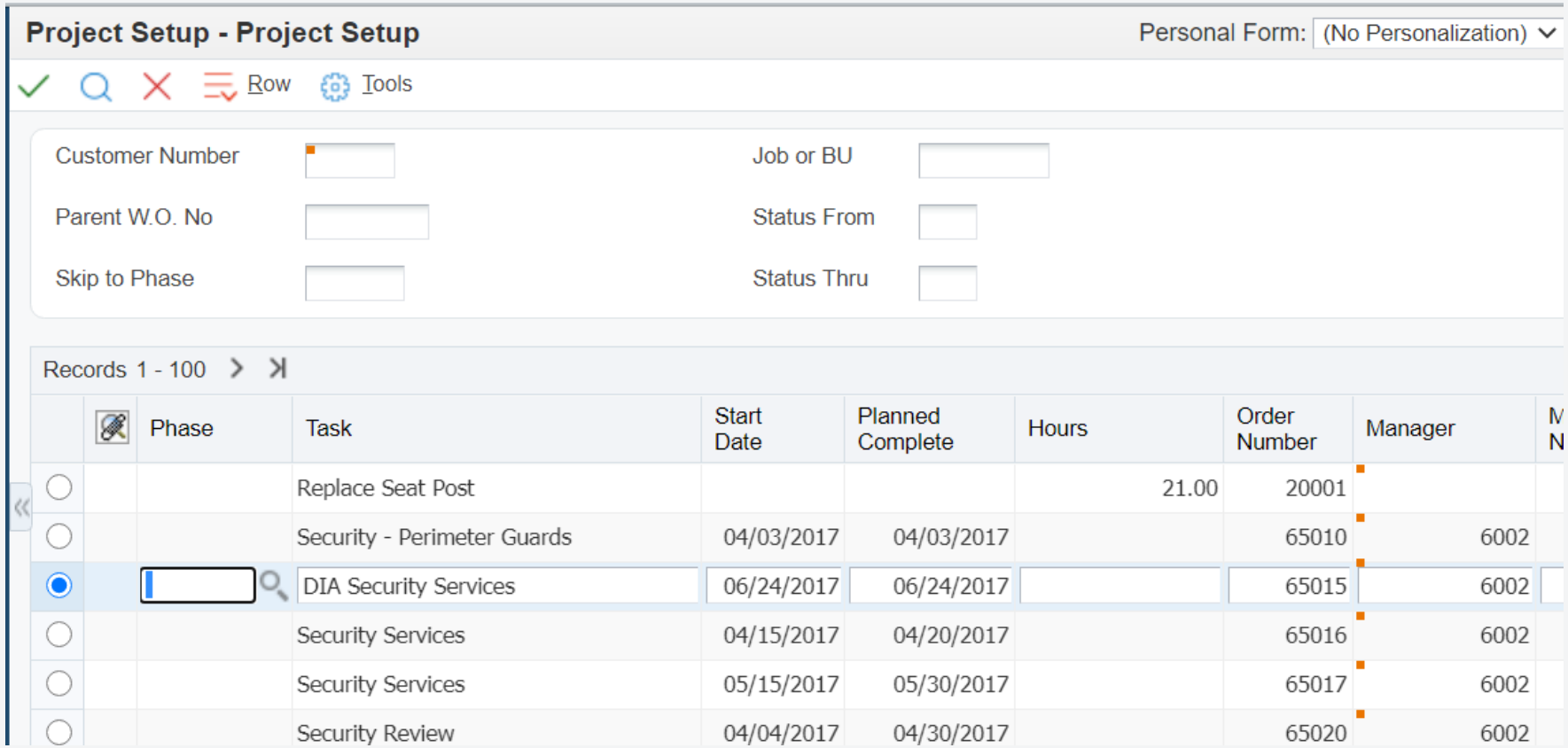
- Simple Project Management
- Works with the General Ledger or Job Cost (using Subledger functionality)
- Work order approvals
- Order activity rules / statuses
- Simple estimating
- Assigning costs to work orders



Work Order Master

Key information

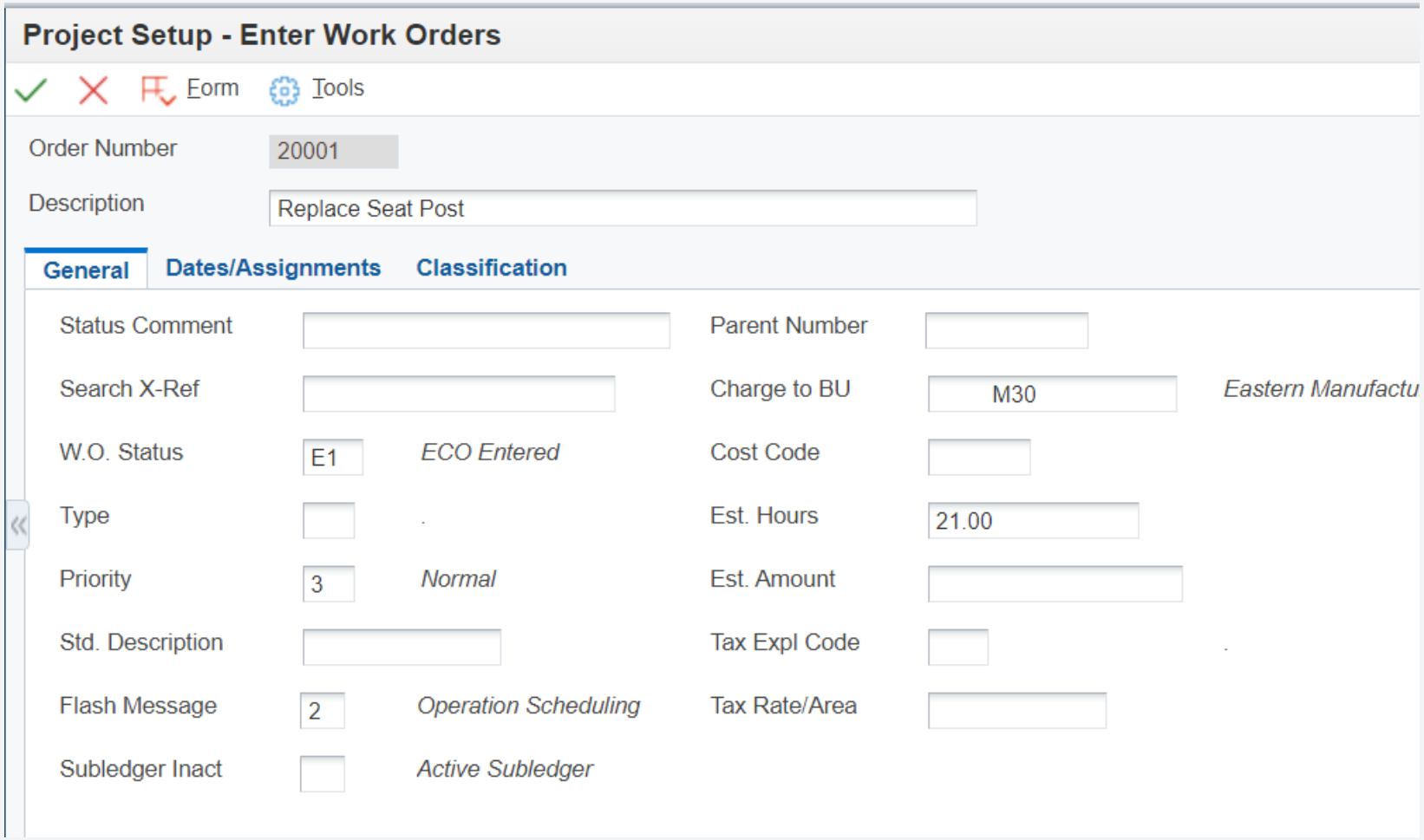
- **Customer number**
- **Job / Business Unit**
- **Parent WO**
- **Phases**
- **Task Description**
- **Start / Completion Dates**
- **Manager**



Work Order Details

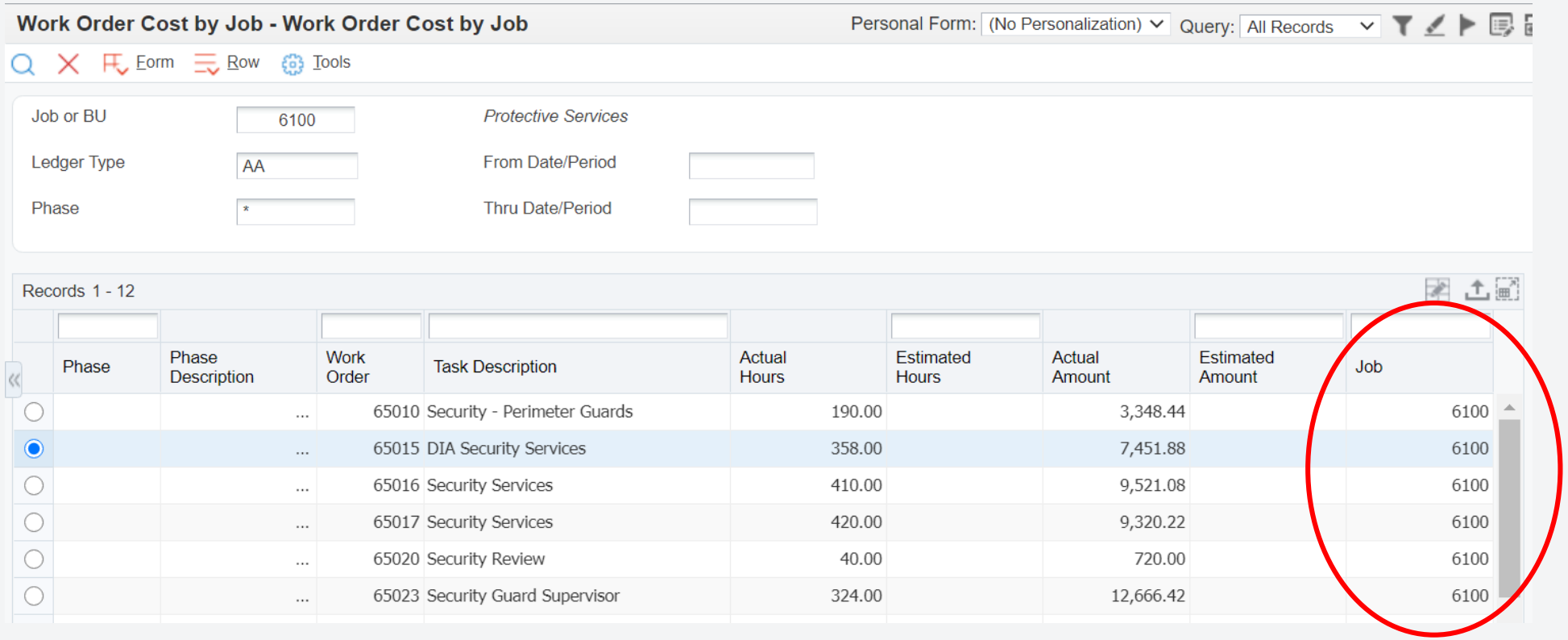
Key information

- **WO # / Description**
- **Statuses**
- **Messages**
- **Cost Code**
- **Est. Hours / Amounts**
- **Multiple dates for tracking**
- **Related Address Book #'s**
- **Classification (Category codes)**



