User Reference

Contract Forecast with PCI Projections - R12

By CMiC

CMiC CONSTRUCTION SOFTWARE. EVOLVED

Proprietary Notice

The contents of the CMiC software product, including both this reference guide and the program components, are proprietary to Computer Methods International Corp. (CMiC), are copyright protected and are considered Confidential Information by CMiC. All rights are reserved by CMiC. A copy of the reference guide and the program has been provided to the original licensee under license with CMiC strictly for their own use under the terms of the license. All copies of this reference guide whether in print or electronic format must contain a copy of this Proprietary Notice. Any selling, licensing or other distribution of the contents of either this reference guide or the program components, whether for profit or not, is unlawful and may subject the violator and the original licensee to termination of license, criminal charges, civil action, or any combination of these.

Copyright © 2024

Computer Methods International Corp.
4850 Keele Street
Toronto, Ontario M3J 3K1
Canada

Risk of Use Notice

The CMiC software product, including both this reference guide and the program components, is licensed on an “AS IS” basis. The entire risk as to the results of its use is with the licensee. Except for with respect to warranties in certain jurisdictions that are imposed by statute and that may not be waived by one or more of the parties, and only to the extent of such warranties in such jurisdictions, Computer Methods International Corp. (CMiC) makes no warranties whatsoever, either expressed or implied, with respect to the quality, performance, merchantability or fitness for any particular purpose of any or all components of this software product, except as provided in the licensee’s license agreement. Except as provided in the licensee’s license agreement, the licensee (and not CMiC or its agents) will be solely responsible for the costs of all service, of any defect in this software product, and of any incidental or consequential damages, including, but not limited to, any interruption of service or loss of business or anticipatory profits, caused or alleged to be caused either directly or indirectly by the software product to the licensee or any other person, even if CMiC has been advised of the possibility of such damages.

"Computer Methods International Corp” and the CMiC logo are registered or unregistered trademarks of Computer Methods International Corp.

Table of Contents

Proprietary Notice ii

Risk of Use Notice ii

Table of Contents ..... **iii**

Contract Forecast with PCI Projections in CMiC Field – R12 ..... **1**

Document Release Note 1

Forecasting Options 1

Recommended Best Practices 2

Terminology 2

Contract Forecasting with PCI Projections **3**

Forecasting Controls 4

Main Toolbar Buttons 5

Confirmation Message Banners 28

Contract (Header) – Section 30

Bill Codes (Detail) – Section 35

Earned Value Forecasting Columns 66

PCI Projection Pop-Up Window 68

Using System Options Flag to Consider PCI Detail Status in Contract Forecast 70

Bottom Panel Buttons 72

Footer Details (Summary Panel) 78

Revenue Forecast Amount Calculation for Various Billing Types 79

Table of Column Definition 81

Color Highlights and Hover Text for Cost to Complete and Cost Forecast Columns 87

PCI Projection **95**
Main Toolbar Buttons 96
Contract (Header) – Section 97
Potential Change Item (Details) – Section 98
PCI Projection (Split Commitments) **103**
Contract Forecast (Split Commitments) **105**
Additional Columns 105
New Calculations for Existing Columns 107
Time Phased Budgeting **109**
Spread Rules and PCIs Posting 109
Posting Considerations with Time Phase Budgeting 110
WBS Functionality & Contract Forecasting **113**
Work Breakdown Structure (WBS) 113
What are the differences with these two methods? 113
Setting Up WBS Codes 114
Setting Up WBS Bill Code Mapping 115
Billing Contract with WBS Mapping 117
Labor Forecasting (Labor Lines Only) **123**
Labor Category Configuration 123
Escalators Maintenance 125
TBD Trade Rate Maintenance 126
Labor Cut-Off Date Maintenance 127
GC Monitor – Forecasting Pop-up 128
Billing Type & Revenue Calculations **131**
Billing Type Rate Rules 131

Billing Types 132
%Complete Billing Types Overview 133
BURDENED BILLINGS Billing Types Overview 135
MILESTONE BILLINGS Billing Types Overview 135
Billing Rate Table & Forecasting 137
Billing Maximums 141
Unposted PCIs and Billing Maximums in Forecasting 145
Job Costing WIP Integration 147
Entering and Posting WIP Adjustments 148
Examples of Contract Forecasting and WIP Interaction 150
Selecting Type of PCIs to be Included when Calculating WIP 152
Change Management PCI Status Codes Setup 153
Job Costing Control Setup 154
Example 155
Calculating O/H Forward Loss 157
Posting Unposted Cost/Billing when Posting WIP 158
Posting WIP and Unposted Cost/Billings Separately 160
Posting WIP along with Unposted Cost/Billing Amounts 162
WIP Adjustments Over/Under Calculation 165
Cost to Complete Detail Pop-Up 167
Cost Detail Pop-Up 168
Standard Cost Detail Pop-Up 169
Enhanced Cost Detail Pop-Up 172
Productivity/Units Pop-Up 179
Precision of Decimals in Productivity/Units Pop-Up 183

Entering Overrides in Productivity/Units Pop-Up 184
Productivity Pop-Up Calculations 191
Calculation of Productivity Pop-up when Entity is Overridden 192
Calculations of Rates 194
Productivity Forecasting Overview 195
Labor Forecast Pop-Up 203
GC Monitor Pop-Up 203
Labor Forecast Pop-Up 203
Auto-Populate Labor Forecast 203
Projection Threshold 211
Setup 211
Calculations 214
Examples 215
Bid Items in CMiC Field 225
Performing Budget Updates in Bid Items Screen for Pending Jobs 225
Updating Job Costing Structure and Budget using Bid Items 226
Adding a Bid Item with a Cost Code Not Assigned to Job 229
Frequently Asked Questions 233
Setup 243
Forecasting Setup 243
Hidden Controls 243
System Alternate Feature Table (Sys_alternate_feature) 244
System Options Table 245
System Data Module 245
CMiC Field 247

PM System Options Table 247
Project System Options 248
Company Control 252
PM Classifiers in SCCO 254
Forecast Status Maintenance 255
User Maintenance 256
Job Costing Module 257
Job Cost Control File 257
Category Maintenance 266
Job Budget Maintenance 267
Job Billing Module 268
Contract Entry 268
Change Management Module 271
Change Management Control File 271
Change Management PCI Status Setup 272
Index 276

This page is intentionally left blank.

Contract Forecast with PCI Projections in CMiC Field – R12

NOTE: A new interface for Contract Forecasting is available on Patch 17. See CMiC Assist for details.

Document Release Note

This version of the Contract Forecast guide is a draft release. The following updates are expected to be made in upcoming releases of the guide:

- All screenshots will be updated to R12.

Forecasting Options

The following forecasting options are currently available:

- Contract Forecasting with PCI Projections in CMiC Field
- Contract Forecasting (ETC - Estimate To Complete) in ADF version of Job Costing module

CMiC recommends that if a particular option is used in forecasting a job, then the same job should not be analyzed in other forecasting screens.

This guide focusses on the Contract Forecasting with PCI Projections screen in CMiC Field.

NOTE: There are no standard reports for contract forecasting and users need to plan on creating required reports as part of implementation of JSP forecasting. CMiC Support may be contacted for any such requirements.

Recommended Best Practices

Contract forecasting in CMiC Field must be considered as an ongoing continuous process and must be performed monthly as opposed to quarterly or irregular frequencies.

The forecasting process has a functionality to copy the last stored forecast to the current period and when this option is used in a quarterly forecasting scenario, clearing user overrides may take them back to values of forecasting not close enough to the current state of the contract.

Copying the last stored forecast is a commonly used practice in the industry.

The archive function allows storing a snapshot of the contract forecast as of the system date and may be performed regularly, to facilitate comparison of contract forecasting in a specific period with archived data.

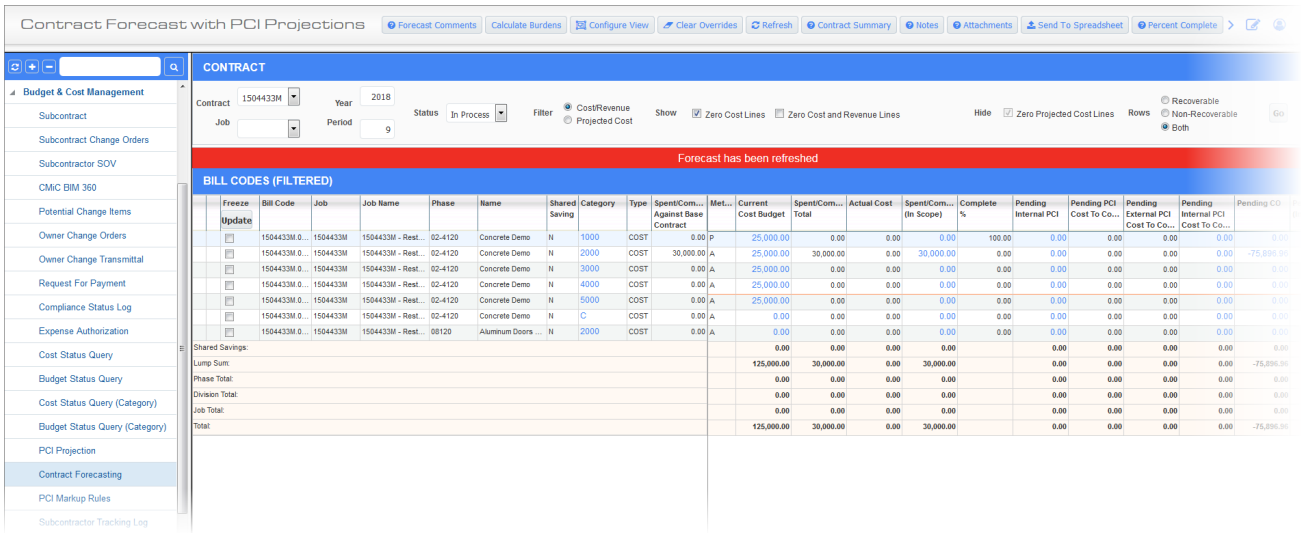
Terminology

In the construction sphere, the term “change order” is generally referring to an “owner change order”.

Whereas contract forecasting in CMiC Field predominantly deals with Potential Change Items (PCIs) and projections of the same. The term “change order” in this guide refers to Potential Change Item or simply “PCI”. The use of the term “change order” may be necessary in cases where the program name reads so on the screens.

If any reference is to be made to owner change orders, then they will be explicitly pre-fixed with the term “owner”.

Contract Forecasting with PCI Projections



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting

The primary purpose of contract forecasting is to ensure that all potential financial issues in a project are dealt with as soon as identified and acted upon in a timely manner to keep the project on a profitable course. Forecasting allows prediction of over/under funding based on productivity, unit, or simple amount-based analysis for the costs incurred or expected, compared to the budgeted values for the project.

The Contract Forecasting with PCI Projections screen is governed by the standard CMiC rules in the Job Costing Control File, which may restrict updating of forecasts to the defined year/period (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab). The Contract Forecast with PCI Projections screen may also include risk management amounts (entered via the PCI Projection screen) as well.

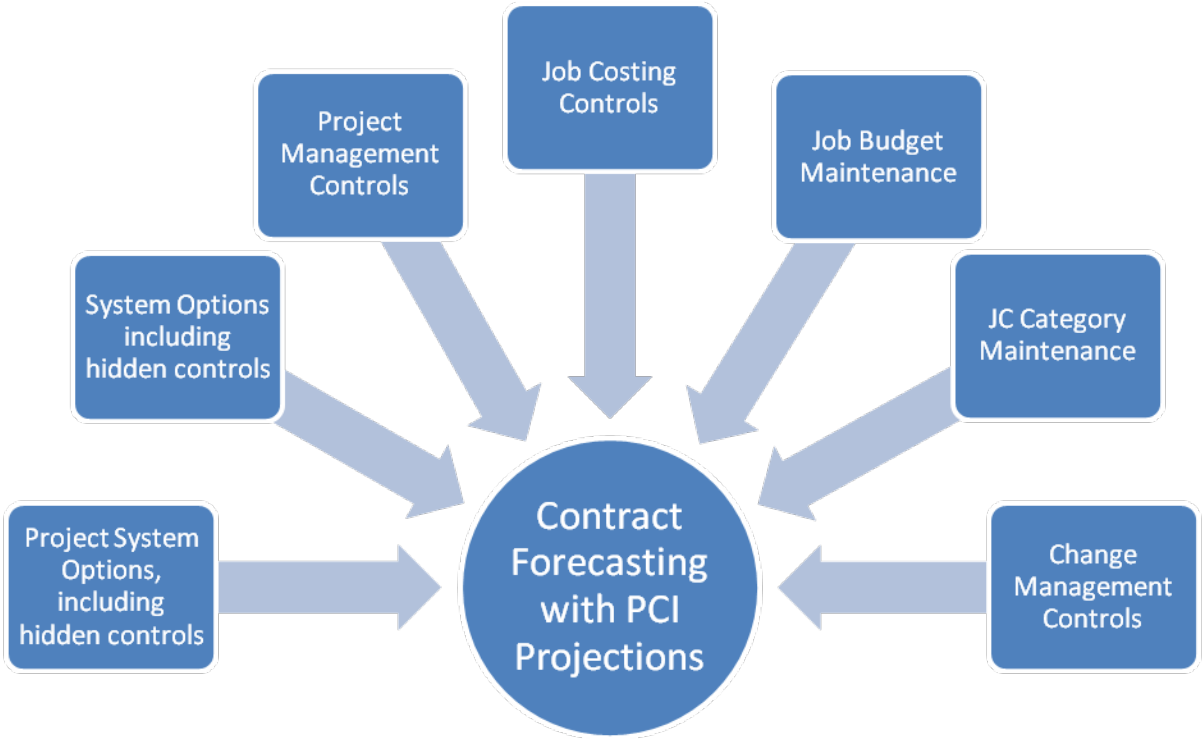
The PCI Projection screen can be accessed by drilling down on PCI amounts on a phase/category (bill code) line in the forecast. This also includes a risk analysis section. Further drill-down in the PCI projection will take users to the Potential Change Items (PCIs) assigned to the selected job/phase/category combination of the forecast line.

NOTE: CMiC Field's Contract Forecast with PCI Projections screen requires that there is a one-to-one mapping of cost codes (phase codes) to bill codes to function properly. An error message will be issued if one-to-one mapping is not set up for the contract.

Forecasting Controls

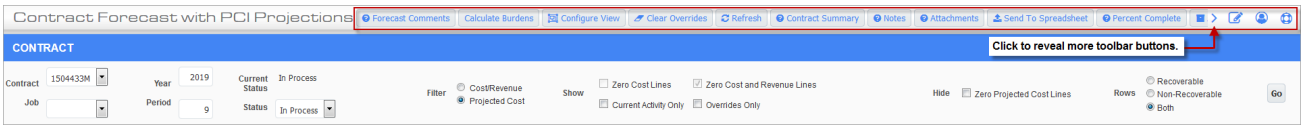
CMiC Field's Contract Forecasting with PCI Projections screen is configured using a variety of controls in various modules, sometimes hidden for users to access/update. Some of the controls may be system wide, affecting the way forecasting is performed for all companies/projects, whereas some other controls may be specific to a company or project.

The following diagram illustrates the various controls that affect forecasting.



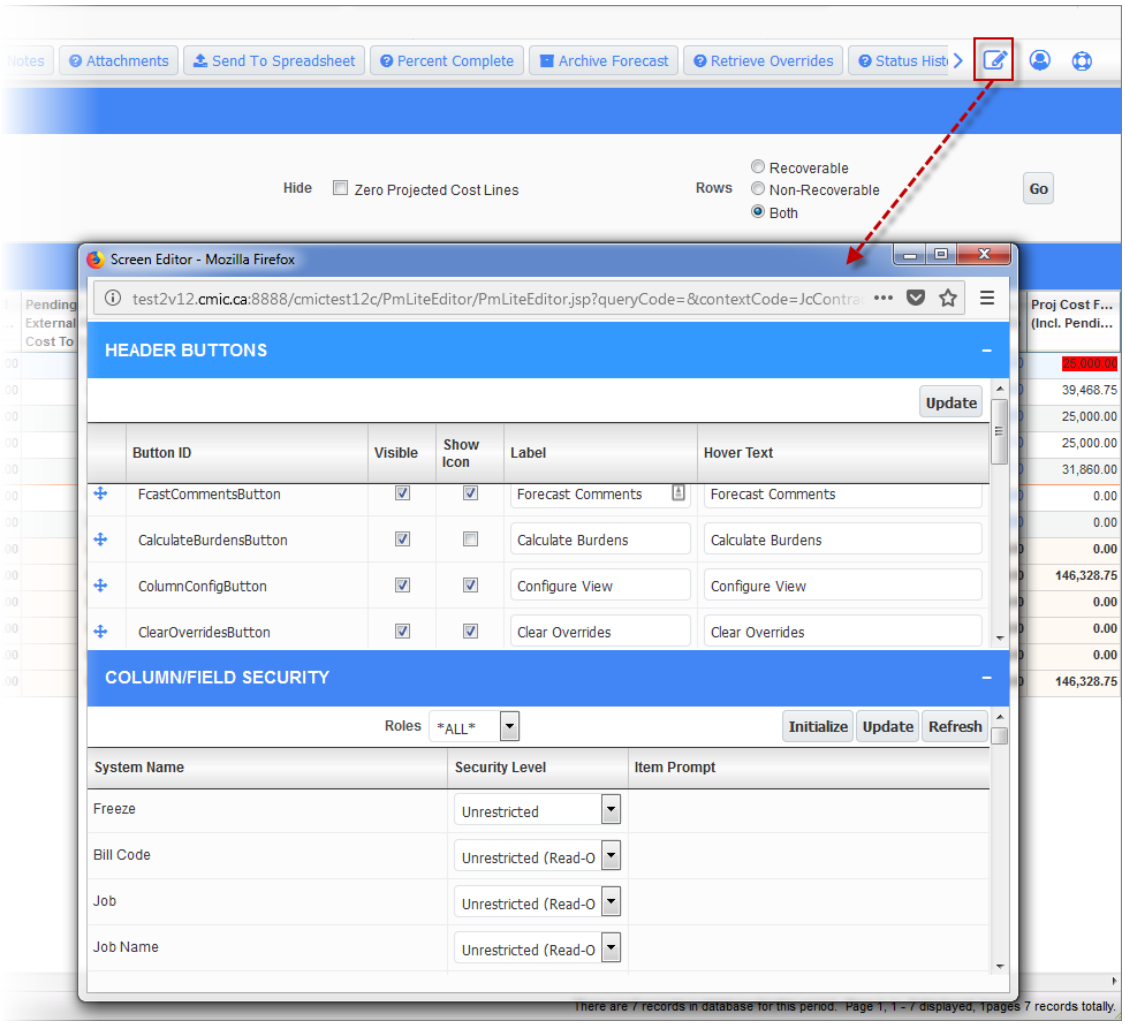
Forecasting Controls

Main Toolbar Buttons



The Contract Forecasting with PCI Projections screen toolbar provides several program-specific functional buttons, as well as standard icons such as the Screen Editor, User Profile, and Help icons.

[**Screen Editor**] – Icon



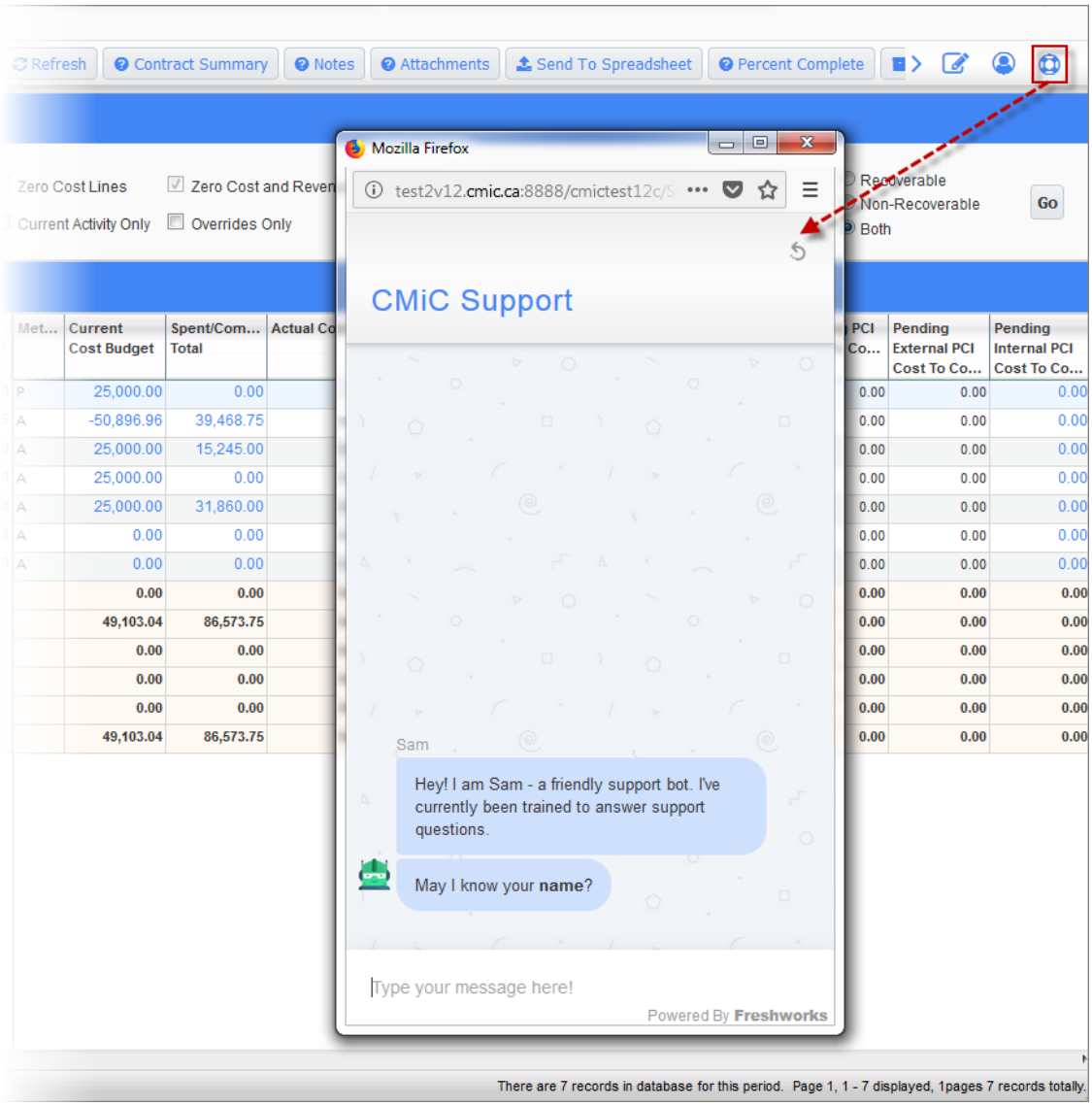
Pop-up window launched from Screen Editor icon on the Contract Forecast with PCI Projections screen

The Screen Editor pop-up window launched from the Screen Editor icon ( ) allows users to apply field security to the user role on one or more columns in the Contract Forecast with PCI Projections screen.

[**User Profile**] – Icon

The User Profile pop-up window launched from the User Profile icon ( ) is used to modify the user's profile. Refer to the CMiC Field guide for more information on using this pop-up window to modify system contact information, e-mail notifications, user defaults, and external software logins.

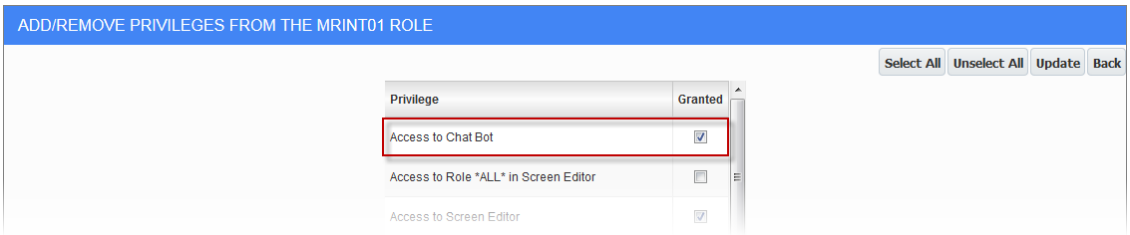
[**Help**] – Icon



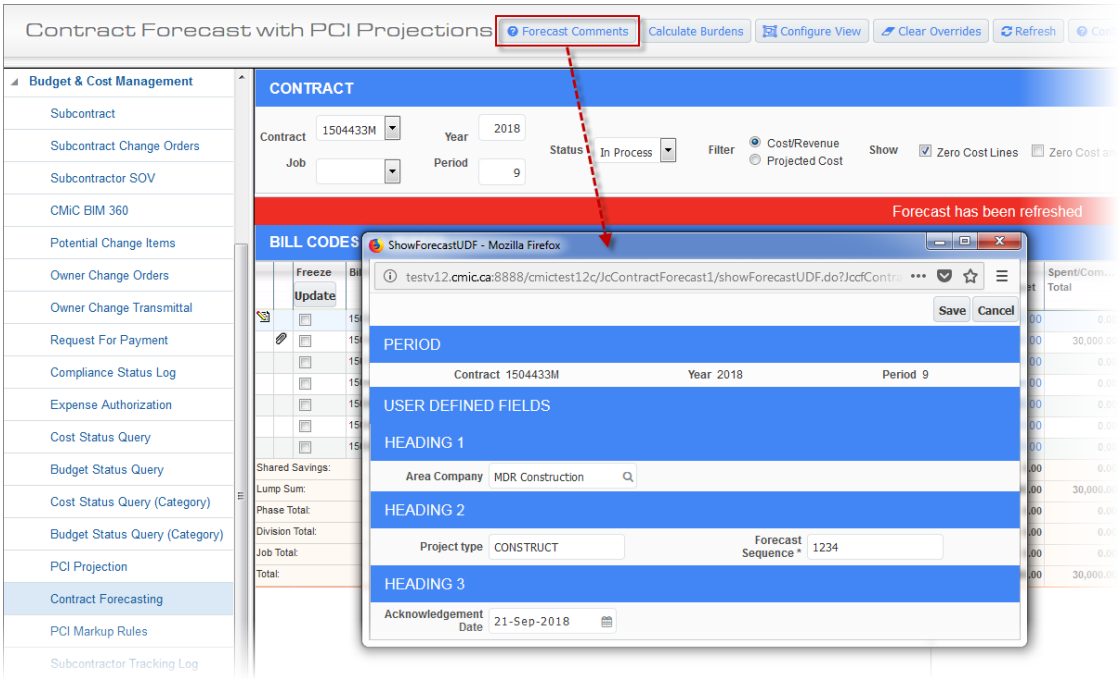
Pop-up window launched from Help icon on the Contract Forecast with PCI Projections screen

The Chat Bot Messenger window launched from the Help icon ( ) provides real-time CMiC support and recommends support articles based on the user's questions.

Access to the Chat Bot is granted by adding the privilege to the user's security role (standard Treeview path: CMiC Field > Security > Role Maintenance).



[**Forecast Comments**] – Button



Forecast UDF pop-up window launched from the [Forecast Comments] button on the Contract Forecast with PCI Projections screen

The [**Forecast Comments**] button displays a pop-up window with any underlying User-Defined Fields (UDFs) that are defined (header and detail level UDFs) in the Forecast UDF.

Forecast UDFs can be defined on the User-Defined Fields screen (standard Treeview path: CMiC Field > File Maintenance > User-Defined Fields – Forecast UDF). Users can define headings and the appropriate UDFs to be located under each heading.

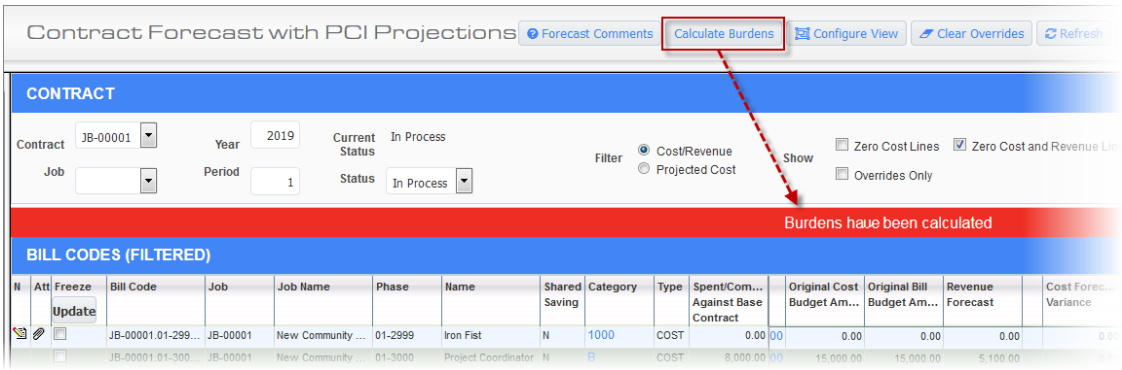
Forecast comments are tied to each forecast period, for the current contract. Editing of the UDFs in the Forecast Comments pop-up window is allowed only for forecast periods

after and including the Job Costing Control File forecast period (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

Field security can be applied to the [**Forecast Comments**] button, if required (standard Treeview path: CMiC Field > Security > Role Maintenance). The default value is “Unrestricted”.

NOTE: The [**Forecast Comments**] button is not available when using the “Job” option for forecasting, which may have more than one contract’s details shown on the same screen.

[**Calculate Burdens**] – Button

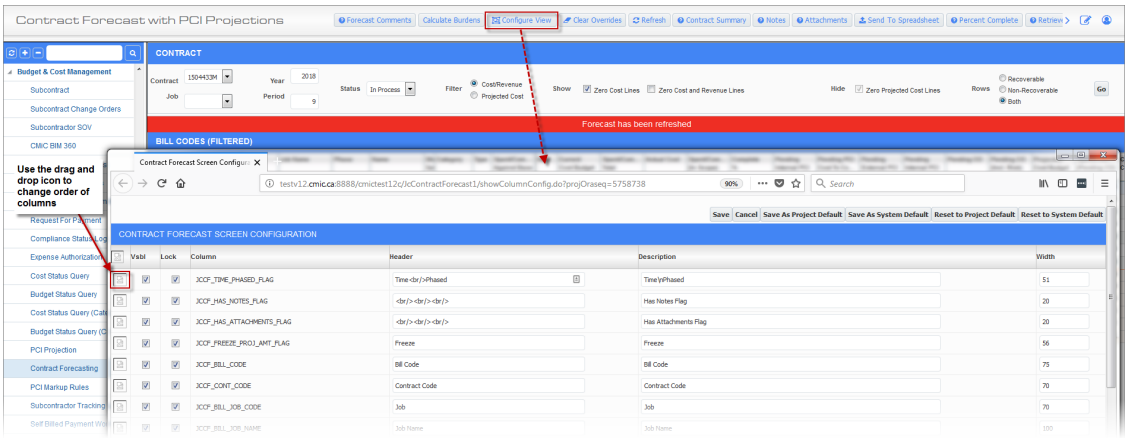


Example of Contract Forecast with PCI Projections screen after burdens have been calculated

When the ‘Calculate Forecast Revenue Amounts on Runtime’ checkbox is checked on the Project System Options screen in CMiC Field (standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contract Forecast tab), when users update the values in the Cost To Complete or Projected Cost Forecast columns, and tab away from those fields, the Revenue Forecast column values are recalculated in real time for this line. Also, when the Productivity pop-up values are overridden by users and saved, the recalculation updates the Revenue Forecast column’s value in real time.

The [**Calculate Burdens**] button is used to re-calculate the burdened billings value in the Revenue Forecast for the entire forecast. Users will be notified with a red message bar indicating “Burdens have been calculated” when the processing is completed, as shown in the screenshot above.

[**Configure View**] – Button



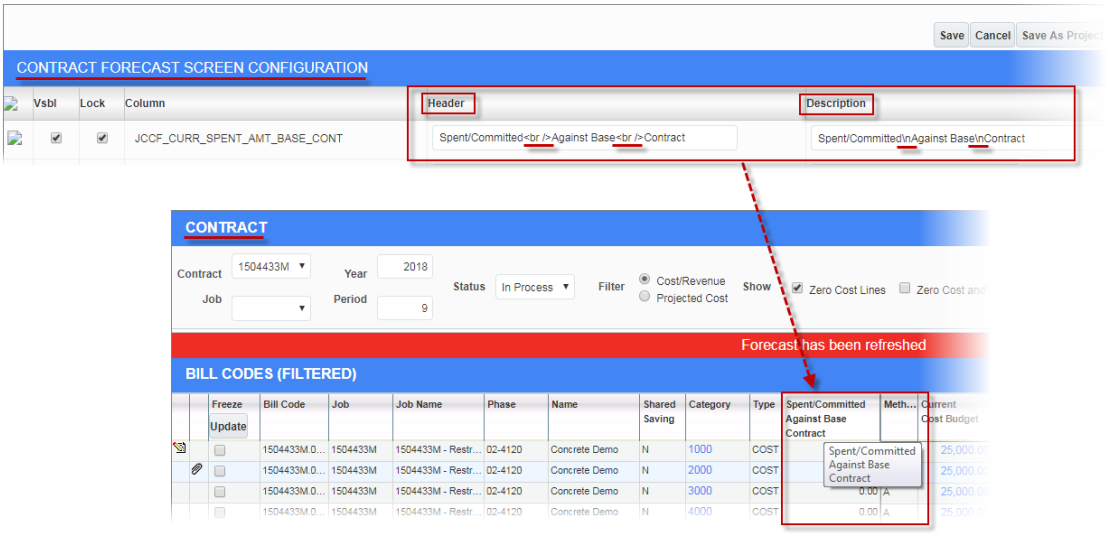
Pop-up window launched from [Configure View] button on Contract Forecast with PCI Projections screen

The [**Configure View**] button launches the Contract Forecast Screen Configuration pop-up window. This pop-up window is a column configuration screen that allows users to configure the order of columns, hide columns, adjust the width of columns, and update the names of columns.

The pop-up configuration window lists all the columns in the Contract Forecast with PCI Projections screen and provides the following functionality:

- Drag & Drop: The drag and drop handle icon can be used to change the order of the columns. Users can save a particular configuration as a default to a specific project or as a default to the entire system.
- Vsbl: This checkbox hides/shows a column. If checked, the column is visible and vice versa. In addition, if any column in the Contract Forecasting with PCI Projections screen is hidden due to security privileges, this checkbox is ignored.
- Lock: This checkbox locks/unlocks a column. If checked, locked columns will appear on the left side of the screen and remain in the frozen area when scrolling screen left or right.
- Column: The table Column field name is read-only.
- Header: The description entered in this field appears as the table column header in the Contract Forecast with PCI Projections screen. (This field replaces the prompt maintenance functionality.)

NOTE: The Header field uses the <br/> tag to indicate line breaks in the table column header displayed and the Description field uses \n tag to indicate line breaks in the tool-tip description displayed.



- Description: The description entered here appears when a user hovers over the column header in the Contract Forecasting with PCI Projections screen.
- Width: The width of any column can be set here, as required. This includes setting the width for locked columns. A width can't be decreased beyond the minimum required value for that particular column. For some columns, the minimum width value is "40". For others, it is calculated by measuring the width of longest word in the column header. This requirement is in place to ensure that column headings are not being cut by width value in column configuration. If the width is less than the width of longest word in the heading, then the system will recalculate it.

NOTE: If the user wishes to hide a column that also uses an override indicator column, the override indicator column can also be hidden.

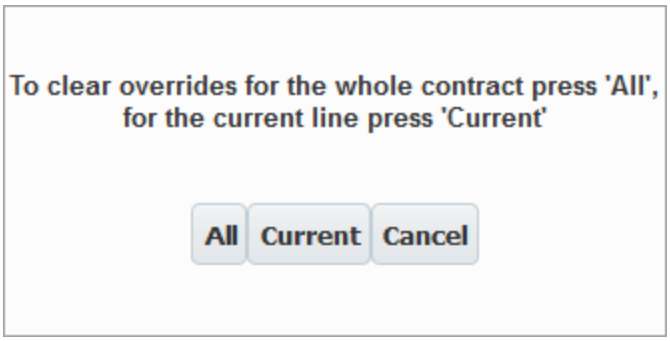
The pop-up configuration screen has the following buttons:

- [**Save**]: This button saves the column configuration for the current user and particular project. No other user under that project will have this user's configuration.

- [**Cancel**]: This button closes the column configuration pop-up screen without saving any changes made in the pop-up for that instance.
- [**Save as Project Default**]: This button saves the column configuration for the current user and all other users under that project if they have not saved any particular configuration for that project.
- [**Save as System Default**]: This button saves the column configuration for the system. Users who don't have user/project configurations set up will be updated with this configuration set as the system default.
- [**Reset to Project Default**]: This button will update the layout for the current user and project to the configuration saved as the project default. If no configuration is saved as project default, the system default will be used instead if the user clicks this button.
- [**Reset to System Default**]: This button removes all the configurations set up as project default or saved for combination of user and project for the current user. It will not supersede the configuration of other users, if any have been set up.

NOTE: Field security can be applied to the [**Configure View**] button, [**Save as System Default**] button, [**Save as Project Default**] button, and [**Reset to System Default**] button.

[**Clear Overrides**] – Button



Pop-up window launched from the [Clear Overrides] button on the Contract Forecast with PCI Projections screen

The [**Clear Overrides**] button allows the user to completely remove overridden values on all or the current line and revert to system-calculated values.

- Clear Override on a Single Line: If users clear an override using the [**Current**] button in the pop-up window, all the overrides of the current bill code line in focus will be cleared and populated with system-generated values.
- Clear Override on All Lines: The [**All**] button in the pop-up window will clear the overridden values of all the bill codes of the forecasted period and revert them to system-generated values.

NOTE: An alert message “Clearing or Retrieving all overrides is rarely used and cannot be undone. Are you sure you want to proceed?” will appear when users choose [**All**] option in the pop-up window when using [**Clear Overrides**], [**Refresh**], or [**Retrieve Overrides**] button functionality.

The [**Clear Overrides**] considers risk in the PCI Cost to Complete column. Users must refresh the Contract Forecast with PCI Projections screen to get the Projected Cost Forecast column to reflect the risk values as well.

The following provides more details on the [**Clear Overrides**] functionality:

- When no history of forecast stored for a contract:
    - For a contract with no history of forecasts stored, initially, all columns in contract forecast have system-generated values for the first time. Users may override and store the very first forecast as required.
    - Clear override using [**Current**] button will clear the overridden values for the line in focus and revert back to system-generated values.
    - Clear override using [All] button will clear all the override values for the entire contract and revert all values to system-generated values.
- When JC Control > ‘Copy Last Stored Forecast’ box is unchecked: The overridden values will not be carried forward to the next forecasting period and all columns will have system-generated values.
- When JC Control > ‘Copy Last Stored Forecast’ box is checked: The overridden values will be carried forward to the next forecasting period for the very first time. All the overrides (inside drill-down and on the forecasting line for A, P and U) will be carried

forward as well and the rest of the values will be system-generated. Clearing overrides in the next period using the [**ALL**] button will revert all the overridden values to system-generated values except the overrides in the Cost Detail drill-down for A type lines.

NOTE: Once clear overrides is performed, there is no way of carrying forward the overrides from the previous period.

NOTE: When users enter the year/period for a contract and press [**Go**], the forecast details are displayed, and they are stored automatically in the table for the specific period.

The [**Clear Overrides**] button clears the overrides, on all or the current line, and has the system calculate all the values, without overrides being brought in from the previously stored forecast, regardless of whether the 'Copy Last Stored Forecast' checkbox is checked or not on the Job Costing Control File (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

The [**Refresh**] button brings in new costs and only recalculates any overrides that are already in the current forecast based on the rules below.

Rules:

1. The 'Copy Last Stored Forecast' checkbox in the Job Cost Control screen is checked, and the budget method is A.
   a) Upon entering a new forecast, when a previous forecast has been stored, the Projected Cost Forecast will be set to the Projected Cost Forecast from the previously stored forecast if the Projected Cost Forecast was overridden in the previously stored forecast - unless one or both of the following conditions are true:
      i) If the program calculates that the expected final costs will exceed the Projected Cost Forecast from the previously stored forecast.

      The calculation should be based on the Projected Final Type setting (standard Treeview path: Job Costing > Job > Enter Budget – Projected Final Type column). Note that the Cost Budget is initially

defaulted as the Projected Final amount, but the Cost Budget should not be considered in this calculation. The forecast writes back to the Job Budget table when the user overrides the Projected Cost Forecast in the forecast screen.

NOTE: The Projected Final Flag field is initially set on the Job Cost Control File screen (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Job Setup tab). The setting defined on the Job Cost Control File defaults to the Projected Final Type column on the JC Enter Budget screen (standard Treeview path: Job Costing > Job > Enter Budget). In most cases, users will not be changing this setting on the JC Enter Budget screen. The program will automatically calculate the expected costs at the completion of the job, based on the setting in this field.

The settings are as follows: “C” to use committed costs only; “S” to use spent to date amounts only; and “L” to use the larger of the spent or committed amount.

ii) If the Current Cost Budget has changed from the last stored forecast.

b) If one or both of the above conditions are true, and the system calculates a Projected Cost Forecast that is different from the previously stored forecast, and the user had overridden the Projected Cost Forecast in the previously stored forecast, then the program will function as follows:

i) The Cost to Complete will be calculated as the Projected Cost Forecast minus Spent/Committed (per the Projected Final Flag field setting).

ii) The Override checkmark will be cleared.

iii) The Projected Cost Forecast field will be highlighted in light red.

iv) If there are detail lines in the Cost to Complete pop-up window,

then the Cost to Complete field should be highlighted in light red.

Examples:

Spent/Committed less than Overridden Projected Cost Forecast

Standard CTC Pop Up	Current Budget	Spent/Committed Total	Cost to Complete	Projected Cost Forecast
Previous Forecast	100,000	70,000	10,000	80,000
System Calc	100,000	75,000	25,000	100,000
Current Forecast	100,000	75,000	5,000	80,000

Spent/Committed greater than Overridden Projected Cost Forecast

Standard CTC Pop UP	Current Budget	Spent/Committed Total	Cost to Complete	Projected Cost Forecast
Previous Forecast	100,000	70,000	10,000	80,000
System Calc	100,000	85,000	15,000	100,000
Current Forecast	100,000	85,000	15,000	100,000

Current Budget Changes

Standard CTC Pop UP	Current Budget	Spent / Committed Total	Cost to Complete	Projected Cost Forecast
Previous Forecast	100,000	70,000	10,000	80,000
System Calc	120,000	85,000	35,000	120,000
Current Forecast	120,000	85,000	35,000	120,000

Recalculated Projected Cost Forecast based on Enhanced Popup Rules

Enhanced CTC Popup	Current Budget	Spent / Committed Total	Cost to Complete	Projected Cost Forecast
Previous Forecast	100,000	70,000	10,000	80,000
System Calc	100,000	75,000	25,000	100,000
Current Forecast	100,000	75,000	8,000	83,000

2. The ‘Copy Last Stored Forecast’ checkbox in the Job Cost Control screen is checked, and the budget method is P or U.

   a) Upon entering a new forecast, when a previous forecast has been stored, the Projected Cost Forecast will be set to the Projected Cost Forecast from the previously stored forecast if the Projected Cost Forecast was overridden in the previously stored forecast - unless one or both of the following conditions are true:

i) If the program calculates that the expected final costs will exceed the Projected Cost Forecast from the previously stored forecast. The calculation should be based on the Current Output Rate and the Projected Output Quantity.

ii) If the Current Cost Budget has changed from the last stored forecast.

b) If one or both of the above conditions are true, and the system calculates a Projected Cost Forecast that is different from the previously stored forecast, and the user had overridden the Projected Cost Forecast in the previously stored forecast, then the program will function as follows:

i) The Cost to Complete will be calculated as the Projected Cost Forecast minus Spent/Committed (per the Projected Final Type field setting).

ii) The Override checkmark will be cleared.

iii) The Projected Cost Forecast will be highlighted in light red.

iv) The Projected Input Units will be recalculated based on the Current Productivity. (Note that the program always recalculates this value if the user overrides the Projected Cost Forecast without using the Cost to Complete pop-up window.)

[**Refresh**] – Button

The [**Refresh**] button is used to update data for the forecasting period from that previously stored and bring in any new data created after the original storage. Refresh may be performed for [**Current**] or [**All**] detail lines, by clicking on the required button in the confirmation pop-up.

For example, refresh could be performed to include newly added bill codes to the forecast that were added to the contract.

NOTE: An alert message “Clearing or Retrieving all overrides is rarely used and cannot be undone. Are you sure you want to proceed?” will appear when users choose [**All**]

---

option in the pop-up window when using [**Clear Overrides**], [**Refresh**], or [**Retrieve Overrides**] button functionality.

[**Store Forecast**] – Button

The [**Store Forecast**] button is visible to those users with the PM role privilege 'Store Forecast' checked on their project role (standard Treeview path: CMiC Field > Security > Project Roles). The default is unchecked, and the button will not be visible to any of the system users until assigned to specific roles.

The store forecast function is used to store the projections and updates the WIP information if the Job Cost Control file is set to use contract forecasting as the source for WIP amounts (standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab). When users enter a year and period, and press [**Go**] button, the forecasting is automatically generated and stored in the database.

NOTE: It is not necessary to use the [**Store Forecast**] button as the [**Save**] button function commits all the overrides performed on the column values. The [**Store Forecast**] button actually sends the updates to WIP for the specific period.

If 'Allow Archiving on Store Forecast' is checked in the Project System Options screen (standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contract Forecast tab), then this value will default into the pop-up window launched from the [**Store Forecast**] button, which users may override as required. When this option is checked in the pop-up window, upon forecast, the Archive function will also be performed.

This function will store the forecast details as a snapshot for the contract or controlling job as queried on the screen in a table named JCCONTFORECAST_JSP_ARCHIVE. This stored data from CMiC Field's Contract Forecast with PCI Projections screen may be used for any analysis in the future.

[**Contract Summary**] – Button

CONTRACT SUMMARY

Close

Job Code	Job Name	Proj Cost Budget	Cost Forecast	Proj Bill Budget	Revenue Forecast	Adj Rev Forecast At Bill Code Level	Lost Revenue At Bill Code Level	Max Job Billing At Job Level	Adj Rev Forecast At Job Level	Lost Revenue At Job Level	Total Lost Revenue	Projected Budget Fee	Forecast Fee	Adjusted Fee	Earned Revenue
1504433M	1504433M - Restrict Certain Categories in RQ & PO	49,103.04	146,328.75	49,103.04	219,493.13	49,103.04	-170,390.09		49,103.04	0.00	-170,390.09	0.00	73,164.38	-97,225.71	-66,477.93
Total (1 row)															
		49,103.04	**146,328.75**	**49,103.04**	**219,493.13**	**49,103.04**	**-170,390.09**		**49,103.04**	**0.00**	**-170,390.09**			**-97,225.71**	**-66,477.93**
								Max Contract	**0.00**	**Lost Revenue At Contract**	**0.00**		**Total Adjusted Fee**	**-97,225.71**	
								Adj Rev Forecast At Contract	**49,103.04**	**Total Lost Revenue**	**-170,390.09**				

Pop-up window launched from the [**Contract Summary**] button on the Contract Forecast with PCI Projections screen

The Contract Summary pop-up window provides summary information for all the jobs under the contract, with key column values for cost, revenue, and lost revenue if any.

Field security can be applied to the [**Contract Summary**] button, if required (standard Treeview path: CMiC Field > Security > Role Maintenance).

NOTE: The Contract Summary columns may not be secured/hidden selectively. Users have only one option: to secure access to the button itself.

[**Notes**] – Button

Show Closed Notes

Add Note Close

NOTES

Number	By	Date	Subject	Note	Closed	Action
1	Database Administrator	11-OCT-2018 04:17 PM	Period 2018/9	Note for Project 1504433M with Contract Forecast with PCI Projections.	N	Close

Pop-up window launched from the [Notes] button on the Contract Forecast with PCI Projections screen

The pop-up window launched from the [**Notes**] button allows users to maintain notes specific to a forecasting period against each individual bill code line item and may be carried forward to the next forecasting period depending on if 'Notes to be Carried Forward through Periods' checkbox is checked on the Job Cost Control File screen (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

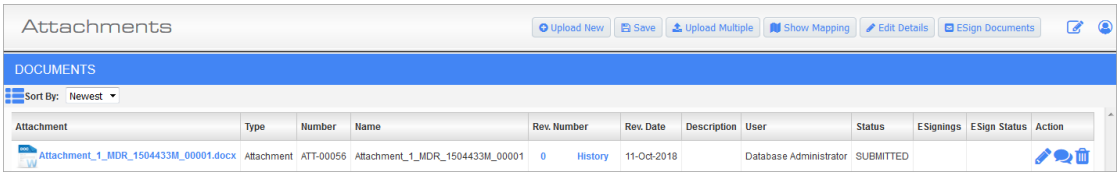
Since notes are entered against each individual line item, users must select a line before clicking on the [**Notes**] button.

The notes column displays a notepad icon if there are notes entered against a bill code. Users can click on the icon to open the Notes pop-up window, where they may review existing notes or add any new notes, as required.

If the user overrides a column value, tabs off the field and clicks on an existing notes icon before saving or cancelling the override, the override will be automatically saved. In addition, if the user overrides a column value, stays on the same field without tabbing off, and then clicks the [**Notes**] button, the program will automatically save the overridden value and open the Notes pop-up window. Users should be aware that overrides may not be limited to one field and all overridden values on a record will be auto-saved.

NOTE: Labels “N” for Notes and “Att” for Attachments can be added to the Notes and Attachments column headings by clicking on [**Configure View**] in the Main Toolbar and updating the Header field for the column in the Contract Forecast Screen Configuration screen. Users may need to click on the [**Reset to System Default**] button in column configuration functionality to see the labels.

[**Attachments**] – Button



Pop-up window launched from the [Attachments] button on the Contract Forecast with PCI Projections screen

The pop-up window launched from the [**Attachments**] button allows users to upload documents with the standard CMiC Field document upload functions.

Since attachments are entered against a line item in each period, users must select a line before clicking on the [**Attachments**] button. Users cannot carry forward the attachments to future periods.

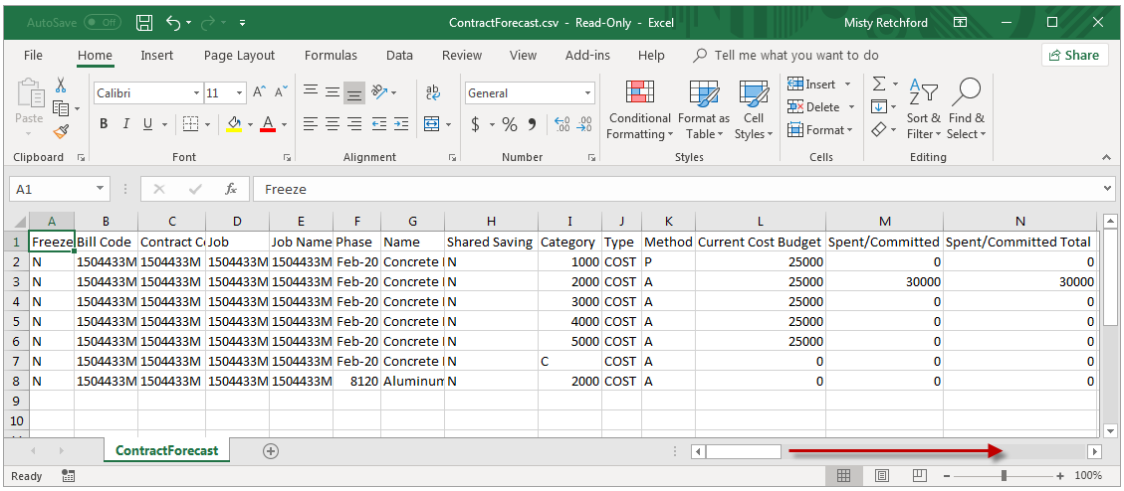
The attachments column displays an attachment icon if attachments exist against a line item. Users can click on the icon to open the Attachments pop-up window, where they may review existing attachments or add any new ones, as required.

NOTE: The Contract Forecast with PCI Projections screen will save any changes to the screen when the [**Attachments**] button is clicked to prevent any overrides from being lost.

[**Send to Spreadsheet**] – Button

The [**Send to Spreadsheet**] functionality can be used with CMiC MIP (Microsoft Integration Program). Users can send data from the contract forecast columns to spreadsheet, either based on a previously stored template or without a template. This allows users to perform further analysis on the forecasting details.

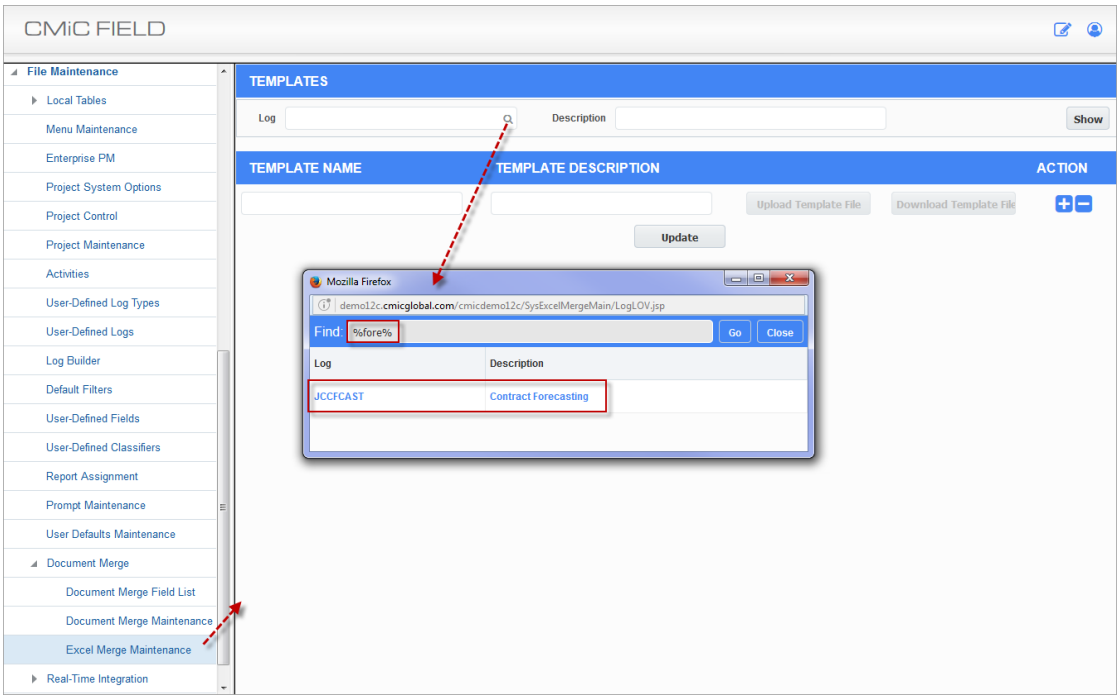
Field security can be applied to the [**Send to Spreadsheet**] button, if required.



Freeze	Bill Code	Contract C	Job	Job Name	Phase	Name	Shared Saving	Category	Type	Method	Current Cost Budget	Spent/Committed	Spent/Committed Total
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	1000	COST	P	25000	0	0
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	2000	COST	A	25000	30000	30000
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	3000	COST	A	25000	0	0
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	4000	COST	A	25000	0	0
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	5000	COST	A	25000	0	0
N	1504433M	1504433M	1504433M	1504433M	Feb-20	Concrete	N	C	COST	A	0	0	0
N	1504433M	1504433M	1504433M	1504433M	8120	Aluminum	N	2000	COST	A	0	0	0

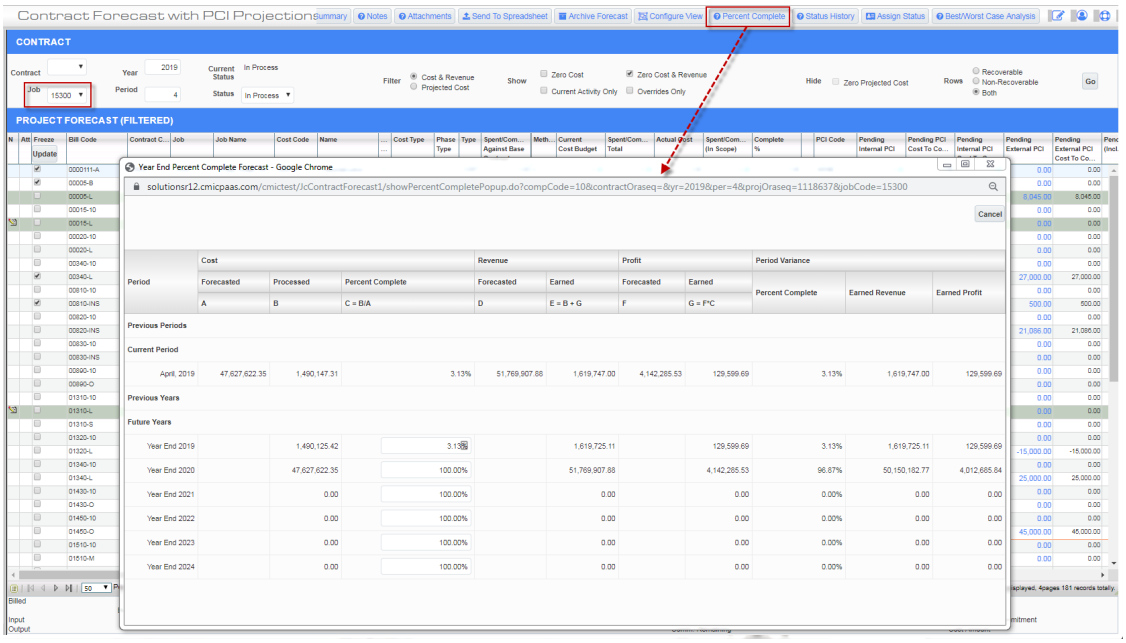
Example of contract forecast exported to spreadsheet

Users can create their own templates using the Excel Merge Maintenance screen. The log to select in this screen is “JCCFCAST – Contract Forecasting”, as shown in the screenshot below.



Excel Merge Maintenance; standard Treeview path: CMiC Field > File Maintenance > Document Merge > Excel Merge Maintenance

[**Percent Complete**] – Button



Pop-up window launched from the [Percent Complete] button on the Contract Forecast with PCI Projections screen

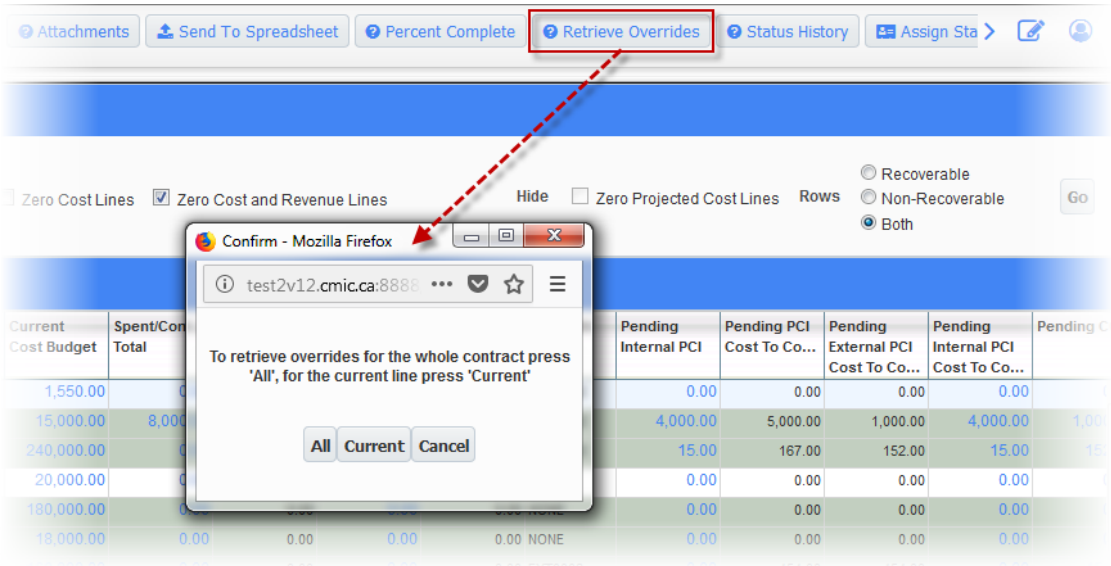
The pop-up window launched from the [**Percent Complete**] button is used to view historical revenue, cost, and profit forecasting and cost information, as well as to enter forecasted completion percentages for current and future years.

This screen allows users to view spend rates from previous periods and current year remaining amounts to guide them in determining an accurate percent complete forecast for the current year and future years.

Before clicking on the [**Percent Complete**] button, a job must be selected in the Job field of the Contract header section.

NOTE: In order for data to be populated in the Previous Years section of the Year End Percent Complete pop-up window, data must exist in the Enter WIP Adjustments screen for prior years in the Job Costing module (standard Treeview path: Job Costing > Forecasting > Work-In-Process Adjustments > Enter and Post Adjustments).

[**Retrieve Overrides**] – Button



Pop-up window launched from the [Retrieve Overrides] button on the Contract Forecast with PCI Projections screen

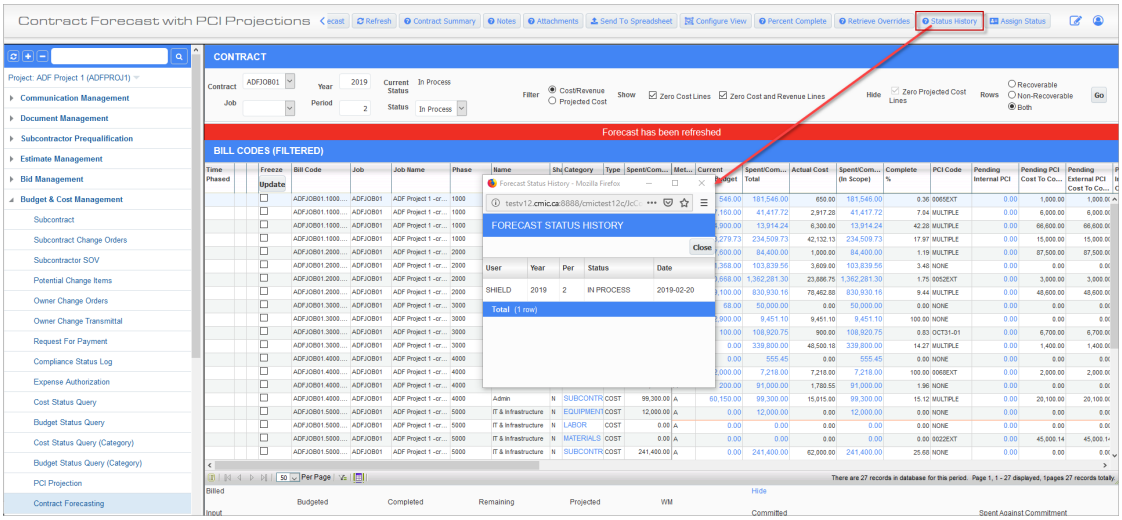
The [**Retrieve Overrides**] button is used to retrieve overrides from the last stored forecast, if available. This is regardless of whether the budgeted amounts have changed since the last forecast.

Users can select [**All**] in the pop-up window to retrieve overrides for the entire contract or select [**Current**] to retrieve overrides for the current line.

NOTE: An alert message “Clearing or Retrieving all overrides is rarely used and cannot be undone. Are you sure you want to proceed?” will appear when users choose [**All**] option in the pop-up window when using [**Clear Overrides**], [**Refresh**], or [**Retrieve Overrides**] button functionality.

Field security can be applied to the [**Retrieve Overrides**] button, if required (standard Treeview path: CMiC Field > Security > Role Maintenance).

[**Status History**] – Button



Pop-up window launched from the [Status History] button on the Contract Forecast with PCI Projections screen

The [**Status History**] button launches a pop-up window that displays the history of status updates that have occurred for the selected contract.

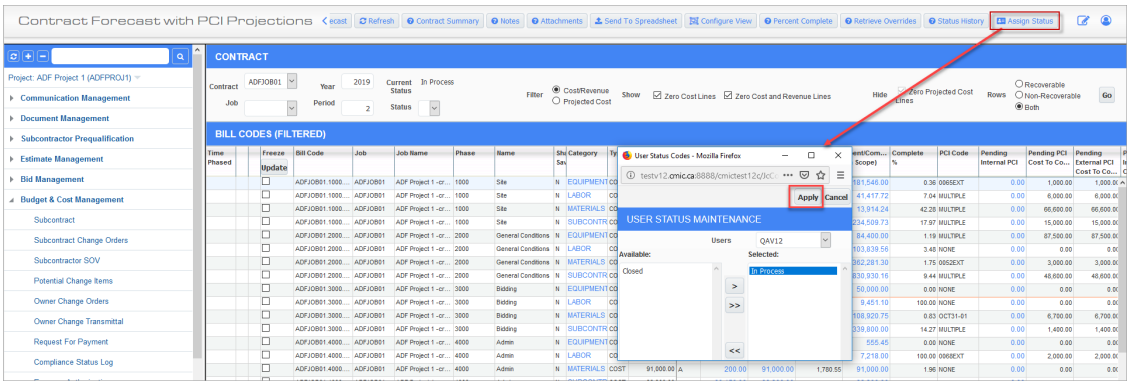
Users can change the status of a forecast using the Status field drop-down menu, located in the Contract header section of the screen. The forecast is automatically updated with the selected status and the pop-up window launched from the [**Status History**] button will display the change.

Users with the PM Role privilege ‘Notify on Forecast Status Change’ will receive an email notification detailing that a forecast status change has occurred. This privilege is located in the “Other” section under the PM Roles screen (standard Treeview path:

CMiC Field > Security > Project Roles). The email will include the contract code and the status to which the forecast has been changed.

Field security can be assigned to the [**Status History**] button, if required.

[**Assign Status**] – Button



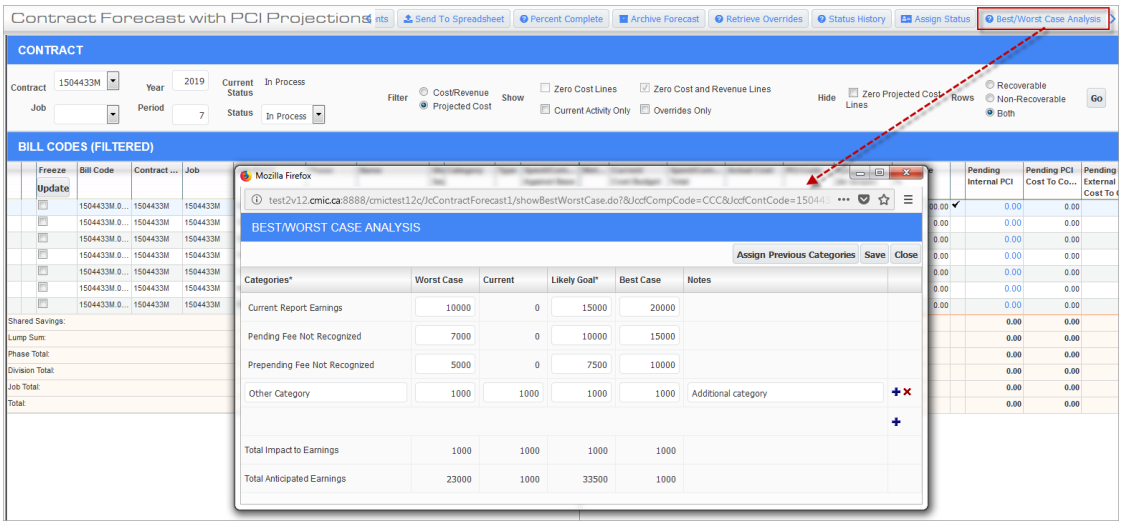
Pop-up window launched from the [Assign Status] button on the Contract Forecast with PCI Projections screen

The [**Assign Status**] button allows the current user to assign one or more statuses to a selected user, to be included in the list of available statuses in the Status field drop-down menu in the Contract (Header) section.

Field security can be assigned to the [**Assign Status**] button, if required.

Forecast status codes are created in the Forecast Status Maintenance screen.

[**Best/Worst Case Analysis**] – Button



Pop-up window launched from the [Best/Worst Case Analysis] button on the Contract Forecast with PCI Projections screen

This pop-up window is used to perform best/worst case analysis. The values in the Current column for Current Report Earnings, Pending Fee Not Recognized, and Prepending Fee Not Recognized populate automatically from the forecast and are read-only. For newly added categories, the Current column is enabled. The remaining fields in the pop-up window can be entered manually.

The Pending Fee Not Recognized column will include all PCIs with status pending that are flagged to be included in the forecast and the Prepending Fee Not Recognized column will include all PCIs with status pre-pending that are flagged to be included in the forecast. The Current Report Earnings will be calculated as projected profit total from contract forecast less (the Pending Fee Not Recognized plus the Prepending Fee Not Recognized).

New user-defined categories can be created on the fly directly from the pop-up window. The [**Assign Previous Categories**] can also be used to assign previously created user-defined categories.

[**Archive**] – Button

The [**Archive**] button functionality can be used to store a snapshot of the contract forecasting in a table, where all the column values from the contract forecasting screen will

be dumped. This will be useful when users want to compare the contract forecasting values in a period with the archived values and analyze the cause and effects of the differences. This may be required in specific scenarios such as forecast has been stored and then a posted PCI is unposted or status changed to “rejected” or “cancelled”, affecting the following period forecasting.

The Archive function may be performed as per user requirements and on regular intervals. When the button is pressed, the confirmation dialogue pops up and users may accept to store the archive. The system will store only one set of records on any system date and pressing multiple times on a single day will simply overwrite the values in the tables.

Users should be aware that storing the archive in an unplanned manner will simply create large amounts of data using up system resources. Users should use their discretion and when a forecast is considered complete in a specific period and stored, then archive the forecast. Alternately, a snapshot of the forecast on a specific day of the week may be stored as well.

Archives help reconcile the stored values in the WIP screen compared to the contract forecasting values.

There are no queries and reports for the Archive function. Users can use their query tools for data retrieval and analysis.

Field security can be applied to the [**Archive**] button, if required (standard Treeview path: CMiC Field > Security > Role Maintenance).

NOTE: If ‘Allow Archiving on Store Forecast’ is checked in Project System Options (standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contract Forecast tab), then this value will default into the pop-up window launched from the [**Store Forecast**] button, which users may override as required. When this option is checked in the pop-up window, upon forecast, the Archive function will also be performed.

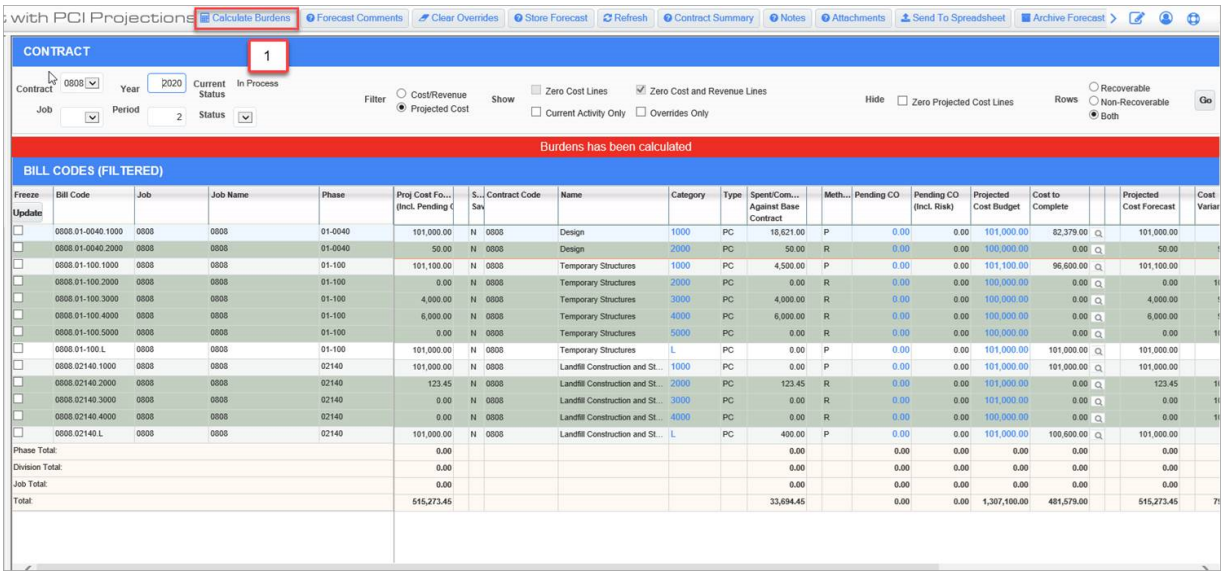
Users should note the following:

- When selecting the 'Contract Code' option and querying the stored forecast, only those details for the specific contract are queried and displayed. The Archive function will store all these records in the table.
- When a forecast is queried for a controlling job, then the Archive function will store details as queried for all main/sub jobs, regardless of the contract code.
- Users may press the [**Archive**] button as many times as required, and on a single day, the records for the contract/controlling job will be overwritten and the net result will be one set of records per day stored in the table.
- Subsequent pressing of the [**Archive**] button on the following days will store a new set of archive details with the audit information of archive date with time.
- Any overrides must be committed (saved) and then re-queried and archived again, in order to update the archive data.

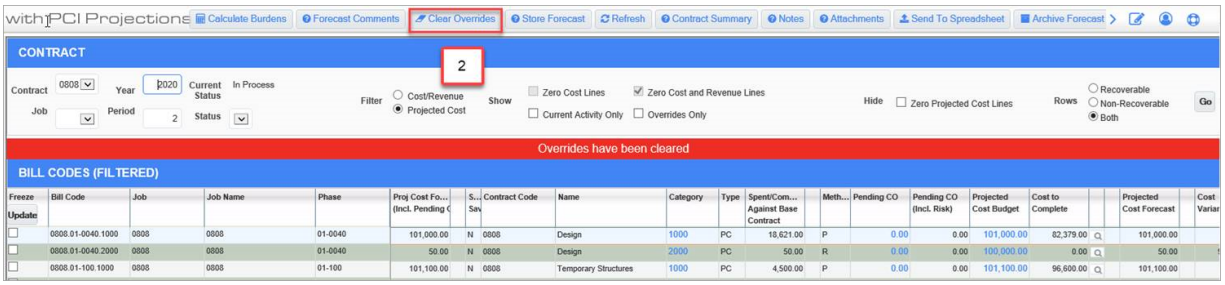
Confirmation Message Banners

A confirmation message banner is displayed after successful completion of the following functions:

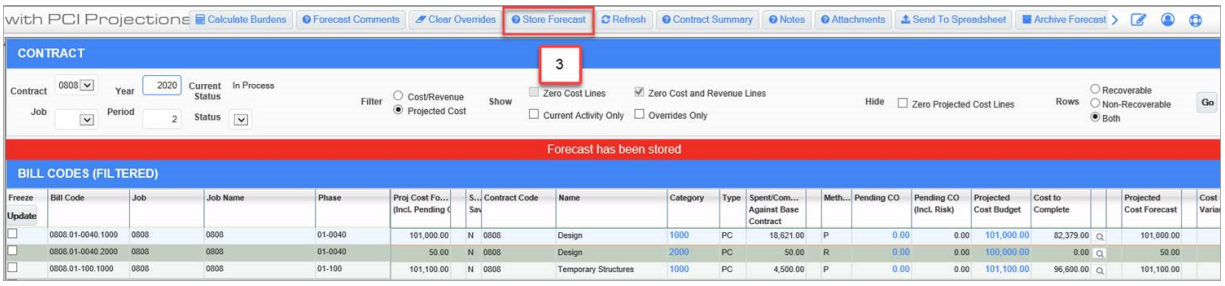
- Calculate Burdens



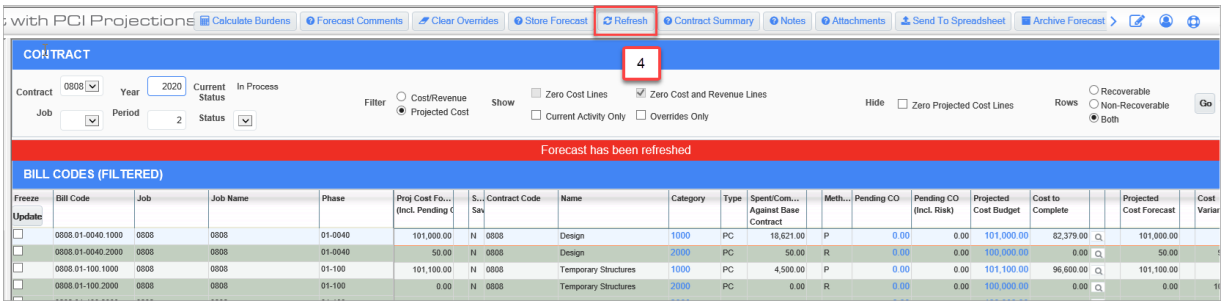
- Clear Overrides



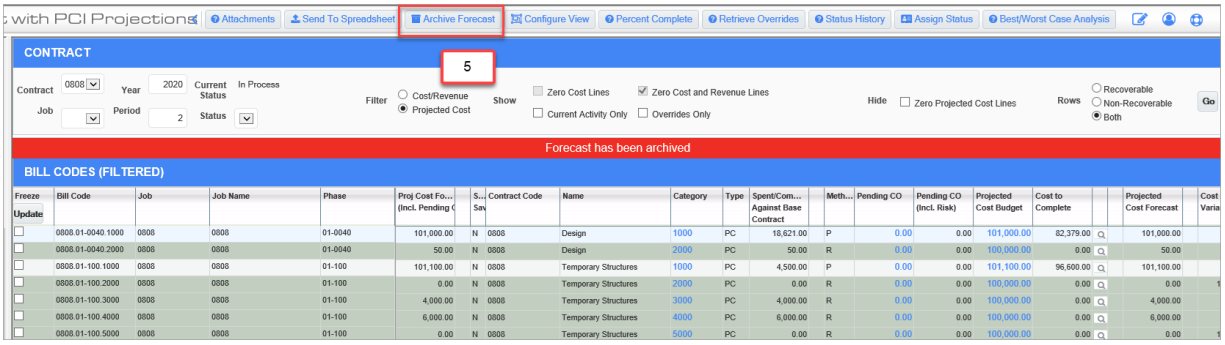
- Store Refresh



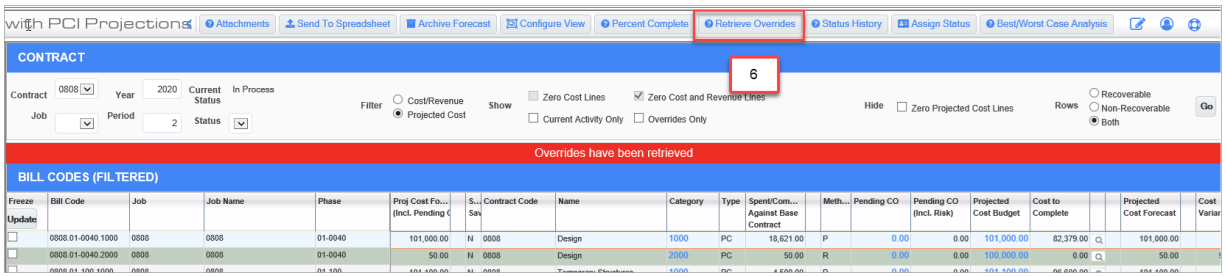
- Refresh



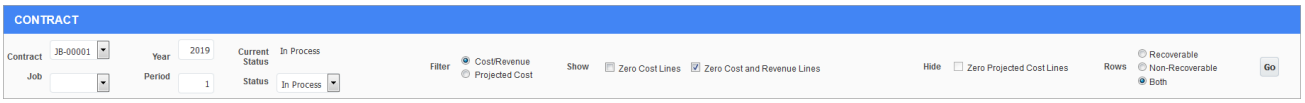
- Archive Forecast



- Retrieve Overrides



Contract (Header) – Section



The Contract header section sets the contract or job, year, and period for forecasting. It also provides a set of filters that allow the user to set the default system parameters for the forecast filter.

There are two ways to perform contract forecasting: using the contract code or using the controlling job option.

NOTE: The job structure can have a controlling job with many sub-jobs. When using the contract code, users must select one contract at a time, then store the forecast as required. When using the Job field, which allows users to select the controlling job code (only controlling job is available in this field) and all bill codes related to the main and sub-jobs will be displayed. Users will be able to forecast, review, override, and store forecast for all contracts in one step.

Contract (Contract Code)

Users can select the required contract code from the LOV to display the bill codes related to the specific contract. However, more than one entry is possible when sub-jobs are set up with their own billing contracts.

For Example:

Job Code	Controlling Job	Billing Contract

1491523M	ALL	1491523M
1491523-S1	1491523M	1491523M
1491523-S2	1491523M	1491523M
1491523-S3	1491523M	1491523-S3

In the case of the contract setup shown above, there will be two entries and users will have to forecast them individually.

Job (Controlling Job Option)

If users select a job code from the LOV (theoretically, there can only be one controlling job in the list, as a project is always mapped with a single job), the Contract code field will be cleared and upon execution, all bill codes related to the billing contracts under this controlling job will be retrieved.

NOTE: Field security can be applied to the Job field, as required.

Selecting a job code facilitates the forecasting of all billing contracts under a controlling job at once.

Users can review, refresh, override and store forecasts, when using this controlling job mode as well. All the standard functions of forecasting are applicable to this mode as well.

Year, Period

The values in the Year and Period fields default from the values entered in the Job Cost Control File (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

Current Status

This is a display-only field that displays the current status of the forecast period of a contract.

Status

The default value for the Status field is “In Process”.

NOTE: The [**Assign Status**] button in the Main Toolbar allows the current user to assign one or more statuses to a selected user, to be included in the list of available statuses in the Status field drop-down menu in the Contract (Header) section.

When users decide that no further updates/changes/overrides can be made to the specific forecast period of a contract, they can set the status as “Closed” from the drop-down menu.

Before changing the status, users must first click the [**Go**] button to either create the forecast for the very first time or load the previously stored forecast.

Once the status is set to “Closed”, the forecast columns are display-only, and no more updates are possible. All the buttons on the screen will be hidden except for [**Go**] and [**Send to Spreadsheet**].

NOTE: When users open any previously stored or future period forecast, the system will display the status as “In Process”, unless the forecast was explicitly “Closed” by the users. If users go back to a period which was not manually closed, the status will show as “In Progress”, but all fields will be display-only.

Once a forecast status is set to “Closed”, the forecast can only be returned to “In Process” if the user has the PM Role privilege ‘Allow To Open Current Forecast’. This privilege is located in the “Other” section under the PM Roles screen (standard Treeview path: CMiC Field > Security > Project Roles). The default value is unchecked. Once the forecast status is changed back to “In Process”, all the buttons and columns will be enabled for users to access and update as required.

The status is independent of each billing contract. The main job contract may have a status “In Process”, while the sub-job contract may have a “Closed” status.

An alert message “Forecast Is Not Stored for Contract…” will appear if the user attempts to change the status of a forecast and the forecast has not yet been stored.

NOTE: Forecast status codes are created on the Forecast Status Maintenance screen (standard Treeview path: CMiC Field > File Maintenance > Local Tables > Forecast Status). For more information, refer to Forecast Status Maintenance.

Filter – Radio Buttons

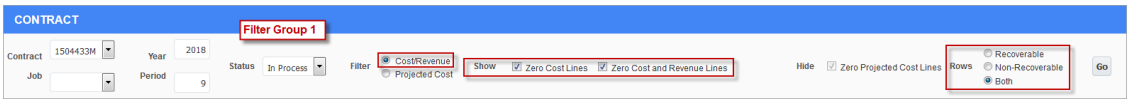
The Contract header section provides a set of filter radio options with Cost/Revenue column values or Projected Cost column values to display the bill codes accordingly. The default values for these filters are set on the Project System Options screen (standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contract Forecast tab).

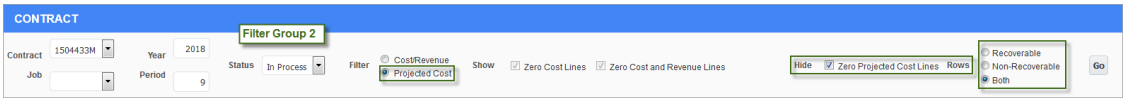
The filter options are grouped as follows:

- **Cost/Revenue > show:**
  - Zero Cost Lines
  - Zero Cost and Revenue Lines
- **Projected Cost > hide**:
  - Zero Projected Cost Lines

The rows can additionally be filtered with radio group options of 'Recoverable', 'Non-Recoverable', and 'Both'.

For example:





Show – Checkboxes

- **Zero Cost Lines**: When checked, show lines with zero cost.
- **Zero Cost and Revenue Lines**: When checked, show lines with either zero cost or zero revenue.
- **Current Activity Only**: When checked, will show only bill codes where some activity is performed in that period (e.g. where some cost, commitment and changes transactions are posted). Field security can be applied to this field, as required.

- **Overrides Only**: When checked, will show only bill codes where overrides are performed. Field security can be applied to this field, as required.

Hide – Checkbox

- **Zero Projected Cost Lines**: When checked, do not show lines with zero projected cost.

Rows – Radio Buttons

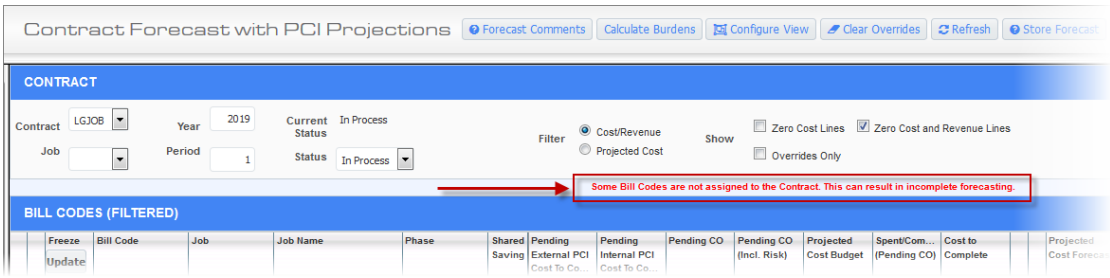
In addition to the filter options described above, users can filter by ‘Recoverable’ and ‘Non-Recoverable’ (NR) bill codes.

- **Recoverable**: When selected, all bill codes using billing methods other than “NR” will be displayed.
- **Non-Recoverable**: When selected, only bill codes using billing method “NR” will be displayed.
- **Both**: When selected, both recoverable and non-recoverable bill codes will be displayed.

NOTE: Any transactions associated with bill codes marked with the Non-Recoverable (NR) billing method will produce a zero bill. Any item using this method will not be billed unless manually overridden.

Warning Message

A warning message will be displayed in the Contract Forecast with PCI Projections screen’s header if bill codes have been added to the contract in the Job Costing module (standard Treeview path: Job Costing > Job >Enter Budget) after the creation of the forecast but these bill codes have not been assigned to the contract forecast, as this can result in an incomplete forecast. The message will appear as follows:



Warning message issued if some bill codes are not assigned to the contract

Upon refreshing, the contract forecast will bring in any missing bill codes that are not in the forecast but that exist on the contract in the Job Costing module.

[**Go**] – Button

The [**Go**] button is used to either create the forecast for the very first time or to load the previously stored forecast.

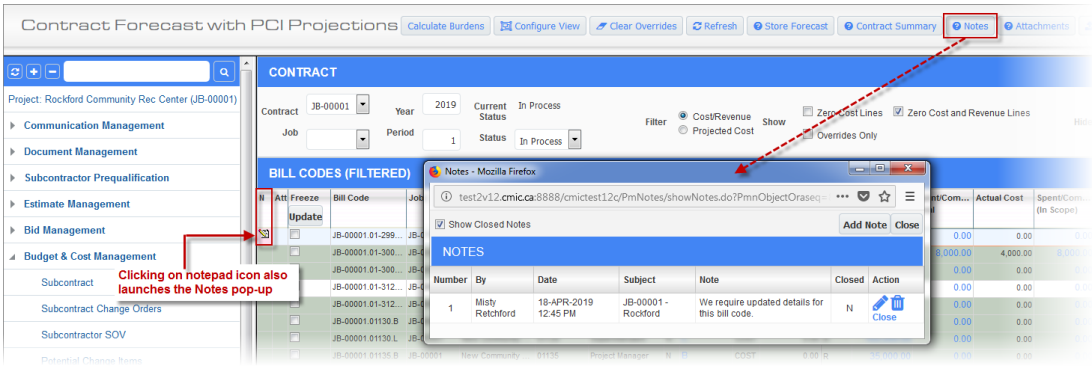
When users enter the year/period for a contract and press [**Go**], the forecast details are displayed, and they are stored automatically in the table for the specific period.

Bill Codes (Detail) – Section

This section details the columns and their definitions in the Bill Codes detail section. Where applicable, calculations are also shown.

NOTE: Time Phased Budgeting column has been deprecated.

N (Notes)



Pop-up window launched from [Notes] button and notepad icon displayed in Notes column

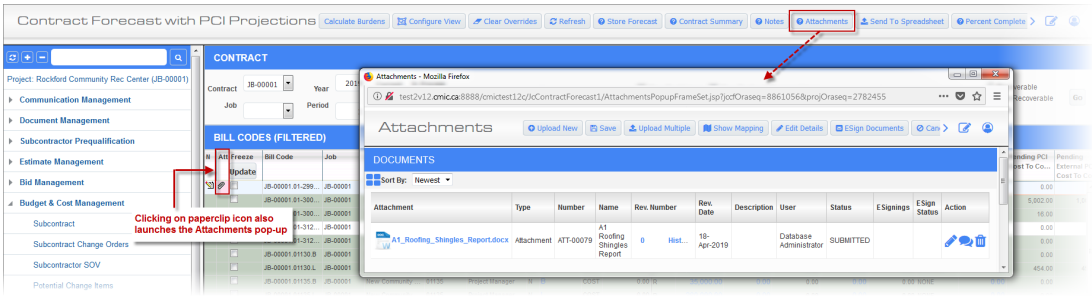
The Notes column displays a notepad icon, if there are notes entered against a bill code. Users can click on the icon to launch the Notes pop-up, where they can review existing notes or add any new notes as required.

Notes can be carried forward to the next forecasting period depending on if 'Notes to be Carried Forward through Periods' checkbox is checked on the Job Cost Control File screen (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

The label "N" for Notes can be added to the Notes column heading by clicking on [**Configure View**] in the Main Toolbar and updating the Header field for the column in the Contract Forecast Screen Configuration screen. Users may need to click the [**Reset to System Default**] button in the Contract Forecast Screen Configuration screen to see the labels.

NOTE: This column is different than the Notes column that appears to the right of the forecasting screen that is hidden by default. In that Notes column, users must click on a field in the column to expand a text box for typing. More details on this separate column is provided later in this section.

Att (Attachments)



Pop-up window launched from [Attachments] button and paperclip icon displayed in Attachments column

The attachments column displays a paperclip icon if there are attachments entered for a bill code. Clicking on the icon opens the CMiC standard attachments pop-up and allows users to view existing attachments or upload new ones as required.

The label "Att" for Attachment can be added to the Attachments column heading by clicking on [**Configure View**] in the Main Toolbar and updating the Header field for the

column in the Contract Forecast Screen Configuration screen. Users may need to click the [**Reset to System Default**] button in the Contract Forecast Screen Configuration screen to see the labels.

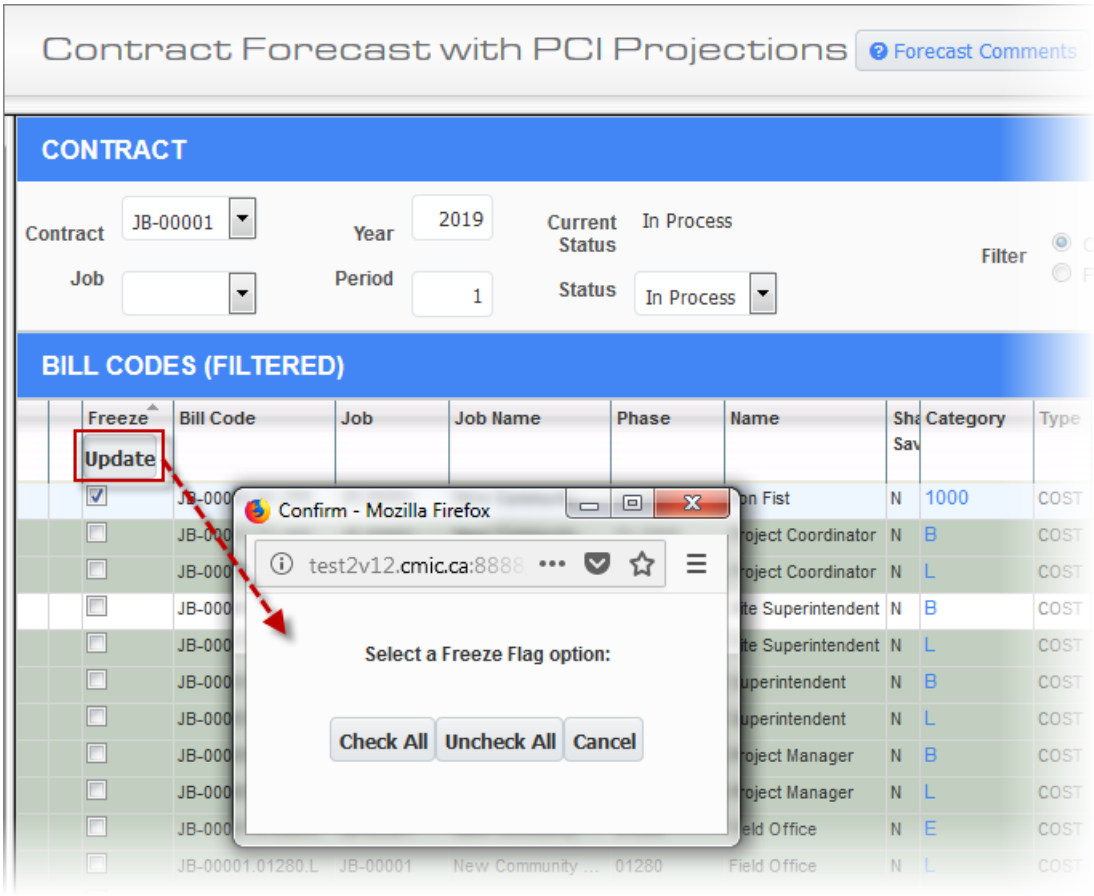
NOTE: The Contract Forecast with PCI Projections screen will save any changes to the screen when the Attachment paperclip icon is clicked to prevent any overrides from being lost.

Freeze – Checkbox

When checked, the Projected Cost Forecast column will be frozen but the Projected Cost Forecast (Including Pending CO) column will not be frozen.

The same is true for the Adjusted Revenue Forecast column which will be frozen, but the Revenue Forecast column will not be frozen.

[**Update**] – Button



Pop-up window launched from the [Update] button on the Freeze column

The [**Update**] button launches a pop-up window where users can check or uncheck the 'Freeze' checkbox for all lines.

NOTE: When using the freeze/unfreeze all bill codes functionality, users must click [**Save**] on the Main Toolbar to commit the updates or on [**Cancel**] to return to the previous state.

Contract Code

The Contract Code column displays the related contract code against each of the bill code records. By default, field security on the Contract Code column is set to "Hidden" for the "ALL" role. Users must set this value as "Unrestricted (Read-Only)" in order to make this column visible in the Contract Forecast with PCI Projections screen. Users may also set the field security at user role levels, if required to be "Hidden".

Bill Code

The Bill Code column displays all the bill codes from the job billing contract. When the job code is selected in the Job field in the Contract header, all the bill codes for controlling and sub-jobs will be displayed.

Where the billing code includes more than one combination, the value can be seen in the Billing Contract details section as to which particular value is shown as primary. In these cases, the updates are done through the pop-up.

NOTE: This is a display-only field. Drill-down is possible only when more than one combination of job, phase and category combination exists.

Job, Job Name, Phase, Phase Name, Category, Phase Type, Type (Billing), Method (Budget)

The job, phase and category associated with the bill codes along with the other information such as billing type and budget method are displayed. These are display-only fields.

Budget methods are defined as follows:

- **A**: Amounts
- **P**: Productivity
- **U**: Units
- **R**: Labor

NOTE: A Phase Type column exists, but initially has been set to “Hidden” on the “ALL” role (standard Treeview path: CMiC Field > Security > Role Maintenance). Field security can be applied, if desired. Sorting and filtering can be used on this column. It is also included in the [**Send to Spreadsheet**] output.

Shared Saving

The Shared Saving column is a display-only field. This column value is set to “Y” when the bill code uses shared saving. This is useful when distinguishing between shared and non-shared (lump sum) savings lines.

NOTE: The value in this field defaults from the Shared Savings checkbox set on the Job Billing module’s Contract Entry screen (standard Treeview path: Job Billing > Contracts > Enter Contract – Billing Items tab). If Shared Savings is checked for a bill code on the Job Billing Enter Contract screen, then the Shared Saving value on the Contract Forecast with PCI Projections screen will be set to “Y”.

Current Cost Budget

The Current Cost Budget column brings in the original cost budget amount from the JC Enter Budget screen in the Job Costing module (standard Treeview path: Job Costing > Job > Enter Budget). Any posted changes that may have updated the cost budget will be reflected when refresh is performed.

