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TECH TIP

FORECASTING MAN-HOURS AND FTE TRACKING IN P6 ORACLE PRIMAVERA P6

Primavera P6 allows users to forecast man-hours and track FTE (full-time equivalent) in the Resource Assignment Window and Resource Usage Profile. Forecasting man-hours is important to any project schedule. It lets the P6 User know the cost of the resources and how many man-hours are needed to complete a task. FTE is the number of hours worked by a resource in a given time period. This standardizes the measurements for the time, money, and resources that are used in the schedule. FTE can be helpful in a project if the hours of work are known but how many resources are needed is not known.

Forecasting Man-Hours

Before the Tech Tip further explains how to forecast man-hours and track FTE in Primavera P6 the following data fields are defined:

Remaining Early Units

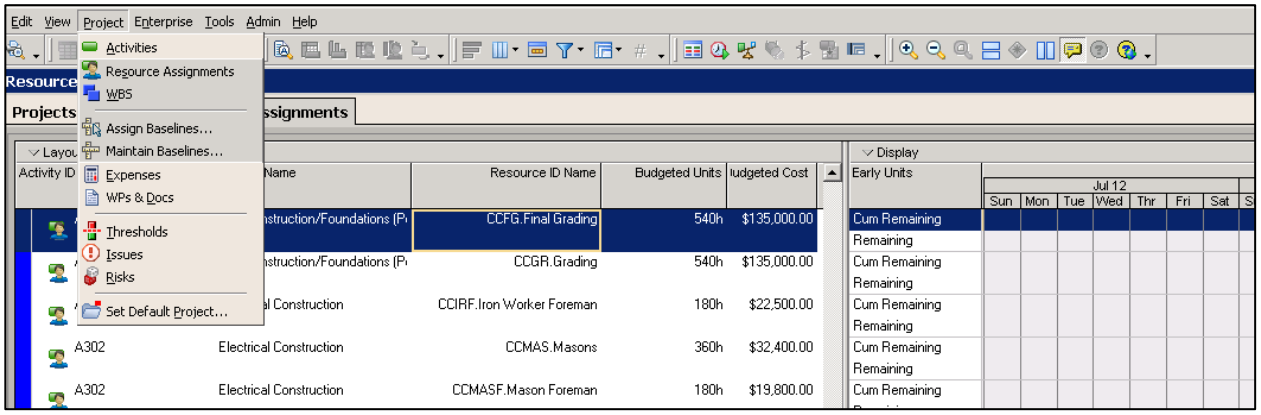
The remaining units of work to be performed by a particular resource on a particular activity

Cumulative Remaining Early Units

The Cumulative amount of remaining units of work to be performed by a particular resource on a particular activity

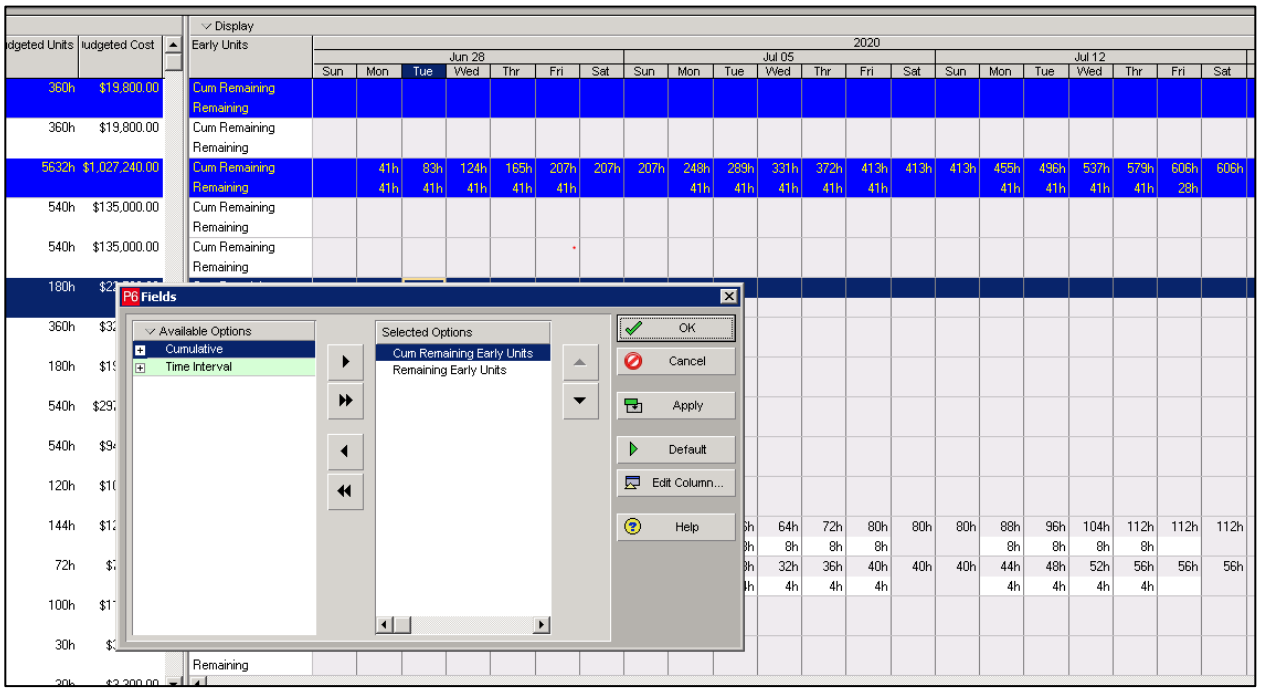
Forecasting Man-Hours in Primavera P6 is done under the Resource Assignment window and can also be displayed as a graph on the Resource Usage Profile.