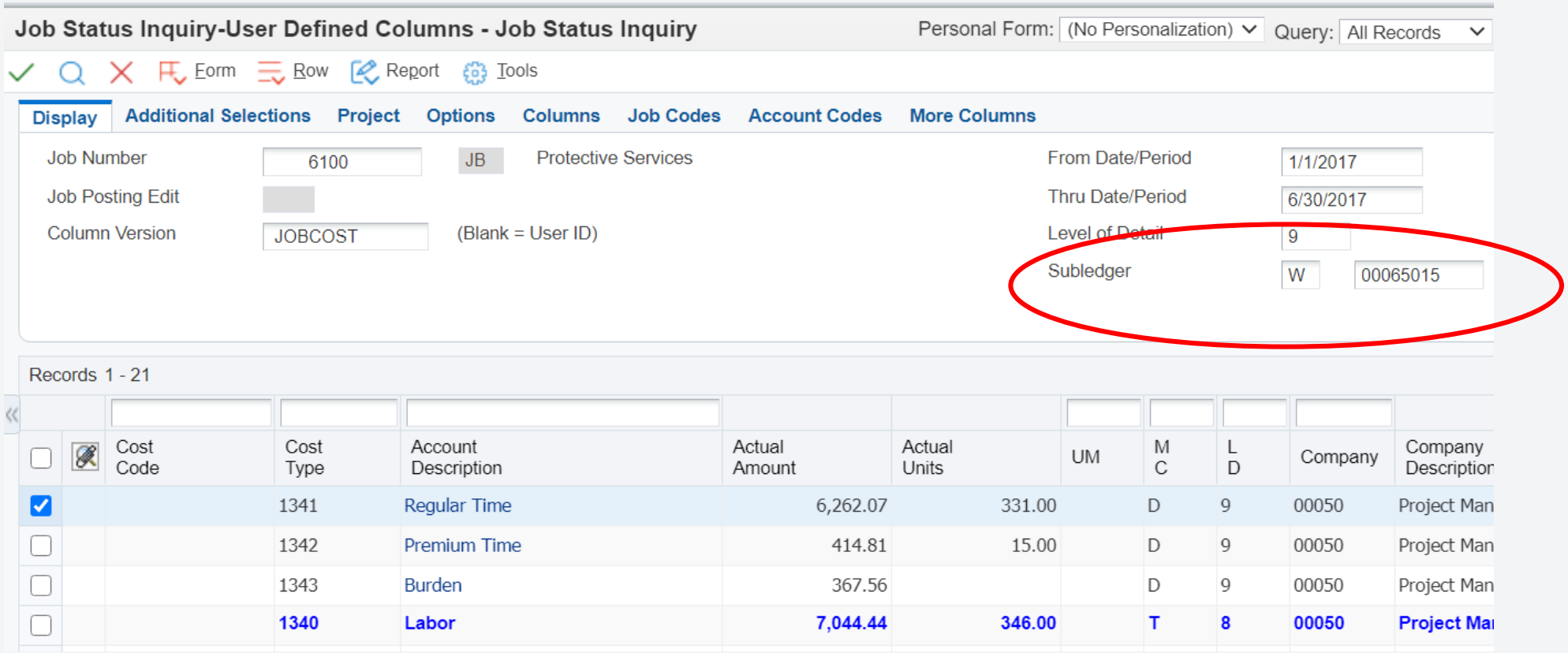
Work Orders: Cost by Job

- Ability to have work order activity linked to a job or business unit



Work Orders: Cost by Job

- Ability to see the work order activity within Job cost or G/L inquiries
- Actual costs were booked via supporting modules (using subledgers)



Work Orders: Summary

- Used for more simple projects / Best for shorter duration jobs
- Ability to track work activities for a particular job
- Simple budget-to-actual costing analysis
- Ability to see costs at the task (work order) level within the General Ledger or Job cost
  - Via Subledger functionality (within F0911 only)
- Ability to approve work & understand the status of work order activity
- Additional reporting capabilities

Job Cost Accounting

1. Job setup
   - Job master / accounts
2. Cost code structures
3. Job budgets
4. Job commitments
5. Job status inquiry
   - Roll-up capabilities
   - Inquiry columns
   - Display options
6. Job cost reports
7. Job maintenance
   - Field progress entry
8. Profit recognition / Journal entries
9. Project costing related modules

What is Job Cost?

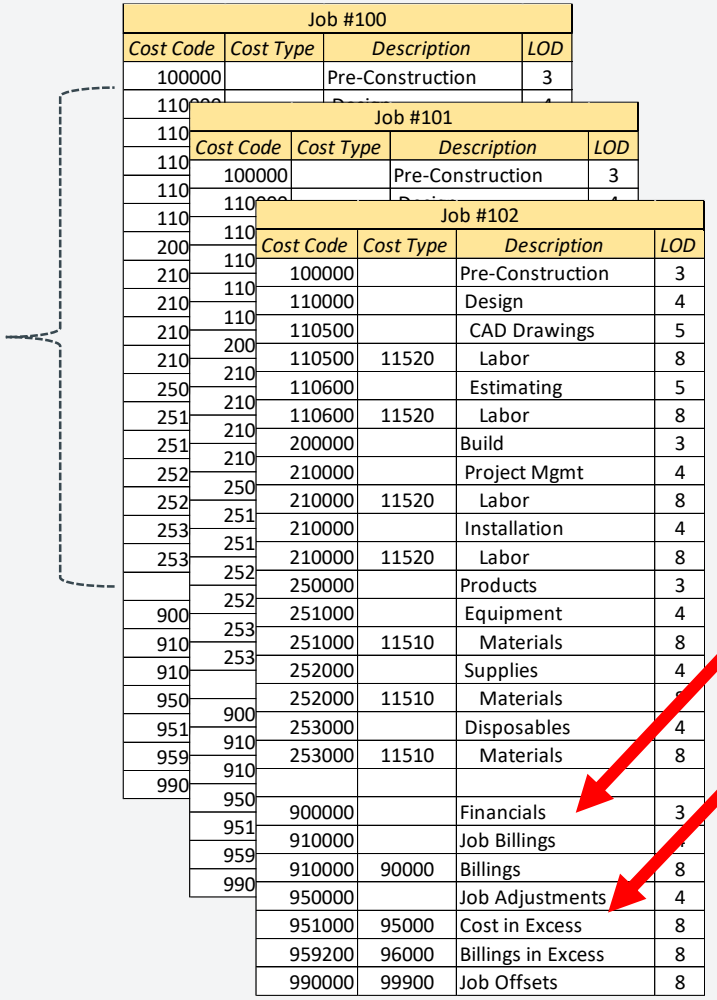
Job cost is a means of tracking costs and revenue on a per job / project basis. Specifically, we are able to perform the following:

- Create and maintain cost code structures for all jobs
- Establish job budgets
- Set up time schedules for job tasks.
- Track and manage the costs and revenues associated with projects, individual jobs, and/or change orders
- Review and revise additional information associated with projects and/or jobs.
- Generate various reports showing the cost, revenues, and other details of projects and/or jobs.
- Calculate job progress at any time during the job.
- Calculate estimated final values associated with projects and jobs.
- Recognize and record profit or loss at any point in a job.
- Create draw reports on the costs that are eligible to be borrowed against a loan agreement.

Job Cost / Financial COA Relationship

Balance Sheet		
Object	*Description*	*LOD*
10000	Assets	3
11000	Current Assets	4
11500	Work in Process	5
11510	WIP: Materials	6
11520	WIP: Labor	6
20000	Liabilities	3
21000	Current Liabilities	4

Jobs typically reside on the balance sheet…



Job #100

Cost Code	*Cost Type*	*Description*	*LOD*
100000		Pre-Construction	3

Job #101

Cost Code	*Cost Type*	*Description*	*LOD*
100000		Pre-Construction	3

Job #102

Cost Code	*Cost Type*	*Description*	*LOD*
100000		Pre-Construction	3
110000		Design	4
110500		CAD Drawings	5
110500	11520	Labor	8
110600		Estimating	5
110600	11520	Labor	8
200000		Build	3
210000		Project Mgmt	4
210000	11520	Labor	8
210000		Installation	4
210000	11520	Labor	8
250000		Products	3
251000		Equipment	4
251000	11510	Materials	8
252000		Supplies	4
252000	11510	Materials	8
253000		Disposables	4
253000	11510	Materials	8
900000		Financials	3
910000		Job Billings	4
910000	90000	Billings	8
950000		Job Adjustments	4
951000	95000	Cost in Excess	8
959200	96000	Billings in Excess	8
990000	99900	Job Offsets	8

…and are "recognized" on the income statement periodically.

<u>Note</u>: Jobs can reside on the I/S if necessary

Income Statement		
Object	*Description*	*LOD*
40000	Revenue	3
41000	Contract Revenue	4
42000	Contract Sales Adj	4
50000	Expenses	3
51000	Contract COGS	4
52000	Contract COGS Adj	4
70000	S, G & A	3
71000	S, G & A Detail	4

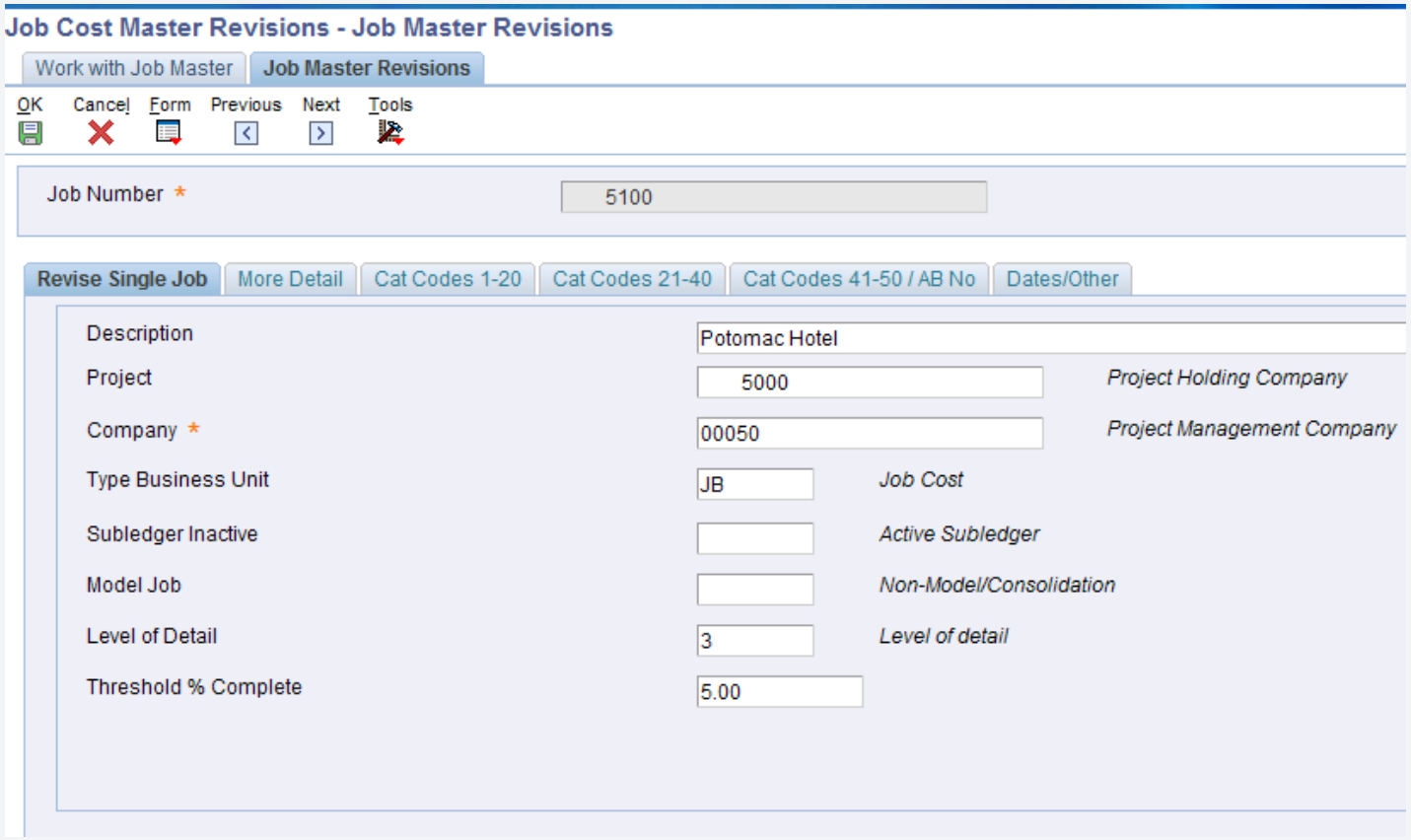
Job Master Setup

Setup job master

- Type of business unit
- Extended job master

Key information

- Job number
- Job description
- Company
- Posting edit code
- Jobsite address
- Customer billing address
- Dates
- Category codes