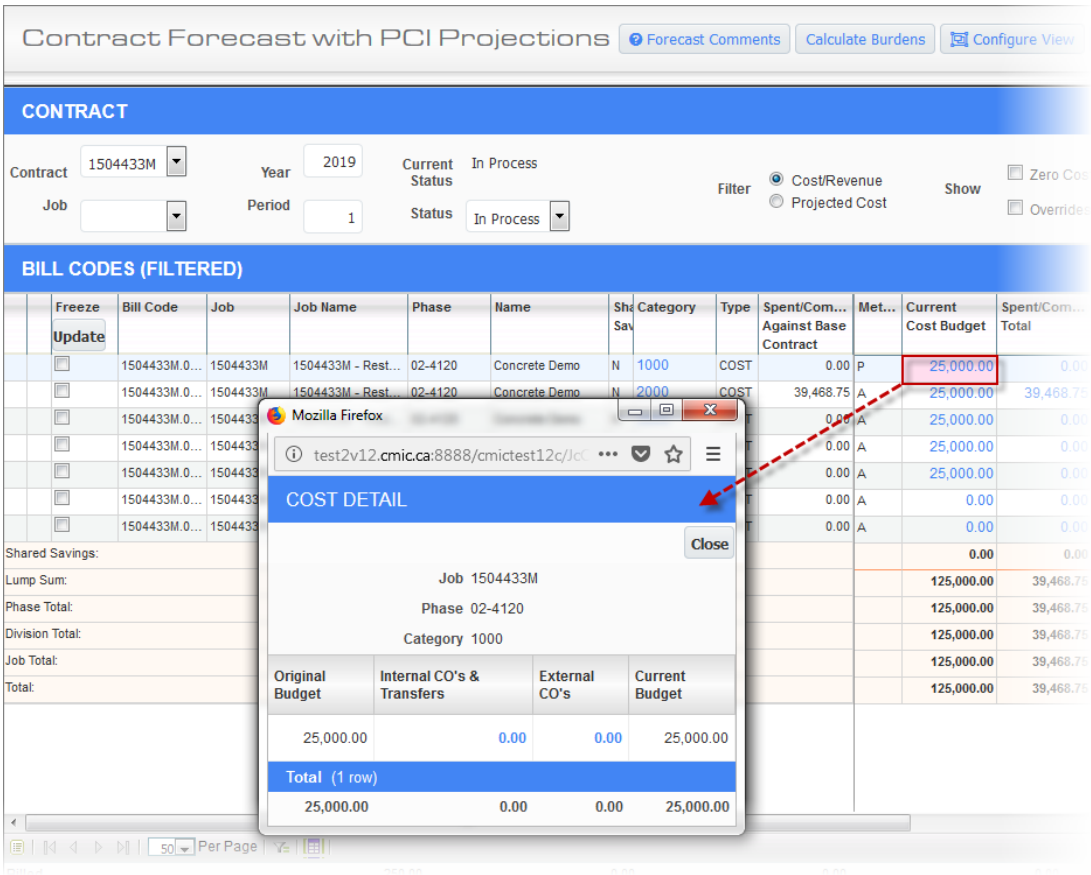
Current Cost Budget = Original Cost Budget + Posted PCIs (Ext/Internal/Transfer) Amounts up to the end of the current forecasting period

NOTE: Internal PCIs affect the Current Cost Budget column when ‘Internal Change Orders Update Budget’ checkbox is checked on the Change Management module’s

Control File (standard Treeview path: Change Management > Local Tables > Change Management Control File).

Negative PCIs posted up to the end of the forecasting period will also be included in the Current Cost Budget column.

The fields in this column allow drill-down and clicking on a field opens the Cost Detail pop-up window displaying the summary of Original Budget, posted Internal & Transfer COs, posted External COs, and the Total of all these amounts representing the Current Cost Budget. Further drill-down is available on each PCI type and then to PCI details.



Pop-up launched from Current Cost Budget column

Spent/Committed Against Base Contract

The Spent/Committed Against Base Contract column shows the Spent, Committed or Largest of Spent/Committed (based on Projected Final Type field in the JC Enter

Budget screen in Job Costing module). This is a display-only column and not used in any calculations.

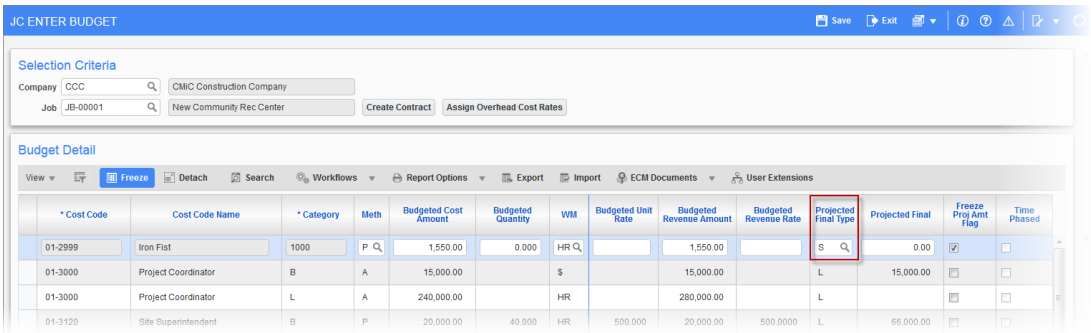
NOTE: The Projected Final Type field is initially set in the Projected Final Flag field on the Job Cost Control File screen (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Job Setup tab). The setting defined on the Job Cost Control File defaults to the Projected Final Type column on the JC Enter Budget screen (standard Treeview path: Job Costing > Job > Enter Budget).

The settings are as follows: “C” to use committed costs only; “S” to use spent to date amounts only; and “L” to use the larger of the spent or committed amount.

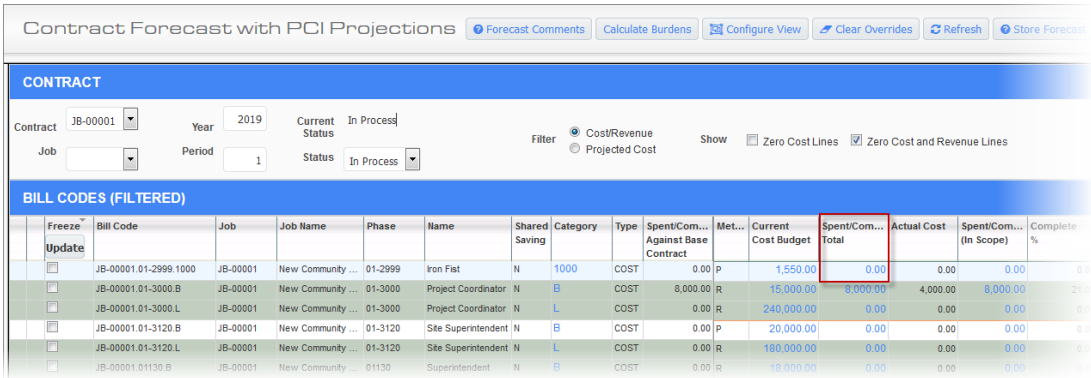
Spent/Committed Against Base Contract = Spent (S), Committed(C) or Largest of Spent/Committed (L) (Based on Projected Final Flag in JC Budget)

Example: How ‘Projected Final Flag' affects the Spent/Committed against Base Contract value?

Committed Cost	Spent Cost	Spent outside Commitment	L	S	C
1200	150	100	1200+100-0=1300	150+100-0=250	1200+100-0=1300
1000	1750	100	1750+100-0=1850	1750+100-0=1850	1000+100-0=1100
-1300	-1800	-250	-1300+(-250) = -1550	-1800+(-250) = -2050	-1300+(-250) = -1550



Pgm: JCBUDGET – JC Enter Budget; standard Treeview path: Job Costing > Job > Enter Budget - Projected Final Type column value set as "S"



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting (Example: Spent/Committed Against Base Contract)

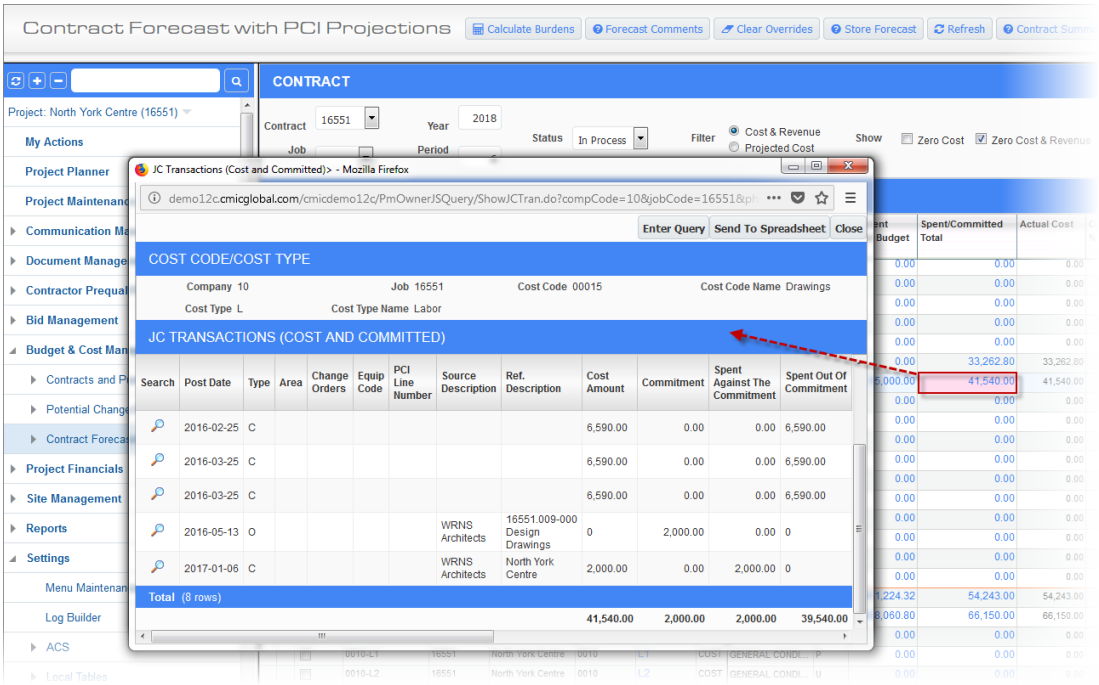
Spent/Committed Total

The Spent/Committed Total column displays the Job Costing Transaction details of type "O" and "C". This is a display-only column and not updateable by users. This is not used in any calculations of other columns. The drill-down opens the Job Costing Transaction detail pop-up and displays all committed/spent amounts against the bill code (i.e. "C" and "O" type transactions). Field security exists for this column, if required.

Spent/Committed Total = LARGEST OF (ABSOLUTE OF **|Commitment|** versus ABSOLUTE OF **|Spent Against Commitment|**) **+ Spent Out Of Commitment** up to and including the current forecasting period

For example:

Commitment [O]	Spent against commitment [C]	Spent outside Commitment [C]	Spent / Committed Total
9582	1759	987	9582 + 987 = 10569
8522	10958	758	10958 + 758 = 11716
-1500	-1300	250	-1500 + 250 = -1250
-1300	-1800	-250	-1800 + (-250) = -2050 (screenshot shown below)



Pop-up window launched from field in Spent/Committed Total column on the Contract Forecast with PCI Projections screen

NOTE: Drill-down can be disabled on the Spent/Committed Total column if field security is set to read-only.

Actual Cost

The Actual Cost column represents the spent amount (posted costs) for the current job. Field security can be applied to this column to make it hidden or unrestricted, if required.

This is the current cost transactions against the job/cost code/category (“C” type transactions in Job Costing Transactions detail pop-up (JCDETAIL table)). This is a display-only field.

Actual Cost = Posted Cost Transactions ('C' type transactions in JCDETAIL table)

This may also be defined as:

Actual Cost = Spent Amount (Against Commitment + Outside of Commitment)

The Actual Cost represents the spent amount (posted cost) for the current job.

NOTE: The Actual Cost includes Spent Out of Commitment against Unposted Internal and External PCIs.

Enter Query | Send To Spreadsheet | Close

COST CODE/COST TYPE

Company 10 | Job 16551 | Cost Code 00015 | Cost Code Name Drawings

Cost Type L | Cost Type Name Labor

JC TRANSACTIONS (COST AND COMMITTED)

Search	Post Date	Type	Area	Change Orders	Equip Code	PCI Line Number	Source Description	Ref. Description	Cost Amount	Commitment	Spent Against The Commitment	Spent Out Of Commitment	Commitment Code	Source	Transaction Number	Reference Date	Batch_Number	Quantity	WM	PY Transaction Type	PY Transaction Description
	2016-01-25	C							6,590.00	0.00	0.00	6,590.00		JC	9469	2016-01-25	7422		$		
	2016-01-25	C							6,590.00	0.00	0.00	6,590.00		JC	9469	2016-01-25	7422		$		
	2016-02-25	C							6,590.00	0.00	0.00	6,590.00		JC	9470	2016-02-25	7468		$		
	2016-02-25	C							6,590.00	0.00	0.00	6,590.00		JC	9470	2016-02-25	7468		$		
	2016-03-25	C							6,590.00	0.00	0.00	6,590.00		JC	9475	2016-03-25	7470		$		
	2016-03-25	C							6,590.00	0.00	0.00	6,590.00		JC	9475	2016-03-25	7470		$		
	2016-05-13	O					WRNS Architects	16551.009-000 Design Drawings	0	2,000.00	0.00	0	16551.009 000	SC		2016-05-13	7764	1040	HR		
	2017-01-06	C					WRNS Architects	North York Centre	2,000.00	0.00	2,000.00	0	16551.009 000	AP	6907	2016-07-19	8329	1041.66666667	HR		
Total (8 rows)																					
									41,540.00	2,000.00	2,000.00	39,540.00									

Spent/Committed (In Scope)

Spent, Committed, Largest of Spent/Committed minus Spent, Committed, Largest of Spent/Committed against Internal PCIs

Spent/Committed (In Scope) = Spent, Committed, Largest of Spent Committed - The same against Internal PCIs

The fields in this column allow drill-down and clicking on a field launches the Job Costing Cost Transactions detail pop-up.

NOTE: The Spent/Committed (In Scope) column excludes Pending PCI cost amount that may have been posted in a future period.

Completed %

By default, this column is set to read-only and functions as follows:

- When budget method = A, this is calculated as Cost Amount / Project Forecast Amount.
- When budget method = P calculation (default as user may modify through pop-up) is based on Phase Spent Quantity (Completed phase level units) / Phase Projected Quantity.
- For both U and P types, if the Projected Quantity equals “0”, and the Spent Quantity is not “0”, then the % Complete is set to 100%.

If this column is set to unrestricted, then it is editable when the budget method is A, but remains read-only for methods P, U, and R.

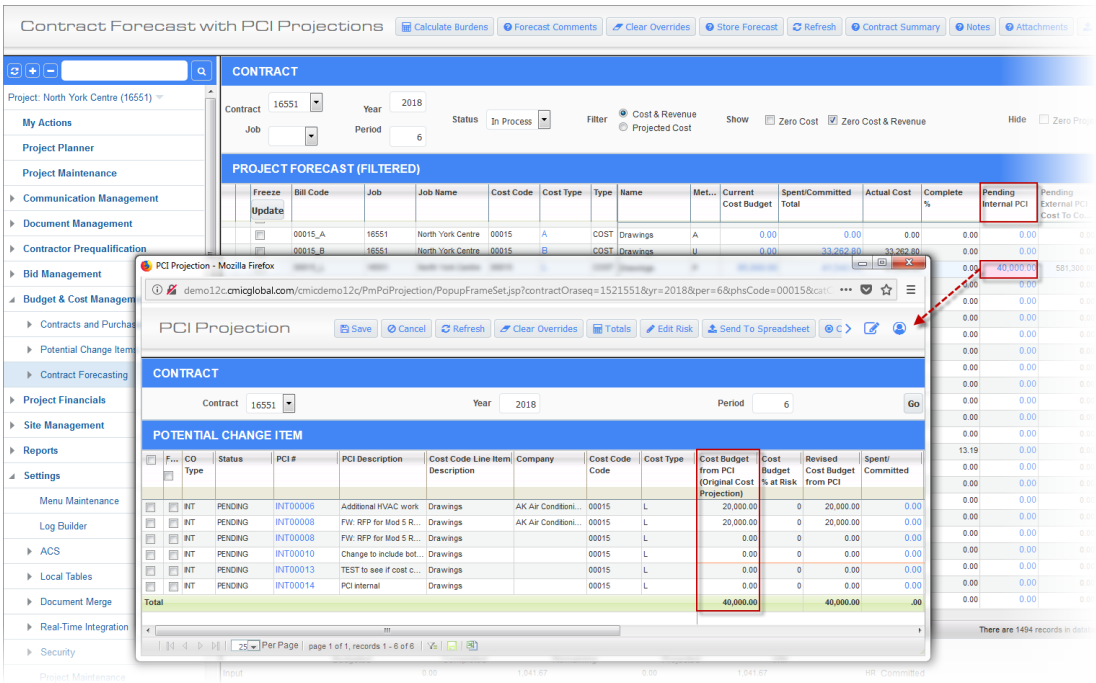
PCI Code

The PCI Code column shows the associated PCI code for the record. If there are multiple PCIs for one record, the word “MULTIPLE” is displayed in the cell. If there is no PCI for this record, “NONE” is displayed. The tooltip for any PCI displayed will be the header Description field of the PCI.

Pending Internal PCI

This column shows the sum of unposted Pending Internal PCI amounts. The fields in this column allow drill-down and clicking on a field launches the Internal PCI Projections pop-up window. Also, further drill-downs are available on PCI numbers and Spent/Committed columns.

Pending Internal PCI = Sum of Un-Posted Internal PCI amounts



Internal PCI Projections pop-up window launched from Pending Internal PCI field drill-down

Pending PCI Cost to Complete

This column displays the cost to complete amount for Pending Internal PCI, Pending External PCI and Unposted Transfers, and Original Budget Change Orders.

NOTE: Column name is “JCCF_INT_PEND_CO_TO_COMPL_AMT” in Contract Forecast with PCI Projections screen configuration.

This may be defined as:

Pending Internal/External/Transfer PCI Amount minus Spent Cost Against the same.

This is a display-only field.

NOTE: PCI could be negative amount and the spent cost may also be negative.

Pending Internal PCI Cost to Complete

This column displays the cost to complete amount for truly Pending Internal PCI. This column contains a drill-down on the column value which launches a PCI Projections pop-up window and further drill-down opens the PCI Entry level as well.

NOTE: Column name is “JCCF_INT_PCI_TO_COMPL_AMT” in Contract Forecast with PCI Projections screen configuration.

Pending External PCI Cost to Complete

This column displays the cost to complete for Pending External PCIs.

NOTE: Column name is “JCCF_EXT_PCI_COST_TO_CMPL_AMT” in Contract Forecast with PCI Projections screen configuration.

Pending CO

This column is calculated as follows:

Sum of unposted Pending External/Original Budget PCI Amounts. Sum of cost budget from Pending External PCI.

The fields in this column allow drill-down and clicking on a field launches the PCI Projection pop-up window for review and update.

Pending CO (Incl. Risk)

Sum of the Revised Cost Budget Amount after applying risk to Pending Internal/External PCI.

Sum of unposted Pending Internal/External/Transfer/Original Budget PCI Amounts including PCI Risk Amount applied. The Revised Cost Budget from PCI column Amount from the Pending CO Column pop-up.

This is a display-only field.

Projected Cost Budget

This column is calculated as follows:

Current Cost Budget + Pending CO (Including Risk)

This is a display-only field that contains a drill-down on the column value which launches the Cost Budget Detail pop-up window. Further drill-down on the columns related to change orders opens a PCI Detail log and users can drill down to PCI Entry level as well.

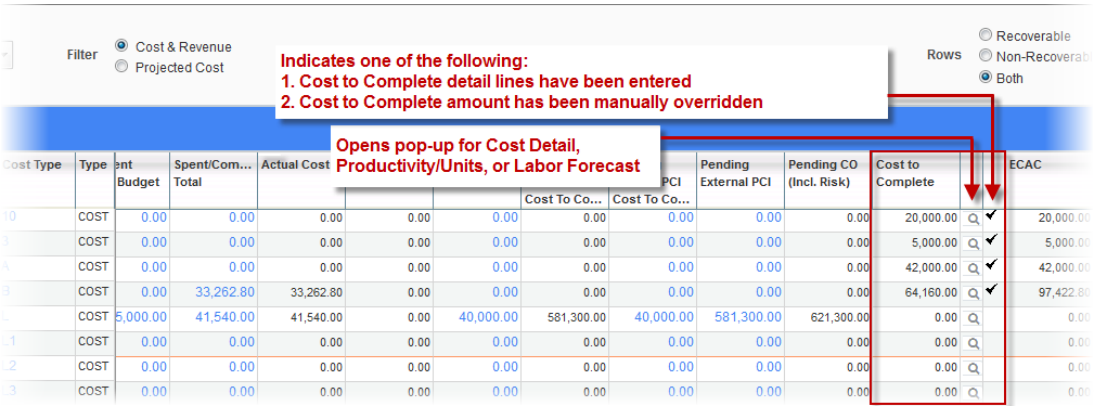
NOTE: When ‘Internal Change Orders Update Budget’ checkbox is unchecked on the Control File in the Change Management module (standard Treeview path: Change Management > Local Tables > Control), the Projected Cost Budget column value does not include Pending Internal PCI Cost amounts. If users enter a Cost % at Risk in PCI Projections against internal PCIs, then the Projected Cost Budget won’t be updated.

Spent/Committed (Pending CO)

Spent/Committed against unposted PCIs.

This is a display-only field.

Cost to Complete



This column is calculated as follows:

Projected Cost Forecast - Spent/Committed (In Scope)

The Cost to Complete field allows user overrides, as required.

To provide additional information on the components that necessitated the overrides, a pop-up screen is available to insert those details. The pop-up window is accessible by clicking on the search icon ( ) in the column next to the Cost to Complete column.

Depending on the system configuration, one of the following detail pop-up windows will be launched:

- Cost Detail pop-up
    - Simple Cost Detail pop-up
    - Enhanced Cost Detail pop-up

- Productivity/Units pop-up
- Labor Forecast
    - GC Monitor pop-up
    - Labor Forecast pop-up

Please refer to the Cost to Complete Detail Pop-Up for more details on each of the various detail pop-up windows.

Field security exists on both the Cost to Complete column and the detail column (search icon). The detail pop-up column adds more flexibility in handling the Cost to Complete overrides. Users can set field security on the Cost to Complete field, so that direct override into the field from the main screen is not allowed, but users can enter overrides using the detail pop-up window.

Beside the cost detail column, there is also an additional column which indicates to the user with a checkbox icon and a tooltip, the type of Cost to Complete override:

- **Cost to Complete detail lines have been entered**: This tooltip will display for A lines when overridden from Cost Detail pop-up, with detail lines existing.
- **Cost to Complete amount has been manually overridden**: This tooltip will display when Cost to Complete amount is overridden on the main screen, with no detail lines existing.

For color and hover text information, refer to Color Highlights and Hover Text for Cost to Complete and Cost Forecast Columns.

When the Job Cost Control File flag ‘Copy Last Stored Forecast’ is checked (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab), and if any overrides are made to the Cost to Complete column, then those overrides will be brought forward to the next period upon the very first entry. Users can again override the Cost to Complete amount and commit. Any subsequent new period entry will copy the previous period forecast details along with the overrides. If the [**Clear Overrides**] button is pressed, then any overrides to the Cost to Complete and the Projected Cost Forecast columns during this period will be removed and the numbers will be reverted to the previous period level. This is only applicable to A lines.

NOTE: After PCI Projections Risk is applied, users must refresh the Contract Forecasting with PCI Projections screen to update the Projected Cost Forecast with risk values.

Projected Cost Forecast

The Projected Cost Forecast value is the largest of (Budgeted Cost + Pending CO + Internal CO) or Projected Final (the amount in the Projected Final field on the Job Costing module's JC Enter Budget screen (standard Treeview path: Job Costing > Job > Enter Budget)).

NOTE: Users should be aware that the bill code detail line is not frozen.

The Cost Status Query and Projected Final from Job Cost Budget Entry will always be in synchronization. This is true because, every posting to Job Costing will result in an update of the projected final at the summary level (i.e., Enter Budget screen which is effectively where the cost status query gets its numbers from). The Projected Cost Forecast in the Contract Forecasting program may not be in synchronization with the other two programs. This is because the forecast is period-based and the cost status query is as of the current time. Therefore, if the forecast starts out of sync with the other two programs, a refresh won't put the other two in alignment, unless overrides are performed in the contract forecast which upon saving will update the Projected Final column in JC Budget Entry. In this scenario, all three programs will be in synchronization.

The following table shows the location of the three program column values being discussed.

Module	Screen	Column/Field	Standard Treeview Path
CMiC Field	Contract Forecasting with PCI Projections	Projected Cost Forecast	CMiC Field > Budget & Cost Management > Contract Forecasting
CMiC Field	Cost Status Query	Calculated Projection	CMiC Field > Budget & Cost Management > Cost

Module	Screen	Column/Field	Standard Treeview Path
			Status Query
Job Costing	JC Enter Budget	Projected Final	Job Costing > Job > Enter Budget

For color and hover text information, refer to Color Highlights and Hover Text for Cost to Complete and Cost Forecast Columns.

Current Period Cost

The Current Period Cost column displays the cost transactions posted in the current forecasting period.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Previous Period Cost

The Previous Period Cost column displays the posted cost transactions in the immediate prior period to the current forecasting period. This is regardless of whether the forecast is stored for the previous period or not.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Last Period Forecast

This is a display-only column which will show the projected cost forecast from the last created forecast.

Field security can be applied to this column. The default value is “Hidden”, but it can also be set to “Unrestricted” at the role level.

Current Period Changes

The Current Period Changes column displays the PCI posted in the current forecasting period.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Previous Period Changes

The Previous Period Changes column displays the posted PCIs in the immediate prior period to the current forecasting period. This is regardless of whether the forecast is stored for the previous period or not.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Current Period Commitments

The Current Period Commitments column displays the Commitments (“O” type transactions) posted in the current forecasting period.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Previous Period Commitments

The Previous Period Commitments column displays the posted “O” type transactions in the immediate prior period to the current forecasting period. This is regardless of whether the forecast is stored for the previous period or not.

Field security can be applied to this column. The default value is “Unrestricted”, but it can also be set to “Hidden” at the role level.

Cost Variance

The Cost Variance column displays the difference between Current Cost Budget and the Projected Cost Forecast amounts.

This is a display-only field.

Cost Variance (New)

The Cost Variance (New) column is named with “New” to distinguish it from the pre-existing Cost Variance column.

By default, field security on this column is set to “Hidden” for the “ALL” role but it can also be set to “Unrestricted (Read-Only)”.

The Cost Variance (New) column is calculated as Projected Cost Budget less Projected Cost Forecast.

Cost To Complete (Pending CO)

This column is calculated as follows:

Pending PCI (Incl. Risk) – Spent/Committed (Pending PO)

This is a display-only field. This column contains a drill-down on the column value which launches a PCI Projections pop-up window and further drill-down opens the PCI Entry level as well.

Projected Cost Forecast (Incl. Pending CO)

Projected Cost Forecast (Incl. Pending CO) column is calculated as follows:

Greatest [Budget, (Current Spent +Pending PCI Cost to Complete)]

NOTE: Budget is not just simply Current Cost Budget; it includes cost amount of External PCI.

Field security can be applied to this column and the options are Unrestricted (Read-Only) or Hidden. In addition, this column can also be editable based on the hidden database level PM System Options flag ‘PMSYS_FCST_INC_PND_CO’. When this flag is checked, the column is editable; otherwise, it is read-only.

If the PM System Options flag is checked and the column is editable, any update within the Cost to Complete pop-up recalculates the Projected Cost Forecast (Incl. Pending CO) column in the Contract Forecast with PCI Projections screen. The updated amount (including any manual overrides made directly into this column), will be used to update the Projected Final amount in the JCJOBCAT table.

When PM System Options flag is unchecked, the Projected Cost Forecast (Incl. Pending CO) column is not editable. Then the Projected Cost Forecast amount will be used to update the Projected Final Amount in the JCJOBCAT table.

When multiple Internal PCIs exist for a bill code, posting one of them does not affect the Projected Cost Forecast column and the Projected Cost Forecast (Incl. Pending CO) column.

NOTE: The value of Projected Cost Forecast (Incl. Pending CO) field is not reduced by the amount of Pending Internal PCI if the 'Internal Change Orders Update Budget' checkbox is unchecked on the Change Management module's Control File (standard Treeview path: Change Management > Local Tables > Control).

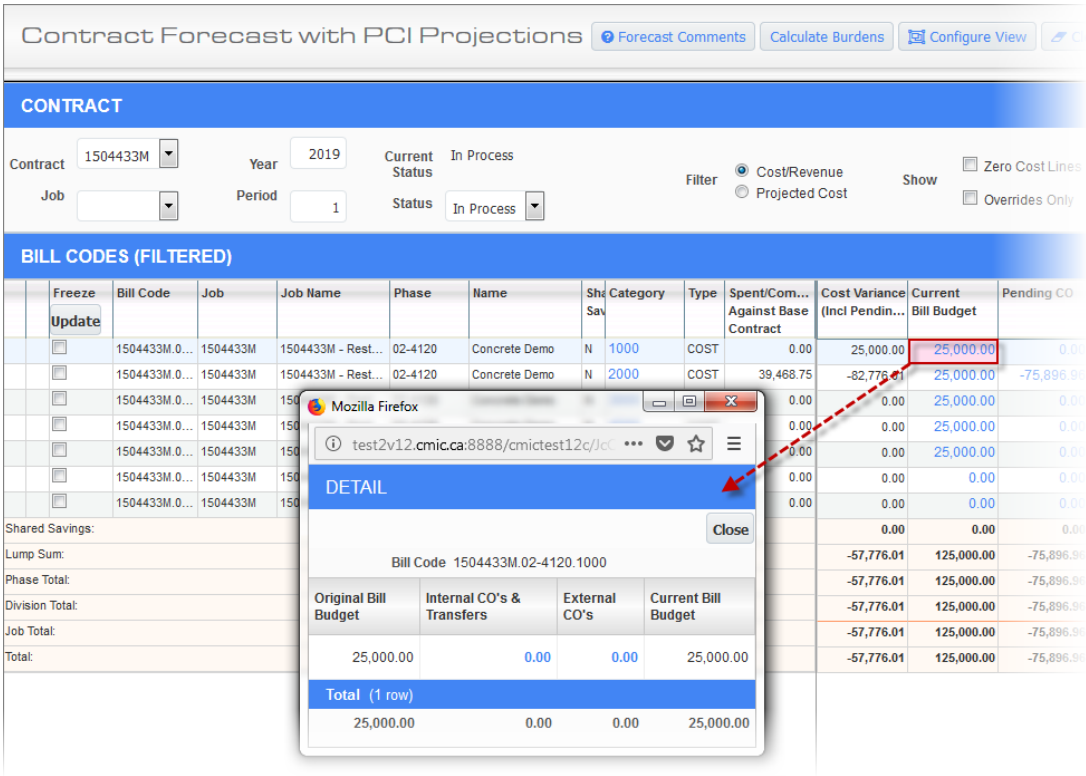
Cost Variance (Incl. Pending CO)

The Cost Variance (Incl. Pending CO) column is calculated as follows:

Projected Cost Budget - Projected Cost Forecast (Incl. Pending CO)

This is a display-only field.

Current Bill Budget



Pop-up launched from Current Bill Budget column

The Current Bill Budget column displays the current billing budget amount which includes the Original Billing Budget Amount & Posted PCI Amounts.

The fields in this column allow drill-down and clicking on a field launches the budget billing detail pop-up showing the details and further drill-down possible column values on Internal COs & Transfers, and External COs.

Profit Budget Amount

This column is calculated as follows:

Profit Budget Amount = Current Bill Budget - Current Cost Budget

Pending CO External

Pending CO External column shows the sum of billing amounts of Pending/Approved (unposted) External and Transfer PCIs.

Th drill-down opens the PCI Projection screen showing the Pending External/Transfer PCI.

Pending CO (Incl. Risk) - External

Sum of billing amount of Pending/Approved (un-posted) External PCIs and Transfer PCI with Risk Applied.

This is a display-only field.

Projected Bill Budget

Sum of Current Billing Budget column and the Pending CO (External Incl. Risk).

This column contains a drill-down on the column value which launches the Billing Budget Detail pop-up window. Further drill-down on the columns related to change orders opens a PCI Detail log and users can drill down to PCI Entry level as well.

Billed To Date

This column displays the Total Billed Amount up to end of current period.

NOTE: The Billed to Date column excludes B type transactions entered outside of the Job Billing module.

The fields in this column allow drill-down and clicking on a field launches the Billed to Date pop-up window where billed transactions are shown. The posting date will determine whether the transaction shows for the contract forecast period that is entered.

The Billed To Date column includes Posted Invoice Amounts, though they may have been voided in a future period. Users should note that, in this specific case, a drill-down into this Billed to Date column will not match with the main screen.

NOTE: In the Contract Forecasting with PCI Projections screen, billed transactions which are unposted or posted will be shown in the drill-down as "Billed". Only billed and posted amounts will be shown at the upper level (as Billed to Date). The posting date will determine whether the transaction shows for the contract forecast period that is entered.

Original Cost Budget Amount, Original Bill Budget Amount

Original Cost Budget Amount for a forecasting period is equal to the Current Cost Budget minus Cost amount of the Posted PCIs (External and Internal) and Transfer change order up to end of forecasting period.

Original Bill Budget Amount for a forecasting period is equal to the Current Bill Budget minus Bill amount of the Posted PCIs and Transfer change order up to end of forecasting period.

Field security can be applied to these columns, as required.

NOTE: Posted OBC are included in Original Cost Budget Amount and Original Bill Budget Amount.

Revenue Forecast

NOTE: Revenue Forecast calculations for cost lines consider Projected Cost Forecast Including Pending CO.

If Bill Rates are used:

Revenue Forecast = [Spent/Committed total + Cost to Complete + Pending CO (including Risk)] * Base Rate Multiplier from the bill rate.

If Bill Rates are not used:

If Spent/Committed Total is “0”,

Then the Projected Bill Budget will be taken as the Revenue Forecast Amount and any overrides to Cost to Complete will not recalculate Revenue Forecast.

If Spent/Committed Total is not equal to “0”.

Revenue forecast equals percent of completion applied to Calculated Potential Revenue (CPR) (percent of completion equals cost over projected cost).

Formula = Calculated Potential Revenue (CPR) / Percent of Completion

If Calculated Potential Revenue (CPR) = 3450

Cost = 2300

Projected Cost including Pending CO = 16500

Revenue Forecast = 3450/ (2300/16500) =24,750

When using the functionality of ‘Use Bill Rates for Revenue forecast’ for specific categories, then the non-payroll type bill rates defined against those categories will be applied to calculate the Revenue forecast value. For complete details on other types, see the table below.

NOTE: The database level flag ‘PMSYS_FCST_INC_PND_CO’ in PM System Options table must be set as “N”).

Users can directly override Revenue Forecast column values for labor bill code lines. Labor lines are the bill codes with categories that are flagged as “Labor Forecast” in the Job Billing module’s Contract Entry screen (standard Treeview path: Job Billing > Contracts > Contract Entry – Billing Items tab). These lines are identifiable as green colored lines in the Contract Forecast with PCI Projections screen. These values can also be updated using the Cost to Complete detail pop-up, which launches the GC Monitor screen.

The Revenue Forecast column automatically updates when a value in the Cost to Complete column or the Projected Cost Forecast column is overridden. Users do not have to refresh to update the new values in the Revenue Forecast column. However, the

Revenue Forecast column is not updated by overriding the Cost to Complete column when bill rates are not used and Spent/Committed Total is “0”.

For Burdened Billing (BPB) code lines, the percent of burden in the Revenue Forecast column is calculated according to the billing burden details set up in the Contract Entry screen in the Job Billing module. Any overrides to the bill codes will recalculate the burdened Revenue Forecast column amount. Refer to Contract Entry for more details on billing burden setup details.

Field security can be applied to this field as required.

Cost Forecast Variance

The Cost Forecast Variance column is calculated as the difference between the Last Period Forecast and the Projected Cost Forecast (current period forecast) columns.

Adjusted Revenue Forecast Variance

Difference between Projected Bill Budget and Adjusted Revenue Forecast.

Revenue Variance

Difference between Projected Billing Budget and Adjusted Revenue Forecast amounts.

Adjusted Revenue Forecast

The Revenue Forecast amount unless there is a Max Billing Amount which will override this value where the Forecast amount is greater than the Max amount.

Unbilled Revenue

This column displays unbilled revenue amounts from the Unbilled Revenue Amt column in the JC - Transaction Detail Log screen in the Job Costing module (standard Treeview path: Job Costing > Logs > Transaction Detail).

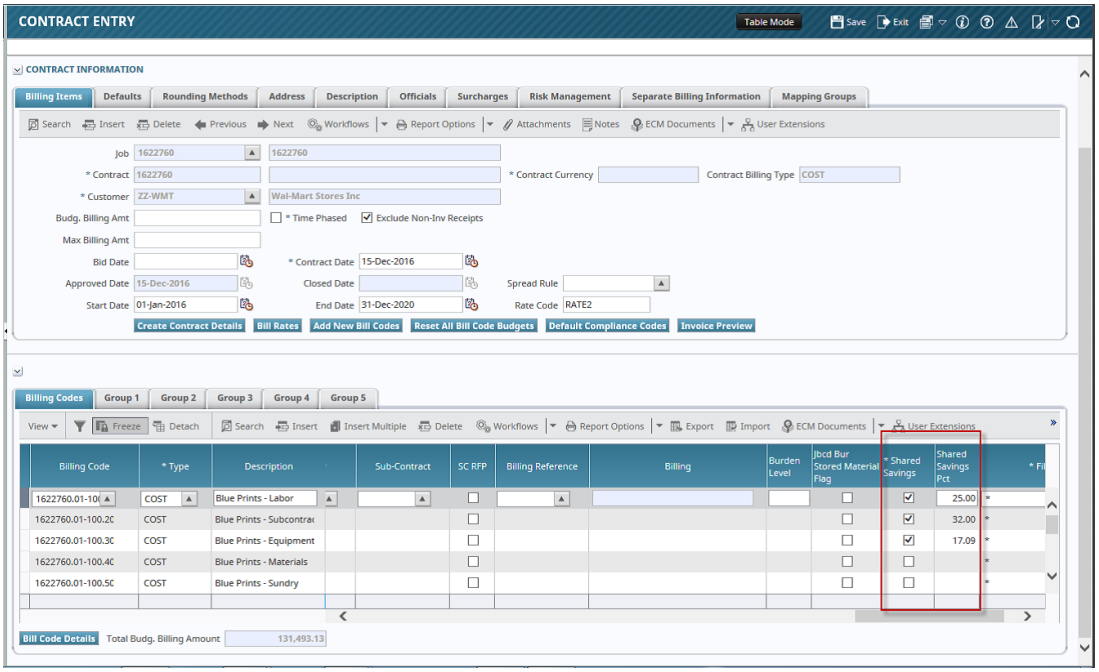
By default, field security on this column is set to “Hidden” for the “ALL” role but it can also be set to “Unrestricted (Read-Only)”.

NOTE: Accumulative revenue amount will be shown regardless of whether the cost transaction has been billed before or not.

Shared Saving Amount, Profit Including Shared Saving

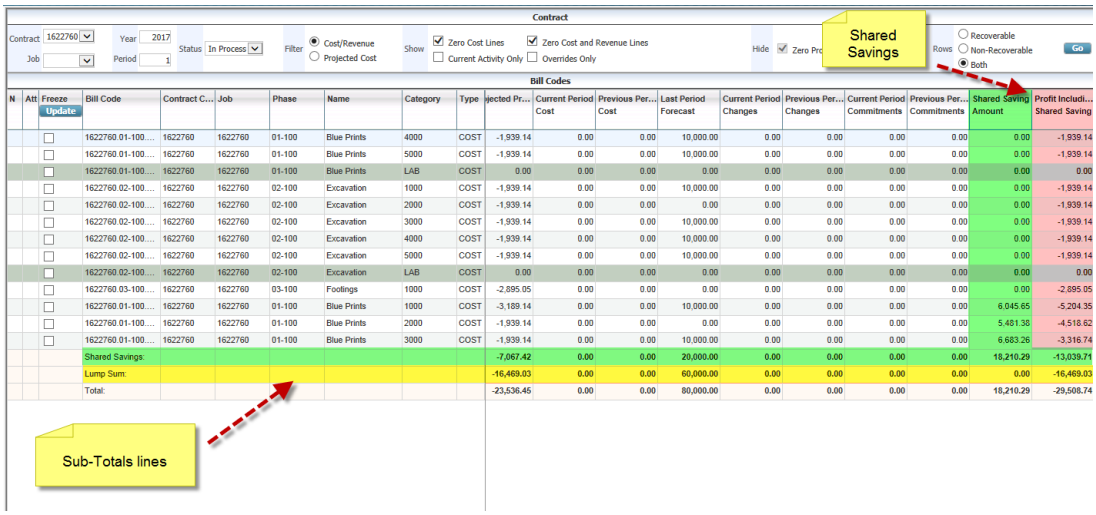
Shared Savings Amount is effectively a billing line profit that needs to be split between a company and the owner of the project.

'Shared Savings' is checked for a bill code on the Job Billing module's Contract Entry screen (standard Treeview path: Job Billing > Contracts > Enter Contract – Billing Items tab). Users can select one or more bill codes by checking the 'Shared Savings' check-box and entering the owner's shared savings percentage in the Shared Savings Percentage field. The bill code lines that do not have 'Shared Savings' checked are considered as lump sum lines and the Shared Savings Percent field is considered 0%.



Pgm: JBCONT – Contract Entry; standard Treeview path: Job Billing > Contracts > Enter Contract – Billing Items tab

In addition to the Shared Saving Amount and Profit Including Shared Savings columns on the Contract Forecasting with PCI Projections screen, there are also sub-total lines to show Shared Savings and Lump Sum amounts for each column. The columns and sub-total rows are display only.



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting

Bill codes set as ‘Shared Savings’ are grouped together at the bottom and sorted by cost/category codes. The Lump Sum lines will have Shared Savings Amount as zero and are grouped from the top, sorted by job/cost/category.

The CMiC Field role security allows users to restrict the visibility of these two columns. The default value is “Unrestricted” for “All” roles. Users may set the value as “Hidden” either to “All” or to specific roles. If these columns are set to “Hidden” using field security, then these fields will not be visible on the screen regardless of the ‘Visible’ checkbox in the Contract Forecast Screen Configuration screen launched by the [**Configure View**] button.

NOTE: If a bill code is checked as ‘Shared Savings’ on the Job Billing module’s Contract Entry screen (standard Treeview path: Job Billing > Contracts > Enter Contract – Billing Items tab), then the Shared Saving value on the Contract Forecast with PCI Projections screen will be set to “Y”.

The shared savings functionality is calculated as follows:

- For billing lines that are not marked as Shared Savings, 100% of profit belongs to the company – in other words, Owner’s percent on these lines is equal to 0.
- On a line where profit is less than zero (loss), the negative profit amount will be split per the Shared Savings % and displayed dynamically in run time.

- Total contract profit amount is equal to the sum of all shared savings amount for the company. This will include fee line(s) that will be set as non-shared.

Shared Savings Amount is understood as Non-Owners' Savings Amount. Hence, this must be calculated using owner's shared percentage entered in the JB Billing Contract Entry.

For example:

Owner's Shared Saving's % (P)	= 25%
For any line item with profit greater than zero:	
(A) Revenue Forecast (including potential change items):	= 60,500.00
(B) Cost Budget (including potential change items):	= 55,000.00
(C) Projected Cost (including unposted PCIs)	= 50,000.00
(D) Calculated profit amount on the line	= (A) – (C) = 60,500.00 – 50,000.00 = 10,500.00
For lines marked as Shared Savings Line:	
(a) if D > 0 then	
(E) Owner's part of Shared Savings	= (D) * (P) = 10,500 *25% = 2,625.00
(G) Company's part of Shared Savings	= (D) – (E) = 7,875.00
(b) if D < 0 then	
(E) Owner's part of Shared Savings	= 0.00
(G) Company's part of Shared Savings	= (D) – (E) = (D)
For lines not marked as Shared Savings:	
(E) Owner's part of Shared Savings	= 0.00
(G) Company's part of Shared Savings	= (D) – (E) = (D)
For any line item with profit less than zero:	
(A) Revenue Forecast (including potential change items):	= 60,500.00
(B) Cost Budget (including potential change items):	= 55,000.00

(C) Projected Cost (including unposted PCIs): = 65,000.00

(D) Calculated profit amount on the line = (A) – (C) = 60,500.00 – 65,000.00

= -4,500.00

For lines marked as Shared Savings Line:

(a) if D > 0 then

(E) Owner's part of Shared Savings = (D) * (P)

(G) Company's part of Shared Savings = (D) – (E)

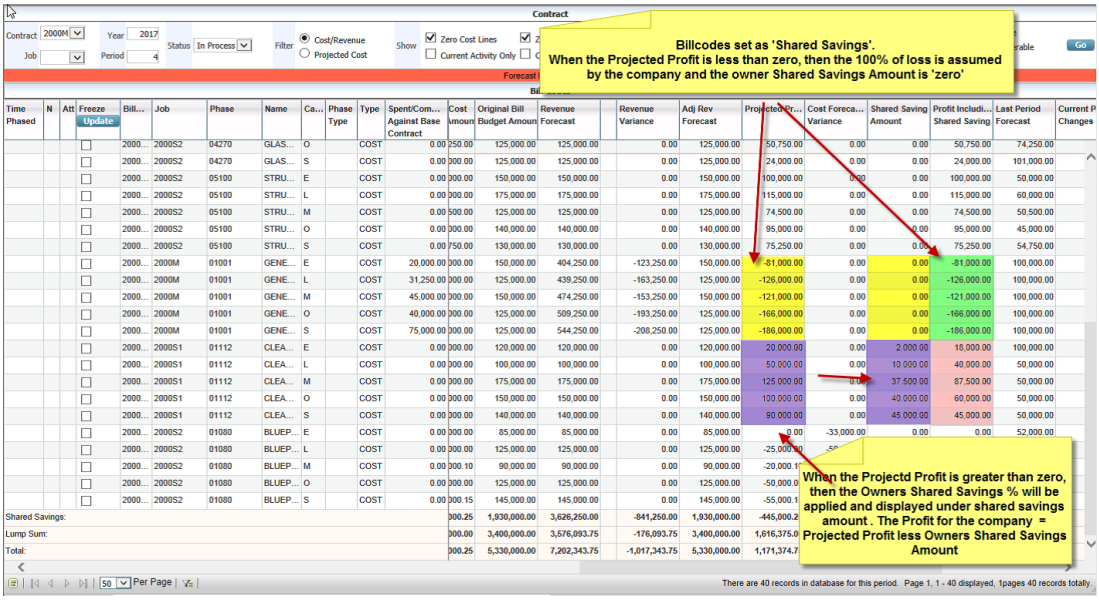
(b) if D < 0 then

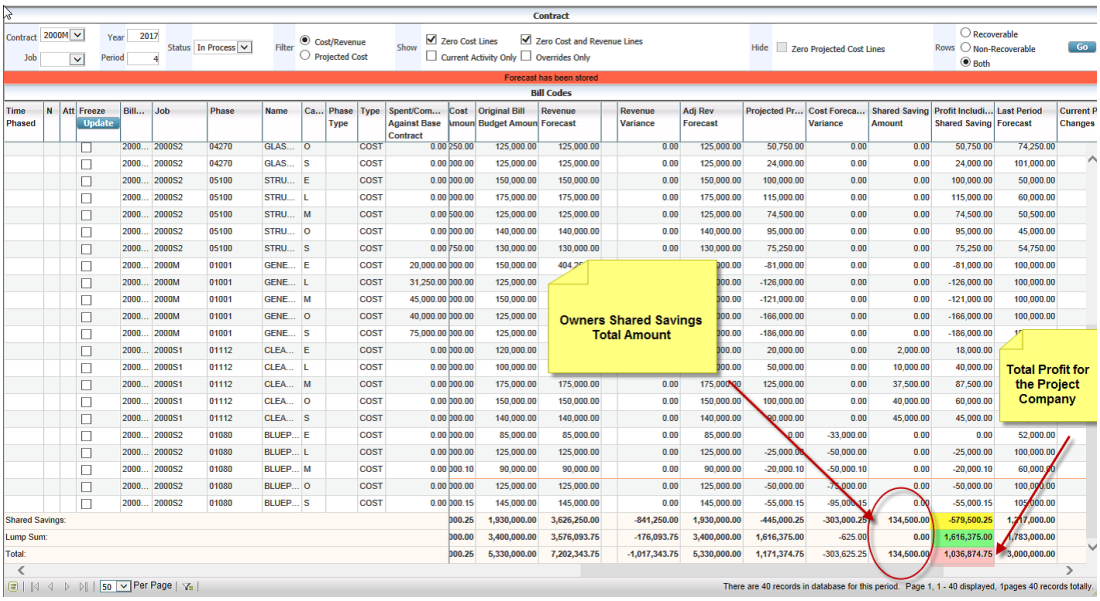
(E) Owner's part of Shared Savings = 0.00

(G) Company's part of Shared Savings = (D) – (E) = -4,500.00

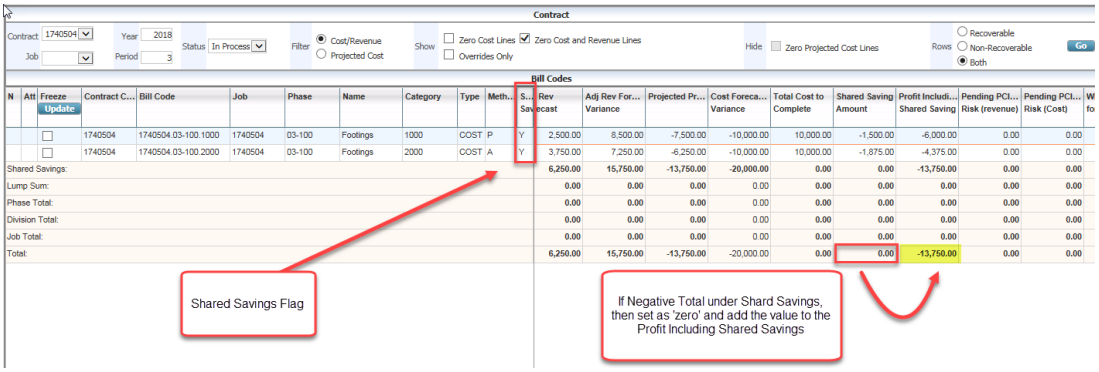
Total profit for the entire contract, including fee line(s) = sum of (G).

The following are examples as per the calculations:





In a case of loss position (Negative Shared Savings Amount), the value in the Total summary line under the Shared Savings column is passed on from the owner to the company.



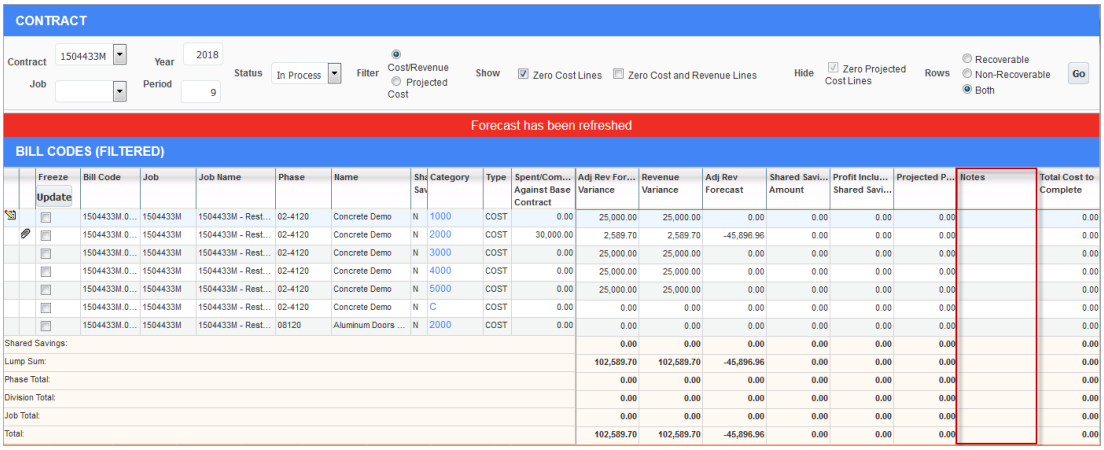
NOTE: The value in the Profit Including Shared Saving column in the Contract Forecast with PCI Projections screen defaults to the Projected Profit Override column in the Job Costing Enter WIP Adjustments screen. Refer to [Entering and Posting WIP Adjustments] for more details.

Projected Profit

Adjusted Revenue Forecast minus Projected Cost Forecast Including Pending PCIs.

NOTE: In the calculation of the Project Profit column, the Projected Cost Forecast Including Pending PCIs includes Internal PCI amounts.

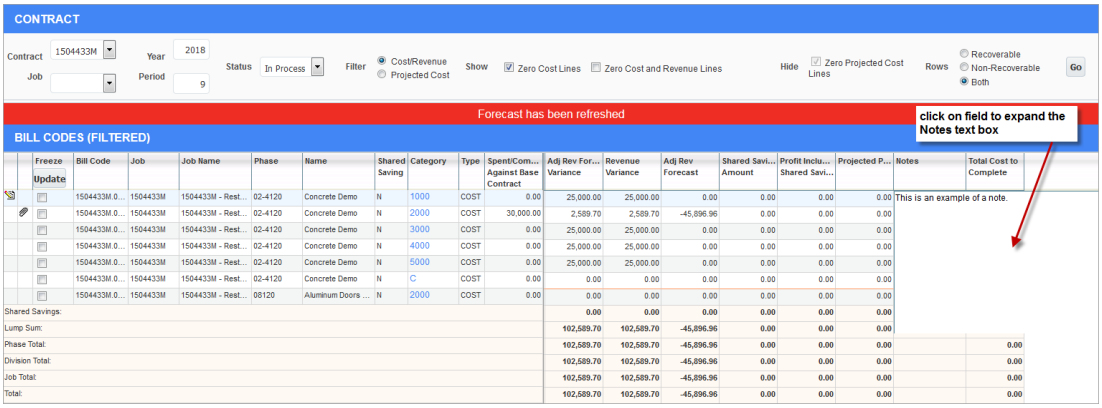
Notes



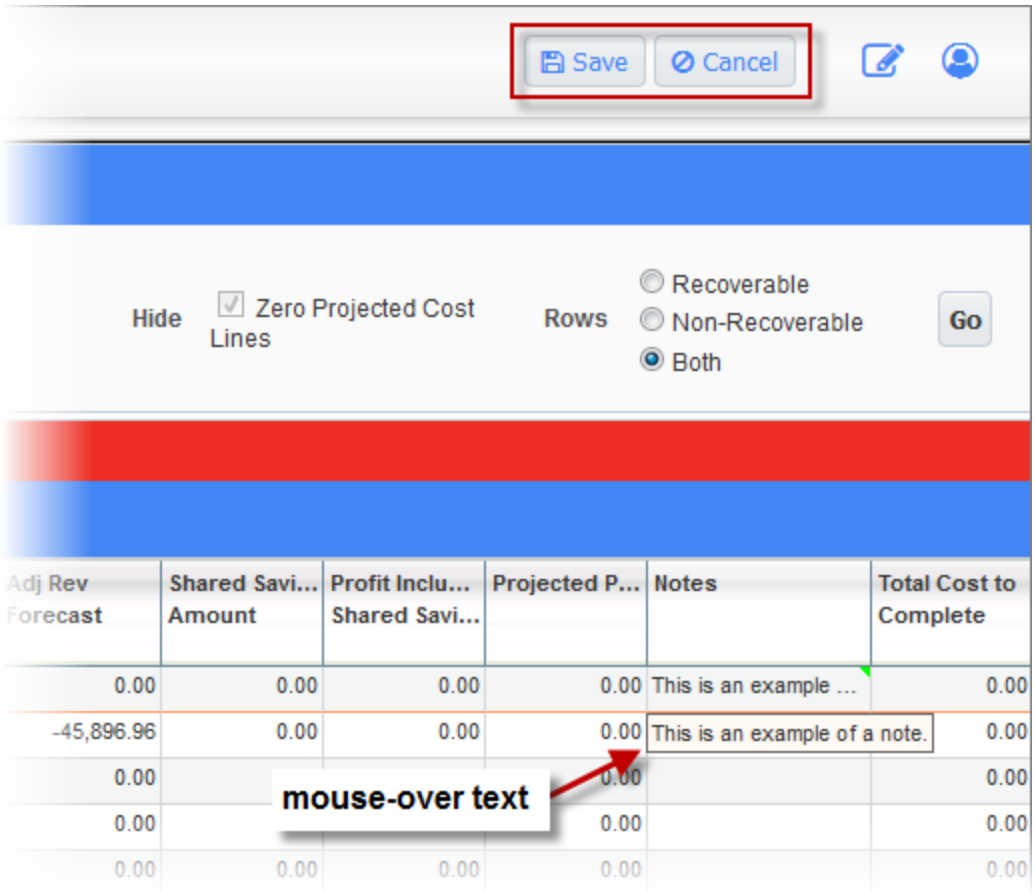
Example of Notes column on Contract Forecast with PCI Projections screen

The Notes column appears to the right of the forecasting screen by default. However, users can adjust the location of this column using the [**Column Configure**] button.

This column is different than the [**Notes**] button on the Main Toolbar. By default, this column is hidden. Users must set the field security for the “ALL” role as “Unrestricted” to make this column visible and for specific user roles as required.



Users must click on a field in the Notes column to expand the text box for typing.



Once the text is entered and users tab off the field, the [**Save**] and [**Cancel**] buttons appear in the Main Toolbar to save or cancel the note. When the user hovers their mouse over the note, mouse-over text will appear.

NOTE: Archive Forecast does not contain the Notes column. Since this note is a free-form text and archiving multiple times in a forecasting period may not be needed.

Total Cost to Complete

The column value is calculated as:

Total Cost To Complete = Cost To Complete (CTC) + Pending CO Cost To Complete

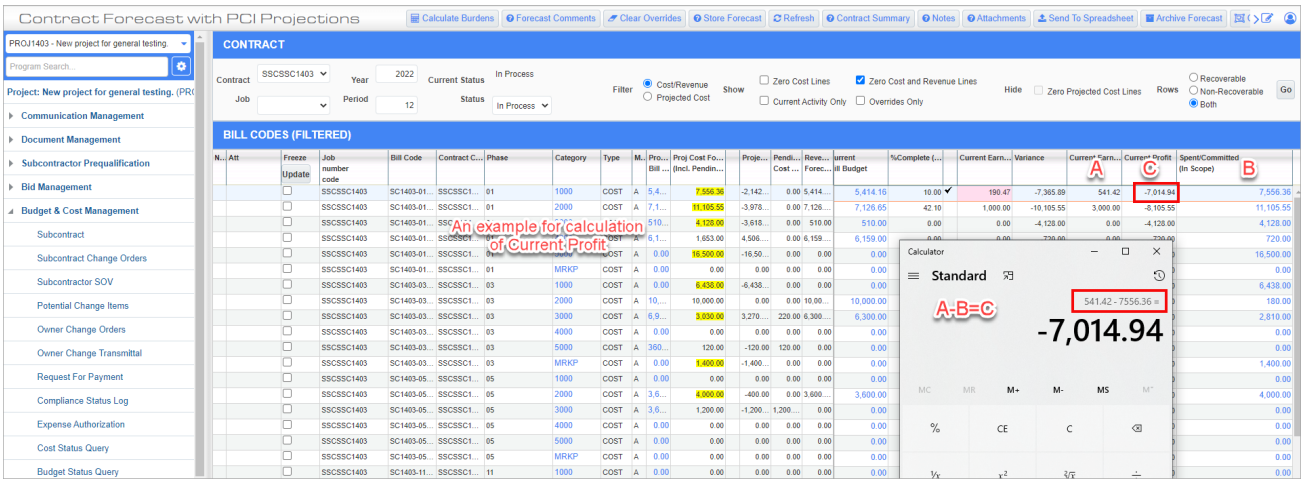
The Cost To Complete (CTC) includes the Pending Internal Change Order Amounts and the Cost To Complete Pending CO column includes External Change Orders. Therefore, the sum of both shows the Total Cost To Complete amount.

This is a display-only column and field security can be applied to “ALL” or specific user roles as required. The column can be set to “Hidden” or “Unrestricted (Read-Only)”.

Group 1, 2, 3, 4, and 5

If group codes exist for a specific bill code, they will be displayed for the associated contract. These columns are read-only and cannot be updated. If no group code exists for the bill code, the field will be blank.

Earned Value Forecasting Columns



The earned value forecasting columns can be added to the Contract Forecasting screen using the [**Configure View**] button. An example of how the fields are used is shown in the screenshot above.

NOTE: Refer to Main Toolbar Buttons for more information on using the [**Configure View**] button to add columns to the Contract Forecast screen.

Percent Complete (Earned Value)

Auto-calculation with manual override. Calculation depends on forecast method:

- A Method: Manual override, no auto-calculation.
- U Method: Completed output/budgeted output. Allow override but do not update output values.

- P Method: Completed input/budgeted input. Allow override but do not update input values.

Percent Complete (Earned Value) Override Flag – Checkbox

This checkbox will be displayed to indicate when the Percent Complete (Earned Value) field is overridden for any forecast method line.

Current Earned Value

Current Cost Budget * Percent Complete. No override allowed.

Variance

Current Earned Value – Spent and Committed. No override allowed.

Current Earned Revenue

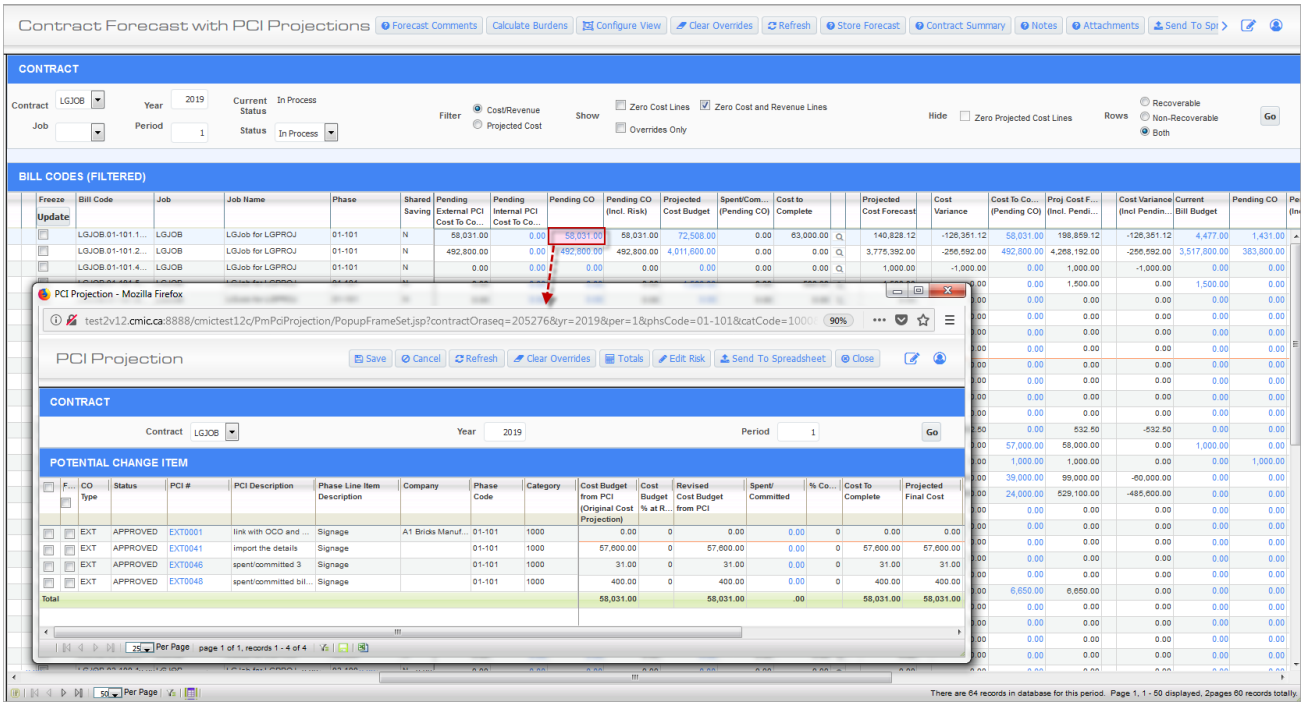
Current Billing Budget * Percent Complete. No override allowed.

Current Profit

Current Earned Revenue – Spent and Committed. No override allowed.

NOTE: When users override the value in the Percent Complete (Earned Value) field for any forecast method line (A, U and P), the rest of the values in the earned value forecasting columns will get calculated accordingly based on the formulae mentioned above.

PCI Projection Pop-Up Window



PCI Projection pop-up window launched from Contract Forecast with PCI Projections screen

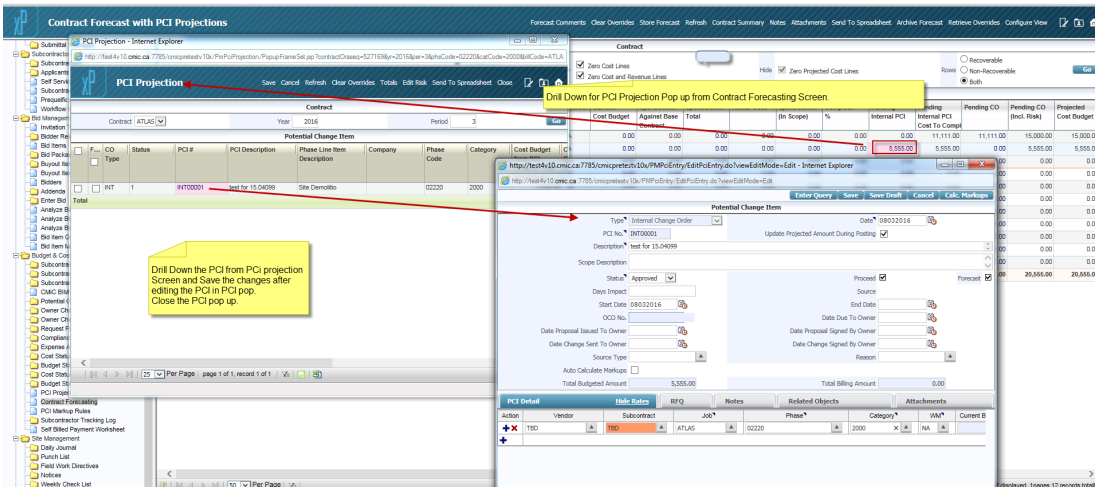
When launching a PCI Projections pop-up window from CMiC Field's Contract Forecast with PCI Projections screen, the re-query with [**Go**] button in the pop-up retrieves only those records specific to the bill code from where the pop-up is launched.

If the [**Clear Overrides**] button is used in the pop-up window, the Contract Forecast with PCI Projections screen is automatically refreshed when the pop-up window is saved and closed.

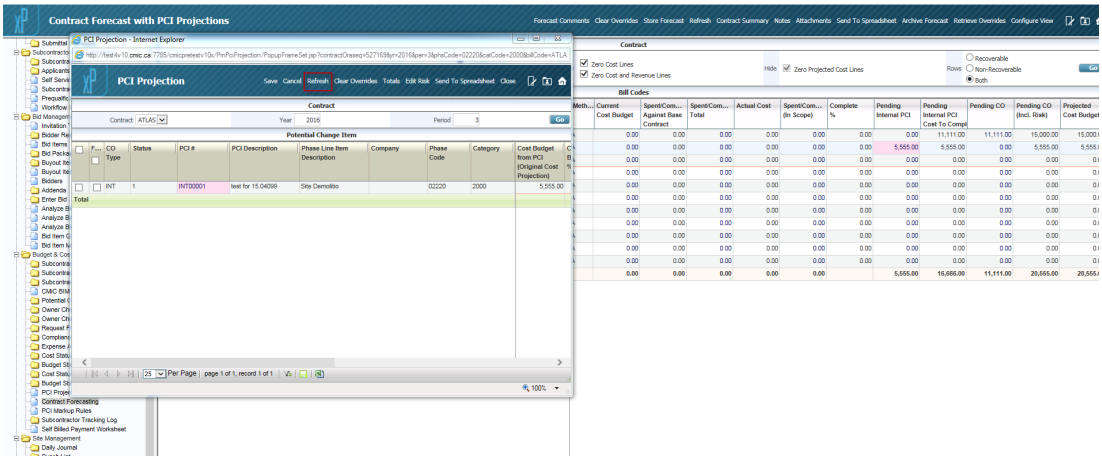
In addition, the Contract Forecast with PCI Projections screen will automatically be refreshed when users override the values of columns or update the PCI amounts by drilling down to the PCI Projection screen, editing and saving the PCI, closing the PCI pop-up, and refreshing the PCI Projection pop-up. The system will automatically refresh the Contract Forecast with PCI Projections screen and fetch the changes made in the PCI pop-up.

For example:

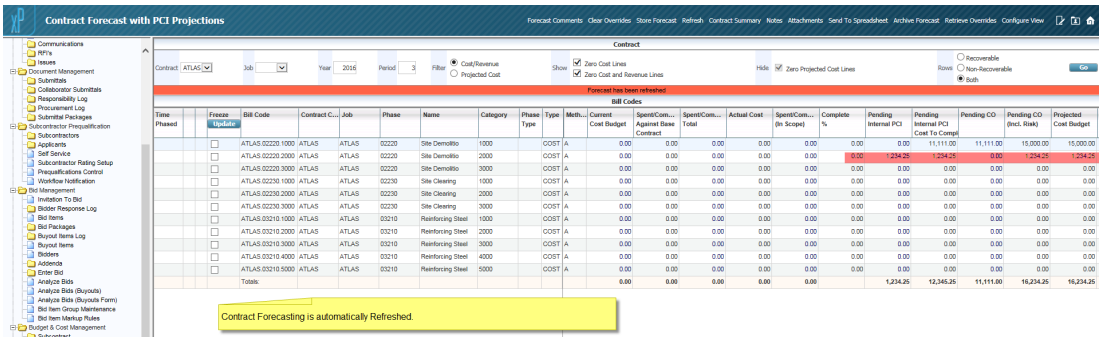
> Edit the PCI amount by drilling down a PCI from the PCI Projection pop-up, which is drilled down from the Contract Forecasting screen, as shown in the following screen-shot.



Refresh the PCI Projection pop-up and close it.



After closing PCI Projection pop-up, users don't have to refresh again in the Contract Forecast with PCI Projections screen.



Using System Options Flag to Consider PCI Detail Status in Contract Forecast

If the System Options flag ‘sys_cmdetail_stat_cfcast_flag’ is set as “Y”, the system will consider the status of detailed lines of PCI. If this is the case, the cost/revenue side of PCIs will match in both the Contract Forecast with PCI Projections screen and the PCI Projection pop-up screen.

NOTE: The System Options flag ‘sys_cmdetail_stat_cfcast_flag’ is not accessible by users and for system administrators access only.

For example:

Potential Change Item

Type	External / Owner Change Orders Modify Type	Date	01-Jan-2017
PCI No.	EXT0007	Update Projected Amount During Posting	☑
Description	External		
Scope Description			
Status	Approved	Proceed	☑
Days Impact		Source	
Start Date	01-Jan-2017	End Date	31-Dec-2020
OCO No.	BUILD1101	Date Due To Owner	
Date Proposal Issued To Owner		Date Proposal Signed By Owner	
Date Change Sent To Owner		Date Change Signed By Owner	
Source Type		Reason	
Status Last Updated		Auto Calculate Markups	☐
Total Budgeted Amount	575,000.00	Total Billing Amount	862,500.00

Post Date

Forecast ☑

PCI Summary Show Details Hide

Vendors

Vendor	Budgeted Amount	Billing Amount
	575,000.00	862,500.00
Total	575,000.00	862,500.00

Allocation

Job	Phase	Category	Quantity	Rate	Budgeted Amount	Billing Amount
BUILD11	03-100	2000	1,000		100,000.00	150,000.00
BUILD11	03-100	3000	1,000		125,000.00	187,500.00
BUILD11	03-100	4000	1,000		150,000.00	225,000.00
BUILD11	03-100	5000	1,000		200,000.00	300,000.00
Total					575,000.00	862,500.00

PCI Detail Hide Rates | RFQ | Notes | Related Objects | Attachments | History

Activity	Phase Qty	Quantity	Estimated Rate	Estimated Amount	Quoted Rate	Quoted Amount	Phase Unit Rate	Final Rate	Final Amount	Billing Quantity	Billing Rate	Billing Amount	Subcontract Change	Task ID	Status	OCO No.	De
		1,000	100.000	100,000.00			0.000			1000	150	150,000.00			REJECTED		Footings
		1,000	125.000	125,000.00			0.000			1000	187.5	187,500.00			PENDING		Footings
		1,000	150.000	150,000.00			0.000			1000	225	225,000.00			REJECTED		Footings
		1,000	200.000	200,000.00			0.000			1000	300	300,000.00			APPROVED		Footings

Potential Change Item

Type	External / Owner Change Orders Modify Type	Date	01-Jan-2017
PCI No.	EXT0008	Post Date	
Description	EXTERNAL	Update Projected Amount During Posting	☑
Scope Description			
Status	Rejected	Proceed	☐
Forecast	☐		
Days Impact		Source	
Start Date		End Date	
OCO No.		Date Due To Owner	
Date Proposal Issued To Owner		Date Proposal Signed By Owner	
Date Change Sent To Owner		Date Change Signed By Owner	
Source Type		Reason	
Status Last Updated	10-Oct-2017	Auto Calculate Markups	☐
Total Budgeted Amount	163,250.00	Total Billing Amount	244,875.00

PCI Summary Show Details Hide

Vendors

Vendor	Budgeted Amount	Billing Amount
	163,250.00	244,875.00
Total	163,250.00	244,875.00

Allocation

Job	Phase	Category	Quantity	Rate	Budgeted Amount	Billing Amount
BUILD11	03-100	2000	1,000		25,750.00	38,625.00
BUILD11	03-100	3000	1,250		62,500.00	93,750.00
BUILD11	03-100	4000	1,000		30,000.00	45,000.00
BUILD11	03-100	5000	750		45,000.00	67,500.00
Total					163,250.00	244,875.00

PCI Detail Hide Rates | RFQ | Notes | Related Objects | Attachments | History

Activity	Phase Qty	Quantity	Estimated Rate	Estimated Amount	Quoted Rate	Quoted Amount	Phase Unit Rate	Final Rate	Final Amount	Billing Quantity	Billing Rate	Billing Amount	Subcontract Change	Task ID	Status	OCO No.	Des
		1,000	25.750	25,750.00			0.000			1000	38.625	38,625.00			APPROVED		Footings
		1,250	50.000	62,500.00			0.000			1250	75	93,750.00			PENDING		Footings
		1,000	30.000	30,000.00			0.000			1000	45	45,000.00			REJECTED		Footings
		750	60.000	45,000.00			0.000			750	90	67,500.00			APPROVED		Footings

Contract

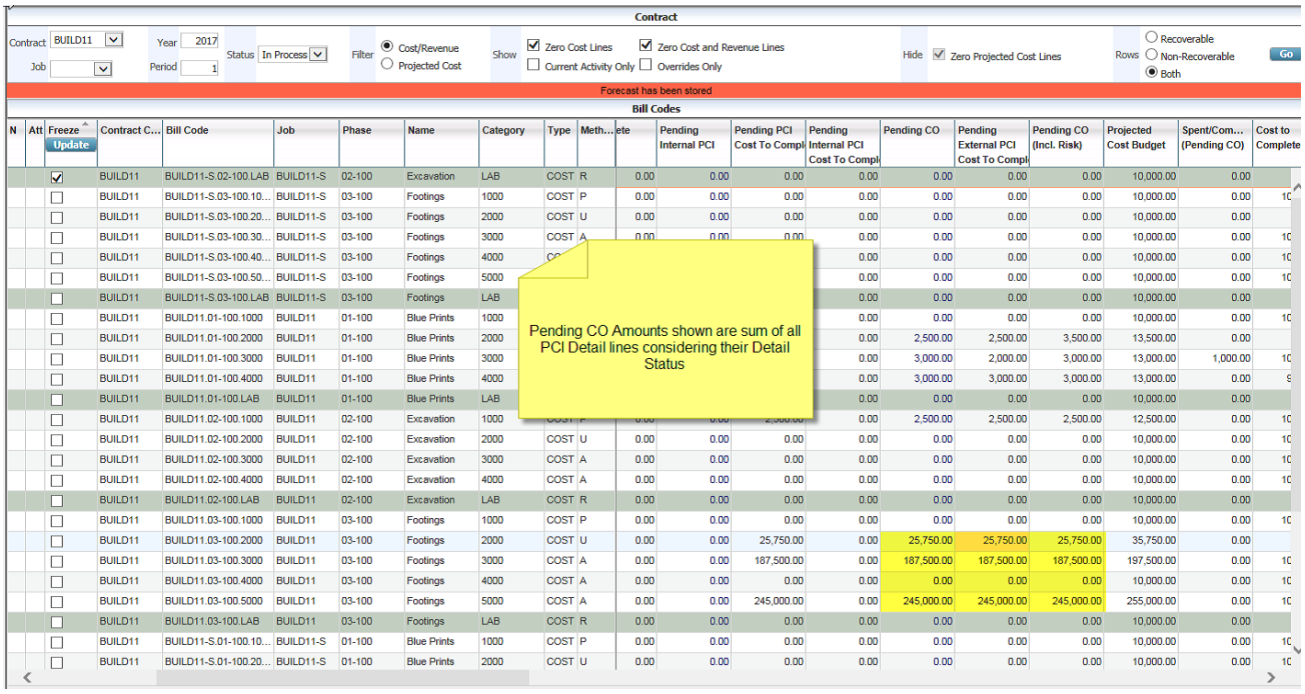
Contract BUILD11 Year 2017 Period 1 Go

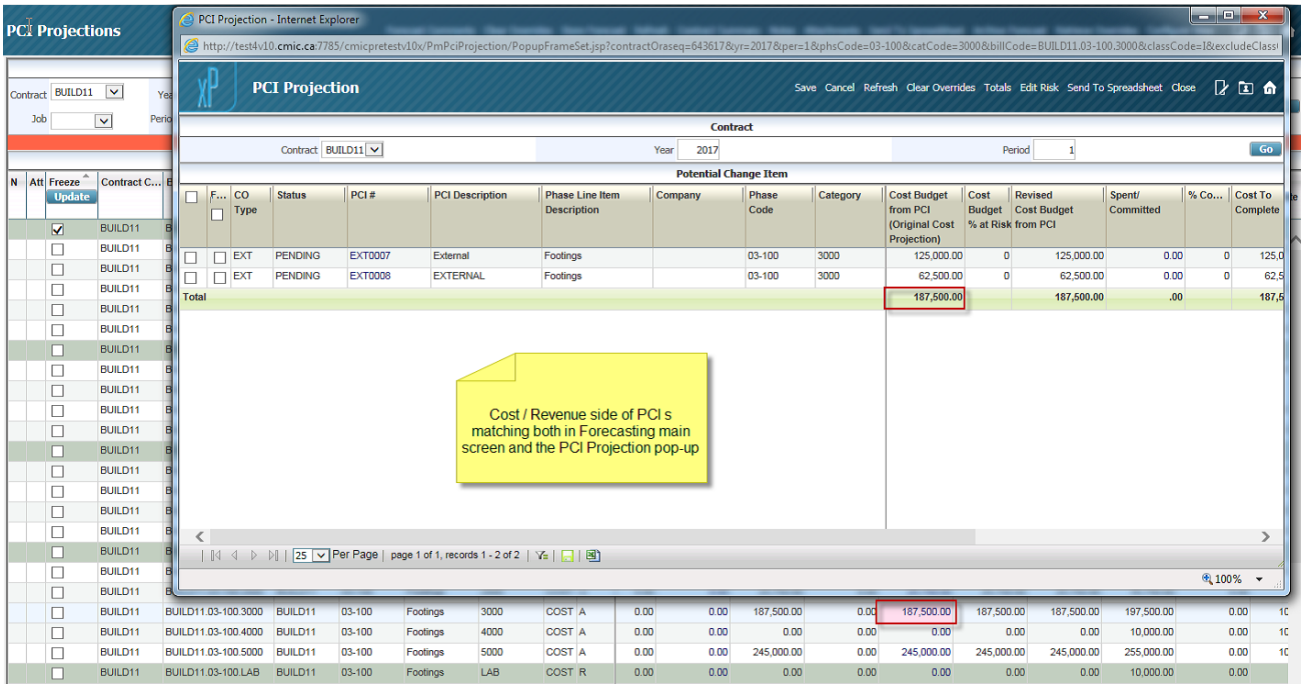
Potential Change Item

F...	CO Type	Status	PCI #	PCI Description	Phase Line Item Description	Company	Phase Code	Category	Cost Budget from PCI (Original Cost Projection)	Cost Budget % at Risk	Revised Cost Budget from PCI	Spent/ Committed	% Co...	Cost To Complete	Projected Final Cost	Submitted/ Projected Revenue Value from PCI
	EXT	APPROVED	EXT0001		e Prints	ZZ-Acme Supply	01-100	3000	1,000.00	0	1,000.00	1,000.00	100	0.00	1,000.00	1,000.00
	EXT	APPROVED	EXT0002		e Prints		01-100	2000	2,500.00	0	2,500.00	0.00	0	2,500.00	2,500.00	3,750.00
	EXT	APPROVED	EXT0003	TEST	Blue Prints		01-100	4000	3,000.00	0	3,000.00	0.00	0	3,000.00	3,000.00	4,500.00
	EXT	PENDING	EXT0004	external pending PCI	Blue Prints		01-100	3000	2,000.00	0	2,000.00	0.00	0	2,000.00	2,000.00	3,000.00
	EXT	APPROVED	EXT0005	EXTERNAL	Blue Prints		01-100	3000	2,000.00	0	2,000.00	0.00	0	2,000.00	2,000.00	3,000.00
	EXT	APPROVED	EXT0006	external	Blue Prints		01-100	4000	2,500.00	0	2,500.00	0.00	0	2,500.00	2,500.00	3,750.00
	EXT	PENDING	EXT0007	External	Footings		03-100	3000	125,000.00	0	125,000.00	0.00	0	125,000.00	125,000.00	187,500.00
	EXT	APPROVED	EXT0007	External	Footings		03-100	5000	200,000.00	0	200,000.00	0.00	0	200,000.00	200,000.00	300,000.00
	EXT	APPROVED	EXT0008	EXTERNAL	Footings		03-100	2000	25,750.00	0	25,750.00	0.00	0	25,750.00	25,750.00	38,625.00
	EXT	PENDING	EXT0008	EXTERNAL	Footings		03-100	3000	62,500.00	0	62,500.00	0.00	0	62,500.00	62,500.00	93,750.00
	EXT	APPROVED	EXT0008	EXTERNAL	Footings		03-100	5000	45,000.00	0	45,000.00	0.00	0	45,000.00	45,000.00	67,500.00
	INT	APPROVED	INT00001	INTERNAL	Blue Prints		00	2000	1,000.00	0	1,000.00	1,000.00	100	0.00	1,000.00	0.00
	OBC	APPROVED	OBC0000001	OBC16201	Excavation		00	1000	2,500.00	0	2,500.00	0.00	0	2,500.00	2,500.00	3,750.00
Total									474,750.00		474,750.00	2,000.00		472,750.00	474,750.00	710,125.00

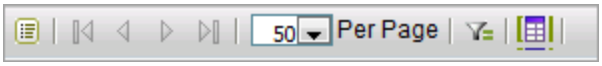
PCI Detail Status

PCI Detail Status

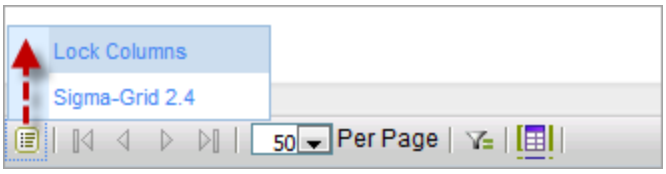




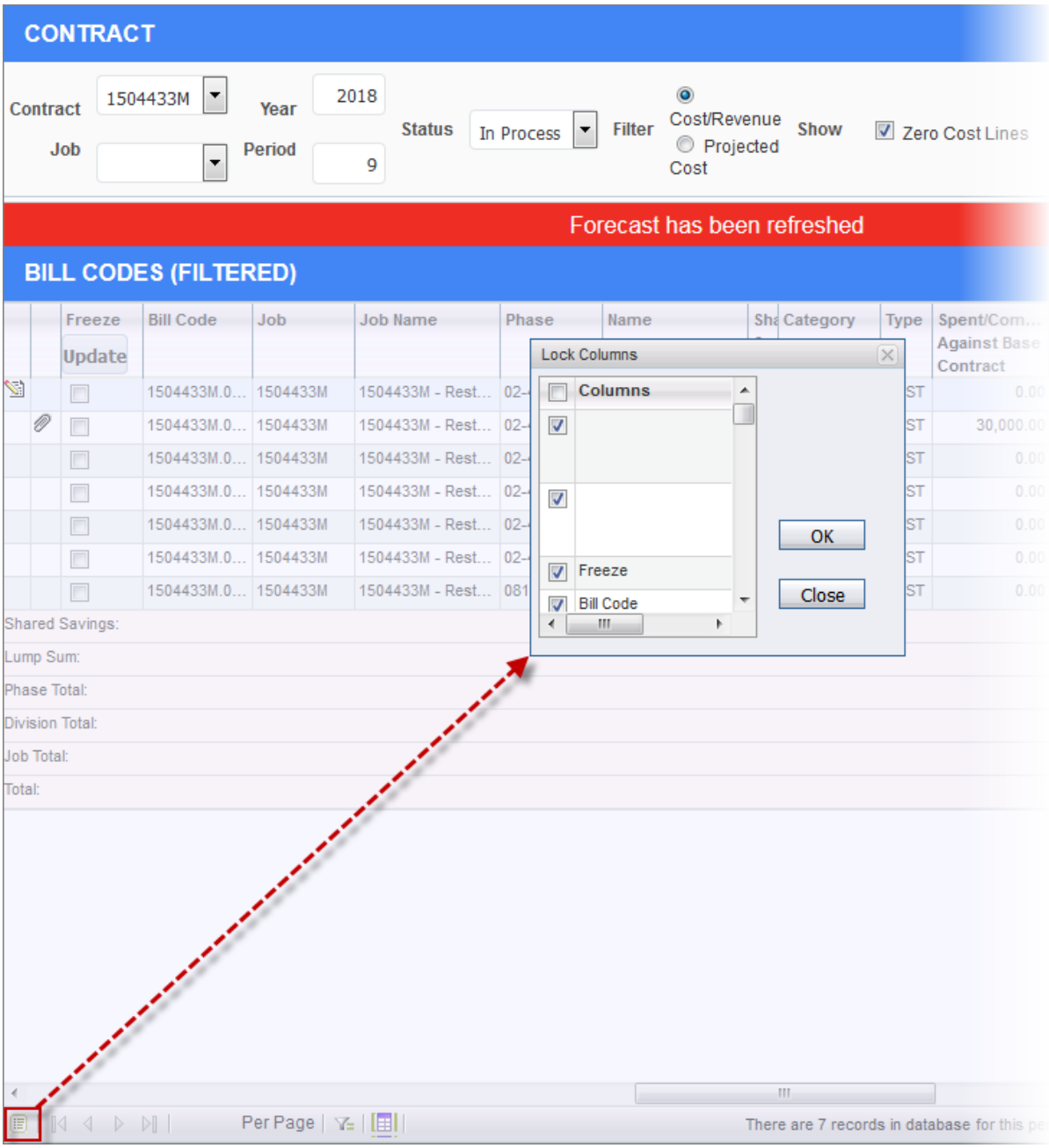
Bottom Panel Buttons



Document – Icon



Clicking on the document icon and selecting “Lock Columns” from the menu launches a pop-up window where users can lock/unlock columns. If checked, locked columns will appear on the left side of the screen and remain in the frozen area when scrolling screen left or right.



Pop-up window launched from document icon on bottom panel of Contract Forecasting with PCI Projections screen

Navigation Arrows

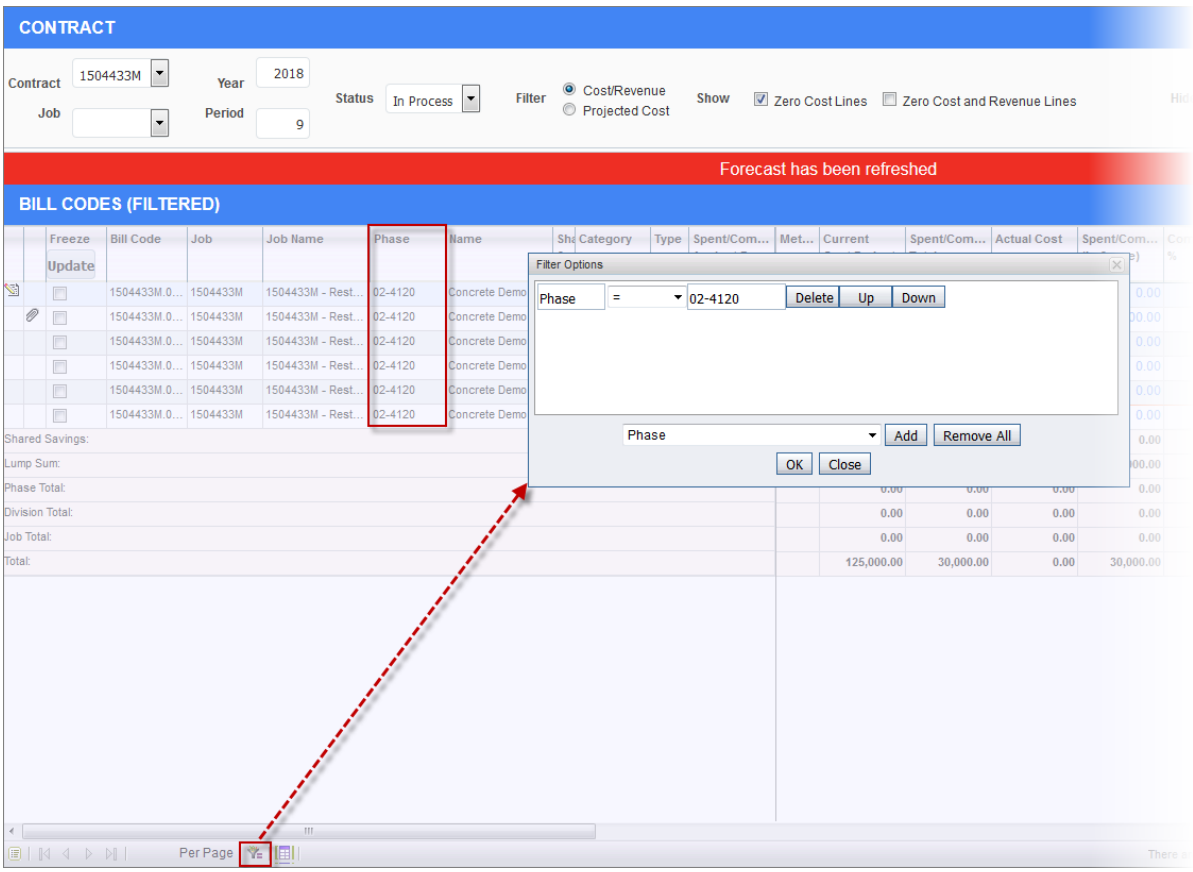
Use the navigation arrow icons to move forward one page of records, or backward one page of records. Users can also advance to the last page of the records or the first page of records.

NOTE: The number of records displayed per page is set in the Per Page field.

Per Page

Use the drop-down menu to set the number of records to display per page.

Filter – Icon



Pop-up window launched from Filter icon

Clicking on the Filter icon launches a pop-up window where users can set options to filter the records displayed on the screen.

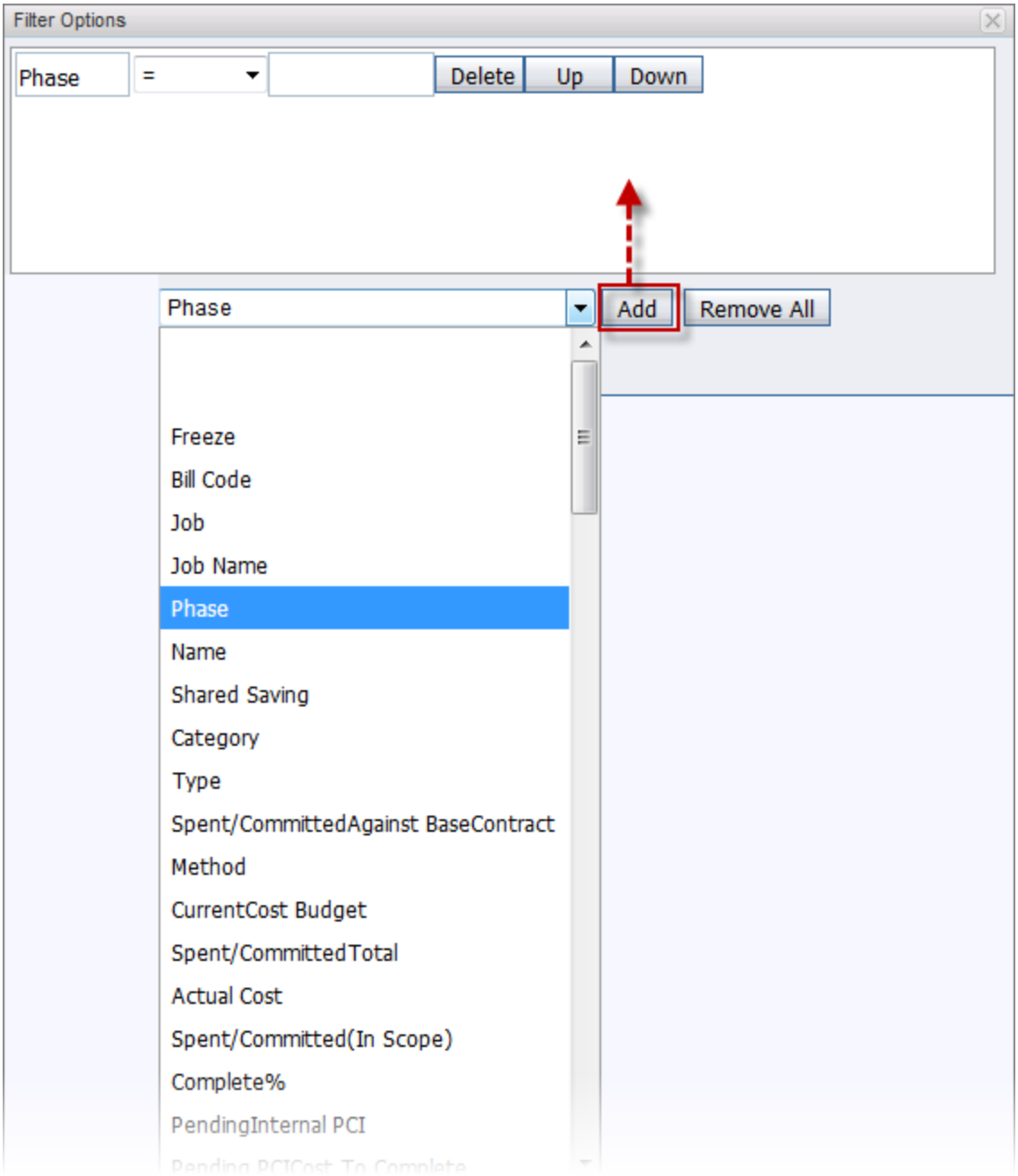
The filter icon indicates when filters exist:

indicates no filters exist.

indicates filters exist.

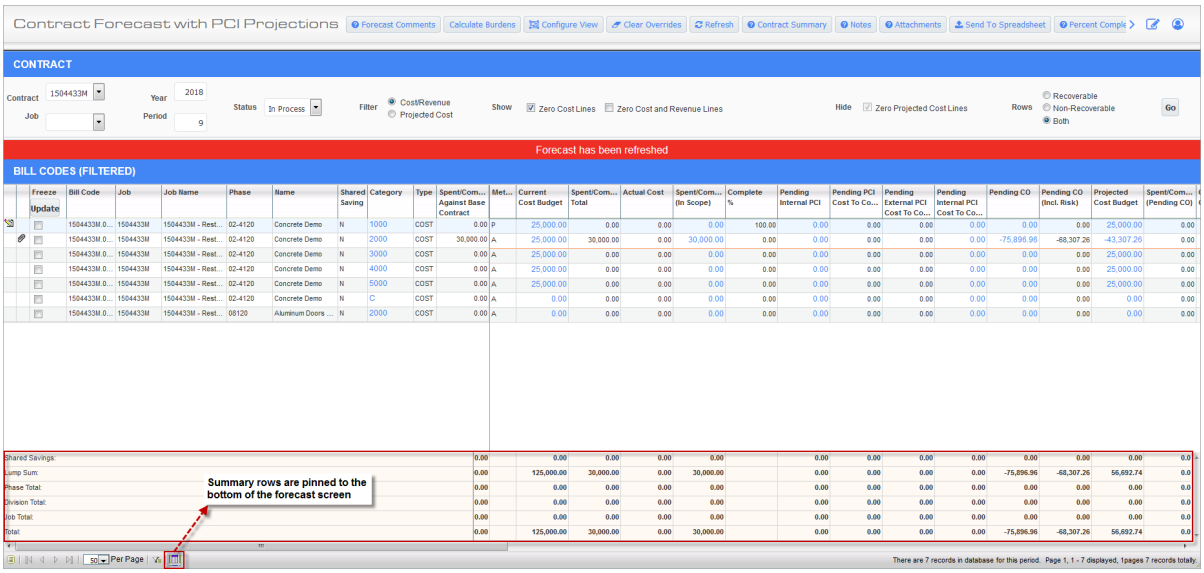
To apply a filter, click on [**Add**] button in the Filter Options pop-up window to add a row of filter option fields. Next, use the drop-down menu to select a column by which to filter,

select a comparison operator from the drop-down menu, and enter an expression by which to filter in that column.