To navigate to the Resource Assignments window Project>Resource Assignments as shown in the figure below.



Once in the Resource Assignment window, the left side of the screen displays the Resources and can be filtered, group, and sorted by specific items.

On the right side is the Resource Usage Spreadsheet which will be used in this Tech Tip to forecast Man-Hours.



Right-click on the Resource Usage Spreadsheet to bring up options such as Timescale, Spreadsheet Options, Zoom In/Out, and Spreadsheet Fields. Under Spreadsheet Fields click customize and the dialog box above will appear. Since Man-Hours are being forecasted bring over Remaining Early Units and Cumulative Remaining Early Units to the Selected Options side.

Display

Early Units	2020																								
	Jun 28							Jul 05							Jul 12							Jul 19			
	Sun	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon	Tue	Wed
Cum Remaining																									
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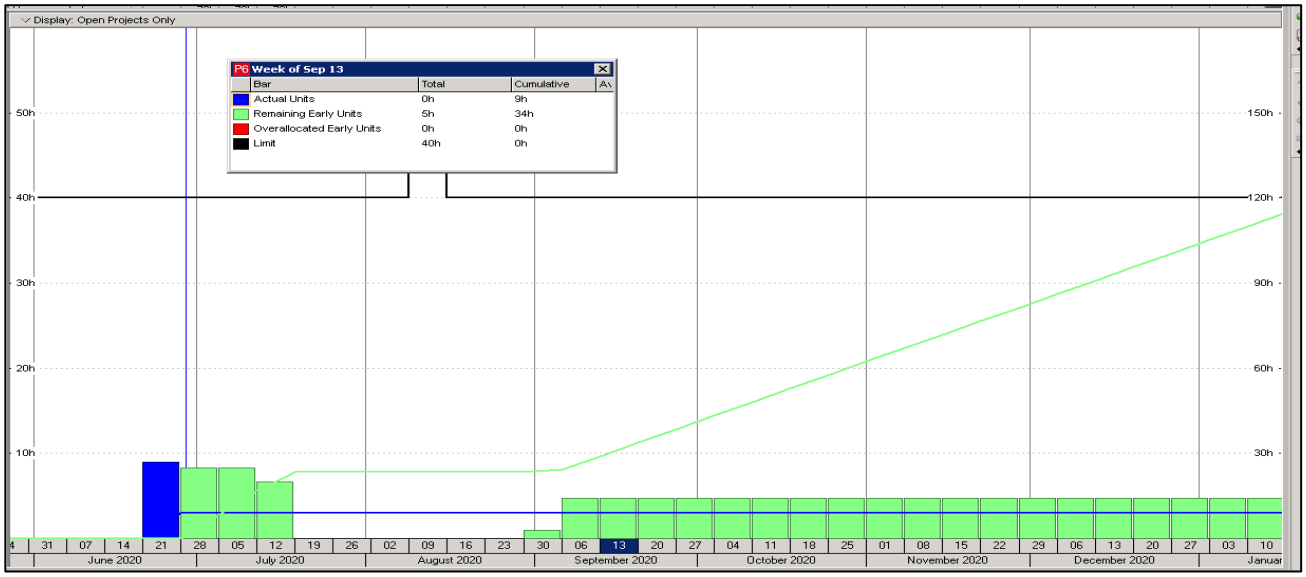
Remaining																									
Cum Remaining		8h	16h	24h	32h	40h	40h	40h	48h	56h	64h	72h	80h	80h	80h	88h	96h	104h	112h	112h	112h	112h	112h	112h	112h
Remaining		8h	8h	8h	8h	8h			8h	8h	8h	8h	8h			8h	8h	8h	8h						
Cum Remaining		4h	8h	12h	16h	20h	20h	20h	24h	28h	32h	36h	40h	40h	40h	44h	48h	52h	56h	56h	56h	56h	56h	56h	56h
Remaining		4h	4h	4h	4h	4h			4h	4h	4h	4h	4h			4h	4h	4h	4h						
Cum Remaining																									
Remaining																									
Cum Remaining																									
Remaining																									
Cum Remaining		2h	3h	5h	7h	8h	8h	8h	10h	12h	13h	15h	17h	17h	17h	18h	20h	22h	23h	23h	23h	23h	23h	23h	23h
Remaining		2h	2h	2h	2h	2h			2h	2h	2h	2h	2h			2h	2h	2h	2h						
Cum Remaining																									
Remaining																									
Cum Remaining		8h	16h	24h	32h	40h	40h	40h	48h	56h	64h	72h	80h	80h	80h	88h	96h	104h	112h	120h	120h	120h	120h	120h	120h
Remaining		8h	8h	8h	8h	8h			8h	8h	8h	8h	8h			8h	8h	8h	8h	8h					
Cum Remaining																									
Remaining																									
Cum Remaining																									
Remaining																									