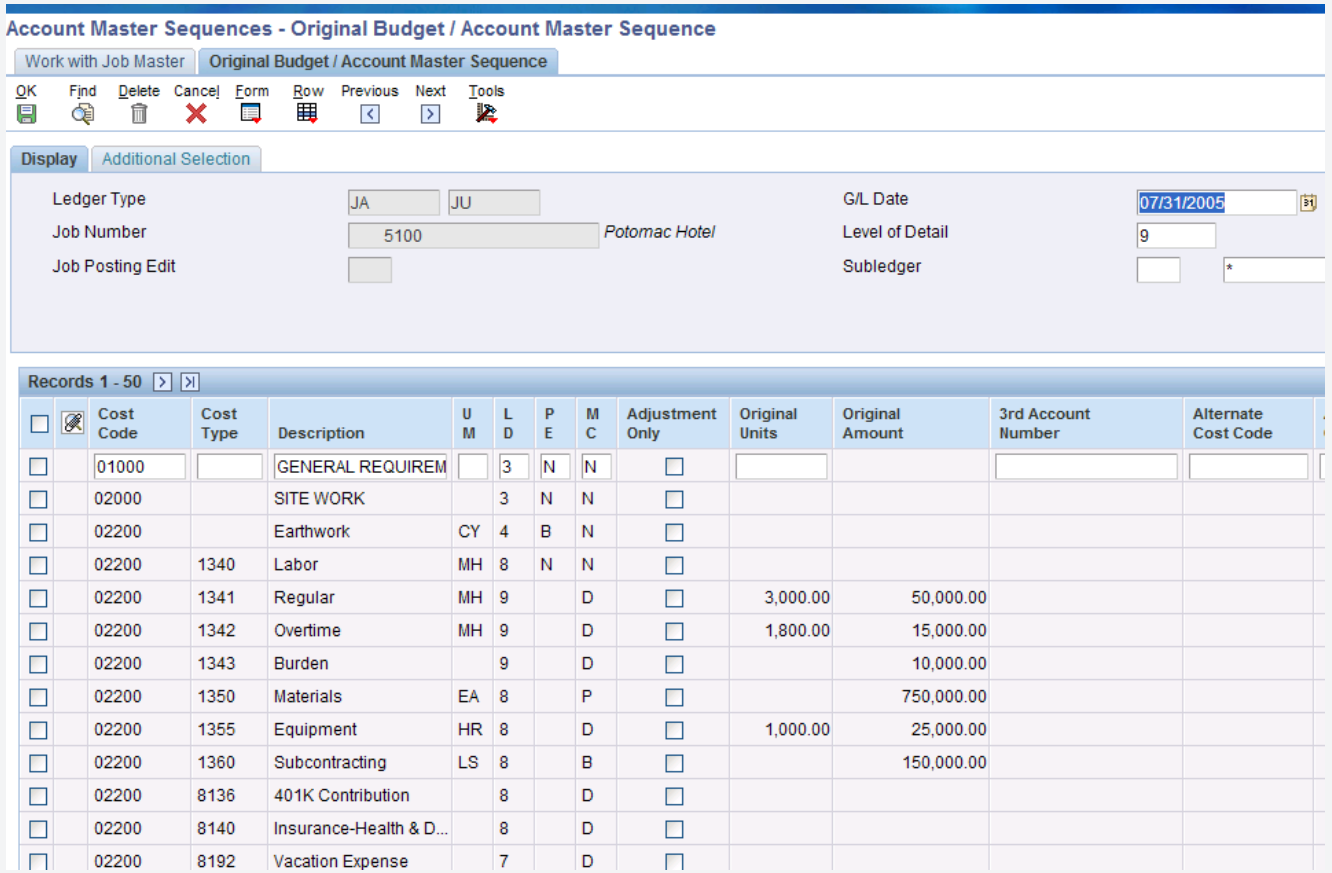
Job Master Setup

Setup job accounts

- Cost code structures
- Cost code / cost type
- Account description
- Alternate cost code
- Posting edit code
- Level of detail
- Unit of measure
- Method of computation
- Category codes

Other account setup methods

- Copy from chart type
- Copy from job
- Export / import



Cost Code	Cost Type	Description	U M	L D	P E	M C	Adjustment Only	Original Units	Original Amount	3rd Account Number	Alternate Cost Code
01000		GENERAL REQUIREM		3	N	N					
02000		SITE WORK		3	N	N					
02200		Earthwork	CY	4	B	N					
02200	1340	Labor	MH	8	N	N					
02200	1341	Regular	MH	9		D		3,000.00	50,000.00		
02200	1342	Overtime	MH	9		D		1,800.00	15,000.00		
02200	1343	Burden		9		D			10,000.00		
02200	1350	Materials	EA	8		P			750,000.00		
02200	1355	Equipment	HR	8		D		1,000.00	25,000.00		
02200	1360	Subcontracting	LS	8		B			150,000.00		
02200	8136	401K Contribution		8		D					
02200	8140	Insurance-Health & D...		8		D					
02200	8192	Vacation Expense		7		D					

Job Cost vs. G/L

Job cost account structure	Job number | Cost code | Cost type
General ledger account structure**	Business unit | Object | Subsidiary

The account structures are related as follows:

- Job number = Business unit (aka "Cost center")
- Cost code = Subsidiary
- Cost type = Object

The cost code identifies a specific activity within the job.

The cost type identifies specific costs, within the activity, such as labor or materials.

If necessary, the subledger is another field available to further segregate costs (used with change orders).

** - General ledger accounting structure is utilized for journal entries

Cost code structures

Header vs. detail accounts

Header account

- An account into which corresponding detail accounts can be summarized
- Can also be used to summarize related cost code headers, depending on the level of detail
- Only has a job number and a cost code

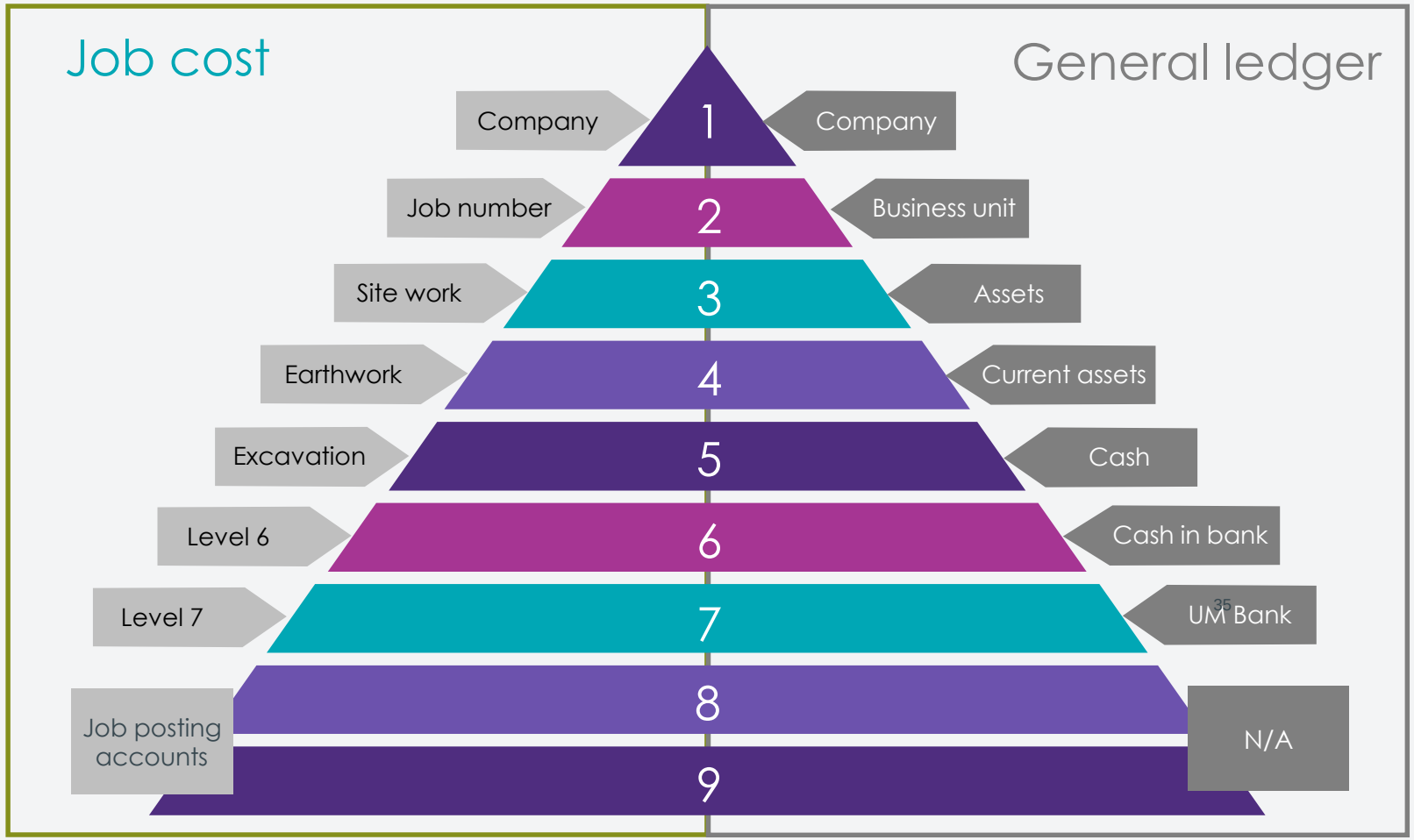
Detail account

- An account that is defined down to a specific cost type
- Contains a job number, cost code, and a cost type

LOD	Cost code	Cost type	Account Desc
3	1000		Sitework
4	1100		Earthwork
5	1110		Surveying
8	1110	1420	Labor
8	1110	1430	Materials
5	1120		Excavation
8	1120	1420	Labor
5	1130		Trenching
8	1130	1420	Labor
8	1130	1430	Materials

Cost code structures

Level of detail / hierarchy



Cost code structures

Key questions to answer

- How do I estimate the work to be completed? What system do I utilize?
- How do I manage the costs on my job? Remaining activity?
- What cost data informs me of future adjustments to make?
- How do I measure the performance of my:
  - Estimators?
  - Project managers?
  - Supervisors, Foreman, Laborers, etc.?
- How do I measure the performance of my division? Product line? Company?
- How do I forecast cost and revenue for future years?
- Am I able to analyze costs effectively to recognize costing trends?

Cost code structures

Cost types

Relationship to COA B/S WIP Accts

Used to further define the costs associated with the accounts in your cost code structure

Typical questions to ask when determining if a cost type is necessary:

1. "Is this type of cost utilized in multiple cost codes / activities within a job?"
2. "How do I usually group my cost type information for review?"

Financial cost types:

- Job billings
- Revenue recognized
- Cost recognized
- Over / under billings

Cost type example

Cost type	Description	P/E	LOD
1420	Direct labor	B	8
1421	Field labor		9
1422	Office labor		9
1423	Field fringes		9
1424	Office fringes		9
1430	Direct materials		8
1440	Equipment - Internal		8
1445	Equipment - External		8
1450	Subcontractors		8
1455	Consumables		8
1460	General supplies		8
1480	Travel		8
1481	Meals & entertainment		8
1482	Utilities/rents/phones		8
1483	Bonds & insurance		8
1484	Commissions		8

Cost code structures

Header units

LOD	Cost code	Cost type	Description	U/M	Budgeted units	Budgeted dollars
3	10100		Major activity	LF		
4	10000		Sub activity	LF	**3000**	$1000
8	10000	1420	Labor	MH	50	
9	10000	1421	Salaried labor	MH		
9	10000	1422	Hourly labor	MH		
9	10000	1423	Fringes	LS		
8	10000	1430	Direct materials	LF	3000	$25,000
8	10000	1450	Subcontracts	LS	1	$10,000

Legend

Header account

Detail account

Header units - Overall quantities to complete

Detail units - Units by cost type, related to the detailed transaction

Key aspects:

- Specific header and all detail accounts are linked because cost code is consistent between them
- Header accounts are available for level of detail 3 through 7

Cost code structures

Developing standards

- It is important to develop your entire Code Book for all WBS activities that you think you might ever encounter
- Utilize the Chart Types functionality in order to store subsets of your code book as templates, typically broken down by (for example):
  - Type of jobs
  - Product lines
  - Industries
- Assign numeric values to each cost code; Make sure to have gaps built into your numeric sequences for future growth
- Remember you have up to 8 digits available for your cost code numeric values
  - Make sure to use a large enough string to allow for proper spacing / future growth, but don't forget that all users of this information will need to enter/record this information on numerous forms and/or documents, so be careful not to add needless keystrokes…

Cost code structures

Ledger types

- Ability to track units, as well as dollars
- Ability to lock original budgets, yet have revised budgets accumulate
- Projected finals are a separate ledger type
- Ability to track purchasing and subcontract commitments
- All ledger types are available for Job Status Inquiry column definitions as well
- Opportunity to have additional "custom" ledger types for other job related purposes

Ledger type	Amounts	Units
Actual	AA	AU
Budget – original	JA	JU
*Budget – revised	RA	RU
Commitments	PA	PU
Projected final	HA	HU
Field progress (Force)	FA	FU
% of job complete	F%	
Custom ledger type(s)	??	??