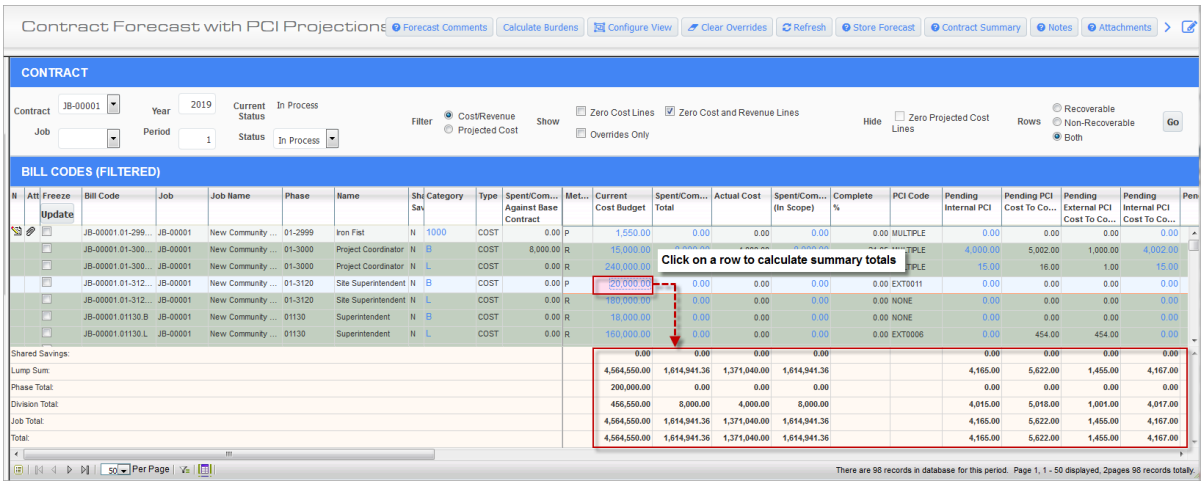


NOTE: Sorting a column after a filter is applied will not clear the filters previously set.

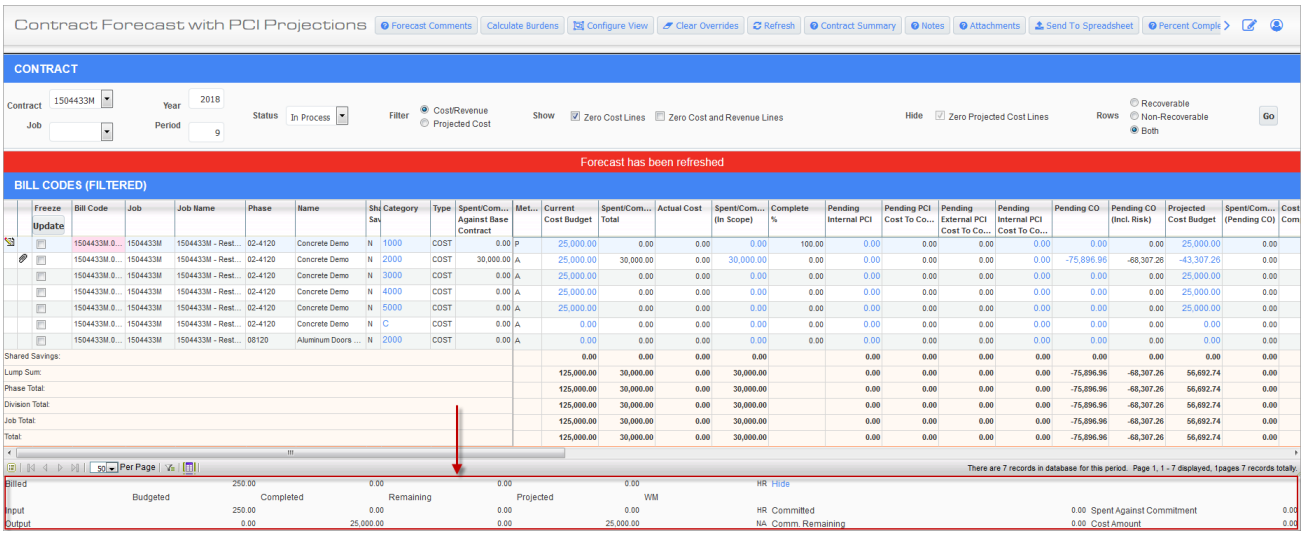
Pin Summary Rows – Icon



Clicking on the Pin Summary Rows icon allows users to pin the summary total lines to the bottom of the screen so that they can view the summary information without (vertical) scrolling. Users can switch to un-pin mode by clicking on the icon again.



Footer Details (Summary Panel)



Example of footer details at the bottom of the Contract Forecast with PCI Projections screen

Footer details are located at the bottom of the Contract Forecast with PCI Projections screen. The footer details change depending on the active object in the Bill Codes section of the screen. Data refreshes when keying (arrow or tab) from cell to cell.

The [**Send To Spreadsheet**] button will include these columns in the spreadsheet as well.

NOTE: Footer information is not displayed (will be blanked out) for Labor Forecasting (R) lines from GC Monitor since R lines, which are used for Resource Hours

---

(Human/Equipment), are not forecasted the same as Productivity or Unit lines in CMiC Field's Contract Forecasting.

Revenue Forecast Amount Calculation for Various Billing Types

The revenue forecast amount is calculated according to the billing method assigned to the bill code.

Type	Revenue Forecast
UPHS	The amount is calculated as Projected Output Quantity * Billing Rate.
UNIT	The amount is calculated as Input Spent Quantity * Billing Rate. If the billing code is associated to more than one category, then a conversion is executed to get the total quantity in the WM assigned to the bill code.
COST	**If Bill Rates are used:** Revenue Forecast = [Spent/Committed total + Cost to Complete + Pending CO (including Risk)] * Base Rate Multiplier from the bill rate. **If Bill Rates are not used:** If Spent/Committed Total is "0", Then the Projected Bill Budget will be taken as the Revenue Forecast Amount and any overrides to Cost to Complete will not recalculate Revenue Forecast. If Spent/Committed Total is not equal to "0". Revenue forecast equals percent of completion applied to Cal-

Type	Revenue Forecast
	culated Potential Revenue (CPR) (percent of completion equals cost over projected cost). Formula = Calculated Potential Revenue (CPR)/ Percent of Completion If Calculated Potential Revenue (CPR) = 1875 Cost = 750 Projected Cost = 10000 Revenue Forecast =1875/ (750/10000) =25,000
PC	Amount is calculated as unbilled revenue amount divided by Percentage Complete. The percentage is calculated as spent amount divided by projected amount.
PCV	Projected bill budget amount will be the revenue forecast amount.
PCCO	The projected bill budget amount is taken as revenue amount where there is a Budget Revenue Amount; otherwise, the system will use the COST calculation method.
MILESTONES	The projected bill budget amount is taken as revenue amount.
BURDEN	Calculated based on the percentages that must be applied to the burden bill codes.

NOTE: The PC, PCCO, and PCV in the Type column are all billing types that determine the billing amount during the billing generation in the Prepare Billing screen (JBBILL/JBBILL2) and are based on the Job Billing module's Billing Types definitions. Refer to the Billing Types section in the Job Billing reference guide for more information. The Revenue Forecast column definitions for the various billing types define which value is populated in the forecasting column.

Table of Column Definition

NOTE: For more information about the columns being discussed below, including details on additional columns not covered in the table, please refer to Bill Codes (Detail) – Section.

REF#	Column	Description
1.	Current Cost Budget	Current Cost Budget which includes Original Cost Budget, **Posted** (Internal & Transfer & External) PCI Amounts up to the end of the forecasting period. Also, the internal changes impact the budget only when the Change Management Control File option 'Internal PCIs Update Budget' box is checked (standard Treeview path: Change Management > Local Tables > Control). **NOTE**: Negative PCIs posted up to the end of forecasting period will also be included in current cost budget.
2.	Spent / Committed Against Base Contract	**Without the use of WBS (PCI#) Codes** The Spent/Committed Against Base Contract column shows the Spent, Committed or Largest of Spent/Committed (based on 'Projected Final Flag'). Spent/Committed Against Base Contract= Spent(S), Committed(C) or Largest of Spent/Committed (L) (based on Projected Final Flag in JC Budget). **With WBS Mapping and use of WBS (PCI#) code in transactions** Spent/Committed (In Scope) MINUS (spent/-committed against posted internals PCIs that fall

REF#	Column	Description
		outside the period (i.e. PCIs posted in the future) + spent/committed against un-posted internal PCIs). **NOTE**: PCIs must be flagged to be included in the forecast. The PCI must be within the period range. The transactions must be within the period range and must be posted.
3.	Spent / Committed Total	**Spent/Committed Total =** LARGEST OF (ABSOLUTE OF **|Commitment|** versus ABSOLUTE OF **|Spent Against Commitment|**) + **Spent Out Of Commitment** up to and including the current forecasting period
4.	Actual Cost	Current Cost Transactions against the job/phase/cat ('C' Type transactions in JCDETAIL table). Sum of Spent against commitment and spent outside commitment.
5.	Spent / Committed (In Scope)	Spent /Committed amount that is not associated to a PCI PLUS Spent/Committed amount associated to an unposted internal PCI.
6.	% Complete	Calculation for Amount Method: (Actual Cost / Current Cost Budget) x 100 Calculation for Productivity Method: Output Units Complete/Projected Output Units
7.	Pending Internal PCI	Sum of Pending Internal PCI Amount (Un-Posted)

REF#	Column	Description
8.	Pending Internal PCI Cost To Complete	Pending Internal / /external/Transfer PCI Amount Minus Spent Cost Against the same. (**NOTE**: PCI could be negative amounts and the spent cost may also be negative. Attention to be paid to follow correct sign when determining the amounts).
9.	Pending CO	Sum of Un-Posted Pending External/Original Budget PCI Amounts. Sum of cost budget from Pending external PCI.
10.	Pending CO(Including Risk)	Sum of The Revised Cost Budget Amount after applying risk to pending internal/external PCI. Sum of Un-Posted Pending Internal/External/Transfer/Original Budget PCI Amounts including PCI Risk Amount applied. The Revised Cost Budget From PCI column Amount from the Pending CO Column pop-up.
11.	Projected Cost Budget	Current Cost Budget + Pending CO (Including Risk)
12.	Spent/Committed (Pending CO)	Spent ÷ Committed against un-posted PCIs
13.	Cost To Complete	The following formula is used for "A" lines when the 'Pending Internal CO will not update Projected Cost Forecast' box is unchecked in the Forecasting tab of the JC Control File, and the 'Internal Change Orders Update Budget' box is checked in

REF#	Column	Description
		the CM Control File: Cost to Complete = Projected Cost Forecast − Pending Internal PCI Cost to Complete − (Spent ÷ Committed (In Scope)) The following formula is used for "A" lines when the 'Pending Internal CO will not update Projected Cost Forecast' box is checked in the Forecasting tab of the JC Control File, and the 'Internal Change Orders Update Budget' box is checked in the CM Control File: Cost to Complete = Projected Cost Forecast − (Spent ÷ Committed (In Scope))
14.	Projected Cost Forecast	If the billing code is not frozen, the value is the largest of (Budget + Pending CO + Internal CO) or Projected Amount (JCAT_PROJ_AMT from the JCJOBCAT table).
15.	Cost Variance	Difference between Current Cost Budget and the Projected Cost Forecast
16.	Cost To Complete (Pending CO)	Pending PCI Including Risk - Spent/Committed against Pending CO
17.	Projected Cost Forecast (Incl. Pending CO)	Cost to Complete + Spent/Committed total + Cost to Complete (Pending CO)
18.	Cost Variance (Incl. Pending CO)	Projected Cost Budget – Projected cost Forecast including Pending CO

REF#	Column	Description
19.	Current Bill Budget	Current Billing budget which includes the Original Billing budget & Posted PCI Amounts
20.	Pending CO (External)	Sum of billing amount of Pending/Approved (unposted) external PCIs and Transfer PCI
21.	Pending CO (External Incl. Risk)	Sum of billing amount of Pending/Approved (unposted) external PCIs and Transfer PCI with Risk Applied
22.	Projected Bill Budget	Sum of Current Billing Budget & Pending CO (External Incl. Risk)
23.	Billed To Date	Total Billed Amount up to end of current period. **NOTE**: The Billed to Date column excludes B type transactions entered outside of the Job Billing module.
24.	Revenue Forecast	**If Bill Rates are used:** Revenue Forecast = [Spent/Committed total + Cost to Complete + Pending CO (including Risk)] * Base Rate Multiplier from the bill rate. **If Bill Rates are not used:** If Spent/Committed Total is “0”, Then the Projected Bill Budget will be taken as the Revenue Forecast Amount and any overrides to Cost to Complete will NOT recalculate Revenue Forecast. If Spent/Committed Total is not equal to “0”. Revenue forecast equals percent of completion

REF#	Column	Description
		applied to Calculated Potential Revenue (CPR) (percent of completion equals cost over projected cost) Formula = Calculated Potential Revenue (CPR)/ Percent of Completion If Calculated Potential Revenue (CPR) = 1875 Cost = 750 Projected Cost = 10000 Revenue Forecast =1875/ (750/10000) =25,000 For complete details on other types, see the table above.
25.	Revenue Variance	Difference between Projected Billing Budget and Adjusted Revenue Forecast amounts.
26.	Adjusted Revenue Forecast	The Revenue Forecast amount unless there is a Max Billing Amount which will override this value where the Forecast amount is greater than the Max amount.
27.	Projected Profit	Adjusted Revenue Forecast minus Projected Cost Forecast Including Pending PCIs.
28.	Pending Spent/Committed	The Pending Commitment amount impacts the following columns: • Cost to Complete amount - Decreased by the Pending Commitment amount. • Projected Cost Forecast amount - Increased by the Pending Commitment amount.

REF#	Column	Description
		• Spent/Committed amount - Increased by the Pending Commitment amount.

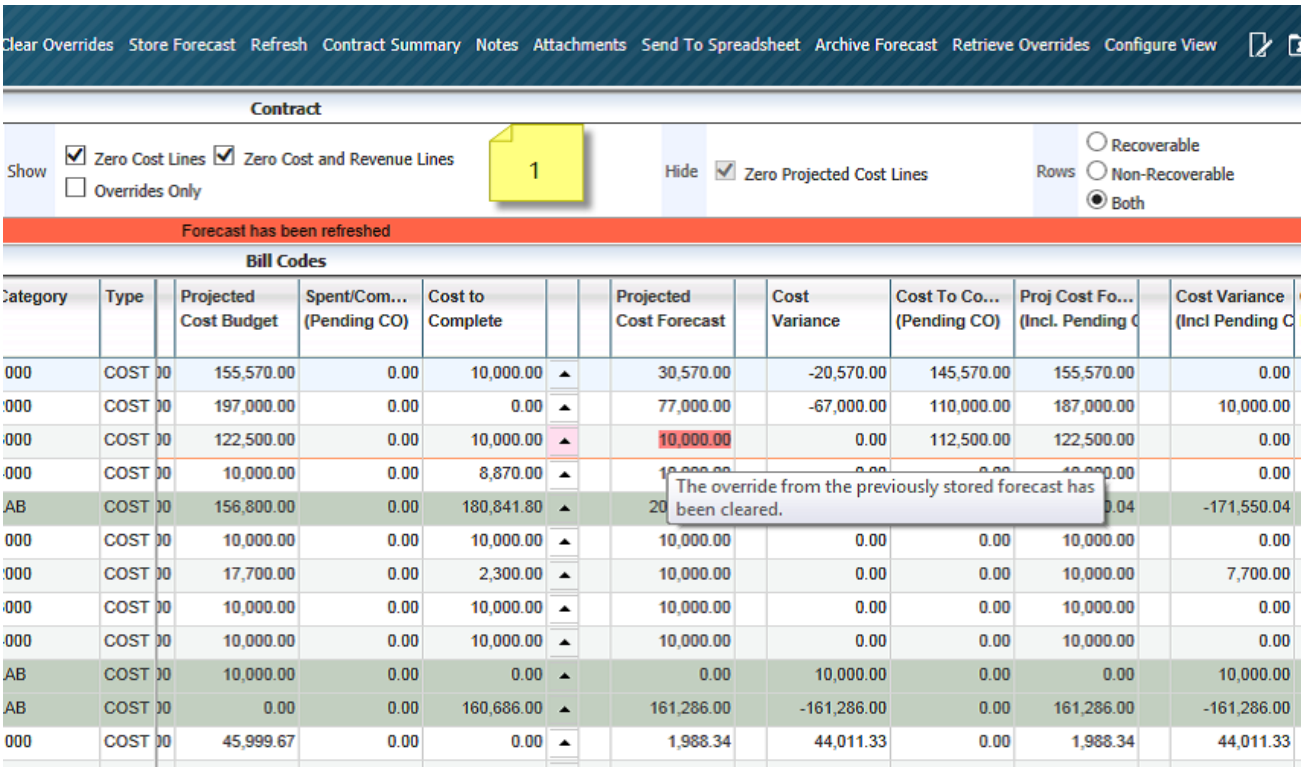
Color Highlights and Hover Text for Cost to Complete and Cost Forecast Columns

The following color and hover text will appear for the Cost to Complete column, as well as the Projected Cost Forecast column. This is applicable for A method lines.

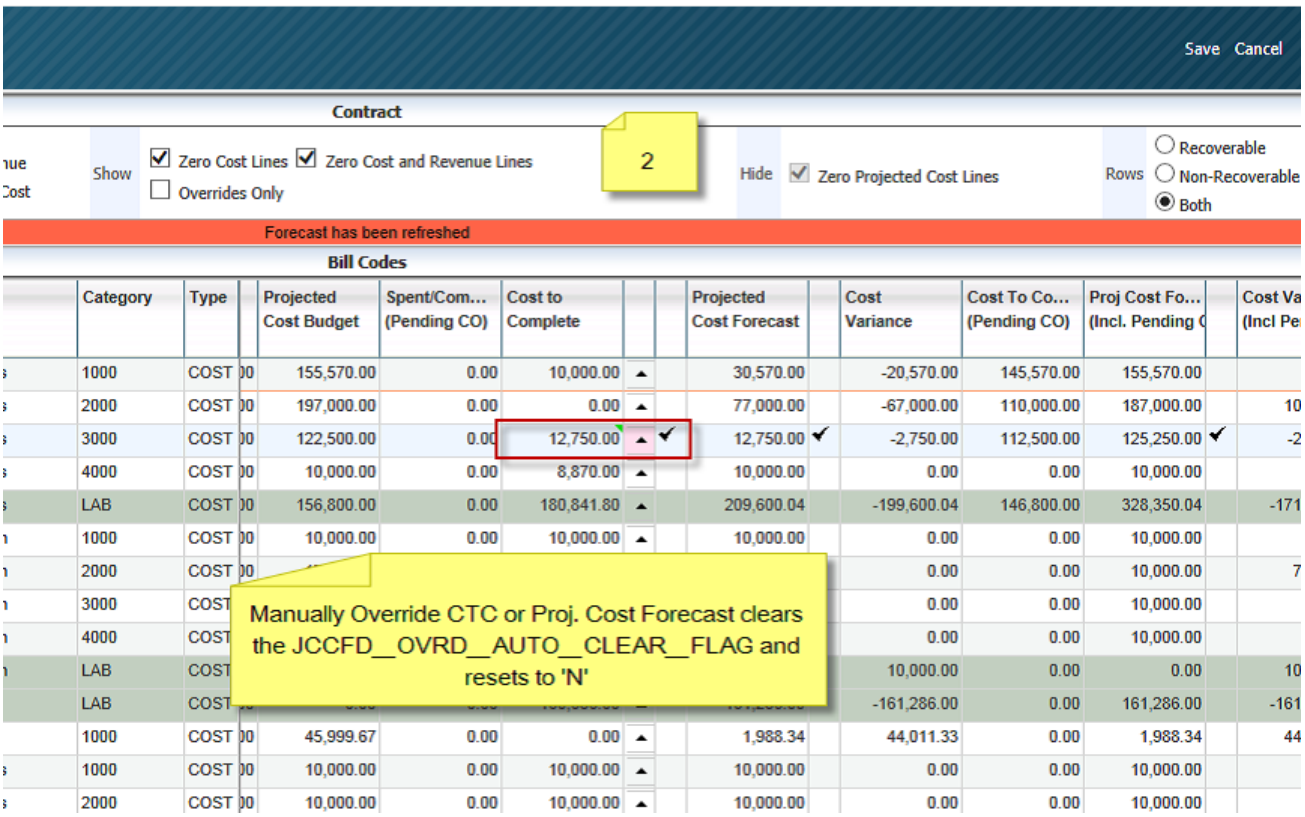
Field	Color	Hover Text
CTC (with details)	Yellow	Cost to complete has detail lines
CTC (with details)	Red	Cost to Complete detail lines are not in sync with the Projected Cost
Projected Cost Forecast	Orange	Spent/Committed exceeds the override from the previous forecast
Projected Cost Forecast (Incl. CO)	Light Green	Spent/Committed exceeds the override from the previous forecast
Projected Cost Forecast	Red	The override from the previous stored forecast has been cleared **NOTE**: After changes have been made to the spent/committed amounts, the system will clear the overrides if the forecast is refreshed within the same period.
Projected Cost Forecast (Incl.	Red	The override from the previous

Field	Color	Hover Text
CO)		stored forecast has been cleared **NOTE**: After changes have been made to the spent/committed amounts, the system will clear the overrides if the forecast is refreshed within the same period.
Proj Cost Forecast (Incl. Pending CO)	Yellow	When the Spent/Committed Total (JCCF_ALL_SPENT_COMMITTED_AMT) amount is greater than the Current Budget (Cost) amount and there isn't an override by the user
Proj Cost Forecast (Incl. Pending CO)	Green	When there's a previous period override for the line (jccf_prev_per_ovrd_flg='Y')

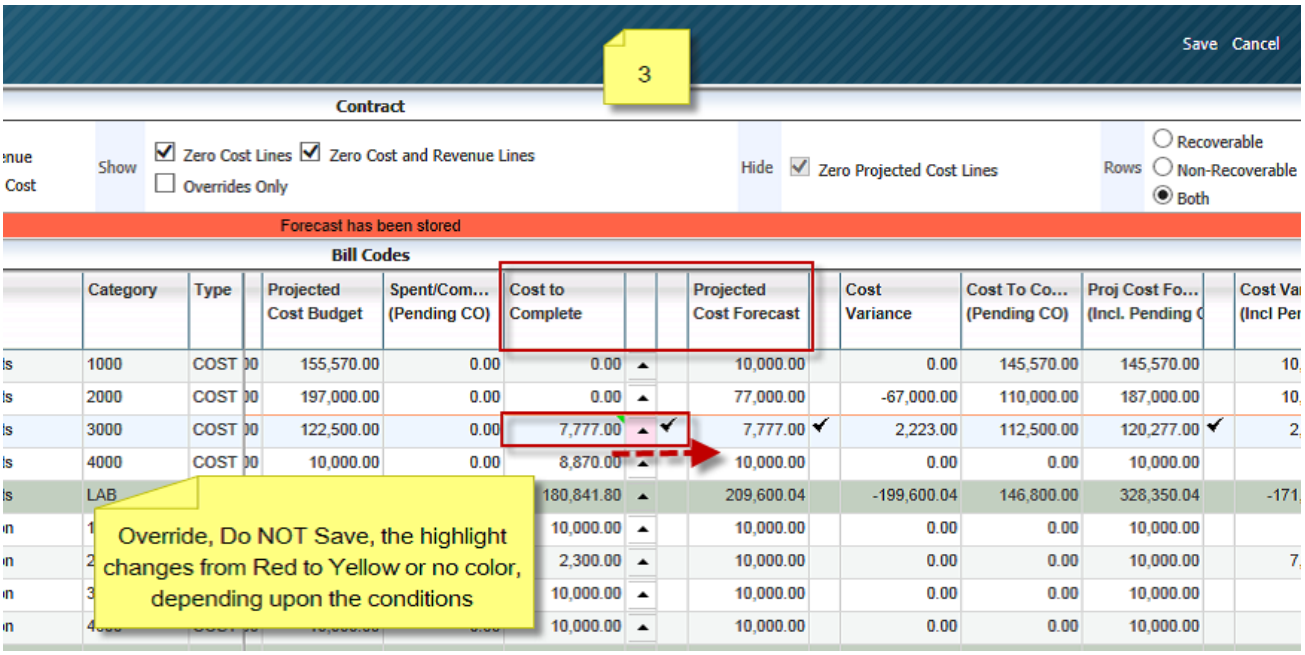
1. Projected Forecast Cost column will be colored in red when JccfOvrdAutoClearFlag is 'Y'.



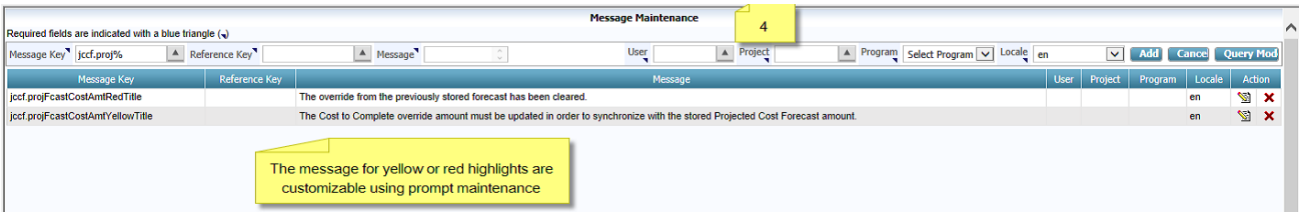
2. The auto clear override (JccfOvrdAutoClearFlag) is reset, when user manually overrides the cost to complete or projected cost amount.



3. When amounts are overridden (without saving), the red color disappears and the column will be highlighted in yellow, if conditions are fulfilled or no color if otherwise.



4. The hover messages (in case of red or yellow color) are now moved to properties file and may be changed using the entries as:
   - jccf.projFcastCostAmtRedTitle = The override from the previously stored forecast has been cleared.
   - jccf.projFcastCostAmtYellowTitle = The Cost to Complete override amount must be updated in order to synchronize with the stored Projected Cost Forecast amount.



5. Cost to Complete amount highlighted in red when jccf_ctc_popup_match_clac_flg is ‘Y’.
6. Enhancement for A-method override behavior when forecast exceeds previous forecast but less than budget.

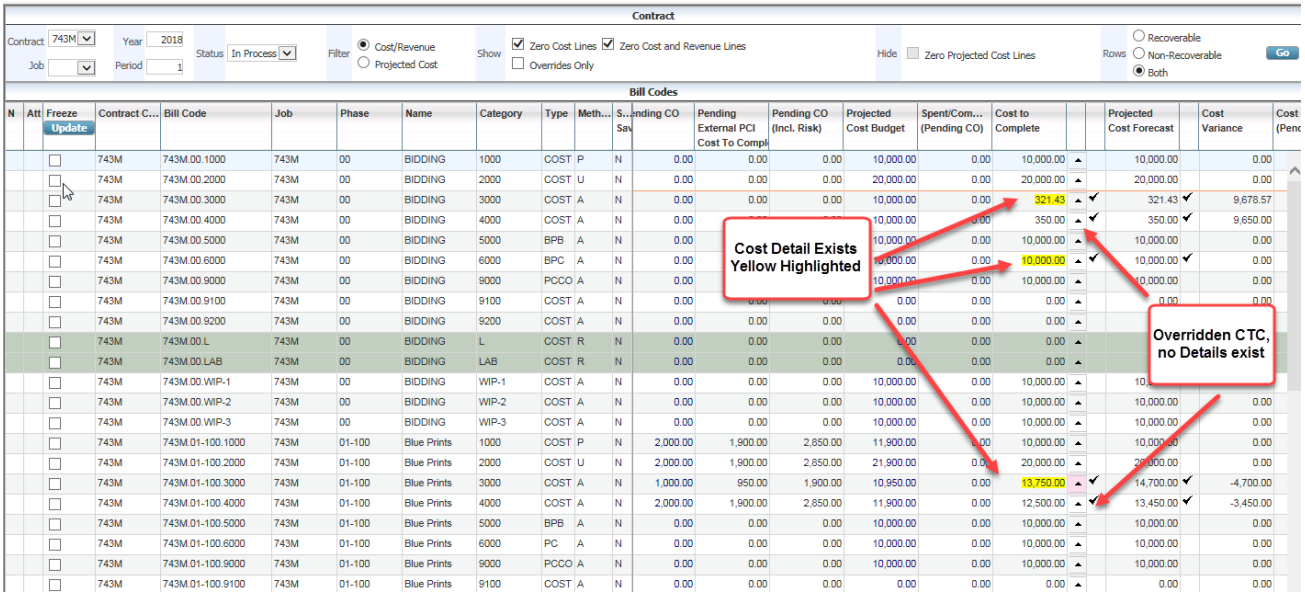
   For example:

   Case:1

Period 2018/1

NO Previous Forecast Exists. For ‘A’ (Amounts) method lines,

- CTC Detail entries exist, and matches the main screen CTC = Yellow Highlight, Override check appears
- CTC Details DO NOT exist, but overridden in the main screen = No highlight, Override check appears



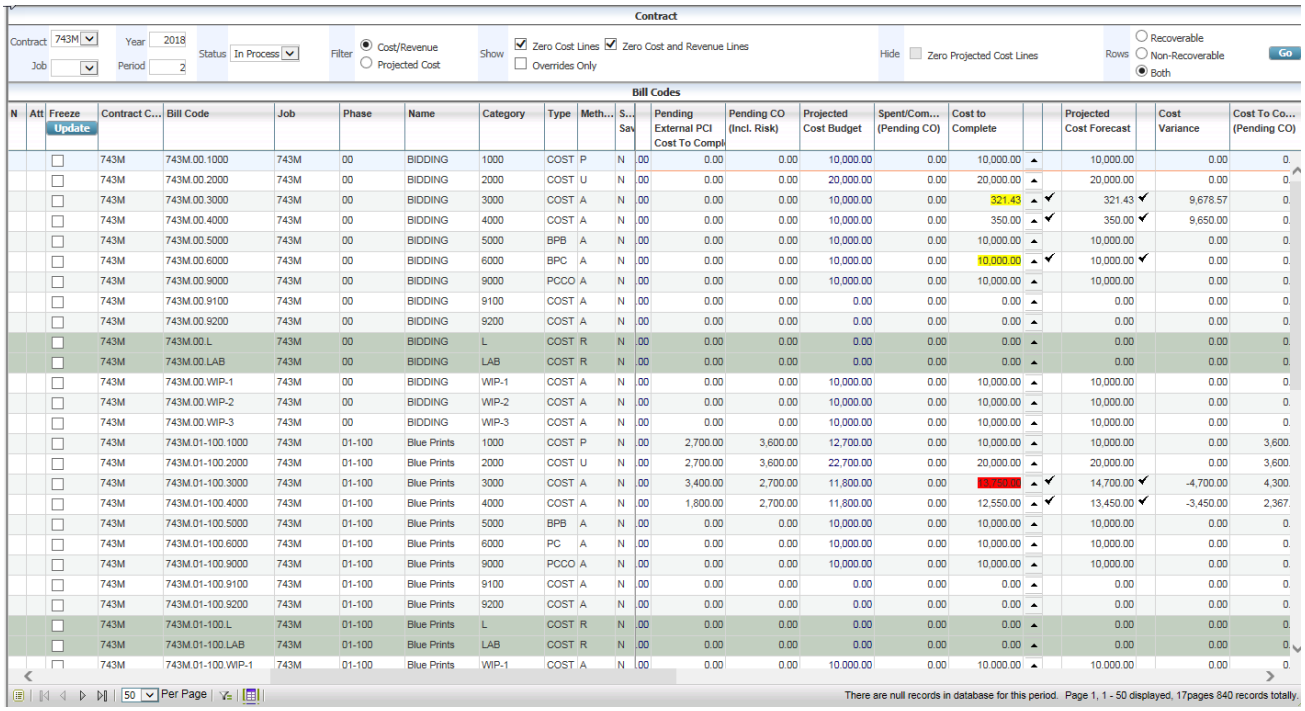
Period 2:

Case:1

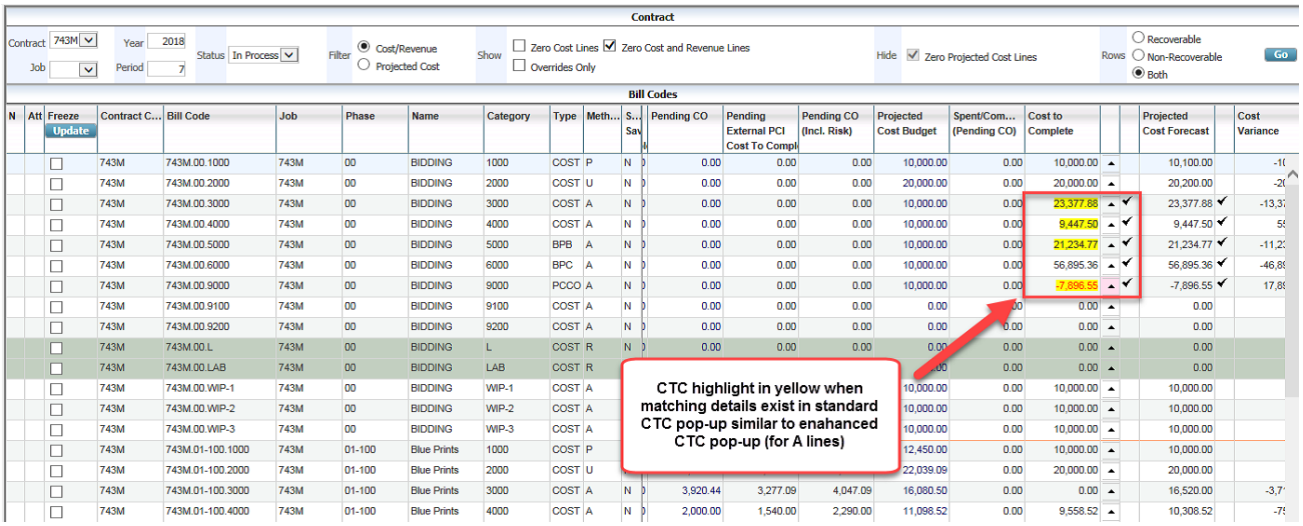
Period 2018/2

Previous Forecast Exists, with overrides . For ‘A’ (Amounts) method lines, the overrides are carried forward

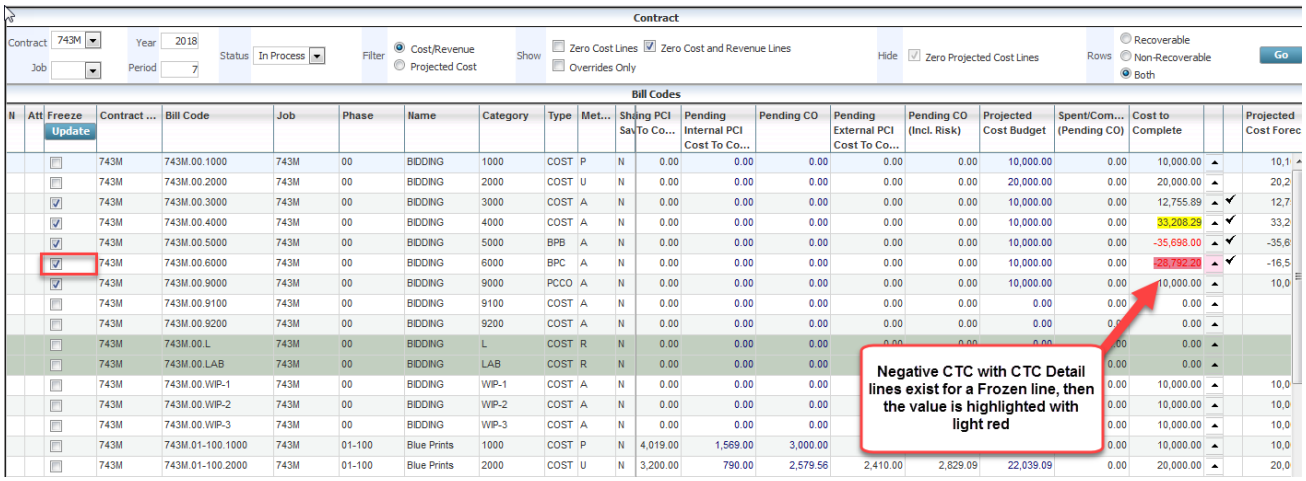
- CTC Detail entries exist, and matches the main screen CTC = Yellow Highlight, Override check appears
- CTC Details DO NOT exist, but overridden in the main screen = No highlight, Override check appears
- CTC Detail entries exist, but overridden amount = Red Highlight, Override Check appears



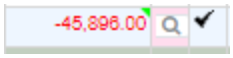
7. The Cost to Complete fields on the Contract Forecasting screen are highlighted in yellow when matching details exist for ‘A’ lines in the Standard Cost Detail pop-up. The Enhanced Cost Detail pop-up also functions this way.



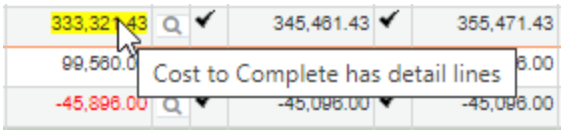
8. When the Cost to Complete column is displaying a frozen line with a negative amount, the amount is highlighted in light red.



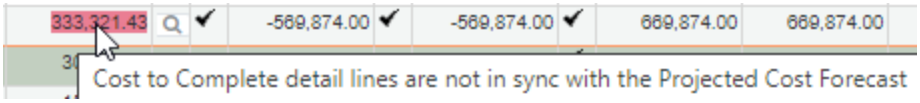
Summary for Conditional Formatting in Cost To Complete (CTC) column:

1. Negative CTC: Red Text 

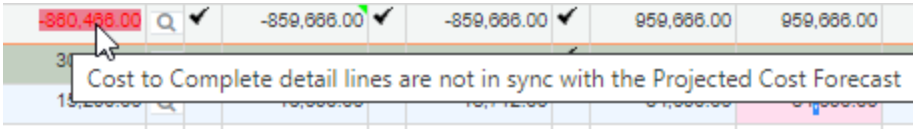
2. CTC for A Lines Details Exist: Yellow highlight



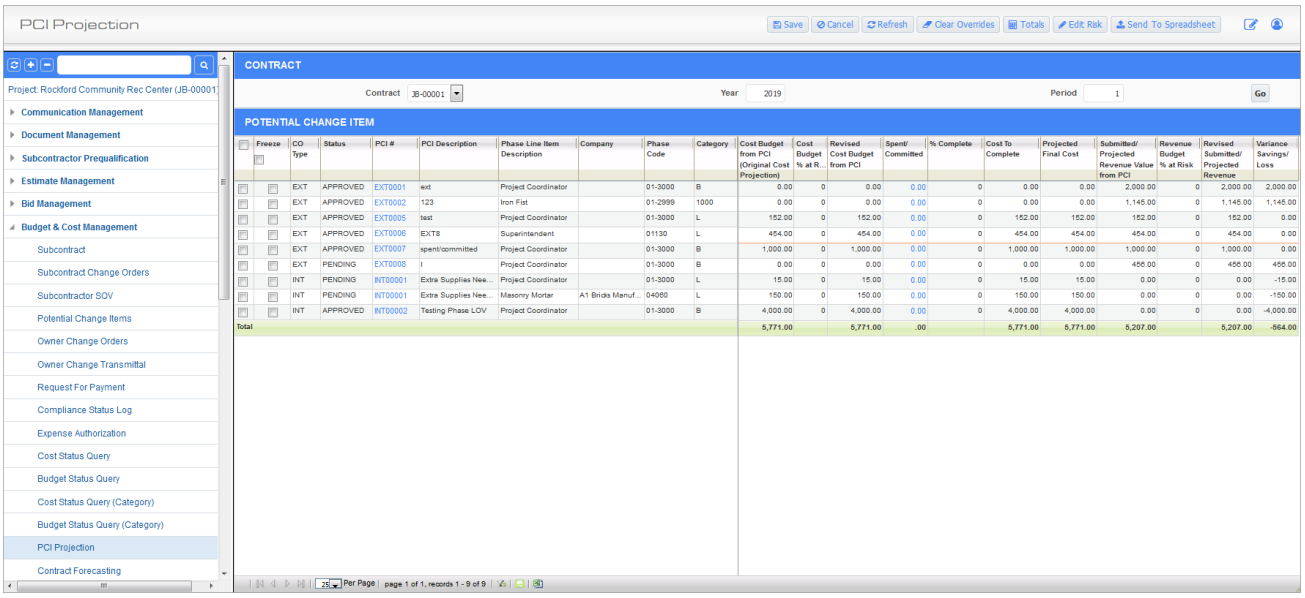
3. CTC Detail Lines are NOT in sync with Projected Cost Forecast and when a line is frozen: Red Highlight



4. CTC is negative and detail lines are NOT in sync with Projected Cost Forecast and when a line is frozen: Red Text and Red highlight



PCI Projection



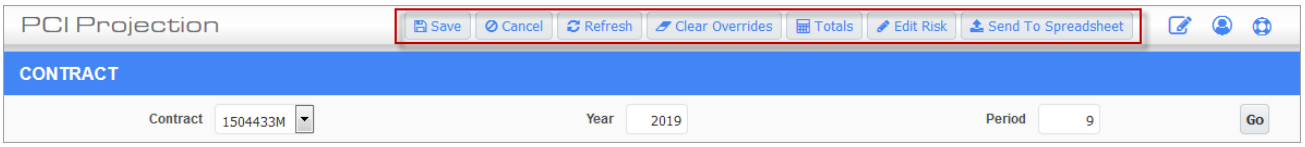
PCI Projection; standard Treeview path: CMiC Field > Budget & Cost Management > PCI Projection

The PCI Projection screen can be accessed from CMiC Field's Treeview as a standalone program or from the Contract Forecasting with PCI Projections screen using the drill-downs on PCIs.

The PCI Projection screen deals with unposted PCIs, on which work may have already commenced and therefore incurred cost and may be subjected to cost and/or revenue risks. It may be important to recognize risks on unposted PCIs at an early stage by projecting and forecasting the amounts accordingly.

This screen allows users to apply risk on cost and revenue budget amounts and project cost and revenue amounts, which in turn will affect the contract forecasting key columns such as Projected Cost Budget, Projected Cost Forecast, Projected Bill Budget, Pending CO (Revenue side), Revenue, and Projected Profit.

Main Toolbar Buttons



The PCI Projections toolbar provides several program-specific functional buttons, as well as standard icons such as the Screen Editor, User Profile, and Help icons.

[**Save**] – Button

When overrides are entered, the [**Save**] button stores the PCI projections for the specified period.

[**Cancel**] – Button

The [**Cancel**] button cancels any unsaved changes and refreshes the screen with the previously stored values.

[**Refresh**] – Button

The [**Refresh**] button refreshes the screen by updating the PCI details according to the current status, by adding new PCIs or removing the existing ones. In either case, the stored overrides on existing lines will be preserved.

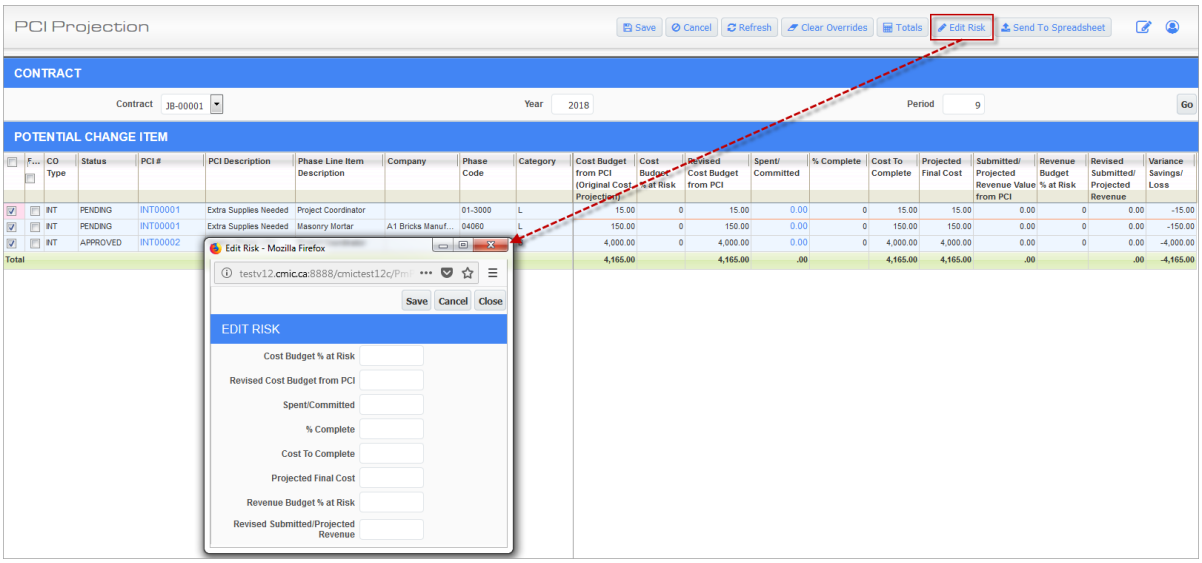
[**Clear Overrides**] – Button

The [**Clear Overrides**] button will clear all user overrides and refresh to the system-defined values.

[**Totals**] – Button

The [**Totals**] button opens a pop-up screen and displays summary totals for each PCI# projected during the period.

[**Edit Risk**] – Button



Edit Risk pop-up window launched from [Edit Risk] button on PCI Projection screen

The [**Edit Risk**] button launches a pop-up window which allows users to enter a value in one or more of the pop-up window's fields and apply the override(s) to the selected records at once, eliminating the need to apply the override on each PCI detail line.

NOTE: Users must select the records to which the override will apply before clicking on the [**Edit Risk**] button.

[**Send To Spreadsheet**] – Button

The [**Send to Spreadsheet**] button exports the projections in a specific period into a text file.

Users may apply filters to restrict the detailed records and, if so, the export will be limited to only those visible on the screen.

Contract (Header) – Section

The PCI projections are based on year and period specified and affect only the projections stored on a period-by-period basis. This is in synchronization with the Contract Forecast with PCI Projections screen, which is also driven from period to period.

Upon initial entry, the screen will list all the pending PCIs up to the end of the current period.

Only PCIs with statuses flagged as ‘Forecast’ will be allowed in PCI projections. Similarly, once a PCI is posted, upon [**Refresh**], the PCI will no longer be available for projections.

Contract

The Contract field, by default, displays all the job billing contracts associated with the current project. A controlling job may have many sub-jobs, with some of them having their own billing contracts. The drop-down for this field will list all of those contracts under the controlling job.

Year, Period

The year and period values entered in the Forecasting tab of the Job Costing Control file default in the Year and Period fields on this screen (standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab).

If required, enter a valid period. Users should be aware that this is not the calendar period and is bound by the General Ledger module’s period boundaries.

[**Go**] – Button

Users must press [**Go**] button to display data when projecting for different periods.

Potential Change Item (Details) – Section

The Potential Change Item section populates all the unposted PCIs along with their detail line items, up to the end of the current projection period.

Select – Checkbox

Use the checkbox beside a line item to select/unselect an individual PCI line item or use the ‘Check All’ checkbox in the column header to select/unselect all PCI line items at once.

Freeze – Checkbox

The freeze function allows storing user overrides and freezing a specific PCI line item, so that either clear overrides or refresh actions do not affect the projections. Users can

use the checkbox in the column header to freeze/unfreeze all PCI line items at once.

This column can be updated, as required.

NOTE: When users override the Cost to Complete column and/or the Projected Final Cost column from the PCI Projection screen, and freeze the line, it holds the override when the Contract Forecast is refreshed. Upon Contract Forecast refresh, those fields remain intact because the 'Freeze' box is checked. When the 'Freeze' box is checked, upon refresh and clear overrides, all overridden values are on hold.

CO Type

The PCI type, such as external or internal, as defined in Change Management module (standard Treeview path: Change Management > Local Tables > Change Order Types).

Status

The status of the PCI, as defined in Change Management module (standard Treeview path: Change Management > Local Tables > Change Order Status Codes).

PCI#

The PCI# field allows drill-down into PCI entry and further actions such as edit are possible from within the PCI Entry screen.

PCI Description

The PCI header description is displayed.

Phase Line Item Description

The PCI line item description is displayed.

Company

The vendor code associated with a linked subcontract is displayed. If no subcontract linked, then the field will be left as null.

Job Code, Controlling Job Code

The Job Code and the Controlling Job Code columns are hidden by default using field security. Role security for these fields is set to "Hidden" for the "ALL" role. Users must

set these fields to “Read Only” for specific user roles to make the columns visible on the screen. Field security for the columns can be set for user roles as “Hidden” or “Read Only”.

Phase Code

The PCI line phase code is displayed.

Category

The PCI line item category code is displayed.

Cost Budget from PCI (Original Cost Projection)

The Cost Budget from the PCI line item is displayed.

Cost Budget % at Risk

Users may enter a cost budget percent at risk as required. The value in this column affects other columns.

This column can be updated, as required. If updated, override checkmarks will appear on corresponding amounts.

A cost budget risk percentage may have defaulted into this field if it was entered on either the Defaults tab of the Company Control screen or the Defaults tab of the Project Maintenance screen when the project was created. Refer to Company Control for more information.

Revised Cost Budget from PCI

The original PCI cost budget is displayed and when there is an override to the Cost Budget % at Risk column, then the value is calculated as:

Revised Cost Budget from PCI = (1 - Budget % at Risk) x Cost Budget

Spent/Committed

Displays all committed cost and spent cost against the PCI line item detail. There is a drill-down available which displays all committed and spent cost against the PCI line item.

% Complete

The % Complete = (Spent/Committed / Revised Cost Budget) x 100.

This column can be updated as required, and any updates affect Cost to Complete, Projected Final Cost, and Variance Savings/Loss columns.

NOTE: A warning will be issued when the value is not within 0 to 100.

Cost to Complete

Cost To Complete = Revised Cost Budget from PCI – Spent/Committed

When % Complete is overridden, then the Cost to Complete is calculated as:

= Spent-Committed (1 – (1/ %Complete))

This column can be updated, as required.

NOTE: If a value is overridden in the Cost to Complete column on the PCI Projections screen, unless the PCI Projections screen is refreshed before saving, the overrides will be retained in Cost to Complete column on the PCI Projection screen and the changes will be reflected in the Projected Cost Forecast column in the Contract Forecast with PCI Projections screen.

Projected Final Cost

Projected Final Cost = Spent/Committed + Cost to Complete

Overriding Projected Final Cost will back calculate:

Cost To Complete = Projected Final Cost – Spent/Committed

% Complete = (Spent/Committed / Projected Final Cost) x 100

This column can be updated, as required.

Submitted Projected Revenue Value from PCI

Billing Budget Amount from PCI Detail Line.

Revenue Budget % at Risk

The default value is “0” and users may override as required.

If updated, override checkmarks will appear on corresponding amounts.

A revenue budget risk percentage may have defaulted into this field if it was entered on either the Defaults tab of the Company Control screen or the Defaults tab of the Project Maintenance screen when the project was created. Refer to Company Control for more information.

Revised Submitted/Projected Revenue

The column defaults the Submitted Revenue Value, unless there is a Revenue Budget % at Risk entered manually by users.

When risk is applied, it is calculated as:

((Projected Revenue Value from PCI) x (1- Revenue Budget % at Risk))

This column can be updated, as required.

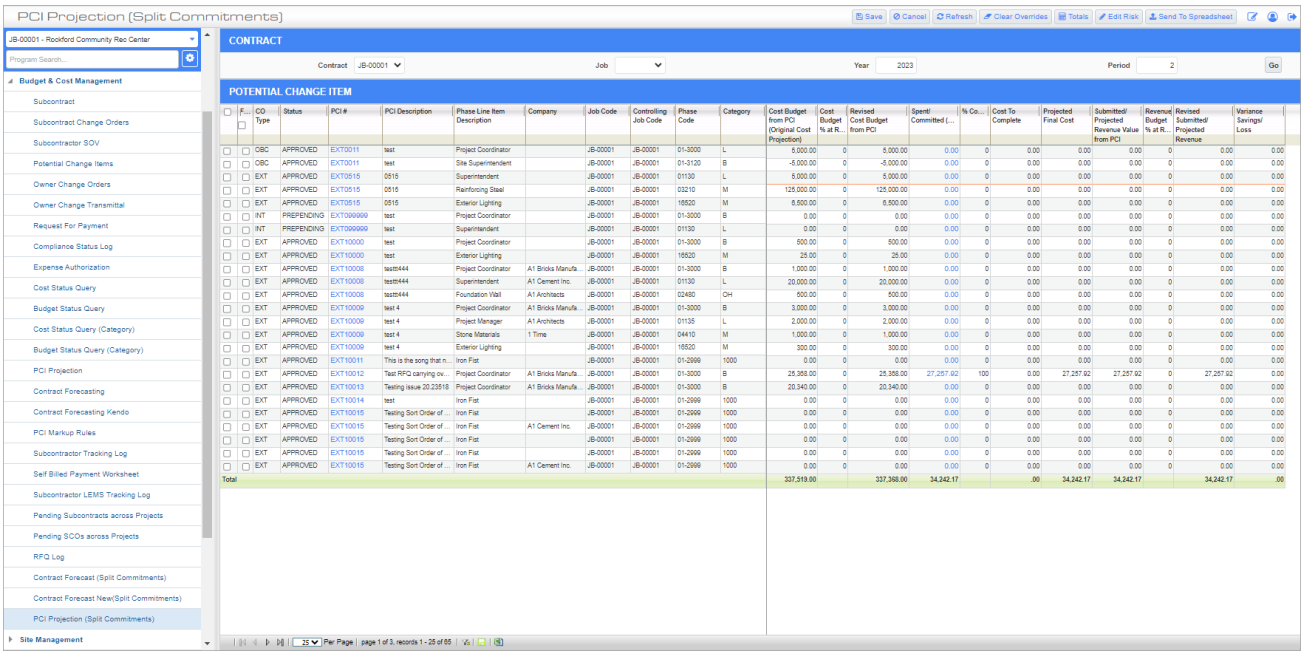
Variance Savings/Loss

This is a display-only field.

Variance = Revised Submitted/Projected Revenue – Projected Final Cost

The variance may go negative when the revenue is less than cost or when there is no billing budget on PCI detail.

PCI Projection (Split Commitments)

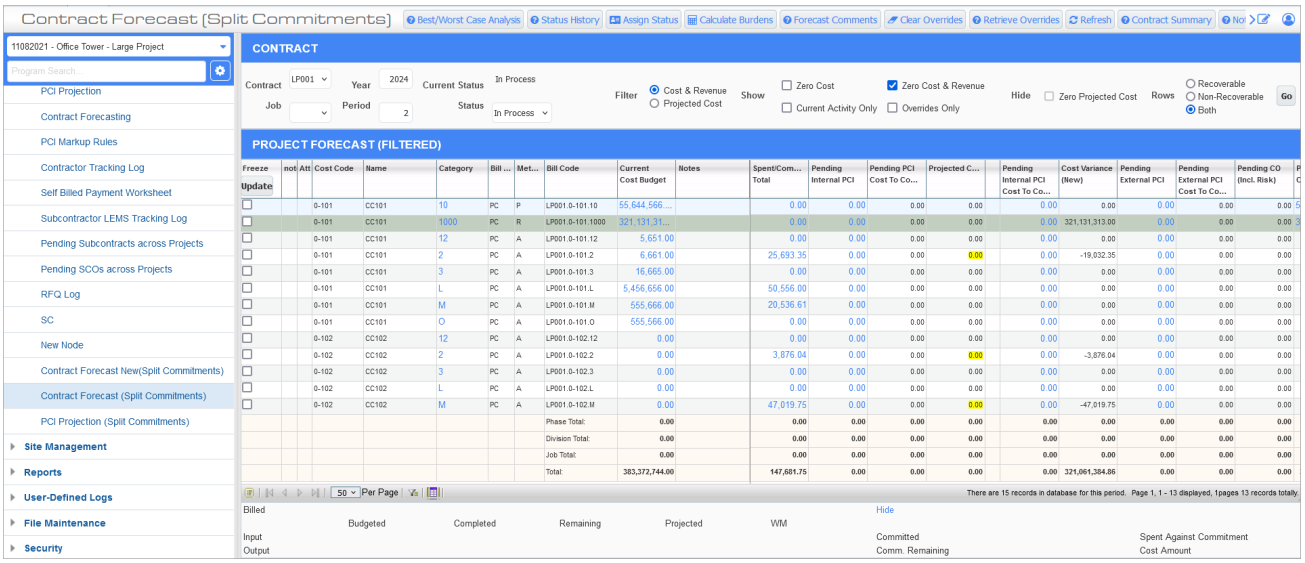


PCI Projection (Split Commitments); Standard Treeview path: CMiC Field > Budget & Cost Management > PCI Projection (Split Commitments)

The PCI Projection screen, whether it's the split commitment contract forecasting or PCI projection regular contract forecasting, is a way for users to forecast their PCIs. For example, in situations where you are unsure if you will get the full revenue amount or full cost amount for a PCI, you can discount/assign a risk % to the PCI cost and revenue amount. This happens because when you have a pending PCI, it's not posted, so there may be some dispute with the owner of the project and they may not pay for the full amount of the PCI so you can anticipate this by reducing the cost and revenue amount of the PCI. If the PCI is discounted/assigned risk, there are columns in Contract Forecasting that will update and show you the discounted PCI amount.

This page is intentionally left blank.

Contract Forecast (Split Commitments)



Contract Forecast (Split Commitments); Standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecast (Split Commitments)

This screen has been developed with a similar look and feel to the existing Contract Forecasting with PCI Projections screen, but has additional columns and new calculations for existing columns.

Additional Columns

By default, the following columns are hidden but can be made visible using the screen's [**Configure View**] button. Field security can be added to the columns as required.

SC and PO Commitments

This read-only column will show the total amount for pending and posted subcontracts and purchase orders. The column will not show any subcontract change orders.

Pending SC/PO

This column displays all pending subcontracts and purchase orders. It does not include pending subcontract change orders. The column will use the creation date to determine which fiscal period in which the subcontract or PO will be displayed.

Pending SCOs

Displays the total amount of pending subcontract change orders. Pending change orders do not have a post date so the forecast will display pending SCOs based on the creation date of the SCO.

If the forecast is in period 5 (May) and the pending SCO is created in period 8 (August), then the amount will not be displayed in the forecast. If the pending SCO is created in period 4 (April), then the forecast will display the amount.

Posted SCO

This column will display the total amount for all posted subcontract change orders.

Uncommitted Cost

This column is automatically calculated, but also supports overrides for certain cost codes and categories.

Cost codes and categories marked with "GC" in the Phase Type column for Assign Cost Codes do not calculate an uncommitted amount nor do they support overrides.

Cost codes and categories not marked as "GC" in the Phase Type column will be calculated as below. The column will not automatically display a negative amount.

= Budget – Posted Commitments – Pending Commitments.

Commitments will include Posted SC, Posted PO, Posted SCO, and Pending SCO.

Overrides will impact Cost at Completion, Projected Cost at Completion, and Projected Profit columns.

There will not be a pop-up for this column.

Pending EXT & INT PCIs

This column displays both pending external and Internal PCIs. Clicking on the hyperlink amount opens the PCI Projection screen and displays both pending external and pending internal PCIs.

New Calculations for Existing Columns

Projected Cost at Completion

Modified the calculation for this field (JCCF_COST_FCST_INCL_PCI_AMT).

= Posted Commitments + Pending Commitments + Uncommitted Cost + Spent Outside of Commitment

For cost codes and categories not marked as "GC" in the Phase Type column, overrides will update the Uncommitted Cost column.

Phase Type

For lines marked "GC" in the Phase Type column, hold the override of both cost to complete and projected cost forecast when [**Refresh**] button is clicked.

This page is intentionally left blank.

Time Phased Budgeting

Time phased budgeting maintains subdivided budgeted, actual spent, and forecasted values over specified periods applicable to the job phase lifetime. A period is identified as a regular interval of time, like a calendar month, calendar year, etc.

This option allows discrepancies between budgeted/forecast and actual spent/revenue amounts to become more apparent sooner rather than at the end of the job cycle, hence making forecasting more accurate. For more in-depth details, refer to the Job Costing reference guide.

NOTE: The Time Phased Forecasting is applicable to CMiC Field (PMJSP) Contract Forecasting with PCI Projections, only when using 'Detailed Time Phased Budgeting' at the category level.

Spread Rules and PCIs Posting

PCIs may be manually time phased between the PCIs start and end dates. Then upon posting, time phased PCIs affect the corresponding time phased budget for the periods covered by the PCIs date range. However, it may also occur that only the PCIs start/end dates and a PCI value are specified without any time phasing. In that case, the PCI value is automatically time phased using a virtual flat spread rule with 2 segments each with a y-value of 1, prior to affecting the corresponding time phased budget.

If only the PCI value is specified without time phasing, and without the PCI start/end dates, then the following assumptions are made about the PCI start/end dates:

- The PCI start date becomes the greatest of the time phased budget minimum start date and the PCI reference date.
- The PCI end date becomes the time phased budget maximum end date.

- If the time phased budget minimum/maximum start/end dates are not available, then the PCI start/end dates become the PCI reference date, which is always specified.

Posting Considerations with Time Phase Budgeting

Cost Transactions

Costs are incurred at a point in time. In relation to time phased budgeting, actual spent values are posted into the period in which the post date is found. Also, the posted cost applies for the whole period. If the period did not exist in the budget, it is created.

Forecast Impacts

The posting of costs should not normally affect projections. However, because of the rule (Slide Projection Rule) that projections at the jcjobcat level can never be less than the jcjobcat level spent value, posting of costs may be automatically increased/-decreased by the jcjobcat level projections by a value called “sliding value”. When the sliding value is not zero, the time phased forecast value is also increased/decreased by the same sliding value for the period of the post date.

PCI Transactions

PCIs occur over a date range. When time phased PCIs are posted, the corresponding time phased budget values are increased/decreased by the PCI values for each budget period corresponding to the PCI periods. If the budget periods do not exist, they are created. If there is a discrepancy between the cmdetail value and the sum of time phased PCI values, the time phased PCI is automatically synchronized (using PRO-RATA method) with the cmdetail value first.

Forecast Impacts with PCIs

The posting of time phased PCIs affect time phased forecast values in the same way as time phased budget values, but only if the flag ‘Update Project Amount during Posting’ is

checked. Otherwise, posting of PCIs should have no effect on the time phased forecast values.

This page is intentionally left blank.

WBS Functionality & Contract Forecasting

Work Breakdown Structure (WBS)

The Work Breakdown Structure (WBS) codes provide a supplementary method to effectively track and summarize costs on a transaction to transaction basis. The type of breakdown is dependent on the costing structure of the job and can be tailored to the specific requirements of the company. The WBS codes are user-defined and may be assigned with the system-defined field named “PCI#”.

The WBS functionality with PCI# allows users to specify the Potential Change Item # when transactions are entered and upon posting, the transaction detail records are associated with specific PCI#s allowing the users to track the costs. Similarly, when Request for Payments (RFPs) are posted, the PCI# linked to the subcontract will be used as a WBS value and posted to the transaction details table.

Forecasting based on the billing contracts with WBS mapping with PCI functionality allows forecasting with PCI projections showing specific bill codes with PCI# and tracking all committed, spent costs and billings.

The use of WBS functionality in contract forecasting may be classified in two categories:

- Jobs with WBS mapping and using transactions with PCI# as the WBS code.
- Jobs with standard mapping and using WBS code (PCI#) for transactions.

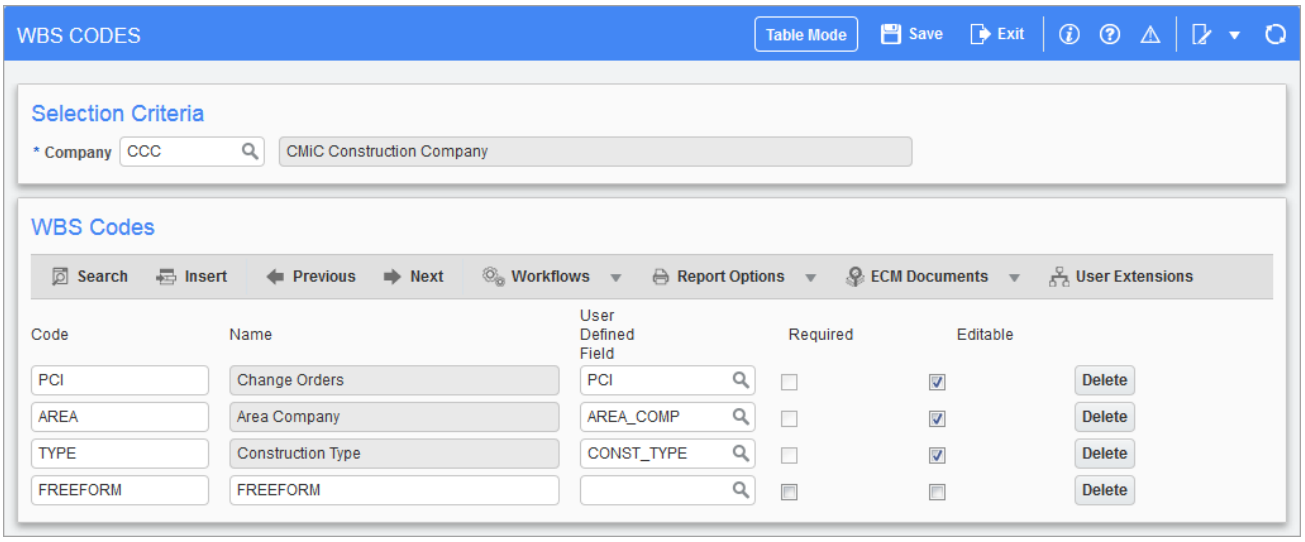
What are the differences with these two methods?

Standard Mapping	WBS Mapping
The number of bill codes are limited to	The number of bill codes may increase with every PCI whether posted or unposted, and when there exists pos-

Standard Mapping	WBS Mapping
the job/phase/c-ategory structure.	ted cost transactions, will get added to the contract code. If the PCI is unposted but has posted cost transactions, the user will need to add the associated bill code manu-ally by using the "Add New Bill Codes" option on the billing contract.
A single bill code may have many PCIs underlying and each of those PCIs may have their own cost transactions posted against the same.	A single PCI bill code will have only one PCI number and the cost transactions associated with the PCI.
Grouping of PCIs and the posted com-mitments and trans-actions for the purpose of billing is NOT possible.	The mapping code may have a group code set as WBS code and allows grouping by WBS code for the purpose of billing.

Setting Up WBS Codes

WBS codes are maintained on the WBS Codes screen in the Job Costing module.



Pgm: JCWBSFM – WBS Codes; standard Treeview path: Job Costing > Setup > Local Tables > WBS Fields > WBS Codes

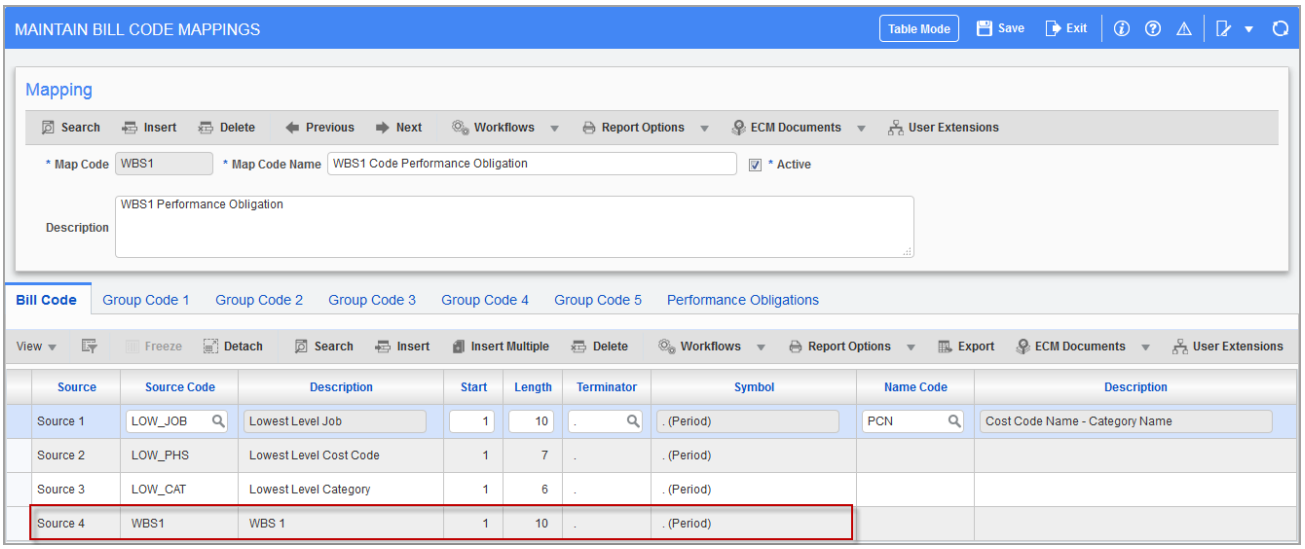
A maximum of four WBS codes can be set up in the system. For more details on setting up WBS codes, refer to the Job Costing guide.

When setting up a WBS code for the purpose of PCIs, billing, and forecasting, set up a WBS code and use the system-defined field called “PCI#”.

NOTE: Users must be using the system-defined value for the user-defined field, in order for this functionality to work.

Setting Up WBS Bill Code Mapping

The WBS mapping may be defined as shown in the example below.

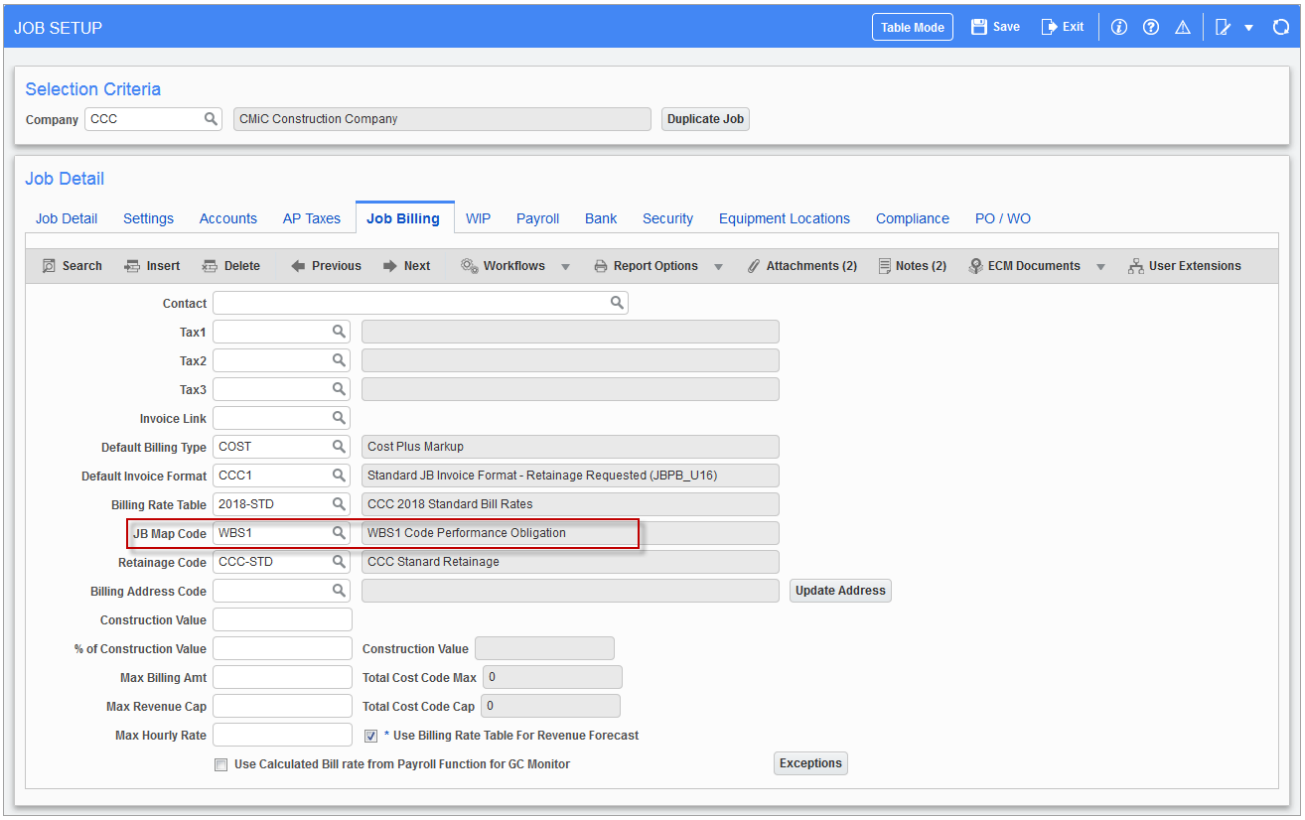


Pgm: JBMAPJC – Maintain Bill Code Mappings; standard Treeview path: Job Billing > Setup > Local Tables > Mapping from J/C – Bill Code tab

The bill code source can be a WBS code and the system allows a maximum of four WBS codes to be assigned.

In the example above, only one WBS code exists and it is assigned to the source 4. Using three more WBS codes is allowed but would restrict the length of the bill code to a maximum of 32 only.

Billing Contract with WBS Mapping



Pgm: JCJOBFM – Job Setup; standard Treeview path: Job Costing > Job > Enter Job – Job Billing tab

The mapping code specifically configured for WBS mapping with PCI must be assigned to the job as shown in the screenshot above.

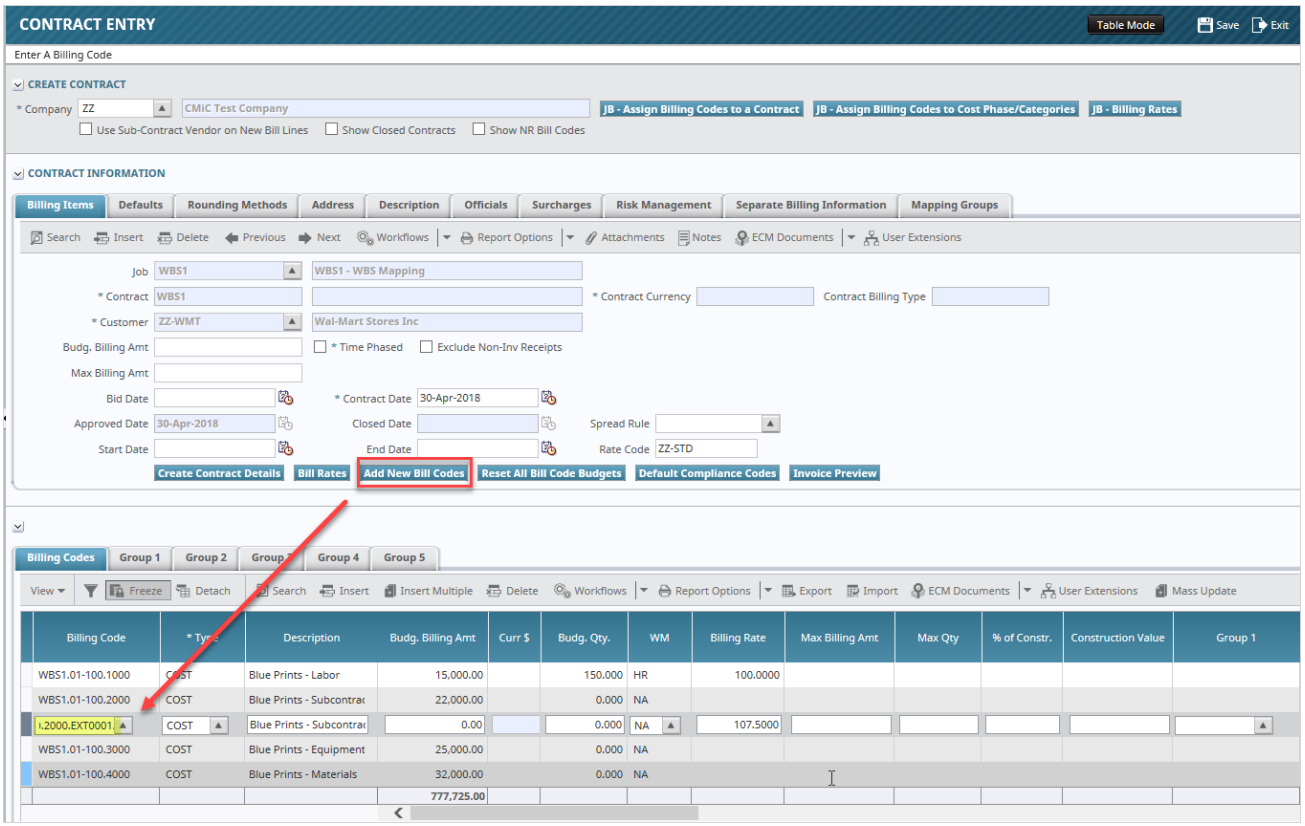
The Contract Entry screen, when creating bill codes for the contract, creates the bill codes with a separator at the end as "." as per the bill code mapping setup.

These bill codes are generic bill codes that will be used when generating billing using the costs posted to the job/phase/category in a normal course.

When there exists a PCI for a phase/category, and when creating cost transactions against the phase/category, users may select the PCI# for the WBS 1 column which would create JC Detail transactions with the reference to PCI# in WBS 1 field. This allows the grouping during billing by the WBS code as well when the group code is set as WBS code.

The Contract Forecasting with PCI Projections screen will be able to recognize the cost transactions against the PCI and display them under the Spent/Committed Pending CO column.

But users must be aware that they must manually add new bill codes in the Contract Entry screen to see those transactions in the Contract Forecast with PCI Projections screen as shown below.



Pgm: JBCONT - Contract Entry; standard Treeview path: Job Billing > Contracts > Enter Contract

The Contract Forecast with PCI Projections screen, upon refresh, will show the newly added bill codes and any posted transactions against the PCI.

The Contract Forecast with PCI Projections screen is automatically refreshed when users override the values of columns or update the PCI amounts by drilling down to the PCI Projection pop-up screen, editing and saving the PCI in the PCI pop-up screen, closing the PCI pop-up screen, and refreshing and closing the PCI Projection pop-up screen (i.e. System automatically refreshes the Contract Forecasting with PCI Projections screen and brings the changes made in the PCI pop-up). This happens only when users drill down to PCI from Contract Forecasting with PCI Projections screen.

The example shown so far is only on unposted PCIs with cost transactions entered by users by manually selecting the PCI# in WBS code column.

But users may also create subcontracts linked to the unposted PCIs which upon creation and posting of the request for payment would automatically insert the PCI# in JC Detail table. Here again, users must manually add new bill codes in the Contract Entry screen.

Once the PCIs are posted, the Current Cost Budget column is updated and reflects this update in the Cost to Complete column and the Projected Cost Forecast column.

Contract

Contract WBS3 Job Year 2015 Period 3 Filter Cost/Revenue Projected Cost Show Zero Cost Lines Zero Cost and Revenue Lines Hide Zero Projected Cost Lines Rows Recoverable Non-Recoverabl Both

Bill Codes

Time Phased			Freeze Update	Bill Code	Contract Code	Job	Phase	Name	Category	Phase Type	ending CO incl. Risk)	Projected Cost Budget	Spent/Committed (Pending CO)	Cost to Complete
			☐	WBS3.02-100.1000.	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	105,000.00	0.00	105,000.00
			☐	WBS3.02-100.1000.COE0000003	WBS3	WBS3	02-100	Structural Demolit...	1000		7,500.00	7,500.00	750.00	0.00
			☐	WBS3.02-100.1000.COE0000004	WBS3	WBS3	02-100	Structural Demolit...	1000		10,000.00	10,000.00	1,500.00	0.00
			☐	WBS3.02-100.2000.	WBS3	WBS3	02-100	Structural Demolit...	2000		0.00	105,000.00	0.00	105,000.00
			☐	WBS3.02-100.3000.	WBS3	WBS3	02-100	Structural Demolit...	3000		0.00	105,000.00	0.00	0.00
			☐	WBS3.02-100.4000.	WBS3	WBS3	02-100	Structural Demolit...	4000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.02-100.5000.	WBS3	WBS3	02-100	Structural Demolit...	5000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.02-100.CFB.	WBS3	WBS3	02-100	Structural Demolit...	CFB		0.00	100,000.00	0.00	0.00
			☐	WBS3.02-100.NR.	WBS3	WBS3	02-100	Structural Demolit...	NR		0.00	25,000.00	0.00	25,000.00
			☐	WBS3.03-100.1000.	WBS3	WBS3	03-100	Structural Concrete	1000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.03-100.2000.	WBS3	WBS3	03-100	Structural Concrete	2000		0.00	100,000.00	0.00	0.00
			☐	WBS3.03-100.3000.	WBS3	WBS3	03-100	Structural Concrete	3000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.03-100.4000.	WBS3	WBS3	03-100	Structural Concrete	4000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.03-100.5000.	WBS3	WBS3	03-100	Structural Concrete	5000		0.00	100,000.00	0.00	100,000.00
			☐	WBS3.03-100.5000.COE0000001	WBS3	WBS3	03-100	Structural Concrete	5000		7,500.00	7,500.00	400.00	0.00
			☐	WBS3.03-100.5000.COE0000002	WBS3	WBS3	03-100	Structural Concrete	5000		9,750.00	9,750.00	600.00	0.00
			☐	WBS3.03-100.CFB.	WBS3	WBS3	03-100	Structural Concrete	CFB		0.00	100,000.00	0.00	0.00
			☐	WBS3.03-100.NR.	WBS3	WBS3	03-100	Structural Concrete	NR		0.00	25,000.00	0.00	25,000.00
				Totals:							34,750.00	1,299,750.00	3,250.00	860,000.00

The screenshot above shows the bill codes added to the contract with PCI# extension and the costs posted against those unposted PCIs are displayed under the Spent/Committed (Pending CO) column.

Contract

Contract WBS3 | Job | Year 2015 | Period 3 | Filter: Cost/Revenue / Projected Cost | Show: Zero Cost Lines / Zero Cost and Revenue Lines | Hide: Zero Projected Cost Lines | Rows: Recoverable / Non-Recoverable / Both | Go

Forecast has been refreshed

Bill Codes

Time Phased	Freeze Update	Bill Code	Contract Code	Job	Phase	Name	Category	Phase Type	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Committed (Pending CO)	Cost to Complete	Projected Cost Forecast
		WBS3.02-100.1000.	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	105,000.00	0.00	105,000.00	105,000.00
		WBS3.02-100.1000.COE0000003	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	7,500.00	0.00	6,750.00	7,500.00
		WBS3.02-100.1000.COE0000004	WBS3	WBS3	02-100	Structural Demolit...	1000		10,000.00	10,000.00	1,500.00	0.00	0.00
		WBS3.02-100.2000.	WBS3	WBS3	02-100	Structural Demolit...	2000		0.00	105,000.00	0.00	105,000.00	105,000.00
		WBS3.02-100.3000.	WBS3	WBS3	02-100	Structural Demolit...	3000		0.00	105,000.00	0.00	0.00	0.00
		WBS3.02-100.4000.	WBS3	WBS3	02-100	Structural Demolit...	4000		0.00	100,000.00	0.00	100,000.00	100,000.00
		WBS3.02-100.5000.	WBS3	WBS3	02-100	Structural Demolit...	5000		0.00	100,000.00	0.00	100,000.00	100,000.00
		WBS3.02-100.CFB.	WBS3	WBS3	02-100	Structural Demolit...	CFB		0.00	100,000.00	0.00	0.00	0.00
		WBS3.02-100.NR.	WBS3	WBS3	02-100	Structural Demolit...	NR		0.00	25,000.00	0.00	25,000.00	25,000.00
		WBS3.03-100.1000.	WBS3	WBS3	03-100	Structural Concrete	1000		0.00	100,000.00	0.00	100,000.00	100,000.00
		WBS3.03-100.2000.	WBS3	WBS3	03-100	Structural Concrete	2000		0.00	100,000.00	0.00	0.00	0.00

The screenshot above shows the posted PCI amounts updated the Current Cost Budget, Projected Cost Budget and moved the amount from the Spent/Committed (Pending CO) column appropriately and effectively updating the Cost to Complete column as well.

Job | Year 2015 | Period 3 | Filter: Cost/Revenue / Projected Cost | Show: Zero Cost Lines / Zero Cost and Revenue Lines | Hide: Zero Projected Cost Lines | Rows: Recoverable / Non-Recoverable / Both | Go

Forecast has been refreshed

Bill Codes

Posted PCI with posted transactions with WBS

Unposted PCI with posted transactions with WBS

Bill Code			Phase	Name	Category	Phase Type	Type	Method	Current Cost Budget	Spent/Committed Against Base Contract	Spent/Committed Total	Actual Cost	Spent/Committed (In Scope)	Complete %	Pending Internal PCI	Pend Inter Cost
WBS3.02-100.1000.	WBS3	WBS3	02-100	Structural Demolit...	1000		COST	A	105,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.02-100.1000.COE0000003	WBS3	WBS3	02-100	Structural Demolit...	1000		COST	A	7,500.00	750.00	750.00	750.00	750.00	10.00	0.00	
WBS3.02-100.1000.COE0000004	WBS3	WBS3	02-100	Structural Demolit...	1000		COST	A	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	
WBS3.02-100.2000.	WBS3	WBS3	02-100	Structural Demolit...	2000		COST	P	105,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.02-100.3000.	WBS3	WBS3	02-100	Structural Demolit...	3000		COST	U	105,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.02-100.4000.		WBS3	02-100	Structural Demolit...	4000		COST	A	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WB		WBS3	02-100	Structural Demolit...	5000		COST	A	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WB		WBS3	02-100	Structural Demolit...	CFB		COST	L	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WB		WBS3	02-100	Structural Demolit...	NR		NR	A	25,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.03-100.1000.	WBS3	WBS3	03-100	Structural Concrete	1000		COST	P	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.03-100.2000.	WBS3	WBS3	03-100	Structural Concrete	2000		COST	U	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
WBS3.03-100.3000.	WBS3	WBS3	03-100	Structural Concrete	3000		COST	P	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	

Contract

Contract WBS3 | Job | Year 2015 | Period 3 | Filter: Cost/Revenue / Projected Cost | Show: Zero Cost Lines / Zero Cost and Revenue Lines | Hide: Zero Projected Cost Lines | Rows: Recoverable / Non-Recoverable / Both | Go

Forecast has been refreshed

Bill Codes

Time Phased	Freeze Update	Bill Code	Contract Code	Job	Phase	Name	Category	Phase Type	Pending Internal PCI Cost To Complete	Pending CO	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Committed (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance
		WBS3.02-100.1000.	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	0.00	0.00	105,000.00	0.00	105,000.00	105,000.00	
		WBS3.02-100.1000.COE0000003	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	0.00	0.00	7,500.00	0.00	6,750.00	7,500.00	
		WBS3.02-100.1000.COE0000004	WBS3	WBS3	02-100	Structural Demolit...	1000		8,500.00	10,000.00	10,000.00	10,000.00	1,500.00	0.00	0.00	
		WBS3.02-100.2000.	WBS3	WBS3	02-100	Structural Demolit...	2000		0.00	0.00	0.00	105,000.00	0.00	105,000.00	105,000.00	
		WBS3.02-100.3000.	WBS3	WBS3	02-100	Structural Demolit...	3000		0.00	0.00	0.00	105,000.00	0.00	0.00	0.00	105,(
		WBS3.02-100.4000.	WBS3	WBS3	02-100	Structural Demolit...	4000		0.00	0.00	0.00	100,000.00	0.00	100,000.00	100,000.00	
		WBS3.02-100.5000.	WBS3	WBS3	02-100	Structural Demolit...	5000		0.00	0.00	0.00	100,000.00	0.00	100,000.00	100,000.00	
		WBS3.02-100.CFB.	WBS3	WBS3	02-100	Structural Demolit...	CFB		0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	100,(
		WBS3.02-100.NR.	WBS3	WBS3	02-100	Structural Demolit...	NR		0.00	0.00	0.00	25,000.00	0.00	25,000.00	25,000.00	
		WBS3.03-100.1000.	WBS3	WBS3	03-100	Structural Concrete	1000		0.00	0.00	0.00	100,000.00	0.00	100,000.00	100,000.00	
		WBS3.03-100.2000.	WBS3	WBS3	03-100	Structural Concrete	2000		0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	100,(

The above screenshot shows the comparison between an unposted External PCI and a Posted External PCI with both having posted JC transactions.

Contract

Contract WBS3 | Job | Year 2015 | Period 3 | Filter: (•) Cost/Revenue ( ) Projected Cost | Show: [ ] Zero Cost Lines [x] Zero Cost and Revenue Lines | Hide: [x] Zero Projected Cost Lines | Rows: ( ) Recoverable ( ) Non-Recoverable (•) Both | Go

Forecast has been refreshed

Bill Codes

Time Phased		Freeze Update	Bill Code	Contract Code	Job	Phase	Name	Category	Phase Type	Cost To Complete (Pending CO)	Proj Cost Forecast (Incl. Pending CO)	Cost Variance (Incl Pending CO)	Current Bill Budget	Pending C...	Pending CO (Incl. Risk) - E	Projected Bill Budget	Billed To Date
		[ ]	WBS3.02-100.1000.	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	105,000.00	0.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.1000.COE0000003	WBS3	WBS3	02-100	Structural Demolit...	1000		0.00	7,500.00	0.00	7,500.00	0.00	0.00	7,500.00	0.00
		[ ]	WBS3.02-100.1000.COE0000004	WBS3	WBS3	02-100	Structural Demolit...	1000		8,500.00	10,000.00	0.00	0.00	10,000.00	10,000.00	10,000.00	0.00
		[ ]	WBS3.02-100.2000.	WBS3	WBS3	02-100	Structural Demolit...	2000		0.00	105,000.00	0.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.3000.	WBS3	WBS3	02-100	Structural Demolit...	3000		0.00	0.00	105,000.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.4000.	WBS3	WBS3	02-100	Structural Demolit...	4000		0.00	100,000.00	0.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.5000.	WBS3	WBS3	02-100	Structural Demolit...	5000		0.00	100,000.00	0.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.CFB.	WBS3	WBS3	02-100	Structural Demolit...	CFB		0.00	0.00	100,000.00	100,000.00	0.00	0.00	100,000.00	0.00
		[ ]	WBS3.02-100.NR.	WBS3	WBS3	02-100	Structural Demolit...	NR		0.00	25,000.00	0.00	25,000.00	0.00	0.00	25,000.00	0.00
		[ ]	WBS3.03-100.1000.	WBS3	WBS3	03-100	Structural Concrete	1000		0.00	100,000.00	0.00	100,000.00	0.00	0.00	100,000.00	0.00

This page is intentionally left blank.

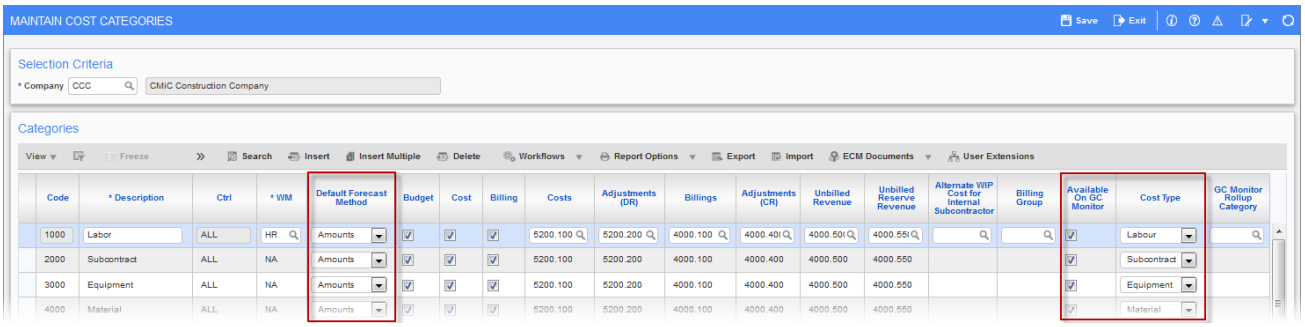
Labor Forecasting (Labor Lines Only)

For current and future periods, CMiC Field (PMJSP) Contract Forecast with PCI Projections screen allows users to add and edit labor/staffing details via the GC Monitor screen (standard Treeview path: Job Costing > Forecasting > GC Monitor), which is launched for a labor forecast line via its Cost To Complete field.

For a labor line, GC Monitor's Labor tab is used to detail and forecast for the related bill code, and details from GC Monitor roll up to the labor line in Contract Forecasting (the other tabs are not used).

When not using this Labor functionality, or when a category's 'Available On GC Monitor' checkbox is not checked and its Default Forecast Method field set to "Productivity" or "Units" on the Maintain Cost Categories screen (standard Treeview path: Job Costing > Setup > Local Tables > Enter Category), the Cost to Complete pop-up in CMiC Field's Contract Forecast with PCI Projections screen will continue to bring up the standard JSP Productivity/Units pop-up, as usual.

Labor Category Configuration



Pgm: JCCATFM - Maintain Cost Categories; standard Treeview path: Job Costing > Setup > Local Tables > Enter Category

For a labor forecast line to invoke GC Monitor, its bill code's category must be set up, via the Maintain Cost Categories screen (shown above), to have its:

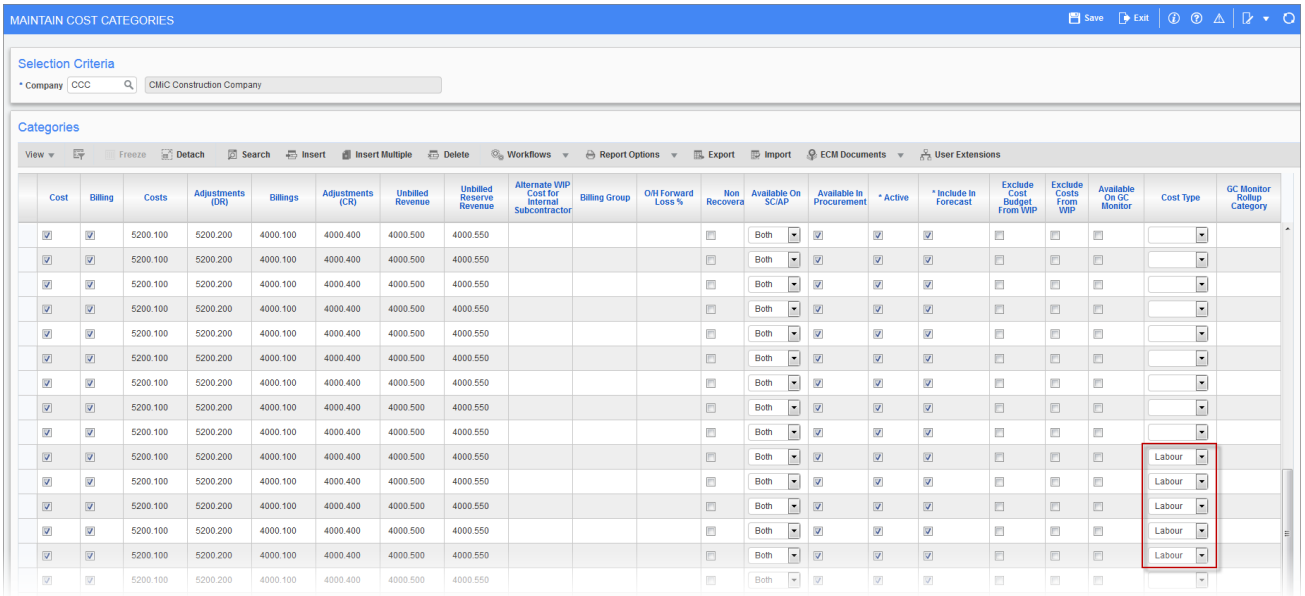
- ‘Available On GC Monitor’ checkbox checked
- Default Forecast Method field set to “Amounts”
- Cost Type field set to “Labor”

NOTE: If the Job Billing Mapping screen is going to be used to map Job Costing cost codes and categories to Job Billing bill codes, there must be a 1-1 mapping between them.

Once this configuration is complete, invoking the Cost To Complete pop-up on the labor bill code will open the GC Monitor screen, where users may insert/update/delete staffing details for forecasting.