Click OK and the final results should look like the figure above. Shown here are the Cumulative Remaining Units and the Remaining Early Units. Using the spreadsheet it is possible to forecast how many Man-hours a specific activity will need based on the Cumulative Remaining Units for that activity.

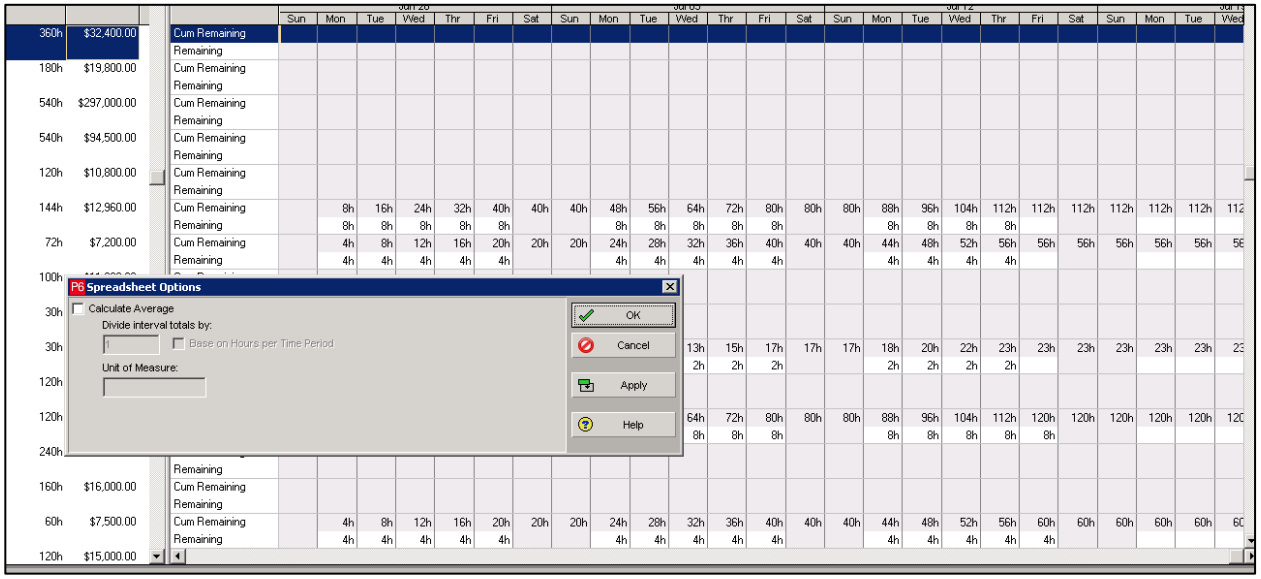
To show this forecast in a graphical representation navigate to the Resource Usage Profile (Assuming the reader has a basic understanding of the Resource Usage Profile)