Cost code structures

Add'l configuration options to consider

Subledger Level	Transaction Level
• Specific data attributes which can be incorporated into WBS	• Subsystem transactions which update specific job cost WBS accounts
• Ability to track additional detail without adding more WBS accounts	• Ability to have individual transactions summarize at typical WBS account balance level

• Same level of detail within account balance analysis as typical cost code structures
  • Estimate to complete analysis
	• Summarized WBS account analysis
	  • If limited/few transactions within each WBS account, question if structure is adequately proportioned

• Job status inquiry can summarize at the WBS account level or individual Subledger level	• Ability to drill into WBS accounts for transaction level of detail

Questions to answer:
What information is necessary to analyze at the WBS account level vs. what transaction information is necessary for drill down purposes?

Cost code structures

Methods of computation (job forecasting)

- Definition: Used to define the means by which to calculate job forecast (projected final) information
- JDE offers over 15 different methods
- Each has specific situations where they apply
- Here are a few of the more widely utilized MOC's:

Method D – Default

- Greater of revised budgets OR actuals plus open commitments
- Based on amounts first and then units second

Methods S & I – Summary & inclusion

- S & I is used when you want to budget at a higher level of detail, but record actuals at a lower level within the same cost code.

Method B – Buyout

- Used for subcontracts and non-inventory purchase orders
- Projected final values = actuals plus open commitments (must recalculate projections)

Method G – Revenue

- Conservative approach
- To be able to recognize more revenue than what was budgeted, you must revise your billing estimate!

Cost code structures

Methods of computation (job forecasting)

- A – Account budget - forced
- B – Buyout or fixed price contracts
- C – Percent complete from cost code header
- D – Default
- E – Estimate to complete
- F – Forced
- G – Budget default – forced
- H – Labor quantity
- I – Include
- L – Labor
- N – No projection
- O – Override
- P – Percent complete
- Q – Quantities
- R – Revenue - unit price Contract
- S – Summary
- T – Total
- U – Remaining unit rate
- V – Revenue - absolute value

If that isn't enough…ask me about Advanced Job Forecasting!!

Profit recognition

Overview

- Definition: Recognition of job activity for financial income statement purposes
  - Timing of cost activities
  - Difference between billings and revenue

- Types of recognition
  - Account level vs. job level
  - Based on percent of cost or revenue

- Process
  - Ability to generate work file
  - Ability to adjust/override jobs as necessary
  - Ability to finalize work file for financial recognition journal entry purposes

New revenue recognition functionality available

Profit recognition
Journal entries

The following journal entries are created based on job's profit information:

- **Recognize revenue & cost** – used to move WIP amounts from the WIP on the balance sheet to cost of sales and revenue accounts on the income statement based on the percentage of completion.
  - Debit: Income statement (IS)
  - Credit: WIP on balance sheet (BS) (financial accounts on job to zero out @ ME)
- **Over-billing**** – when actual revenue is *more* than your earned-to-date revenue on a job.
  - Debit: Revenue account (IS)
  - Credit: Unearned revenue liability account (BS)
- **Under-billing**** - when actual revenue is *less* than your earned-to-date revenue on a job.
  - Debit: Accrued revenue asset account (BS)
  - Credit: Unbilled revenue account (IS)
- **Provision for loss**** – when the projected final amounts result in a projected loss, the entire loss amount is recorded in the period when the loss occurred.
  - Debit: Cost of sales accounts (IS)
  - Credit: Liability account (BS)
- **Accrued / deferred cost**** – used to manually recognize more or less cost than what would typically be recognized. (Automatically reversed out in the following month.)
  - Debit: Income statement (IS)
  - Credit: WIP on balance sheet (BS)

**** - Auto-reversing journal entry**

Job Cost: Summary

- Used for projects with a longer duration / more complex jobs
- Job Cost vs. G/L Relationship
- Flexible cost code structure design
- Many more ledger types available to incorporate
- Forecasting functionality
- Profit (Revenue & Cost) Recognition

Engineer To Order (ETO)

1. What is ETO?
2. Why Engineer to order?
3. ETO Process
   a) Project estimating / quoting
   b) Project scheduling
   c) Actual cost accounting
   d) Project requirement planning

What is ETO?

JD Edwards functionality to manage project-based Engineer To Order (ETO) processes throughout all phases of the project lifecycle, allowing you to have visibility of all operational activities and capture costs in a complex, mixed-mode production environment.

Key features are:

- **Project Estimating and Quoting** - Intuitive project workbench to build a project work budget and work breakdown structure (WBS) that depicts tasks/activities that must be performed to meet customer demands at the margins you require
- **Project Scheduling** - capabilities that let you set the timeline by using standard constraints, such as task dependencies, critical paths, and resource availability
- **Actual Cost Accounting** – track actual cost to each project phase of the project from the WBS with roll up from lower levels
- **Project Requirement Planning** - visibility to manage and recommend acquisition of supplies for the quoted project with a view of supply and demand for the project work

Why Engineer To Order?

- Engineer-to-order provides:
  - Support for meeting your complex project based requirements
  - Support for meeting your customer's requirements if they are in a project based environment (consolidation, installation)
  - Tracking of all tasks that impact project delivery dates
  - Visibility of when dependent tasks are late
  - Control over scheduling orders and cost associated with project
  - Resolution of issues with order changes and order consolidation

ETO Integrations

- JD Edwards EnterpriseOne Supply Chain Manufacturing
  - Configurator
  - Manufacturing – PDM
  - Manufacturing – Shop Floor
  - Quality Management
- JD Edwards EnterpriseOne Order Management
  - Sales Order Management
- JD Edwards EnterpriseOne Supply Management (Procurement)
  - Procurement Management
- JD Edwards EnterpriseOne Supply Chain Execution (Logistics)
  - Inventory Management
- JD Edwards EnterpriseOne Project Management
  - Project Costing (Job Cost Accounting)
  - Project Change Management
  - Contract and Service Billing

Why Engineer To Order?

Sales Order Centric Sales Cycle	• Sales Orders fulfill products from stock and ship directly to end customer • Make to Stock/Purchase to Stock/Supplier Direct Ship – Non Stock/Configure to Order • Sales Orders have a shorter execution cycle time • Typically fewer changes and delays (backorder) • Standard Pick/Pack/Ship processes • Standard Invoice process

Project Task Centric Sales Cycle	• Project Orders require work breakdown structures to organize many tasks with dependencies to support project execution and delivery
	  • Stock/Supplier Direct Ship – Non Stock/Configure to Order
	  • Engineer To Order (design/drawing/measure activities)
	• Project Orders have a longer execution cycle time
	• Production/Purchase/Shipping execution tied to specific project tasks (installation/construction complete)
	• Post production activities required to close out project
	• Flexible Invoice processes required
	  • Contract billing
	  • Progress/Milestone billing
	  • GC subcontractor billing process

Engineer to Order Process Flow

Project Initiation

- Proposal/Quote
- Budget/WBS

Project Planning

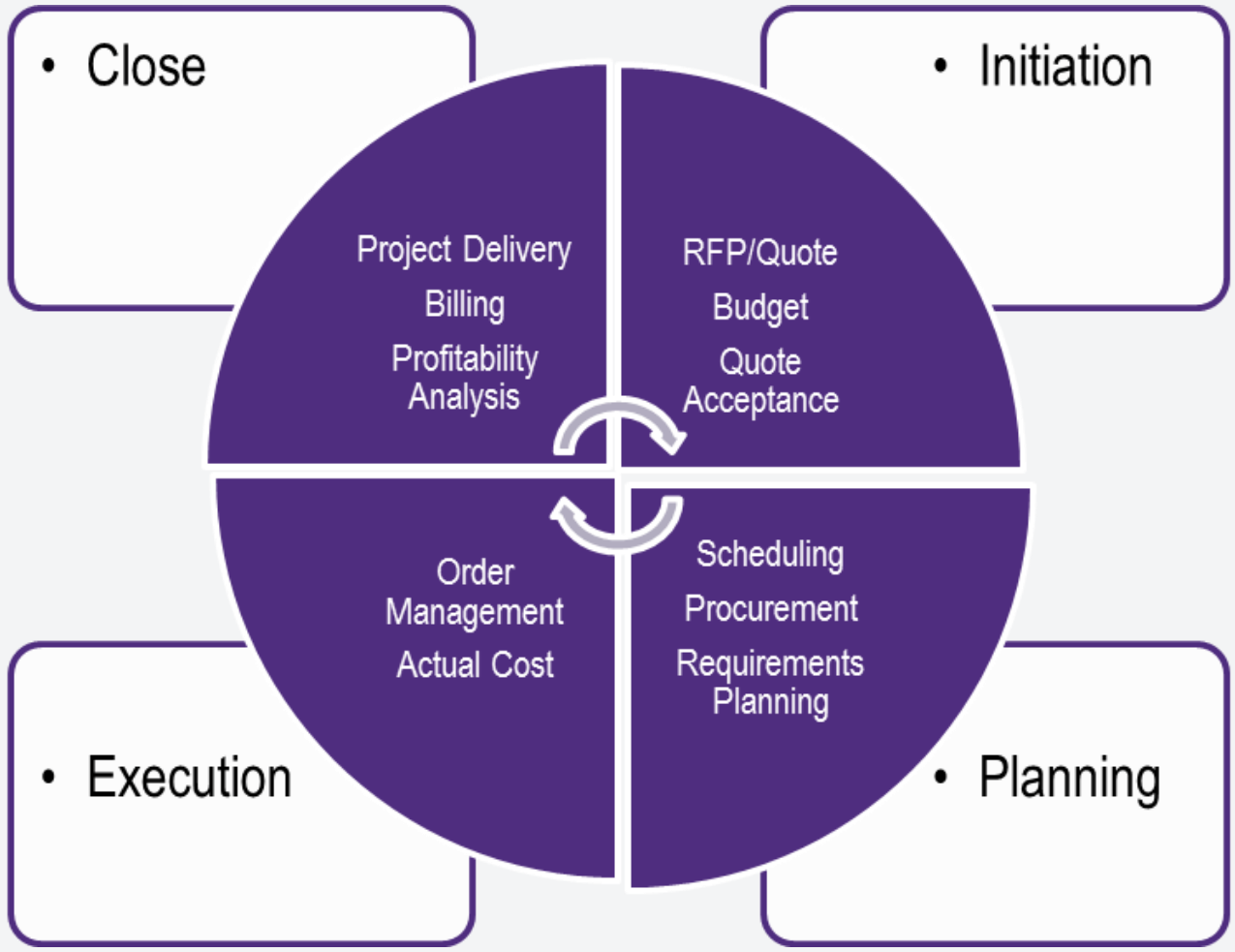
- Project Scheduling
- Long Lead Procurement
- Project Requirements Planning

Project Execution

- Production Management
- Actual Costing

Project Close

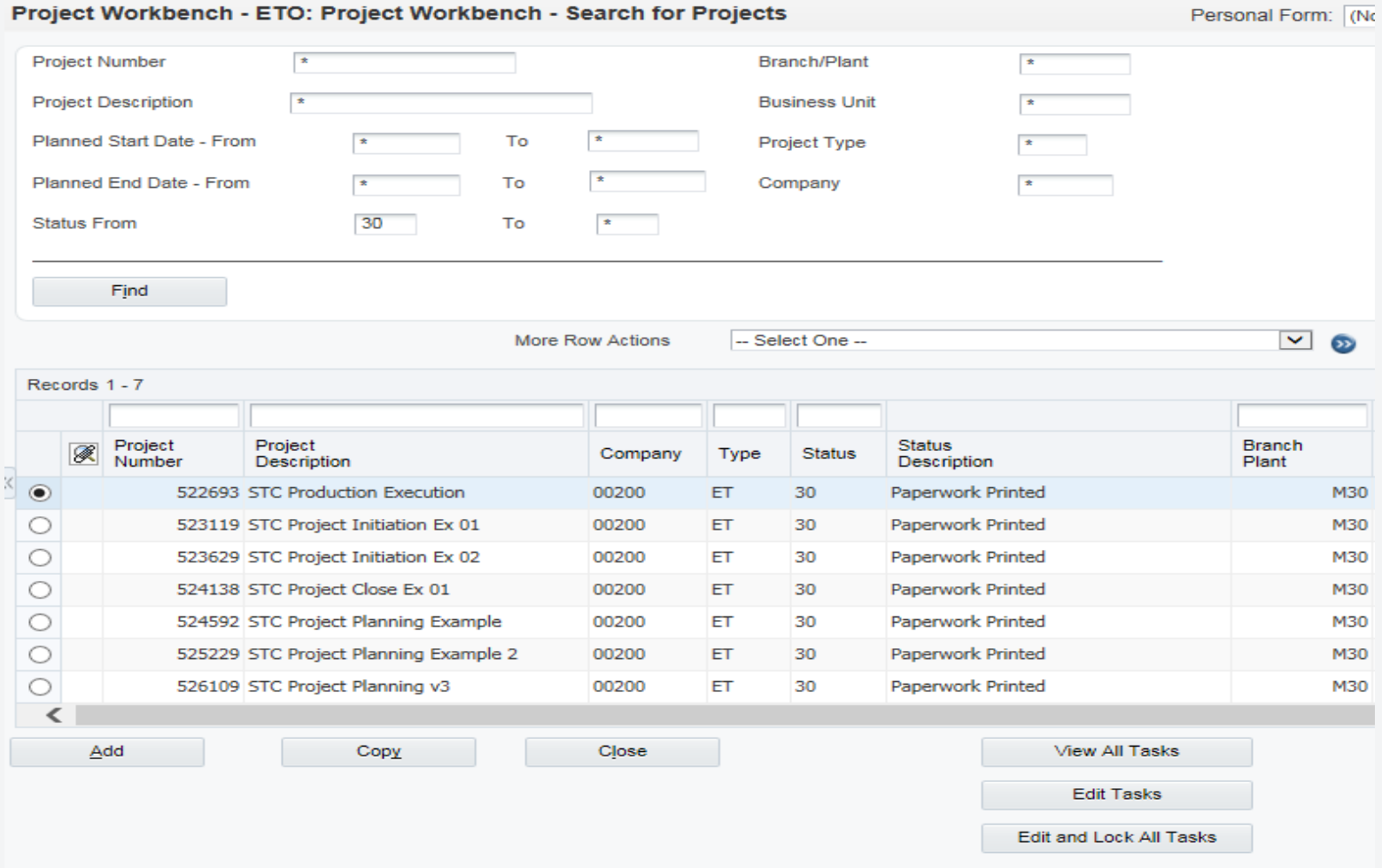
- Project Delivery
- Project Billing
- Profitability Analysis