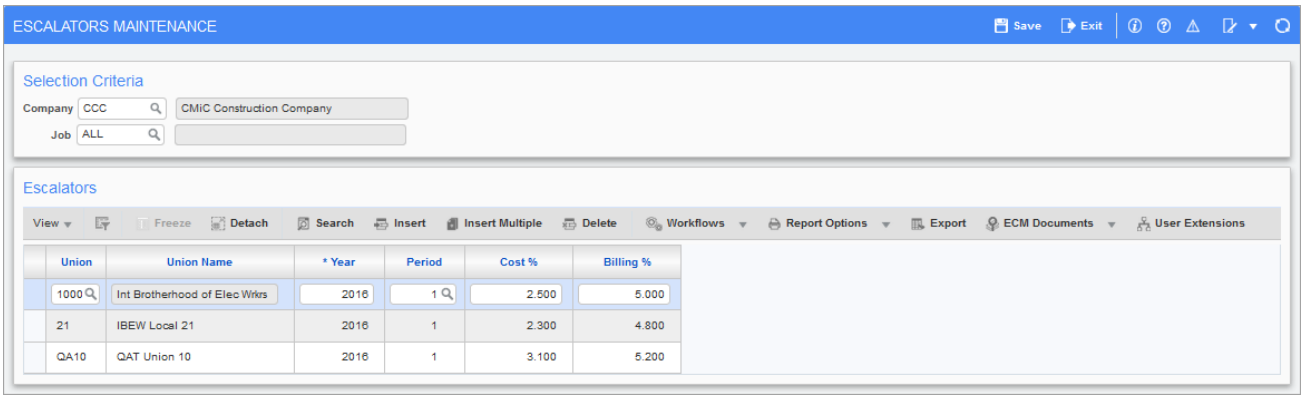
NOTE: On labor detail lines in Contract Forecast with PCI Projections screen, none of the columns are updateable by the users. The LOV for Cost to Complete column will open the GC Monitor screen for users to insert, update or delete the records as required.

Category Set as Labor Forecast



Pgm: JCCATFM - Maintain Cost Categories; standard Treeview path: Job Costing > Setup > Local Tables > Enter Category

Escalators Maintenance



Pgm: JCESCALATORMNT – Escalators Maintenance; standard Treeview path: Job Costing > Setup > Local Tables > Contract Forecasting > Escalators Maintenance

Escalators are percent amounts that are automatically added to the calculated cost rate and billing rate of the staffing. The concept of escalators is to avoid entering burden markups for inflation on a period/quarterly basis. Instead, a yearly cost escalator is applied by job.

NOTE: The Escalators Maintenance screen is related to ETC labor forecasting.

Users may set up escalators for “ALL” jobs in a company and for “ALL” unions as well, if required.

Also, escalators may be set up against specific job and unions as required.

The cost/billing rate escalators in a specific year/period will be applied on the Base Cost Rate as per Employee Profile Setup + Any Cost Markups that match the Job/Phase/category/Trade combination + any *PY benefits defined as ‘Include’ in Forecasting.

This will be applied on each labor detail created by the users.

This screen allows rate percent of 3 decimal places of accuracy.

NOTE: The PY benefits defined as ‘Include’ in forecasting requires a special feature to be installed. This is a system alternate feature. This flag will be visible and only then users will be able to include PY benefits in this calculation.

Example:

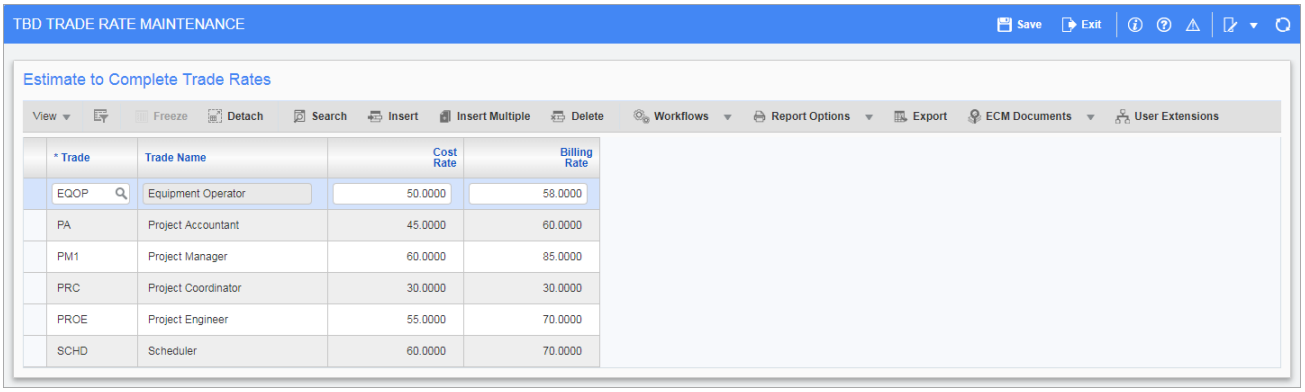
A staff member is assigned to a job for a period of three years.

The first year would include the cost escalator for the first year applied to the base cost rate (as determined by the Employee Profile Setup) + any Costing Rate Markups that match the Job/Phase/Category/Trade combination + any PY Benefits defined as 'Include' in Forecasting.

Similarly, the second year would include the cost escalator for the second year applied to the base cost rate (as determined by the Employee Profile Setup) + any Costing Rate Markups that match the Job/Phase/Category/Trade combination + any PY Benefits defined as 'Include' in Forecasting.

The same statement is true for any subsequent years as well.

TBD Trade Rate Maintenance



* Trade	Trade Name	Cost Rate	Billing Rate
EQOP	Equipment Operator	50.0000	58.0000
PA	Project Accountant	45.0000	60.0000
PM1	Project Manager	60.0000	85.0000
PRC	Project Coordinator	30.0000	30.0000
PROE	Project Engineer	55.0000	70.0000
SCHD	Scheduler	60.0000	70.0000

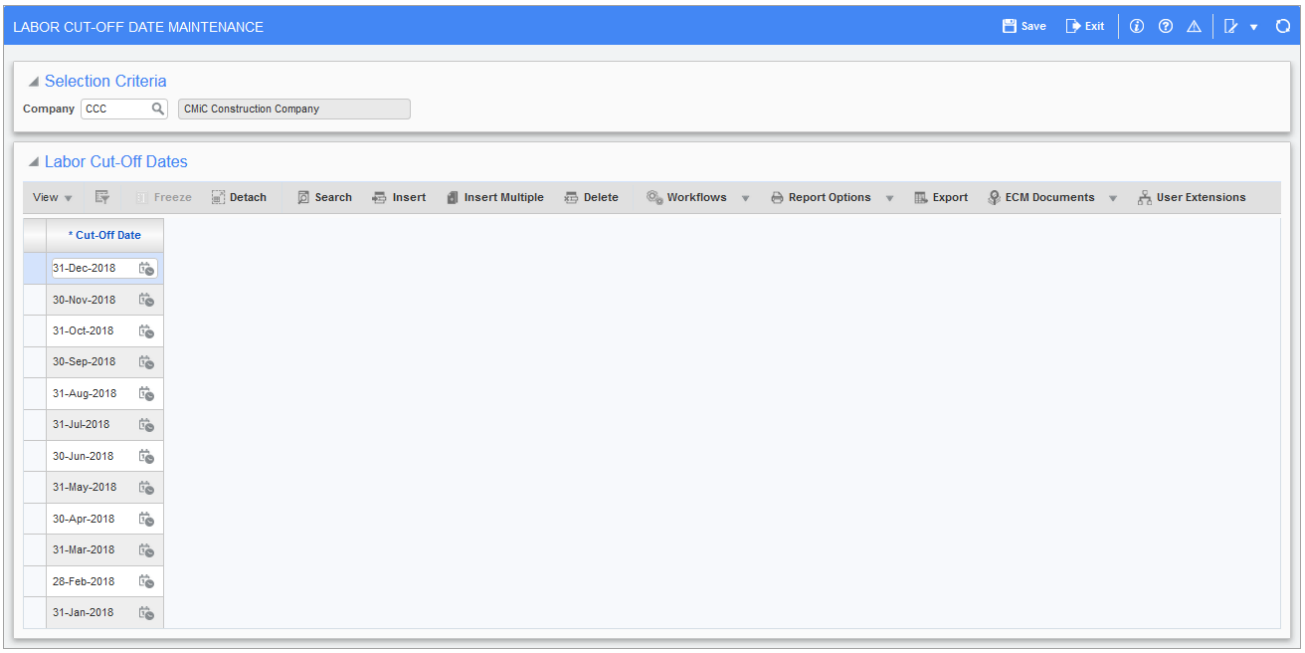
Pgm: JCTBDRATEMNT – TBD Trade Rate Maintenance; standard Treeview path: Job Costing > Setup > Local Tables > Contract Forecasting > TBD Trade Rate Maintenance

This screen is used to maintain trade rates to be used by the Labor tab in GC Monitor when staff members are unknown at this point in the project and defined as TBD (To Be Decided).

Users can select trade codes and set up associated cost rate/billing rate amounts. This screen allows four decimal places of accuracy.

During the labor detail entry in GC Monitor, launched from the CMiC Field (PMJSP) labor lines, users must set up the staff/labor information for the period as required. The cost/billing rates will be defaulted as per the setup in payroll/job. Upon commit, users may review the [**Period Details**] pop-up for the escalators applied on the cost/billing rates and then multiplied with the quantity to arrive at the Cost To Complete value for the contract forecasting.

Labor Cut-Off Date Maintenance



Pgm: JCTIMESHEETPOSTDATES – Labor Cut-Off Date Maintenance; standard path: Job Costing > Setup > Local Tables > Contract Forecasting > Labor Cut-Off Date Maintenance.

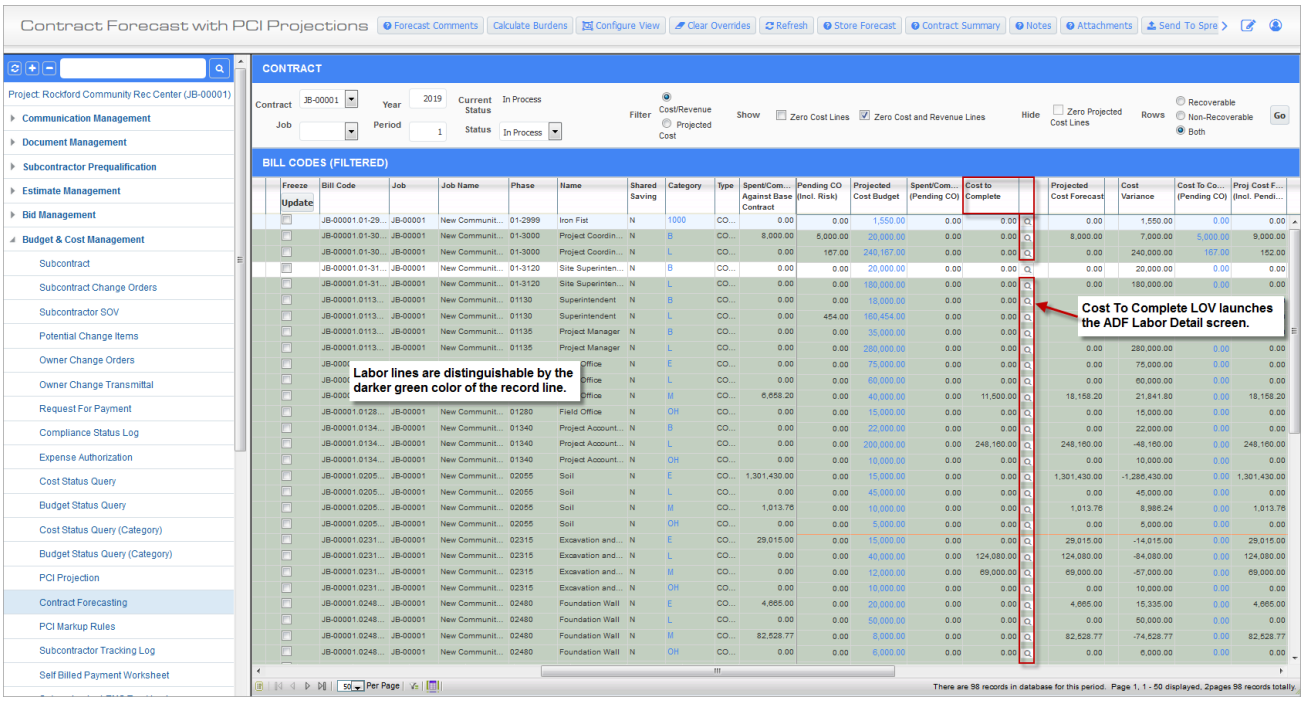
This screen is only relevant to the GC Monitor forecasting application, which can be used with CMiC Field (PMJSP) Contract Forecast with PCI Projections screen to forecast labor costs more accurately. It is required, as GC Monitor generates forecasts based on the GL period dates of a chart of accounts, which often do not match Payroll period dates.

This screen's cost cut-off dates are used to set the company level Cost Cutoff Date field in the Selection Criteria section of GC Monitor, which is set to the most recent cut-off date in this screen that is on or before the end date of the GL period for which the forecast is being created.

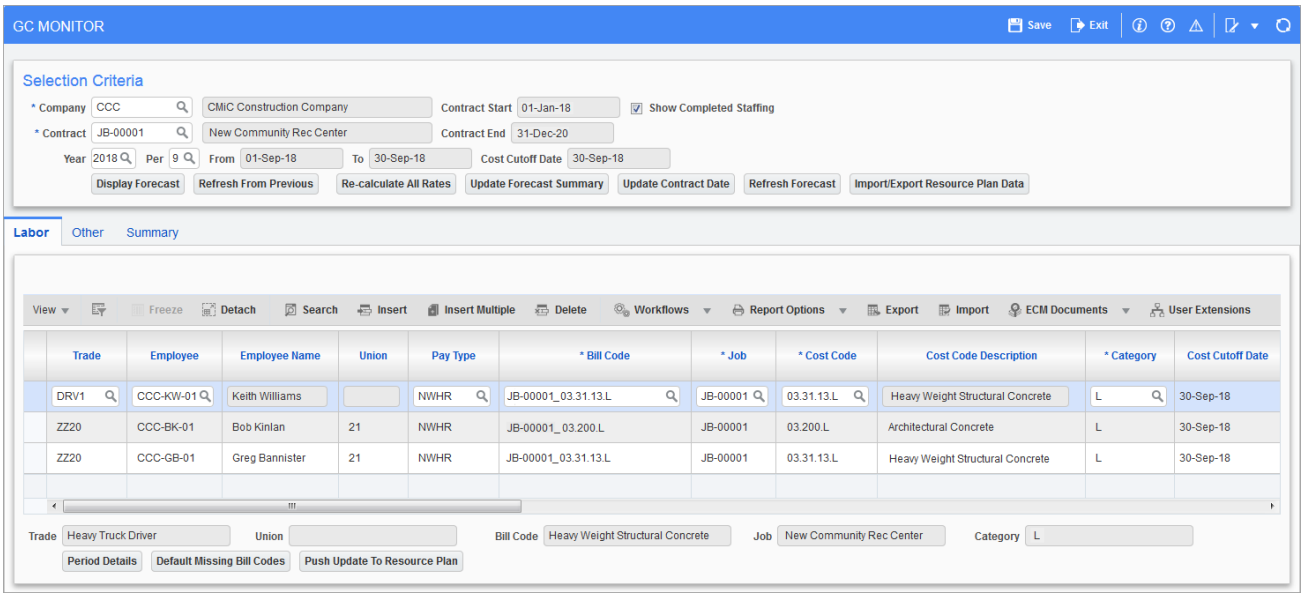
Previous cut-off dates remain for reference purposes, when reviewing previous GC Monitor forecasts.

For further details about this functionality, please refer to GC Monitor the GC Monitor reference guide.

GC Monitor – Forecasting Pop-up



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting



GC Monitor (ADF) pop-up launched from Cost To Complete LOV in CMiC Fields Contract Forecast with PCI Projections

If CMiC Field's Contract Forecast with PCI Projections screen has been set up to work with GC Monitor (standard Treeview path: Job Costing > Forecasting > GC Monitor), for current

and future periods, the screen allows users to add and edit labor forecasting details via the GC Monitor screen, which is launched for a labor forecast line via its Cost To Complete field (shown in previous screenshot).

For details about GC Monitor, labor forecasting, and Payroll cut-off dates, please refer to GC Monitor the GC Monitor reference guide.

NOTE: Employee security applies to the Labor Forecasting screen. Users must be given required access to this screen via the Employee Security tab on the User Maintenance screen, by assigning an employee security group (standard Treeview path: System > Security > Users > User Maintenance – Employee Security tab).

This page is intentionally left blank.

Billing Type & Revenue Calculations

The revenue calculation is driven by the billing type assigned to the bill code. This section describes how the revenue is calculated when using each billing type.

Billing Type Rate Rules

Depending on the billing type, billing rates are derived from different places.

Billing Type	Rule
Cost	If on the Job Setup screen (standard Treeview path: Job Costing > Job > Enter Job), 'Use Payroll Billing Rates' box is checked on the Payroll tab or 'Use Equipment Bill Rates' box is checked on the Settings tab, then these rates will be used where possible to determine the billing amount for cost transactions generated in the Payroll or Equipment modules. All other billing amounts will be determined by using the Billing Rate table. There is one override to this rule. On the Job Setup screen, there is a Max Hourly Rate field on the Job Billing tab. If a value is entered in this field, then all transactions from Payroll will be compared to this max billing rate and altered if their billing rate is greater than this max.
Unit	Under this method, the billing rate used is the billing rate applied on the billing code line.
Phase Unit	Under this method, the billing rate used is the billing rate

Billing Type	Rule
	applied on the billing code line.
% Complete of Costs	Under this method, the billing amount is the Percent Complete of the costs to the Budgeted Costs for the billing code.
% Complete of Construction Value	Under this method, the billing amount is the Percent Complete of the % of the Construction Value.
% Complete of Units	Under this method, the billing amount is the Units Complete of the Billing Code times the Unit Rate of the Billing Code.
Milestone	Each Milestone indicates the exact amount to bill when the milestone is released either manually or automatically.
Non - Recoverable	This is a non-billing rate. Any item using this method will not be billed unless manually overridden.

Billing Types

Code	Billing Type	Calculation Method
COST	COST	This method will select all the cost transactions for a specific billing code and bill the calculated revenue amount associated with each transaction.
UNIT	UNITS	This method is calculated as the sum of the units associated with all cost transactions for a specific billing code multiplied by the billing rate on

Code	Billing Type	Calculation Method
		the contract.
UPHS	PHASE UNIT BILLING	This method will calculate as the sum of the amount entered via Job Cost Phase Quantity Completion multiplied by the rate on the billing code line.
NR	NON RECOVERABLE	This method is a non-billable method – any transactions associated with bill codes marked with this billing method will produce a zero bill.

%Complete Billing Types Overview

Percent Complete billings work against a fixed contract value, the Budgeted Cost, Budgeted Units or Contract Value. The Units and Costs are derived from the Job Cost Transactions.

Code	Billing Type	Calculation Method
PCCO	% Complete/Cost	With this method, the billing type used will depend on the billing contract budget lines. Where there is a budget on the billing line, then % COMPLETE billing type will be used. Where the billing budget line is null or zero, the billing type COST will be used.
PC	% Complete of Budgeted Costs	This method will automatically calculate the percent complete of currently asked for costs against the Budgeted Cost Amount of the billing code and create the Bill Amount as “(Budgeted Billing Amount * Percent Complete / 100)”.

Code	Billing Type	Calculation Method
PCV	% Complete of Construction	This method will automatically calculate the percent complete of currently asked for costs against the Construction Value of the billing code and create the Bill Amount as “((Construction Value* % of Construction Value / 100) * (Percent Complete/100))”.
PU	% Complete of Budgeted Units	This method requires the user to enter the % of Units Complete for each billing code. The system will then calculate the bill amount as “((Budgeted Units * Percent Complete)/100) * Unit Billing Rate”.

BURDENED BILLINGS Billing Types Overview

Burdened billings are a method of billing a percent of a different billing line. For example, your site management fee may be 15% of all general conditions.

Code	Billing Type	Calculation Method
BPC	Burdened Billings % of Cost Amount	This method will sum the 'COST' amount of the associated billing codes cost transactions and then apply the required Burden %. ((Sum of Costs * Burden Percent) /100)
BPB	Burdened Billings % of Billing Amount	This method will sum the 'BILL' amount of the associated billing codes 'Cost' transactions and then apply the required Burden %. ((Sum of Bill Amounts * Burden Percent)/100)
BPU	Burdened Billings $ Rate per Unit	This method will take the Billing Units entered of the associated billing codes and then apply a rate per unit. (Sum of Units * $ Rate per Unit)

MILESTONE BILLINGS Billing Types Overview

Milestone billings are manual billings triggered by % complete, dates, and costs or manually released. All milestones except fixed fee allow for multiple releases of the milestone.

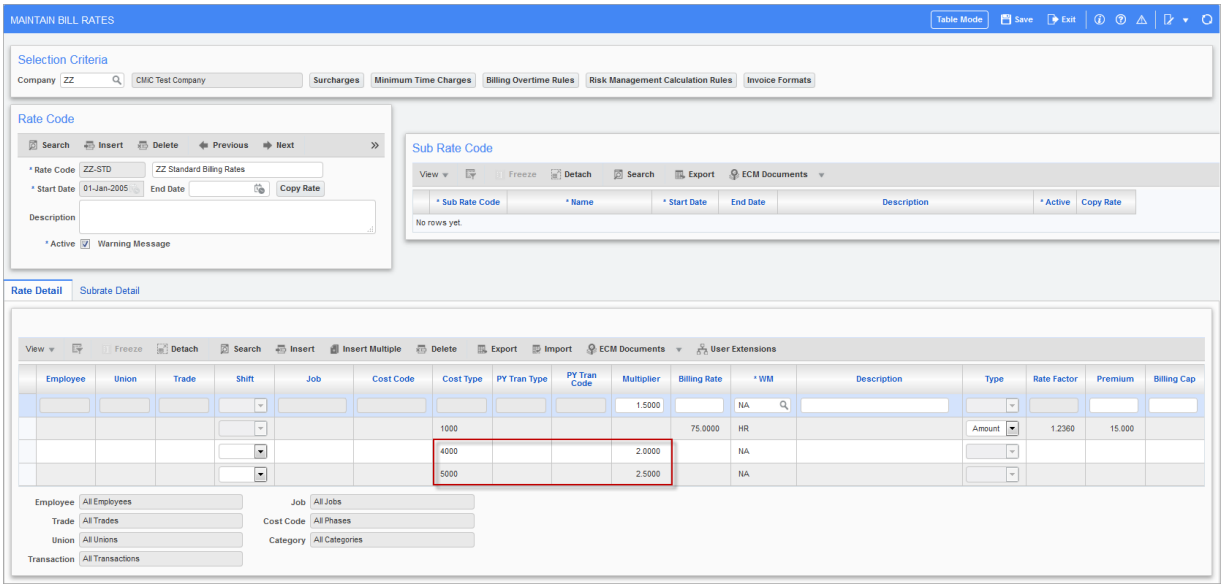
Code	Billing Type	Calculation Method
MC	Milestones Cost to Date	This method allows the user to define the amount to be billed every time the actual cost to date reaches an entered value.
MD	Milestone Date	This method allows the user to define the amount to be billed

Code	Billing Type	Calculation Method
	Based	on specific dates.
MF	Milestone Fixed Fee	This method allows for a bill code to be billed only once, for a specified dollar amount. The user must manually release this milestone.
MU	Milestone User Defined	This method allows the user to define multiple milestones with fixed dollar values for a specific bill code. The user must manually release the milestones.
MPC	Milestone % Complete of Cost	This method allows the user to enter the amount to bill when the calculated % complete equals or is greater than the percent complete entered on the milestone.
MPCV	Milestone % Complete of Construction Value	This method allows the user to enter the amount to bill when the calculated % complete equals the percent complete of construction value entered on the milestone.
MPU	Milestone % Complete of Units to Date	This method allows the user to enter the amount to bill whenever the units complete equals the percent of budgeted units entered on the milestone.
MQ	Milestone Quantity to Date	This method allows the user to enter the amount to bill whenever the units to date equal the amount entered on the milestone.

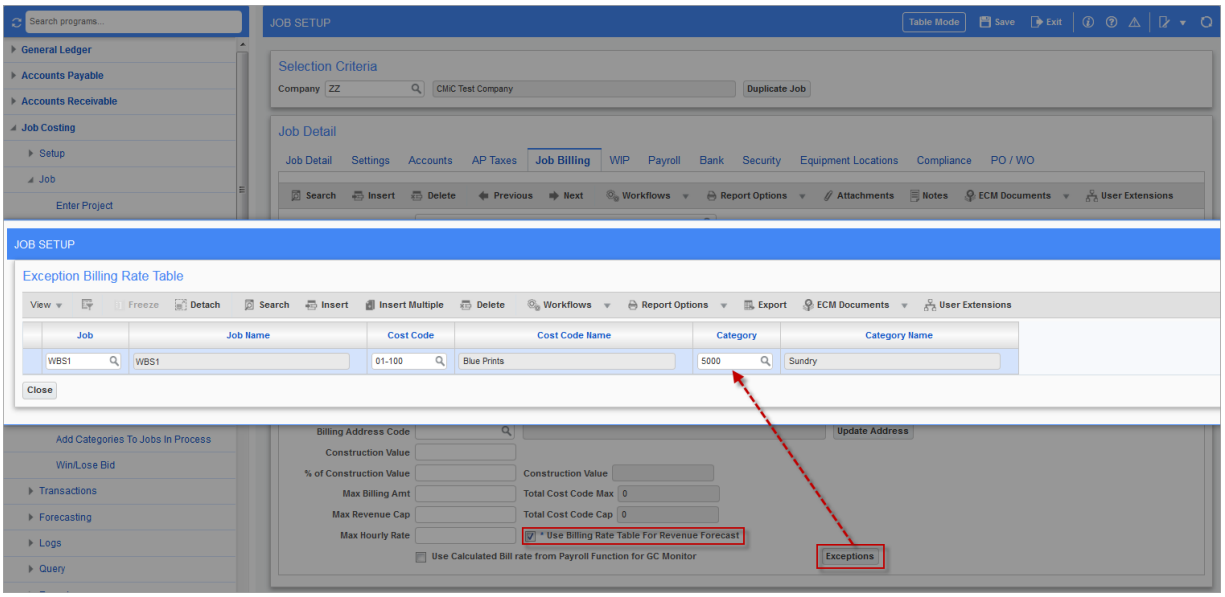
Billing Rate Table & Forecasting

The Maintain Bill Rates screen in the Job Billing module can be used to determine the values in the Revenue Forecast column in the Contract Forecast with PCI Projections screen.

1. Enter billing rate details in the Maintain Bill Rates screen, as shown in the first screen-shot below. In the example, the category defined as “4000” in the Cost Type field has a rate multiplier defined in the Multiplier field.
2. Check the 'Use Billing Rate Table for Revenue Forecast' box in the Job Setup screen and define any exceptions as required by entering them in the pop-up window launched from the [**Exceptions**] button, as shown in the second screenshot below.
3. Refresh the Contract Forecast with PCI Projections screen. The Revenue Forecast column will have the billing rate applied for all bill codes associated with category code “4000”, as shown in the third screenshot below.



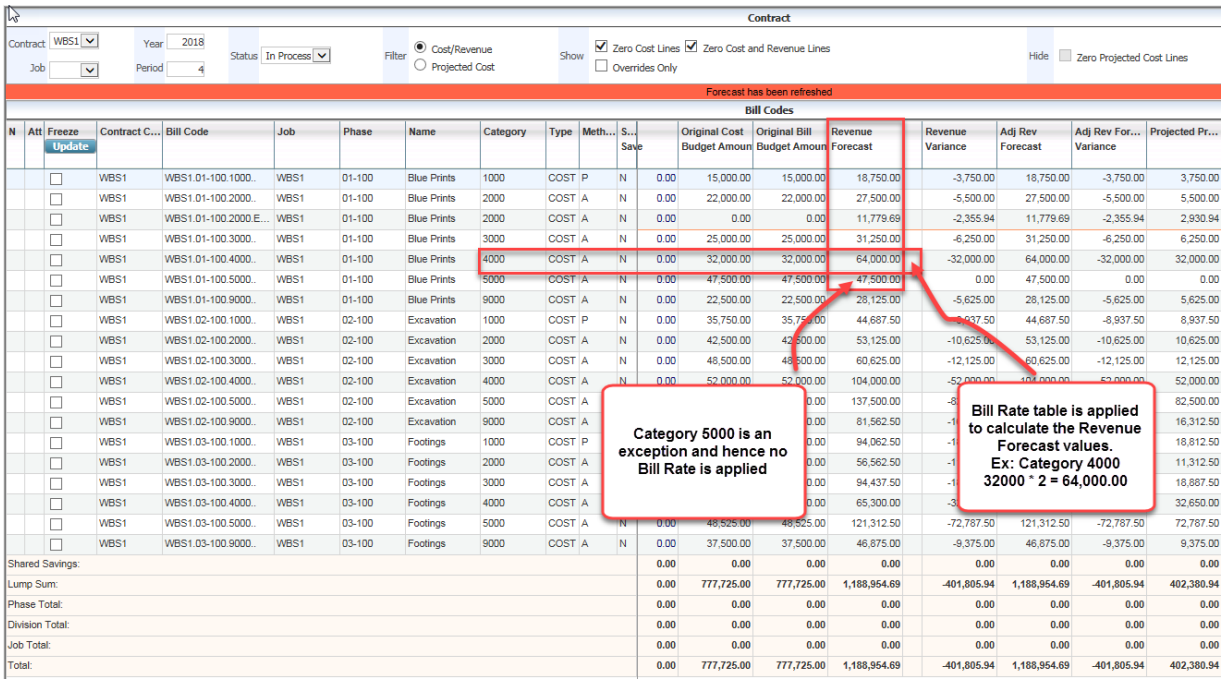
Pgm: JBRATE – Maintain Bill Rates; standard Treeview path: Job Billing > Contracts > Billing Rates



Pgm: JCJOBFM – Job Setup; standard Treeview path: Job Costing > Job > Enter Job - Job Billing tab

Defining Exceptions:

Users must define the exceptions in the controlling Job record for controlling the job itself and all the sub-jobs which share the contract code from the controlling job. For the case of sub-jobs with their own billing contract, the exceptions must be defined on the sub-job record. It is not required/meaningful to check the 'Use Billing Rate Table for Revenue Forecast' checkbox and define exceptions on sub-jobs, which share the contract of the controlling job or the contract code of another sub-job contract. The system will ignore these exceptions.



N	Att	Freeze Update	Contract C...	Bill Code	Job	Phase	Name	Category	Type	Meth...	S... Save		Original Cost Budget Amoun	Original Bill Budget Amoun	Revenue Forecast	Revenue Variance	Adj Rev Forecast	Adj Rev For... Variance	Projected Pr...
		☐	WBS1	WBS1.01-100.1000..	WBS1	01-100	Blue Prints	1000	COST	P	N	0.00	15,000.00	15,000.00	18,750.00	-3,750.00	18,750.00	-3,750.00	3,750.00
		☐	WBS1	WBS1.01-100.2000..	WBS1	01-100	Blue Prints	2000	COST	A	N	0.00	22,000.00	22,000.00	27,500.00	-5,500.00	27,500.00	-5,500.00	5,500.00
		☐	WBS1	WBS1.01-100.2000.E...	WBS1	01-100	Blue Prints	2000	COST	A	N	0.00	0.00	0.00	11,779.69	-2,355.94	11,779.69	-2,355.94	2,930.94
		☐	WBS1	WBS1.01-100.3000..	WBS1	01-100	Blue Prints	3000	COST	A	N	0.00	25,000.00	25,000.00	31,250.00	-6,250.00	31,250.00	-6,250.00	6,250.00
		☐	WBS1	WBS1.01-100.4000..	WBS1	01-100	Blue Prints	4000	COST	A	N	0.00	32,000.00	32,000.00	64,000.00	-32,000.00	64,000.00	-32,000.00	32,000.00
		☐	WBS1	WBS1.01-100.5000..	WBS1	01-100	Blue Prints	5000	COST	A	N	0.00	47,500.00	47,500.00	47,500.00	0.00	47,500.00	0.00	0.00
		☐	WBS1	WBS1.01-100.9000..	WBS1	01-100	Blue Prints	9000	COST	A	N	0.00	22,500.00	22,500.00	28,125.00	-5,625.00	28,125.00	-5,625.00	5,625.00
		☐	WBS1	WBS1.02-100.1000..	WBS1	02-100	Excavation	1000	COST	P	N	0.00	35,750.00	35,750.00	44,687.50	-8,937.50	44,687.50	-8,937.50	8,937.50
		☐	WBS1	WBS1.02-100.2000..	WBS1	02-100	Excavation	2000	COST	A	N	0.00	42,500.00	42,500.00	53,125.00	-10,625.00	53,125.00	-10,625.00	10,625.00
		☐	WBS1	WBS1.02-100.3000..	WBS1	02-100	Excavation	3000	COST	A	N	0.00	48,500.00	48,500.00	60,625.00	-12,125.00	60,625.00	-12,125.00	12,125.00
		☐	WBS1	WBS1.02-100.4000..	WBS1	02-100	Excavation	4000	COST	A	N	0.00	52,000.00	52,000.00	104,000.00	-52,000.00	104,000.00	52,000.00	52,000.00
		☐	WBS1	WBS1.02-100.5000..	WBS1	02-100	Excavation	5000	COST	A				0.00	137,500.00	-8			82,500.00
		☐	WBS1	WBS1.02-100.9000..	WBS1	02-100	Excavation	9000	COST	A				0.00	81,562.50	-1			16,312.50
		☐	WBS1	WBS1.03-100.1000..	WBS1	03-100	Footings	1000	COST	P				0.00	94,062.50	-1			18,812.50
		☐	WBS1	WBS1.03-100.2000..	WBS1	03-100	Footings	2000	COST	A				0.00	56,562.50	-1			11,312.50
		☐	WBS1	WBS1.03-100.3000..	WBS1	03-100	Footings	3000	COST	A				0.00	94,437.50	-1			18,887.50
		☐	WBS1	WBS1.03-100.4000..	WBS1	03-100	Footings	4000	COST	A				0.00	65,300.00	-3			32,650.00
		☐	WBS1	WBS1.03-100.5000..	WBS1	03-100	Footings	5000	COST	A	N	0.00	48,525.00	48,525.00	121,312.50	-72,787.50	121,312.50	-72,787.50	72,787.50
		☐	WBS1	WBS1.03-100.9000..	WBS1	03-100	Footings	9000	COST	A	N	0.00	37,500.00	37,500.00	46,875.00	-9,375.00	46,875.00	-9,375.00	9,375.00
Shared Savings:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lump Sum:												0.00	777,725.00	777,725.00	1,188,954.69	-401,805.94	1,188,954.69	-401,805.94	402,380.94
Phase Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Division Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Job Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total:												0.00	777,725.00	777,725.00	1,188,954.69	-401,805.94	1,188,954.69	-401,805.94	402,380.94

NOTE: When the System Alternate Feature (custom feature) 'PCI SPENT AMT INCREASE ADJ REVENUE' is enabled, then the Revenue Forecast column will not follow the Bill Rate Multiplier functionality and uses custom calculation.

This page is intentionally left blank.

Billing Maximums

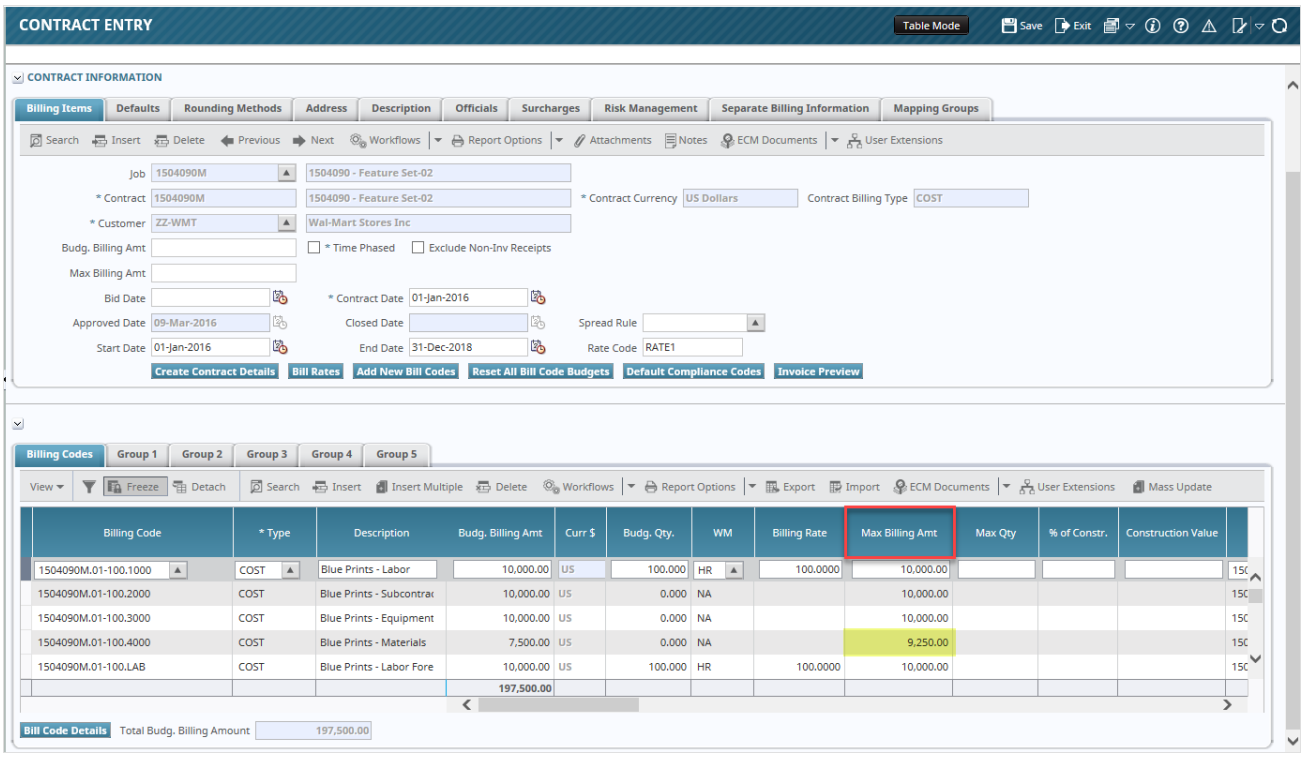
Billing Maximum is a feature available with the Job Billing module and automatically caps the billing amount at the following hierarchical levels as applicable.

As far as the Contract Forecast with PCI Projections screen is concerned, the Adjusted Revenue Forecast column applies the maximum rule and displays the amounts accordingly.

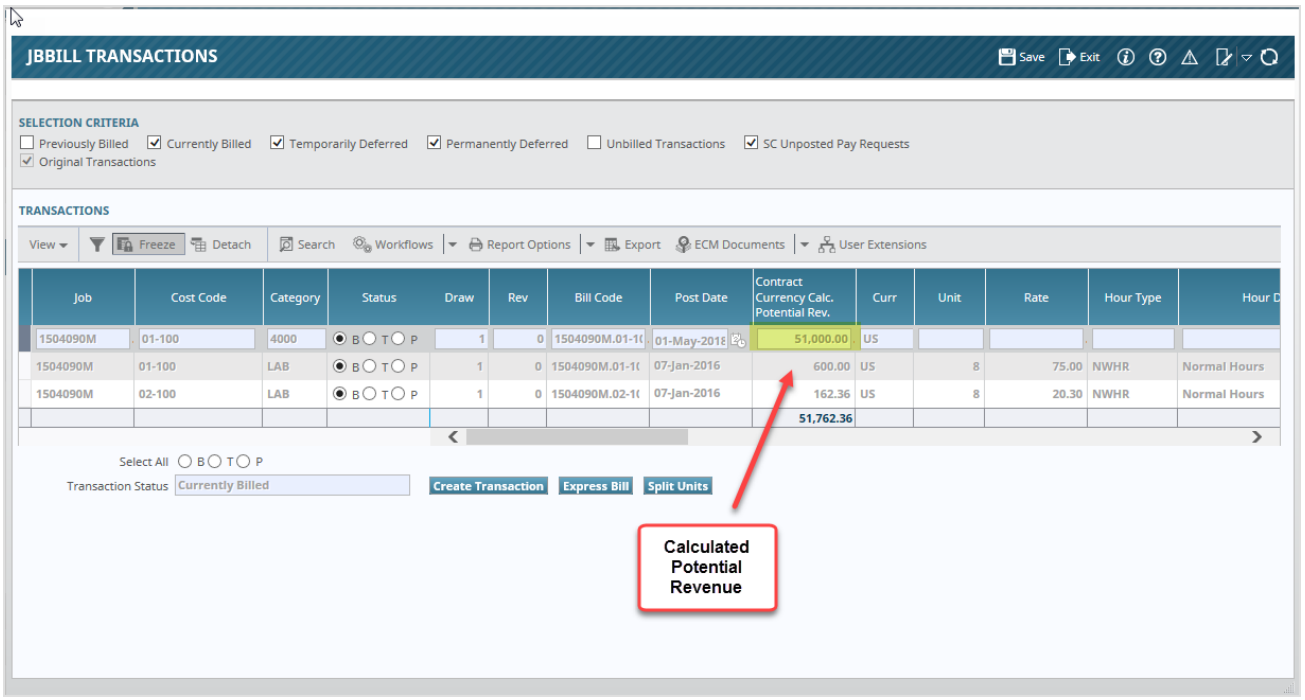
1. Billing Contract Level
2. Group Level
3. Billcode Level

The contract maximums can be set up in the Job Setup screen, which in turn default into the Contract Entry screen when creating a new billing contract.

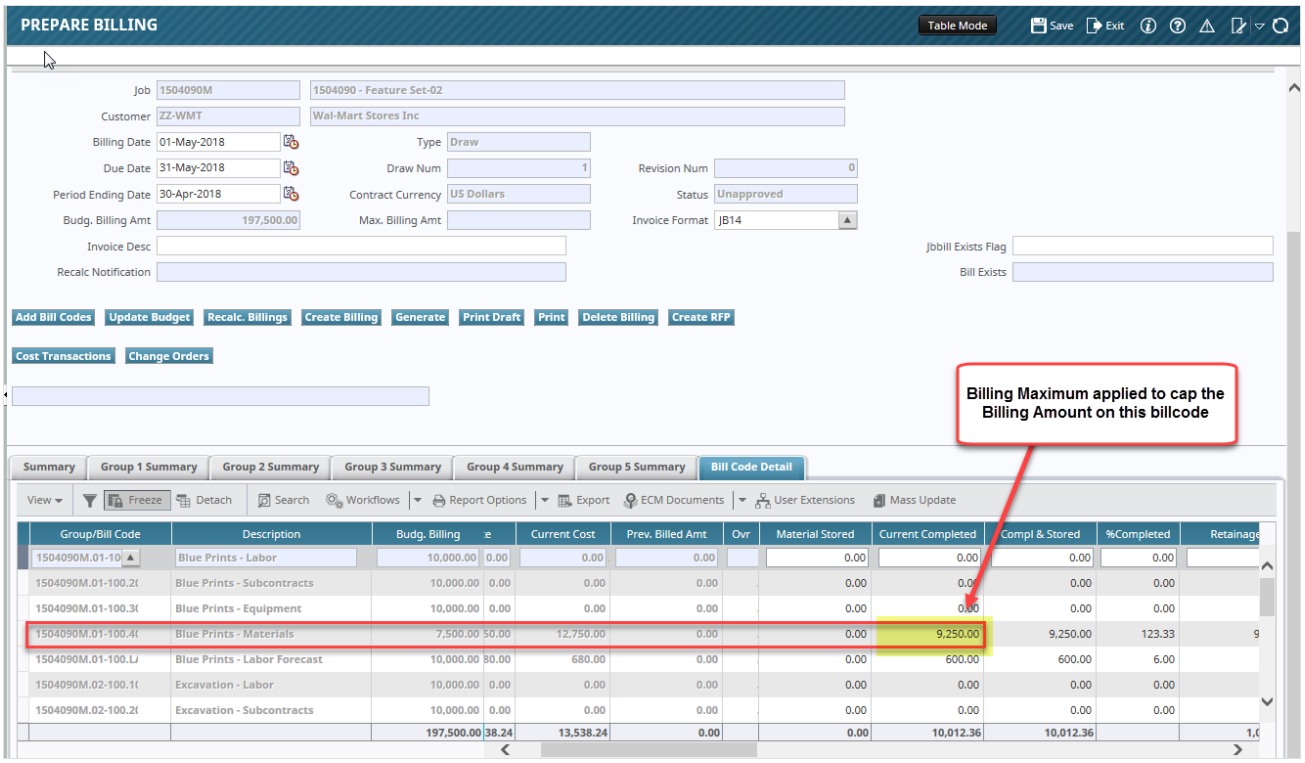
The following example shows billing maximum at bill code level, where a maximum of $3200.00 is set.



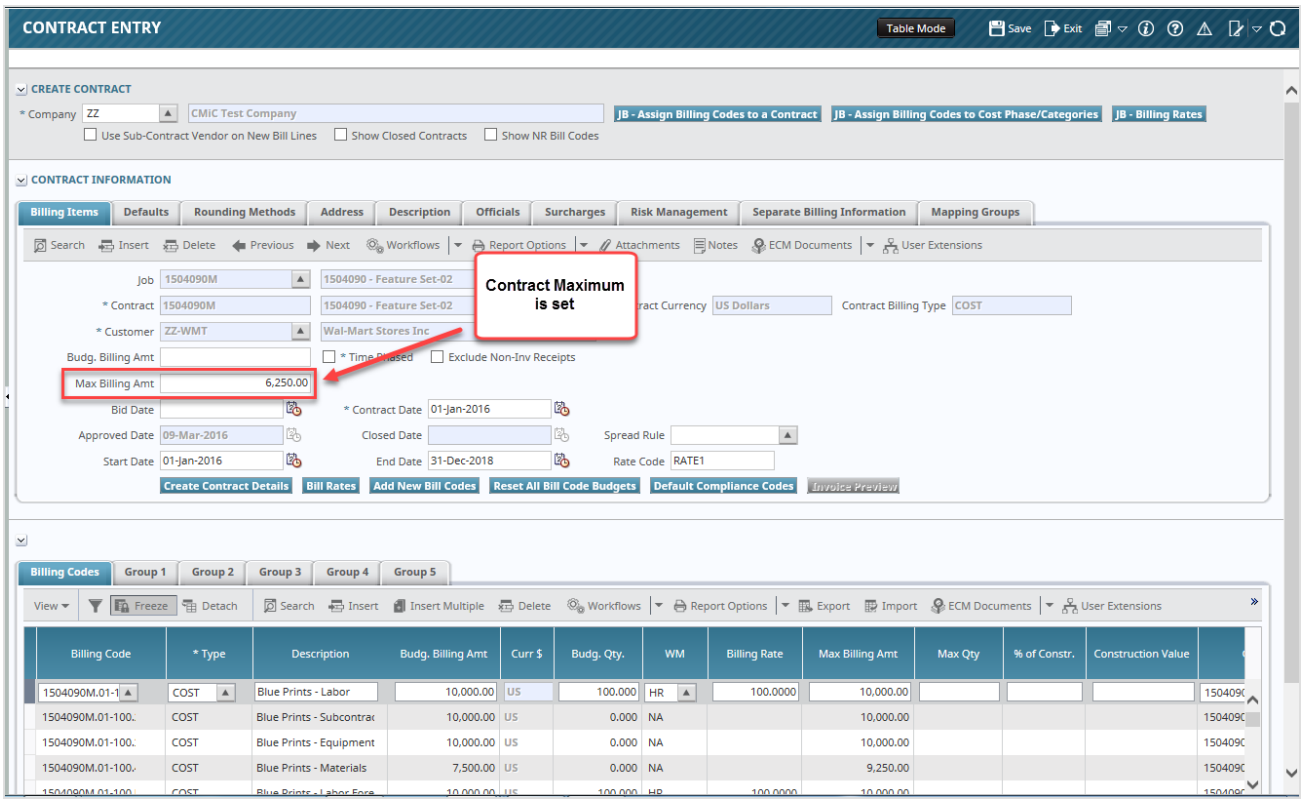
Pgm: JBCONT - Contract Entry; standard Treeview path: Job Billing > Contracts > Enter Contract

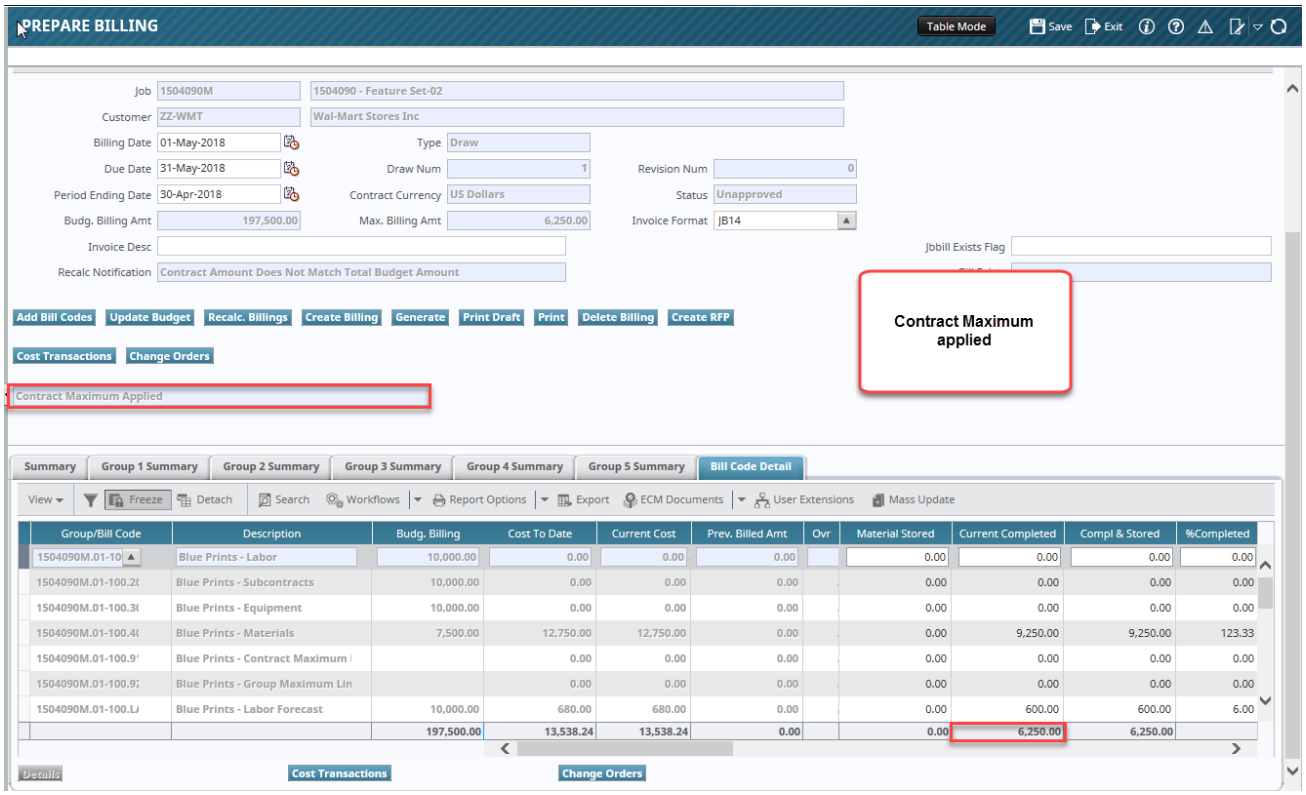


Pop-up window launched from [Cost Transactions] button on JB Prepare Billing screen (standard Treeview path: Job Billing > Billing > Prepare Billing)



The following example shows the contract maximum applied when generating an invoice. The contract maximum is set at $1888.00. The program applies the bill code maximum on the lines and then the contract maximum on the entire bill generated by effectively offsetting the amounts using negative billed amounts on the currently billed lines.


CONTRACT ENTRY
Table Mode
Save
Exit
CREATE CONTRACT
* Company ZZ
CMiC Test Company
JB - Assign Billing Codes to a Contract
JB - Assign Billing Codes to Cost Phase/Categories
JB - Billing Rates
Use Sub-Contract Vendor on New Bill Lines
Show Closed Contracts
Show NR Bill Codes
CONTRACT INFORMATION
Billing Items
Defaults
Rounding Methods
Address
Description
Officials
Surcharges
Risk Management
Separate Billing Information
Mapping Groups
Search
Insert
Delete
Previous
Next
Workflows
Report Options
Attachments
Notes
ECM Documents
User Extensions
Job 1504090M
1504090 - Feature Set-02
Contract Maximum is set
* Contract 1504090M
1504090 - Feature Set-02
US Dollars
Contract Billing Type COST
* Customer ZZ-WMT
Wal-Mart Stores Inc
Budg. Billing Amt
* Time Phased
Exclude Non-Inv Receipts
Max Billing Amt 6,250.00
Bid Date
* Contract Date 01-Jan-2016
Approved Date 09-Mar-2016
Closed Date
Spread Rule
Start Date 01-Jan-2016
End Date 31-Dec-2018
Rate Code RATE1
Create Contract Details
Bill Rates
Add New Bill Codes
Reset All Bill Code Budgets
Default Compliance Codes
Invoice Preview
Billing Codes
Group 1
Group 2
Group 3
Group 4
Group 5
View
Freeze
Detach
Insert Multiple
Export
Import
Billing Code
* Type
Description
Budg. Billing Amt
Curr $
Budg. Qty.
WM
Billing Rate
Max Billing Amt
Max Qty
% of Constr.
Construction Value
1504090M.01-1
COST
Blue Prints - Labor
10,000.00
US
100.000
HR
100.0000
10,000.00
1504090M.01-100.
COST
Blue Prints - Subcontrac
10,000.00
US
0.000
NA
10,000.00
1504090M.01-100.
COST
Blue Prints - Equipment
10,000.00
US
0.000
NA
10,000.00
1504090M.01-100.
COST
Blue Prints - Materials
7,500.00
US
0.000
NA
9,250.00

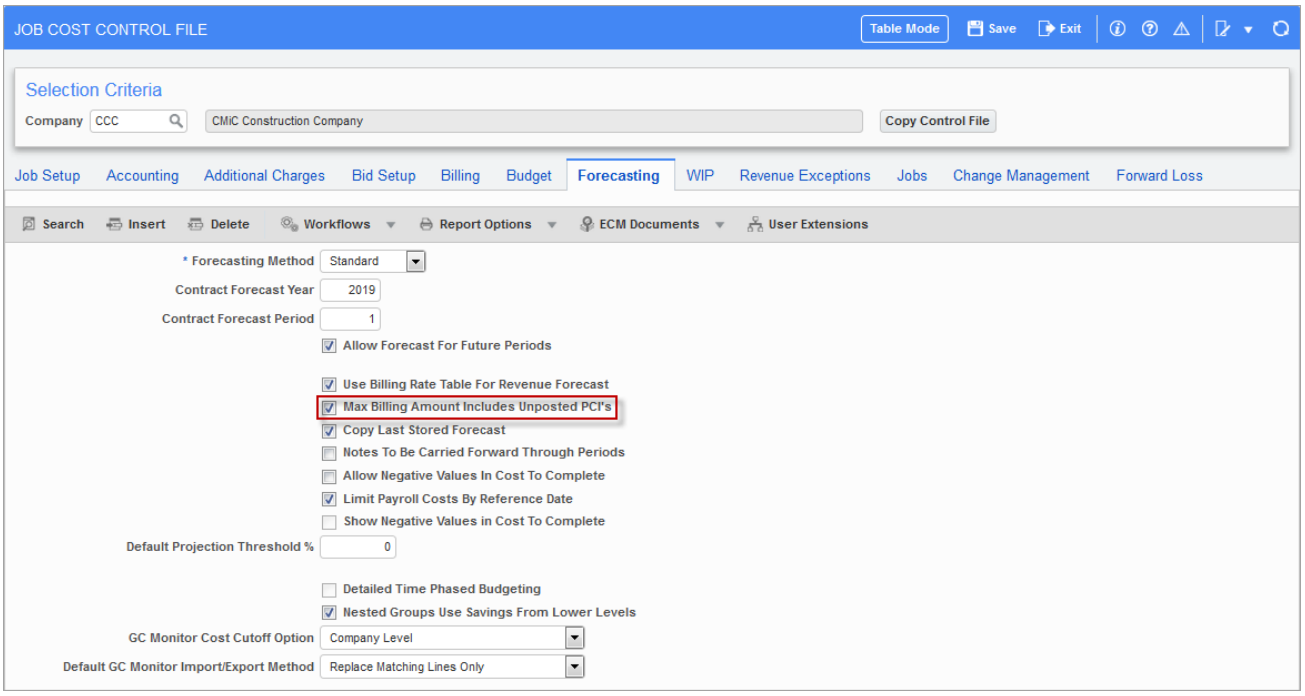


Unposted PCIs and Billing Maximums in Forecasting

The Adjusted Revenue Forecast column displays appropriate billing maximums applied and if there are no maximums, then the Revenue Forecast column amounts are populated.

When the ‘Max Billing Amount Includes Unposted PCIs’ box is checked on the Forecasting tab of the Job Costing Control File screen, the Adjusted Revenue Forecast column will include the unposted PCI billing amounts on top of the billing maximums if any.

When unchecked, unposted PCIs will be subject to billing maximums defined and adjustments will be calculated and shown against the bill codes with adjustment categories.



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab

Job Costing WIP Integration

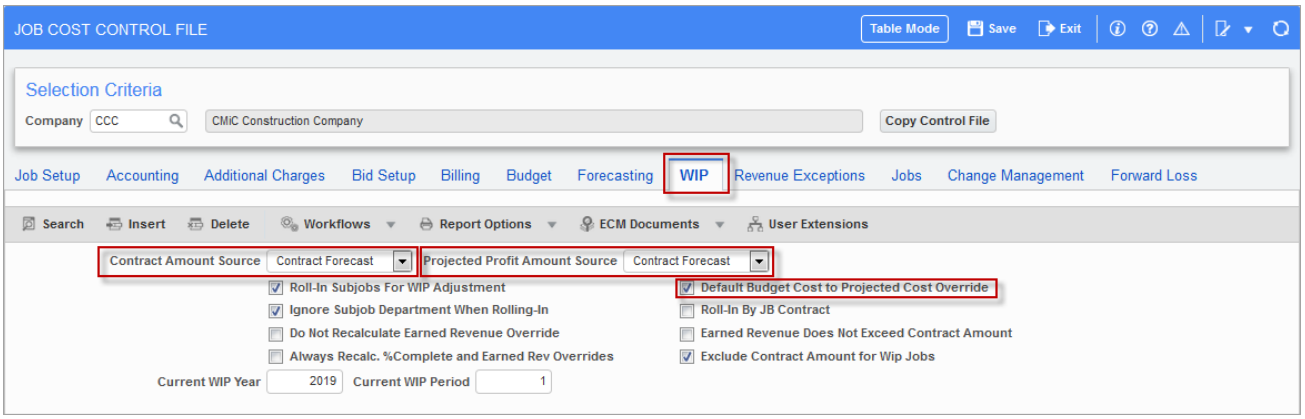
The Work-In-Progress (WIP) forecast and reporting functions in the Job Costing module are available through two primary options:

- The WIP Adjustment screen allows users to review the current state of jobs, create and post WIP adjustment transactions, and store long-term revenue forecasts.
- The WIP Report presents job statistics as of the end of the specified period.

WIP adjustment amounts are always calculated on the complete job, they do not consider the adjustment amount from last month as last month's adjustment was reversed for the current month.

Job Cost Control File

The company's Job Cost Control File allows users to configure the WIP program defaults from the Contract Forecast with PCI Projections screen as follows:



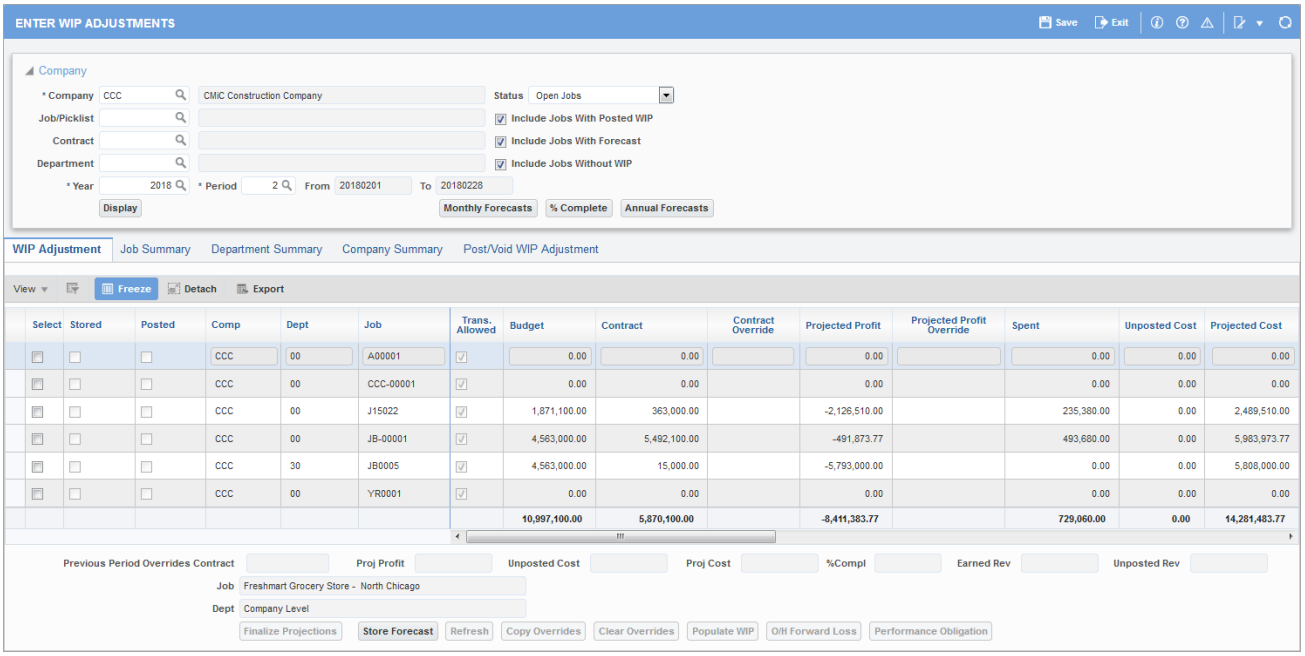
Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab

On the WIP tab of the Job Cost Control File screen:

1. The Contract Amount Source field and the Projected Profit Amount Source field may be set as "Contract Forecast" and the forecasted values will be used when creating WIP.

2. The checkbox ‘Default Budget Cost to Projected Cost Override’ may be checked if required. This applies when the stored forecasting does not have projected cost.

Entering and Posting WIP Adjustments



Pgm: JCWIP – Enter WIP Adjustment; standard Treeview path: Job Costing > Forecasting > Work-In-Process Adjustments > Enter and Post Adjustments

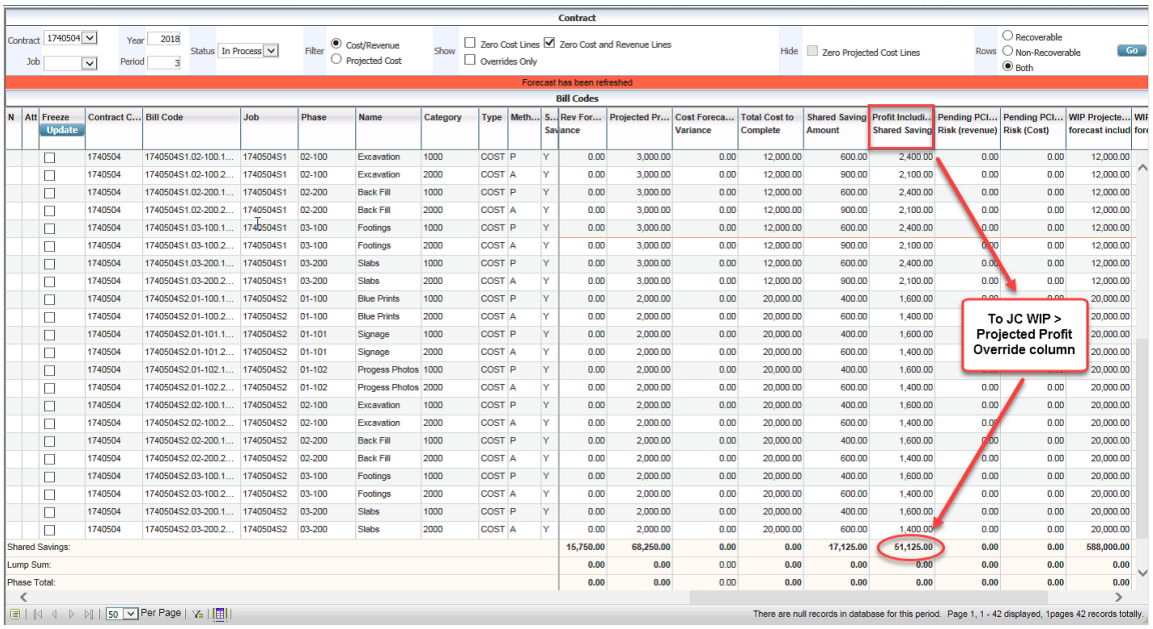
This screen is used to process automatic General Ledger adjusting entries for over or under billings for jobs using the billings and costs accounting method. This screen is not required if the completed contract accounting method is used. The WIP account used will be the billing account as entered on the job, or if that is blank, the WIP account entered in the Job Costing Control File.

Please refer to the Job Costing guide for more detailed information on using the Enter WIP Adjustments screen.

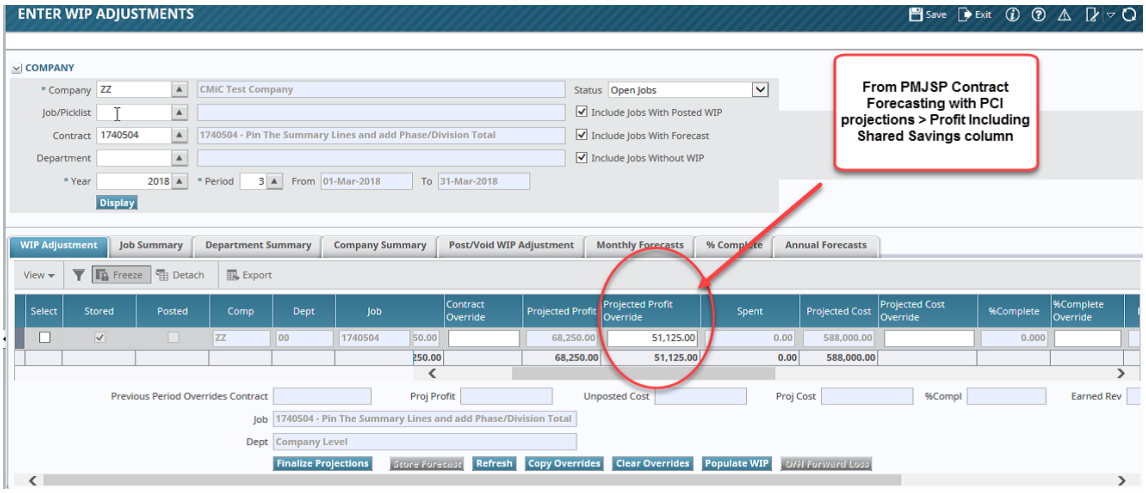
NOTE: To obtain optimal performance on this screen, users should filter data using the Job/Job Picklist field or the Contract field.

Projected Profit Override

The value in the Projected Profit Override column on the WIP Adjustment tab of the Enter WIP Adjustments screen in the Job Costing module defaults from the Profit Including Shared Saving column in the Contract Forecast with PCI Projections screen, as shown in the screenshots below.



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting



Pgm: JCWIP – Enter WIP Adjustment; standard Treeview path: Job Costing > Forecasting > Work-In-Process Adjustments > Enter and Post Adjustments – WIP Adjustment tab

[**Finalize Projections**] – Button

WIP Method: Cost (System Options Setting – Most Used Method)

The [**Finalize Projections**] button on the WIP Adjustment tab of the Enter WIP Adjustments screen in the Job Costing module sets the 'JCW_FINALIZE_PROJECTIONS_FLAG' value in the JCWIP table for the specific WIP period as 'Y'.

This affects the following column values as follows:

- Contract Override Amount Column (Billings) = Actual Billed Amount + Unposted Billings
- Projected Cost Override Column (Cost) = Spent Cost + Unposted Cost
- Projected Profit Override Column = (Billings – Cost)

= {Actual Billed Amount + Unposted Billings} – {Spent Cost + Unposted Cost}

- Hence, % Complete Override is calculated as follows:

% Complete Override = Cost / Projected Cost Override

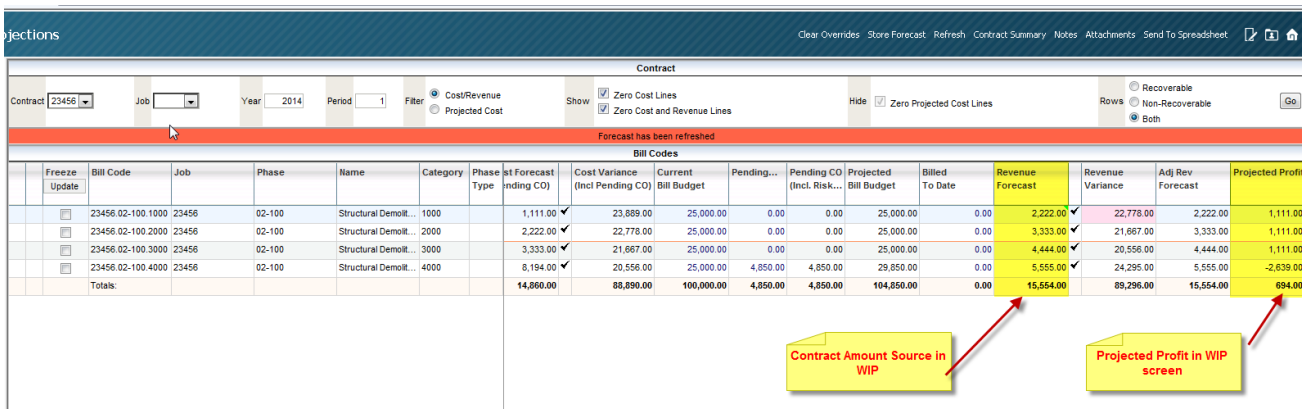
- Earned revenue Override = {(100% * Projected Profit Override) + Spent + (Unposted Cost)}

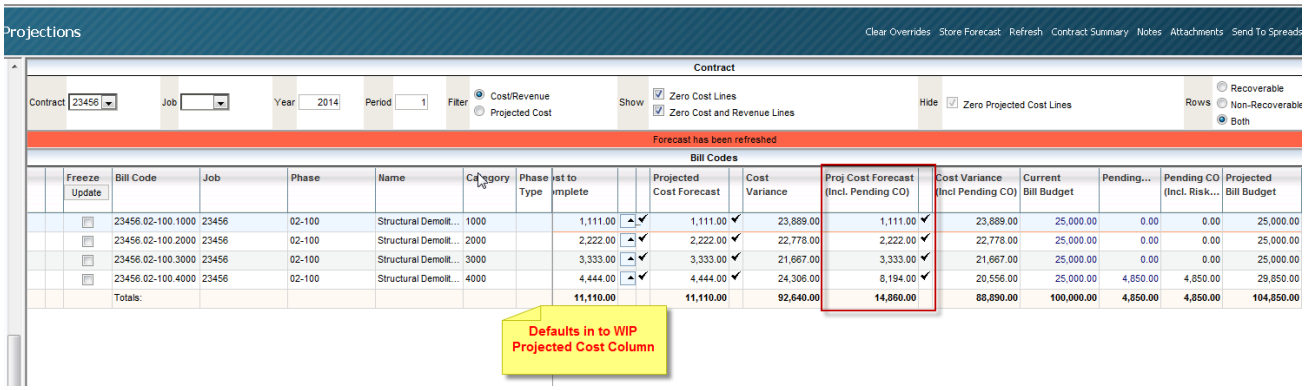
Once the projections are finalized, the button name changes to [**Un-finalize Projection**] and pressing this will revert the values to system calculated values.

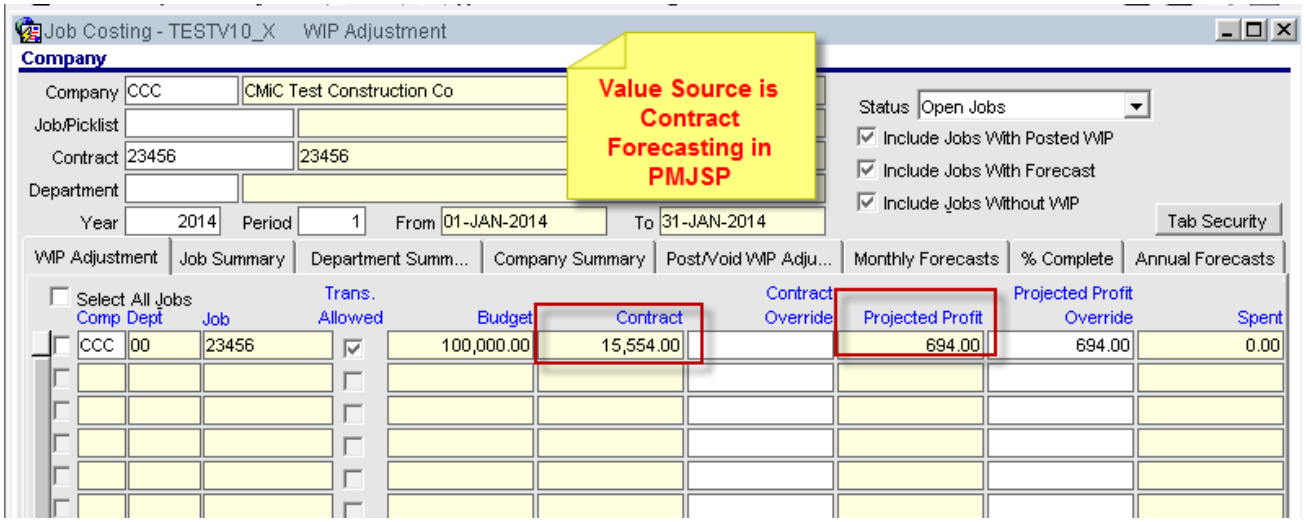
NOTE: The Finalize Projection function calculates and populates the Earned Revenue Override column in the WIP Adjustment tab of the Enter WIP Adjustments screen.

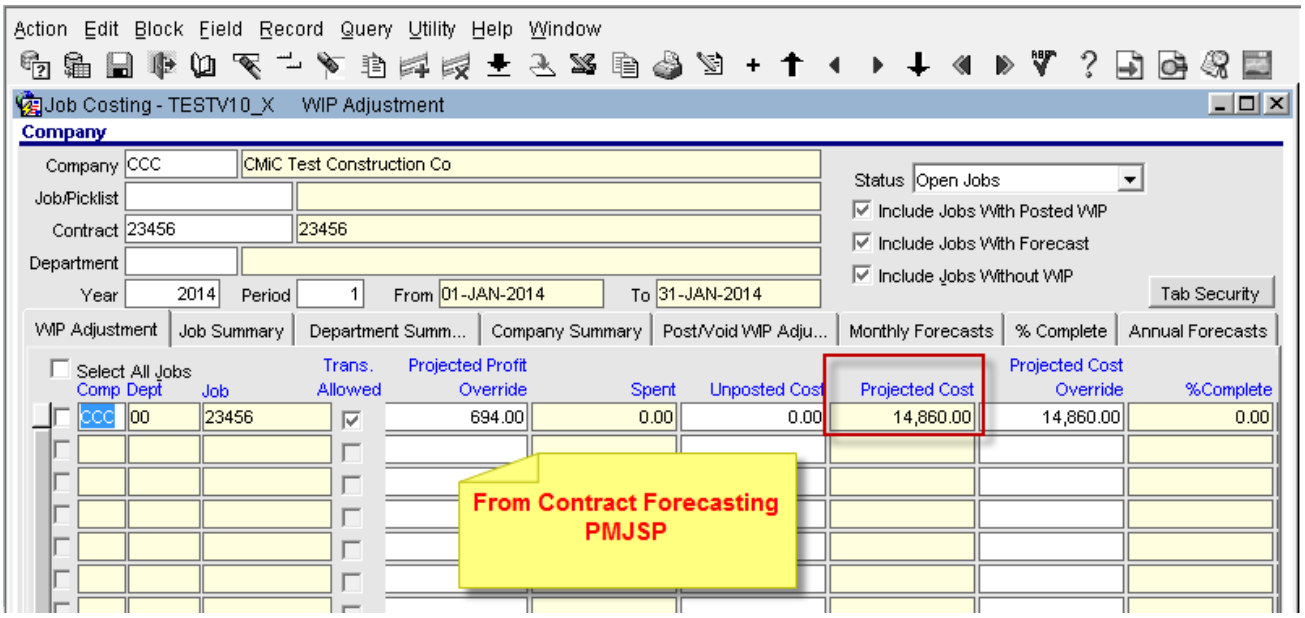
Examples of Contract Forecasting and WIP Interaction

The following examples show the Contract Forecast with PCI Projections and WIP program interaction.


Contract Amount Source in WIP
Projected Profit in WIP screen


Defaults in to WIP Projected Cost Column


Value Source is Contract Forecasting in PMJSP



Selecting Type of PCIs to be Included when Calculating WIP

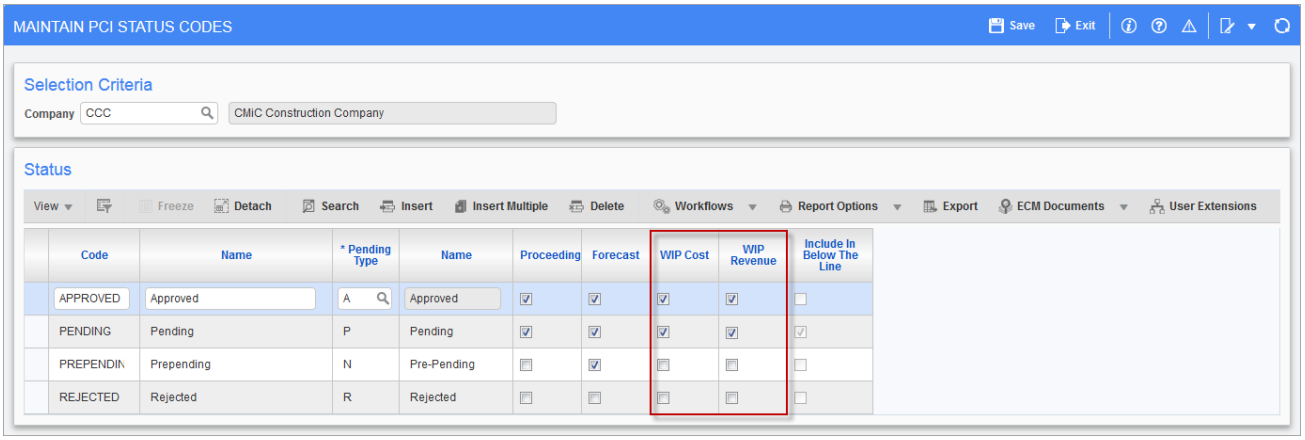
Users can choose which type of PCIs will be included when calculating WIP.

The following settings are required to enable this functionality:

- ‘WIP Cost’ and ‘WIP Revenue’ checkboxes on the Maintain PCI Status Codes screen in the Change Management module (standard Treeview path: Change Management > Local Tables > PCI Status Codes).
- Contract Amount Source field and Projected Profit Amount Source on the WIP tab of the Job Cost Control File in the Job Costing module (standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab).

When these settings are enabled, the system will include the PCIs with this status and calculate/populate in WIP related columns in the Contract Forecast with PCI Projections screen, which in turn will be used to update JC WIP columns.

Change Management PCI Status Codes Setup



Pgm: CMSTATFM – Maintain PCI Status Codes; standard Treeview path: Change Management > Local Tables > PCI Status Codes

Based on the two checkboxes on the Maintain PCI Status Codes screen in the Change Management module, the system will calculate WIP projected forecast and WIP revenue forecast amounts. These checkboxes are applicable to external PCIs, as internal PCIs are always included.

The system will display two WIP projected forecast columns: WIP Projected Cost Forecast and WIP Projected Cost Forecast Including Risk. The PCI is included based on the checkboxes.

For the WIP Revenue Forecast and WIP Adjusted Revenue Forecast columns, maximum applied revenue will include PCI based on the 'WIP Revenue' checkbox.

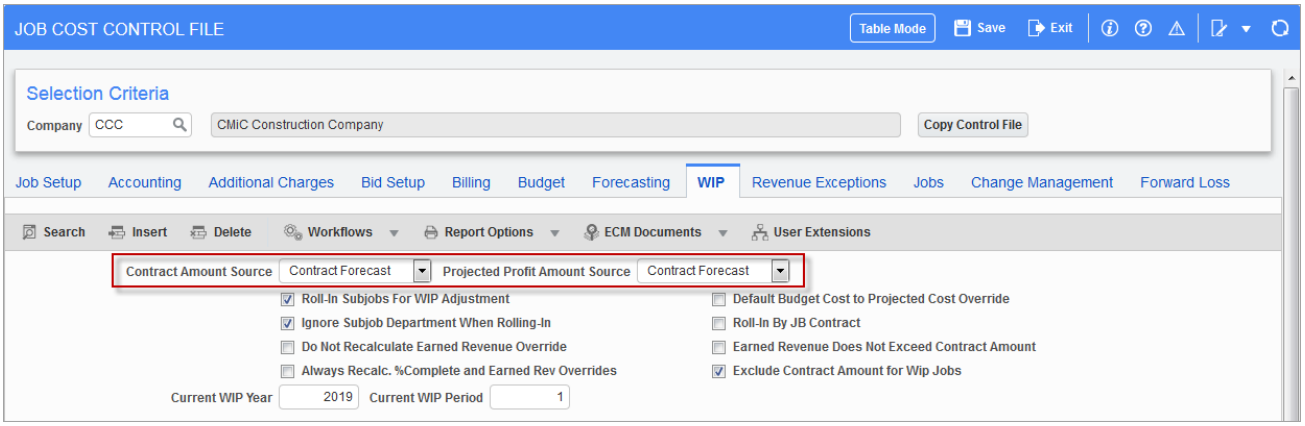
WIP Cost – Checkbox

If checked, a change order with this status will be included in Cost Forecast for WIP.

WIP Revenue – Checkbox

If checked, a change order with this status will be included in Revenue Forecast for WIP.

Job Costing Control Setup

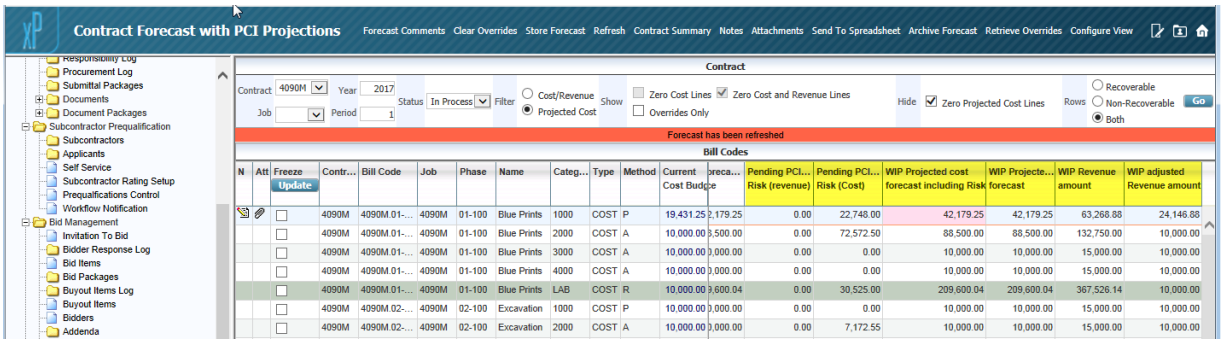


Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab

On the Job Cost Control File screen in the Job Costing module, users must select “Contract Forecast” in the drop-down menu for the Contract Amount Source field and the Projected Profit Amount Source field. After these selections are made, if the system alternate feature ‘WIP PROJECTED WITH RISK’ is set to ‘Yes’, the system will read WIP projected cost including risk, if not, the system will read WIP projected cost.

The following WIP related columns are available on CMiC Field’s Contract Forecast with PCI Projections screen (as shown in the screenshot below):

- Pending PCI including Risk (Revenue)
- Pending PCI including Risk (Cost)
- WIP Projected Cost Forecast including Risk
- WIP Projected Cost Forecast
- WIP Revenue Amount
- WIP adjusted Revenue Amount

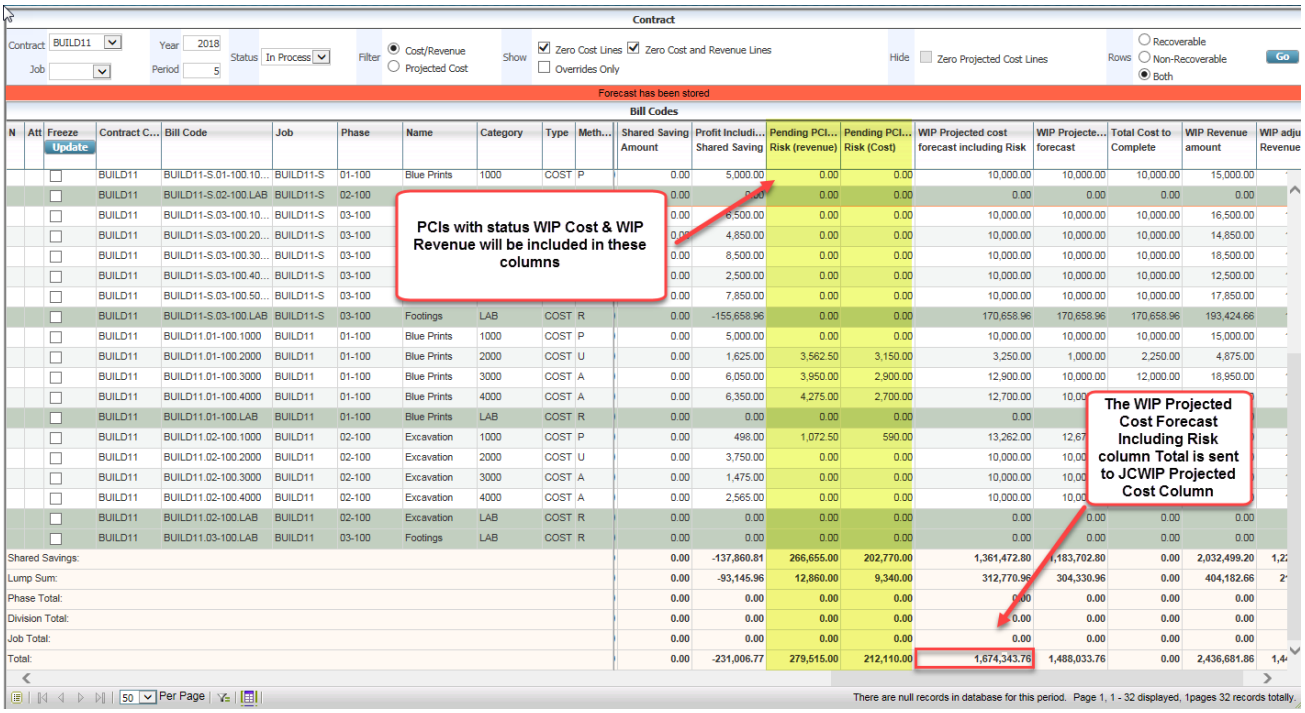


Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Bid & Cost Management > Contract Forecast

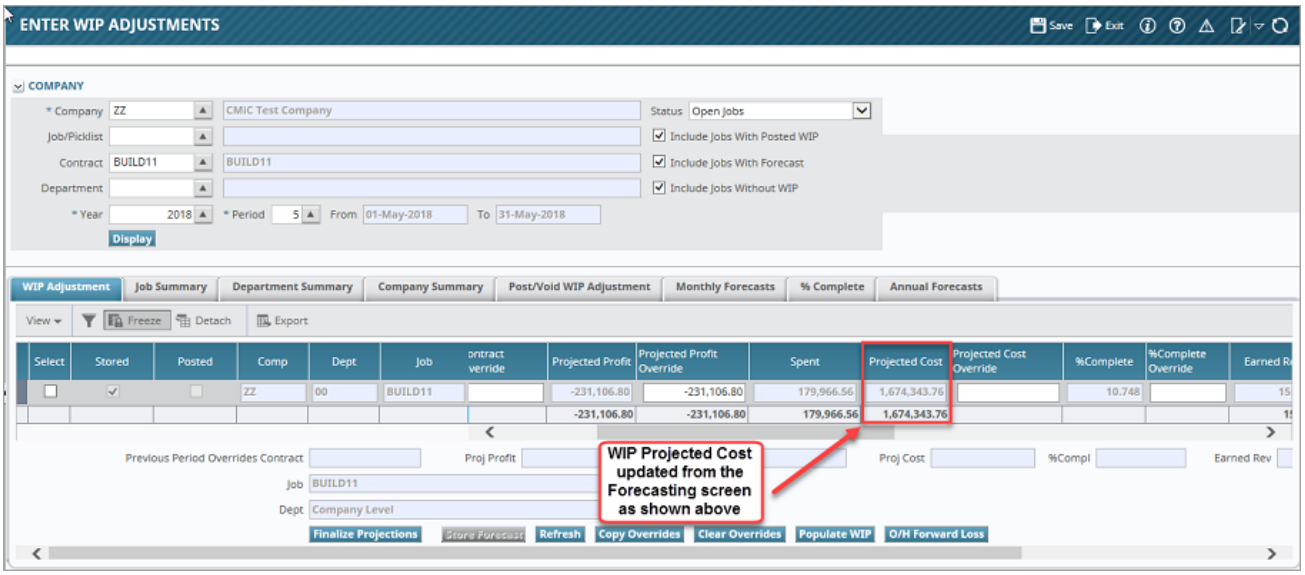
These display-only columns may be secured based on role-based field security. Options are “Unrestricted” or “Hidden”. The default value is set to “Unrestricted”. In addition, the default visibility of these columns is set to not visible in the Contract Forecast Screen Configuration screen (launched from the [**Configure View**] button on the Contract Forecast with PCI Projections screen). Users must check the ‘Vsbl’ checkbox beside each of the columns for them to display on the Contract Forecast with PCI Projections screen.

Example

When there are pending PCIs with status ‘Include In Forecast’ box checked and the ‘WIP Cost’ and ‘WIP Revenue’ boxes checked, then:



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Bid & Cost Management > Contract Forecast

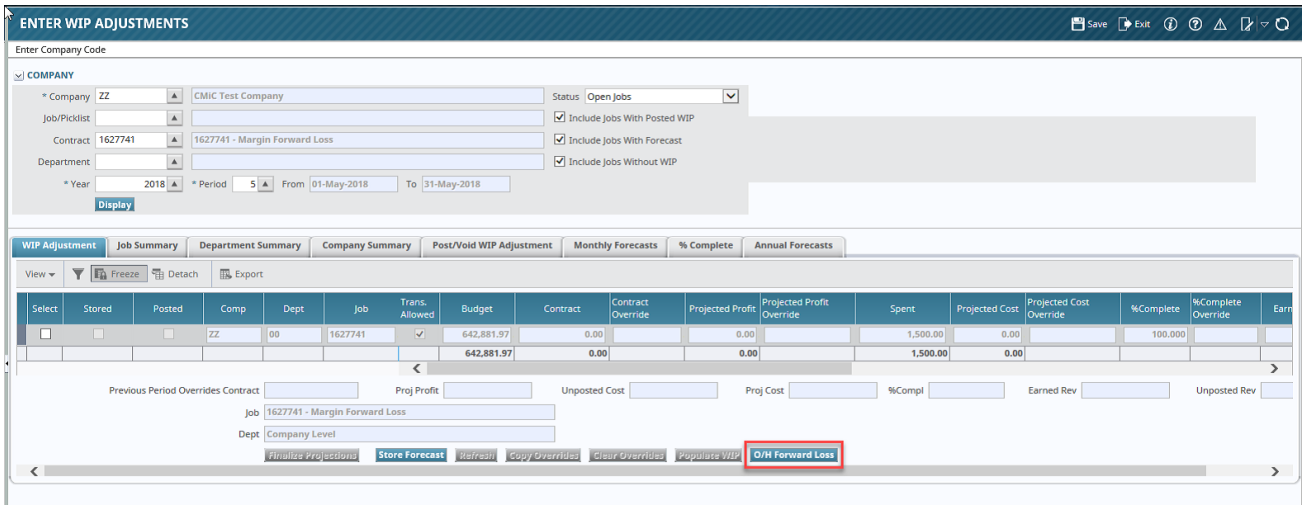


Pgm: JCWIP – Enter WIP Adjustment; standard Treeview path: Job Costing > Forecasting > Work-In-Process Adjustments > Enter and Post Adjustments – WIP Adjustment tab

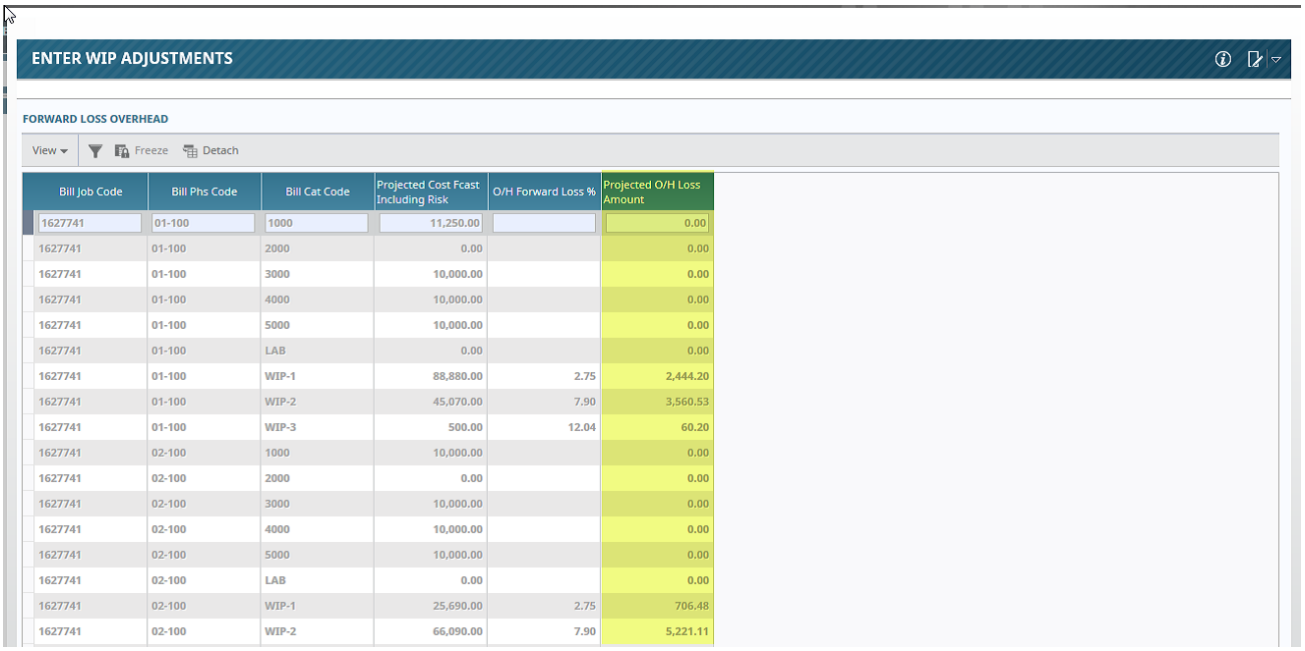
Calculating O/H Forward Loss

O/H forward loss is calculated regardless of whether pending PCIs exist or not and that the PCI projections are stored for the period. Users should be aware that there must be a stored contract forecast. The pop-up launched from the [**O/H Forward Loss**] button will show the calculations for posted JC transactions and then the sum is populated in the WIP record on the Contract Forecast with PCI Projections screen.

NOTE: The job should be in the loss position.



Pgm: JCWIP – Enter WIP Adjustments; standard Treeview path: Job Costing > Forecasting > Work-In-Progress Adjustments > Enter and Post Adjustments – WIP Adjustment tab



ENTER WIP ADJUSTMENTS

FORWARD LOSS OVERHEAD

View Freeze Detach

Bill Job Code	Bill Phs Code	Bill Cat Code	Projected Cost Fcast Including Risk	O/H Forward Loss %	Projected O/H Loss Amount
1627741	01-100	1000	11,250.00		0.00
1627741	01-100	2000	0.00		0.00
1627741	01-100	3000	10,000.00		0.00
1627741	01-100	4000	10,000.00		0.00
1627741	01-100	5000	10,000.00		0.00
1627741	01-100	LAB	0.00		0.00
1627741	01-100	WIP-1	88,880.00	2.75	2,444.20
1627741	01-100	WIP-2	45,070.00	7.90	3,560.53
1627741	01-100	WIP-3	500.00	12.04	60.20
1627741	02-100	1000	10,000.00		0.00
1627741	02-100	2000	0.00		0.00
1627741	02-100	3000	10,000.00		0.00
1627741	02-100	4000	10,000.00		0.00
1627741	02-100	5000	10,000.00		0.00
1627741	02-100	LAB	0.00		0.00
1627741	02-100	WIP-1	25,690.00	2.75	706.48
1627741	02-100	WIP-2	66,090.00	7.90	5,221.11

Pop-up window launched from [O/H Forward Loss] button on the Enter WIP Adjustments screen; Pgm: JCWIP – Enter WIP Adjustments; standard Treeview path: Job Costing > Forecasting > Work-In-Progress Adjustments > Enter and Post Adjustments – WIP Adjustment

For more information, please refer to the Job Costing reference guide.