To ensure that the forecasting for Man-Hours is displayed on the graph above right click on the Resource Histogram and click Resource Usage Profile Options to confirm that Units is displaying. From here the Resource Histogram shows the Remaining Early Units in green, and the Cumulative Early Units are represented with the green curve. This is a graphical representation of forecasting Man-Hours for a project.

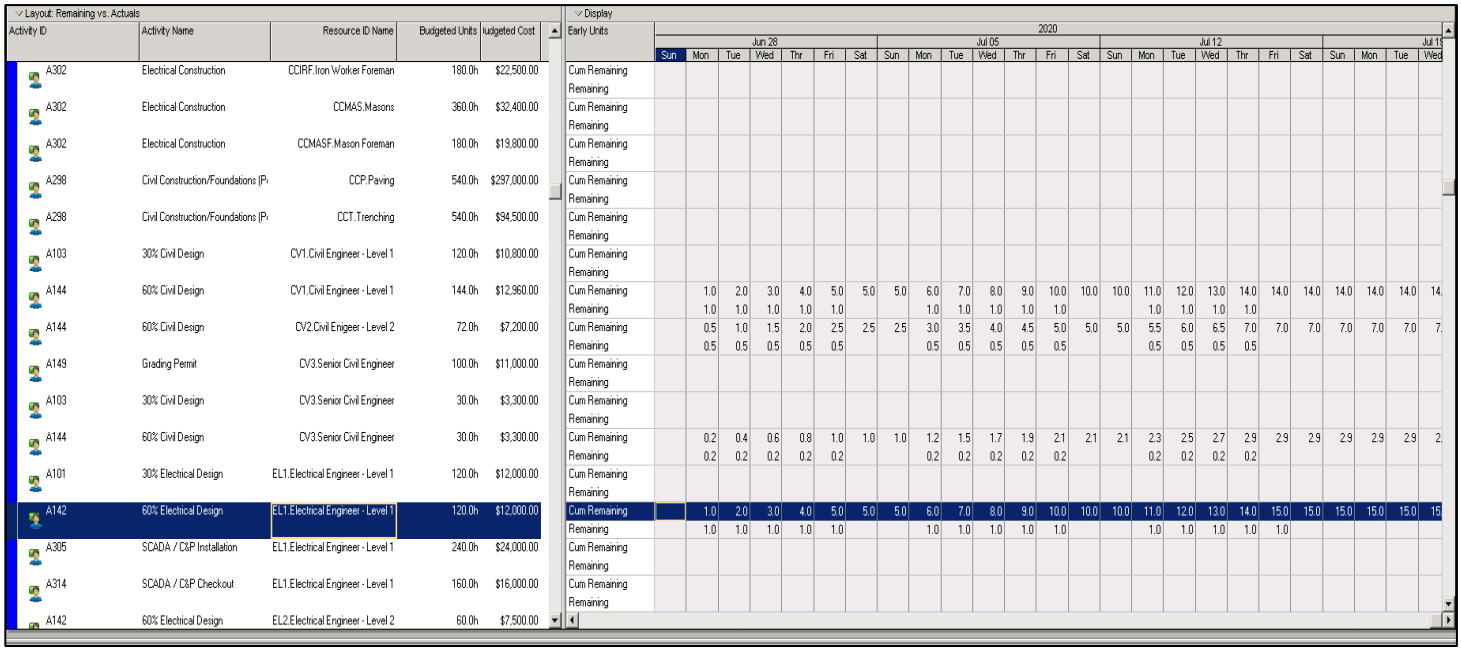
FTE Tracking

To display FTE Tracking in Primavera P6 ensure that the Resource Assignments window is open. Right-click on the Resource Usage Spreadsheet and click Spreadsheet Options.



The dialog box in the figure above will display. Check the Calculate Average Box. In the Divide interval totals by field put 8. (Assuming a full-time employee is 40h) Then click the box Base on Hours per Time Period. Click OK.