Project Workbench

Key User Actions

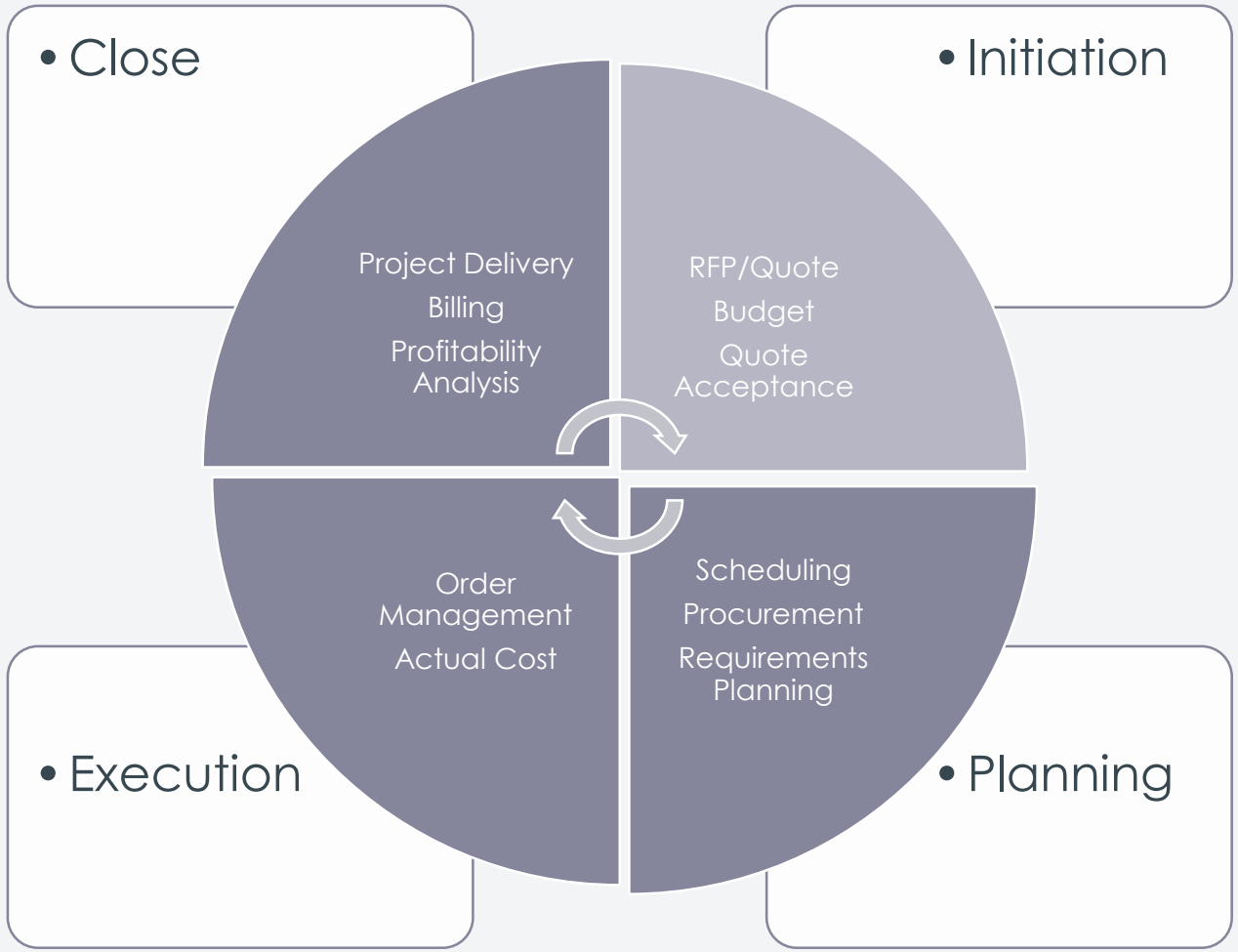
- Single point of access for project management
- Create a new project
- Copy a project from a template
- Manage/edit project tasks



Engineer to Order Project Life Cycle

Project Initiation

- Create a project
- Define high-level phases and tasks
- Determine an estimated schedule
- Calculate estimated costs
- Determine a price and generate a quote/proposal



Phase – Project Initiation

Key User Actions

- Define high-level phases and tasks

Project Workbench - View All Tasks

Close

Project Number	57280	Mfg Project Pre-Quote		Customer Number	43103		
Estimated Cost	149,381.25	Planned Cost	65,381.25	Budgeted Cost		Actual Cost	

More Project Actions: -- Select One --

Basic | Financial Plan | Financial Actuals | Scheduling Details | Order Details

More Task Actions: -- Select One --

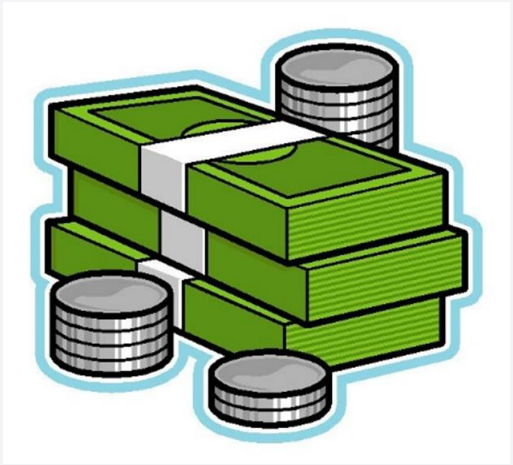
Records 1 - 8 Expand All | Collapse All

Description	Branch Plant	Task Number	Task Type	Item Number	QTY Ordered	UoM	Task Status	Shippable
...	310	57280	ET				09	0
Engineering	310	57281	ET				09	0
Design Engineering	310	57286	ET				09	0
Manufacturing Engineering	310	57287	ET				09	0
Procurement	310	57282	ET				09	0
Manufacturing	310	57283	ET				09	0
On-site Installation	310	57284	ET				09	0
Project Close	310	57285	ET				09	0

Phase – Project Initiation

Key User Actions

- Establish estimated cost to support financial budget and quote or proposal /Link to Job Cost



Project Workbench - View All Tasks

Close

Project Number	57280	Mfg Project Pre-Quote		Customer Number	43103		
Estimated Cost	149,381.25	Planned Cost	65,381.25	Budgeted Cost		Actual Cost	

More Project Actions -- Select One --

Basic | Financial Plan | Financial Actuals | Scheduling Details | Order Details

More Task Actions -- Select One --

Records 1 - 8 Expand All | Collapse All

Description	Task Number	Task Type	Estimated Material	Estimated Labor	Estimated Other	Estimated Special Units	Estimated Special Amount
	57280	ET					
Engineering	57281	ET					
Design Engineering	57286	ET					
Manufacturing Engineering	57287	ET					
Procurement	57282	ET					
Manufacturing	57283	ET					
On-site Installation	57284	ET					
Project Close	57285	ET					

Phase – Project Initiation

Key User Actions

- Determine a price and generate a quote/proposal

Project Workbench - Project Quote Revisions

Form Tools

Project Info | Quote Info | Related Sales Quote | Reason Code | People

Business Unit: M30

Project Number: 523629

Display Calculated Total

Currency Code | Exchange Rate | Base Currency: USD | Foreign

Records 1 - 21

Selected Calc	Selected Display	Seq No	Order Description	Estimated Amount	Estimated Override	Margin Percent	Quote Amount	LOD
0	0	5.000	System Pricing					4
0	0	6.000	Product Orders					5
1	1	7.000	CMCC 01	13,040.00	15,000.00	35.000	20,250.00	6
1	1	8.000	Direct Ship Orders	225.00	500.00	50.000	750.00	5
0	0	9.000	Install Orders					5
0	0	10.000	Proforma Invoice					4

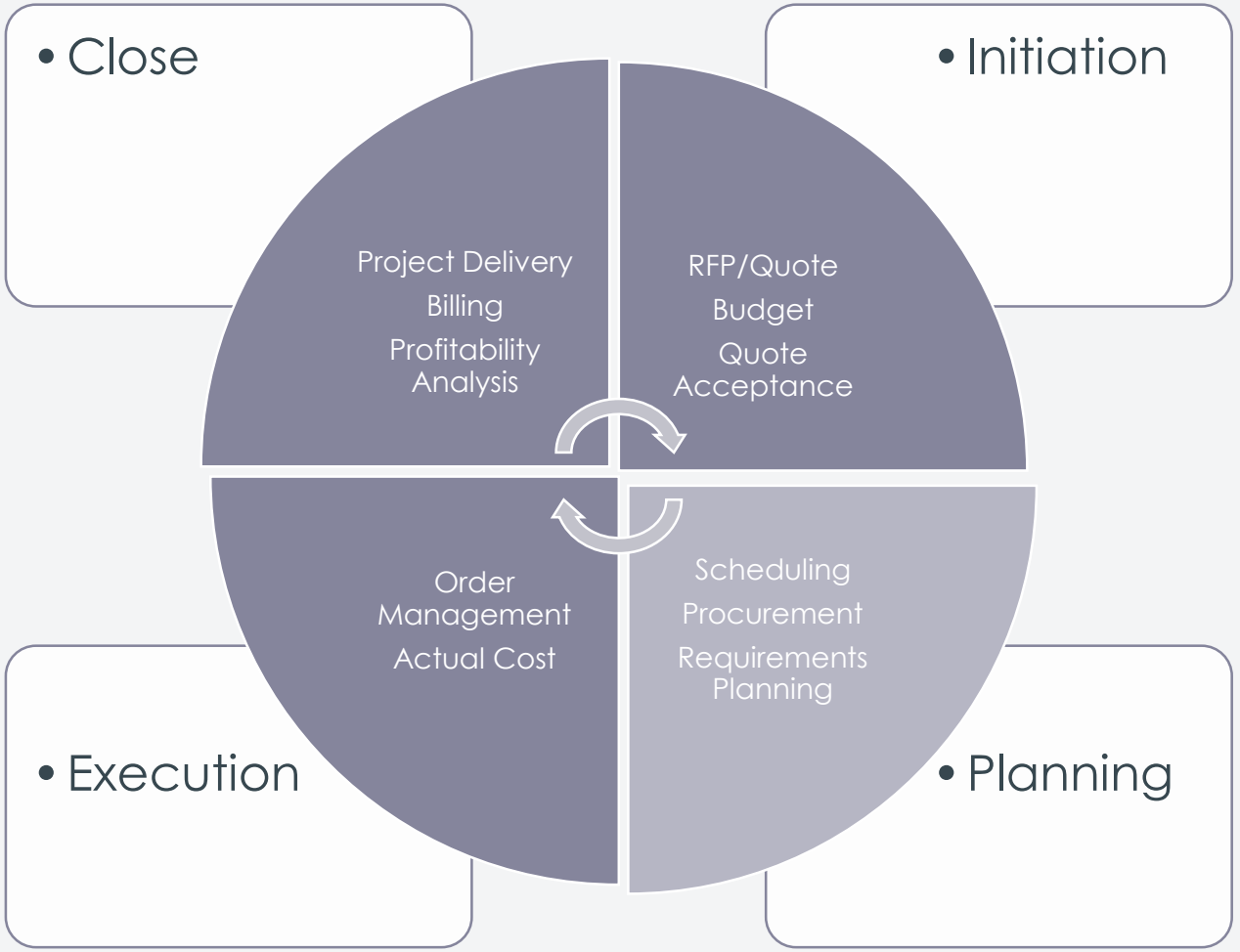
Project Initiation Benefits

- Ability to create project with WBS task structure to support several tasks required to purchase, build, and deliver product
- Ability to define estimated cost or planned cost for each WBS task
- Ability to establish multiple project quotes based upon the project tasks estimated cost or planned cost
- Ability to generate sales quote or sales proposal based on selected project quote details
- Ability to have quote acceptance move quoted costs into project budget
- Ability to generate project sales order from sales quote