Posting Unposted Cost/Billing when Posting WIP

WIP and unposted cost/billings can either be posted together or separately. The following section describes the setup involved and each of the posting options.

Setup in System Options and Job Cost Control File

SYSTEM OPTIONS

Table Mode | Save | Exit

System Options

General | Licenses | Reports | Global | Financials | Projects | **Forecast** | Assets | Payroll | Human Resource | E-TimeSheet | Help | Logo Path

WIP

WIP Method: WIP Based on Cost

- [x] Notes Are Mandatory On WIP
- [ ] Quarterly WIP % Complete
- [x] Use WIP Unposted Cost and Unposted Revenue

Forecasting

- [x] Allow To Store Projected % Complete Value For Each Period Within A Year
- [ ] Annual Forecast Is Stored On A Period Basis
- [ ] Use PCI detail Status for Contract Forecast

GC Monitor

- [x] Always Restrict To Current Rate in GC Monitor
- [x] Apply FLSA exemption rule to GC Monitor
- [ ] Automatically Add Cost on GC Monitor
- [ ] Auto Refresh Employee Trade Code on GC Monitor
- [ ] Synchronize Resource Planning Allocation Percent When Import/Export From GC Monitor
- [ ] GC Monitor Assignment Is Not Date Sensitive

Pgm: SYSOPT – System Options; standard Treeview path: System > Setup > System Options – Forecast tab

JOB COST CONTROL FILE

Table Mode | Save | Exit

SELECTION CRITERIA

Company: ZZ — CMiC Test Company — Copy Control File

Job Setup | Accounting | Additional Charges | Bid Setup | Billing | Budget | Forecasting | **WIP** | Revenue Exceptions | Jobs | Change Management | Forward Loss

Search | Insert | Delete | Workflows | Report Options | ECM Documents | User Extensions

Contract Amount Source: Contract Forecast WIP Projection

Projected Profit Amount Source: Contract Forecast WIP Projection

- [ ] Roll-In Subjobs For WIP Adjustment
- [ ] Ignore Subjob Department When Rolling-In
- [ ] Do Not Recalculate Earned Revenue Override
- [ ] Always Recalc. %Complete and Earned Rev Overrides
- [ ] Default Budget Cost to Projected Cost Override
- [x] Roll-In By JB Contract
- [ ] Earned Revenue Does Not Exceed Contract Amount
- [ ] Exclude Contract Amount for Jobs

Current WIP Year: 2018 — Current WIP Period: 7

WIP Cost Accrual(DR):

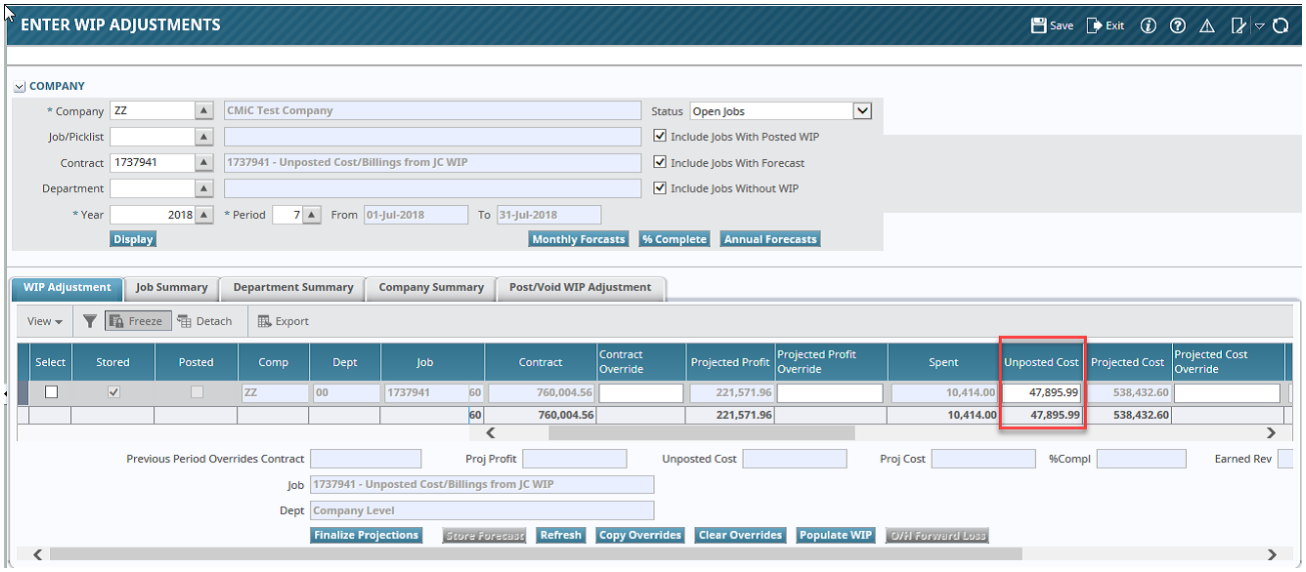
WIP Cost Accrual(CR):

* WIP Unposted Costs Cost Code	WIP-COST	WIP-COST		
* WIP Unposted Costs Category	7100C	7100C		
* WIP Unposted Costs Department	00	* Account	5500.550	5500.500 WIP Unposted Cost
* WIP Unposted Revenue Cost Code	WIP-BILL	WIP-BILL		
* WIP Unposted Revenue Category	7200B	7200B		
* WIP Unposted Revenue Department	00	* Account	4400.400	4400.400-WIP Unposted Revenue

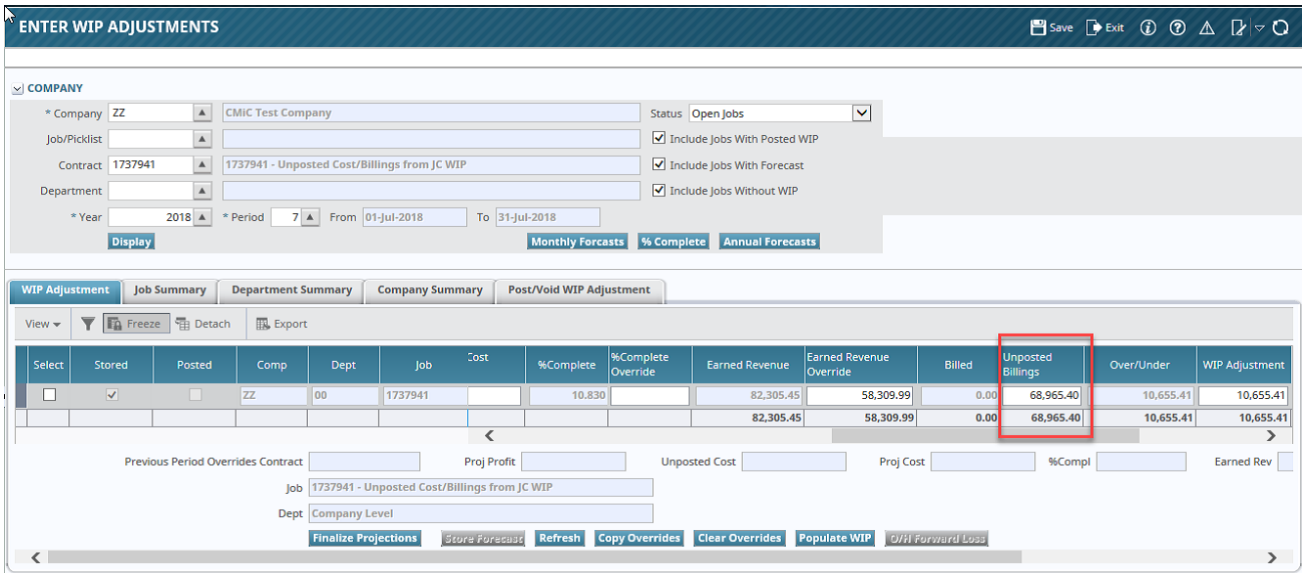
Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab

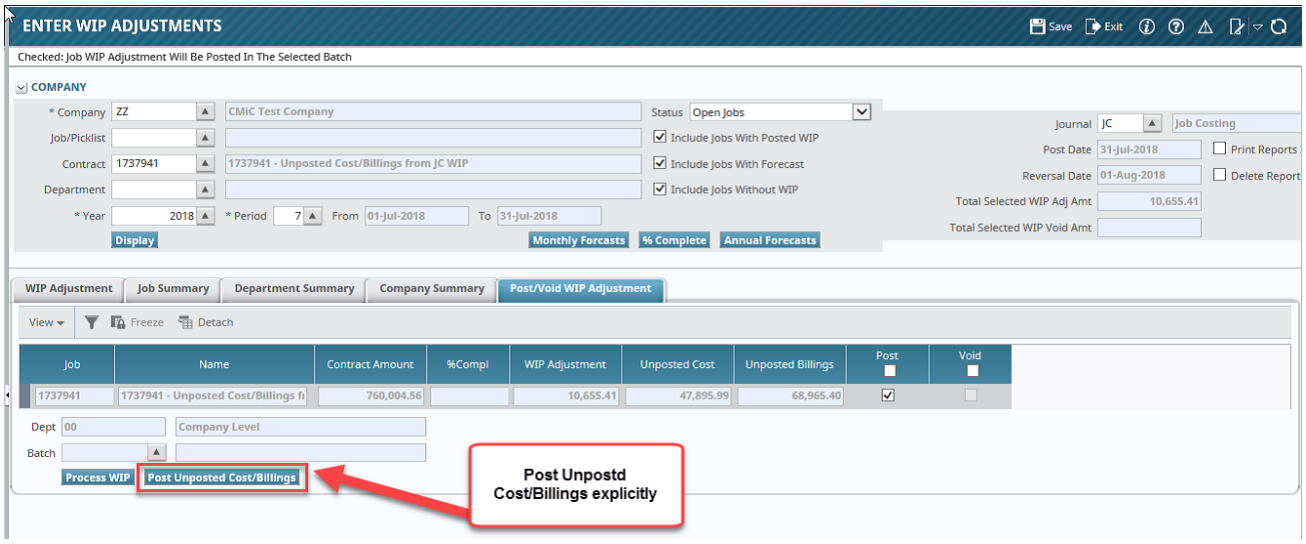
Posting WIP and Unposted Cost/Billings Separately

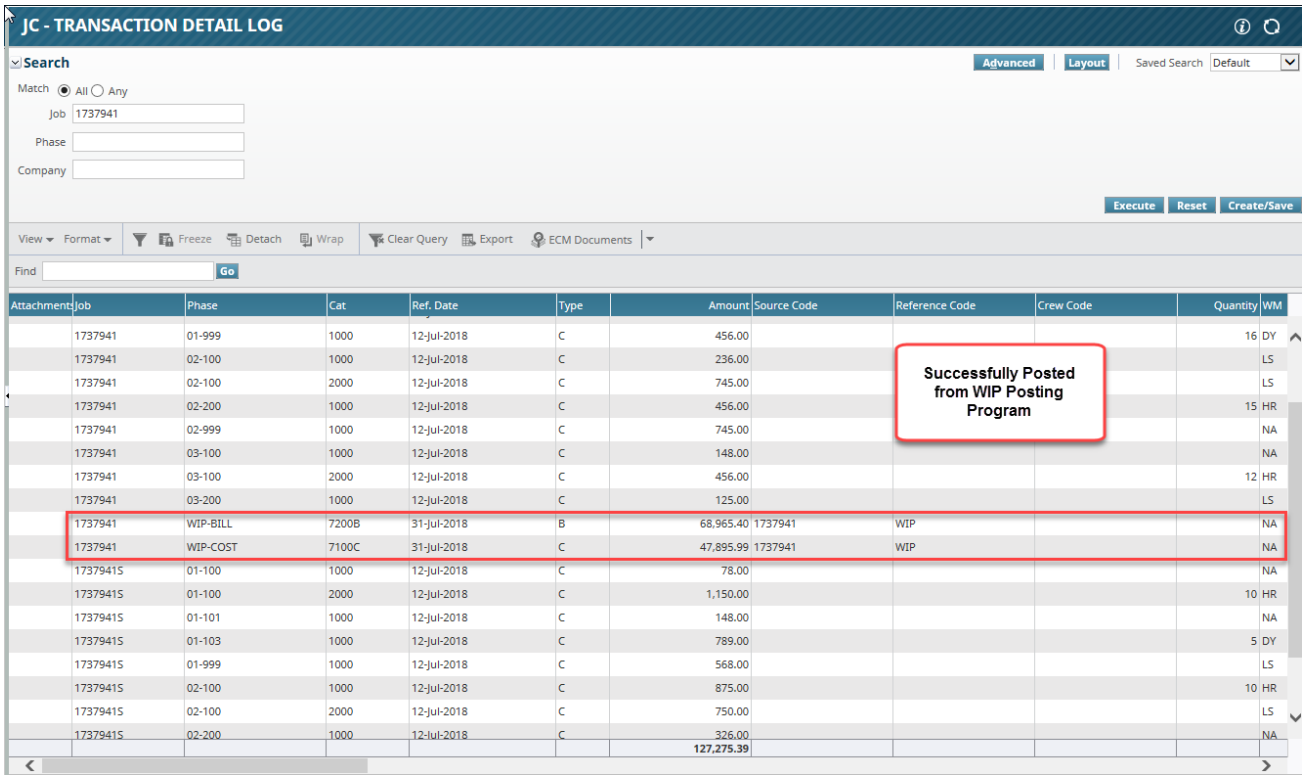
Two batches will be posted, one each for unposted cost and billings.



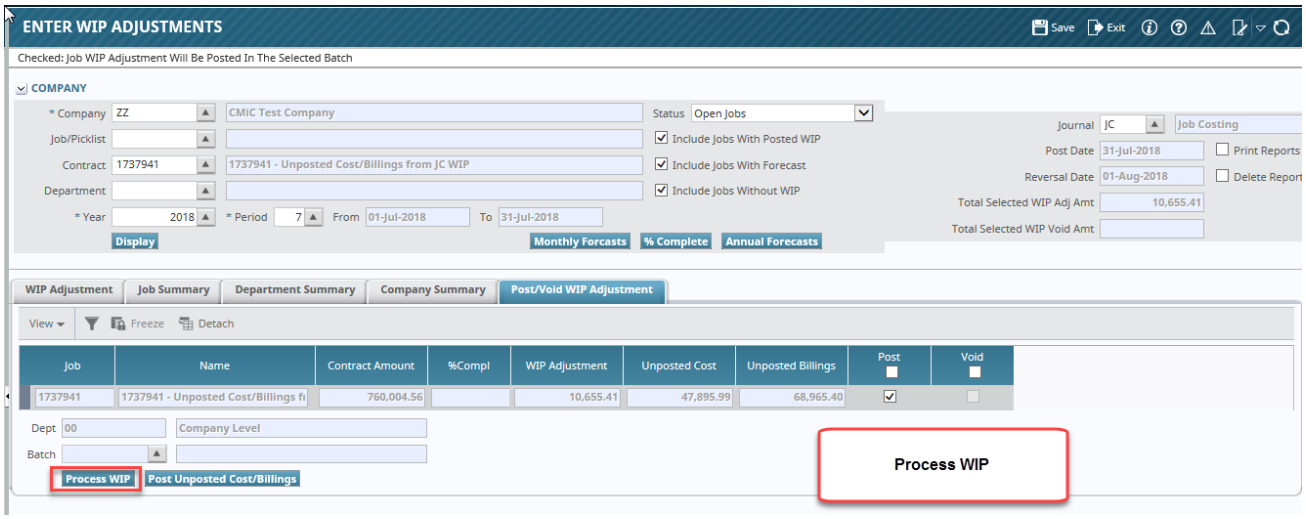
Pgm: JCWIP – Enter WIP Adjustments; standard Treeview path: Job Costing > Forecasting > Work-In-Progress Adjustments > Enter and Post Adjustments – WIP Adjustment tab



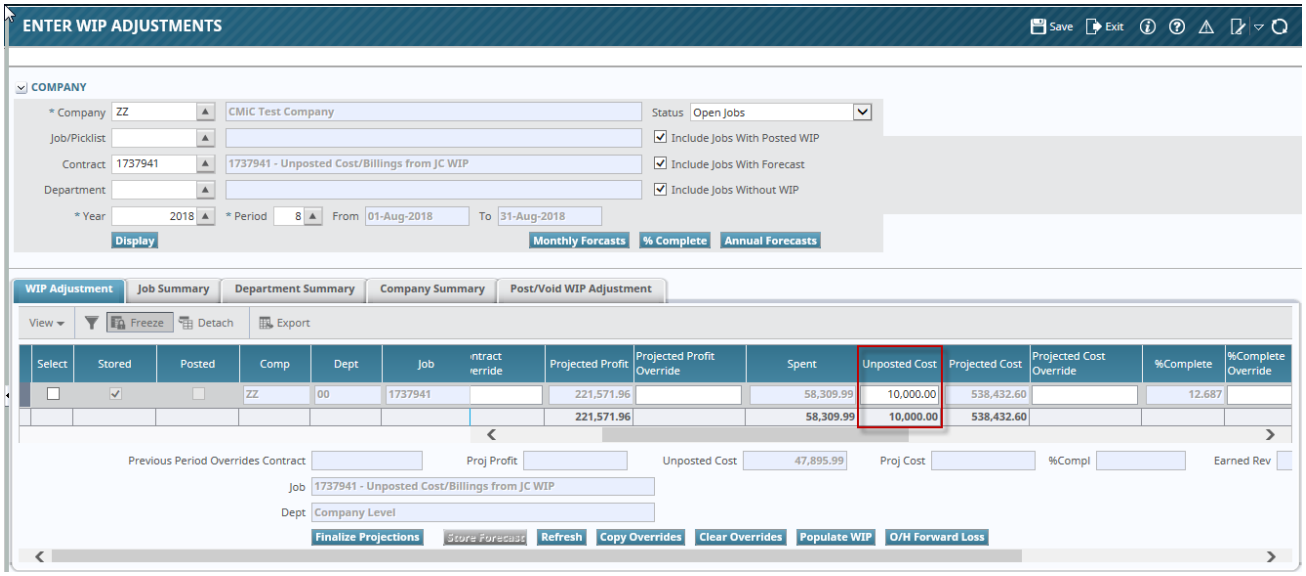




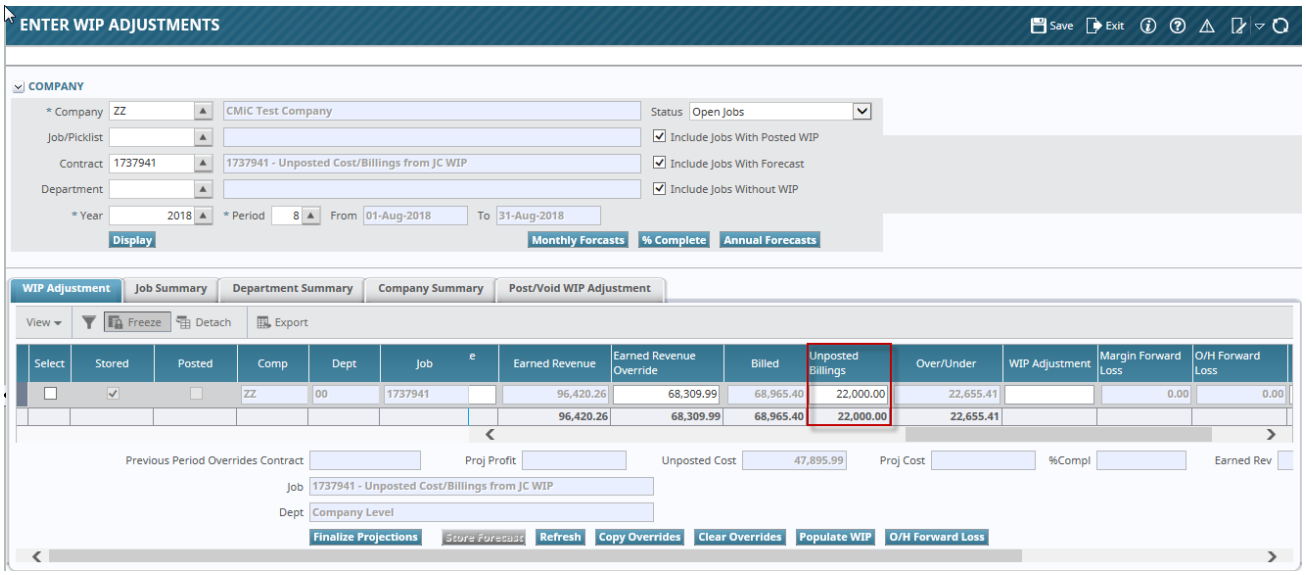
Pgm: JCDETAIL_LOG – JC-Transaction Detail Log; standard Treeview path: Job Costing > Logs > Transaction Detail

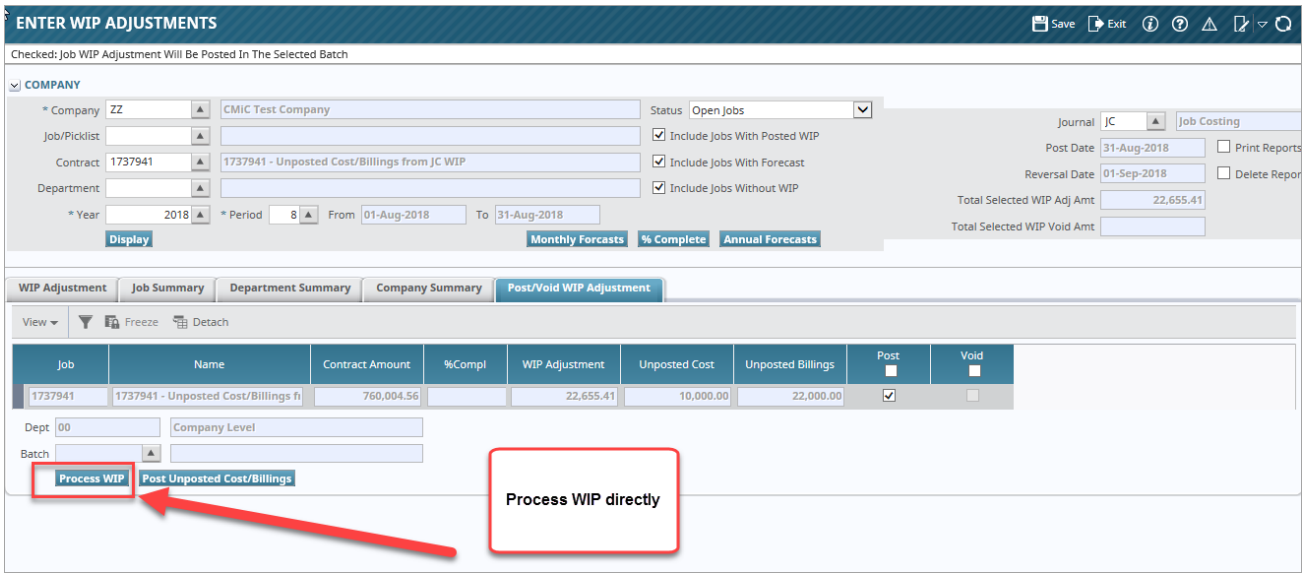


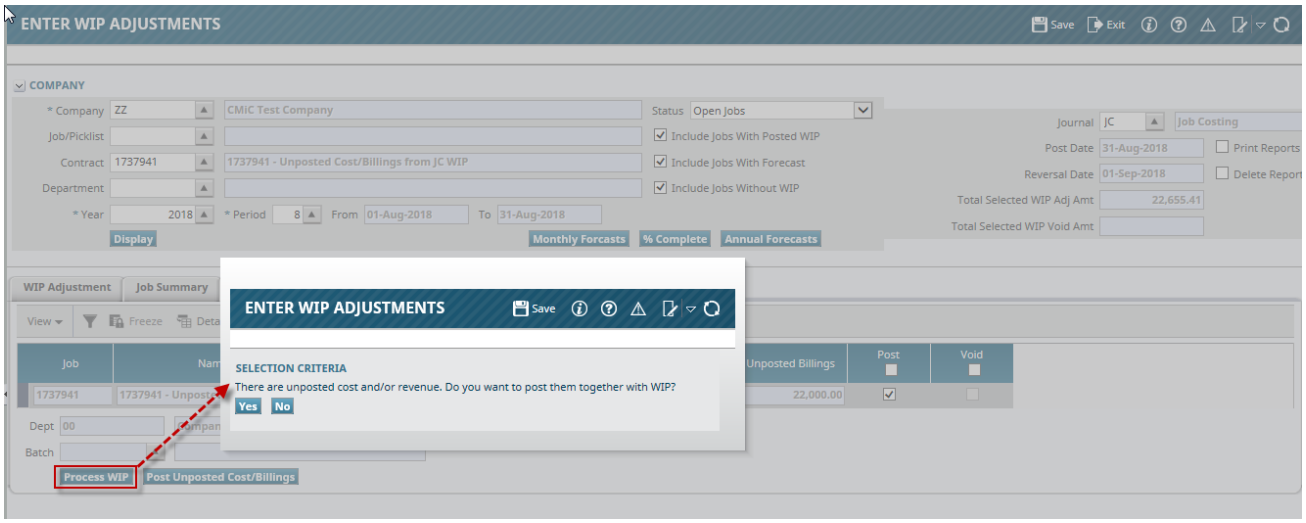
Posting WIP along with Unposted Cost/Billing Amounts



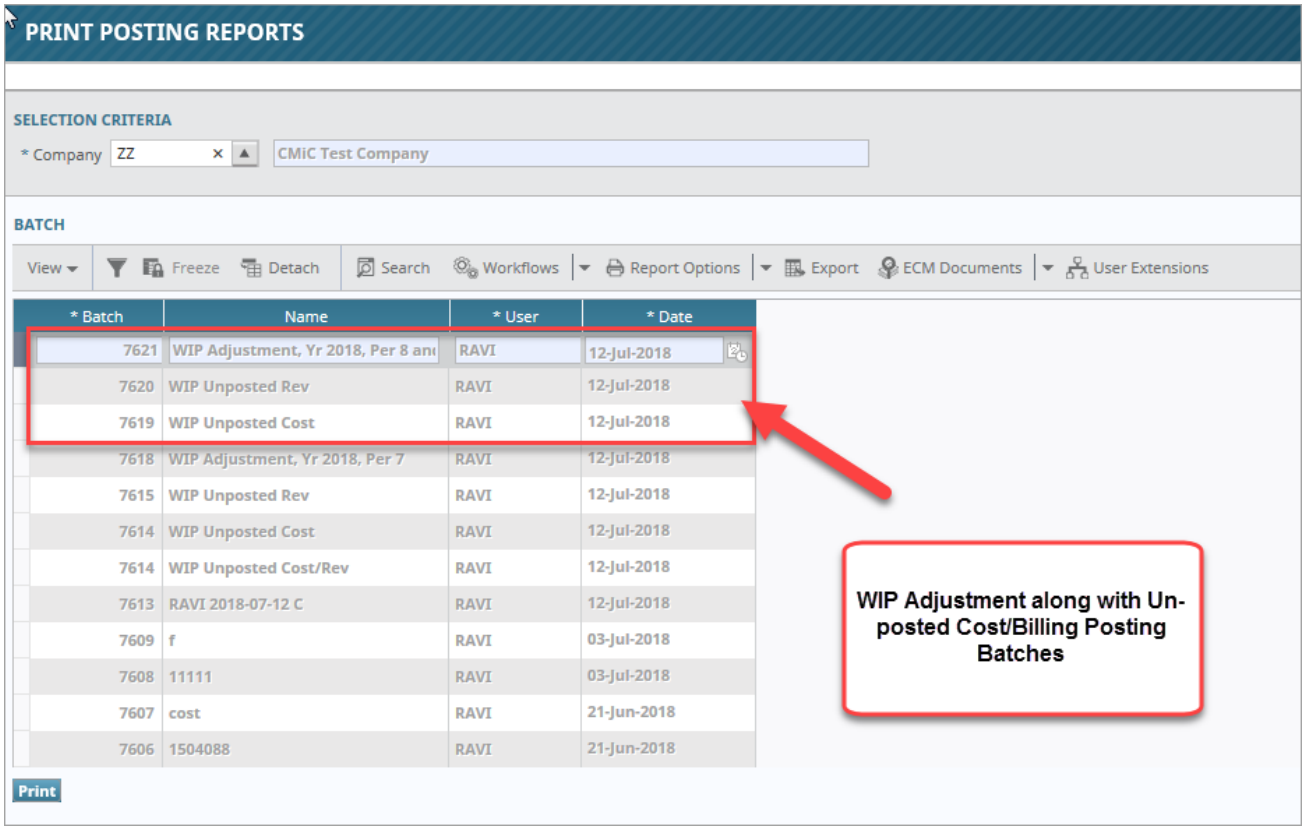
Pgm: JCWIP – Enter WIP Adjustments; standard Treeview path: Job Costing > Forecasting > Work-In-Progress Adjustments > Enter and Post Adjustments – WIP Adjustment


ENTER WIP ADJUSTMENTS
Save
Exit
COMPANY
* Company ZZ
CMiC Test Company
Status Open Jobs
Job/Picklist
Include Jobs With Posted WIP
Contract 1737941
1737941 - Unposted Cost/Billings from JC WIP
Include Jobs With Forecast
Department
Include Jobs Without WIP
* Year 2018
* Period 8
From 01-Aug-2018
To 31-Aug-2018
Display
Monthly Forcasts
% Complete
Annual Forecasts
WIP Adjustment
Job Summary
Department Summary
Company Summary
Post/Void WIP Adjustment
View
Freeze
Detach
Export
Select
Stored
Posted
Comp
Dept
Job
Earned Revenue
Earned Revenue Override
Billed
Unposted Billings
Over/Under
WIP Adjustment
Margin Forward Loss
O/H Forward Loss
ZZ
00
1737941
96,420.26
68,309.99
68,965.40
22,000.00
22,655.41
0.00
0.00
Previous Period Overrides Contract
Proj Profit
Unposted Cost
47,895.99
Proj Cost
%Compl
Earned Rev
Job
1737941 - Unposted Cost/Billings from JC WIP
Dept
Company Level
Finalize Projections
Store Forecast
Refresh
Copy Overrides
Clear Overrides
Populate WIP
O/H Forward Loss


ENTER WIP ADJUSTMENTS
Save
Exit
Checked: Job WIP Adjustment Will Be Posted In The Selected Batch
COMPANY
* Company ZZ
CMiC Test Company
Status Open Jobs
Job/Picklist
Include Jobs With Posted WIP
Contract 1737941
1737941 - Unposted Cost/Billings from JC WIP
Include Jobs With Forecast
Department
Include Jobs Without WIP
* Year 2018
* Period 8
From 01-Aug-2018
To 31-Aug-2018
Display
Monthly Forcasts
% Complete
Annual Forecasts
Journal JC
Job Costing
Post Date 31-Aug-2018
Print Reports
Reversal Date 01-Sep-2018
Delete Repor
Total Selected WIP Adj Amt 22,655.41
Total Selected WIP Void Amt
WIP Adjustment
Job Summary
Department Summary
Company Summary
Post/Void WIP Adjustment
View
Freeze
Detach
Job
Name
Contract Amount
%Compl
WIP Adjustment
Unposted Cost
Unposted Billings
Post
Void
1737941
1737941 - Unposted Cost/Billings fi
760,004.56
22,655.41
10,000.00
22,000.00
Dept 00
Company Level
Batch
Process WIP
Post Unposted Cost/Billings
Process WIP directly

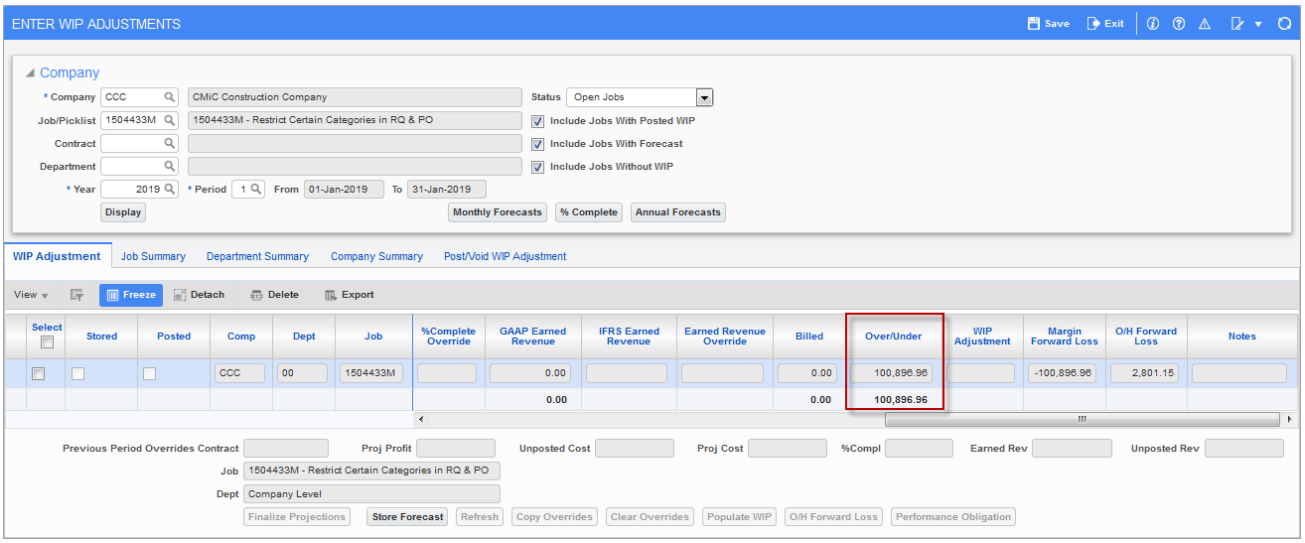


Pop-up window launched from [Process WIP] button on the Enter WIP Adjustments screen



Pgm: SYSRUN – Print Posting Reports; standard Treeview path: Job Costing > Utilities > Print Posting Reports

WIP Adjustments Over/Under Calculation



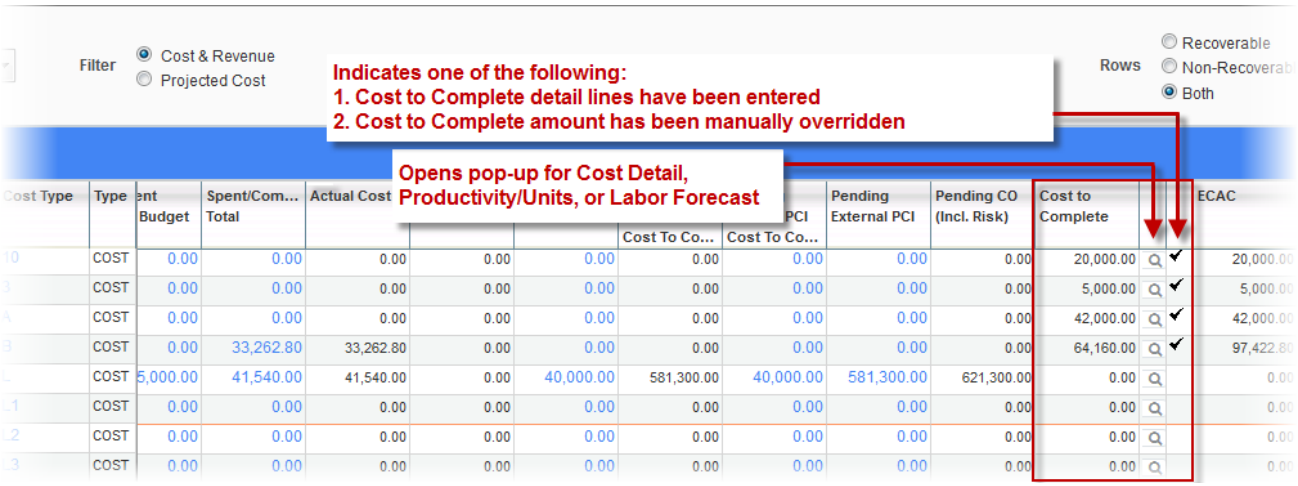
Pgm: JCWIP – Enter WIP Adjustments; standard Treeview path: Job Costing > Forecasting > Work-In-Progress Adjustments > Enter and Post Adjustments

The Over/Under column on the Enter WIP Adjustments screen is calculated as follows:

Over/Under = (Billed Amount + Un-Posted Billings (if applicable) – Earned Revenue (or Earned Revenue Override if exists)

This page is intentionally left blank.

Cost to Complete Detail Pop-Up



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecast – Cost to Complete Column

The fields in the Cost to Complete column in the Contract Forecast with PCI Projections screen allow user overrides as required. In order to provide more details with multiple records on the components that necessitated the overrides, a pop-up window is available as well. The pop-up window is accessible by clicking on the search icon in the column next to the Cost to Complete column. The type of pop-up window that is launched depends on a system-wide configuration and affects all projects under all companies.

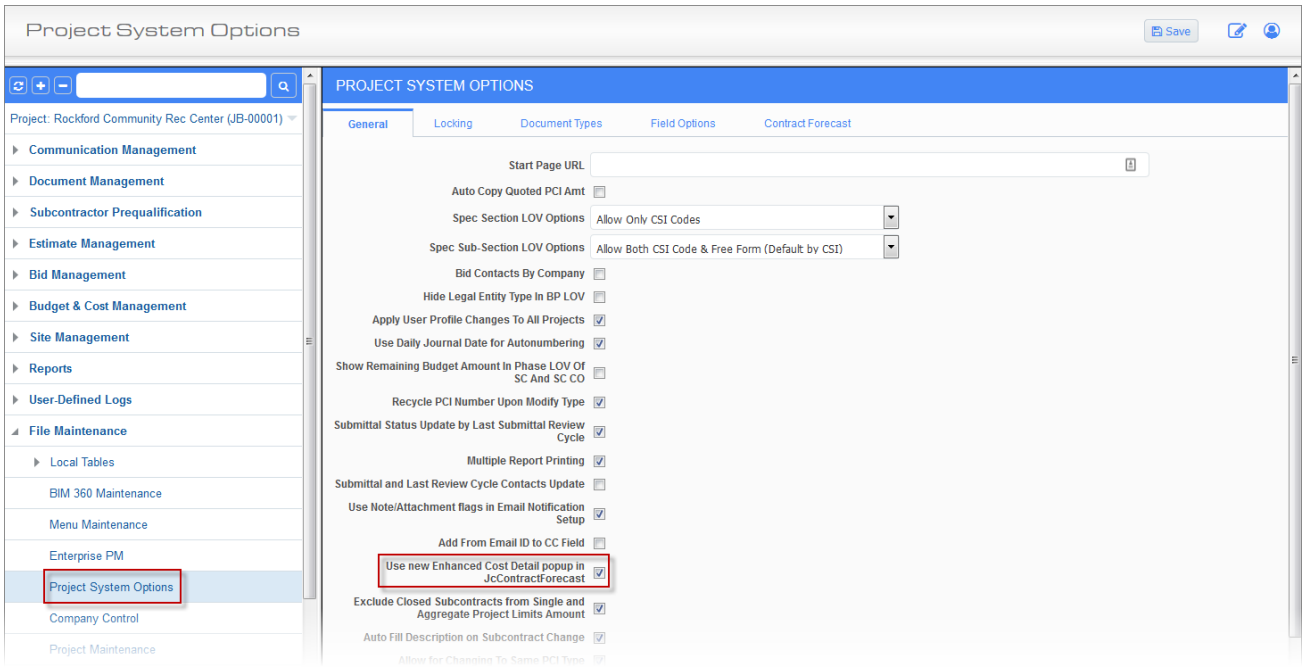
Depending on the configuration, the following pop-up windows are available to be launched:

- Cost Detail pop-up
    - Standard Cost Detail pop-up
    - Enhanced Cost Detail pop-up
- Productivity/Units pop-up
- Labor Forecast pop-up

- GC Monitor pop-up
- Labor Forecast pop-up

Cost Detail Pop-Up

The Cost Detail pop-up is applicable to bill codes with budget method ‘Amounts’ (A) only. The Cost Detail pop-up also has a variant that can be set with the ‘Use new Enhanced Cost Detail pop-up in JcContractForecast’ checkbox on the Project System Options screen, as shown below.



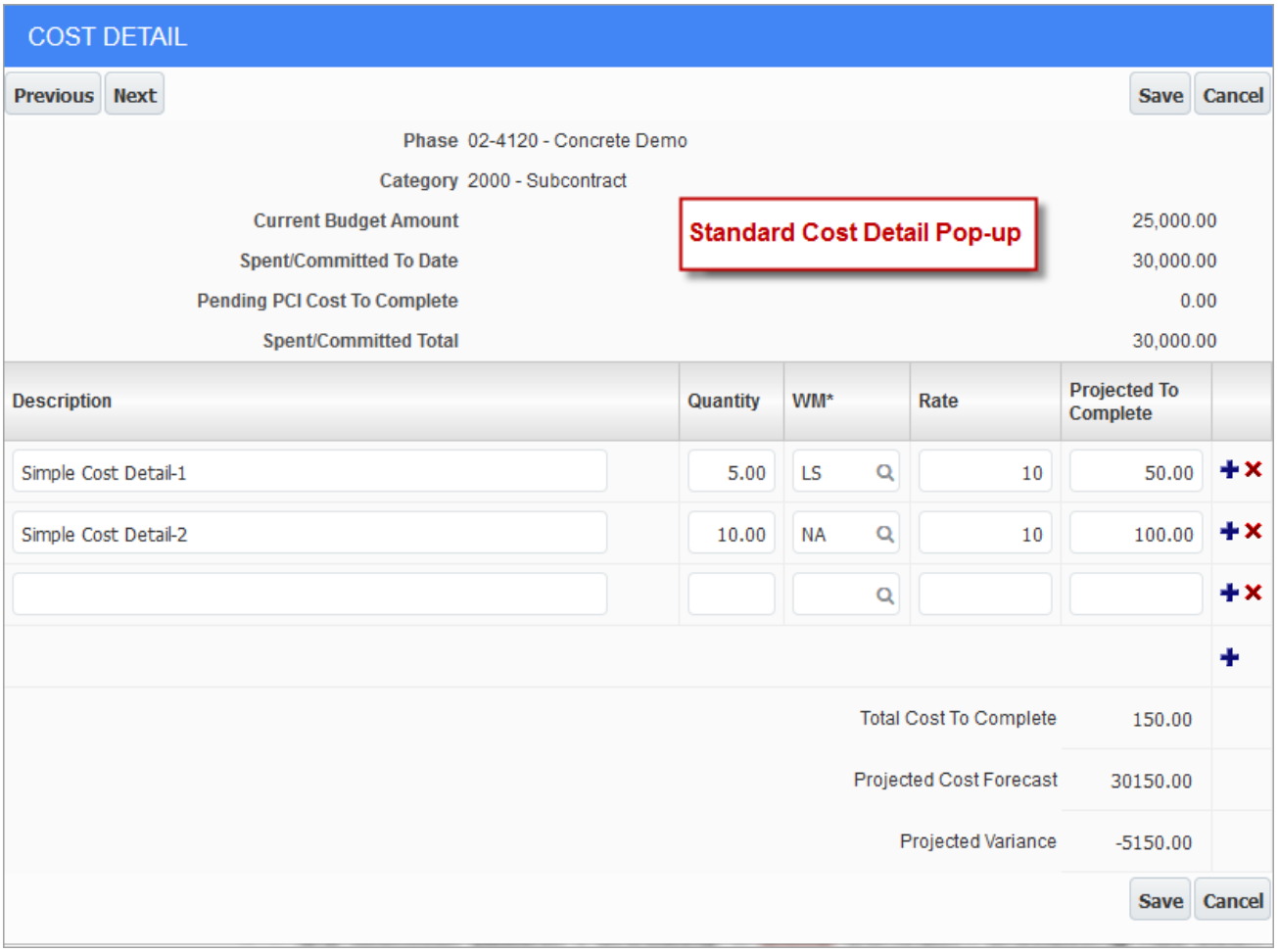
Project System Options; standard Treeview path: CMiC Field > File Maintenance > Project System Options – General tab

If the checkbox is unchecked, the Standard Cost Detail pop-up will be used. If the checkbox is checked, the Enhanced Cost Detail pop-up will be used.

The following sections describe the Standard and Enhanced Cost Detail pop-up windows in more detail.

NOTE: A description must be entered in the Description field of the Cost Detail pop-up, otherwise an error message will be issued upon saving, indicating that a description must be entered.

Standard Cost Detail Pop-Up



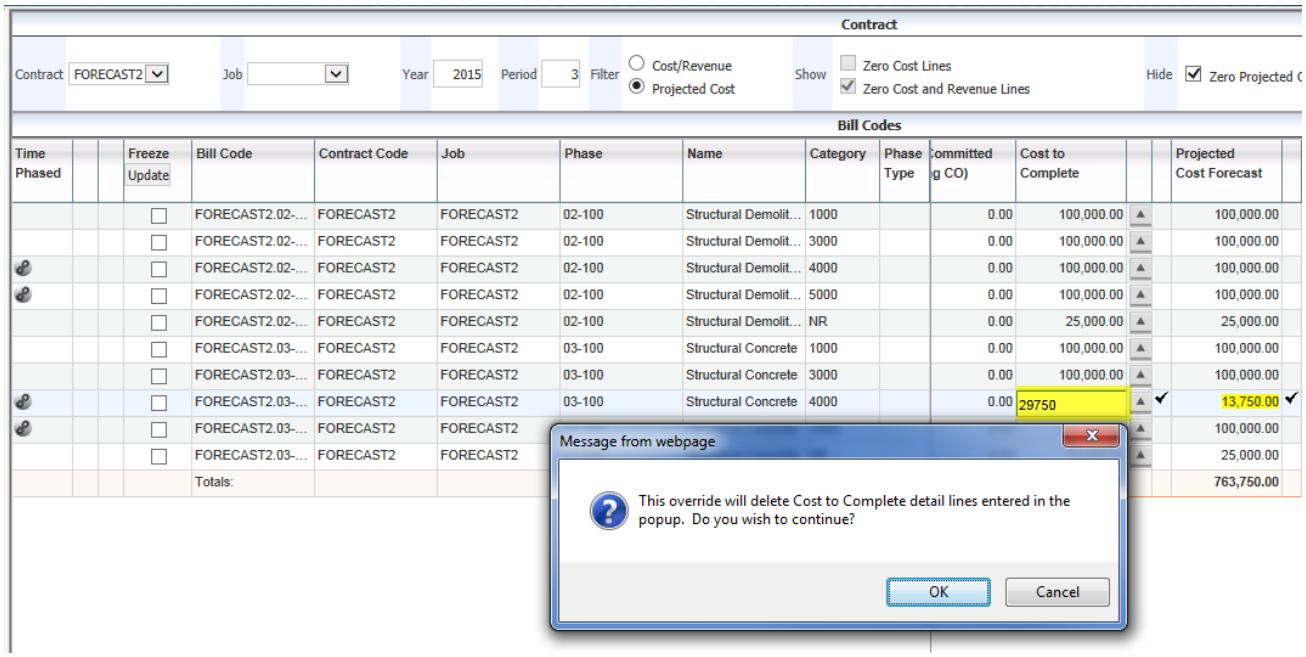
Standard Cost Detail pop-up

The Standard Cost Detail pop-up will be used if the Project System Options checkbox ‘Use new Enhanced Cost Detail popup in JcContractForecast’ is unchecked.

The Standard Cost Detail pop-up can be used to add multiple details of components that make up the overrides. Saving and closing the pop-up automatically refreshes the main forecasting screen to reflect the updated Cost to Complete value.

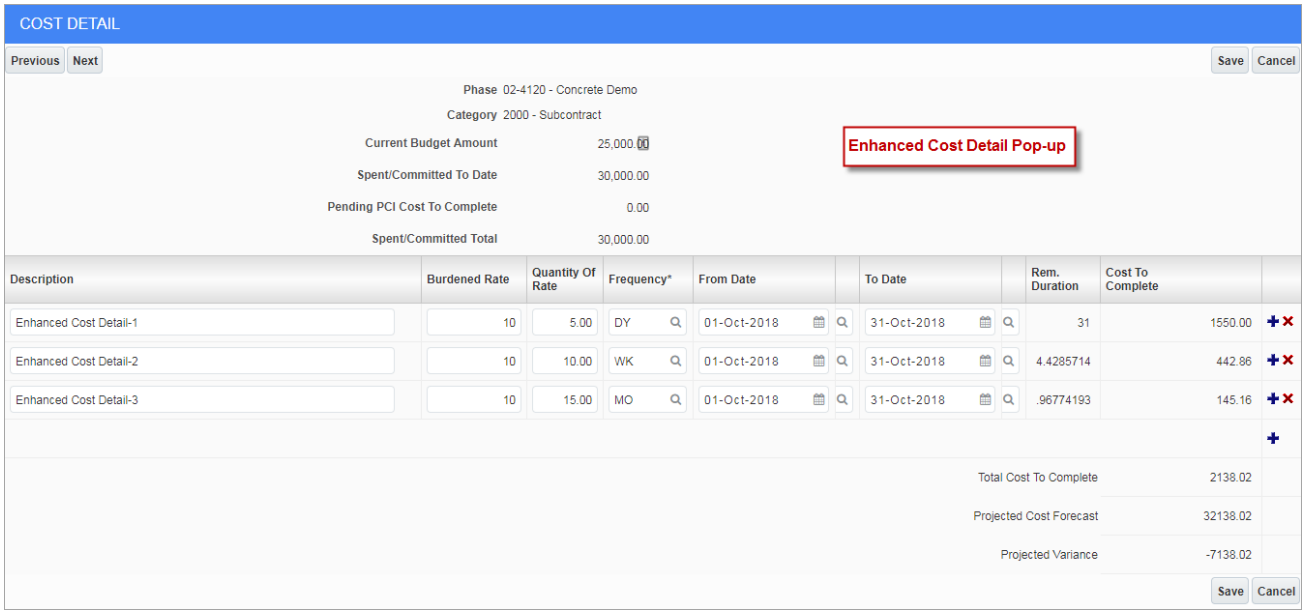
The system calculates the Projected Cost Forecast column based on the Qty/Rate provided and the sum of the projected cost amount will be populated in the main forecasting screen upon Save/Refresh.

If an override is made to the Cost to Complete column in the main forecasting screen when Cost Detail pop-up overrides exist, a message will be issued and upon confirmation, the details will be deleted as well.



NOTE: If an override is entered on a line in the Cost to Complete column on the Contract Forecast with PCI Projections screen, and then the 'Copy Last Stored Forecast' box is checked on the Forecasting tab of the Job Cost Control File, the initial override performed on the Contract Forecast with PCI Projections screen will not be brought forward to the next period unless it is re-entered and committed. Any overrides performed using the Cost Detail pop-up will be carried forward to the next period.

Enhanced Cost Detail Pop-Up



Enhanced Cost Detail pop-up

The Enhanced Cost Detail pop-up will be launched if the Project System Options checkbox ‘Use new Enhanced Cost Detail popup in JcContractForecast’ is checked.

The Enhanced Cost Detail pop-up allows multiple details of overrides with Burdened Rate, Quantity of Rate, Frequency, and From/To Dates fields. The system then calculates the Cost to Complete amount and upon Save/Refresh, updates the contract forecasting main screen.

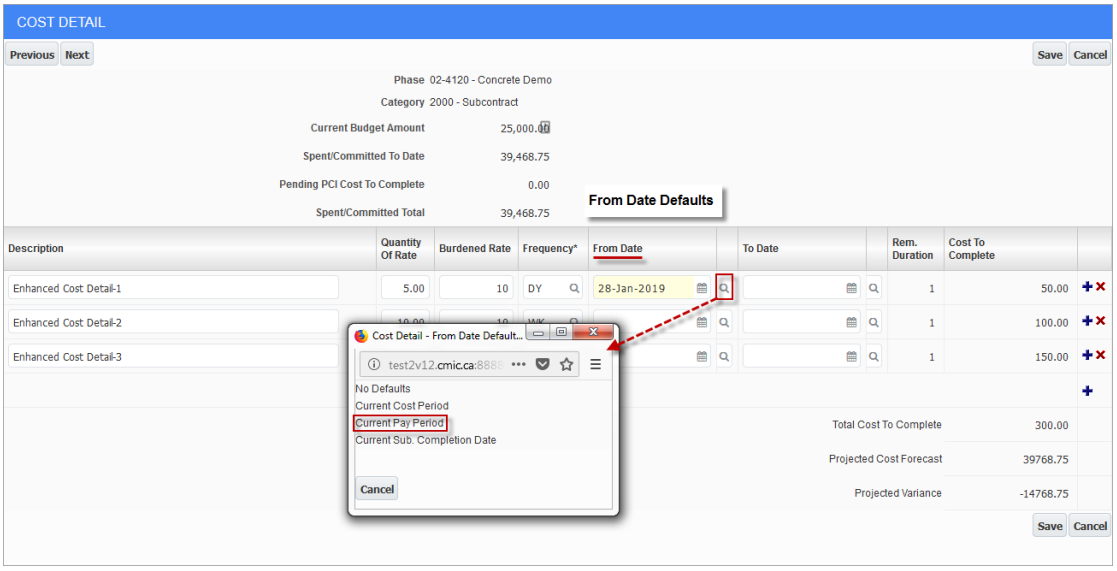
The Frequency column is a required column in this pop-up window. The frequency may be selected logically with calendar types as “HR/DY/MO/YR” from the weight measures LOV. If selecting any other weight measure that is not a calendar type weight measure, then the system will assume a factor of 1 and simply calculate as Burdened Rate x Quantity of Rate as the Cost To Complete value.

NOTE: Users must define Weight Measures as HR/DY/MO/YR in order for the calendar function to work.

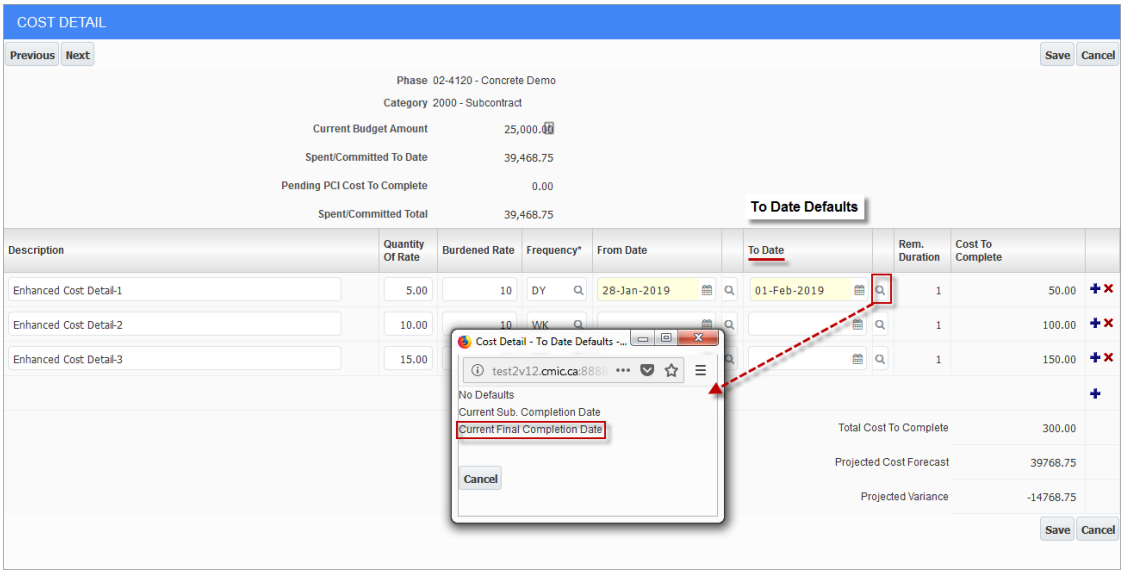
Date Defaults

The From Date/To Date field default values may be selected for each of the Cost Detail records as required. A Search icon next to the Calendar icon allows users to select the

date as shown. Users may move the mouse pointer to get the display of the date value for each of the options and select accordingly.



Cost Detail Pop-Up - From Date Defaults



Cost Detail Pop-Up - To Date Defaults

For example, date defaults could be used to retrieve overrides in a new period in 2016/12 to bring in the CTC amount as per the date setup.

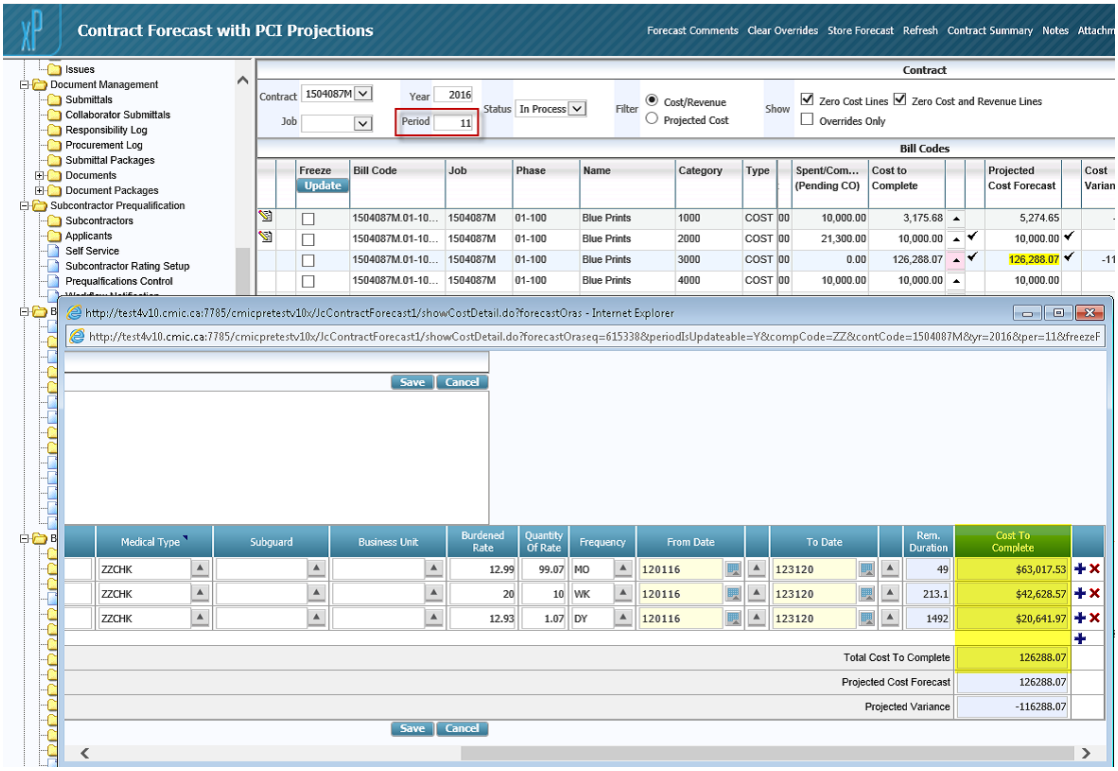
Contract

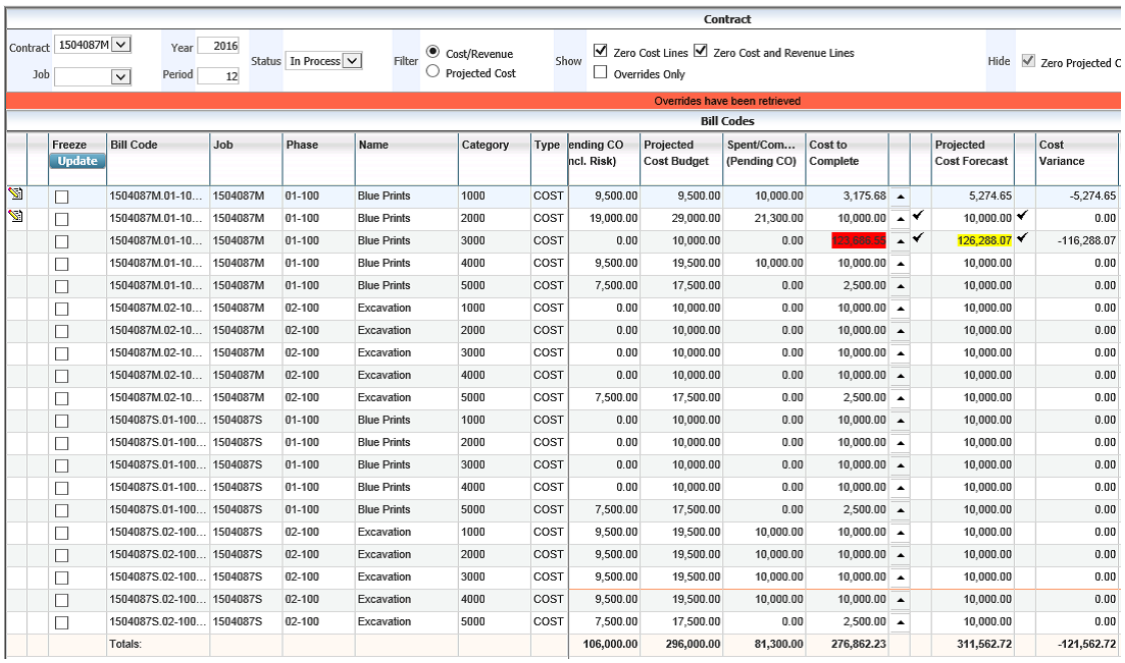
Contract 1504087M | Year 2016 | Status In Process | Filter ◉ Cost/Revenue ○ Projected Cost | Show ☑ Zero Cost Lines ☑ Zero Cost and Revenue Lines ☐ Overrides Only

Job | Period 11

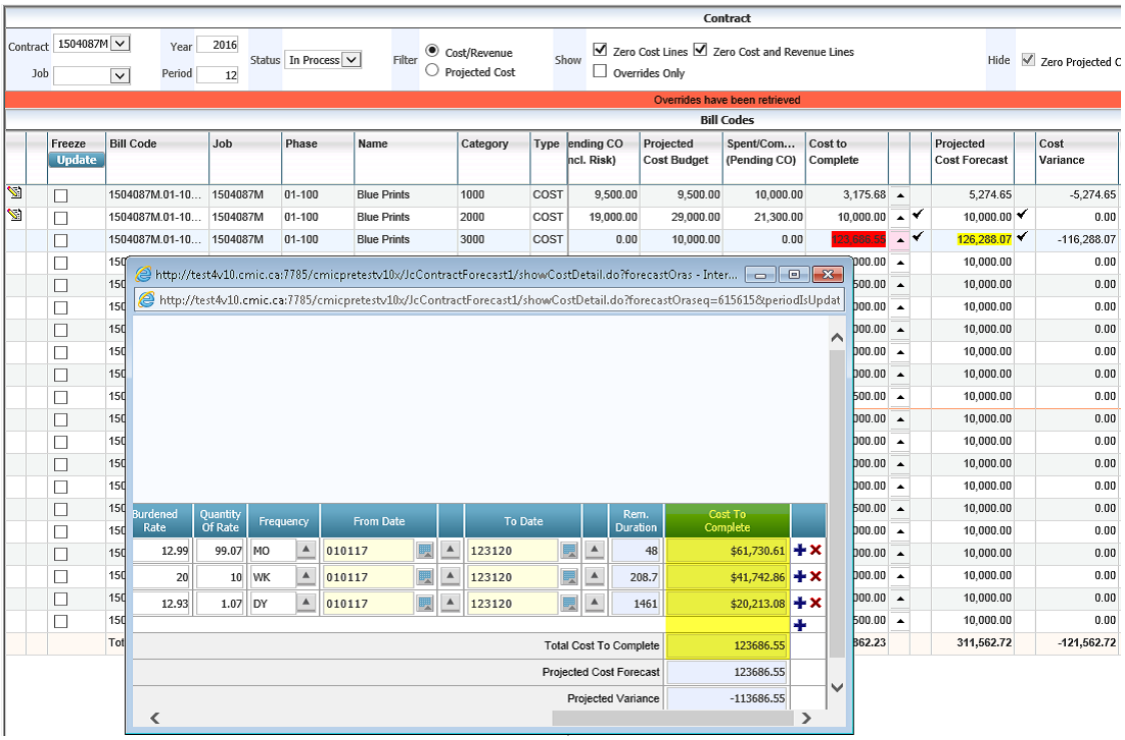
Bill Codes

Freeze Update	Bill Code	Job	Phase	Name	Category	Type		Spent/Com... (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance
☐	1504087M.01-10...	1504087M	01-100	Blue Prints	1000	COST	00	10,000.00	3,175.68	5,274.65	-5,274.65
☐	1504087M.01-10...	1504087M	01-100	Blue Prints	2000	COST	00	21,300.00	10,000.00	10,000.00	0.00
☐	1504087M.01-10...	1504087M	01-100	Blue Prints	3000	COST	00	0.00	126,288.07	126,288.07	-116,288.07
☐	1504087M.01-10...	1504087M	01-100	Blue Prints	4000	COST	00	10,000.00	10,000.00	10,000.00	0.00
☐	1504087M.01-10...	1504087M	01-100	Blue Prints	5000	COST	00	0.00	2,500.00	10,000.00	0.00
☐	1504087M.02-10...	1504087M	02-100	Excavation	1000	COST	00	0.00	10,000.00	10,000.00	0.00
☐	1504087M.02-10...	1504087M	02-100	Excavation	2000	COST	00	0.00	10,000.00	10,000.00	0.00
☐	1504087M.02-10...	1504087M	02-100	Excavation	3000	COST	00	0.00	10,000.00	10,000.00	0.00
☐	1504087M.02-10...	1504087M	02-100	Excavation	4000	COST	00	0.00	10,000.00	10,000.00	0.00
☐	1504087M.02-10...	1504087M	02-100	Excavation	5000	COST	00	0.00	2,500.00	10,000.00	0.00
☐	1504087S.01-100...	1504087S	01-100	Blue Prints	1000	COST	00	0.00	10,000.00	10,000.00	0.00
☐	1504087S.01-100...	1504087S	01-100	Blue Prints	2000	COST	00	0.00	10,000.00	10,000.00	0.00


Contract Forecast with PCI Projections
Forecast Comments
Clear Overrides
Store Forecast
Refresh
Contract Summary
Notes
Contract
Contract 1504087M
Year 2016
Period 11
Status In Process
Filter Cost/Revenue
Projected Cost
Show Zero Cost Lines
Zero Cost and Revenue Lines
Overrides Only
Bill Codes
Freeze
Update
Bill Code
Job
Phase
Name
Category
Type
Spent/Com... (Pending CO)
Cost to Complete
Projected Cost Forecast
Save
Cancel
Medical Type
Subguard
Business Unit
Burdened Rate
Quantity Of Rate
Frequency
From Date
To Date
Rem. Duration
Cost To Complete
Total Cost To Complete
Projected Cost Forecast
Projected Variance

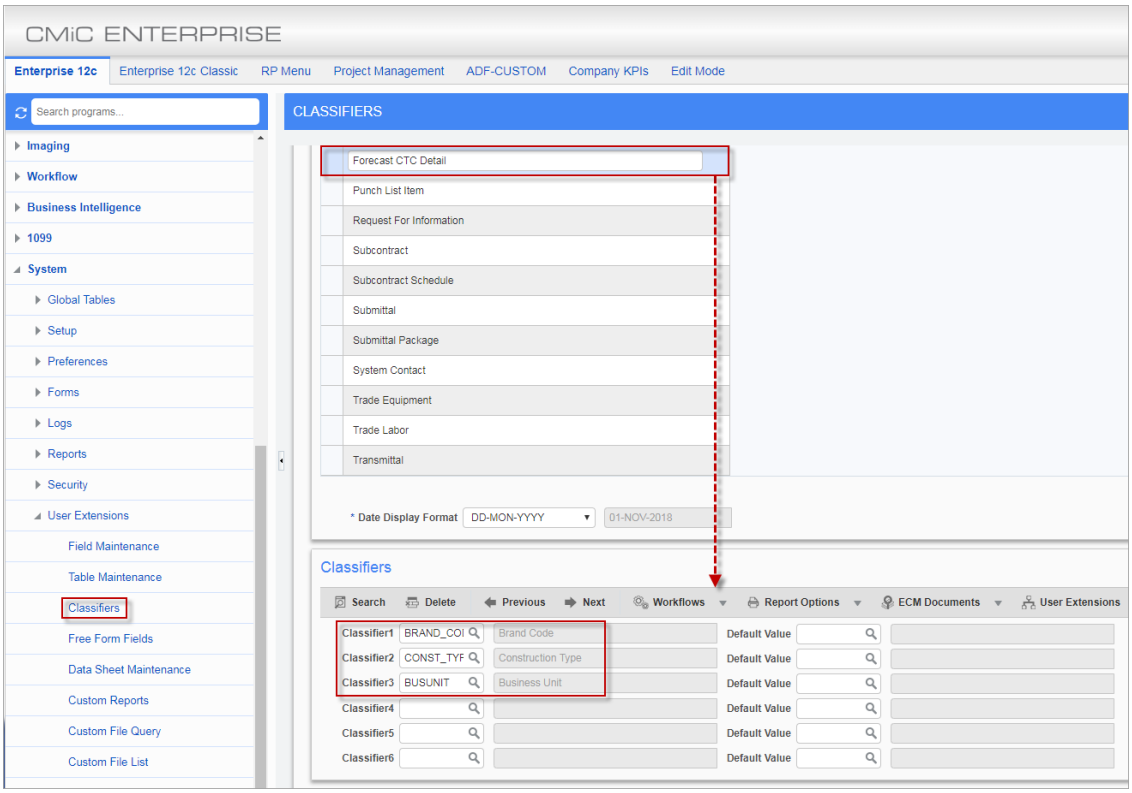


Freeze Update	Bill Code	Job	Phase	Name	Category	Type	ending CO ncl. Risk)	Projected Cost Budget	Spent/Com... (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance
	1504087M.01-10...	1504087M	01-100	Blue Prints	1000	COST	9,500.00	9,500.00	10,000.00	3,175.68	5,274.65	-5,274.65
	1504087M.01-10...	1504087M	01-100	Blue Prints	2000	COST	19,000.00	29,000.00	21,300.00	10,000.00	10,000.00	0.00
	1504087M.01-10...	1504087M	01-100	Blue Prints	3000	COST	0.00	10,000.00	0.00	123,686.55	126,288.07	-116,288.07
	1504087M.01-10...	1504087M	01-100	Blue Prints	4000	COST	9,500.00	19,500.00	10,000.00	10,000.00	10,000.00	0.00
	1504087M.01-10...	1504087M	01-100	Blue Prints	5000	COST	7,500.00	17,500.00	0.00	2,500.00	10,000.00	0.00
	1504087M.02-10...	1504087M	02-100	Excavation	1000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087M.02-10...	1504087M	02-100	Excavation	2000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087M.02-10...	1504087M	02-100	Excavation	3000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087M.02-10...	1504087M	02-100	Excavation	4000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087M.02-10...	1504087M	02-100	Excavation	5000	COST	7,500.00	17,500.00	0.00	2,500.00	10,000.00	0.00
	1504087S.01-100...	1504087S	01-100	Blue Prints	1000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087S.01-100...	1504087S	01-100	Blue Prints	2000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087S.01-100...	1504087S	01-100	Blue Prints	3000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087S.01-100...	1504087S	01-100	Blue Prints	4000	COST	0.00	10,000.00	0.00	10,000.00	10,000.00	0.00
	1504087S.01-100...	1504087S	01-100	Blue Prints	5000	COST	7,500.00	17,500.00	0.00	2,500.00	10,000.00	0.00
	1504087S.02-100...	1504087S	02-100	Excavation	1000	COST	9,500.00	19,500.00	10,000.00	10,000.00	10,000.00	0.00
	1504087S.02-100...	1504087S	02-100	Excavation	2000	COST	9,500.00	19,500.00	10,000.00	10,000.00	10,000.00	0.00
	1504087S.02-100...	1504087S	02-100	Excavation	3000	COST	9,500.00	19,500.00	10,000.00	10,000.00	10,000.00	0.00
	1504087S.02-100...	1504087S	02-100	Excavation	4000	COST	9,500.00	19,500.00	10,000.00	10,000.00	10,000.00	0.00
	1504087S.02-100...	1504087S	02-100	Excavation	5000	COST	7,500.00	17,500.00	0.00	2,500.00	10,000.00	0.00
	Totals:						106,000.00	296,000.00	81,300.00	276,862.23	311,562.72	-121,562.72



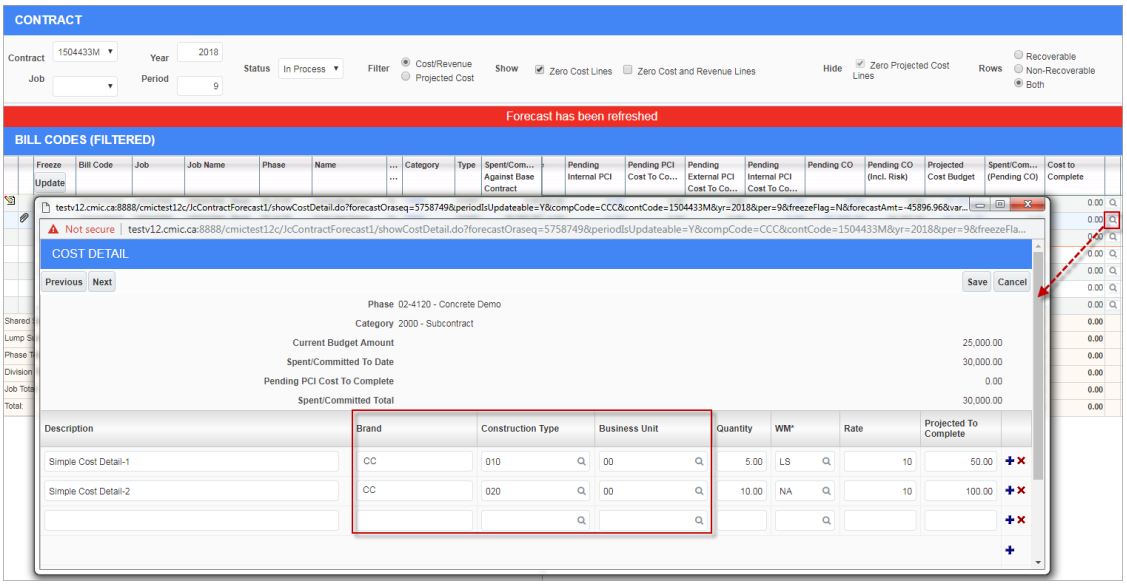
User-Defined Classifiers

Users can add user-defined classifiers to the Cost Detail pop-up using the Forecast CTC Detail object on the Classifiers screen in the System Data module. Adding classifiers allows custom reporting to be more detailed.



Pgm: PMCLSFM – Classifiers; standard Treeview path: System > User Extensions > Classifiers – Forecast CTC Detail

Classifers added in the System Data module's Classifiers screen will be available for user entry in the Cost Detail pop-up on the CMiC Field Contract Forecast with PCI Projections screen. Users can enter values in these classifier columns and use those values for any custom reporting purposes.



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting

Productivity/Units Pop-Up

PRODUCTIVITY/UNITS

Save Cancel

Phase 02-4120 - Concrete Demo

Category 1000 - Labor

	Output		Input		
		WM	$	Units	WM
Budgeted	0	NA	25,000.00	250	HR
Complete	25000	NA	0.00	0	HR
Projected	25000	NA	0	0	HR
Remaining	0.0	NA	0.0	0.0	HR

	Budgeted	Current	Go Forward Override	
Input Rate	100.00	0.00		$ / HR
Output Rate	0.00	0.00		$ / NA
Productivity				NA / HR
Yield				HR / NA
Estimate To Complete	25,000.00	25,000.00	0.00	
Projected Cost	25,000.00	25,000.00	0.00	

Productivity/Units pop-up

When not using Labor functionality, or when a Category's 'Available On GC Monitor' check-box is not checked, and its Default Forecast Method field set to "Productivity" or "Units", the Cost to Complete pop-up will bring up the standard JSP Productivity/Units pop-up.

The productivity forecast screen allows analysis of this relationship in terms of the dollars and quantities needed to complete an output unit. Based on the information provided,

productivity can then be analyzed to see where the actual progress may be out of line with the estimates.

Users can update input units as well as the input amount. If desired, they can update the input amount value and the system will prompt the user to use the described formulas for recalculating, or, they can select to modify the input amount and not update any other values based on this change.

This pop-up also allows negative values for Amount and Unit fields. For example, if the user was budgeted to install ten manholes but did not anticipate they would have to demolish two of the existing manholes. Negative output units allow the user to enter “-2” after demolishing the two manholes. As a result, the pop-up would show twelve manholes remaining, and the productivity and unit cost would be negative, meaning that the crew would need to perform efficiently to overcome the negative initial values.

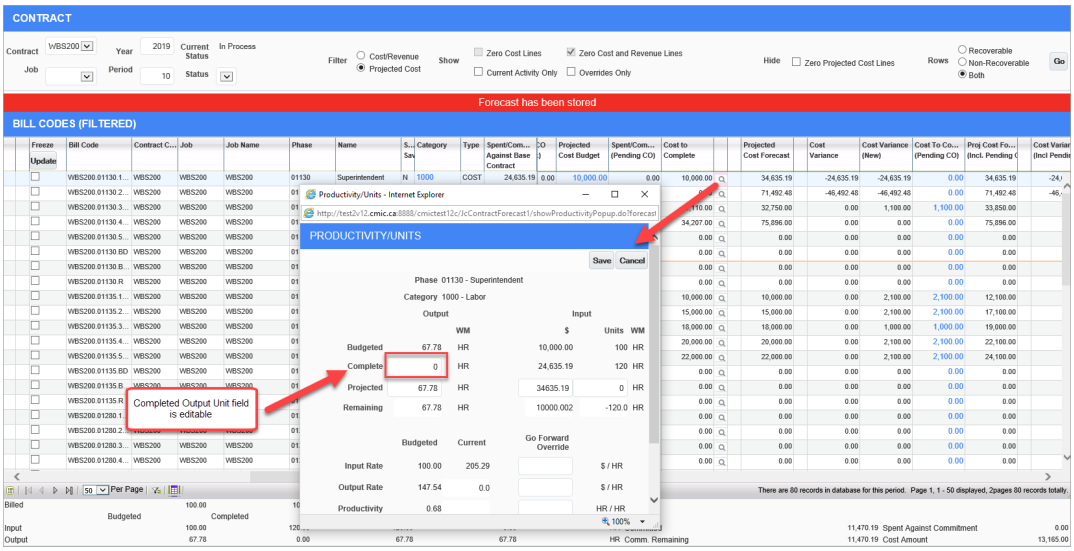
When overriding the Cost to Complete column in the Contract Forecast with PCI Projection screen, when budget method is P or U, the overridden values will be re-calculated in the Productivity/Units pop-up window.

When pending PCIs exist with Phase Qty (Output), the Productivity/Units pop-up will not include them in the output quantity calculation. Only when PCIs are posted, will the output quantities reflect the posted phase units.

Field security can be applied to the following four fields: Output Complete Quantity, Projected Input Rate, Projected Input Units, and Projected Output Units. Options are “Unrestricted” and “Read Only”. The default value is “Unrestricted” for “ALL” Roles. Users can set the field security to “Read Only” to either “ALL” or for specific user roles as required.

Example of Editing Quantity of Output Complete

If users have the privilege to update the quantity in the Output Complete field in the Productivity/Units pop-up window, the Output Complete field will be enabled, and a value can be entered.

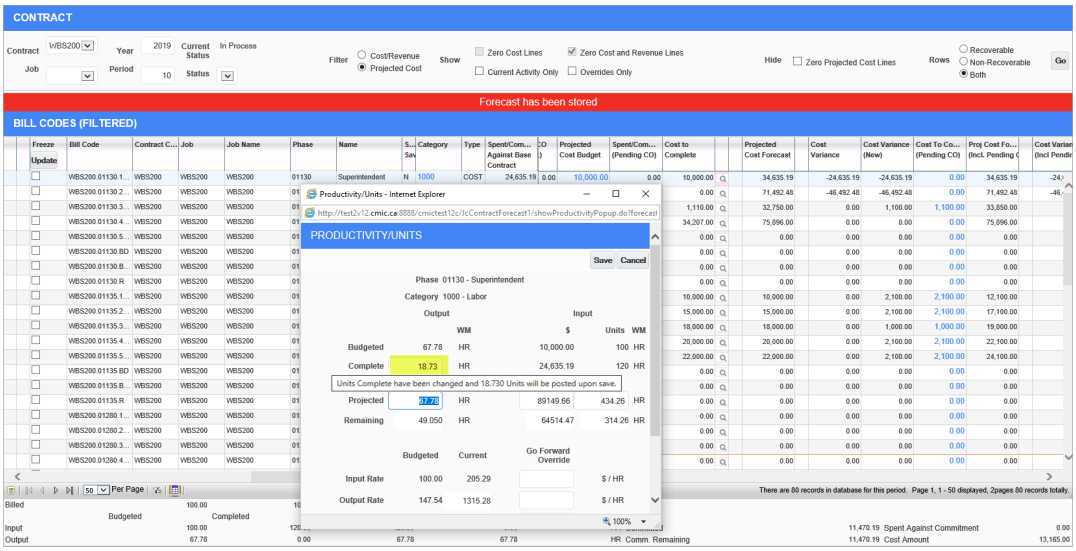


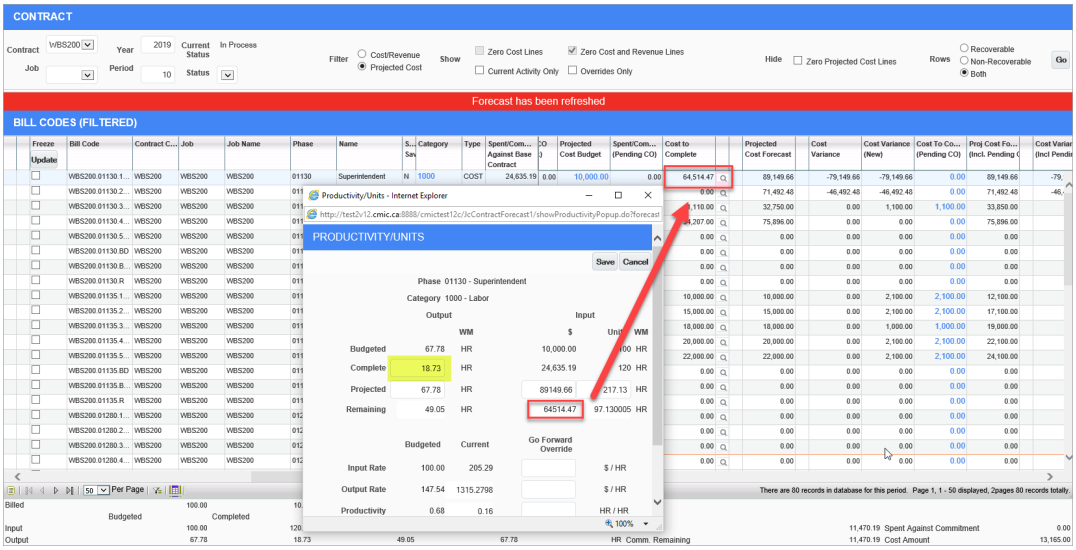
Example of enabled Output Complete field in Productivity/Units pop-up window

Upon tabbing off the field, a message in red font will be issued to the user indicating "Units Complete have been changed and xx.xxx Units will be posted upon save." Clicking [**Save**] will post the JC Phase Units and refresh the forecast to reflect the newly completed output units. All other columns will be recalculated.

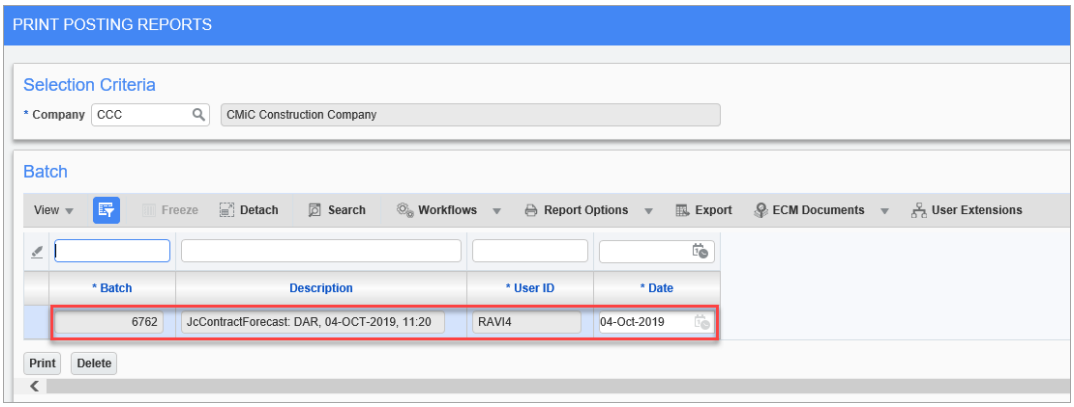
The following example shows a previously overridden Productivity pop-up window where a user has updated the completed output units and has saved to post the same.

NOTE: Updating the completed output units and posting upon [**Save**] is not considered as an override. Therefore, updating output quantity with no previous overrides to any other field will not be considered as an override to the Cost to Complete column in the main screen.



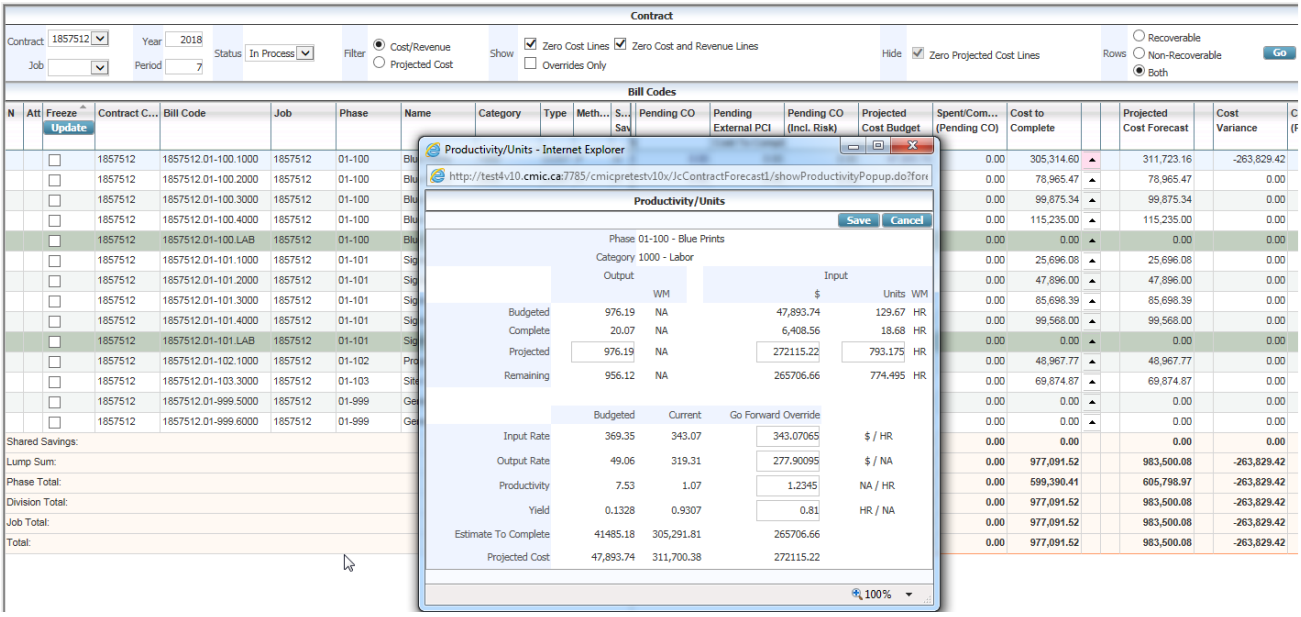


Users will be able to print the posting report from the Print Posting Report screen in the Job Costing module (standard Treeview path: Job Costing > Utilities > Print Posting Reports).



NOTE: Users should be aware that the units will be posted with the system date as the post date, regardless of the forecasting period they are currently viewing.

Precision of Decimals in Productivity/Units Pop-Up



The precision of the decimal places in the fields of the Productivity/Units pop-up window depends on the type of the field.

The enterable fields allow the following precision and display:

- Go Forward Input Rate: (18,5)
- Go Forward Output Rate: (18,5)

- Go Forward Productivity: (18,4)
- Go Forward Yield: (18,4)
- Projected Input Qty: (18,3)

All other fields display two decimal places to improve readability.

When recalculation occurs, the values need to be accurate, therefore, the Go Forward Override rates and Productivity/Yield fields have a higher precision.

Entering Overrides in Productivity/Units Pop-Up

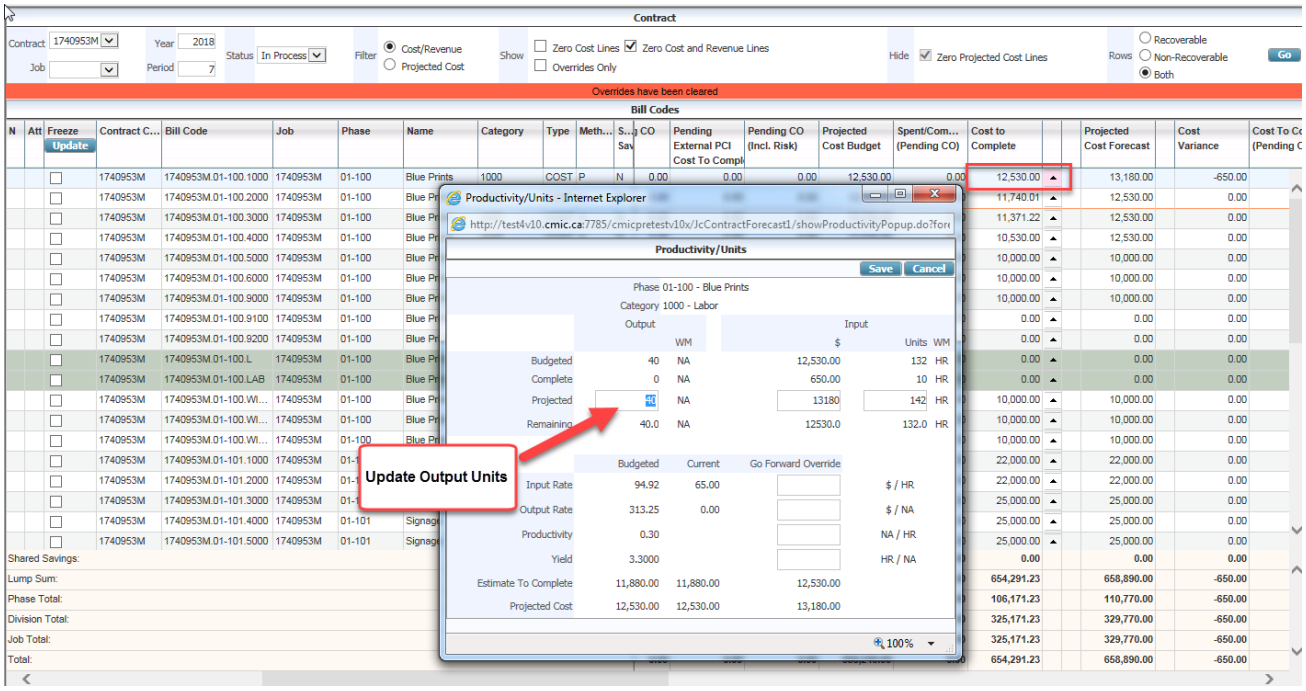
When overrides are made in the pop-up window and saved, the updated values will also appear in the Contract Forecast with PCI Projections screen's Footer Details section (Summary Panel).

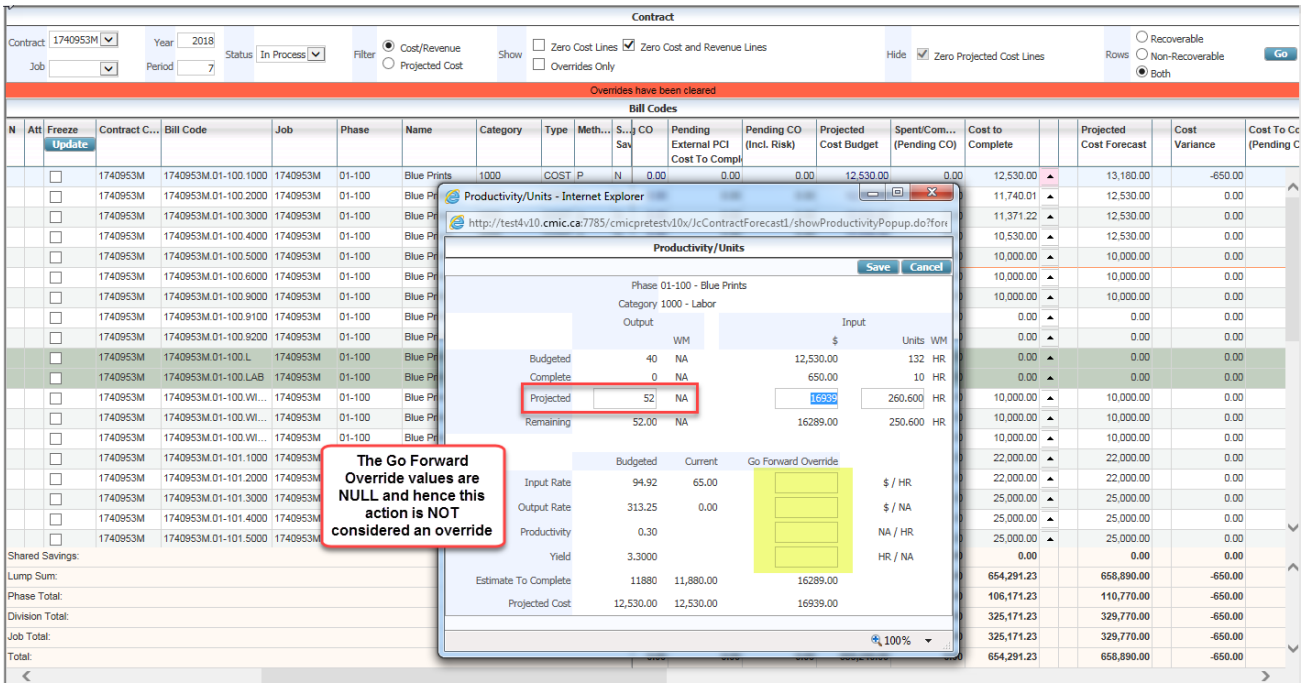
NOTE: If users do not override any values in the pop-up window but they press [**Save**], the Go Forward Overrides do not populate and the record is not identified as overridden in the main forecast screen.

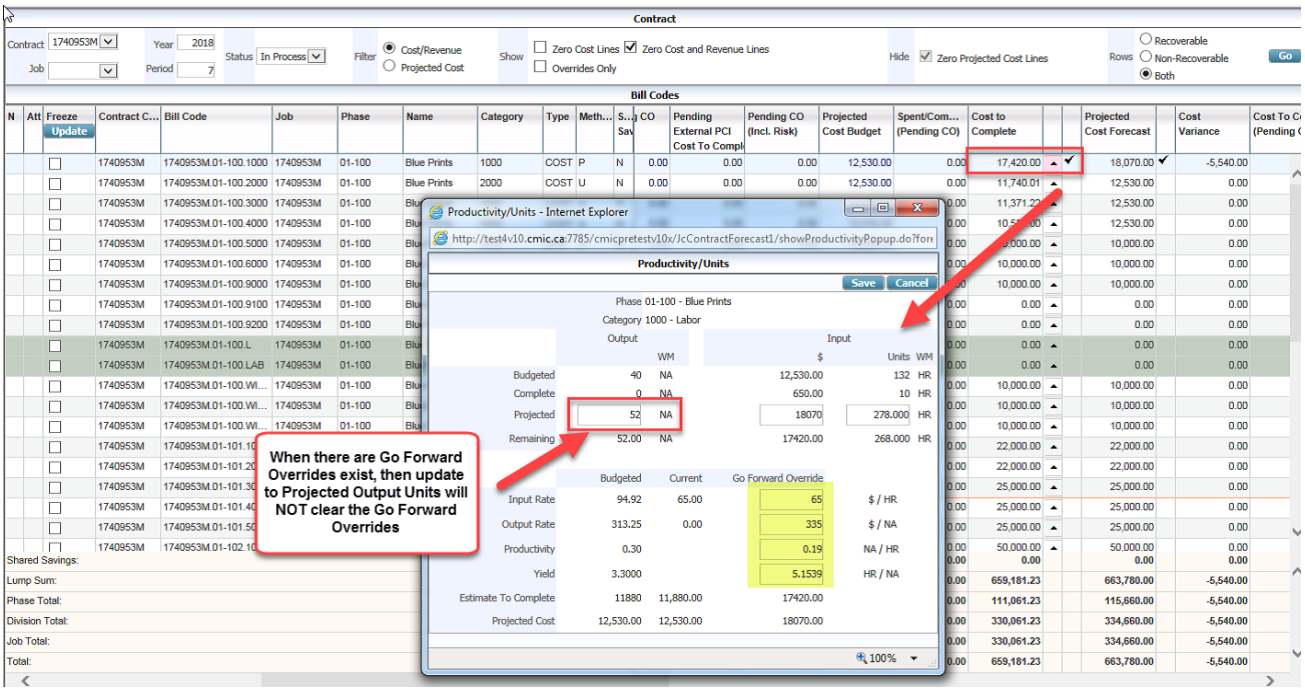
After entering overrides, if user presses [**Clear Overrides**] on a P-line in the Contract Forecast with PCI Projections screen, any overrides made in the Projected Output units (Phase Units) field will not be cleared and the overridden values will be kept. In addition, upon clearing overrides, the system will use Projected Output units for calculation, as Budgeted Output units will only be used when the completion units are zero. For example, if the Projected Output units is overridden from "1000" to "925", the clear overrides function will clear all other overridden values in the pop-up, except for this column. The Estimate to Complete column will then be recalculated based on the product of Projected Output Units * Current Output Rate. The Projected Input Units field will be recalculated using the formula: Projected Input Units (HR) = Projected Input Amount ($) / Current Input Rate ($/HR).

The calculation of the Go Forward Override Output Rate is based on overrides. Once the user overrides the Projected Output units, the system calculated value will be defaulted for the Go Forward Override Output Rate. No Go Forward Override Output Rate will appear if overrides are not available.

When the Projected Output unit is updated, this is not considered an override unless an explicit Go Forward Override already exists. When no Go Forward Overrides exist, the system will perform a clear override, once the Projected Output unit is updated by users, therefore the bill code is not considered overridden.

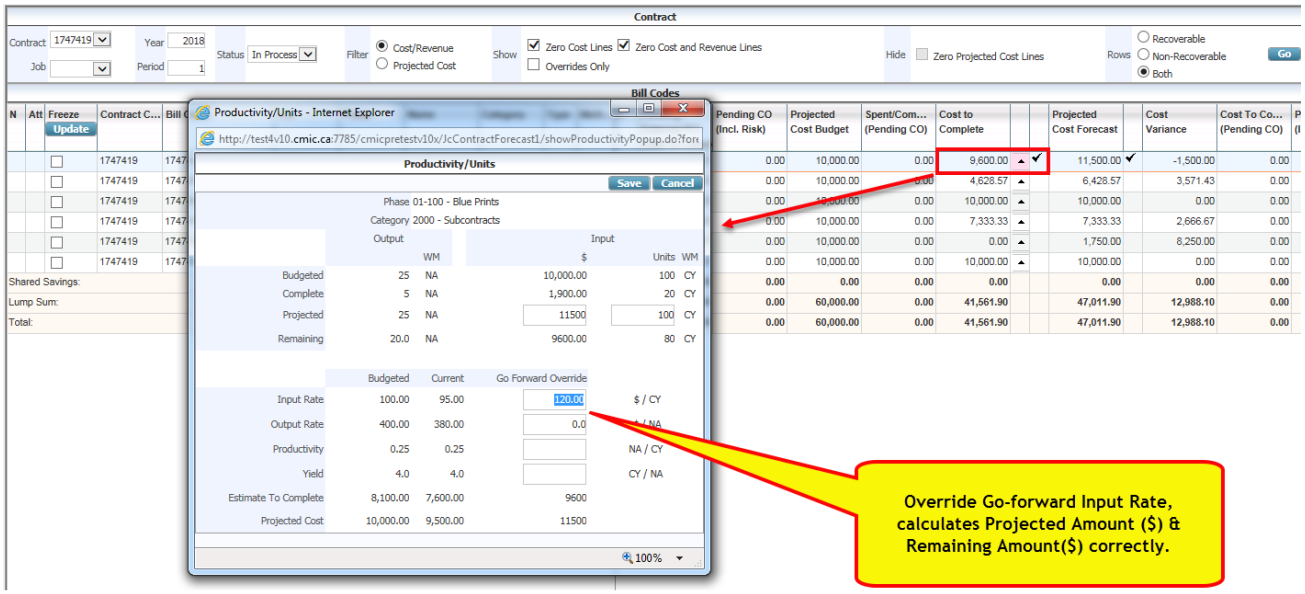


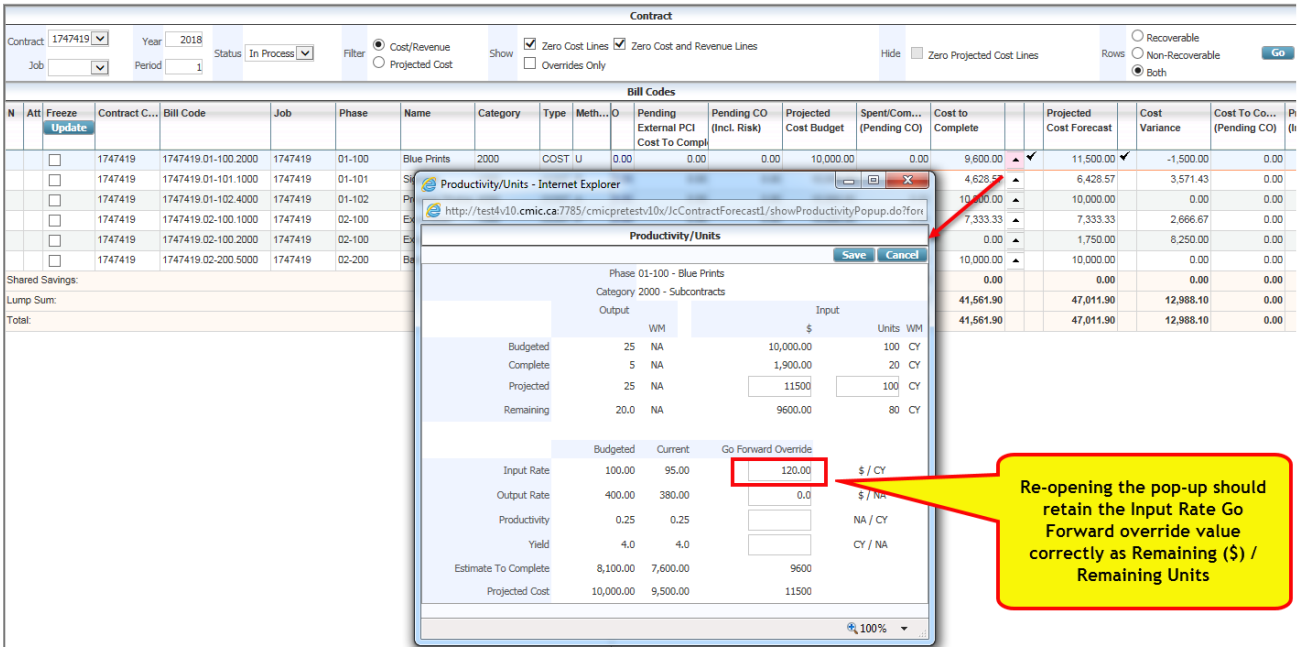




For Unit Method lines, when overriding the Input Rate Go Forward Override Rate value in the Productivity/Units pop-up, the system recalculates the Projected and Remaining amounts.

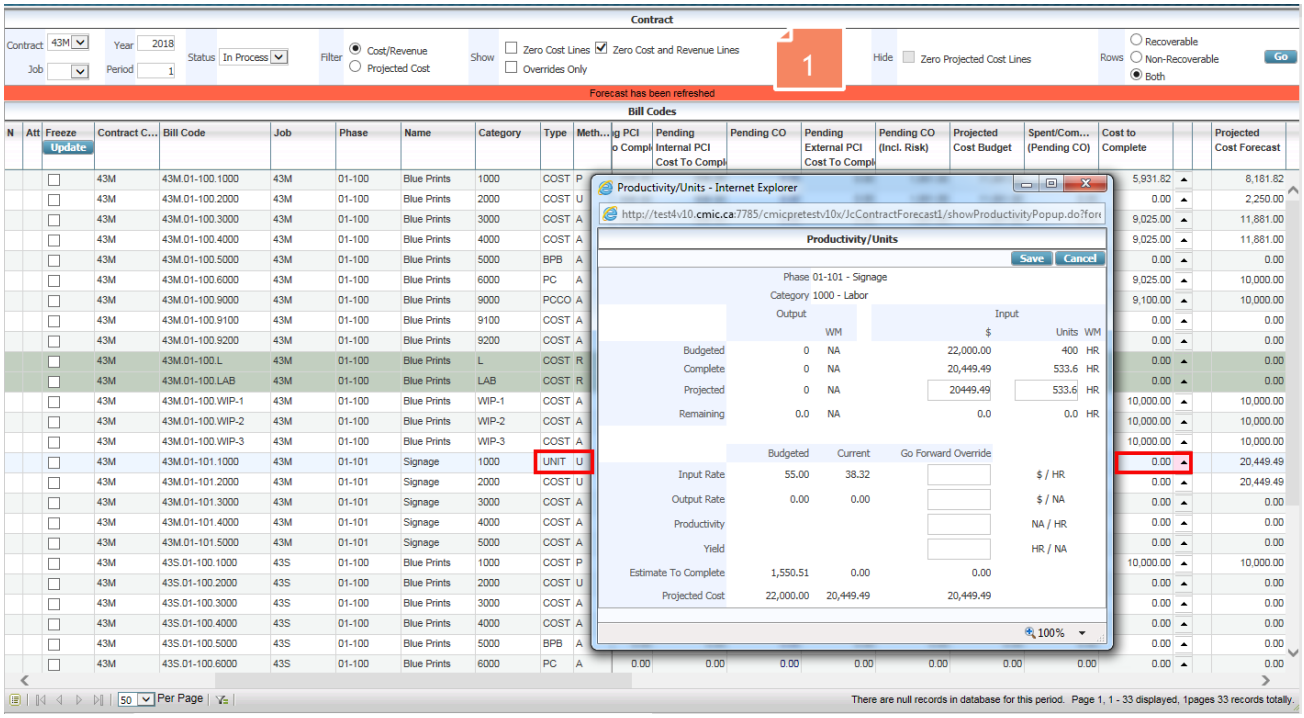
After saving the override, upon re-opening the Productivity/Units pop-up, it retains the Input Rate Go Forward Override value correctly as Remaining ($)/Remaining Units.

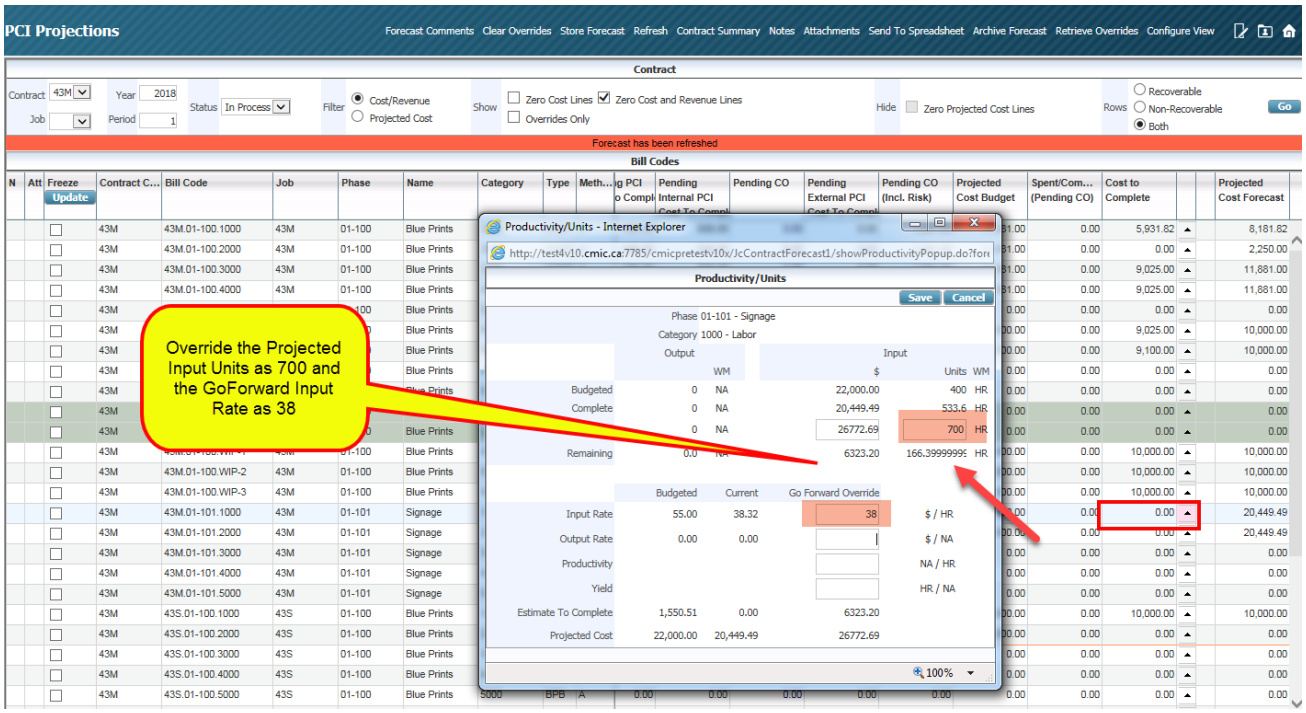


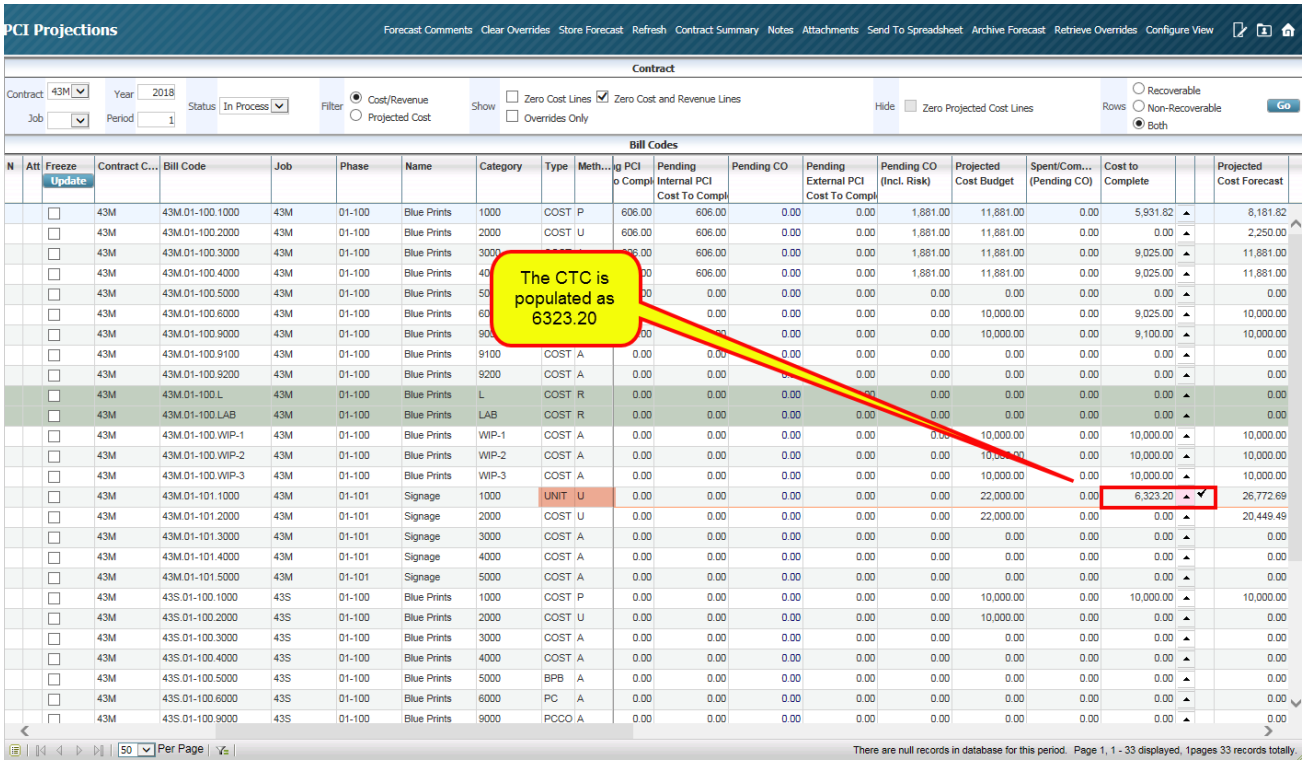


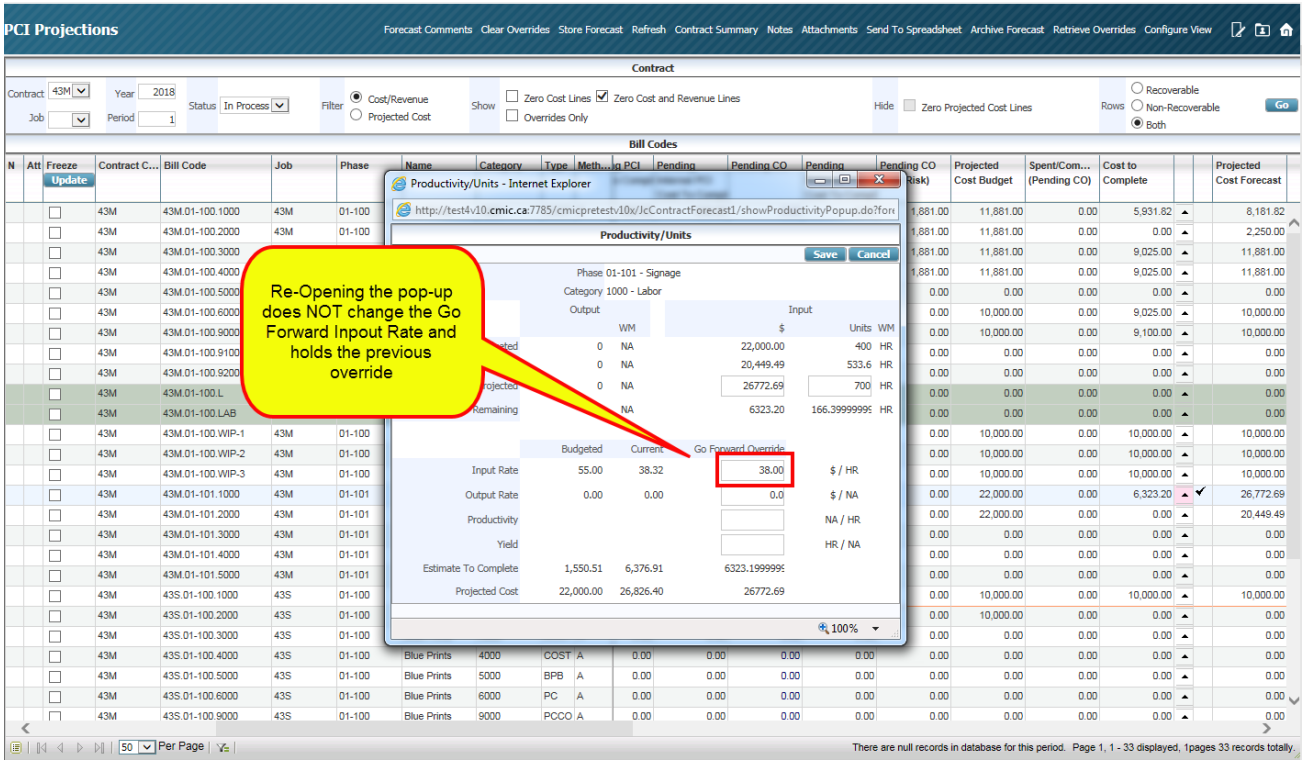
In addition, when there are no output units for these Unit billing lines (zeros), overriding the Projected Input units in the pop-up window causes the Go Forward Override Input Rate to be

populated with a value. Upon saving, closing, and re-opening, the pop-up holds the values, as shown in the screenshots below.




PCI Projections
Forecast Comments Clear Overrides Store Forecast Refresh Contract Summary Notes Attachments Send To Spreadsheet Archive Forecast Retrieve Overrides Configure View
Contract
Forecast has been refreshed
Bill Codes
Productivity/Units - Internet Explorer
Productivity/Units
Save Cancel
Phase 01-101 - Signage
Category 1000 - Labor
Output
Input
Budgeted
Complete
Remaining
Input Rate
Output Rate
Productivity
Yield
Estimate To Complete
Projected Cost
Go Forward Override
Override the Projected Input Units as 700 and the GoForward Input Rate as 38


PCI Projections
Forecast Comments Clear Overrides Store Forecast Refresh Contract Summary Notes Attachments Send To Spreadsheet Archive Forecast Retrieve Overrides Configure View
Contract
Bill Codes
The CTC is populated as 6323.20
There are null records in database for this period. Page 1, 1 - 33 displayed, 1pages 33 records totally.


PCI Projections
Forecast Comments Clear Overrides Store Forecast Refresh Contract Summary Notes Attachments Send To Spreadsheet Archive Forecast Retrieve Overrides Configure View
Contract
Bill Codes
Productivity/Units - Internet Explorer
Productivity/Units
Save
Cancel
Phase 01-101 - Signage
Category 1000 - Labor
Re-Opening the pop-up does NOT change the Go Forward Inpout Rate and holds the previous override
Input Rate 55.00 38.32 38.00 $ / HR
Output Rate 0.00 0.00 0.0 $ / NA
Estimate To Complete 1,550.51 6,376.91 6323.199999
Projected Cost 22,000.00 26,826.40 26772.69

Productivity Pop-Up Calculations

A	B	C	D	E	F	G		
		Output		**Input**		**Units**		
6	**Budgeted**	5000		125,000		1000		
7	**Completed**	1250		30000		250		
8	**Projected**	5000		30000		1000	**(G7/C7)*C6**	
9	**Remaining**	3750	**C8-C7**	0	**E8-E7**	750	**(G8-G7)**	
		Budgeted		**Current**				
13	**Input Rate**	125	**E6/G6**	120	**E7/G7**			
14	**Output Rate**	25	**E6/C6**	24	**E7/C7**			
15	**Productivity**	5	**C13/C14**	5	**E13/E14**			
16	**Yield**	0.2	**1/C15**	0.2	**1/E15**			
17	**ETC**	95,000	**E6-E7**	90,000	**G9*E13**			
18	**Projected Cost**	125,000		120,000	**E17+E7**			

1. Output Budgeted Units = Budgeted unit for the phase.
2. Output Complete Units = Phase completion Transaction
3. Output Projected Units = it is equal to budgeted output and available for override.
4. Output Remaining Units = Output Projected Units – Output Complete Units
5. Input Budgeted Amount = Budgeted Amount set for category
6. Input Complete Amount = Amount posted in JC transaction against the category.
7. Input Projected Amount= value defaulting from budgeted input amount and will change upon overriding current output rate. Available for override.
8. Remaining Input Amount = Input projected Amount minus Input Complete Amount.
9. Budgeted Units= Budgeted unit for categories under that phase.
10. Units Complete= Unit posted in JC transaction against the category.
11. Projected Units= (Completed Input Units divided by complete Output Quantity)* Output Budgeted Units
12. Remaining units = Projected units – Completed Units

Calculation of Productivity Pop-up when Entity is Overridden

The Productivity/Units pop-up calculations satisfy the following basic equations:

- (Estimate Amount to Complete) = (Remaining Output Units) * (Go Forward Output Rate)
- (Estimate Amount to Complete) = (Remaining Input Units) * (Go Forward Input Rate)
- (Go Forward Productivity) = (Remaining Output Units) / (Remaining Input Units)

When an entity is overridden in the pop-up window, this results in the recalculation of some of the columns, whereas other columns are locked to satisfy the basic equations as stated above.

When one column is overridden, two columns are locked and three are recalculated as per simple math required to balance the above equations.

Overridden Values	Locked Values	Recalculated Values
Remaining Output Units	• Go Forward Output Rate • Go Forward Input Rate	• Estimate Amount to Complete • Remaining Input Quantity • Go Forward Productivity
Go Forward Output Rate	• Remaining Output Units • Go Forward Input Rate	• Estimate Amount to Complete • Remaining Input Quantity

Overridden Values	Locked Values	Recalculated Values
		• Go Forward Productivity
Remaining Input Qty	• Go Forward Input Rate • Remaining Output Units	• Estimate Amount to Complete • Go Forward Output Rate • Go Forward Productivity
Go Forward Input Rate	• Remaining Output Units • Go Forward Productivity	• Estimate Amount to Complete • Go Forward Output Rate • Remaining Input Quantity
Go Forward Productivity	• Remaining Output Units • Go Forward Input Rate	• Estimate Amount to Complete • Go Forward Output Rate • Remaining Input Quantity

Calculations of Rates

	Name of Field	Formula
Budgeted Column	**Input Rate**	Budgeted Input Amount / Budgeted input units
	Output Rate	Budgeted Input Amount / Budgeted Output Units
	Productivity	Budgeted Input Rate / Budgeted Output Rate NOTE: When output rate is changed in the Productivity pop-up, the Input rate stays the same and the Productivity value is recalculated based on Input Rate/Output Rate.
	Yield	1 / Budgeted Productivity
	Estimate to complete	Budgeted input amount – Complete Input Amount
	Projected Cost	ETC + Complete Input Amount
Current Column	**Input Rate**	Complete Input Amount / Complete Input Unit
	Output Rate	Complete Input Amount / Complete Output Units
	Productivity Rate	Current Input Rate / Current Output Rate
	Yield	1 / Current Productivity

	Estimate to complete	Remaining Input units * Current input Rate
	Projected Cost	Estimate to complete+ Complete Input Amount

Productivity Forecasting Overview

The calculation of job percent complete becomes far more complex when dealing with 'Productivity' as a forecast method to calculating the projected at completion costs on a job. In the case of productivity forecasting (P line budgets), the percent complete is calculated based on the budgeting of units at the phase level and the subsequent posting of quantities complete for these phases. Projected Cost at Completion is updated through the entry of Go Forward Overrides, which change the Estimate to Complete and subsequently change the Projected Cost at Completion.

Initial Calculations:

Percent Complete = Output Units Complete / Output Units Projected
Output Units to Complete = Output Units Projected– Output Units Complete
Cost to Complete = (Current Output Unit Rate Amt * Output Units to Complete
Projected Cost At Completion = Cost to Complete + Input Cost Spent

Example 1: Prior to Posting of Costs and Units Complete

Prior to the posting of Units Complete, the system will assume that the Final Cost at Completion is equal to the Input Cost Budgeted. This means that the cost to complete this phase/category ($125,000) will be equal to the budget to complete this phase/category. In the case of a 'P' line forecast, the posting of input quantities and costs to the phase/category will not affect the Final Cost at Completion.

Budgeted Output Units	5,000 CY
Units Complete	0 CY

Percent Complete:	0%
Budgeted Input Quantity	1,000 HR
Budgeted Input Amount	$125,000
Spent Input Quantity	0 HR
Spent Input Cost	$0
Projected Final Quantity:	1,000 HR
Projected Final Cost	$125,000

Example 2: After Posting of Units Complete

Once the units have been posted as complete against the 'P' line phases, the system updates the percent complete by dividing the Units Complete by the Budgeted Output Units. Projected Final Quantities and Costs (against the input units) are then revised to account for the percent complete based on the output units. In the example below, the percent complete is 25% based on output units. Applying the output percent complete (25%) against the input units spent to date ($30,000) has the effect of changing the Projected Final Cost.

Budgeted Output Units	5,000 CY
Units Complete	1,250 CY
Percent Complete:	25% (1,250/5,000 CY)
Budgeted Input Quantity	1,000 HR
Budgeted Input Amount	$125,000
Spent Input Quantity	250 HR
Spent Input Cost	$30,000
Projected Final Quantity:	1,000 HR
Projected Final Cost	$120,000 ($30,000/25%)

Productivity Analysis

The analysis of conceptual unit price estimates is based on the relationship between input units and output units. The productivity-forecast screen allows analysis of this relationship in terms of the dollars and quantities needed to complete an output unit. Based on the information provided, productivity can be analyzed to see where the actual progress may be out of line with the estimates.

Due to the nature of productivity forecasts is should be noted that forecast amounts as a lump sum figure on the first screen cannot be changed. In order to change the Final Cost at Completion enter Go Forward Override amounts against the productivity forecast figures.

Below is an example of a productivity forecast based on the information presented in example 2. In this example, budget is a labor cost of $125.00 per hour to complete the work on this particular phase. Under this scenario labor would cost $25.00 per cubic yard to complete the work on this phase. Budgeted productivity would then be 5 cubic yards per hour with a yield of 1 cubic yard every .20 hours where yield is the inverse of productivity.

Budgeted

Input Unit Cost Rate	$125.00 / HR ($125.00/HR = $125,000/1000 HRS)
Output Unit Cost Rate	$ 25.00 / CY ($125,000 / 5000 CY)
Productivity	5 CY / HR (5,000 CY / 1000 HRS)
Yield	.20 HR / CY (1000 HRS / 5,000 CY)
Projected Cost	$125,000

	(Budget)
Estimate to Complete	$95,000 ($125,000 - $30,000)

Analyzing the current forecast rates shows that the job costs are doing better than projected. In the current scenario labor is only costing $120 per hour. Given the decrease in the labor cost per hour actual spending is only $24.00 a cubic yard on labor. Since consumption of 25% of the budgeted quantity (250 / 1000) as the units complete (1250/1000) productivity and yield remain the same. In this case, the job is working on schedule but it has cost less to do so. For this reason, the projected cost at completion has been modified down to reflect the decrease in labor cost.

Current

Input Unit Cost Rate	$120.00 / HR ($30,000 / 250 HRS)
Output Unit Cost Rate	$ 24.00 / CY ($30,000 / 1250 CY)
Productivity	5 CY / HR (1250 CY / 250 HRS)
Yield	.20 HR / CY (250 HRS / 1250 CY)
Projected Cost	$120,000 ($30,000 / 25%)
Estimate to Complete	$90,000 ($120,000 - $30,000)

Example 3: Changes to the Go Forward Override Amounts

Continuing with the scenario in Example 2, it may be decided that for whatever reason the rates or productivity numbers are misleading and are over or underestimating the Projected Cost at Completion. In this case, override the calculated amounts through the Go Forward Overrides. The system allows direct modification of any of the forecast amounts except for the Project Cost amount. As modification of one of the forecast amounts occurs, the remaining amounts will automatically update with the over-ride.

Take, for example, the situation from Example 2. Assume that if labor is kept down to $120 per hour it is known 5 cubic yards per hour will not be accomplished. The project manager estimates that as the job continues productivity will actually reduce to 4.75 CY / HR. In this case, enter 4.75 in the Productivity field for the Go Forward Override amounts. Using this new productivity, the system will calculate the yield will increase to .21 hours to complete one cubic yard causing the output unit cost rate to increase to $25.26 per cubic yard. Given that there are 3,750 remaining output units to complete the job, the Estimate to Complete would be $94,725 (Remaining Units * Output Rate).

When working with the Go Forward Override amounts, the system ignores the posted input and output amounts for the calculation of the remaining units. The Go Forward Override amounts are calculated under the following formula:

Productivity/Units

Save Cancel

Phase 010160 - Temporary Buildings

Category 1000 - Labour

	Output		Input		
		WM	$	Units	WM
Budgeted	5000	CY	125,000.00	1000	HR
Complete	1250	CY	30,000.00	250	HR
Projected	5000	CY	124725	1039.375	HR
Remaining	3750	CY	94725	789.375	HR

	Budgeted	Current	Go Forward Override	
Input Rate	125.00	120.00	120.0	/ HR
Output Rate	25.00	24.00	25.26	/ CY
Productivity	5.0	5.0	4.75	CY / HR
Yield	0.2	0.2	0.2105	HR / CY
Estimate To Complete	95000	90,000.00	94725	
Projected Cost	125,000.00	120,000.00	124725	

When Productivity or Yield change:

Productivity, Yield, Output Rate and Projected Cost Change

Productivity = 1 / Yield

Yield = 1 / Productivity

Output Rate = Input Rate x 1 / Productivity

Productivity

Estimate to Complete = Remaining Output Units * Output Rate

Projected Cost = Estimate to Complete + Spent

When Output Rate changes:

Input Rate and Projected Cost change – Productivity and Yield are constant

When Input Rate changes:

Output Rate and Projected Cost Change – Productivity and Yield are constant

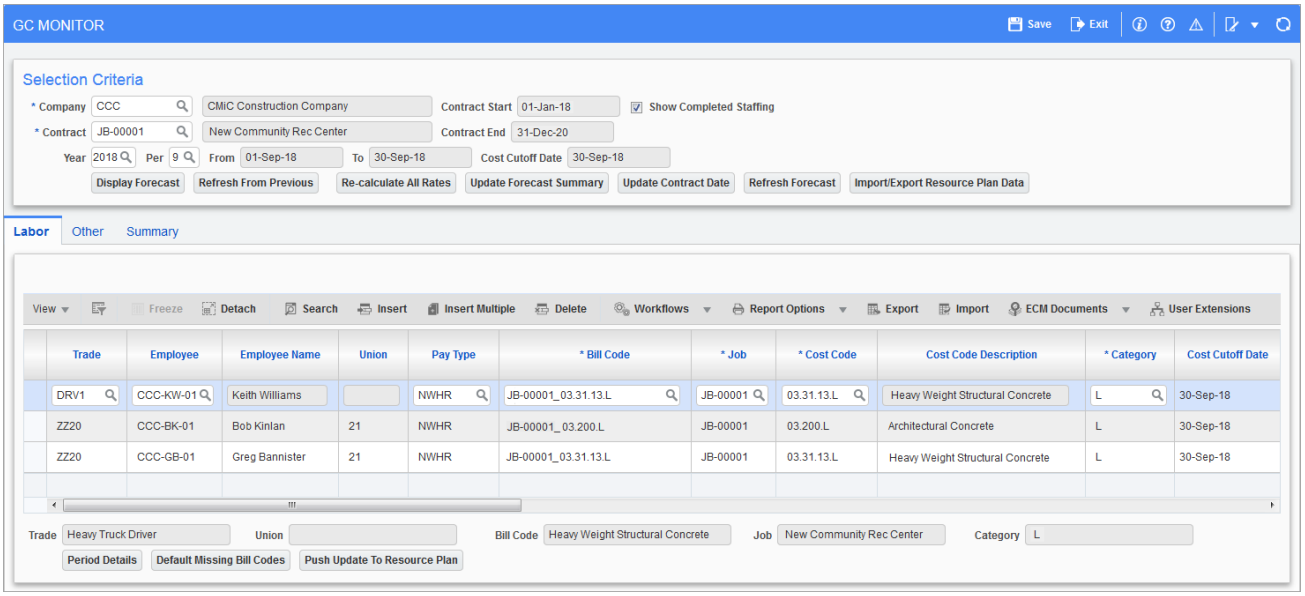
Overrides:

Input Unit Cost Rate	$120.00 / HR Remains the Same
Output Unit Cost Rate	$ 25.26 / CY $ 120 / 4.75
Productivity	4.75 CY / HR as entered in Go Forward Over-ride
Yield	.21 HR / CY 1 / 4.75
Estimate to Complete	$ 94,725 3750 * 25.26
Projected Cost	$124,725.00

This page is intentionally left blank.

Labor Forecast Pop-Up

GC Monitor Pop-Up



Pgm: RPFCAST – GC Monitor; standard Treeview path: Job Costing > Forecasting > GC Monitor

If CMiC Contract Forecasting has been set up to work with GC Monitor, for current and future periods, CMiC Field Contract Forecasting allows users to add and edit labor forecasting details via the GC Monitor screen, which is launched for a labor Forecast Line via its Cost to Complete pop-up window. For details, please refer to the GC Monitor reference guide.

Labor Forecast Pop-Up

Auto-Populate Labor Forecast

When a phase code/category is set up to use the Labor Forecast Method, and when an employee charges to this code, and if they are not setup already, the system populates their

information into this screen.

The system auto-populates information even if employees have charged to the phase code and the Owner Billing is not set up yet (bill codes not set up yet).

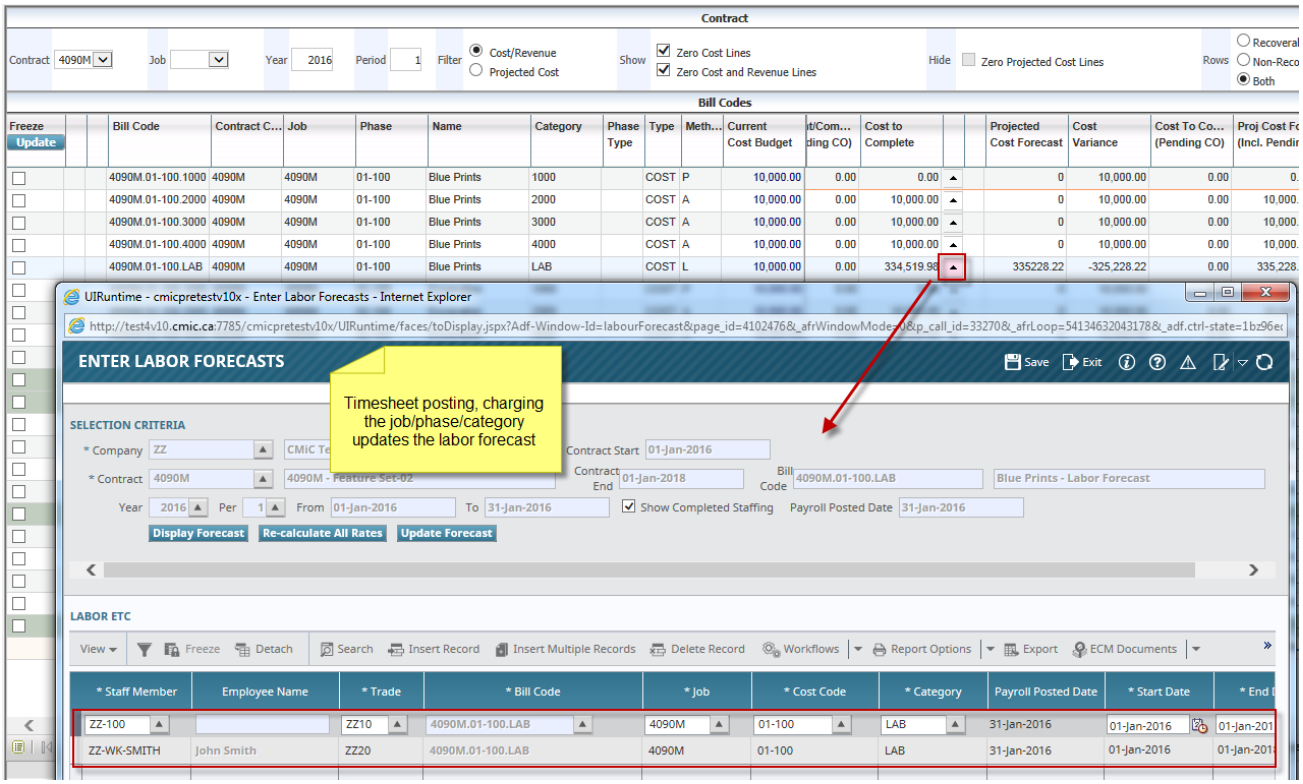
Upon creation of the owner billing (bill codes), the labor forecast will auto populate with this information.

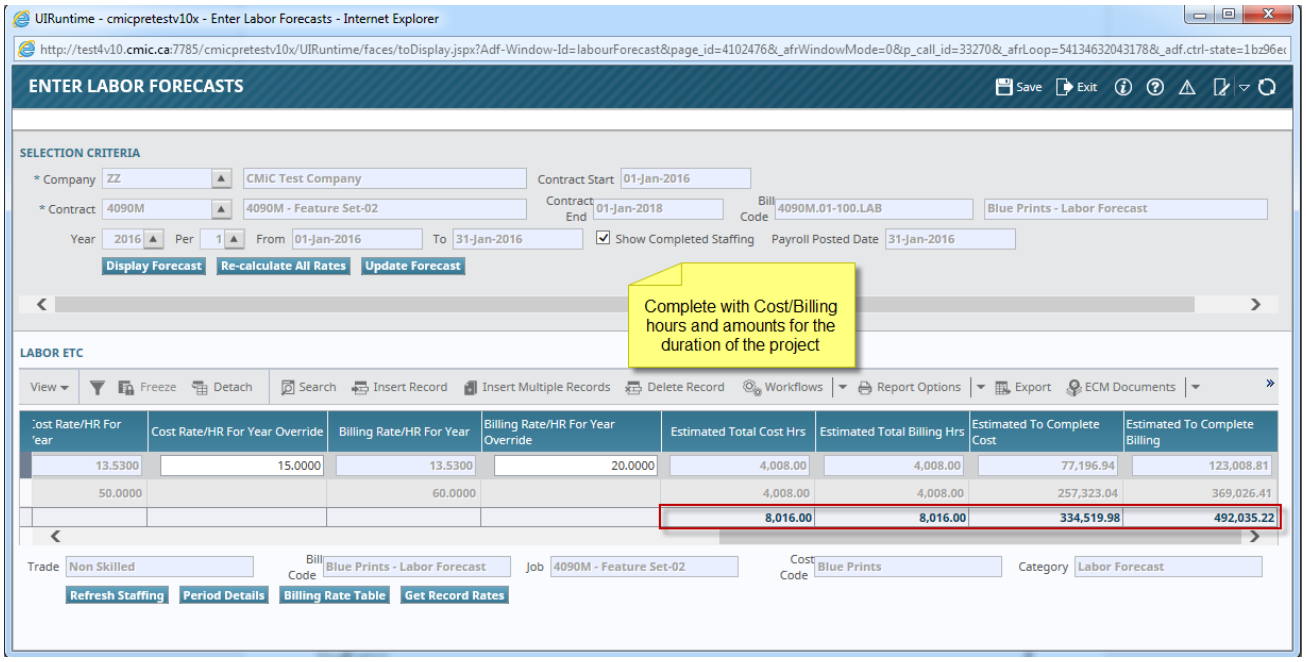
The following examples demonstrate two cases using this functionality.

Case 1:

When bill codes exist in Owner's Billing Contract and labor is charged towards a job/phase/labor category, say by posting a timesheet, the system automatically populates the Labor Forecasting in ADF. This includes creation of 'Period Details' for the labor for the duration of the project.

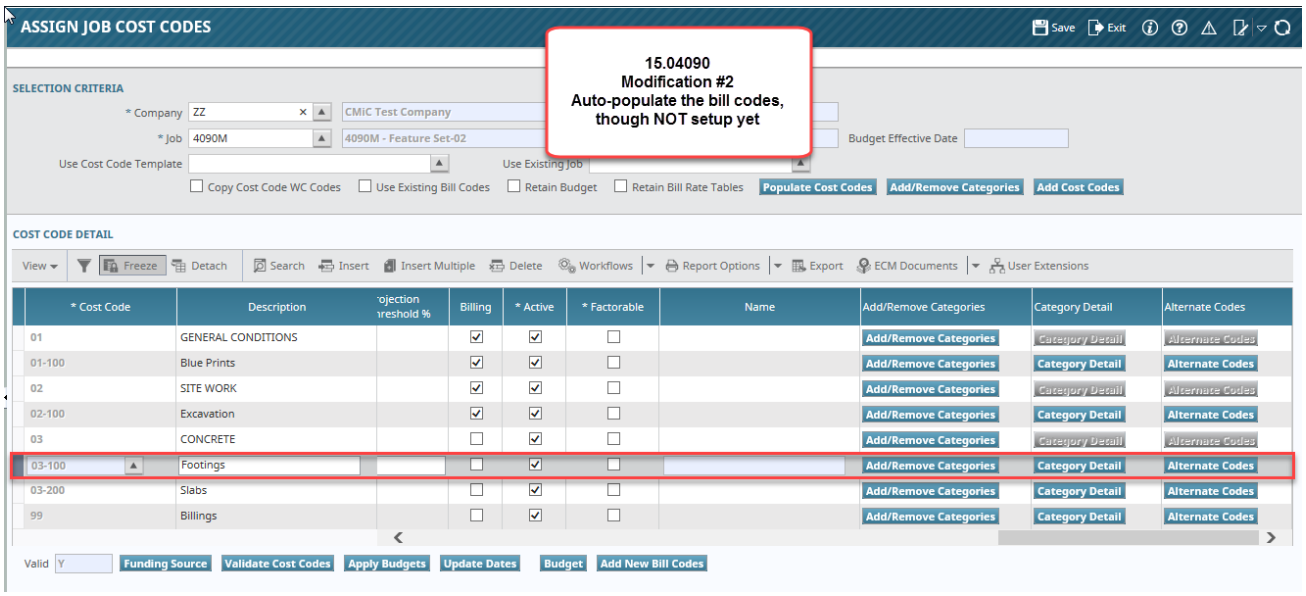
Upon closing the Labor Forecast pop-up, the system automatically refreshes the contract forecast, cost to complete column.

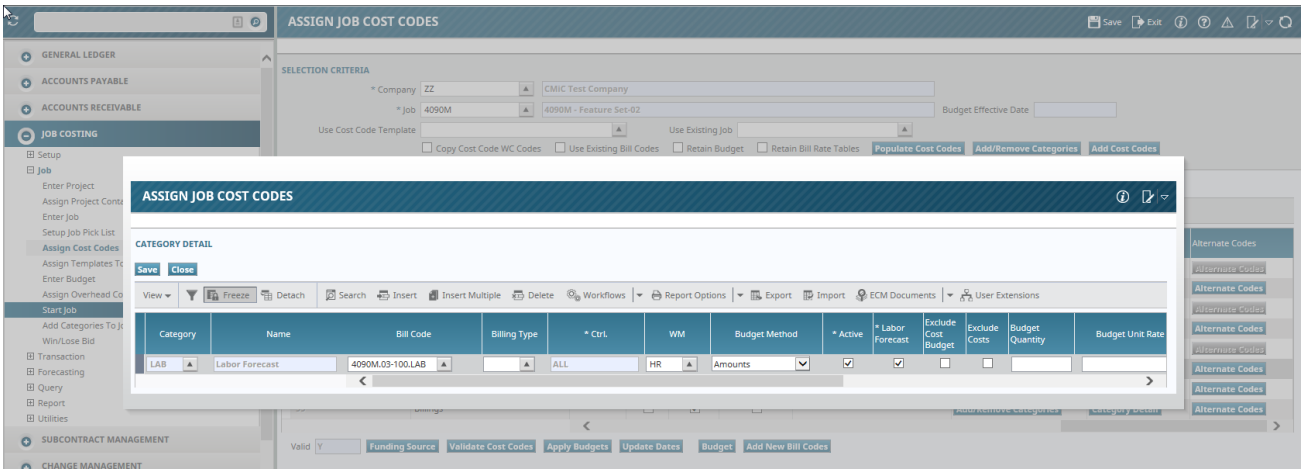


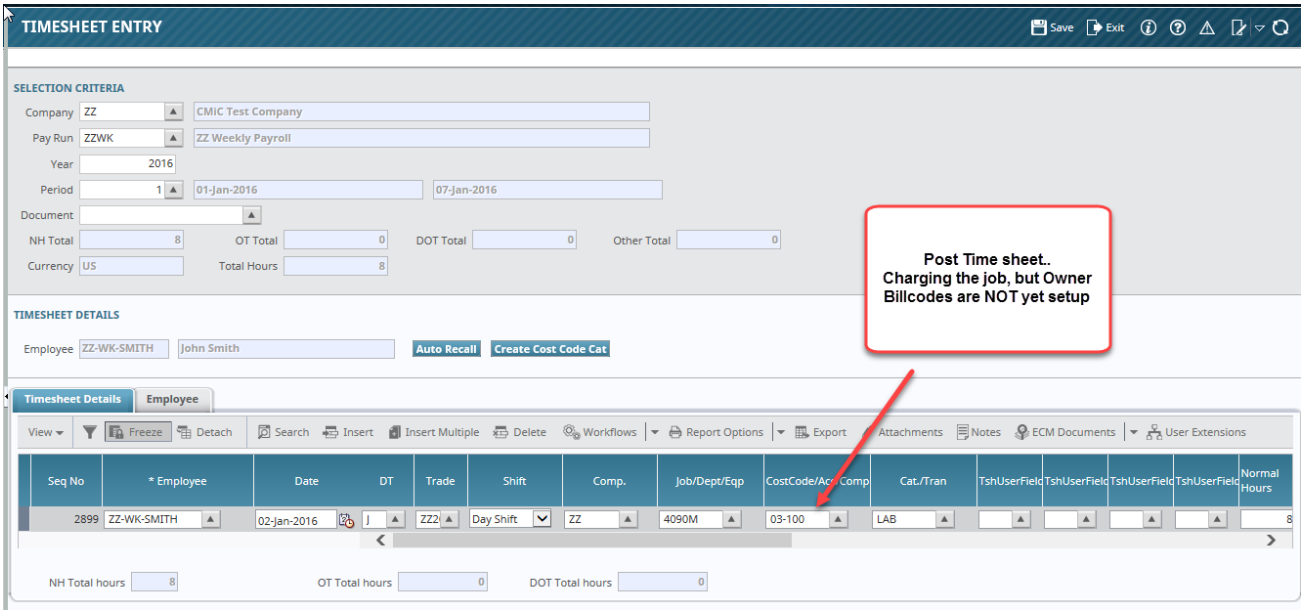


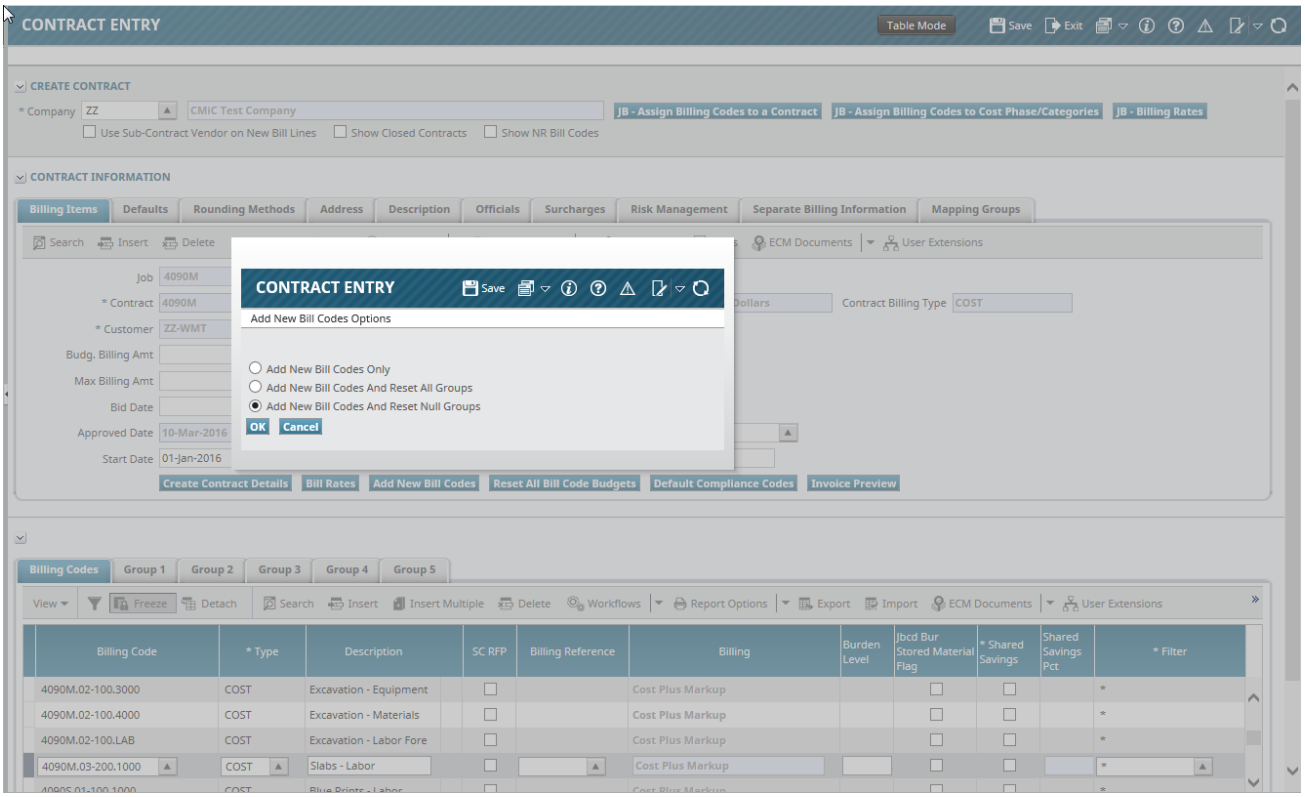
Case 2:

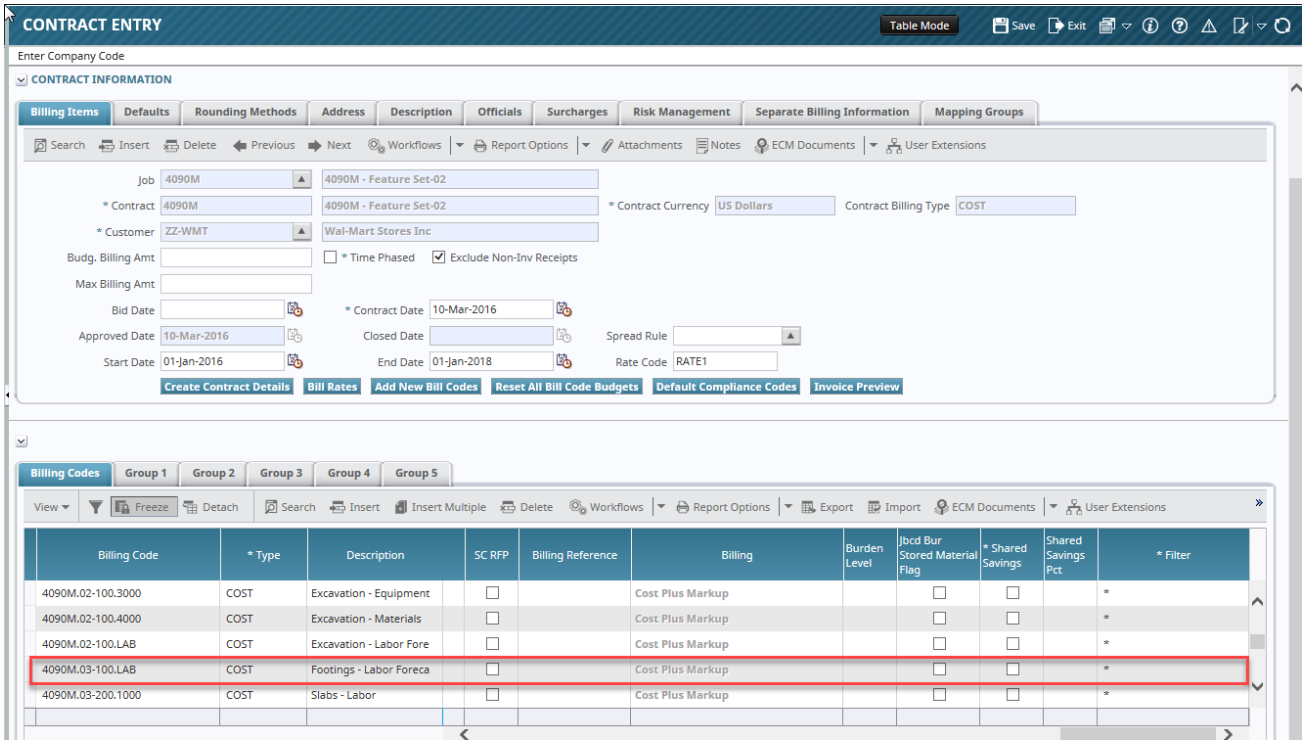
When a new phase/category is added to the job in progress and the owner bill codes are not set up in the billing contract, the system will store the labor charges posted and upon creation of the bill codes, will update the contract forecasting>labor forecast details.

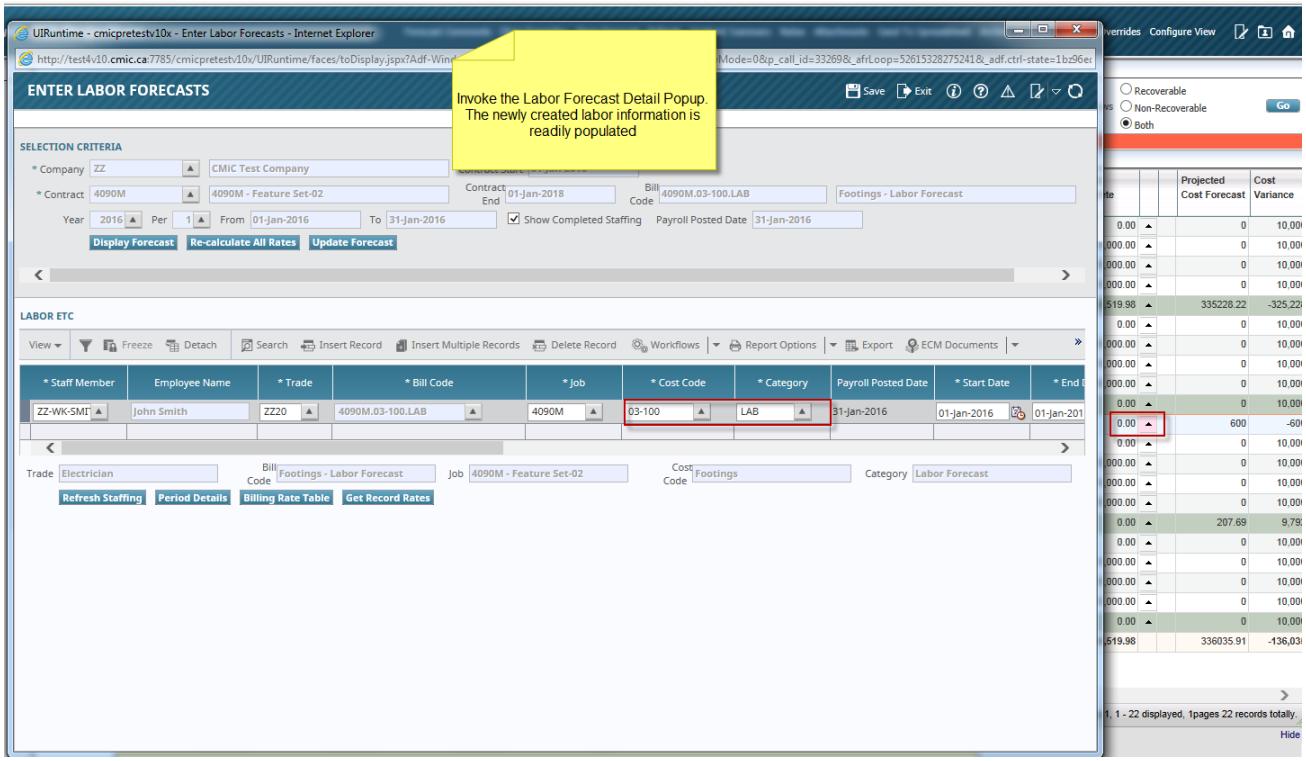



ASSIGN JOB COST CODES
GENERAL LEDGER
ACCOUNTS PAYABLE
ACCOUNTS RECEIVABLE
JOB COSTING
SUBCONTRACT MANAGEMENT
CHANGE MANAGEMENT
SELECTION CRITERIA
* Company ZZ
CMiC Test Company
* Job 4090M
4090M - Feature Set-02
Budget Effective Date
Use Cost Code Template
Use Existing Job
Copy Cost Code WC Codes
Use Existing Bill Codes
Retain Budget
Retain Bill Rate Tables
Populate Cost Codes
Add/Remove Categories
Add Cost Codes
ASSIGN JOB COST CODES
CATEGORY DETAIL
Save
Close
Category
Name
Bill Code
Billing Type
* Ctrl.
WM
Budget Method
* Active
* Labor Forecast
Exclude Cost Budget
Exclude Costs
Budget Quantity
Budget Unit Rate
LAB
Labor Forecast
4090M.03-100.LAB
ALL
HR
Amounts
Alternate Codes
Funding Source
Validate Cost Codes
Apply Budgets
Update Dates
Budget
Add New Bill Codes


TIMESHEET ENTRY
Save
Exit
SELECTION CRITERIA
Company ZZ
CMiC Test Company
Pay Run ZZWK
ZZ Weekly Payroll
Year 2016
Period 1
01-Jan-2016
07-Jan-2016
Document
NH Total 8
OT Total 0
DOT Total 0
Other Total 0
Currency US
Total Hours 8
Post Time sheet..
Charging the job, but Owner
Billcodes are NOT yet setup
TIMESHEET DETAILS
Employee ZZ-WK-SMITH
John Smith
Auto Recall
Create Cost Code Cat
Timesheet Details
Employee
Seq No
* Employee
Date
DT
Trade
Shift
Comp.
Job/Dept/Eqp
CostCode/Acct
Comp
Cat./Tran
Normal Hours
2899
ZZ-WK-SMITH
02-Jan-2016
J
ZZ2
Day Shift
ZZ
4090M
03-100
LAB
8
NH Total hours 8
OT Total hours 0
DOT Total hours 0


CONTRACT ENTRY
Table Mode
Save
Exit
CREATE CONTRACT
* Company ZZ
CMIC Test Company
JB - Assign Billing Codes to a Contract
JB - Assign Billing Codes to Cost Phase/Categories
JB - Billing Rates
Use Sub-Contract Vendor on New Bill Lines
Show Closed Contracts
Show NR Bill Codes
CONTRACT INFORMATION
Billing Items
Defaults
Rounding Methods
Address
Description
Officials
Surcharges
Risk Management
Separate Billing Information
Mapping Groups
Search
Insert
Delete
ECM Documents
User Extensions
Job 4090M
* Contract 4090M
* Customer ZZ-WMT
Budg. Billing Amt
Max Billing Amt
Bid Date
Approved Date 10-Mar-2016
Start Date 01-Jan-2016
Contract Billing Type COST
CONTRACT ENTRY
Save
Add New Bill Codes Options
Add New Bill Codes Only
Add New Bill Codes And Reset All Groups
Add New Bill Codes And Reset Null Groups
OK
Cancel
Create Contract Details
Bill Rates
Add New Bill Codes
Reset All Bill Code Budgets
Default Compliance Codes
Invoice Preview
Billing Codes
Group 1
Group 2
Group 3
Group 4
Group 5
View
Freeze
Detach
Search
Insert
Insert Multiple
Delete
Workflows
Report Options
Export
Import
ECM Documents
User Extensions
Billing Code
* Type
Description
SC RFP
Billing Reference
Billing
Burden Level
Jbcd Bur Stored Material Flag
* Shared Savings
Shared Savings Pct
* Filter
4090M.02-100.3000 COST Excavation - Equipment Cost Plus Markup
4090M.02-100.4000 COST Excavation - Materials Cost Plus Markup
4090M.02-100.LAB COST Excavation - Labor Fore Cost Plus Markup
4090M.03-200.1000 COST Slabs - Labor Cost Plus Markup


CONTRACT ENTRY
Table Mode
Save
Exit
Enter Company Code
CONTRACT INFORMATION
Billing Items
Defaults
Rounding Methods
Address
Description
Officials
Surcharges
Risk Management
Separate Billing Information
Mapping Groups
Job 4090M 4090M - Feature Set-02
* Contract 4090M 4090M - Feature Set-02
* Contract Currency US Dollars
Contract Billing Type COST
* Customer ZZ-WMT Wal-Mart Stores Inc
Budg. Billing Amt
* Time Phased
Exclude Non-Inv Receipts
Max Billing Amt
Bid Date
* Contract Date 10-Mar-2016
Approved Date 10-Mar-2016
Closed Date
Spread Rule
Start Date 01-Jan-2016
End Date 01-Jan-2018
Rate Code RATE1
Create Contract Details
Bill Rates
Add New Bill Codes
Reset All Bill Code Budgets
Default Compliance Codes
Invoice Preview
Billing Codes
Group 1
Group 2
Group 3
Group 4
Group 5
Billing Code
* Type
Description
SC RFP
Billing Reference
Billing
Burden Level
Jbcd Bur Stored Material Flag
* Shared Savings
Shared Savings Pct
* Filter
4090M.02-100.3000 COST Excavation - Equipment Cost Plus Markup
4090M.02-100.4000 COST Excavation - Materials Cost Plus Markup
4090M.02-100.LAB COST Excavation - Labor Fore Cost Plus Markup
4090M.03-100.LAB COST Footings - Labor Foreca Cost Plus Markup
4090M.03-200.1000 COST Slabs - Labor Cost Plus Markup


UIRuntime - cmicpretestv10x - Enter Labor Forecasts - Internet Explorer
ENTER LABOR FORECASTS
Save
Exit
Invoke the Labor Forecast Detail Popup. The newly created labor information is readily populated
SELECTION CRITERIA
* Company ZZ CMiC Test Company
* Contract 4090M 4090M - Feature Set-02
Contract End 01-Jan-2018
Bill Code 4090M.03-100.LAB Footings - Labor Forecast
Year 2016 Per 1 From 01-Jan-2016 To 31-Jan-2016
Show Completed Staffing
Payroll Posted Date 31-Jan-2016
Display Forecast
Re-calculate All Rates
Update Forecast
LABOR ETC
Search
Insert Record
Insert Multiple Records
Delete Record
Workflows
Report Options
Export
ECM Documents
* Staff Member
Employee Name
* Trade
* Bill Code
* Job
* Cost Code
* Category
Payroll Posted Date
* Start Date
ZZ-WK-SMT John Smith ZZ20 4090M.03-100.LAB 4090M 03-100 LAB 31-Jan-2016 01-Jan-2016
Trade Electrician
Bill Code Footings - Labor Forecast
Job 4090M - Feature Set-02
Cost Code Footings
Category Labor Forecast
Refresh Staffing
Period Details
Billing Rate Table
Get Record Rates
Recoverable
Non-Recoverable
Both
Go
Projected Cost Forecast
Cost Variance

PCI Projections

Forecast Comments Clear Overrides Store Forecast Refresh Contract Summary Notes ... Forecast Retrieve Overrides Configure View

Contract: 4090M Job: Year: 2016 Period: 1 Filter: Cost/Revenue / Projected Cost Show: Zero Cost Lines / Zero Cost and Revenue Lines Rows: Recoverable / Non-Recoverable / Both Go

Close the popup.
The Contract Forecast automatically refreshes and brings the labor amounts to Cost To Complete column

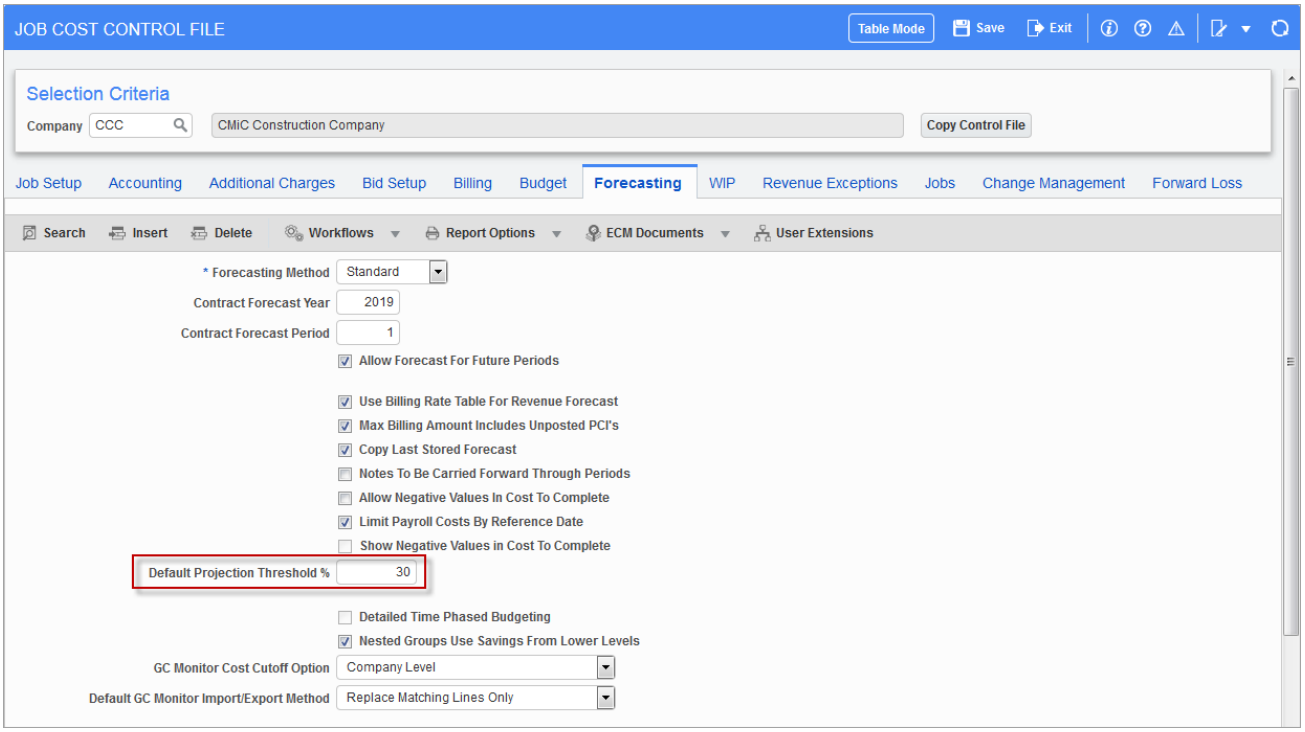
Bill Codes

Freeze / Update	Bill Code	Contract C...	Job	Phase	Name	Category	Phase Type	Type	Meth...	Current Cost Budget	ing CO	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Com... (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance	Cost To (Pendin
	4090M.01-100.1000	4090M	4090M	01-100	Blue Prints	1000		COST	P	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	4090M.01-100.2000	4090M	4090M	01-100	Blue Prints	2000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.01-100.3000	4090M	4090M	01-100	Blue Prints	3000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.01-100.4000	4090M	4090M	01-100	Blue Prints	4000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.01-100.LAB	4090M	4090M	01-100	Blue Prints	LAB		COST	L	10,000.00	0.00	0.00	10,000.00	0.00	334,519.98	335228.22	-325,228.22	
	4090M.02-100.1000	4090M	4090M	02-100	Excavation	1000		COST	P	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	4090M.02-100.2000	4090M	4090M	02-100	Excavation	2000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.02-100.3000	4090M	4090M	02-100	Excavation	3000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.02-100.4000	4090M	4090M	02-100	Excavation	4000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090M.02-100.LAB	4090M	4090M	02-100	Excavation	LAB		COST	L	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	4090M.03-100.LAB	4090M	4090M	03-100	Footings	LAB		COST	L	0.00	0.00	0.00	0.00	0.00	257,323.04	257923.04	-257,923.04	
	4090S.01-100.1000	4090M	4090S	01-100	Blue Prints	1000		COST	P	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	4090S.01-100.2000	4090M	4090S	01-100	Blue Prints	2000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.01-100.3000	4090M	4090S	01-100	Blue Prints	3000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.01-100.4000	4090M	4090S	01-100	Blue Prints	4000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.01-100.LAB	4090M	4090S	01-100	Blue Prints	LAB		COST	L	10,000.00	0.00	0.00	10,000.00	0.00	0.00	207.69	9,792.31	
	4090S.02-100.1000	4090M	4090S	02-100	Excavation	1000		COST	P	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	4090S.02-100.2000	4090M	4090S	02-100	Excavation	2000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.02-100.3000	4090M	4090S	02-100	Excavation	3000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.02-100.4000	4090M	4090S	02-100	Excavation	4000		COST	A	10,000.00	0.00	0.00	10,000.00	0.00	10,000.00	0	10,000.00	
	4090S.02-100.LAB	4090M	4090S	02-100	Excavation	LAB		COST	L	10,000.00	0.00	0.00	10,000.00	0.00	0.00	0	10,000.00	
	Totals:										0.00	0.00	200,000.00	0.00	711,843.02	593358.95	-393,358.95	

This page is intentionally left blank.

Projection Threshold

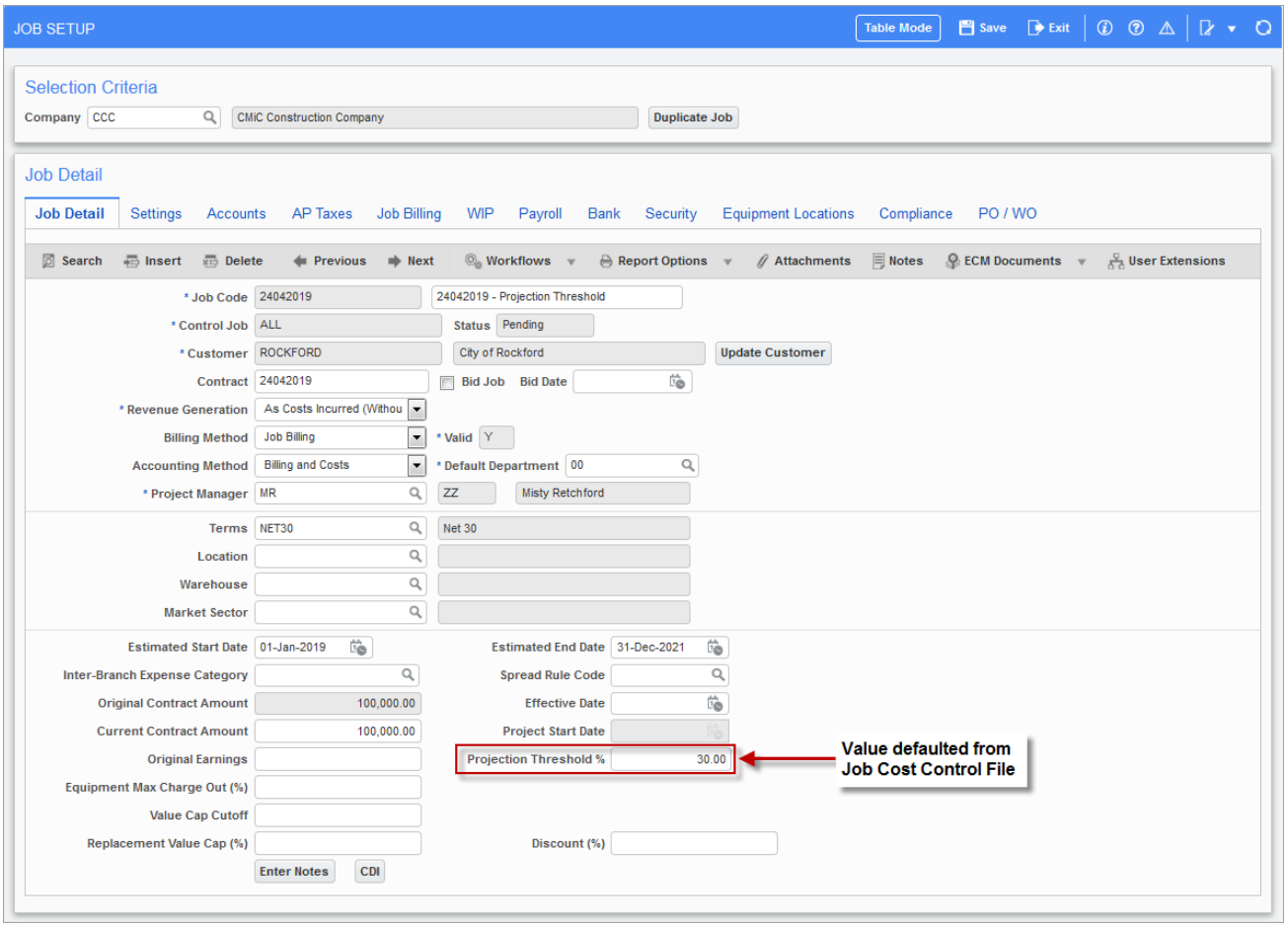
Setup



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab

The Job cost Control File contain the Default Projection Threshold field, where users can maintain the required percent for defaulting into any new job created under the company. If no projection threshold is being used, then enter a value of zero (0.00). This field is not nullable.

NOTE: The value entered in the Default Projection Threshold % field serves as a default only when creating new jobs and is not used in any calculations.

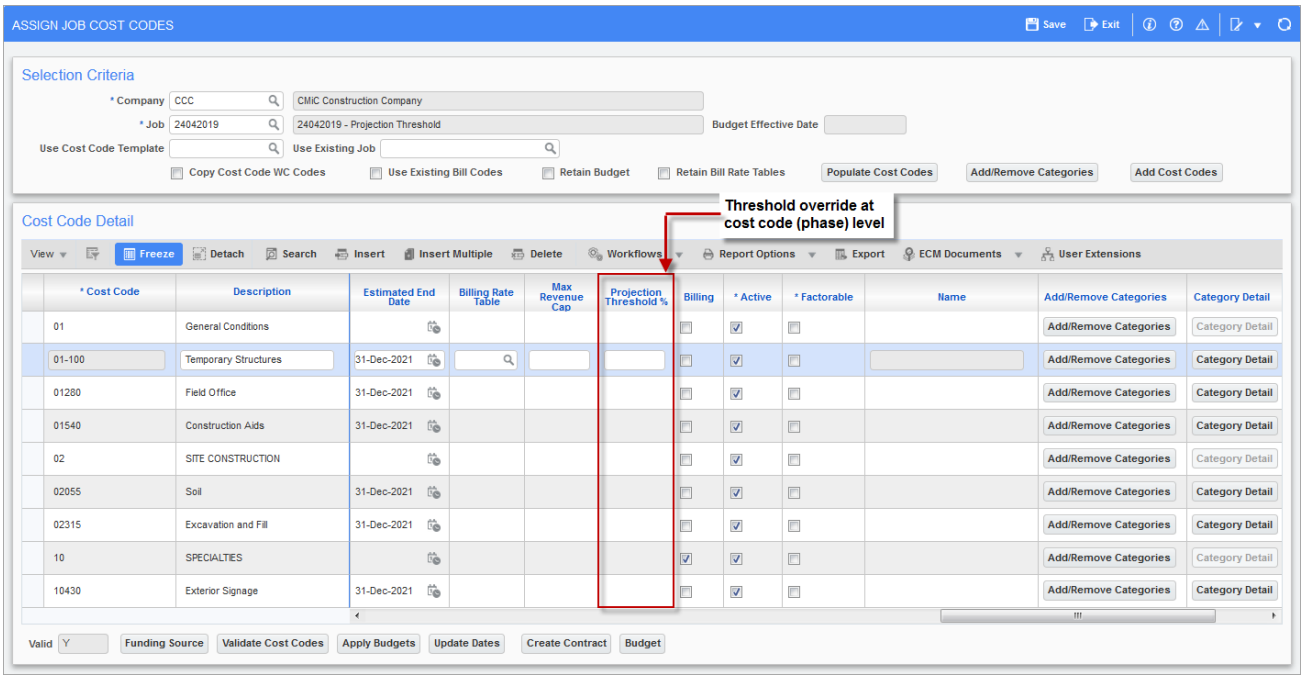


Pgm: JCJOBFM – Job Setup; standard Treeview path: Job Costing > Job > Enter Job – Job Detail tab

The value in the Projection Threshold % field on the Job Setup screen defaults from the Job Cost Control File.

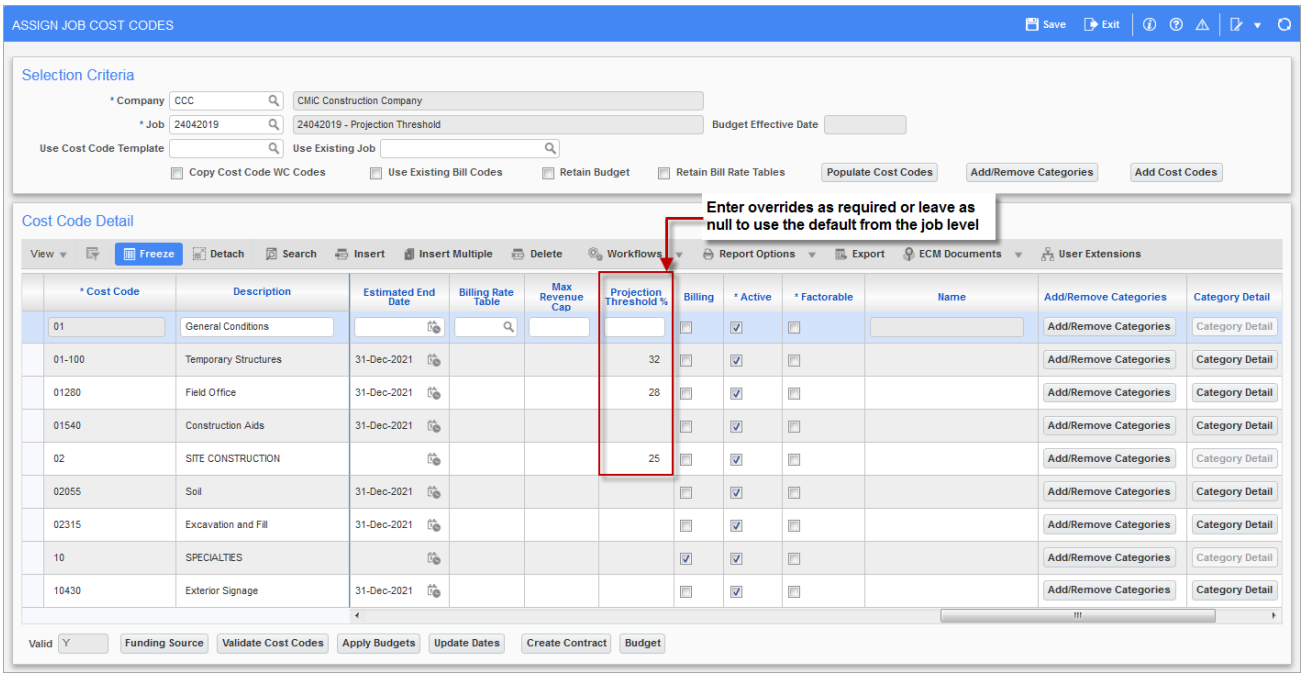
This field is not nullable. When no threshold percent is required, then this field should be set to zero (0.00). In this case, no projection threshold is applied.

When there is a non-zero projection percent entered, then the value will be compared against the percent complete value in forecasting. Users can override this value at the job level as required.



Pgm: JCPRODSU – Assign Job Cost Codes; standard Treeview path: Job Costing > Job > Assign Cost Codes

The cost code (phase) level Projection Threshold % column can be left as null on the Assign Job Cost Codes screen. If it is left as null, then the program will use the value entered at the job level in the Projection Threshold % field on the Job Setup screen. When required, users can enter an override for any specific cost codes (phase codes), which will be used on bill codes with specific cost codes.



Pgm: JCPRODSU – Assign Job Cost Codes; standard Treeview path: Job Costing > Job > Assign Cost Codes

Calculations

If % Complete is >= Threshold %

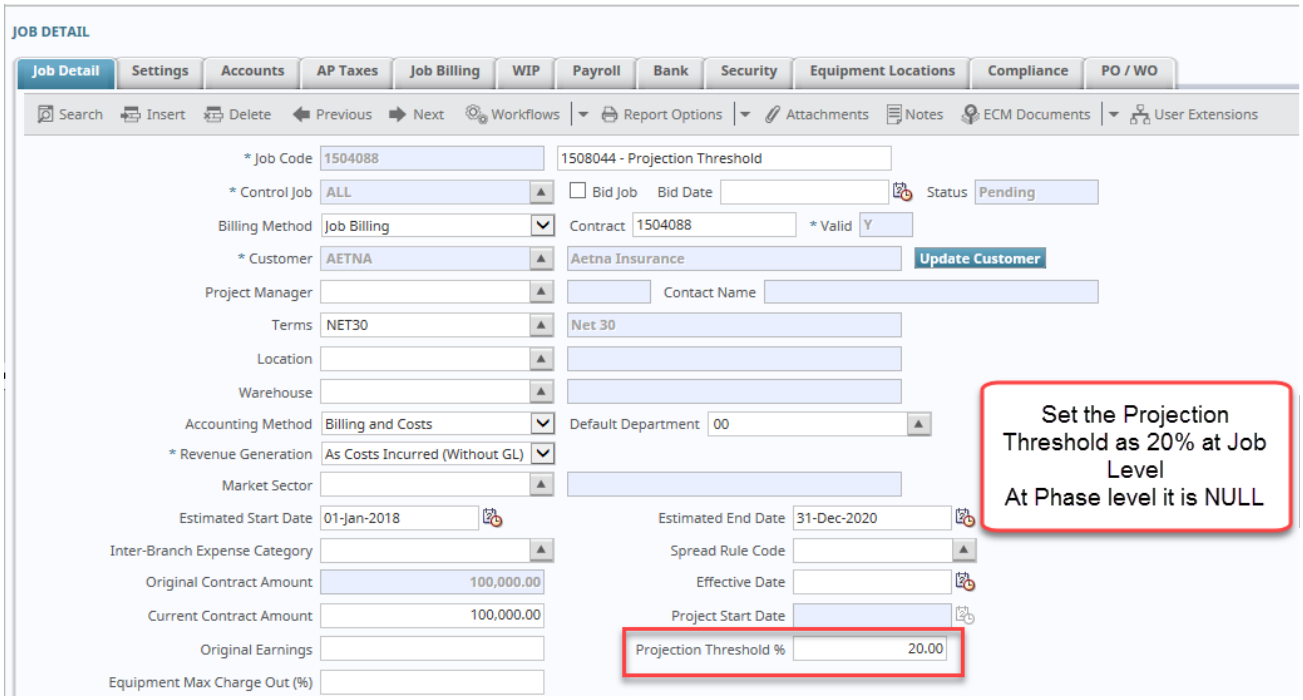
then, no projection threshold is applicable and standard calculation applies.

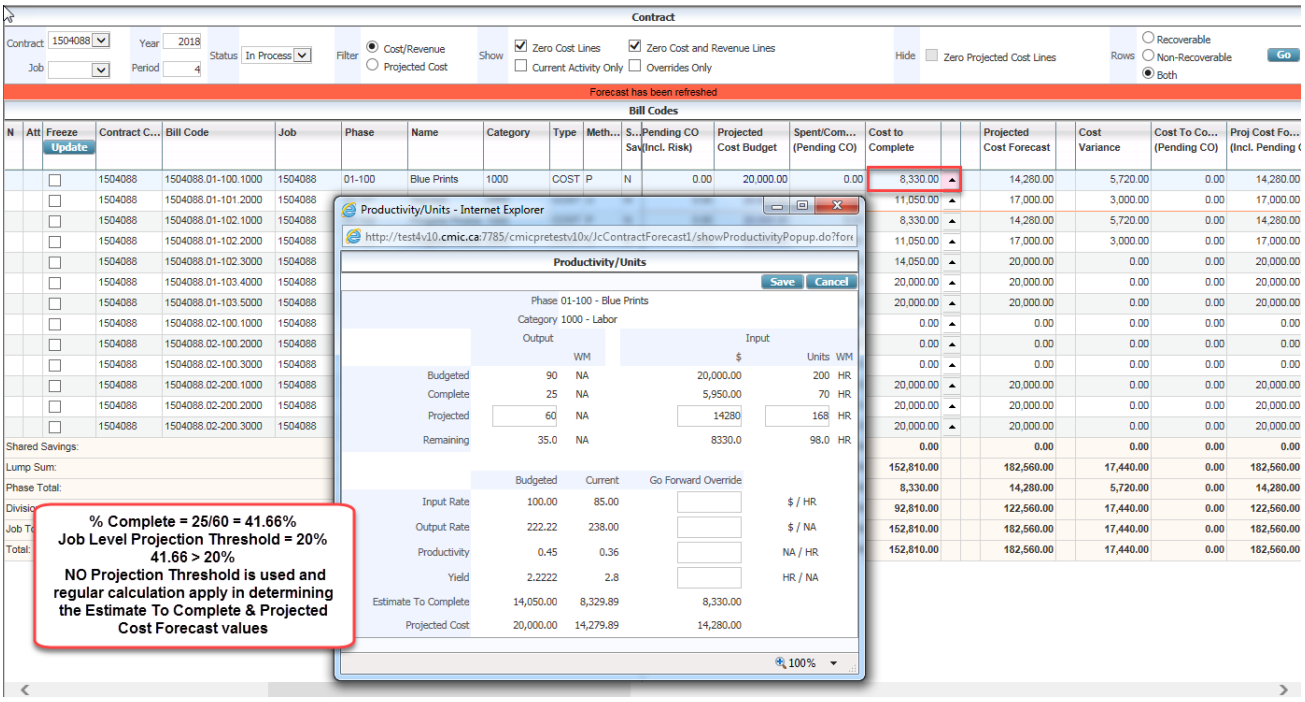
If % Complete is < Threshold %

then, projection threshold is used in calculating the projected cost forecast.