Engineer to Order Process Flow

Project Planning

- Project Scheduling
- Long Lead Procurement
- Project Requirements Planning



Phase – Project Planning

Key User Actions

- Refine the project information and schedule dates

Project Workbench - Edit Tasks Personal Form: (No Personalization)

Save and Continue | Save and Close | Cancel

Project Number 524592 STC Project Planning Example Customer Number 4242

Estimated Cost 7,017,928.31 Planned Cost 4,149,168.31 Budgeted Cost Actual Cost

Forward Schedule / Backward Schedule — Check for Conflict — More Project Actions: -- Select One --

Basic | Financial Plan | Financial Actuals | Scheduling Details | Order Details

More Task Actions: -- Select One --

Records 1 - 45 Expand All | Collapse All

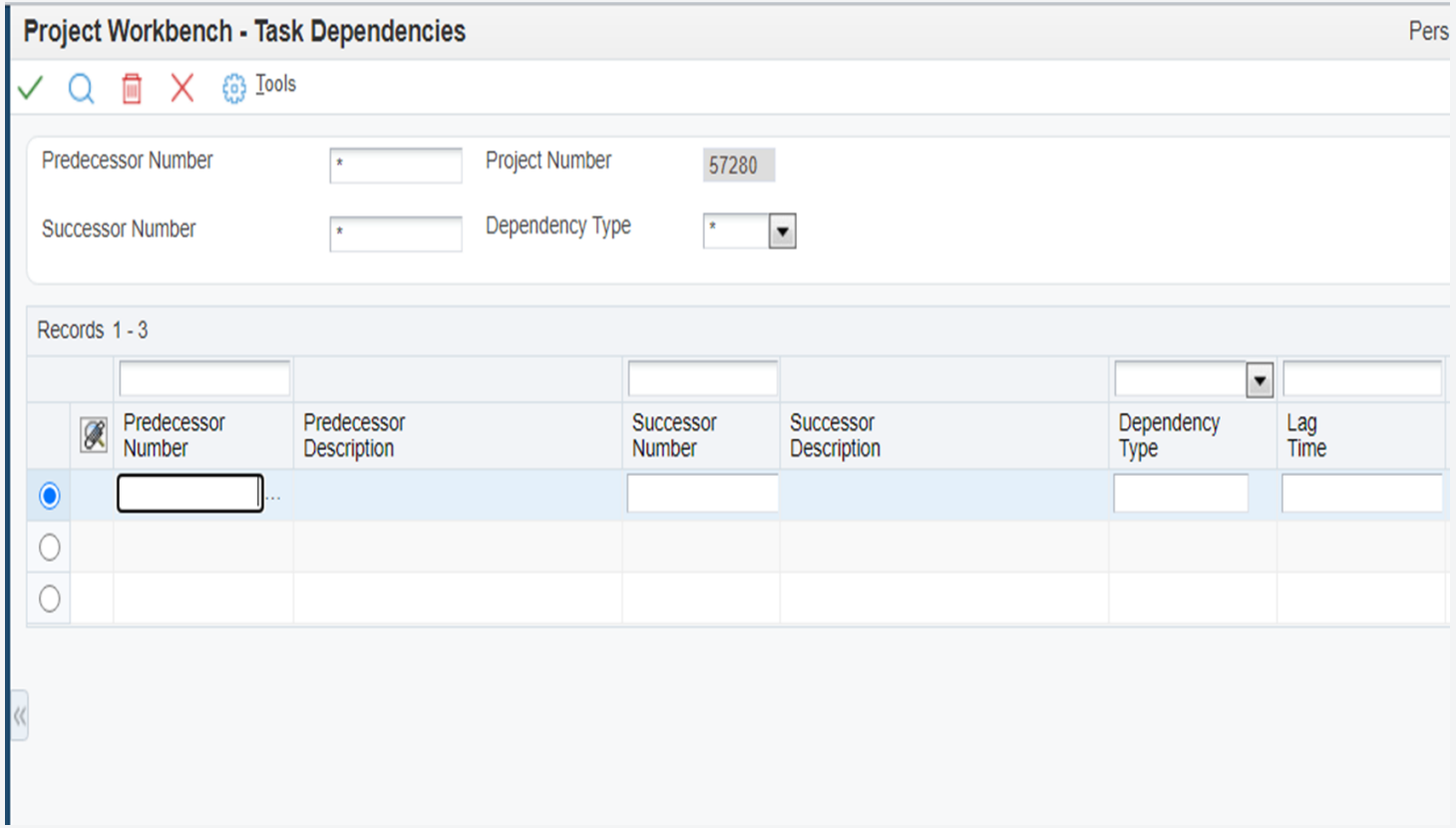
Description	Task Number	Task Type	Duration	Planned Start	Planned End	Successors	Fixed Task Type	Actual Start
Reserve Orders	524787	ET	5	09/05/2019	09/11/2019			
Data Management	524795	ET	30	09/05/2019	10/16/2019	524816FS+1		
Project Management	524808	ET	55	10/16/2019	12/31/2019			
Order Review/Audit	524816	ET	2	10/16/2019	10/17/2019	524832,525042		
Execution Orders	524824	ET	54	10/17/2019	12/31/2019	524955		
Standard Manufactured	524832	ET	22	10/17/2019	11/15/2019			
Standard Manufactured v2	527081	WO	3	12/27/2019	12/31/2019			
Project Manufactured	525042	ET	54	10/17/2019	12/31/2019			
Project Specific FG	525069	WO	12	10/17/2019	11/01/2019			
Project Specific FG	527072	WO	12	10/17/2019	11/01/2019			

Insert Above | Insert Below | Insert Child | Delete

Phase – Project Planning

Key User Actions

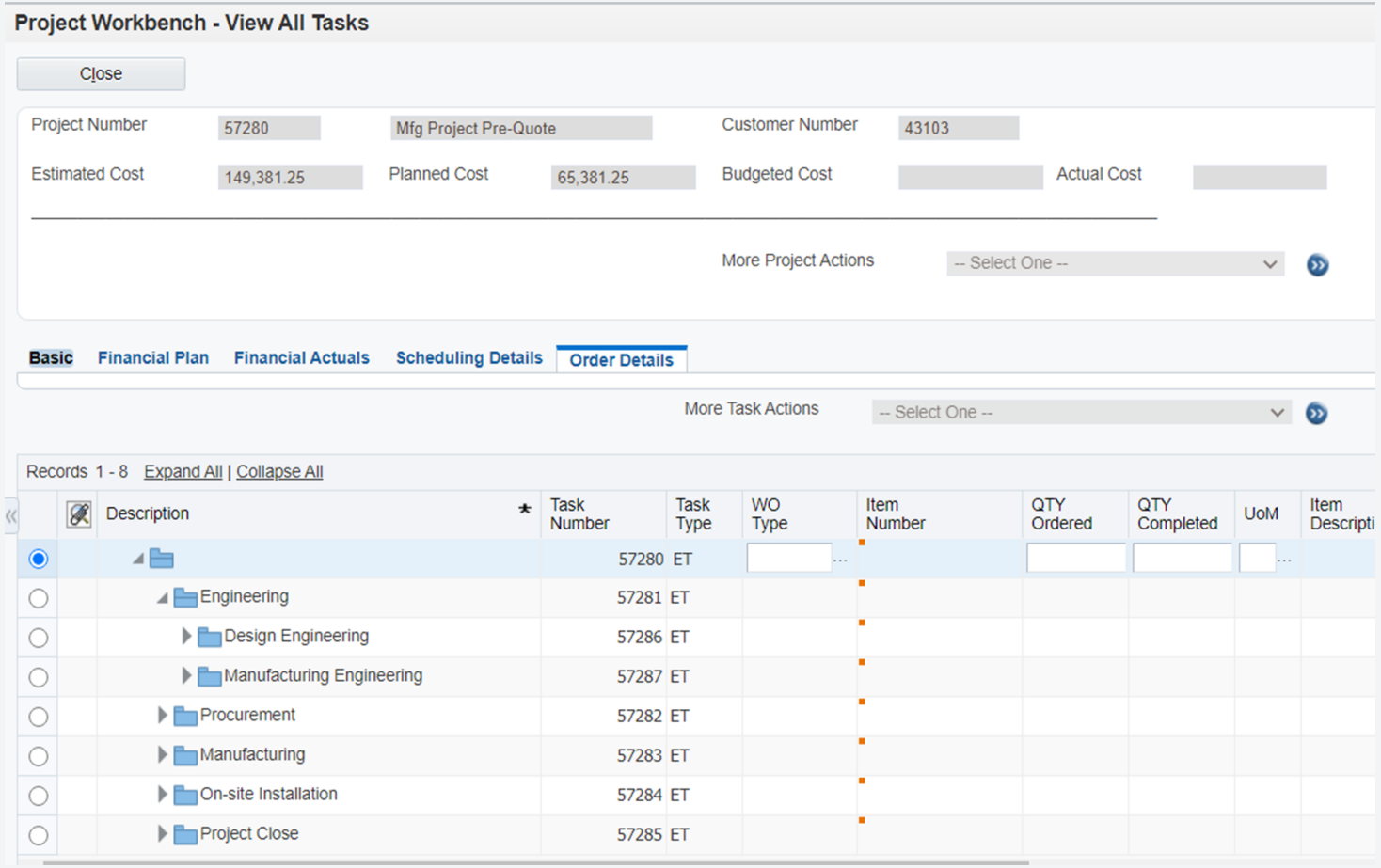
- Establish task dependencies and resources
- Link to MS Project



Phase – Project Planning

Key User Actions

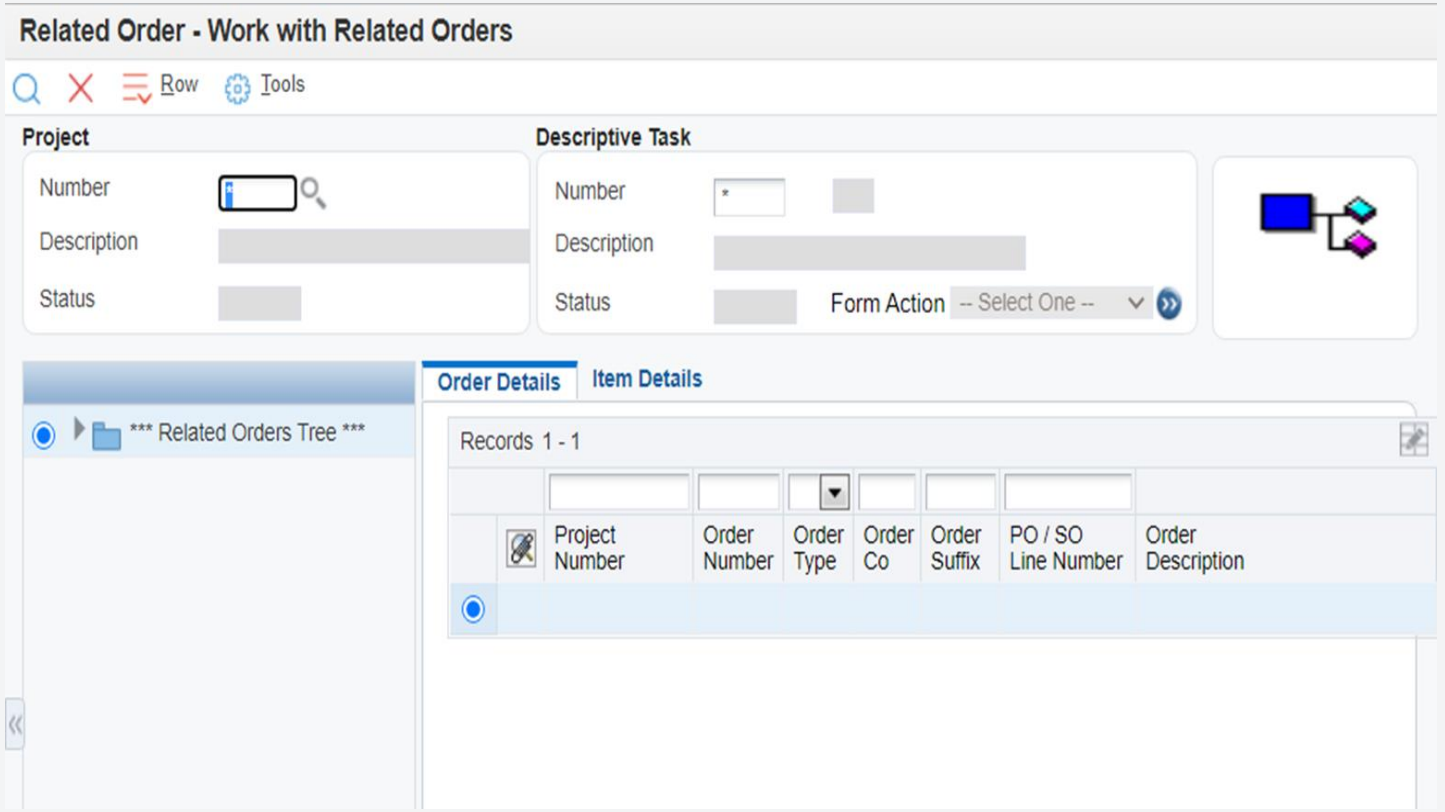
- Run the Requirements Planning program, based on the task information on the work breakdown structure, to generate the detail planning messages that the system uses to generate purchase orders and work orders for replenishment