Examples

Example 1: % Complete is >= Projection Threshold %





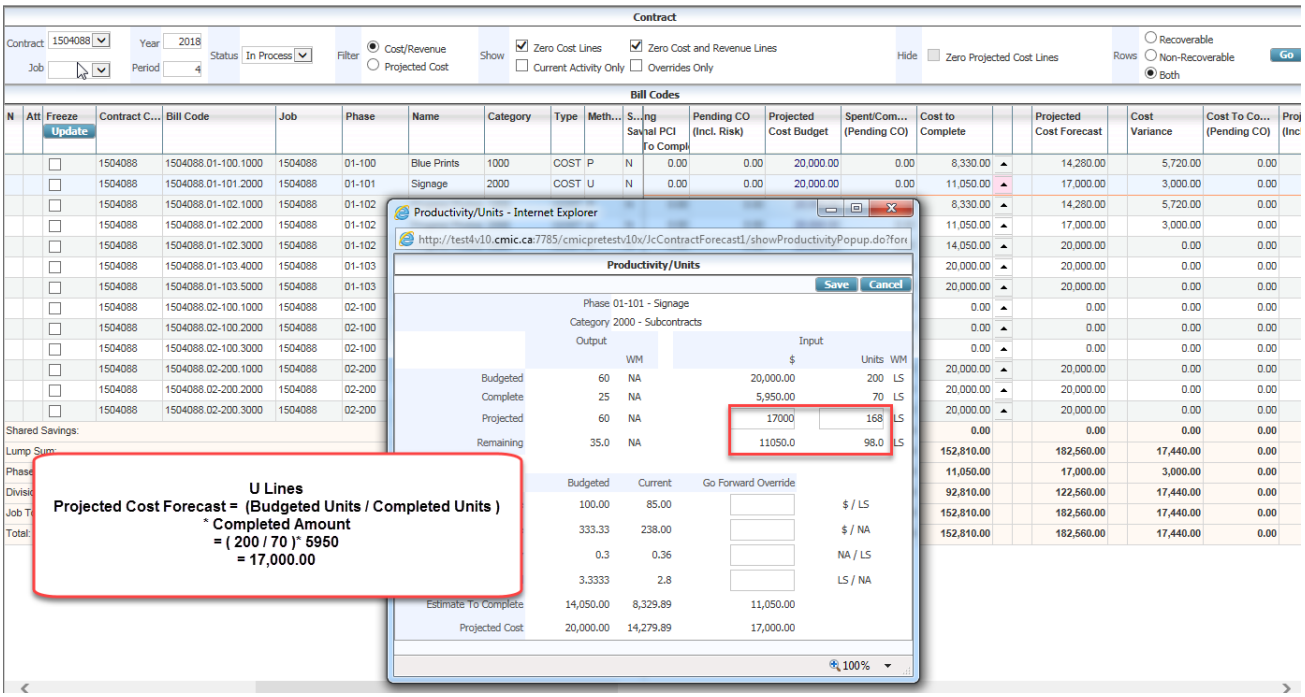
Standard Calculation ‘P’ Lines:

Estimate To Complete = Remaining Output Units * Current Output Rate = 35.00 * 238.00 = 8,330.00

Remaining Input Quantity = Estimate To Complete / Current Input Rate = 8,330.00 / 85.00 = 98

Projected Cost =Projected Output Units * Current Output Rate = 60 * 238.00 = 14,280.00

Standard Calculation 'U' Lines:



Projected Cost Forecast = (Budgeted Units / Completed Units) * Completed Amount

= (200 / 70) * 5950

= 17,000.00

Estimate To Complete = 11,050.00

Example 2: % Complete < Projection Threshold %

Projected Cost Forecast = Max {Budget, Calculated Projected Cost Forecast Amount}

JOB DETAIL

Job Detail | Settings | Accounts | AP Taxes | Job Billing | WIP | Payroll | Bank | Security | Equipment Locations | Compliance | PO / WO

Search | Insert | Delete | Previous | Next | Workflows | Report Options | Attachments | Notes | ECM Documents | User Extensions

* Job Code	1504088	1508044 - Projection Threshold	
* Control Job	ALL	Bid Job / Bid Date	Status: Pending
Billing Method	Job Billing	Contract: 1504088	* Valid: Y
* Customer	AETNA	Aetna Insurance	Update Customer
Project Manager		Contact Name	
Terms	NET30	Net 30	
Location			
Warehouse			
Accounting Method	Billing and Costs	Default Department: 00	
* Revenue Generation	As Costs Incurred (Without GL)		
Market Sector			
Estimated Start Date	01-Jan-2018	Estimated End Date: 31-Dec-2020	
Inter-Branch Expense Category		Spread Rule Code	
Original Contract Amount	100,000.00	Effective Date	
Current Contract Amount	100,000.00	Project Start Date	
Original Earnings		Projection Threshold %	75.00
Equipment Max Charge Out (%)			

Projection Threshold greater than the % Complete in Frecasting

I Projections

Calculate Burdens | Forecast Comments | Clear Overrides | Store Forecast | Refresh | Contract Summary | Notes | Attachments | Send To Spreadsheet | Archive Forecast | Retrieve Overrides | Configure View

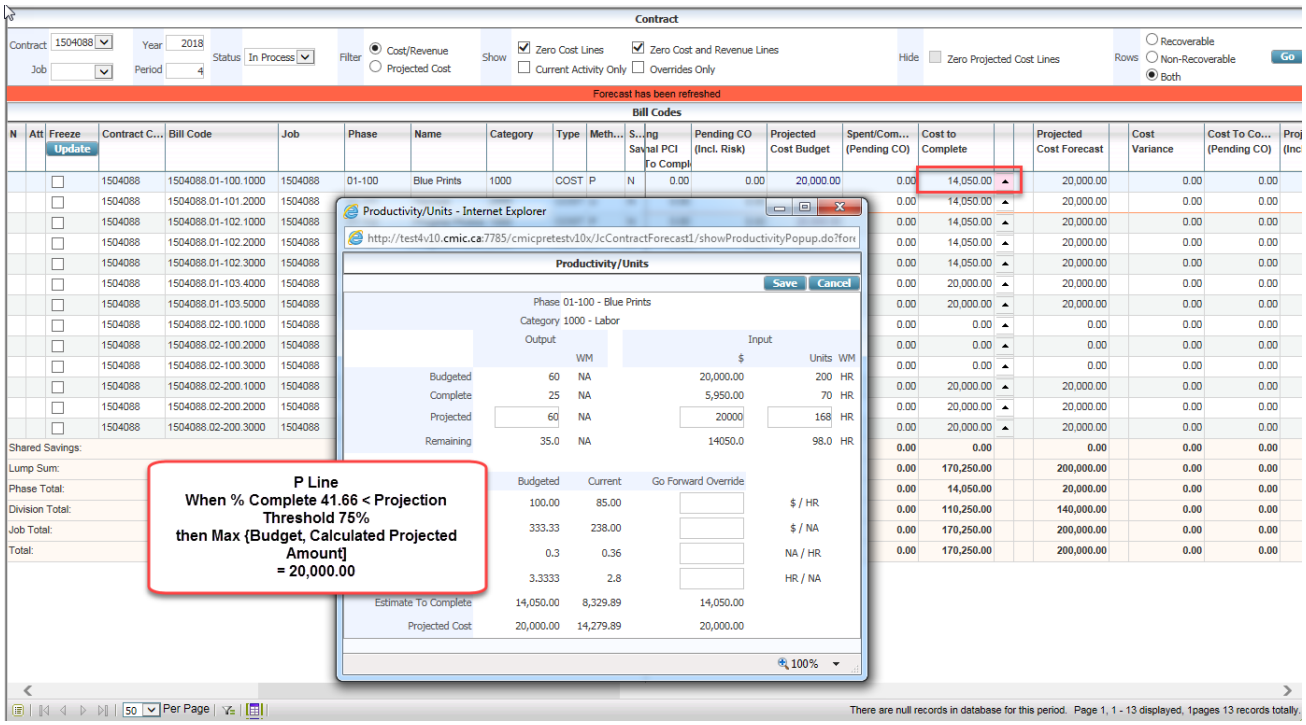
Contract: 1504088 | Job | Year: 2018 | Period: 4 | Status: In Process | Filter: Cost/Revenue / Projected Cost | Show: Zero Cost Lines, Zero Cost and Revenue Lines, Current Activity Only, Overrides Only | Hide: Zero Projected Cost Lines | Rows: Recoverable / Non-Recoverable / Both | Go

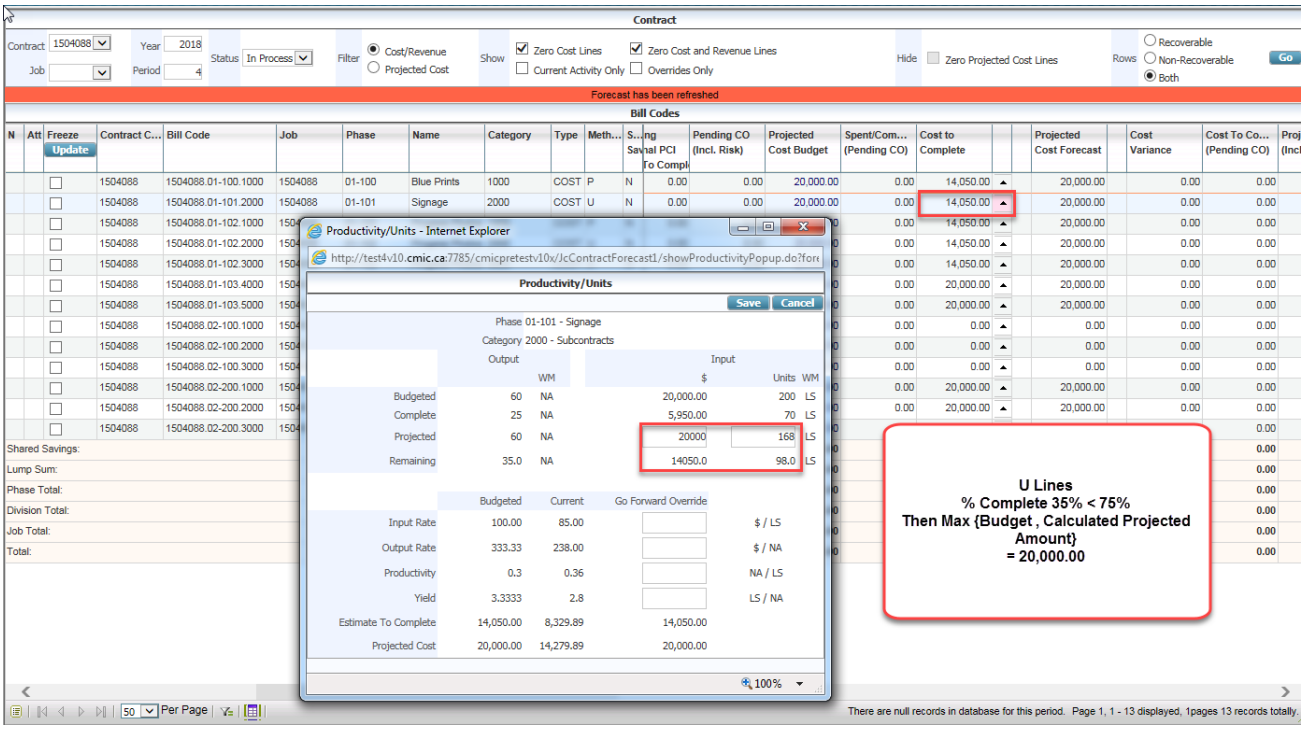
Forecast has been refreshed

Bill Codes

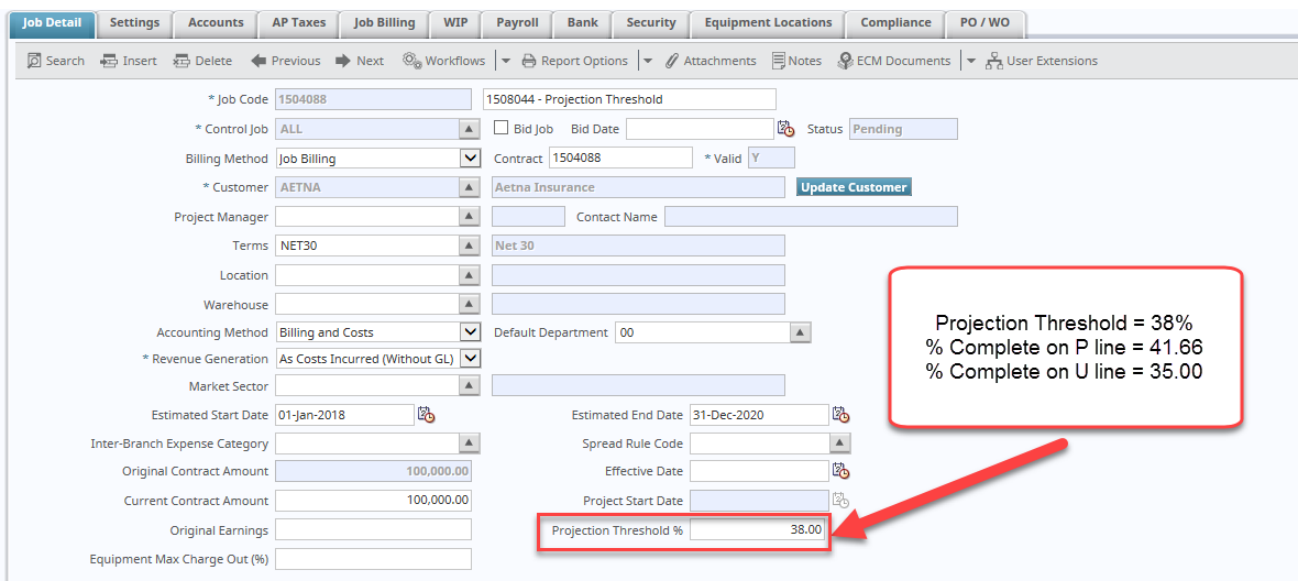
N	Att	Freeze Update	Contract C...	Bill Code	Job	Phase	Name	Category	Type	Meth...	S...	ng Saving PCI To Compl	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Com... (Pending CO)	Cost to Complete		Projected Cost Forecast	Cost Variance	Cost To Co... (Pending CO)	Proj (Incl
		☐	1504088	1504088.01-100.1000	1504088	01-100	Blue Prints	1000	COST	P	N	0.00	0.00	20,000.00	0.00	14,050.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-101.2000	1504088	01-101	Signage	2000	COST	U	N	0.00	0.00	20,000.00	0.00	14,050.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-102.1000	1504088	01-102	Progess Photos	1000	COST	P	N	0.00	0.00	20,000.00	0.00	14,050.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-102.2000	1504088	01-102	Progess Photos	2000	COST	U	N	0.00	0.00	20,000.00	0.00	14,050.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-102.3000	1504088	01-102	Progess Photos	3000	COST	A	N	0.00	0.00	20,000.00	0.00	14,050.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-103.4000	1504088	01-103	Site Office	4000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.01-103.5000	1504088	01-103	Site Office	5000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.02-100.1000	1504088	02-100	Excavation	1000	COST	P	N	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
		☐	1504088	1504088.02-100.2000	1504088	02-100	Excavation	2000	COST	U	N	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
		☐	1504088	1504088.02-100.3000	1504088	02-100	Excavation	3000	COST	A	N	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
		☐	1504088	1504088.02-200.1000	1504088	02-200	Back Fill	1000	COST	P	N	0.00	0.00	20,000.00	0.00	20,000.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.02-200.2000	1504088	02-200	Back Fill	2000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00		20,000.00	0.00	0.00	
		☐	1504088	1504088.02-200.3000	1504088	02-200	Back Fill	3000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00		20,000.00	0.00	0.00	
Shared Savings:												0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
Lump Sum:												0.00	0.00	200,000.00	0.00	170,250.00		200,000.00	0.00	0.00	
Phase Total:												0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
Division Total:												0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
Job Total:												0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
Total:												0.00	0.00	200,000.00	0.00	170,250.00		200,000.00	0.00	0.00	

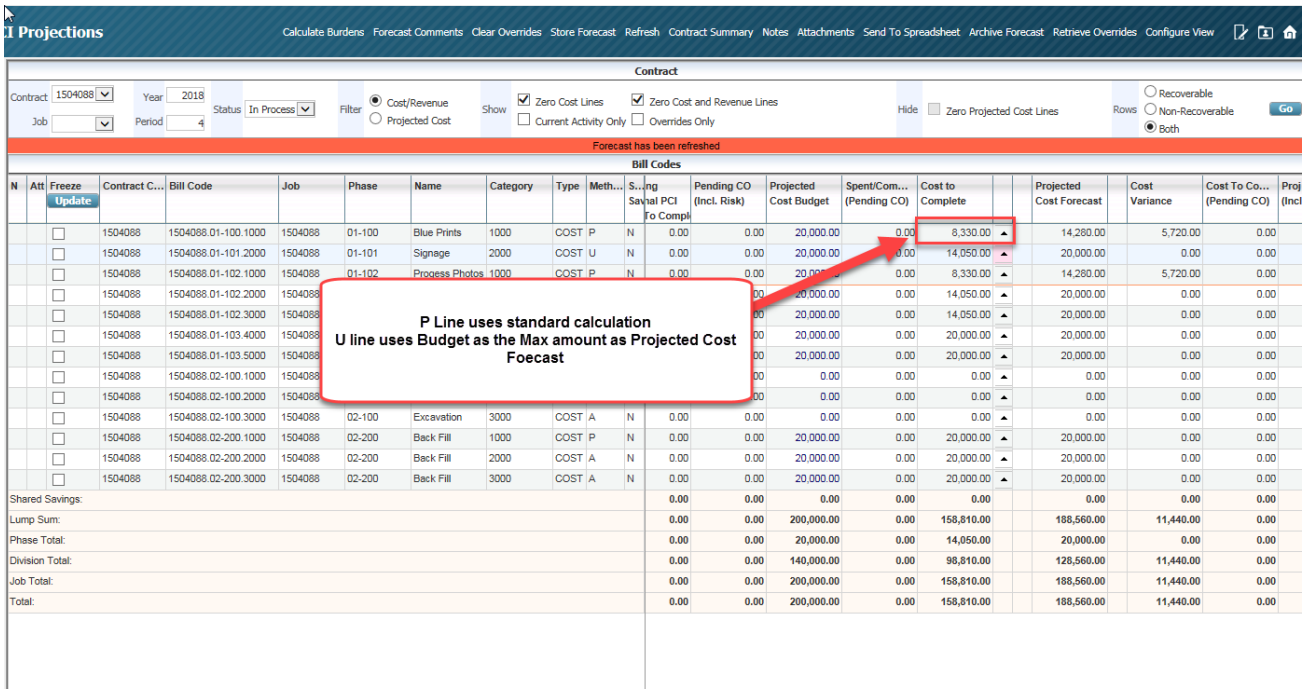
Upon Refresh, the Projection Threshold % is validated again and re-calculation applies


Contract
Forecast has been refreshed
Bill Codes
Productivity/Units - Internet Explorer
Productivity/Units
Save
Cancel
Phase 01-100 - Blue Prints
Category 1000 - Labor
P Line
When % Complete 41.66 < Projection Threshold 75%
then Max {Budget, Calculated Projected Amount]
= 20,000.00

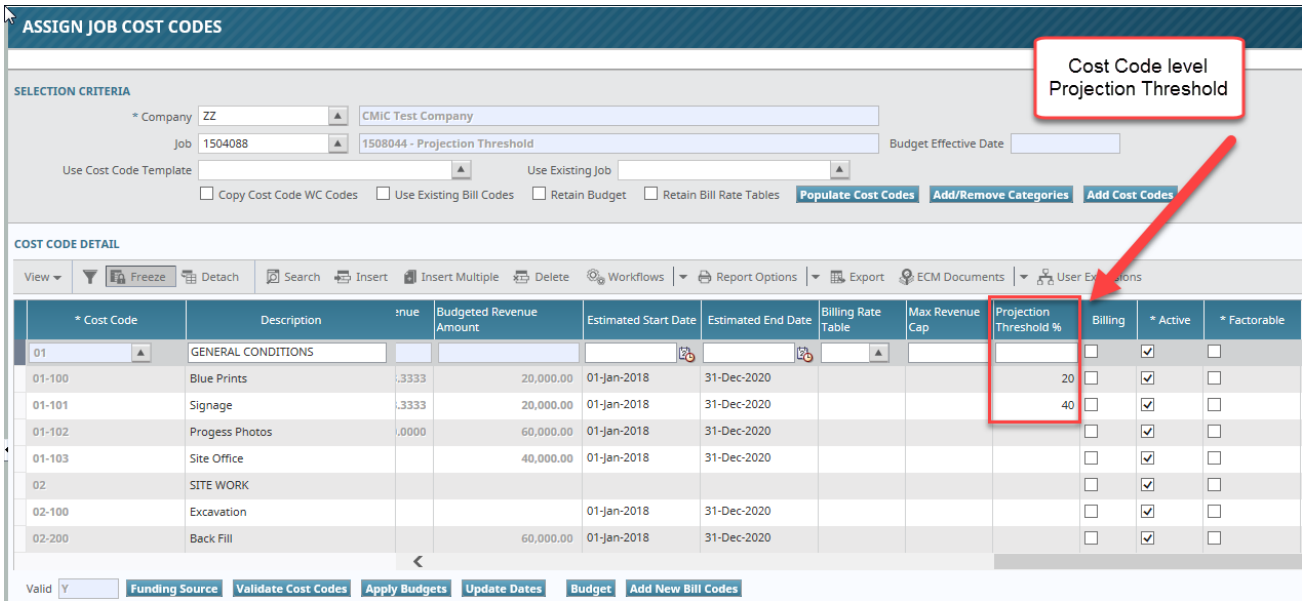


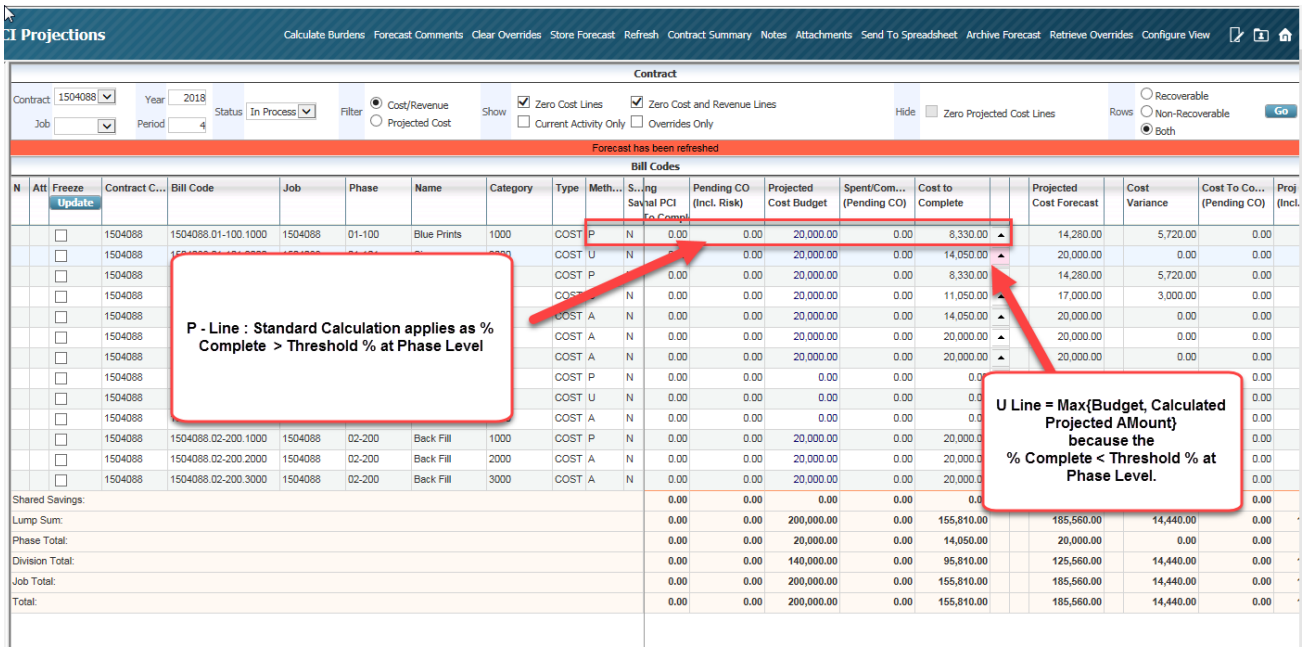
Example 3: Job Level Projection Threshold

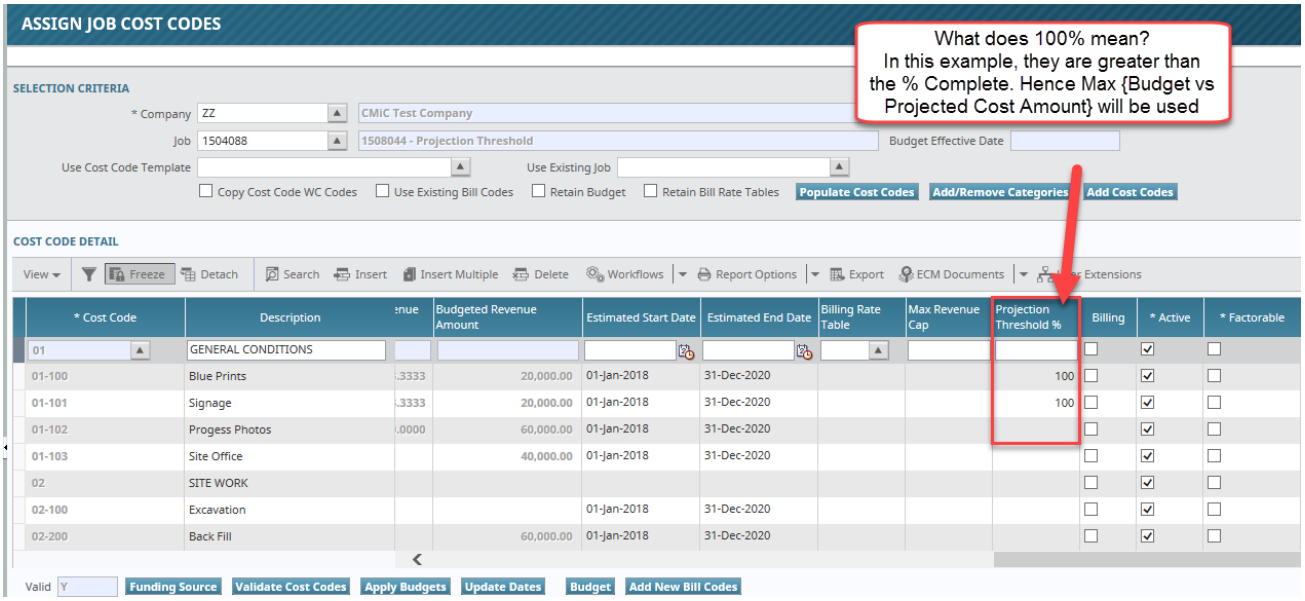




Example 4: Phase Level Projection Threshold




CI Projections
Calculate Burdens Forecast Comments Clear Overrides Store Forecast Refresh Contract Summary Notes Attachments Send To Spreadsheet Archive Forecast Retrieve Overrides Configure View
Contract
Forecast has been refreshed
Bill Codes
P - Line : Standard Calculation applies as % Complete > Threshold % at Phase Level
U Line = Max{Budget, Calculated Projected AMount} because the % Complete < Threshold % at Phase Level.


ASSIGN JOB COST CODES
What does 100% mean? In this example, they are greater than the % Complete. Hence Max {Budget vs Projected Cost Amount} will be used
SELECTION CRITERIA
COST CODE DETAIL
Populate Cost Codes
Add/Remove Categories
Add Cost Codes
Funding Source
Validate Cost Codes
Apply Budgets
Update Dates
Budget
Add New Bill Codes

I Projections

Calculate Burdens | Forecast Comments | Clear Overrides | Store Forecast | Refresh | Contract Summary | Notes | Attachments | Send To Spreadsheet | Archive Forecast | Retrieve Overrides | Configure View

Contract: 1504088 | Job: | Year: 2018 | Period: 4 | Status: In Process | Filter: Cost/Revenue / Projected Cost | Show: Zero Cost Lines, Zero Cost and Revenue Lines, Current Activity Only, Overrides Only | Hide: Zero Projected Cost Lines | Rows: Recoverable / Non-Recoverable / Both | Go

Forecast has been refreshed

Bill Codes

N	Att	Freeze / Update	Contract C...	Bill Code	Job	Phase	Name	Category	Type	Meth...	S...ng Saving PCI To Compl	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Com... (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance	Cost To Co... (Pending CO)
		☐	1504088	1504088.01-100.1000	1504088	01-100	Blue Prints	1000	COST	P	N	0.00	0.00	20,000.00	0.00	14,050.00	20,000.00	0.00	0.00
		☐	1504088	1504088.01-101.2000	1504088	01-101	Signage	2000	COST	U	N	0.00	0.00	20,000.00	0.00	14,050.00	20,000.00	0.00	0.00
		☐	1504088	1504088.01-102.1000	1504088	01-102	Progess Photos	1000	COST	P	N	0.00	0.00	20,000.00	0.00	8,330.00	14,280.00	5,720.00	0.00
		☐	1504088	1504088.01-102.2000	1504088	01-102	Progess Photos	2000	COST	U	N	0.00	0.00	20,000.00	0.00	11,050.00	17,000.00	3,000.00	0.00
		☐	1504088	1504088.01-102.3000	1504088	01-102	Progess Photos	3000	COST	A	N	0.00	0.00	20,000.00	0.00	14,050.00	20,000.00	0.00	0.00
		☐	1504088	1504088.01-103.4000	1504088	01-103	Site Office	4000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00
		☐	1504088	1504088.01-103.5000	1504088	01-103	Site Office	5000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00
		☐	1504088	1504088.02-100.1000	1504088	02-100	Excavation	1000	COST	P	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		☐	1504088	1504088.02-100.2000	1504088	02-100	Excavation	2000	COST	U	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		☐	1504088	1504088.02-100.3000	1504088	02-100	Excavation	3000	COST	A	N	0.00	0.00	0.00	0.00	0.00	0.00		
		☐	1504088	1504088.02-200.1000	1504088	02-200	Back Fill	1000	COST	P	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000		
		☐	1504088	1504088.02-200.2000	1504088	02-200	Back Fill	2000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000		
		☐	1504088	1504088.02-200.3000	1504088	02-200	Back Fill	3000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000		
Shared Savings:												0.00	0.00	0.00	0.00	0.00	0.		
Lump Sum:												0.00	0.00	200,000.00	0.00	161,530.00	191,280.00	8,720.00	0.00
Phase Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Division Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Job Total:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total:												0.00	0.00	200,000.00	0.00	161,530.00	191,280.00	8,720.00	0.00

Budget

ASSIGN JOB COST CODES

What does 0.00% mean?

SELECTION CRITERIA

* Company: ZZ — CMiC Test Company

Job: 1504088 — 1508044 - Projection Threshold | Budget Effective Date:

Use Cost Code Template: | Use Existing Job:

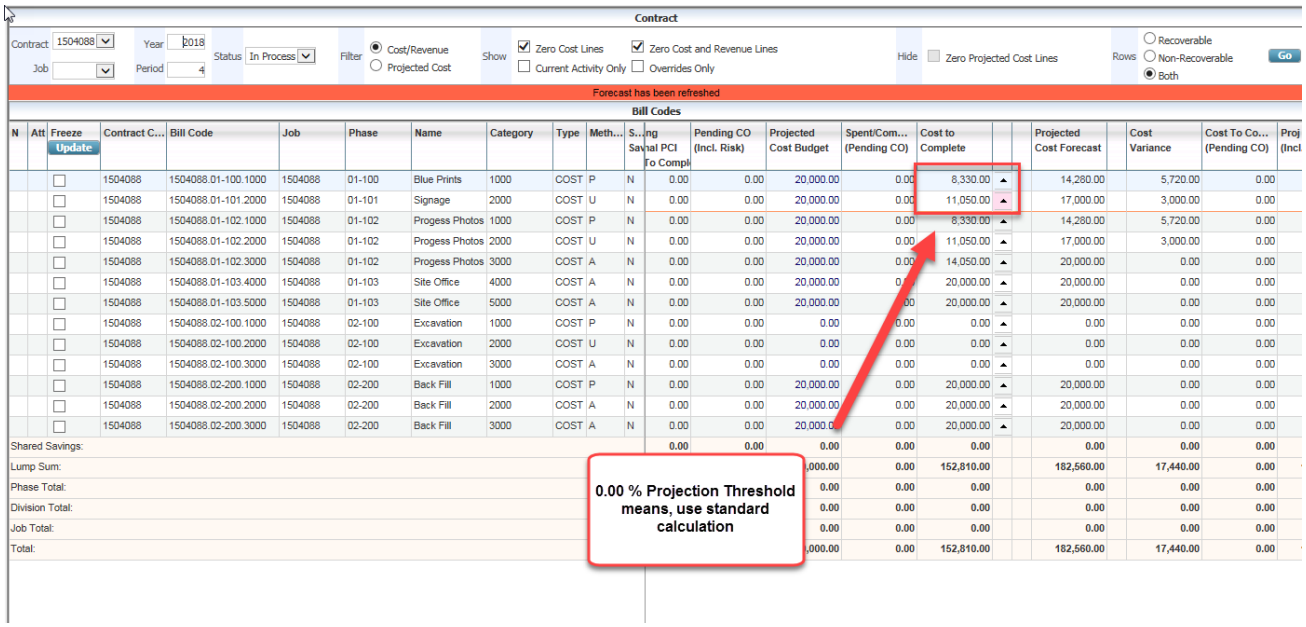
☐ Copy Cost Code WC Codes ☐ Use Existing Bill Codes ☐ Retain Budget ☐ Retain Bill Rate Tables | Populate Cost Codes | Add/Remove Categories | Add Cost Codes

COST CODE DETAIL

View | Freeze | Detach | Search | Insert | Insert Multiple | Delete | Workflows | Report Options | Export | ECM Documents | User Extensions

* Cost Code	Description	...enue	Budgeted Revenue Amount	Estimated Start Date	Estimated End Date	Billing Rate Table	Max Revenue Cap	Projection Threshold %	Billing	* Active	* Factorable
01	GENERAL CONDITIONS								☐	☑	☐
01-100	Blue Prints	.3333	20,000.00	01-Jan-2018	31-Dec-2020			0	☐	☑	☐
01-101	Signage	.3333	20,000.00	01-Jan-2018	31-Dec-2020			0	☐	☑	☐
01-102	Progess Photos	.0000	60,000.00	01-Jan-2018	31-Dec-2020				☐	☑	☐
01-103	Site Office		40,000.00	01-Jan-2018	31-Dec-2020				☐	☑	☐
02	SITE WORK								☐	☑	☐
02-100	Excavation			01-Jan-2018	31-Dec-2020				☐	☑	☐
02-200	Back Fill		60,000.00	01-Jan-2018	31-Dec-2020				☐	☑	☐

Valid: Y | Funding Source | Validate Cost Codes | Apply Budgets | Update Dates | Budget | Add New Bill Codes

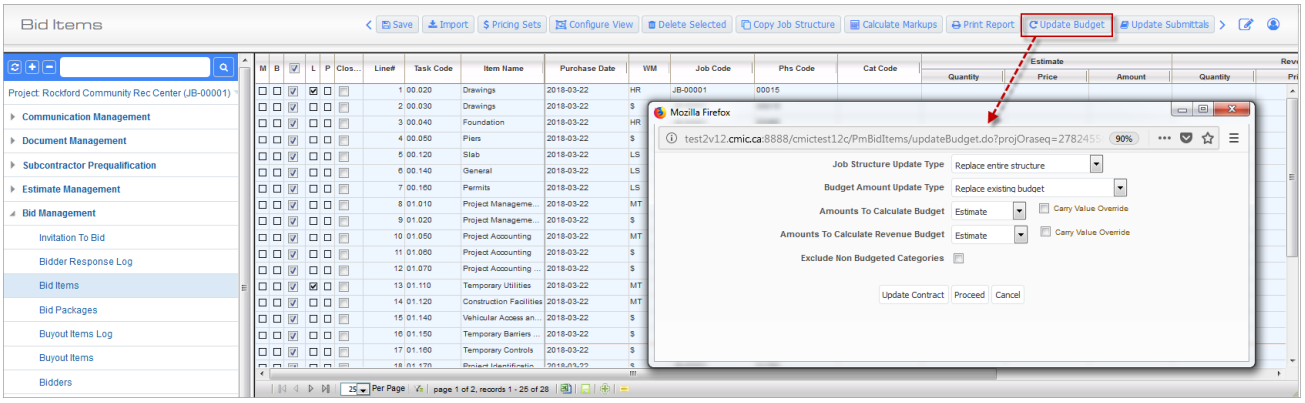


N	Att	Freeze Update	Contract C...	Bill Code	Job	Phase	Name	Category	Type	Meth...	S...	ng Saving PCI To Compl	Pending CO (Incl. Risk)	Projected Cost Budget	Spent/Com... (Pending CO)	Cost to Complete	Projected Cost Forecast	Cost Variance	Cost To Co... (Pending CO)	Proj (Incl
		☐	1504088	1504088.01-100.1000	1504088	01-100	Blue Prints	1000	COST	P	N	0.00	0.00	20,000.00	0.00	8,330.00	14,280.00	5,720.00	0.00	
		☐	1504088	1504088.01-101.2000	1504088	01-101	Signage	2000	COST	U	N	0.00	0.00	20,000.00	0.00	11,050.00	17,000.00	3,000.00	0.00	
		☐	1504088	1504088.01-102.1000	1504088	01-102	Progess Photos	1000	COST	P	N	0.00	0.00	20,000.00	0.00	8,330.00	14,280.00	5,720.00	0.00	
		☐	1504088	1504088.01-102.2000	1504088	01-102	Progess Photos	2000	COST	U	N	0.00	0.00	20,000.00	0.00	11,050.00	17,000.00	3,000.00	0.00	
		☐	1504088	1504088.01-102.3000	1504088	01-102	Progess Photos	3000	COST	A	N	0.00	0.00	20,000.00	0.00	14,050.00	20,000.00	0.00	0.00	
		☐	1504088	1504088.01-103.4000	1504088	01-103	Site Office	4000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00	
		☐	1504088	1504088.01-103.5000	1504088	01-103	Site Office	5000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00	
		☐	1504088	1504088.02-100.1000	1504088	02-100	Excavation	1000	COST	P	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		☐	1504088	1504088.02-100.2000	1504088	02-100	Excavation	2000	COST	U	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		☐	1504088	1504088.02-100.3000	1504088	02-100	Excavation	3000	COST	A	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		☐	1504088	1504088.02-200.1000	1504088	02-200	Back Fill	1000	COST	P	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00	
		☐	1504088	1504088.02-200.2000	1504088	02-200	Back Fill	2000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00	
		☐	1504088	1504088.02-200.3000	1504088	02-200	Back Fill	3000	COST	A	N	0.00	0.00	20,000.00	0.00	20,000.00	20,000.00	0.00	0.00	
Shared Savings:												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lump Sum:														000.00	0.00	152,810.00	182,560.00	17,440.00	0.00	
Phase Total:														0.00	0.00	0.00	0.00	0.00	0.00	
Division Total:														0.00	0.00	0.00	0.00	0.00	0.00	
Job Total:														0.00	0.00	0.00	0.00	0.00	0.00	
Total:														000.00	0.00	152,810.00	182,560.00	17,440.00	0.00	

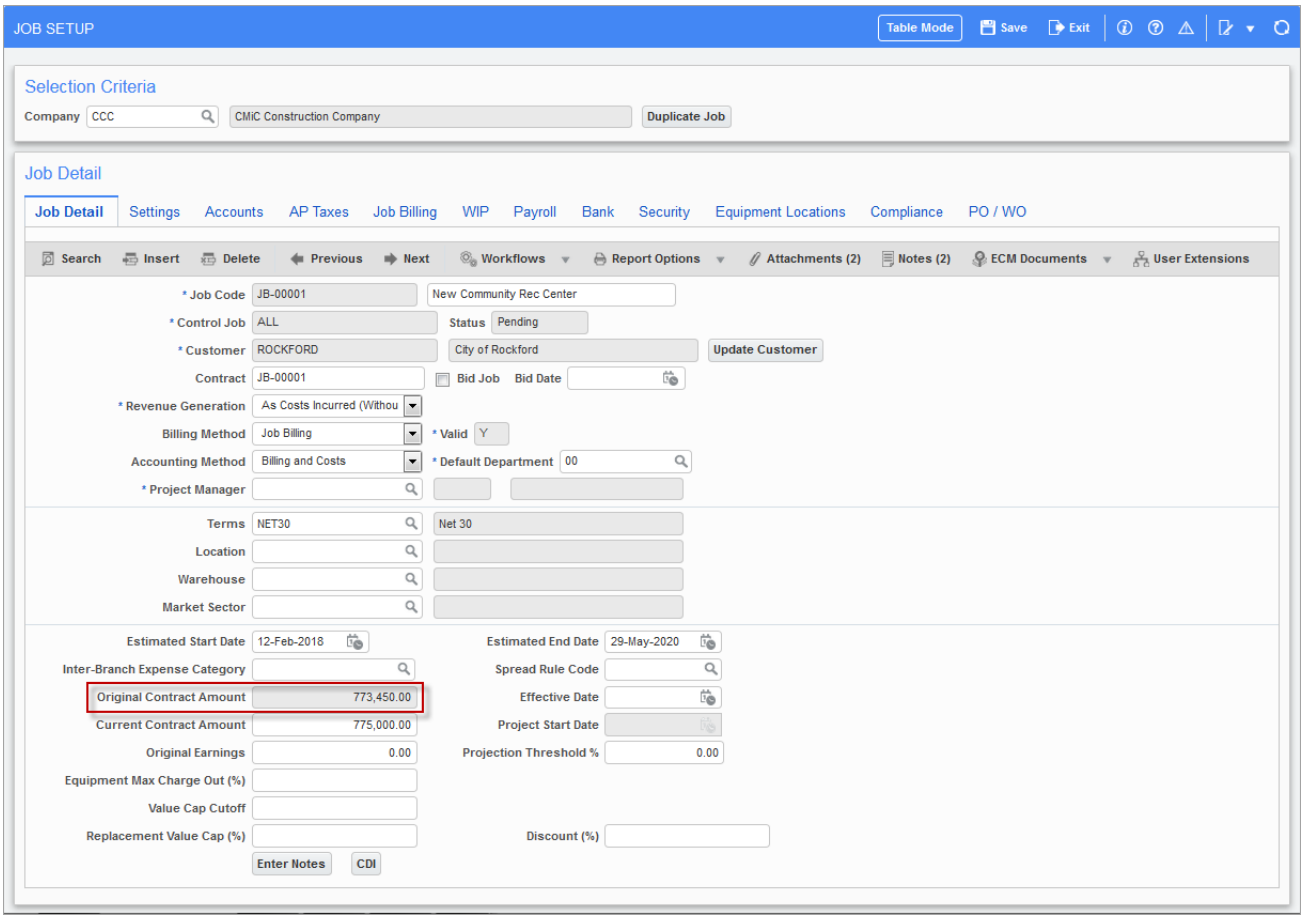
Bid Items in CMiC Field

Performing Budget Updates in Bid Items Screen for Pending Jobs

When budget updates are performed from the Bid Items screen for pending jobs in CMiC Field, the Original Contract Amount field in the Job Setup screen in the Job Costing module is recalculated by deducting the posted change order revenue amounts from the JC Revenue Budget amount. Normally, when changes are posted, the Current Contract Amount field on the Job Setup screen is updated by adding the change billing budget amount but the Original Contract Amount is not updated. Only Original Budget Change Order Billing budget amount will update this field.



Bid Items; standard Treeview path: CMiC Field > Bid Management > Bid Items

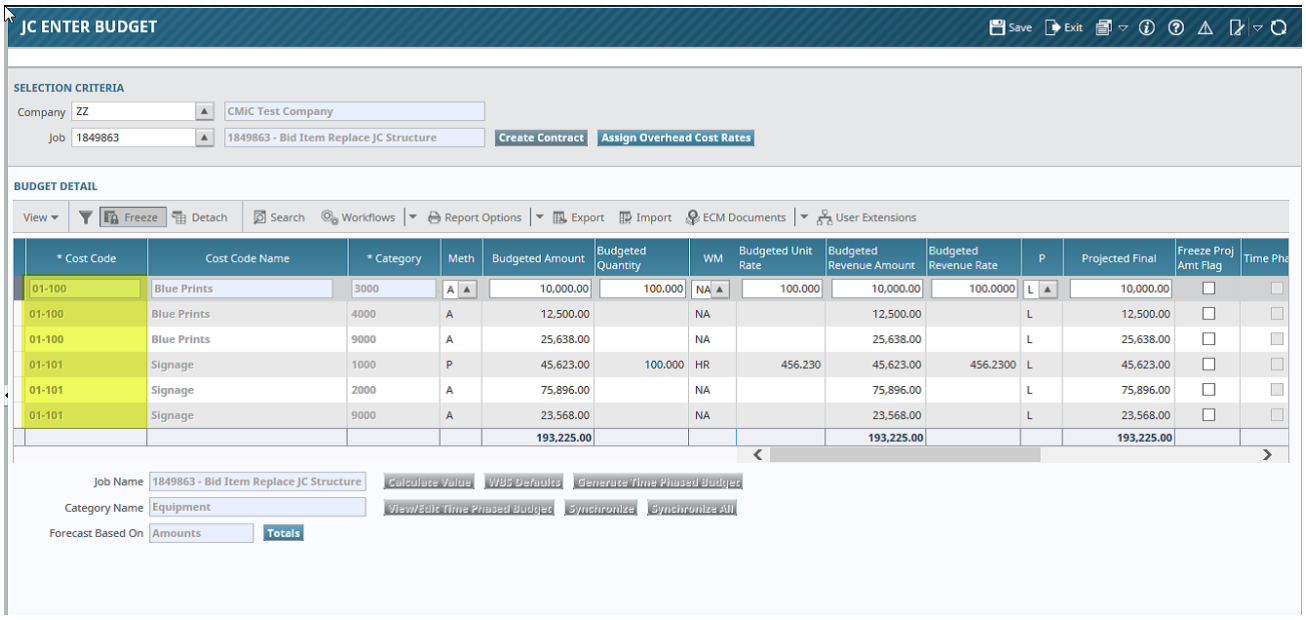


Pgm: JCJOBFM; standard Treeview path: Job Costing > Job > Enter Job – Job Detail tab

Updating Job Costing Structure and Budget using Bid Items

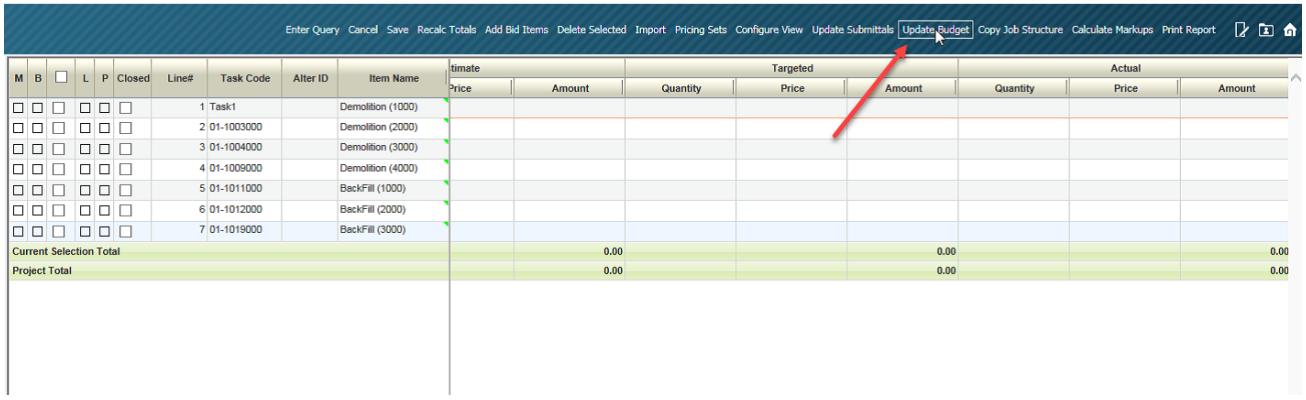
When updating the Job Costing structure and budget using bid items in CMiC Field, old cost codes are removed.

NOTE: The replace job structure will remove cost codes only when there is no contract bill code created.



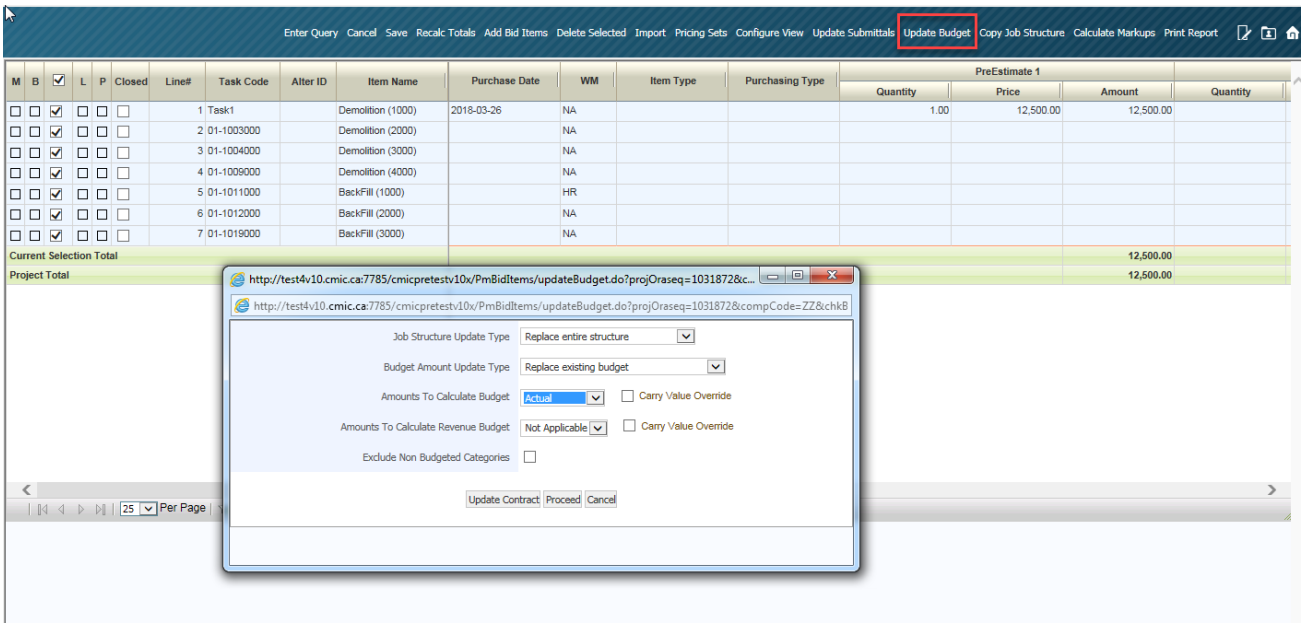
* Cost Code	Cost Code Name	* Category	Meth	Budgeted Amount	Budgeted Quantity	WM	Budgeted Unit Rate	Budgeted Revenue Amount	Budgeted Revenue Rate	P	Projected Final	Freeze Proj Amt Flag	Time Pha
01-100	Blue Prints	3000	A	10,000.00	100.000	NA	100.000	10,000.00	100.0000	L	10,000.00		
01-100	Blue Prints	4000	A	12,500.00		NA		12,500.00		L	12,500.00		
01-100	Blue Prints	9000	A	25,638.00		NA		25,638.00		L	25,638.00		
01-101	Signage	1000	P	45,623.00	100.000	HR	456.230	45,623.00	456.2300	L	45,623.00		
01-101	Signage	2000	A	75,896.00		NA		75,896.00		L	75,896.00		
01-101	Signage	9000	A	23,568.00		NA		23,568.00		L	23,568.00		
				193,225.00				193,225.00			193,225.00		

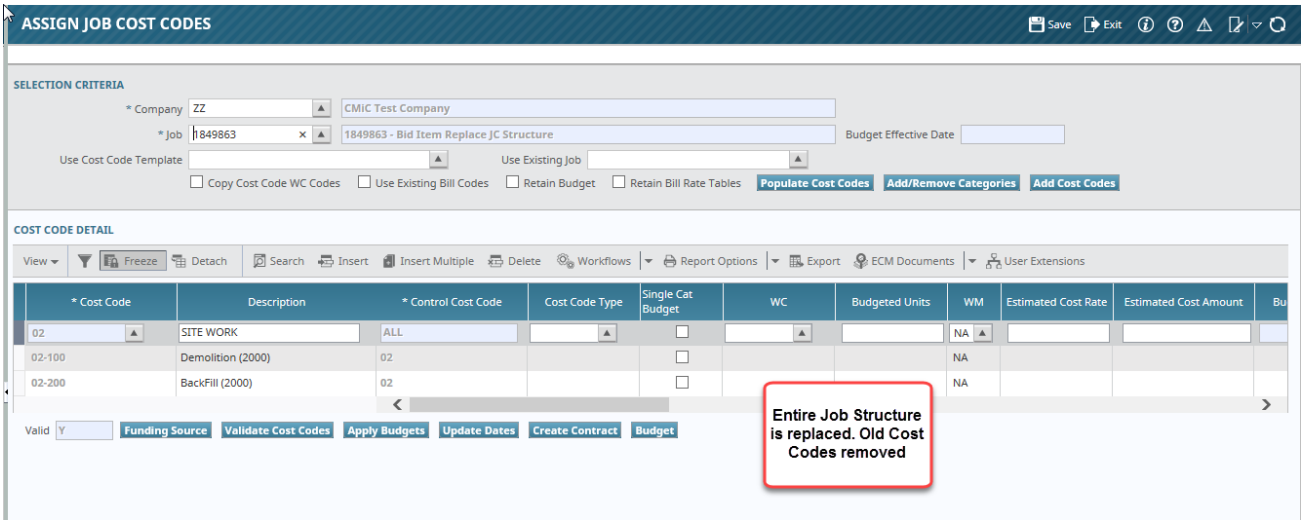
Pgm: JCBUDGET – JC Enter Budget; standard Treeview path: Job Costing > Job > Enter Budget

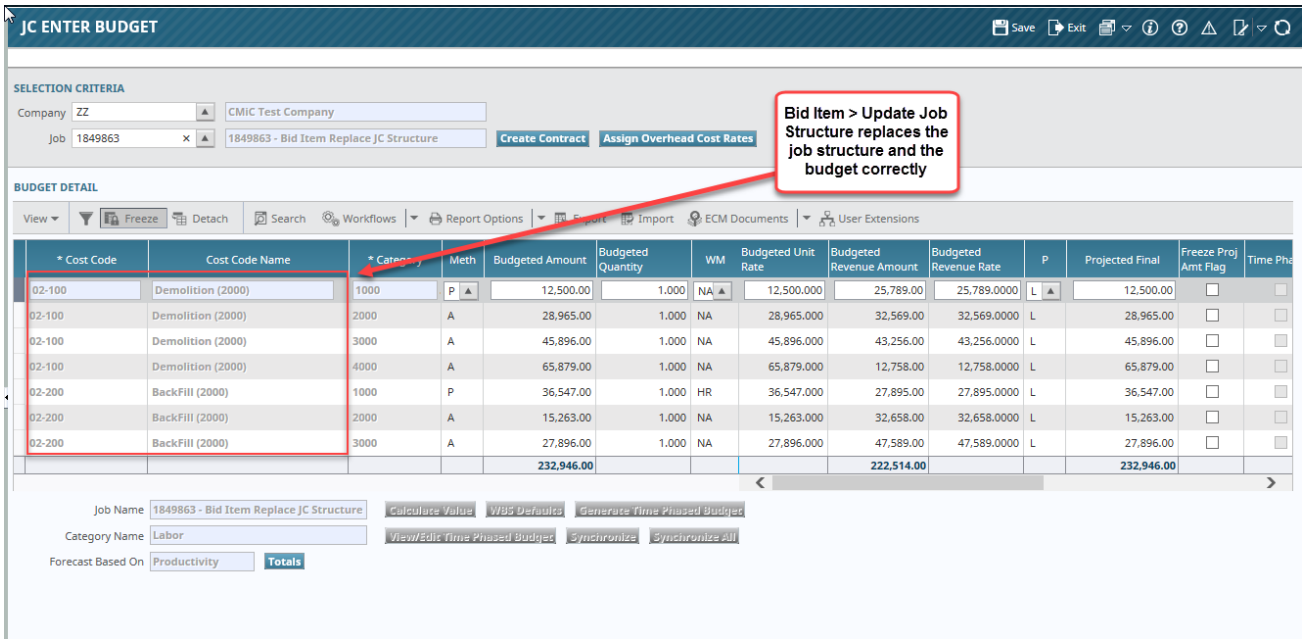


M	B		L	P	Closed	Line#	Task Code	Alter ID	Item Name	Estimate Price	Estimate Amount	Targeted Quantity	Targeted Price	Targeted Amount	Actual Quantity	Actual Price	Actual Amount
						1	Task1		Demolition (1000)								
						2	01-1003000		Demolition (2000)								
						3	01-1004000		Demolition (3000)								
						4	01-1009000		Demolition (4000)								
						5	01-1011000		BackFill (1000)								
						6	01-1012000		BackFill (2000)								
						7	01-1019000		BackFill (3000)								
Current Selection Total											0.00			0.00			0.00
Project Total											0.00			0.00			0.00

Bid Items; standard Treeview path: CMiC Field > Bid Management > Bid Items

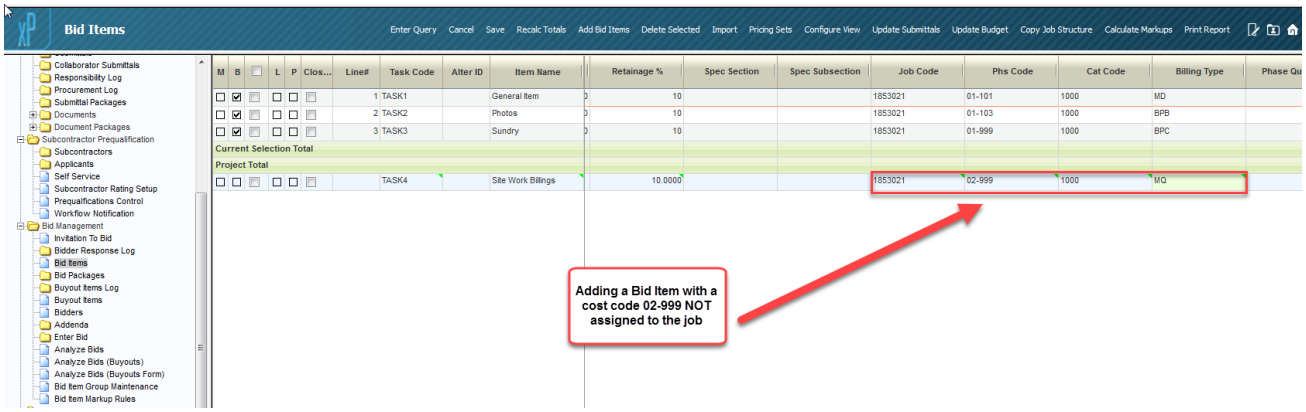

Enter Query Cancel Save Recalc Totals Add Bid Items Delete Selected Import Pricing Sets Configure View Update Submittals Update Budget Copy Job Structure Calculate Markups Print Report
Job Structure Update Type
Replace entire structure
Budget Amount Update Type
Replace existing budget
Amounts To Calculate Budget
Actual
Carry Value Override
Amounts To Calculate Revenue Budget
Not Applicable
Carry Value Override
Exclude Non Budgeted Categories
Update Contract
Proceed
Cancel


ASSIGN JOB COST CODES
SELECTION CRITERIA
COST CODE DETAIL
Entire Job Structure is replaced. Old Cost Codes removed

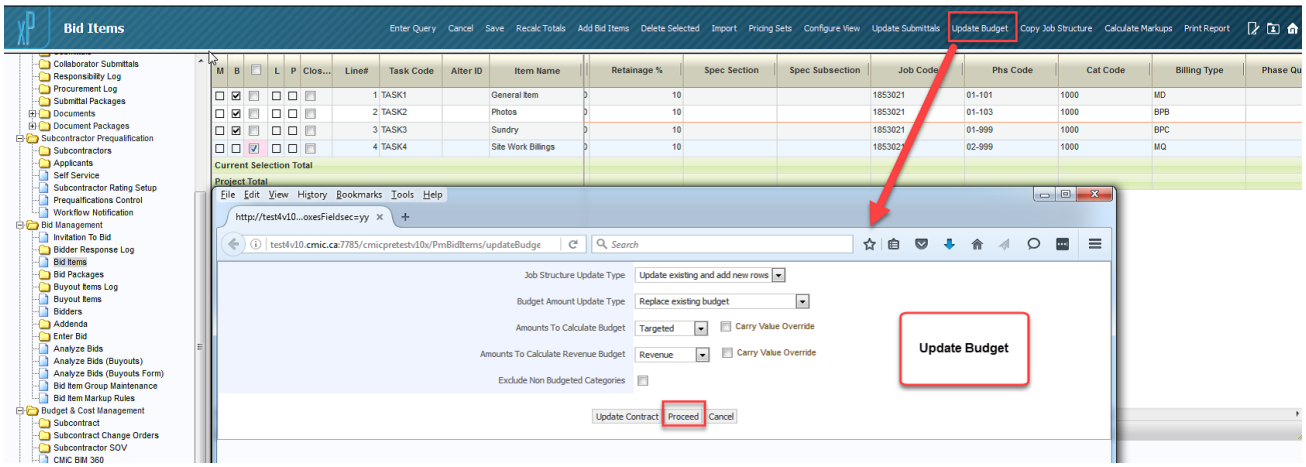


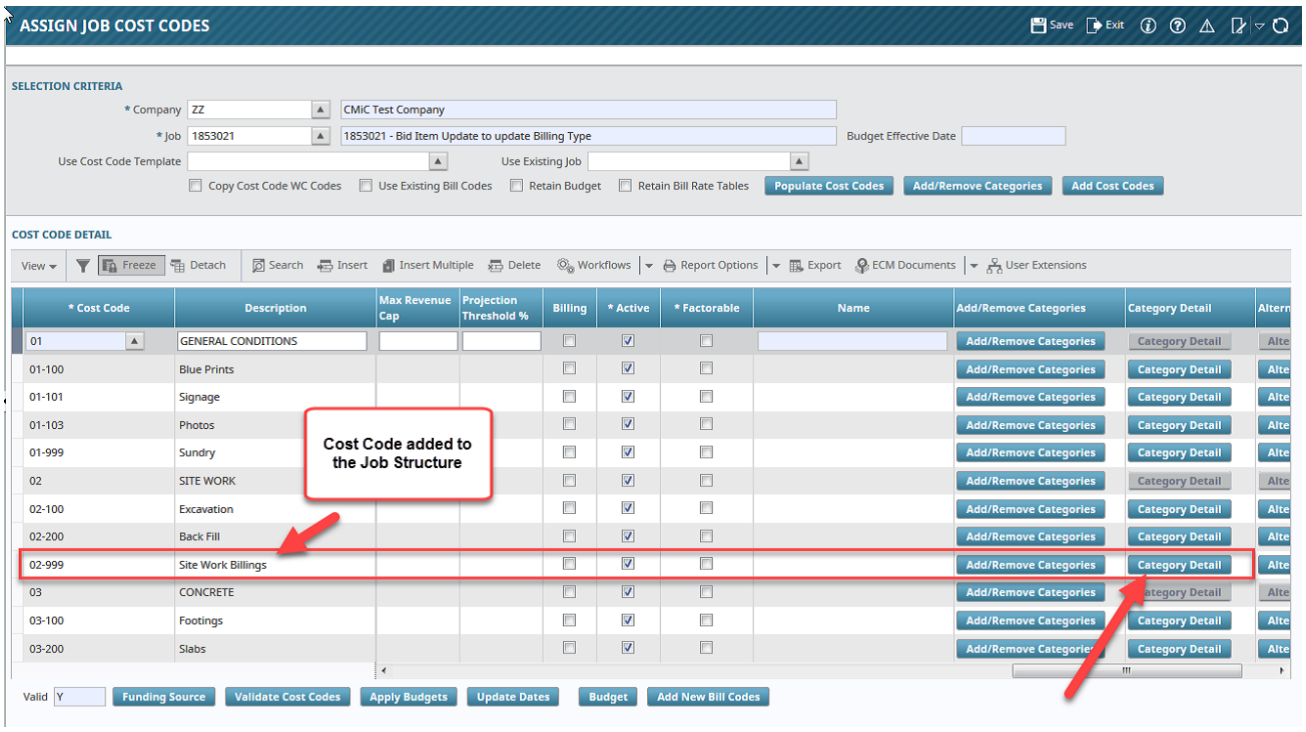
Adding a Bid Item with a Cost Code Not Assigned to Job

Updating a bid item in the Bid Items screen in CMiC Field will update the Billing Type column value, as required, in the Assign Job Cost Codes screen in the Job Costing module, regardless of whether the cost code already exists in the Assign Job Cost Codes screen.

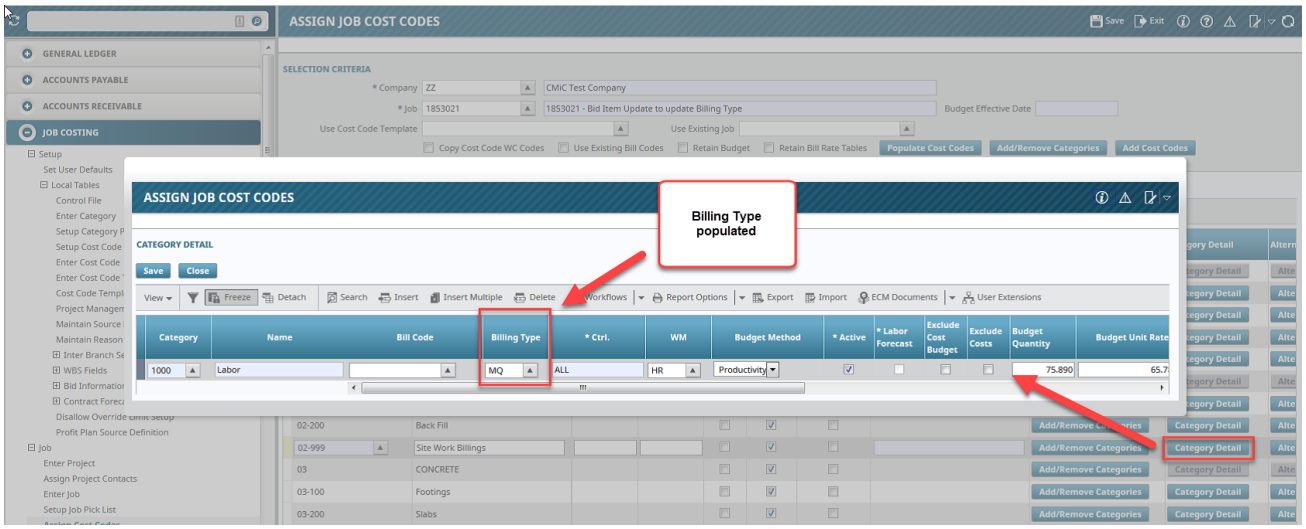


Bid Items; standard Treeview path: CMiC Field > Bid Management > Bid Items





Pgm: JCPRODSU – Assign Job Cost Codes; standard Treeview path: Job Costing > Job > Assign Cost Codes



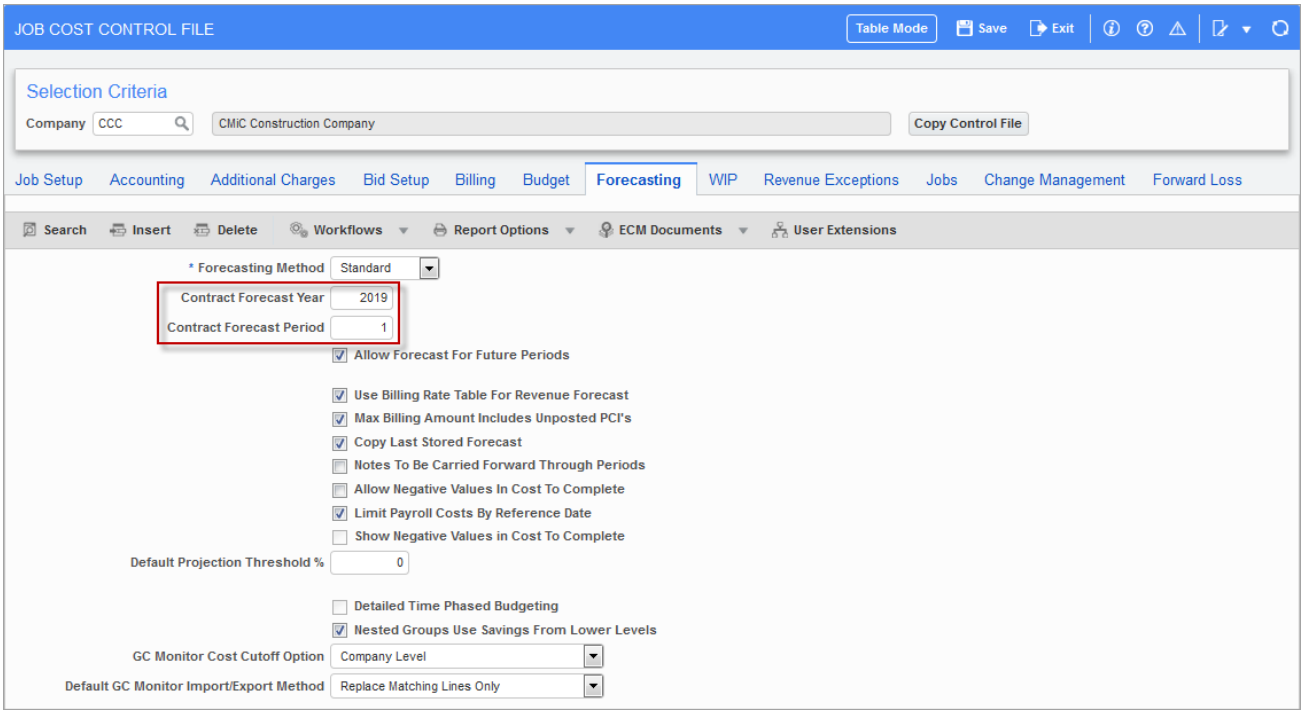
Pop-up launched from [Category Detail] button on Assign Job Cost Codes screen

This page is intentionally left blank.

Frequently Asked Questions

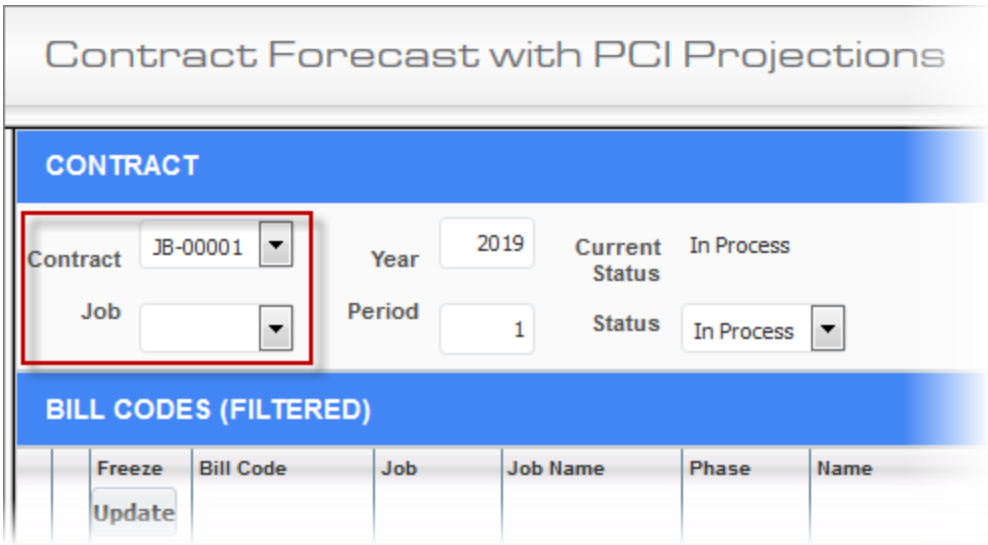
Where do the forecast year and period default from?

The forecast year and period default from the values entered in the Contract Forecast Year field and the Contract Forecast Period field on the Forecasting tab of the Job Cost Control File screen.



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab

What is the difference between using the Contract field or Job field in the header?

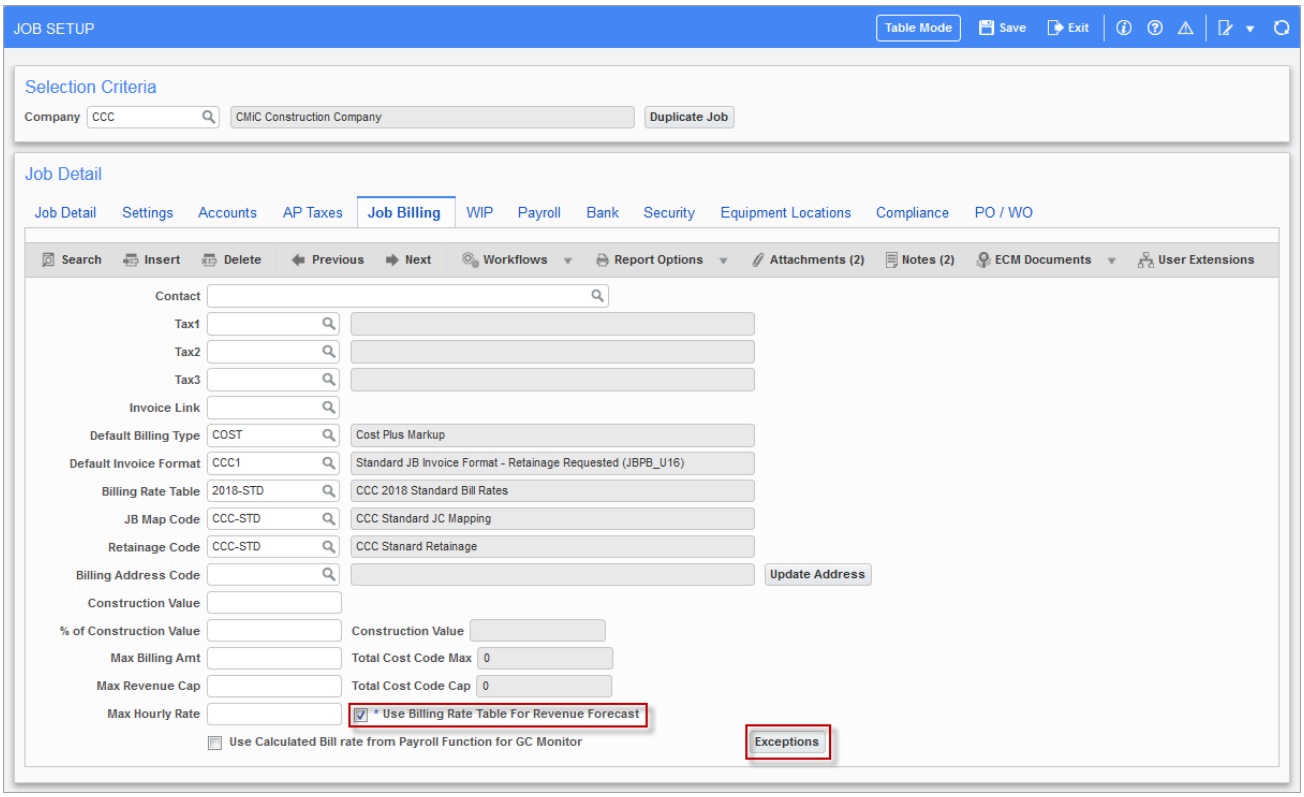


The job structure may have a controlling job with many sub-jobs. There may be some sub-jobs with their own contract codes as well. When using the Contract field, users must select one contract at a time and then store the forecast as required.

When using the Job field, which allows the users to select the controlling job code (rather only controlling job is available in this field) and all bill codes related to the main and sub-jobs will be displayed. Users will be able to forecast, review, override and store forecast for all contracts in one step.

Is there any checkbox behind the bill rates to affect revenue forecast?

Yes, the 'Use Billing Rate Table for Revenue Forecast' checkbox on the Job Billing tab of the Job Setup screen. You can also exclude any bill code from the effect of multiplier set in bill rate table, by using the [**Exceptions**] button next to the checkbox. The default values may be set in the Forecasting tab of the Job Cost Control File screen in the Job Costing module and these defaults apply to any new jobs created.

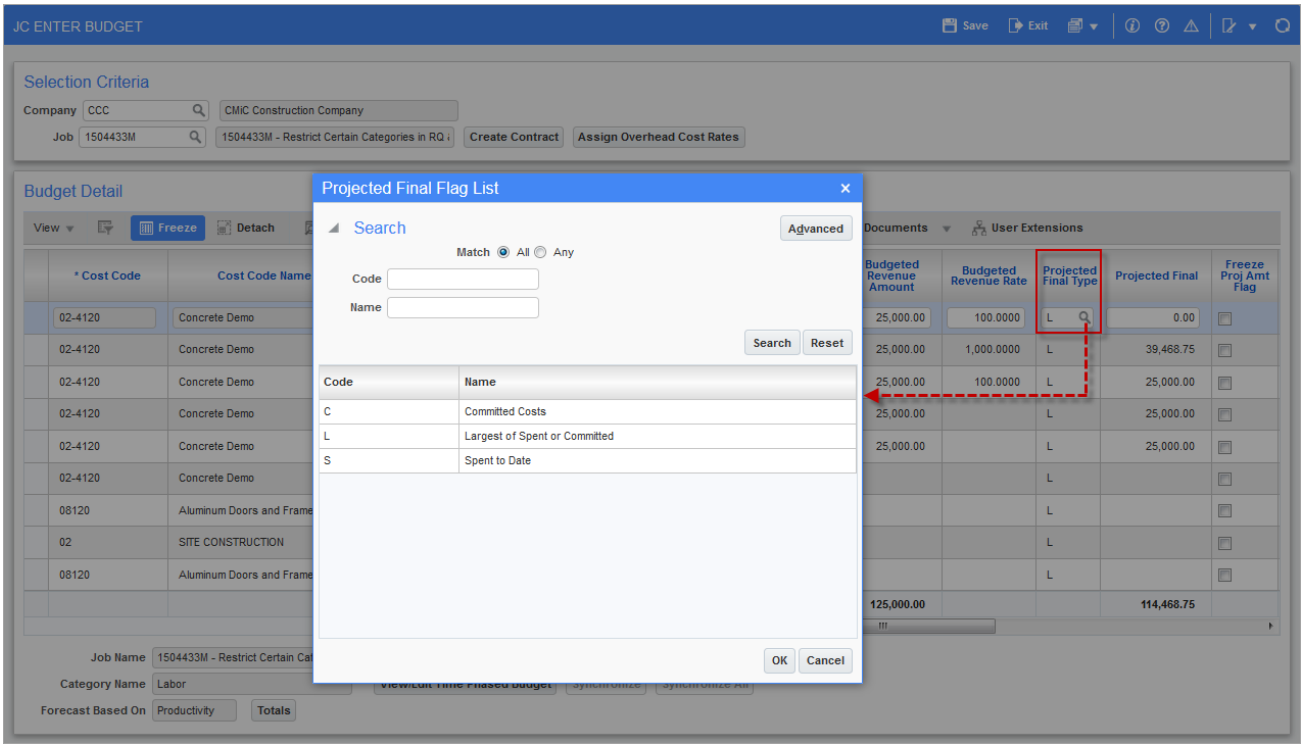


Pgm: JCJOBFM - Job Setup; standard Treeview path: Job Costing > Job > Enter Job - Job Billing tab

What if a PCI is pending in Period 2 and posted in Period 3?

The Contract Forecast with PCI Projections screen should show this PCI as pending in Period 2 and posted in Period 3.

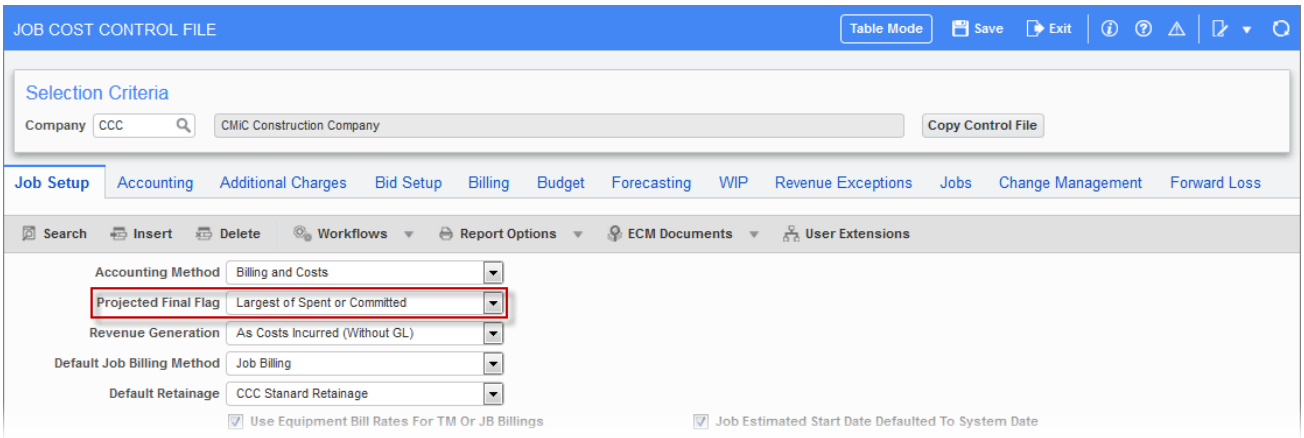
Where is 'Projected Final Flag', which is used in calculation of the Spent/Committed against Base Contract column ?



Pop-up window launched from the LOV of the Projected Final Type column on the JC Enter Budget screen; standard Treeview path: Job Costing > Job > Enter Budget

It is available on the JC Enter Budget screen against each detail line. To avoid confusion with the name, it is not a flag, but is a field and needs to be set as required from the LOV. The valid values are “C”, “L” and “S”.

How can we set a default value for the Projected Final Flag?



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Tables > Control File – Job Setup tab

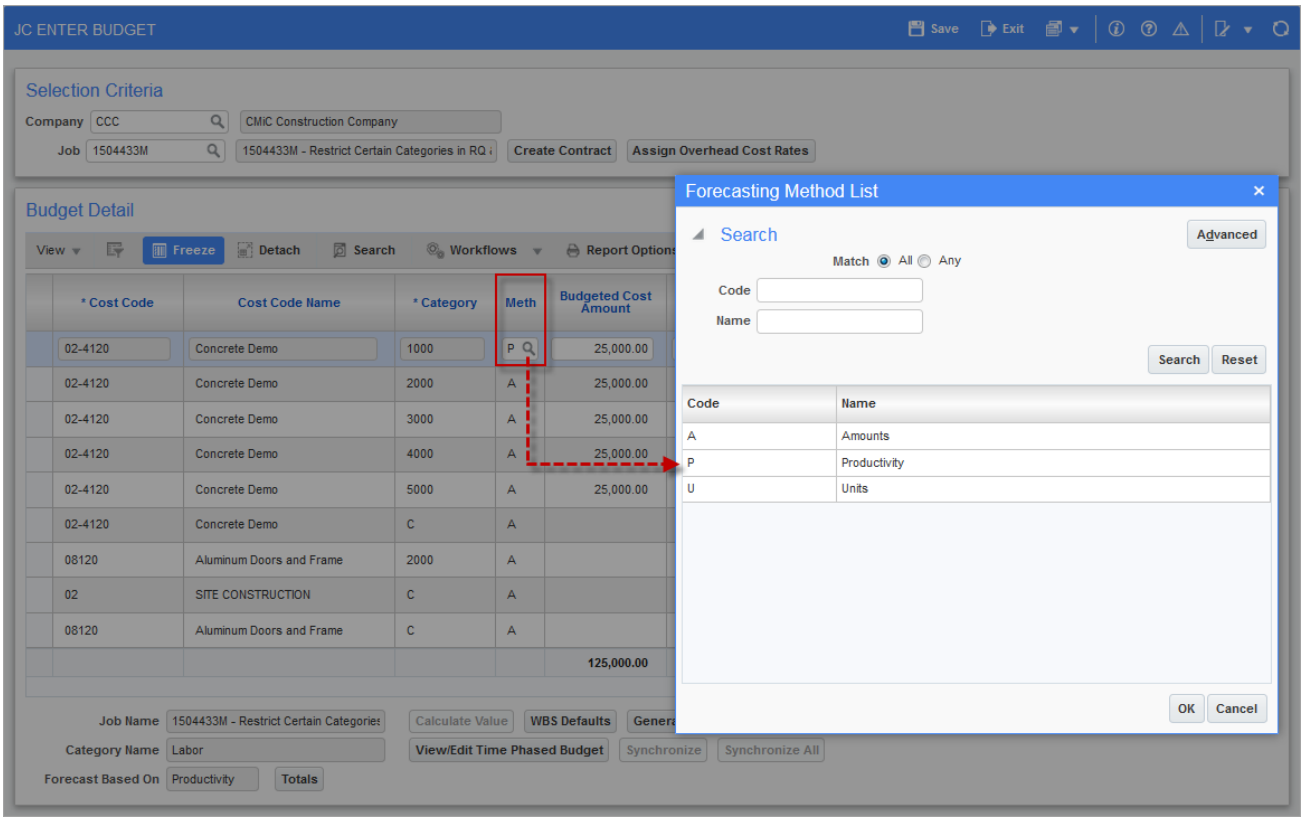
A default value can be set in the Projected Final Flag field on the Job Setup tab of the Job Cost Control File screen.

Do the pending and approved PCIs affect contract forecast in different ways (when include in forecast is checked)?

No, both are treated as unposted PCIs and affect the same columns as the other.

Approved PCIs maybe posted readily, whereas pending ones need to be approved before posting.

How many forecast methods are available in phase/category maintenance?



Pop-up window launched from LOV on Meth column on the JC Enter Budget screen

There are three forecast methods available in the drop-down list. They are:

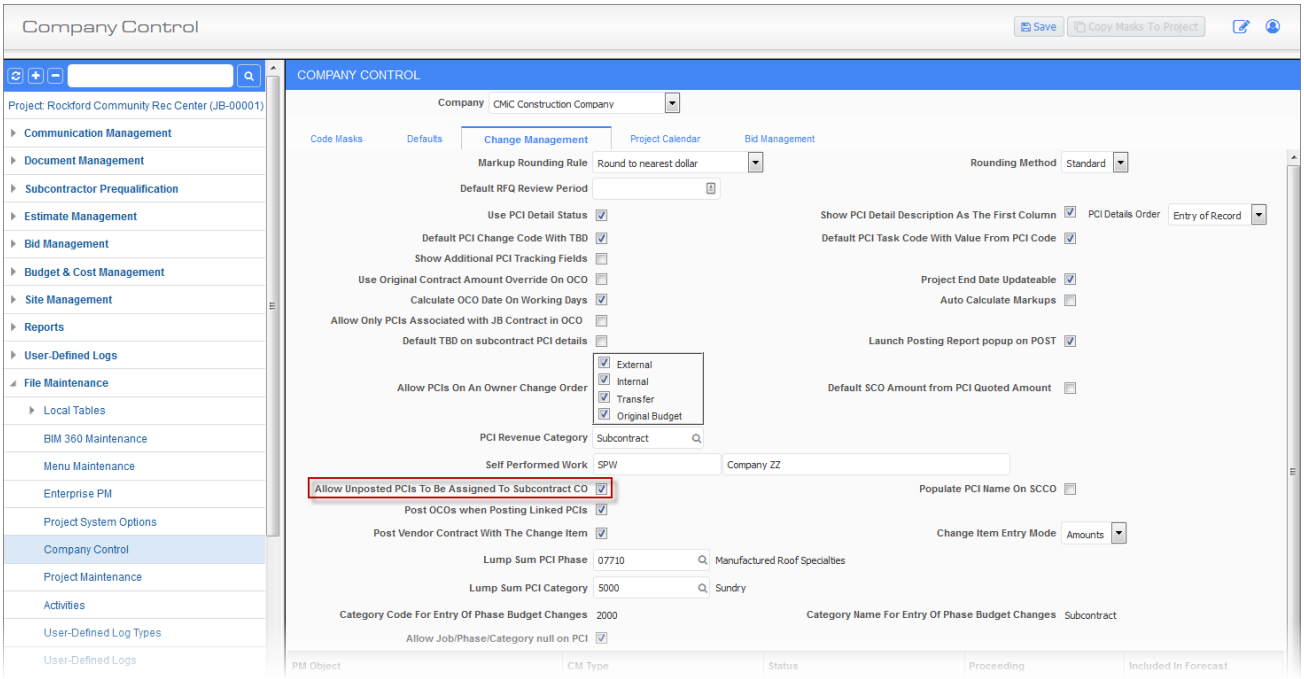
- Amounts
- Productivity
- Units

There is a fourth budget method, which is called “Labor Forecast”. This can be set on the Maintain Cost Categories screen, when the ‘Available on GC Monitor’ box is checked for a category, then “Labor” is selected in the Cost Type field, and finally “Amounts” is selected in the Default Forecast Method field (standard Treeview path: Job Costing > Setup > Local Tables > Enter Category).

Any bill code with this category will be forecast in GC Monitor and the Cost To Complete and Projected Cost Forecast fields are populated from GC Monitor, otherwise called as Labor Forecast.

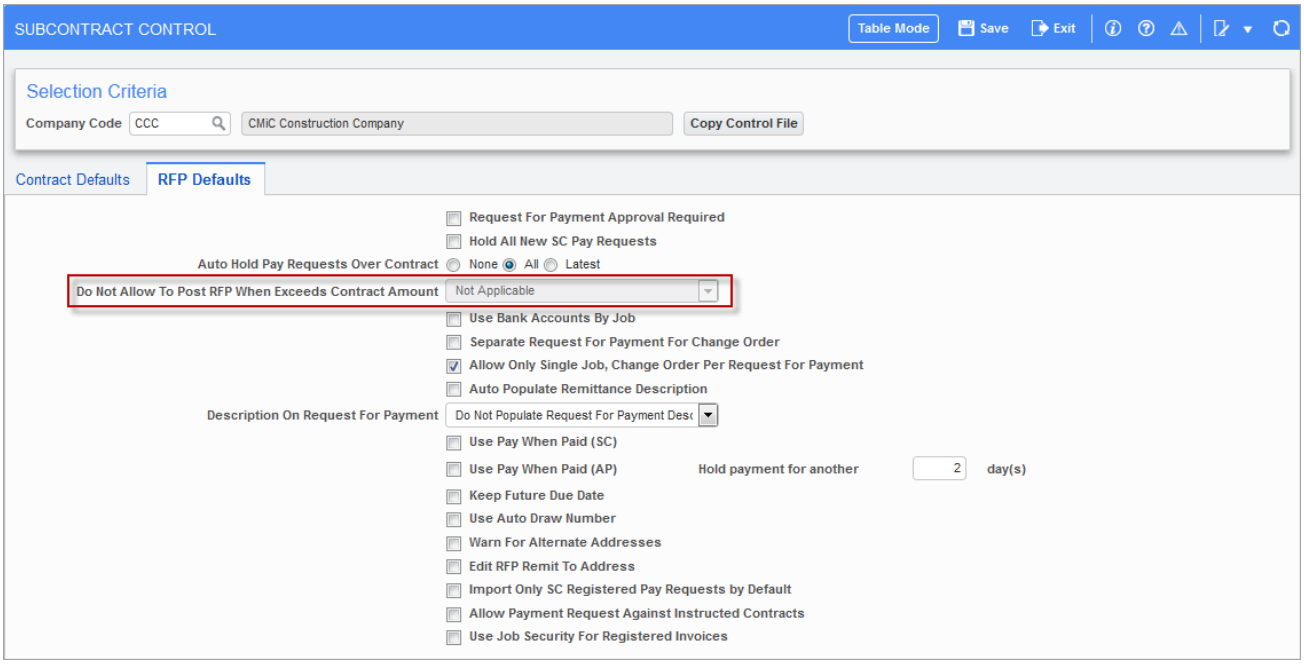
Can we assign pending internal PCI to a subcontract PCI?

Yes, pending internal PCI can be assigned to SCO if the checkbox ‘Allow Unposted PCIs to be Assigned to Subcontract CO’ is checked on the Change Management tab of the Company Control screen in CMiC Field.



Company Control; standard Treeview path: CMiC Field > File Maintenance > Company Control – Change Management tab

Can an RFP be posted if it exceeds the contract amount? How this is related to contract forecasting?



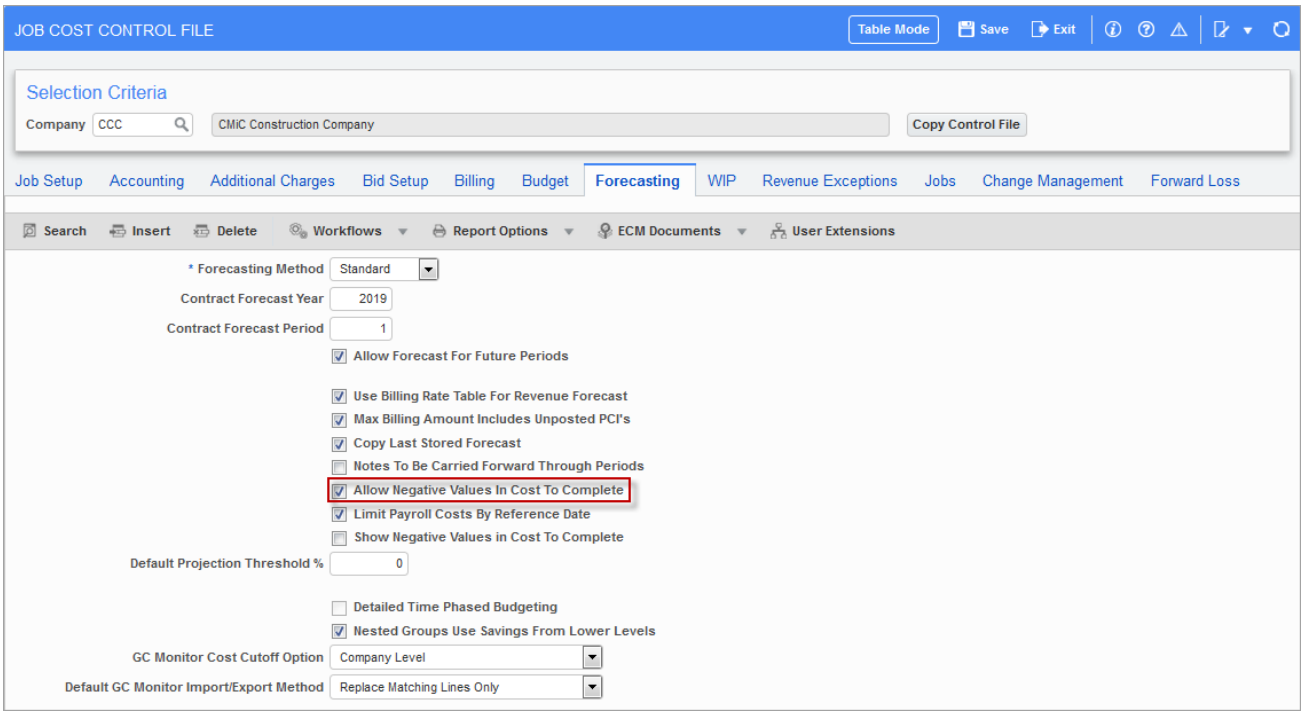
Pgm: SCCTRL – Subcontract Control; standard Treeview path: Subcontract Management > Local Tables > Control – RFP Defaults tab

Yes, if the drop-down value of the Do Not Allow to Post RFP When Exceeds Contract Amount field is set to “Not Applicable”, the RFP exceeding the contract amount can be posted.

When determining the largest of the spent vs commitment amount for the Spent/Committed Total column, then the spent amount can be greater than the commitment, with this setting.

How do negative and positive PCIs impact contract forecasting?

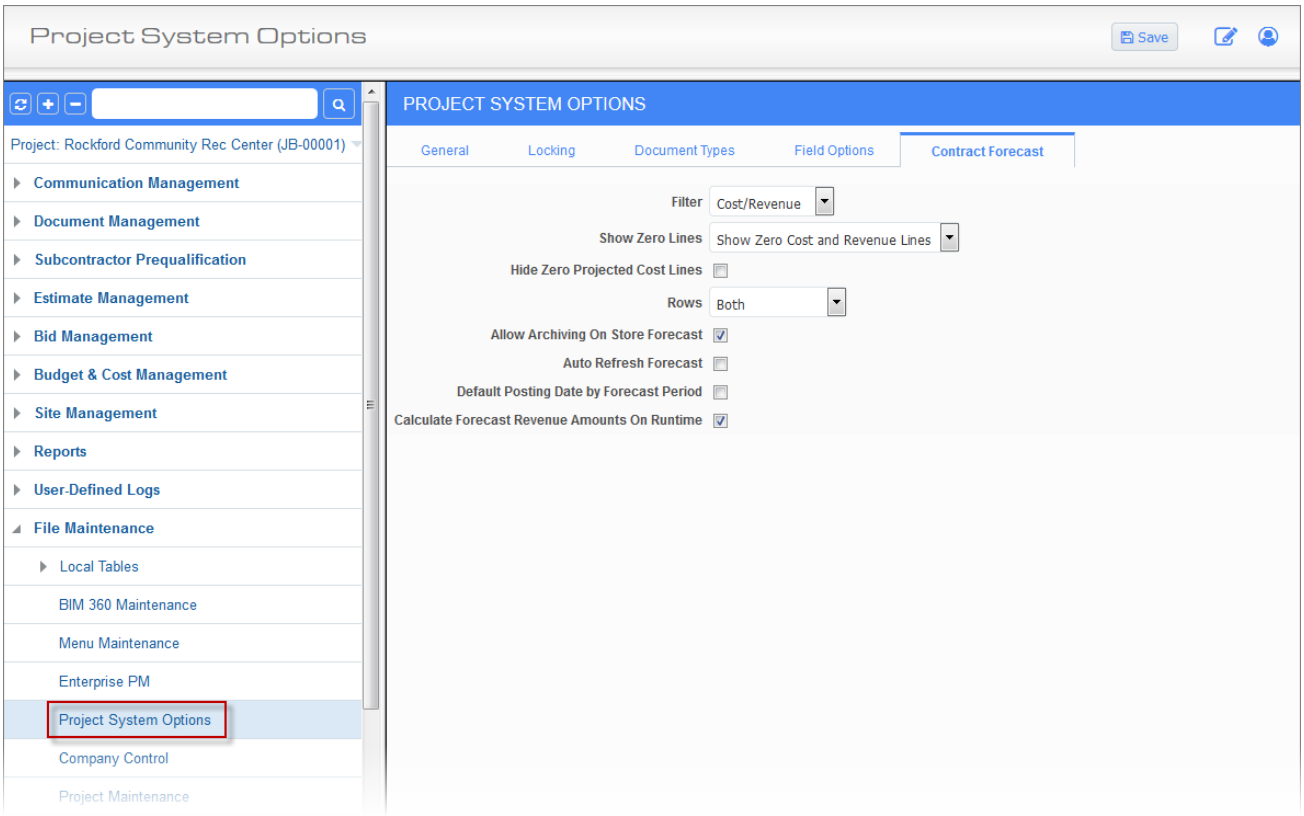
Both PCIs effect contract forecasting in the same way. The Cost to Complete column will reflect the negative posted PCIs by summing up all posted PCIs.



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – Forecasting tab

When the summary amount goes negative and if the 'Allow Negative Values in Cost To Complete' box on the Forecasting tab of the Job Cost Control File is checked, then the column will reflect negative values accordingly.

How do I change the default values for the forecast header filters?



Pgm: Project System Options; standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contract Forecast tab

The default filter values can be set on the Forecast tab of the Project System Options screen in CMiC Field.

Setup

Forecasting Setup

Forecasting setup requires a thorough understanding of various modules within CMiC, such as Job Costing (JC), Job Billing (JB), Change Management (CM), CMiC Field, etc. These modules are integrated with various options to provide users with flexibility when configuring and implementing a forecasting system so that it meets their specific business needs.

There is no pyramidal structure of rules that govern the forecasting program and hence the setup requirements do require elaborate planning, understanding and configuring to implement a vastly successful forecasting system.

The following sections elaborate on the setup requirements for Contract Forecasting with PCI Projections in CMiC Field.

Hidden Controls

Some controls related to forecasting in the Job Costing module are hidden from the user interface. These settings are hidden for the following reasons:

- Some settings are treated as an alternate feature and unique to a specific customer and may not be required for a majority of others.
- Some features may replace the commonly used programs and necessitate use of special/alternate programs.
- Some settings may not be allowed to be switched back and forth and are deemed as a one-time setting in the beginning of the implementation.

The following sections describe some of the hidden settings.

System Alternate Feature Table (Sys_alternate_feature)

Contract Forecast Independent Cost and Revenue Forecast Flag

If this flag is set as “Y”, then for bill codes with type “Cost”, updating the amount in the Projected Cost Forecast column will not change the amount in the Revenue Forecast column. Users have to manually override the Revenue Forecast column.

WIP Projected with Risk Flag

If the source for WIP is set as “Contract Forecast” in the WIP tab of the Job Cost Control File, and if the ‘WIP Projected with Risk Flag’ is set as “Y”, then the Projected Cost Forecast Including Pending CO with Risk will be the source for the Project Cost Forecast column in WIP. The Adjusted Revenue Forecast column will be the source for the Contract Amount column in WIP screen. If disabled, the Projected Cost Forecast and Revenue Forecast columns from the forecasting screen will be the source for Projected Cost Forecast and Contract Amount respectively for the WIP screen.

JB: Allow Bid Job Contract

The system generally allows billing contracts to be created only for non-bid jobs. It is not possible to do a labor and/or contract forecast on bid jobs as forecasting can be performed only on jobs with contract.

When the system alternate feature ('JB','ALLOW BID JOB CONTRACT') is installed, then contracts can be created for bid jobs and subsequent forecasting. The first task is to allow for labor forecasting to be done on bid jobs. The following are the list of possibilities when this feature is turned ON:

- Allows creation of a contract on bid jobs.
- Allows creation of contract forecast on bid jobs.
- Allows creation of labor forecast on bid jobs.
- Copy bid contract details when the bid is won.
- Copy contract forecast and labor ETC when the bid is won.
- Copy original budget change orders when the bid is won.

System Options Table

SYS_ACTUAL_COST_FOR_SPENT Flag

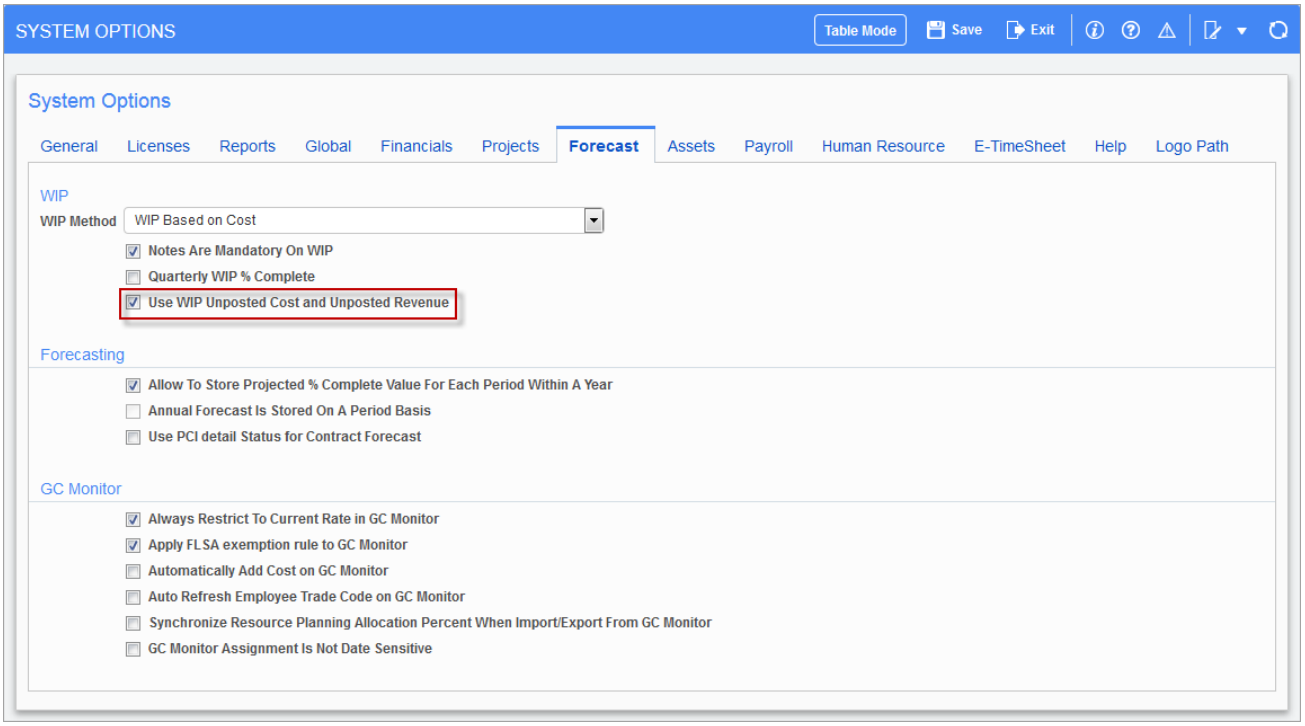
If this flag is set as “Y” and there is no actual cost posted, then the Actual Cost column will be left as null and NOT as zero and vice versa.

SYS_CMDETAIL_STAT_CFCAST_Flag

If this flag is set as “Y”, the system will look into the status of detailed lines of PCI but if it is set as “N”, the header status of PCI is considered for forecasting.

Refer to Using System Options Flag to Consider PCI Detail Status in Contract Forecast for more details.