Phase – Project Planning

Key User Actions

- Create orders related to project task (purchase, direct ship)



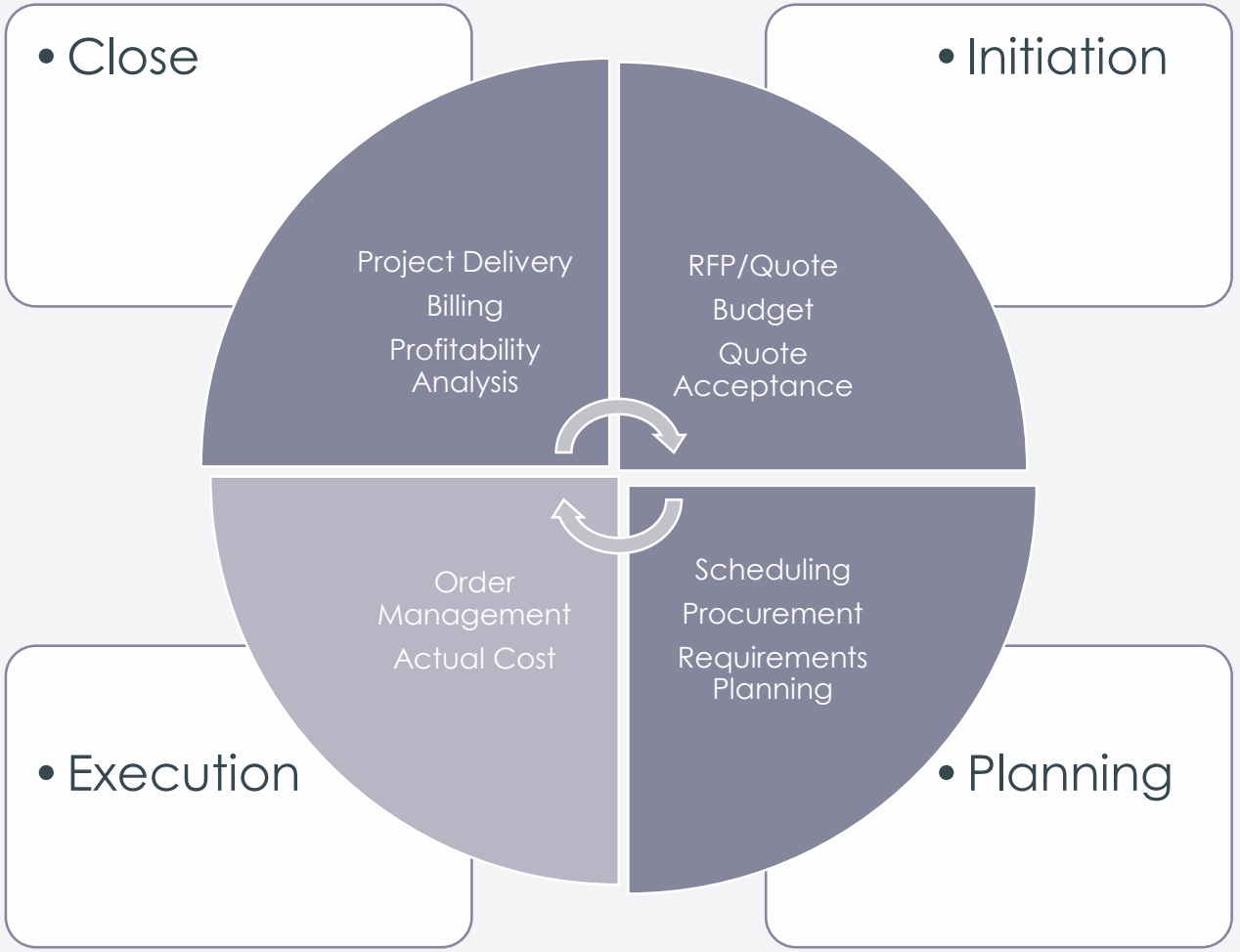
Project Planning Benefits

- Ability to plan and schedule non manufacturing based activities
- Ability to define multiple types of task dependencies
- Ability to associate work orders with WBS activities within projects
- Ability to assign and schedule resources by activity
- Ability to automatically drive scheduling changes to dependent tasks
- Ability to drive project specific demand
- Ability to use native JD Edwards work flow notifications
- Ability to review entire project plan within a single session

Engineer to Order Process Flow

Project Execution

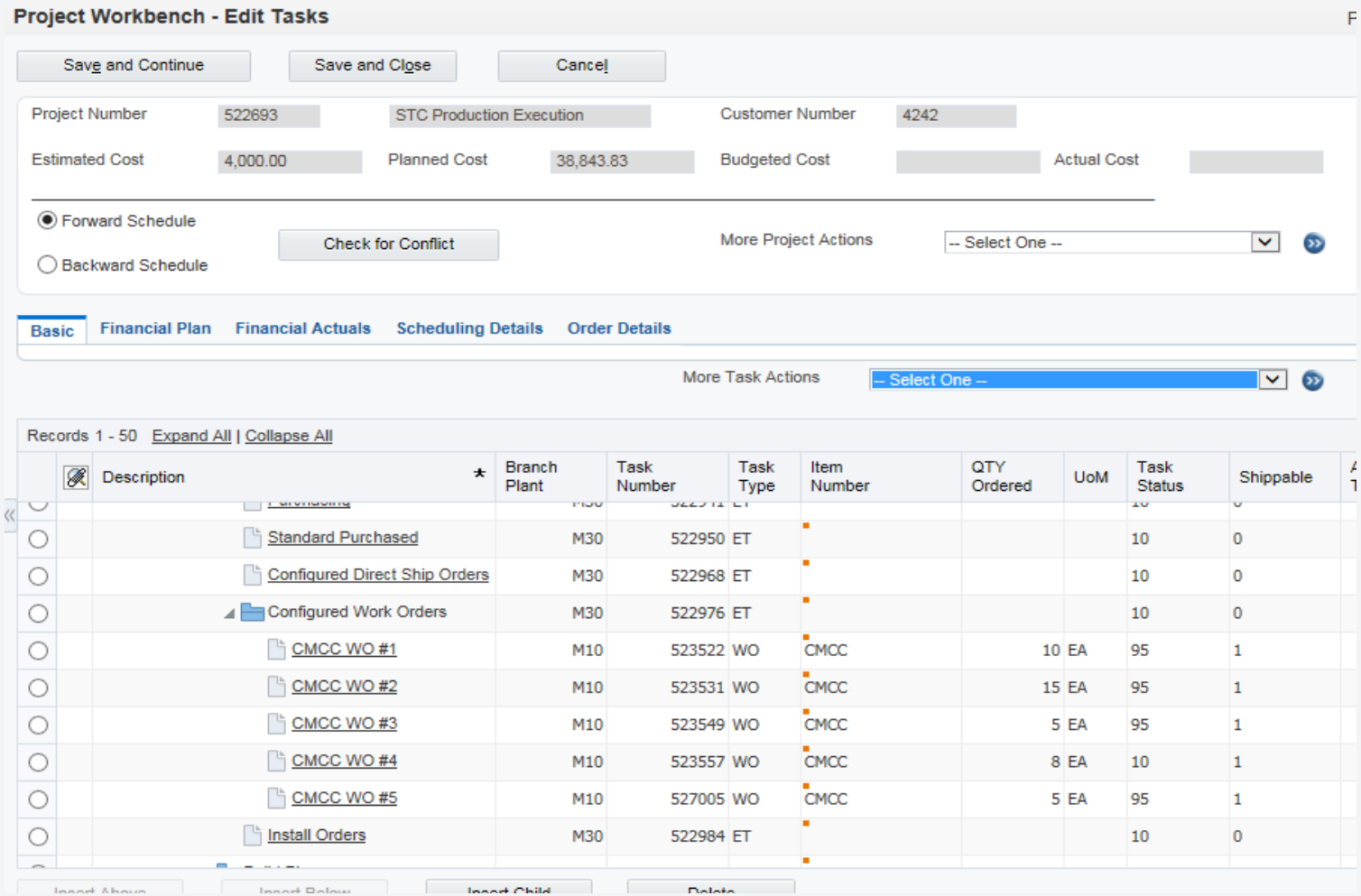
- Production Management
- Actual Costing
- Updates to Job Cost and Budgets



Phase – Project Execution

Key User Actions

- Manually create work orders and purchase orders for the project tasks
- Perform work order issues, labor reporting and completions
- Complete order consolidation
- Complete shipping



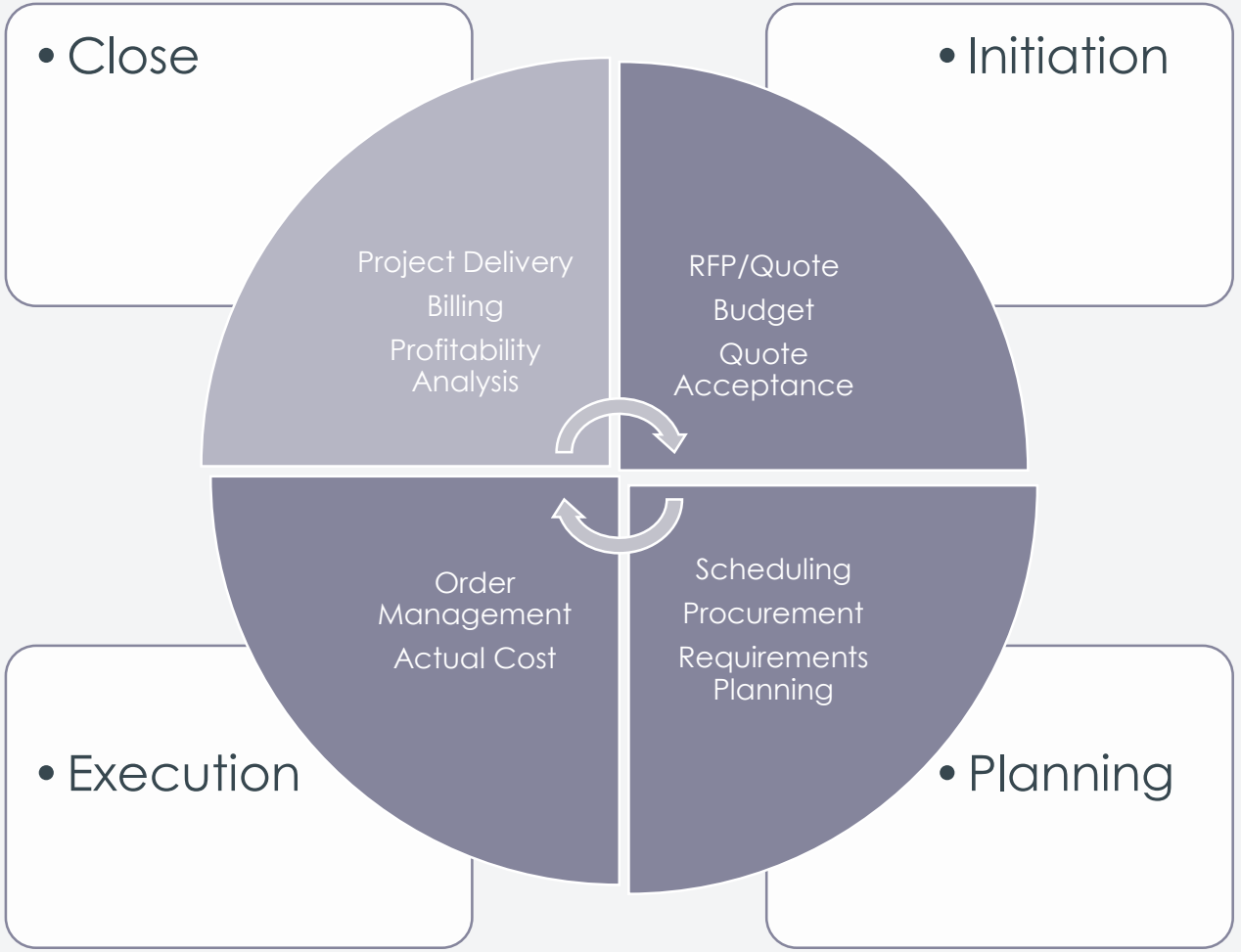
Project Execution Benefits

- Ability to create configured work orders and purchase orders related to project phases
- Ability to process issues, labor reporting and completions for project work orders from product workbench
- Ability to create sales order lines to ship product when complete from the product workbench
- Ability to create direct ship orders, purchase orders and transfer orders that are related to project tasks and accumulate the cost to the project (supports consolidation process)
- Ability to track actual cost as they occur during execution and compare to estimated and budgeted cost