System Data Module

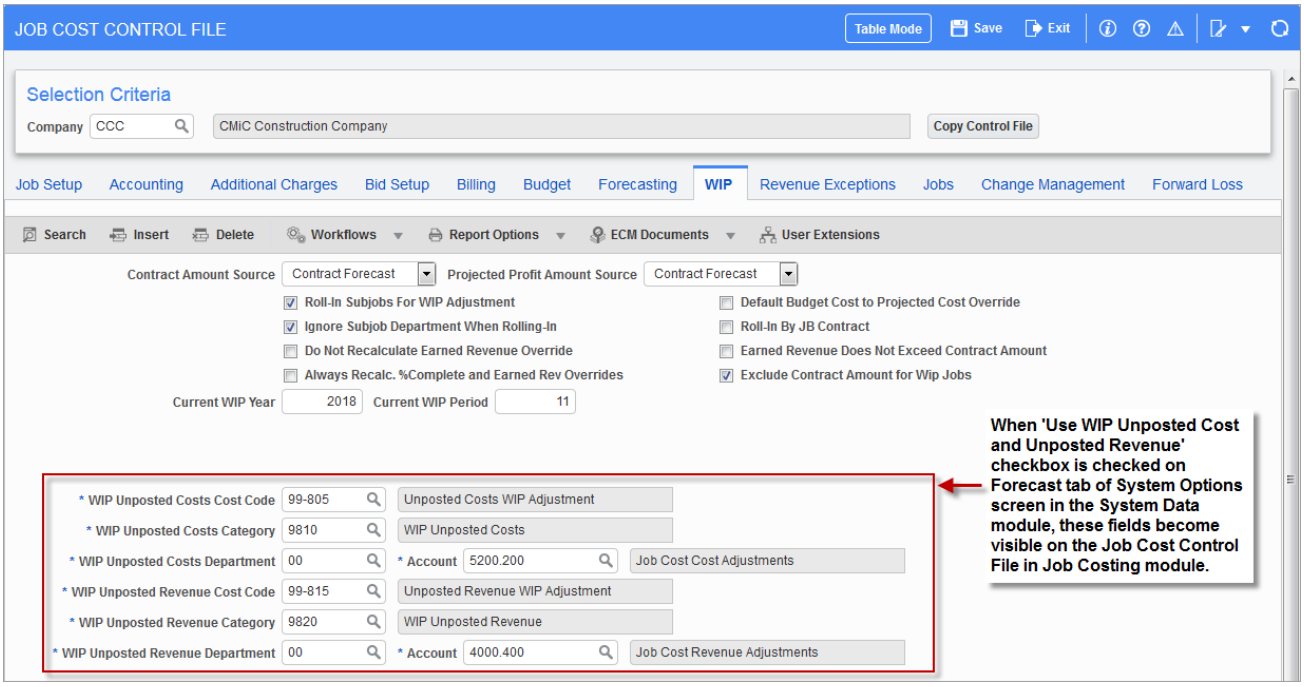


Pgm: SYSOPT – System Options; standard Treeview path: System > Setup > System Options – Forecast tab

Use WIP Unposted Cost and Unposted Revenue – Checkbox

This checkbox controls the option of using the Unposted Cost and Unposted Revenue fields in the WIP Adjustment process, and when checked, will make the related Job Cost Control File fields visible such as the Unposted Costs/Revenue Phase, Category, Department, and Accounts (standard Treeview path: Job Costing >Setup > Local Tables > Control File – WIP tab). These fields will be required, as shown in the screen-shot below.

When unchecked, the WIP Process will not use the Unposted Cost/Revenue fields and the Control File fields in Job Cost Control File will not be visible.



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab

CMiC Field

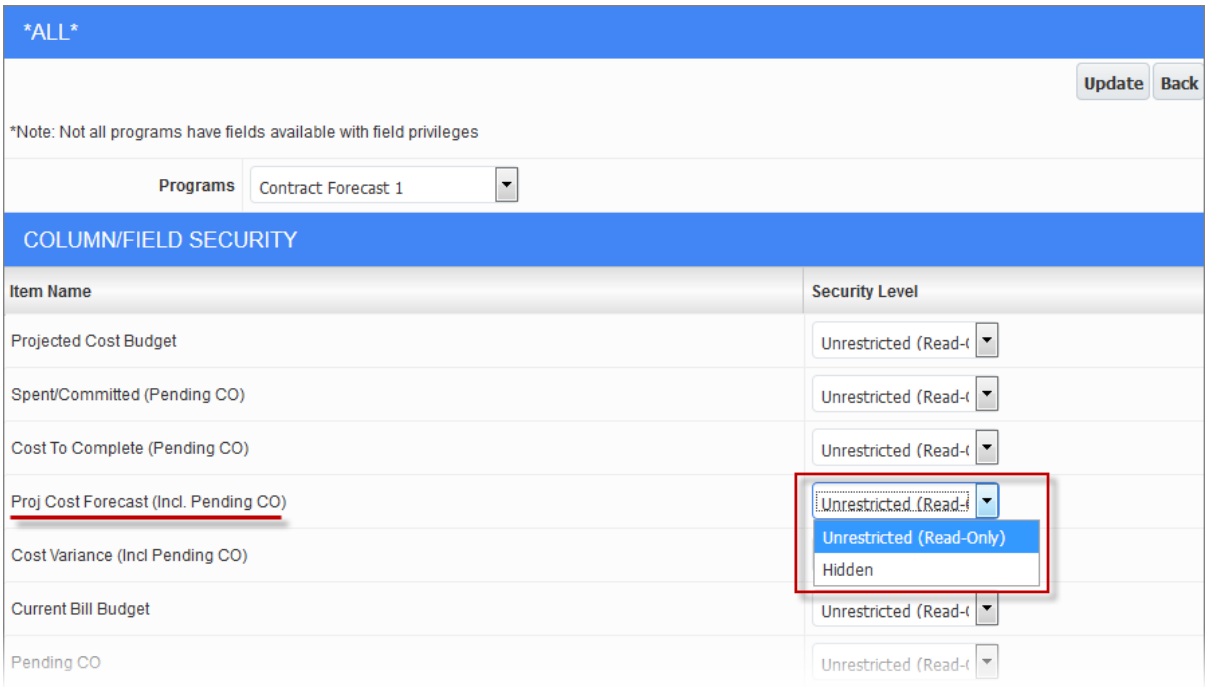
PM System Options Table

PMSYS_FCST_INC_PND_CO Flag

When checked, the Proj Cost Forecast (Incl. Pending CO) column is editable.

Any update within the Cost to Complete pop-up recalculates the Proj Cost Forecast (Incl. Pending CO) column in the CMiC Field Contract Forecasting with PCI Projections screen. The updated amount (including any manual overrides entered directly into this column) will be used to update the Projected Final Amount in the JCJOBCAT table.

If this box is unchecked, the Proj Cost Forecast (Incl. Pending CO) column is not editable, and the Cost Forecast amount will be used to update the Projected Final Amount in the JCJOBCAT table.



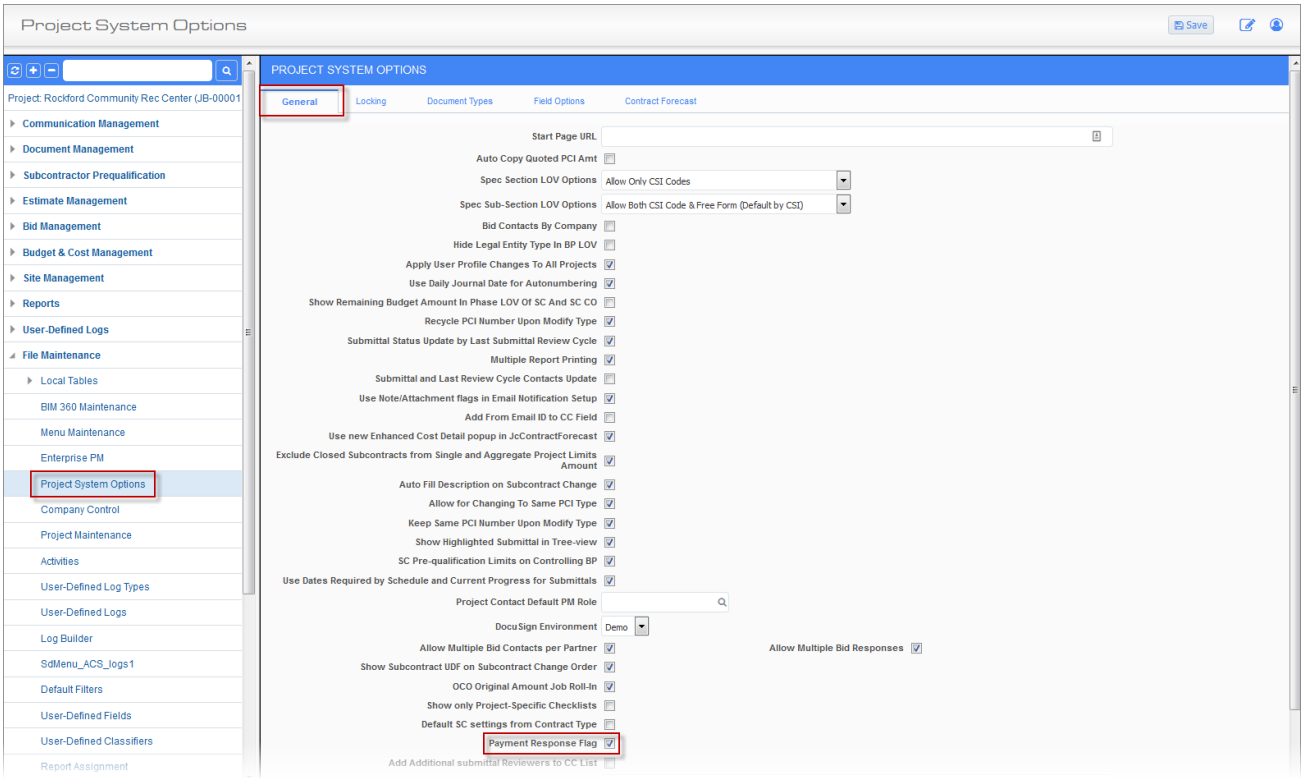
Role Maintenance; standard Treeview path: CMiC Field > Role Maintenance > Security Roles – Assign Field Security

NOTE: The field security on the Proj Cost Forecast (Incl. Pending CO) column is normally either “Read Only” or “Hidden”. When the database field in PM System Options

(PMSYS_FCST_INC_PND_CO) is set as “Y”, the field is editable and the value is used to update the JCJOBCAT table.

Project System Options

General – Tab



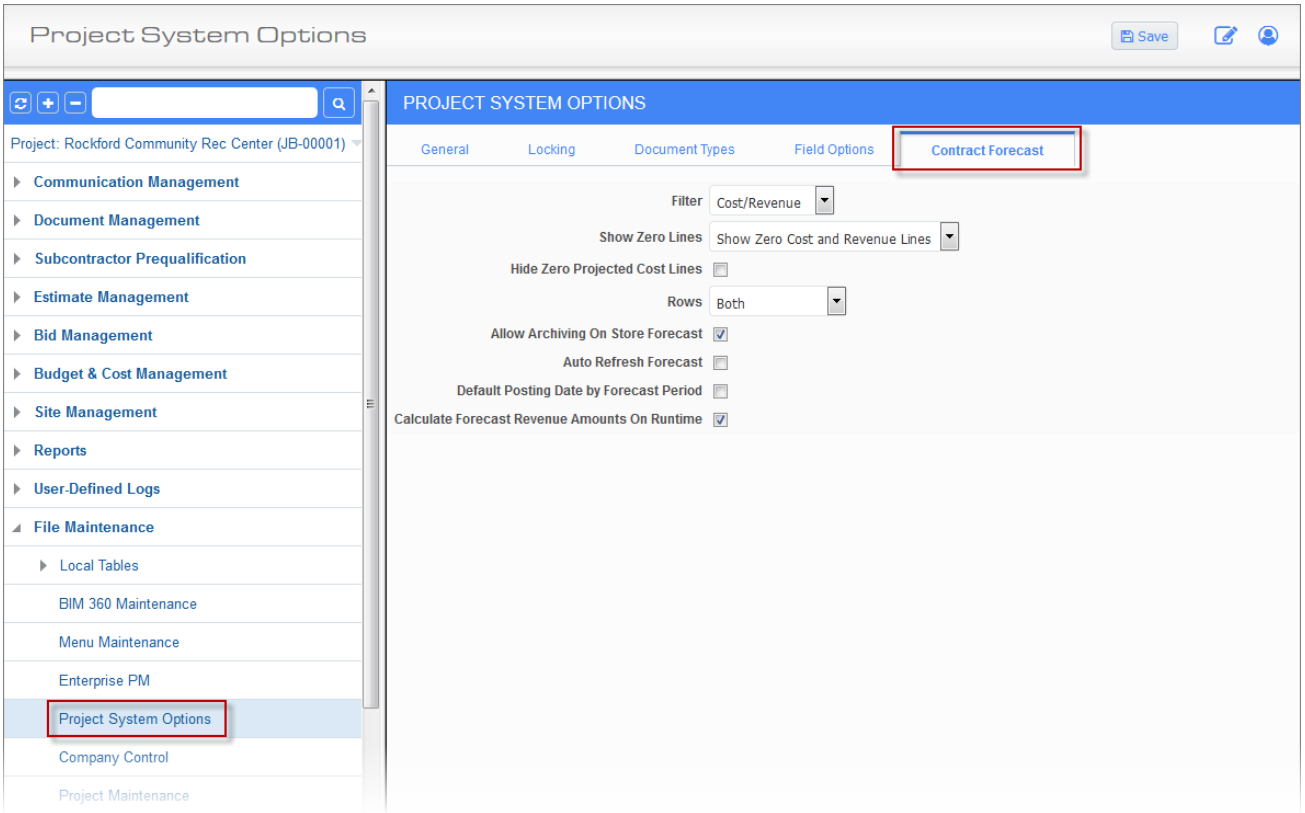
Project System Options; standard Treeview path: CMiC Field > File Maintenance > Project System Options – General tab

This checkbox is to support Payment Response Functionality (e.g. for clients in the country of Singapore as per the local requirements).

Payment Response Flag – Checkbox

If checked, user can enter amount values against LOV line level at self billed screen.

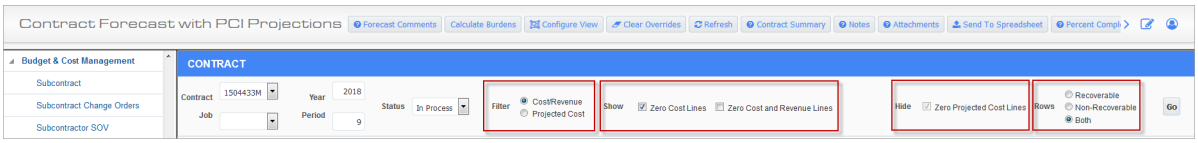
Contract Forecast – Tab



Project System Options; standard Treeview path: CMiC Field > File Maintenance > Project System Options – Contact Forecast tab

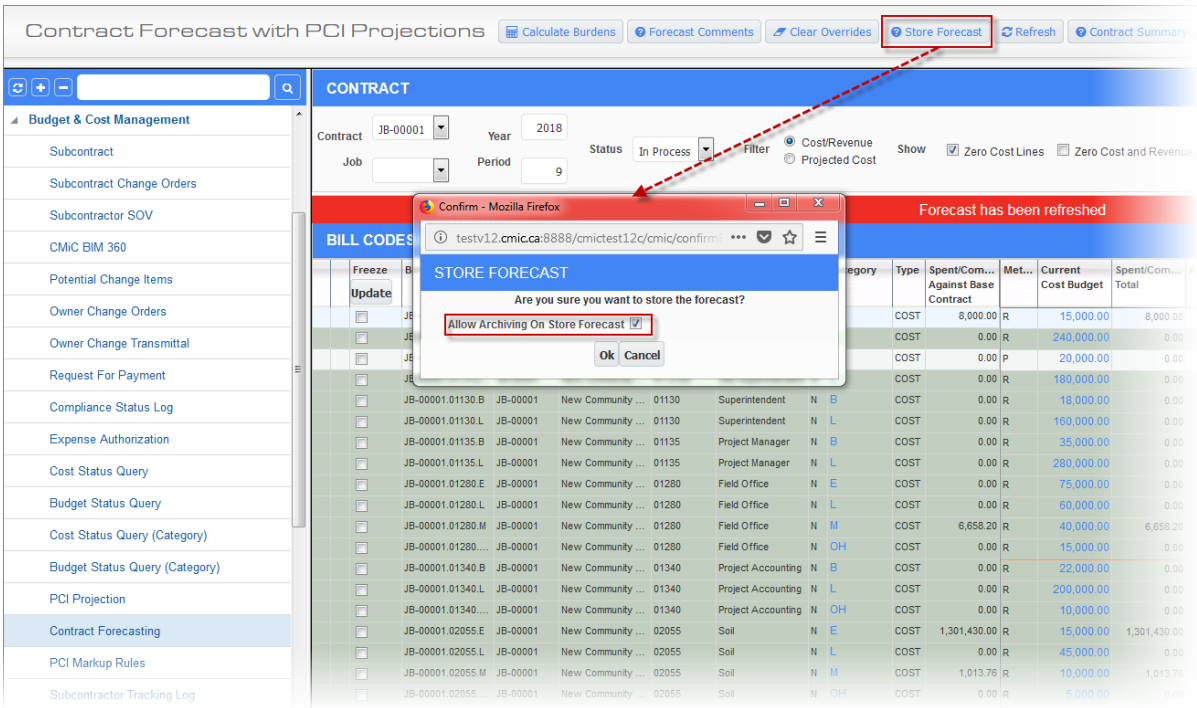
Filter, Show Zero Lines, Hide Zero Projected Cost Lines, Rows

These fields allow the user to set the default system parameters for the CMiC Field Contract Forecast filter. These default settings can be overridden at the time when the Contract Forecast with PCI Projection will be executed.



Example of system parameters on Contract Header Section of CMiC Field Contract Forecast with PCI Projections screen (standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting)

Allow Archiving on Store Forecast – Checkbox



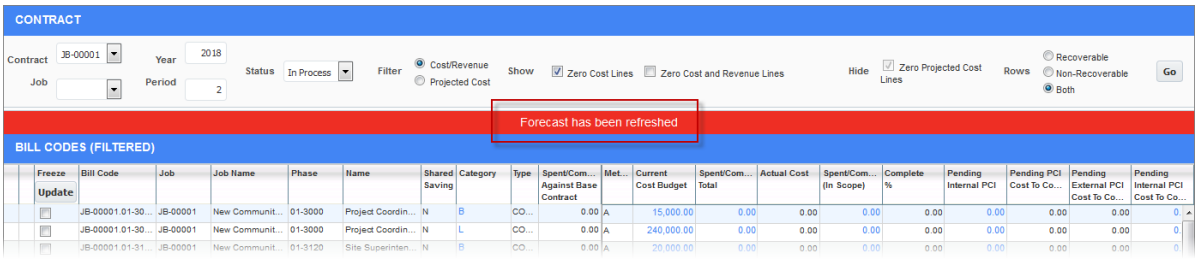
Pop-up window launched from [Store Forecast] button on Contract Forecast with PCI Projections screen

If 'Allow Archiving on Store Forecast' is checked in Project System Options, then this value will default into the pop-up window launched from the [**Store Forecast**] button on the Contract Forecast with PCI Projections screen, which users may override as required. When this option is checked in the pop-up window, upon forecast, the Archive function will also be performed. The default value of this field is unchecked.

Auto Refresh Forecast – Checkbox

If checked, when a user clicks on the [**Go**] button on the Contract Forecast screen, the system will auto-refresh the forecast data if a forecast already exists; otherwise, it will create a new forecast. The default value of this field is unchecked.

NOTE: If users do not update the period after initially clicking on the [**Go**] button, then auto-refresh will continue to update the forecast data each time the user clicks [**Go**]. Once the user updates the period, a new forecast is created for that period, and an auto-refresh is not performed as this is the initial creation of the forecast. When the program is closed, and the screen is re-opened, the forecast data will be auto-refreshed.



Example of a Contract Forecast that has been refreshed

Default Posting Date by Forecast Period – Checkbox

If checked, last date of forecast period is used as default posting date when forecast period on calendar month rolls over.

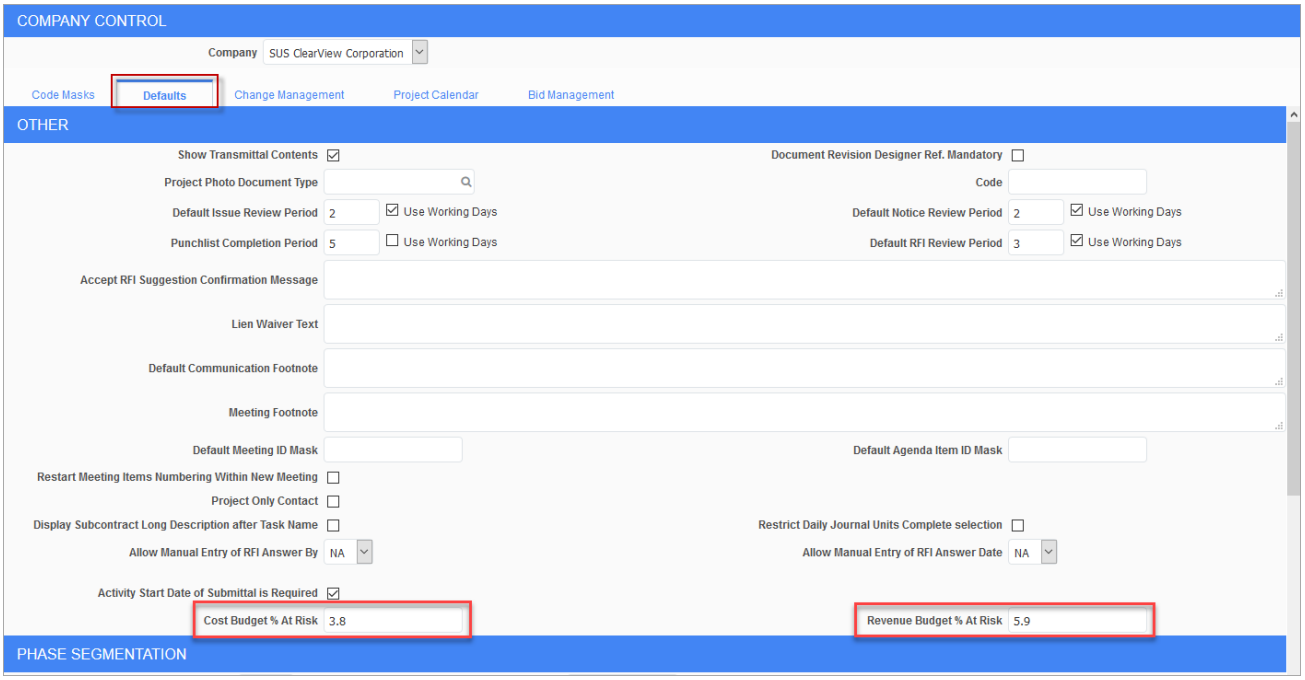
When checked, this option applies to the posting date on Subcontracts, Subcontract Change Orders, Potential Change Items, Owner Change Orders, and Request for Payments in CMiC Field.

Calculate Forecast Revenue Amounts on Run Time – Checkbox

If checked, when users override Cost To Complete or Projected Cost Forecast column values, and tab away from those fields, the Revenue Forecast values are recalculated in real time for this line. If user do not want this to recalculate and affect the recalculation of the Revenue values upon [**Save**], then they should uncheck is checkbox. The default value is checked.

Company Control

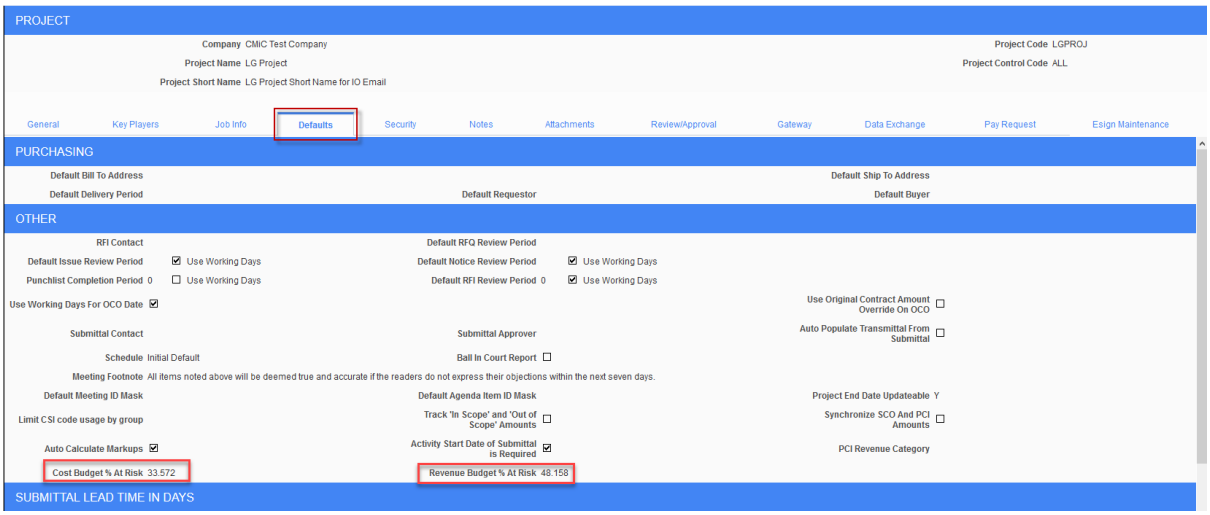
Defaults – Tab



Company Control; standard Treeview path: CMiC Field > File Maintenance > Company Control – Defaults tab

Cost Budget % At Risk, Revenue Budget % At Risk

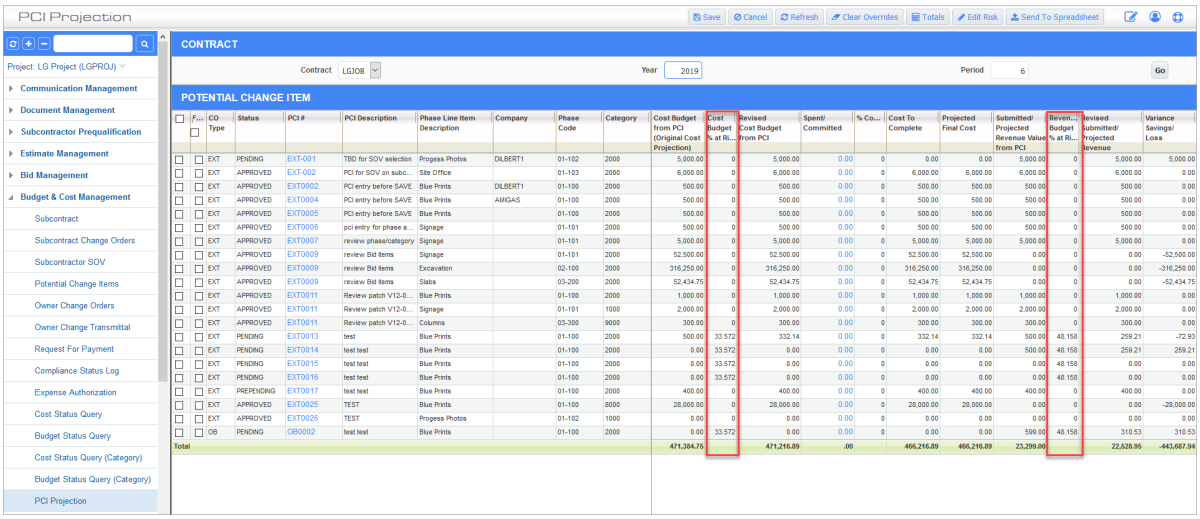
The at risk percentages entered in the Cost Budget % At Risk field and the Revenue Budget % At Risk field on the Defaults tab of the Company Control screen default to the Defaults tab of the Project Maintenance screen when a new project is created but they can be overridden, as required (standard Treeview path: CMiC Field > File Maintenance > Project Maintenance – Defaults tab).



Project Maintenance; standard Treeview path: CMiC Field > File Maintenance > Project Maintenance – Defaults tab

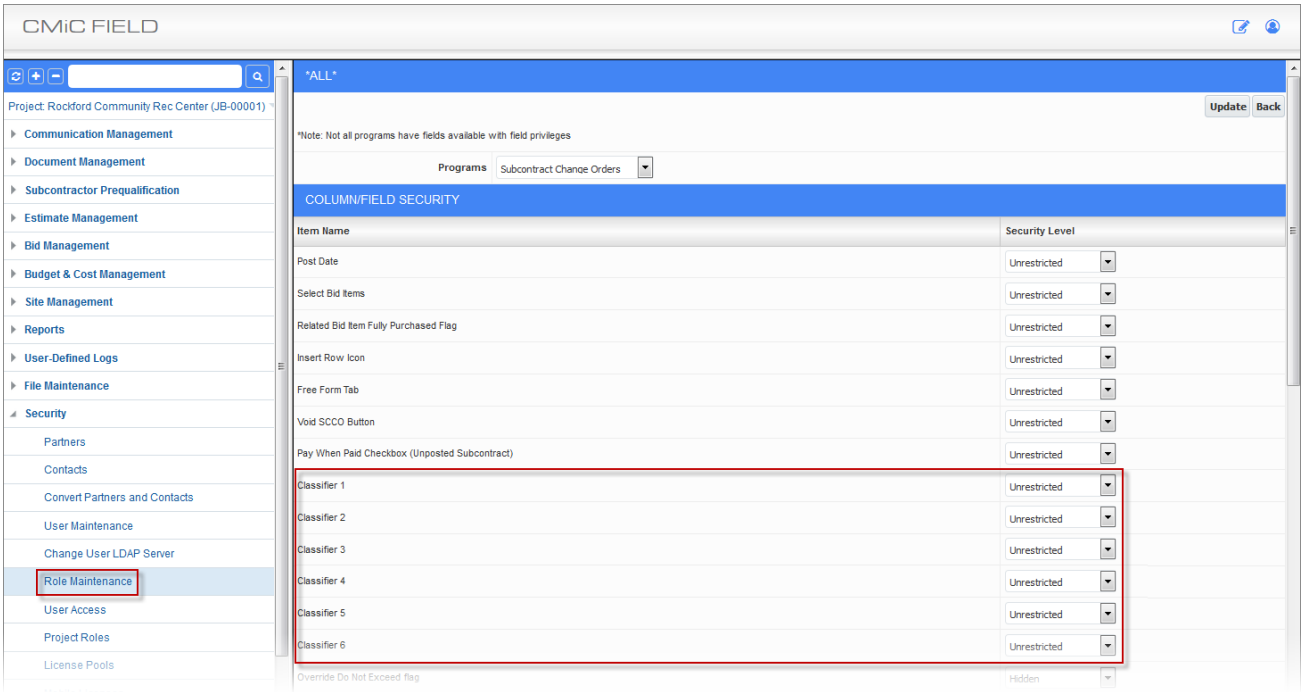
From the Project Maintenance screen, the risk percentages default to the PCI Projection screen, but can be overridden there as well.

If a PCI is pending and unposted, the value is populated from the Project Maintenance screen. If a PCI is approved and unposted, the value is 0%. A PCI posted in the current period is not shown in the PCI Projection report. If a PCI is posted in future, it is considered as a pending PCI (even if status is approved).



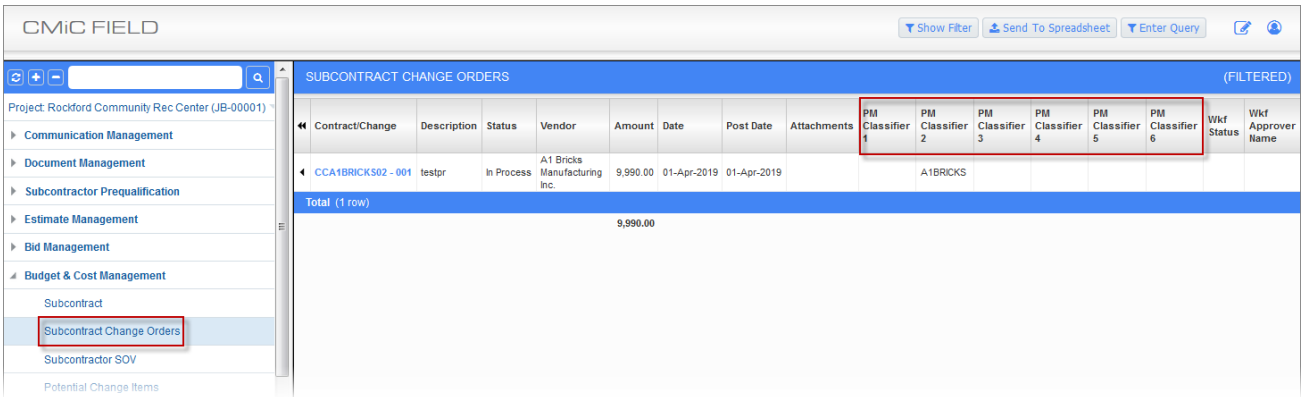
PCI Projection; standard Treeview path: CMiC Field > Budget & Cost Management > PCI Projection

PM Classifiers in SCCO



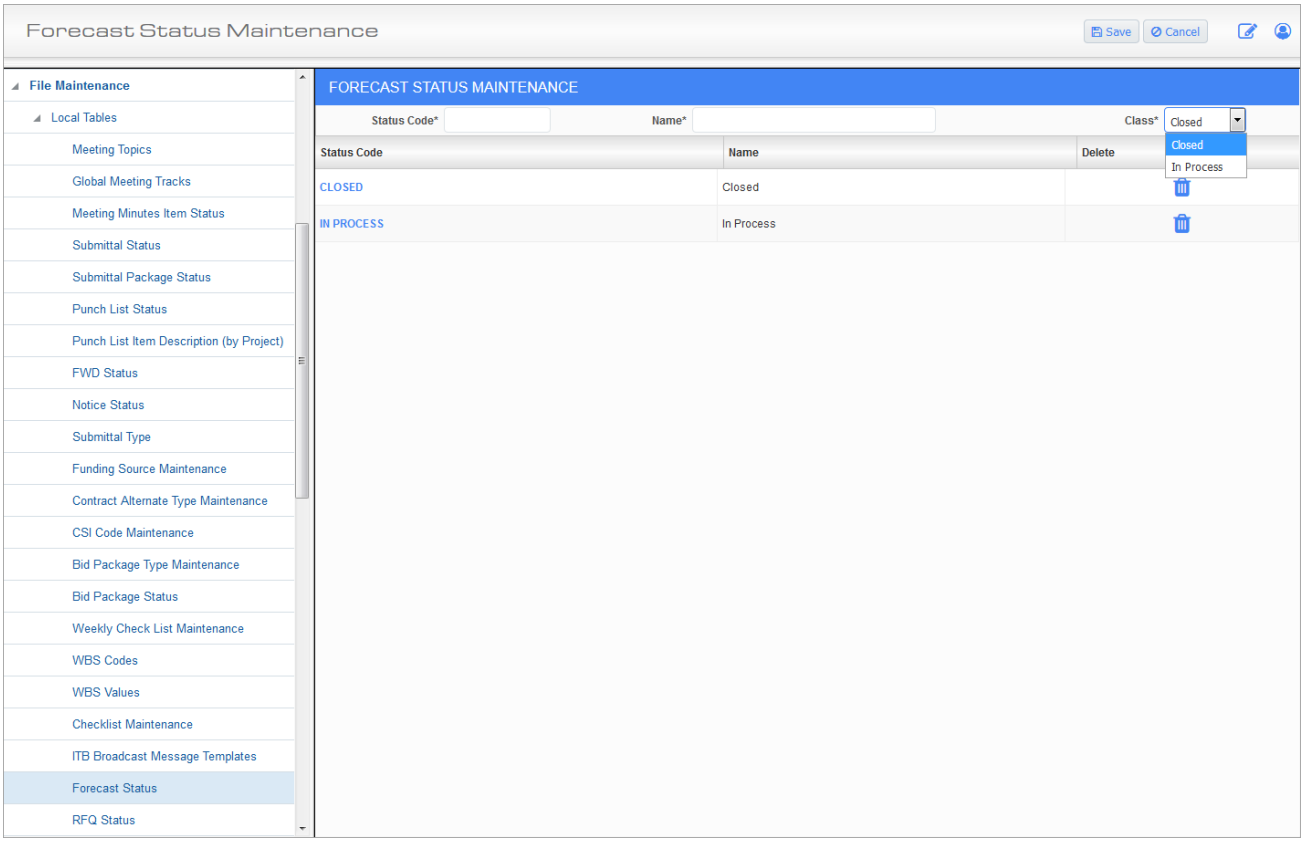
Role Maintenance; standard Treeview path: CMiC Field > Security > Role Maintenance

Role level field security exists for PM Classifiers 1-6 in the Subcontract Change Orders screen. The classifiers for the 'ALL' role are set to "Hidden" by default. These fields support the display of classifiers in the SCCO Log, as shown in the screenshot below.



Subcontract Change Orders; standard Treeview path: CMiC Field > Budget & Cost Management > Subcontract Change Orders

Forecast Status Maintenance



Forecast Status Maintenance; standard Treeview path: CMiC Field > File Maintenance > Local Tables > Forecast Status

The forecast status used in the Status field of the Contract header section of the Contract Forecasting and PCI Projections screen (standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecasting) is created and maintained in the Forecast Status Maintenance screen.

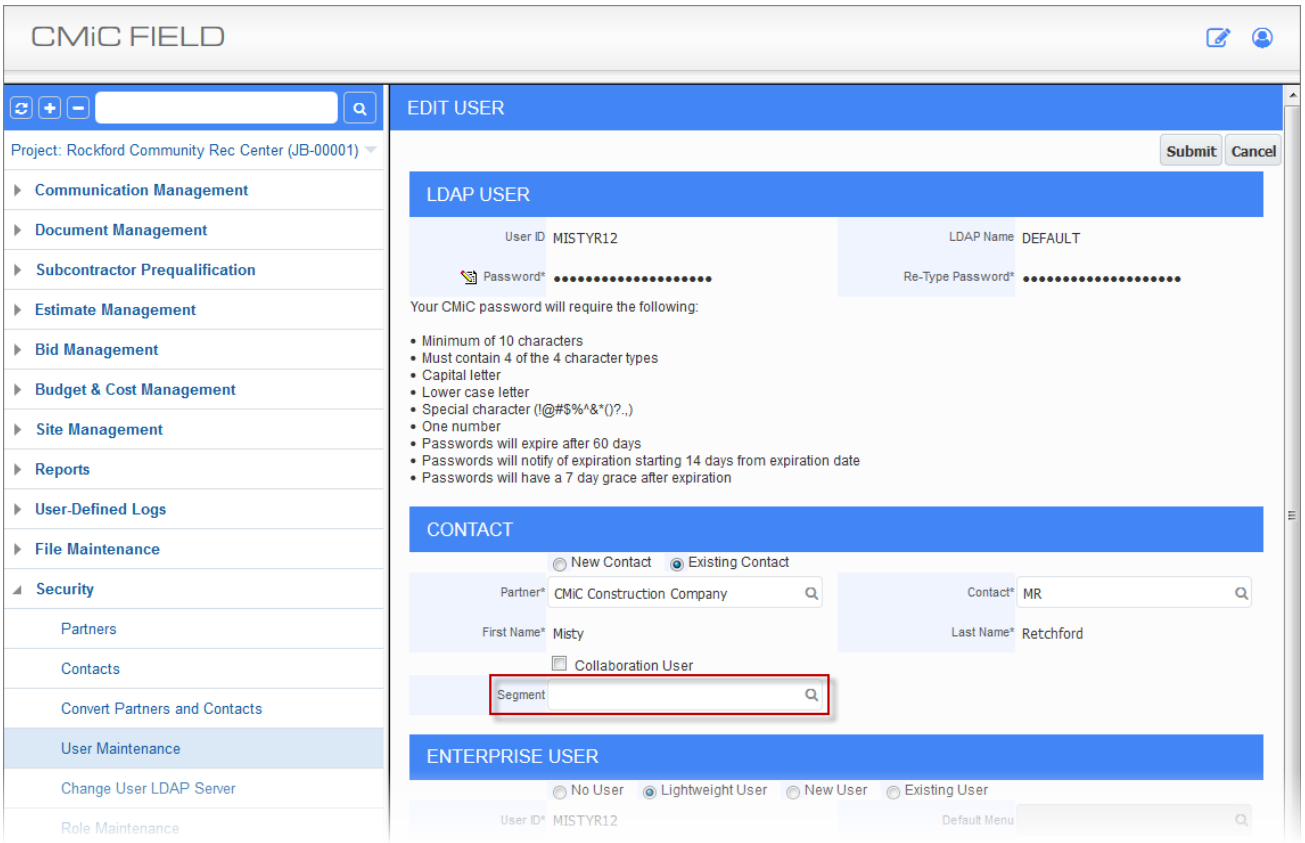
To create a new forecast status, click [**Add**], enter a code in the Status Code field and provide a suitable description in the Name field. Next, select a class for the status code.

The Class field drop-down menu is pre-populated with two system-defined class codes: “In Process” and “Closed”. The validation of a forecast status is based on these two class codes, not the status code, so the user could create several status codes under one class code. For example, the user could have the status codes “On Hold” and “Under Review” under the class code “In Process”.

When finished, click on [**Save**].

To delete a forecast status, click the delete icon next to the status.

User Maintenance



User Maintenance; standard Treeview path: CMiC Field > Security > User Maintenance

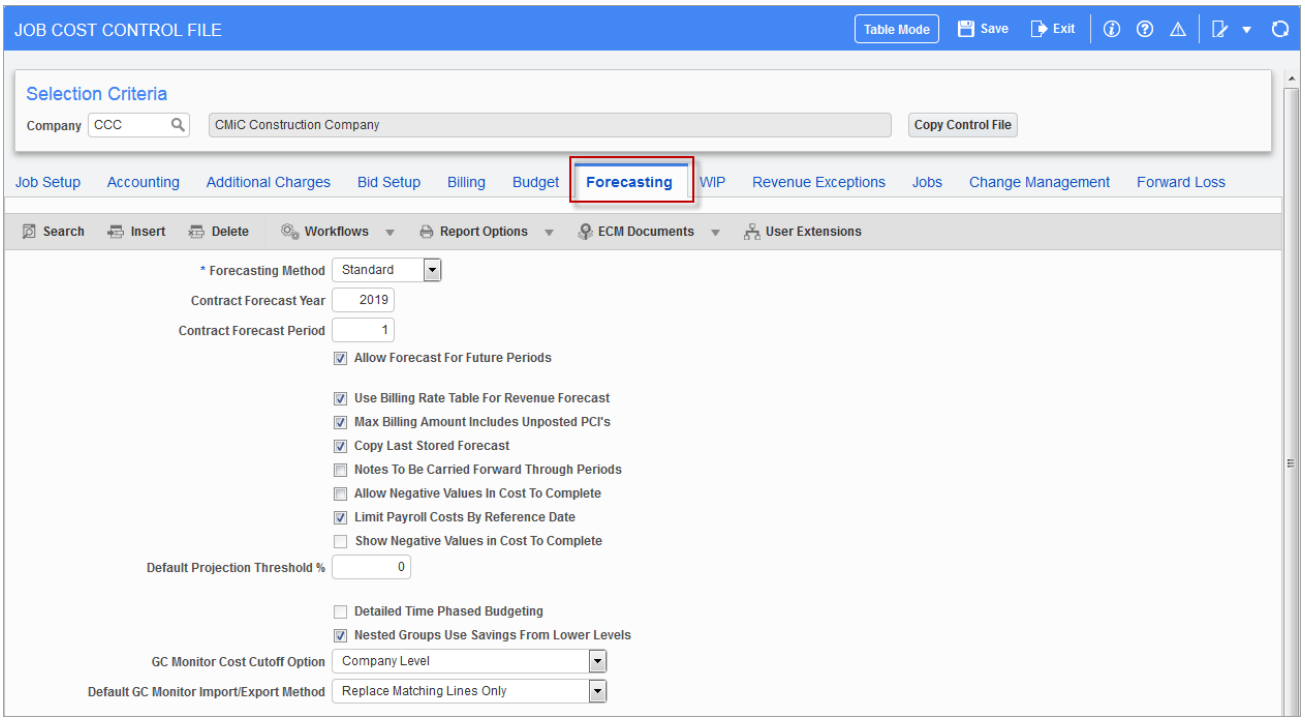
Segment

This field is used for mapping with third-party external software.

Job Costing Module

Job Cost Control File

Job Cost Control File – Forecasting Tab



Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File - Forecasting tab

The controls on the Forecasting tab of the Job Cost Control File screen govern forecasting in CMiC Field (PMJSP).

Forecasting Method

The contract forecasting method has two options: “Standard” and “ETC” (Estimate To Complete). The default value is “Standard”.

- **Standard**: When set as “Standard”, the Contract Forecasting screen continues to function as normal. Customers using the CMiC Field (PMJSP) version of contract forecasting must set the value as “Standard”.

- **ETC (Estimate To Complete)**: The ETC program is applicable to the ADF version of forecasting only. It combines labor forecasting, non-labor forecasting and contract forecasting into one program. When set to “ETC”, the Contract Forecasting screen will consider the labor and non-labor ETC information and include them in calculations. This also affects the contract forecasting column values in CMiC Field (PMJSP).

NOTE: When contract forecasting method is set to “ETC”, users may use the ‘Consider Calculated Potential Revenue (CPR) in ETC’ checkbox to consider CPR in ETC. This applies to the ADF version of forecasting only and is not applicable to CMiC Field’s Contract Forecast with PCI Projections screen.

Contract Forecast Year, Contract Forecast Period

Enter the current forecasting default year/period. This will be defaulted into the Year and Period columns in the CMiC Field Contract Forecast with PCI Projections screen.

Allow Forecast for Future Periods – Checkbox

This option allows the use of a future year/period for forecasting where the value is greater than the set year and period defaulted for contract forecasting in the above fields. If unchecked, only forecasts in the set year/period may be generated.

Use Billing Rate Table for Revenue Forecast – Checkbox

When checked, this option is used to indicate that the bill rate table is to be used for the calculation of revenue forecast in contract forecasting, for cost type billing lines. Only those lines from the billing rate table that have no payroll related information are used, i.e., lines with no employee, trade, basic wage type and shift code.

The setting defined here defaults to the Job Billing tab of the Job Setup screen in the Job Costing module during job setup. By default, the checkbox is unchecked. When checked, the [**Exceptions**] button becomes enabled on the Job Billing tab of the Job Setup screen. This button is used to define any phases and/or categories that will not use the bill rate table in the determination of the revenue forecast amount but will be calculated as usual.

Max Billing Amount Includes Un-posted PCIs – Checkbox

Checked: Any pending PCIs with billing amount will be added on top of the maximum billing amount defined at various levels in billing contract entry. Therefore, the Contract Forecasting with PCI Projections screen will not cap these unposted PCI billing amounts.

Unchecked: All pending PCIs with billing amounts will be subject to billing maximums defined and adjustment (negative) amounts will be populated under the Adjusted Revenue Forecast column against the billcodes with adjustments categories.

Copy Last Stored Forecast – Checkbox

This option allows the users while entering the new forecast period, to copy the forecast projections from the last period to the new current period. When checked, the last stored time phase forecast future period projections will be used including any overridden values, in place of basing the values on the standard calculations. This provides the ability to use the last stored overrides in place of having to re-enter the overrides for the future periods.

Notes To Be Carried Forward Through Periods – Checkbox

This checkbox indicates if forecasting notes should be carried forward to the next periods. If the box is checked, then when a new period forecast is created the system will bring any existing notes forward as well.

Allow Negative Values in Cost to Complete – Checkbox

If this box is checked, the system will default zero, if the cost to complete amount is negative. But allows users to enter negative values and commits upon save. As the negative values are stored, upon re-query, the negative values can be verified as well.

If the projected cost is lower than the spent/committed, the cost to complete shows as a negative value. Using this value, users will be able to sort the line items and address/-correct the same. Also, the standard thumb rule that spent/committed plus cost to complete equals projected cost forecast is maintained when the box is checked.

Limit Payroll Costs By Reference Date – Checkbox

Payroll posted cost transactions will be considered based on the reference date.

Show Negative Values in Cost To Complete – Checkbox

The 'Allow Negative Values in Cost to Complete' checkbox must be checked in order to enable this field. If checked, this will show system calculated negative values in cost to complete. If unchecked, this will show negative values if it is an override only.

Default Projection Threshold %

The user can set the company wide default projection threshold percent here, or it can be set individually by job or at the cost code (phase) level. This field can be used to provide a mechanism to establish a projection threshold that would suppress the calculation of the straight line forecast final cost algorithm until a certain percentage of physical work (from either actual units/estimated units or input percentage of completion – as opposed to a cost to cost calculation of percent complete).

Consider Calculated Potential Revenue (CPR) in ETC – Checkbox

When the Forecasting Method is set as "ETC", users may use this flag to consider Calculated Potential Revenue (CPR) in ETC. Once again this is not applicable to CMiC Field (PMJSP) Contract Forecasting with PCI Projections screen.

Detailed Time Phased Budgeting – Checkbox

NOTE: Ensure that this checkbox is unchecked, as detailed time phased budgeting has been deprecated. Its current functionality is available, however, as per CMiC's deprecation policy, should the need arise to work with older data that used it.

This checkbox changes the time phased budgeting from the detailed job/phase/category version when checked, to the overall job level (unchecked) time phasing.

The job level time phased budget is applied to GL periods only (as is JB time phased revenue budgeting) and allows direct comparison of costs and revenues (not available using the detailed cost time phasing).

This checkbox must also be unchecked in order to use the Opportunity Management Financial Forecasting reporting system.

Nested Groups Use Savings From Lower Levels – Checkbox

This checkbox is applicable only when the forecasting method is selected as “ETC”.

This checkbox controls how billing overruns and underruns are accounted for in ETC forecasting.

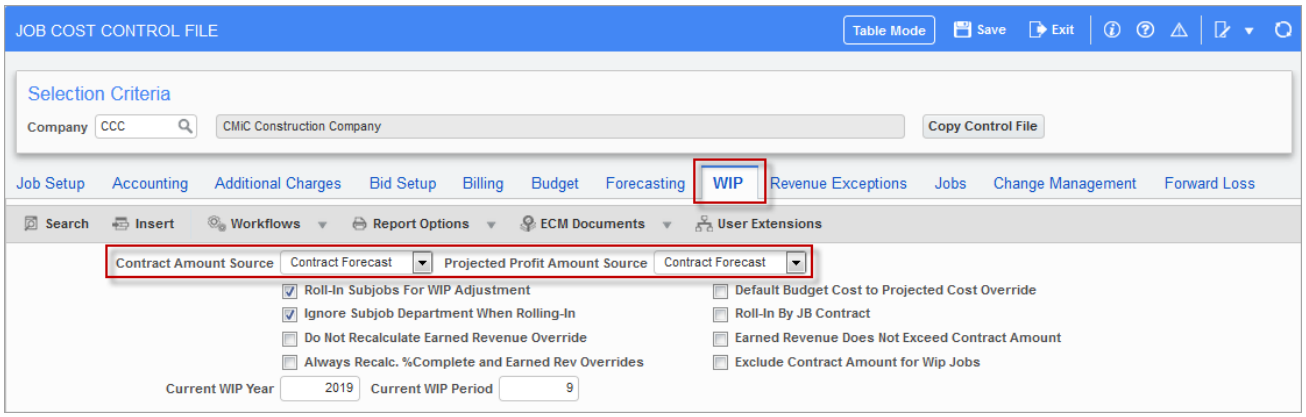
The default value is checked. The system accounts only for overruns of billing amounts.

This affects the Forecasted Billing Amount column in ETC (ADF Forecasting) only.

When unchecked, the system will account for both overruns and underruns, reversing this amount from the out of scope changes in process column, JCCF_ALL_PENDING_BILL_AMT. A savings or underrun should be reducing forecasted billing budget and the out of scope changes in process column is the correct column for this reversal.

Currently, if the program does not find the required account to offset for overruns it issues a warning that the account does not exist and therefore the adjustment is not written. The user then has to create the account, map the bill code and try again. The same exact warning system is in place, if an account is not found to offset for the savings.

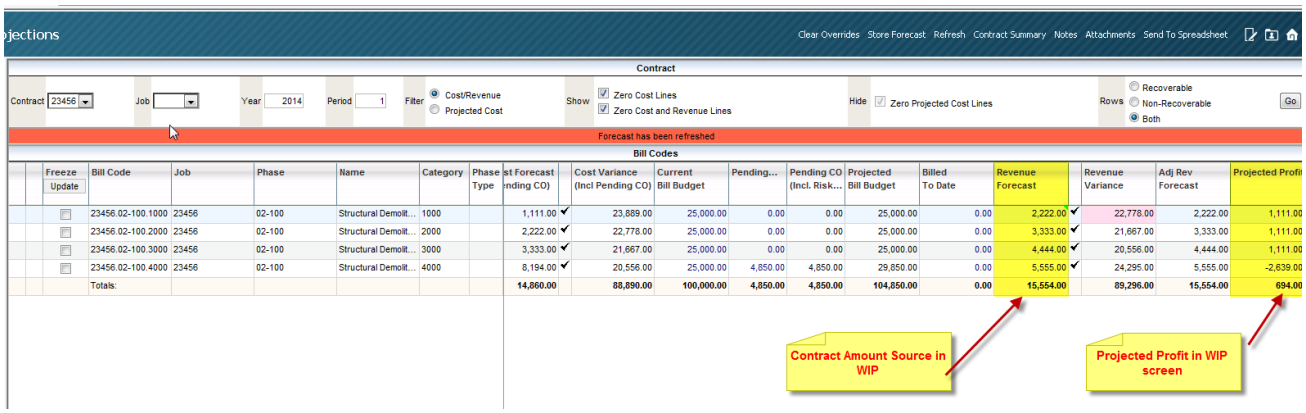
Job Cost Control File – WIP Tab

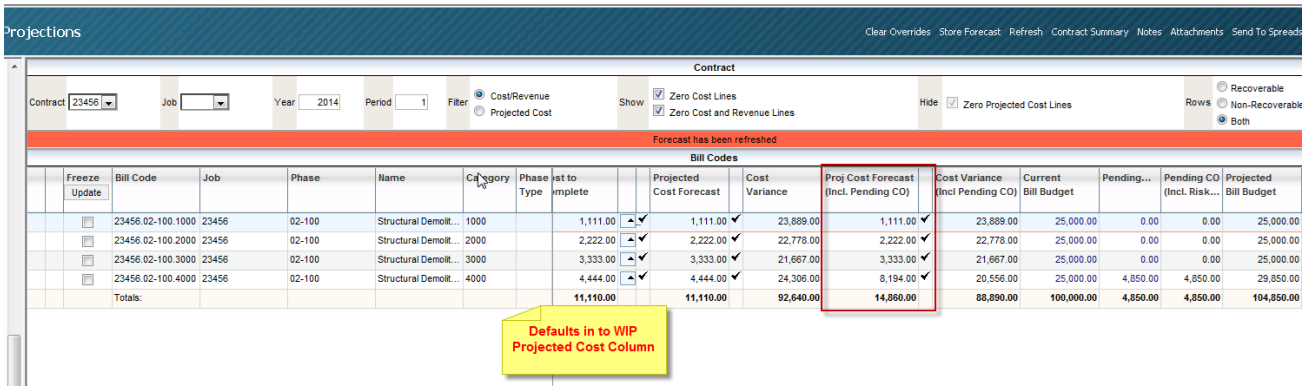


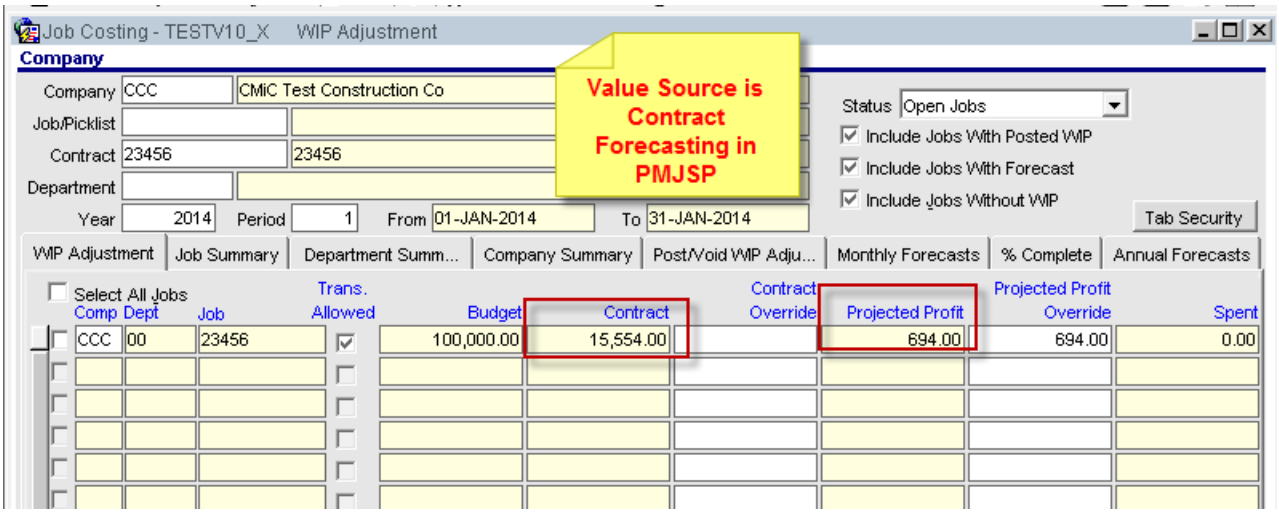
Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – WIP tab

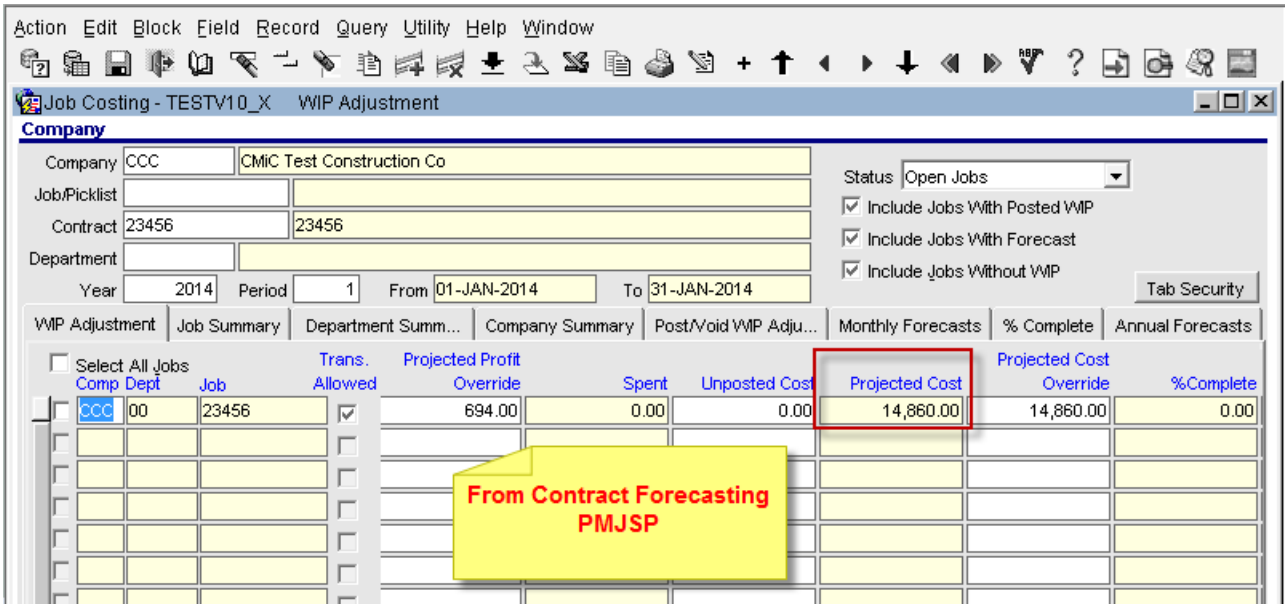
The Contract Amount Source field and the Projected Profit Amount Source field are settings used for determining which type of PCIs will be included when calculating WIP. Refer to Examples of Contract Forecasting and WIP Interaction section in this guide for more details.

The following examples show the Contract Forecast with PCI Projections and WIP program interaction.



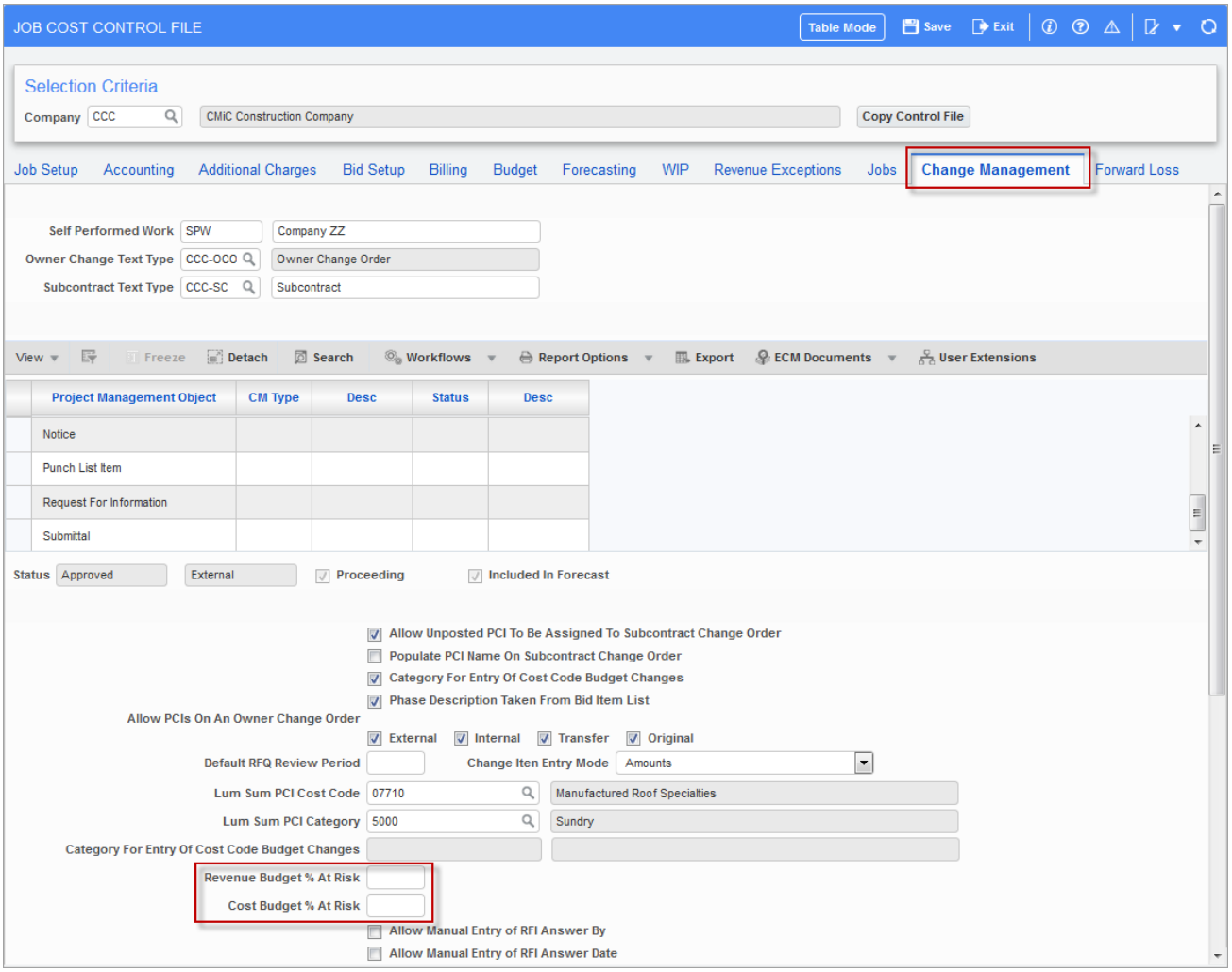






Selecting Type of PCIs to be Included when Calculating WIP section in this guide for more details.

Job Cost Control File – Change Management Tab



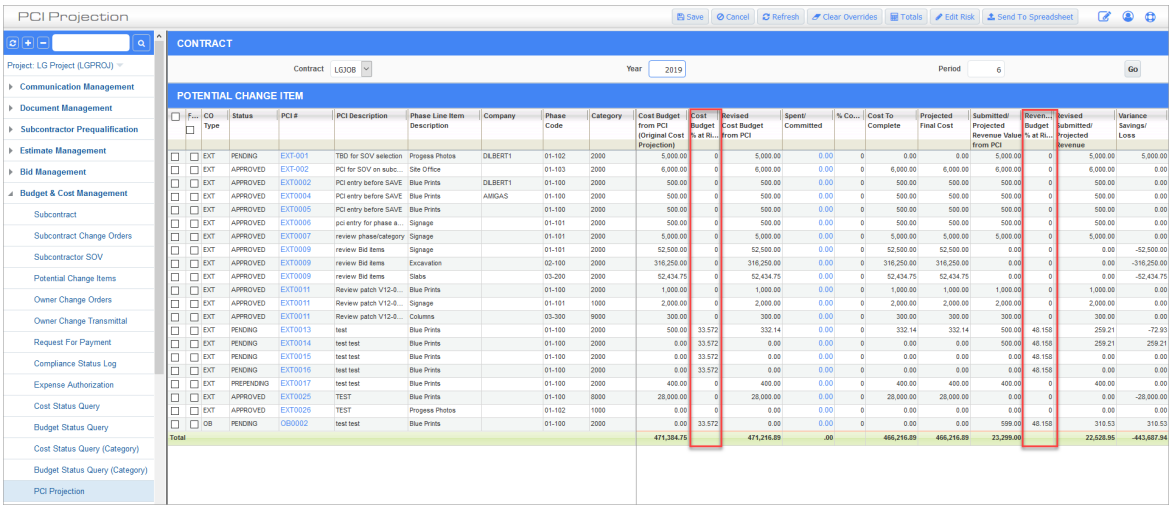
Pgm: JCCTRLFM – Job Cost Control File; standard Treeview path: Job Costing > Setup > Local Tables > Control File – Change Management tab

Revenue Budget % At Risk, Cost Budget % At Risk

The at risk percentages entered in the Revenue Budget % At Risk field and the Cost Budget % At Risk field on the Change Management tab of the Job Cost Control File default to the Default tab of the Project Maintenance screen but they can be overridden, as required. The Project Maintenance screen is located in the Job Costing module (standard Treeview path: Job Costing > Job > Enter Project – Project Maintenance – Defaults tab) and in CMiC Field (standard Treeview path: CMiC Field > File Maintenance > Project Maintenance – Defaults tab).

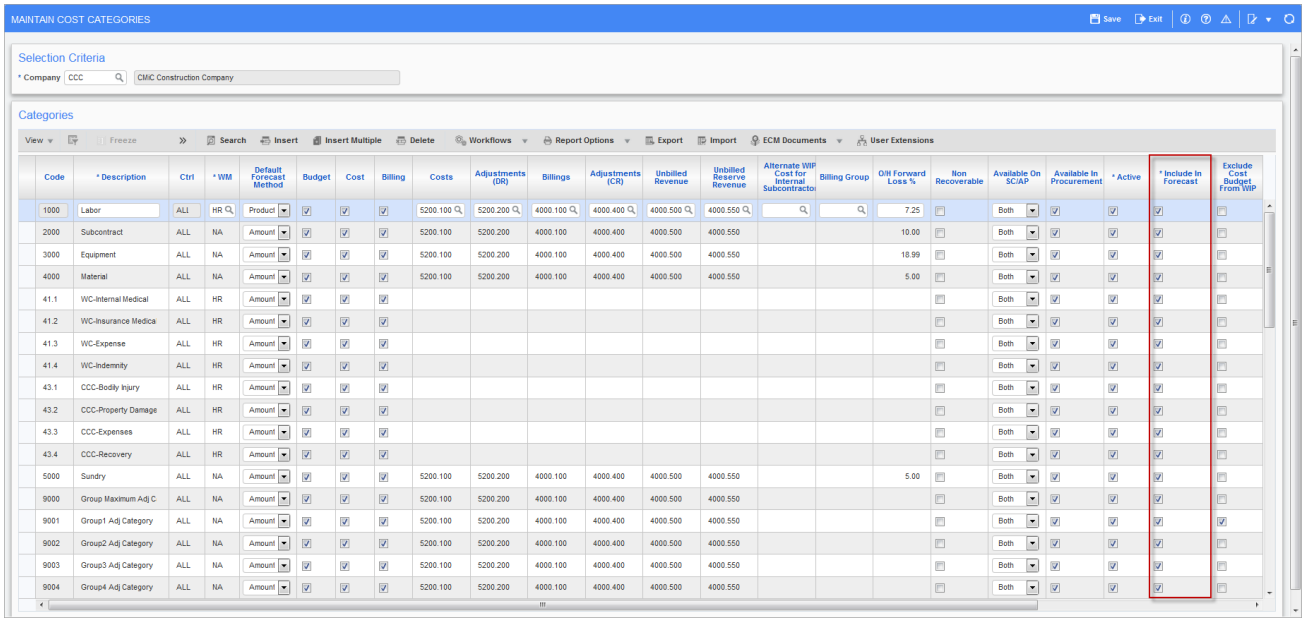
From the Project Maintenance screen, the risk percentages default to the PCI Projection screen, but can be overridden there as well (standard Treeview path: *CMiC Field > Budget & Cost Management > PCI Projection*).

If a PCI is pending and unposted, the value is populated from the Project Maintenance screen. If a PCI is approved and unposted, the value is 0%. A PCI posted in the current period is not shown in the PCI Projection report. If a PCI is posted in future, it is considered as a pending PCI (even if status is approved).



PCI Projection; standard Treeview path: CMiC Field > Budget & Cost Management > PCI Projection

Category Maintenance

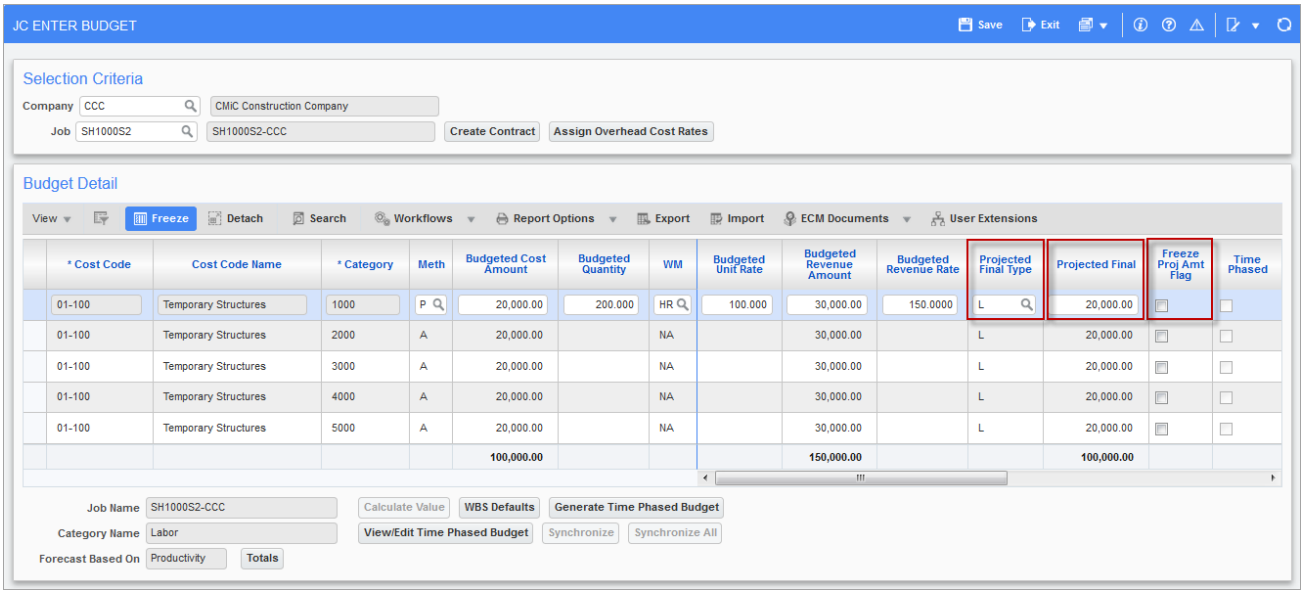


Code	* Description	Ctrl	* WM	Default Forecast Method	Budget	Cost	Billing	Costs	Adjustments (DR)	Billings	Adjustments (CR)	Unbilled Revenue	Unbilled Reserve Revenue	Alternate WIP Cost for Internal Subcontractor	Billing Group	O/H Forward Loss %	Non Recoverable	Available On SC/AP	Available In Procurement	* Active	* Include In Forecast	Exclude Cost Budget From WIP
1000	Labor	ALL	HR	Product	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550			7.25	☐	Both	☑	☑	☑	☐
2000	Subcontract	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550			10.00	☐	Both	☑	☑	☑	☐
3000	Equipment	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550			18.99	☐	Both	☑	☑	☑	☐
4000	Material	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550			5.00	☐	Both	☑	☑	☑	☐
41.1	WC-Internal Medical	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
41.2	WC-Insurance Medica	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
41.3	WC-Expense	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
41.4	WC-Indemnity	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
43.1	CCC-Bodily Injury	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
43.2	CCC-Property Damage	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
43.3	CCC-Expenses	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
43.4	CCC-Recovery	ALL	HR	Amount	☑	☑	☑										☐	Both	☑	☑	☑	☐
5000	Sundry	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550			5.00	☐	Both	☑	☑	☑	☐
9000	Group Maximum Adj C	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550				☐	Both	☑	☑	☑	☐
9001	Group1 Adj Category	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550				☐	Both	☑	☑	☑	☑
9002	Group2 Adj Category	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550				☐	Both	☑	☑	☑	☐
9003	Group3 Adj Category	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550				☐	Both	☑	☑	☑	☐
9004	Group4 Adj Category	ALL	NA	Amount	☑	☑	☑	5200.100	5200.200	4000.100	4000.400	4000.500	4000.550				☐	Both	☑	☑	☑	☐

Pgm: JCCATFM – Maintain Cost Categories; standard Treeview path: Job Costing > Setup > Local Tables > Enter Category

The ‘Include In Forecast’ checkbox must be set checked in order to make the bill codes associated with the specific category to be visible in the Contract Forecast with PCI Projections screen.

Job Budget Maintenance



Pgm: JCBUDGET – JC Enter Budget; standard Treeview path: Job Costing > Job > Enter Budget

The value in the Projected Final column is available in the Contract Forecasting with PCI Projections screen under the Projected Cost Forecast column.

Projected Final Type

This field defaults from the Projected Final Flag field on the Job Setup tab of the Job Cost Control File screen. In most cases, this value will not need to be changed. The program will automatically calculate the expected costs at the completion of the job, based on the information entered in this field.

- “C” to use committed costs only.
- “S” to use spent to date amounts only.
- “L” to use the larger of the spent or committed amount.

Projected Final

The cost budget amount will be initially defaulted as the Projected Final amount. This amount will be updated, if the % complete of the job is 100 and costs are less than budget or if costs exceed budget or the user manually overrides.

The Projected Final amount will be updated with the projected cost forecast column values when contract forecast is stored for any specific period. The Cost Status Query screem in CMiC Field (PMJSP), shows the projected final amounts under the Calculated Projection column (standard Treeview path: CMiC Field > Budget & Cost Management > Cost Status Query).

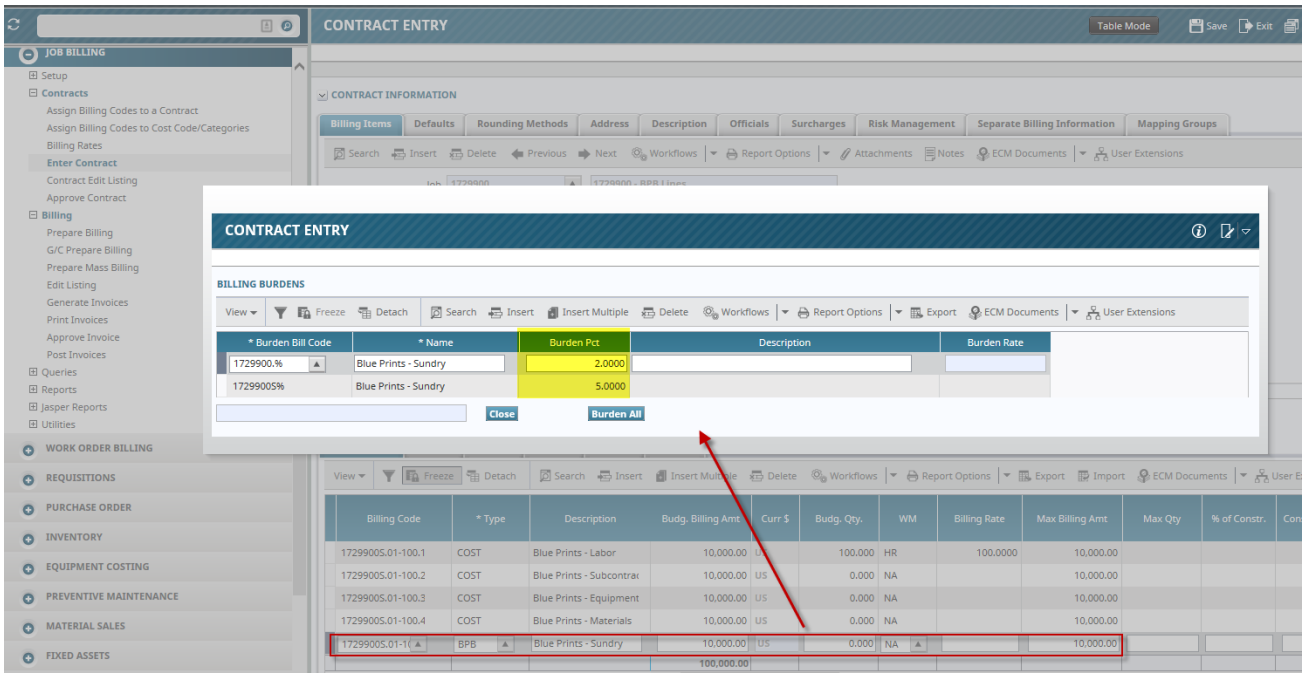
Freeze Projected Amount Flag – Checkbox

When checked, the amount entered in the Projected Final field will not be updated by the system when costs are posted. This will be the value presented under the Projected Cost Forecast column in Contract Forecast with PCI Projections screen.

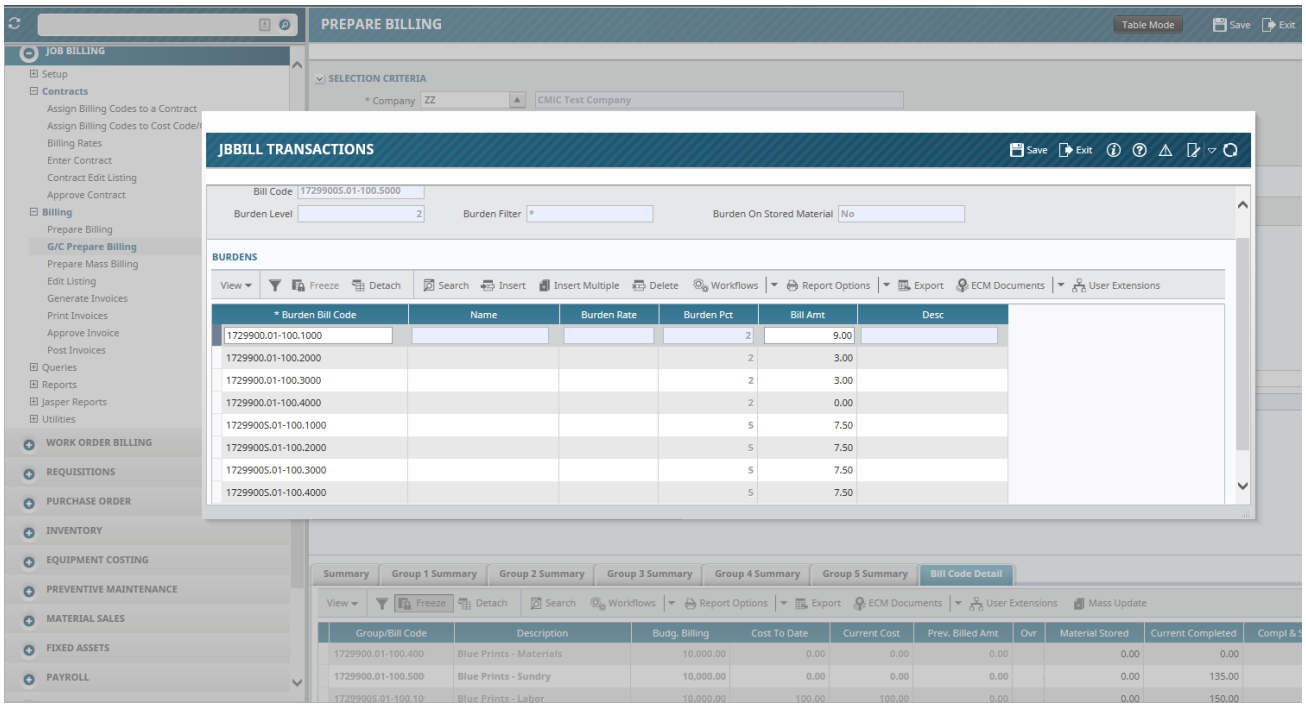
Job Billing Module

Contract Entry

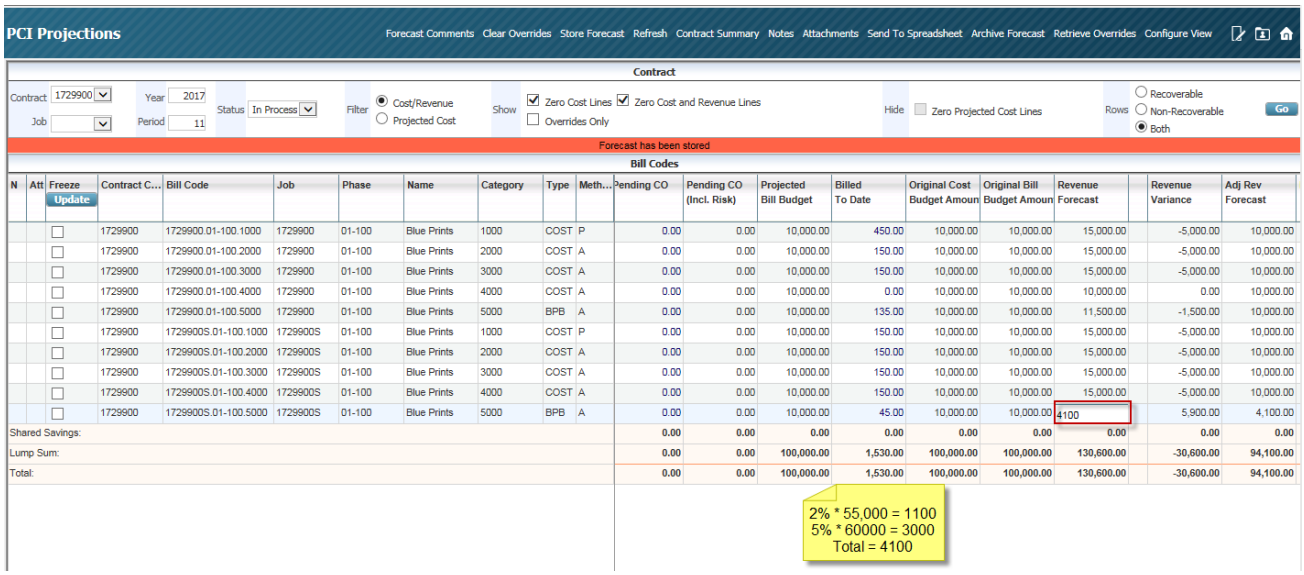
For Burdened Billing (BPB) code lines, the percent of burden in the Revenue Forecast column is calculated according to the billing burden details set up in the Contract Entry screen in the Job Billing module.



Billing Burdens pop-up window launched from the [Bill Code Details] button on the Contract Entry screen; standard Treeview path: Job Billing > Contracts > Enter Contract – Billing Codes tab



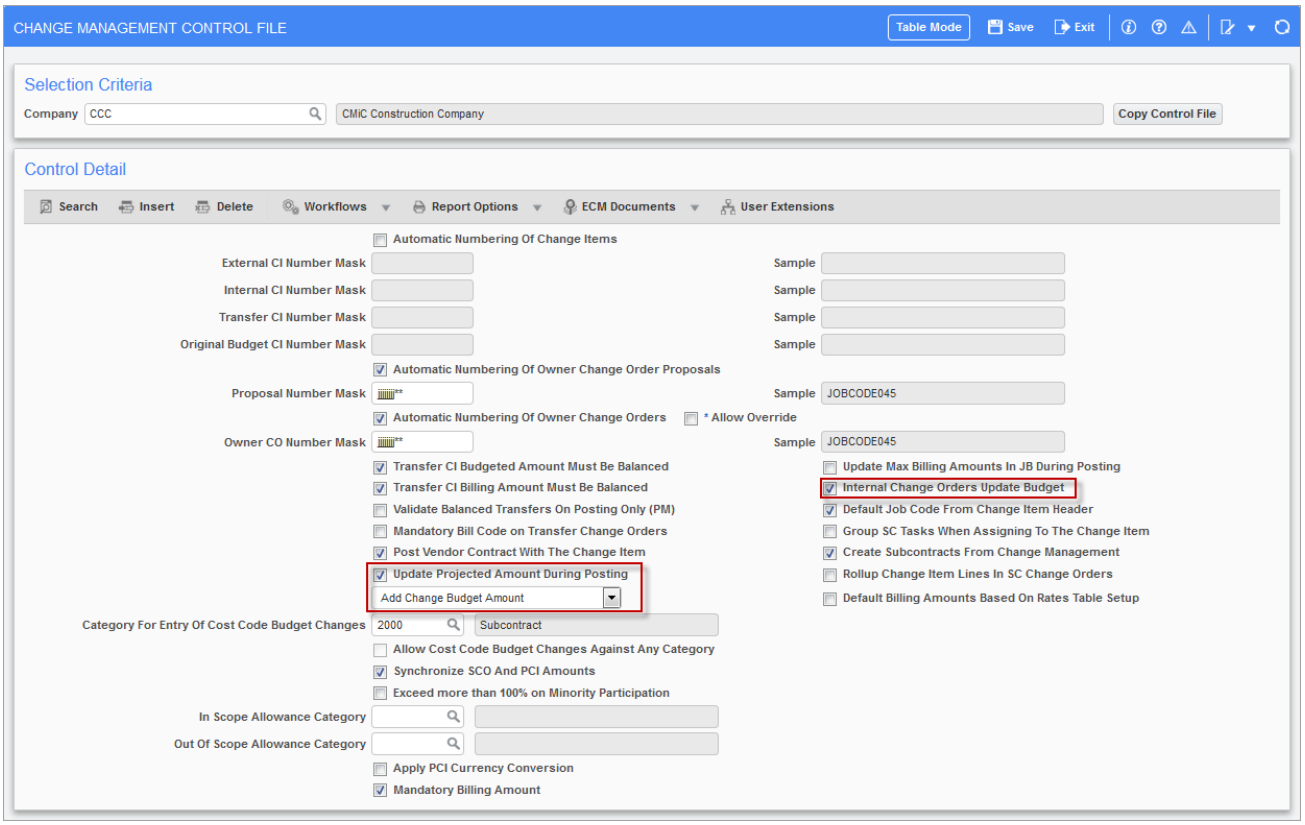
Pgm: JBBILL2 – Prepare Billing; standard Treeview path: Job Billing > Billing > G/C Prepare Billing – Bill Code Detail tab



Contract Forecast with PCI Projections; standard Treeview path: CMiC Field > Budget & Cost Management > Contract Forecast – Revenue Forecast column

Change Management Module

Change Management Control File



Pgm: CMCTRL – Change Management Control File; standard Treeview path: Change Management > Local Tables > Control

Internal Change Orders Update Budget – Checkbox

Check this box if internal PCIs should update the job budget when posted. The setting of this checkbox depends, if the job budget is the contract amount (less fee). If this is this case, then this may have to be left unchecked.

If checked, posting of internal PCIs update the Current Cost Budget column and therefore affect the other cost forecast columns where the current cost forecast value is directly/indirectly used.

If unchecked, posting of internal PCIs does not affect the cost budget and therefore not included in any column calculations and does not affect the forecasting in any way. If

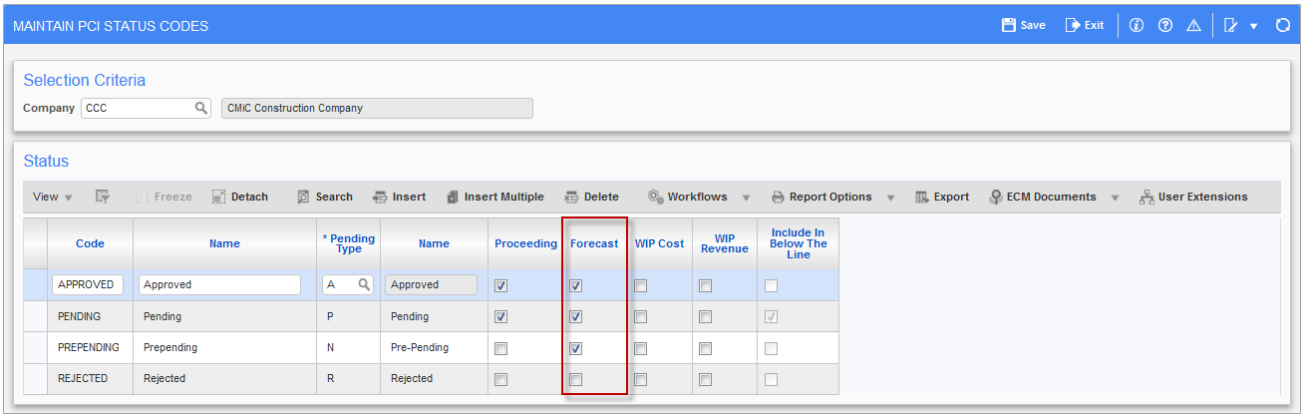
unchecked, the Projected Cost Budget column value will not include Pending Internal PCI cost budget amounts.

Update Projected Amount During Posting – Checkbox

Check this box if the default on PCI Entry is to update the job projected amount each time a PCI is posted. The setting of this checkbox depends how pending and pre-pending change orders are managed. If PCIs are already included in the amounts in your projection forecasts, then this field should not be checked.

The drop-down list offers two choices of calculation. If the “Add Change Budget Amount” is selected, the PCI cost budget will be added to the previous projected amount. If the “Recalculate Projected Amount” is selected, the projected amount would equal the highest of current budget (including the CO being posted), the spent to date or the previously projected amount.

Change Management PCI Status Setup



Pgm: CMSTATFM – Maintain PCI Status Codes; standard Treeview path: Change Management > Local Tables > PCI Status Codes

PCI status codes are managed on the Maintain PCI Status Codes screen in the Change Management module.

Only PCI status codes with the ‘Forecast’ box checked will be included in Contract Forecasting. This allows users to selectively include PCIs with status such as “Pending” in their forecasting, depending on their business needs.

The PCI status types are the driving force behind how PCIs are treated in the Contract Forecast with PCI Projections screen.

Users may define status codes with the required pending type defined by CMiC. The available pending types are as follows:

- Approved
- Cancelled
- Pending
- Pre-Pending
- Rejected

Only PCIs with “Approved” status may be posted as the system does NOT allow posting of PCIs with any other pending types. The pending types may be combined with the three available checkboxes in various combinations to derive the desired results.

Proceeding – Checkbox

Check the ‘Proceeding’ checkbox to indicate whether work against a PCI with the status being defined has begun. PCIs that have a status of 'Proceeding' will update amounts within the Proceeding Projected column under the cost section the Job Status Query.

Leave this box unchecked if work against PCIs with this status has not yet begun. PCIs that do not have this box checked will update amounts within the Not Proceeding PCIs column under the cost section of the Job Status Query.

NOTE: The Proceeding Projected and Not Proceeding PCIs columns will only be updated if the ‘Forecast’ box is checked in the next field.

Forecast – Checkbox

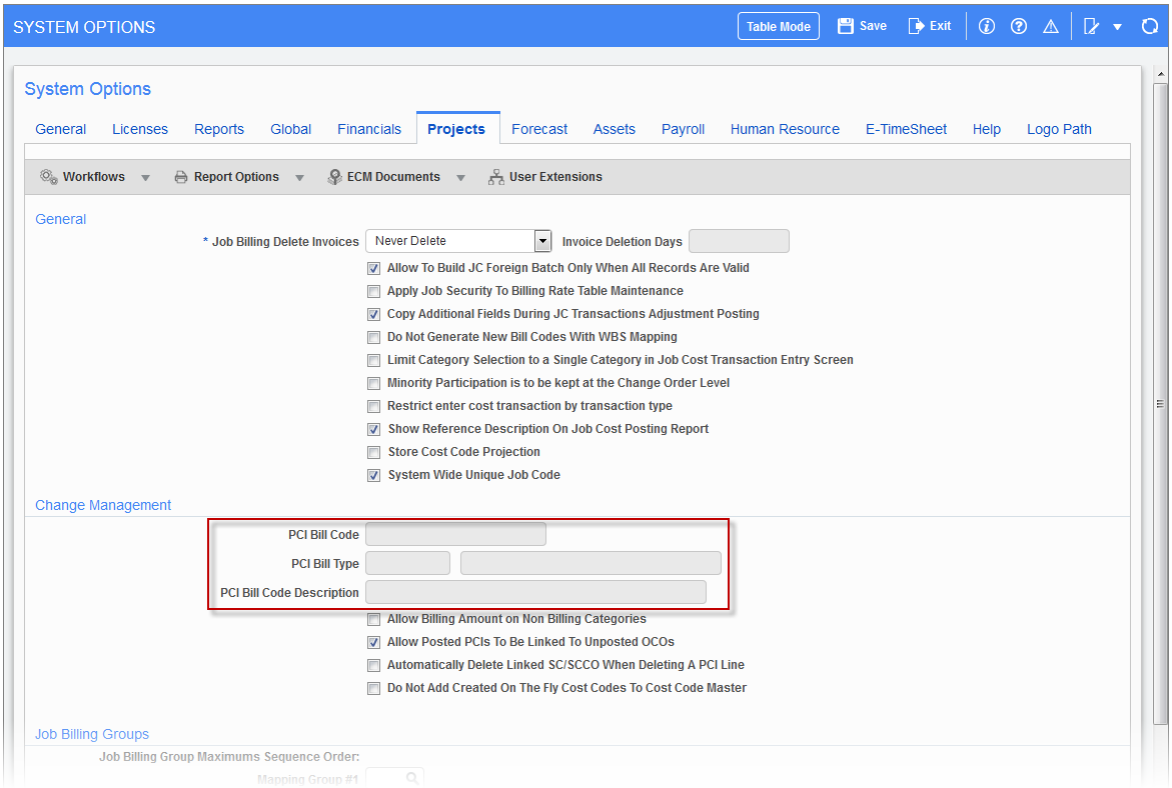
Check the ‘Forecast’ checkbox if the information on a PCIs with this status should be included in the calculation of the cost forecast within the Job Cost Status Query.

NOTE: The Forecasting program will include only those PCI types with the ‘Forecast’ box checked.

Include in Below the Line (Billing) – Checkbox

The ‘Include in Below the Line’ checkbox is NOT related to contract forecasting. This is used when the System Options ‘Pending PCI billing’ option is used.

This feature is hidden and must be turned on by setting the flag SYS_PCI_BILL_PENDING_FLAG in System Options Table. Only then do the pending PCI billing group of fields become available for entry. Users should be aware that the only PCI bill type supported is “COST”.



Pgm: SYSOPT - System Options; standard Treeview path: System > Setup > System Options - Projects tab

In the G/C Prepare Billing screen (standard Treeview path: Job Billing > Billing > G/C Prepare Billing), when there are pending unposted PCIs with the status ‘Include in Below the Line Billing’ are found, then they will be included in the current draw by creating a pseudo bill code as “PENDING_PCI”. This bill code is NOT found in the Contract Entry and hence will NOT be available in the Contract Forecasting screen as well.

Once the PCI is posted and during the next billing generation, the billed amounts will be moved to the actual bill code of the PCI, unless the checkbox ‘Always Below the Line’ is checked in the Pending PCI Billing pop-up in G/C Prepare Billing screen.

NOTE: Users should be aware that the system does NOT support the cases where a pending PCI may have been billed, but later it has been rejected or deleted or updated for whatever reason. They must use this feature only when all the aspects of billing and forecasting have been analyzed thoroughly to suit their business needs.

Index

%

%Complete Billing Types Overview 133

B

Bid Items 225

Bill Codes (Detail) 35

Billing Contract with WBS Mapping 117

Billing Maximums 141

Billing Rate Table & Forecasting 137

Billing Type & Revenue Calculations 131

Billing Type Rate Rules 131

Billing Types 132

Bottom Panel Buttons 72

C

Change Management Module 271

CMiC Field 247

Color Highlights and Hover Text for Cost to Complete and Cost Forecast Columns 87

Company Control 252

Confirmation Message Banners 28

Contract (Header) 30, 97

Contract Forecasting with PCI Projections 3

Cost to Complete Detail 167

E

Escalators Maintenance 125

F

Footer Details (Summary Panel) 78
Forecast Status Maintenance 255
Forecasting Controls 4
Forecasting Options 1
Forecasting Setup 243
Frequently Asked Questions 233

G

GC Monitor 203
GC Monitor – Forecasting 128

H

Hidden Controls 243

J

Job Billing Module 268
Job Costing Module 257
Job Costing WIP Integration 147

L

Labor Category Configuration 123
Labor Cut-Off Date Maintenance 127
Labor Forecast 203
Labor Forecasting (Labor Lines Only) 123

M

Main Toolbar Buttons 5, 96

P

PCI Projection 95
PCI Projection (Split Commitments) 103
PM Classifiers in SCCO 254
PM System Options Table 247
Posting Considerations with Time Phase Budgeting 110
Potential Change Item (Details) 98
Productivity/Units 179
Project System Options 248
Projection Threshold 211

R

Recommended Best Practices 2
Revenue Forecast Amount Calculation for Various Billing Types 79

S

Setting Up WBS Bill Code Mapping 115
Setting Up WBS Codes 114
Setup 243
Spread Rules and PCIs Posting 109
System Data Module 245

T

Table of Column Definition 81

TBD Trade Rate Maintenance 126

Time Phased Budgeting 109

U

Unposted PCIs and Billing Maximums in Forecasting 145

User Maintenance 256

W

WBS Functionality & Contract Forecasting 113

Work Breakdown Structure (WBS) 113

This page is intentionally left blank.