Engineer to Order Process Flow

Project Close

- Project Delivery
- Project Billing
- Profitability Analysis



Phase – Project Close

Key User Actions

- Roll up final project costs
- Project billing
- Close tasks and project

Project Workbench - Project Inquiry

Tree Control | Expand Tree | Row | Form | Tools | One View

Project Number: 57292 | Mfg Project Post-Quote | ET

Records 1 - 12

Description	Task Number	Branch Plant	Type	WO Type	Task Status	Resources Assigned	Percent Complete
Mfg Project Post-Quote	57292	310	ET		09	0	
Engineering	57293	310	ET		09	0	
Design Engineering	57302	310	ET		09	0	
Manufacturing Engineeri…	57303	310	ET		09	0	
Procurement	57294	310	ET		09	0	
Direct Project Purchases	57304	310	ET		09	0	
Manufacturing	57295	310	ET		09	0	
Mfg Item 1	57306	310	WO	P	09	0	
Mfg Item 2	57321	310	WO	P	09	0	
On-Site Installation	57296	310	ET		09	0	
On-Site Service	57305	310	SV		09	0	
Project Close	57297	310	ET		09	0	

Project Close Benefits

- Ability to have visibility of all tasks involved in complex projects and ensure that all tasks are complete using online inquiries, project reports, and the project close analyzer
- Ability to roll up all work order cost and associated related order costs to project tasks
- Ability to perform profitability analysis at project close
- Ability to complete project billing using standard contract billing for a more flexible and detailed invoice/billing process

Summary

- Functionality discussed (simple to more complex):
  1. General Ledger
  2. Work Orders
  3. Job Cost
  4. Engineer-to-Order (ETO)
- Each is available for use, depending on your specific requirements
- Understanding the level of detail necessary to track for your project is the key to success

- Please reach out if you have any questions regarding which would be best for your needs…Thank you!!

Any Questions?

Hear more from Grant Thornton

Stop by our booth—our team of JDE experts will be on hand to answer your questions….AND we're giving away a **Ring security camera**!

Tuesday

- **Options for configuring project cost detail within JDE** | Craig Davied and Aaron Wood | *2:*00 p.m.
- **8 easy steps to evaluate the effectiveness of your EAM/CAM asset maintenance program** | Steve Yniguez | 3:15 p.m.

Wednesday

- **Where are all my orchestrators at? Let's take a look at notifications and UDO security** | Anthony Palmisano and Mohammad Shujaat | 8:15 a.m.
- **Import thousands of Invoices from your AP automation platform into JDE in seconds!** | David Kratzke and Mohammad Shujaat | 8:15 a.m.
- **Auto tendering transportation Carriers in JD Edwards** | Craig Davied | 3:00 p.m.
- **Positive pay 2.0: Now with 100% more** orchestrations | Mohammad Shujaat and Rick Snell, Murphy USA | 4:00 p.m.

Thursday

- **Realizing joint ventures in JDE** | Craig Davied | 8:15 a.m.
- **Workflow options with JD Edwards Orchestrator** | Dwight Moore and Anthony Palmisano | 11:15 a.m.
- **Automating currency exchange rates using JD Edwards & orchestrator** | Mohammad Shujaat and Anthony Palmisano | 1:15 p.m.

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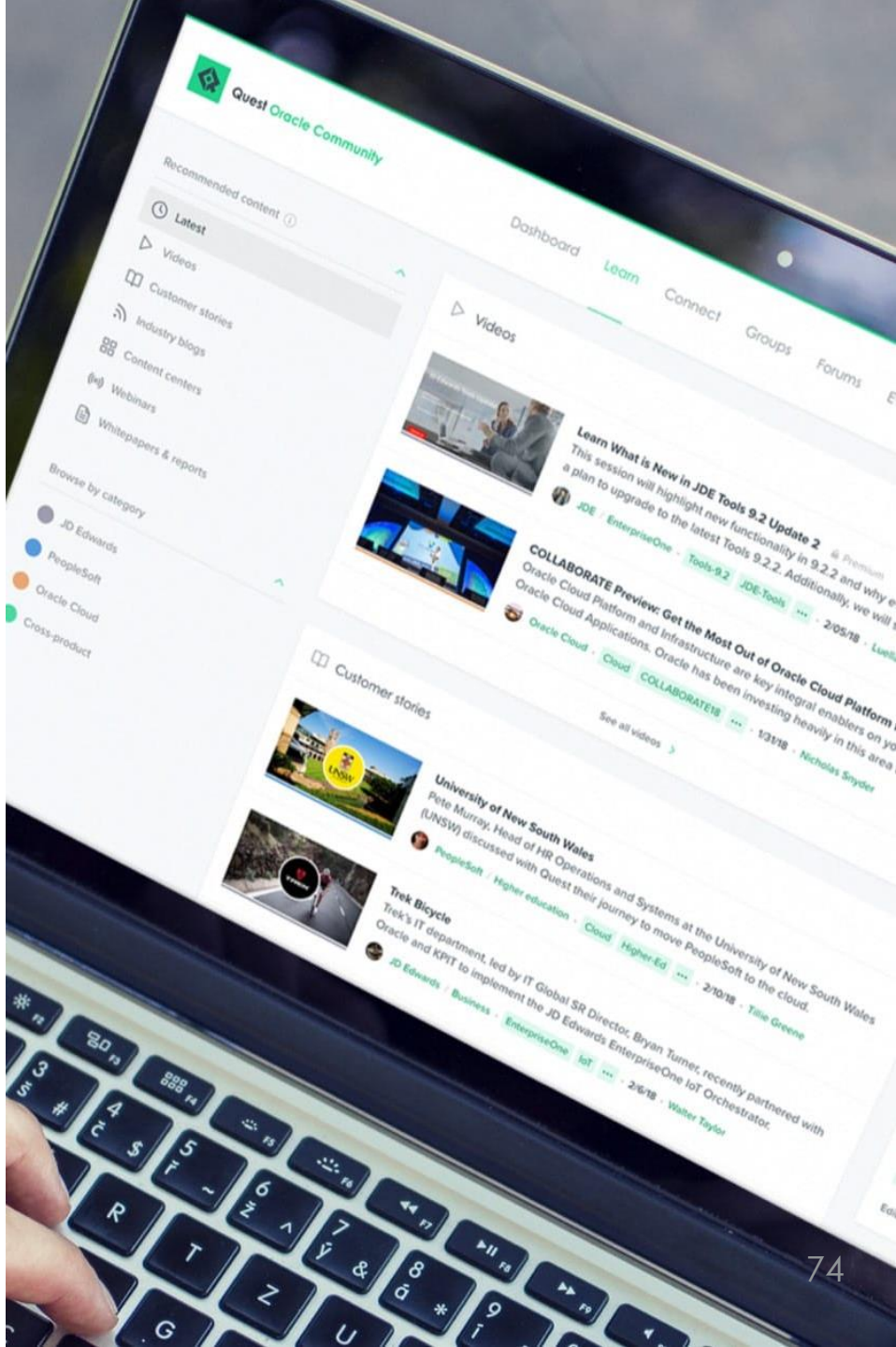

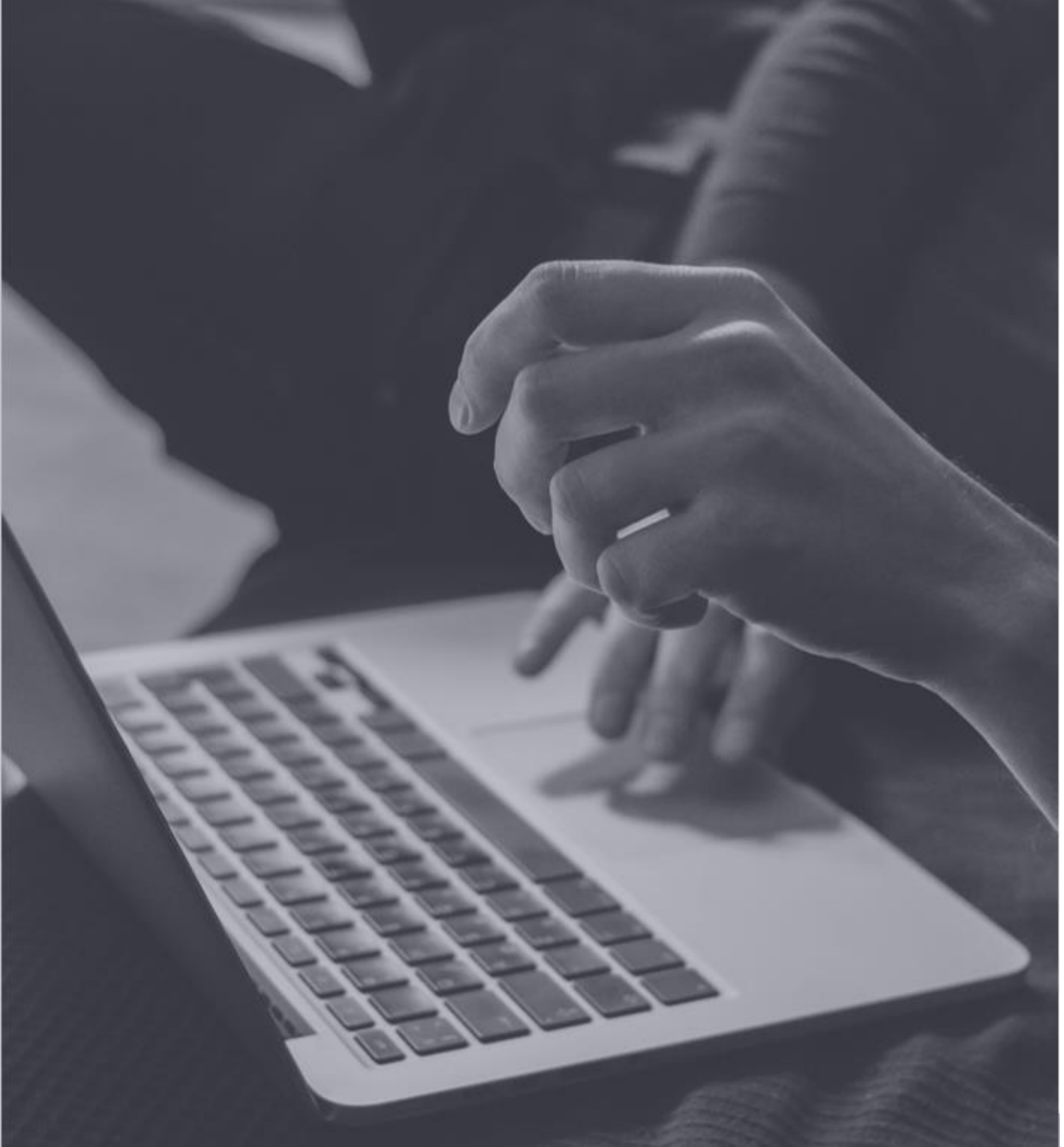

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