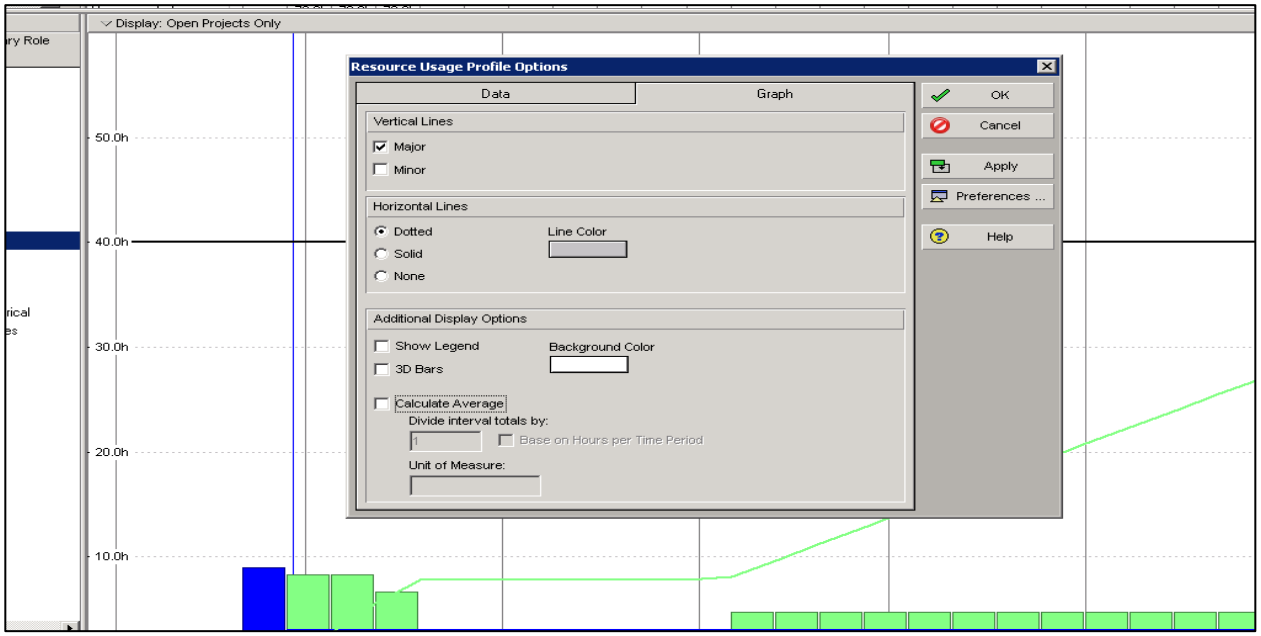
The result is shown in the figure below.



Activity ID	Activity Name	Resource ID Name	Budgeted Units	Budgeted Cost
A302	Electrical Construction	CCIRF.Iron Worker Foreman	180.0h	$22,500.00
A302	Electrical Construction	CCMAS.Masons	360.0h	$32,400.00
A302	Electrical Construction	CCMASF.Mason Foreman	180.0h	$19,800.00
A298	Civil Construction/Foundations (P	CCP.Paving	540.0h	$297,000.00
A298	Civil Construction/Foundations (P	CCT.Trenching	540.0h	$94,500.00
A103	30% Civil Design	CV1.Civil Engineer - Level 1	120.0h	$10,800.00
A144	60% Civil Design	CV1.Civil Engineer - Level 1	144.0h	$12,960.00
A144	60% Civil Design	CV2.Civil Enigeer - Level 2	72.0h	$7,200.00
A149	Grading Permit	CV3.Senior Civil Engineer	100.0h	$11,000.00
A103	30% Civil Design	CV3.Senior Civil Engineer	30.0h	$3,300.00
A144	60% Civil Design	CV3.Senior Civil Engineer	30.0h	$3,300.00
A101	30% Electrical Design	EL1.Electrical Engineer - Level 1	120.0h	$12,000.00
A142	60% Electrical Design	EL1.Electrical Engineer - Level 1	120.0h	$12,000.00
A305	SCADA / C&P Installation	EL1.Electrical Engineer - Level 1	240.0h	$24,000.00
A314	SCADA / C&P Checkout	EL1.Electrical Engineer - Level 1	160.0h	$16,000.00
A142	60% Electrical Design	EL2.Electrical Engineer - Level 2	60.0h	$7,500.00

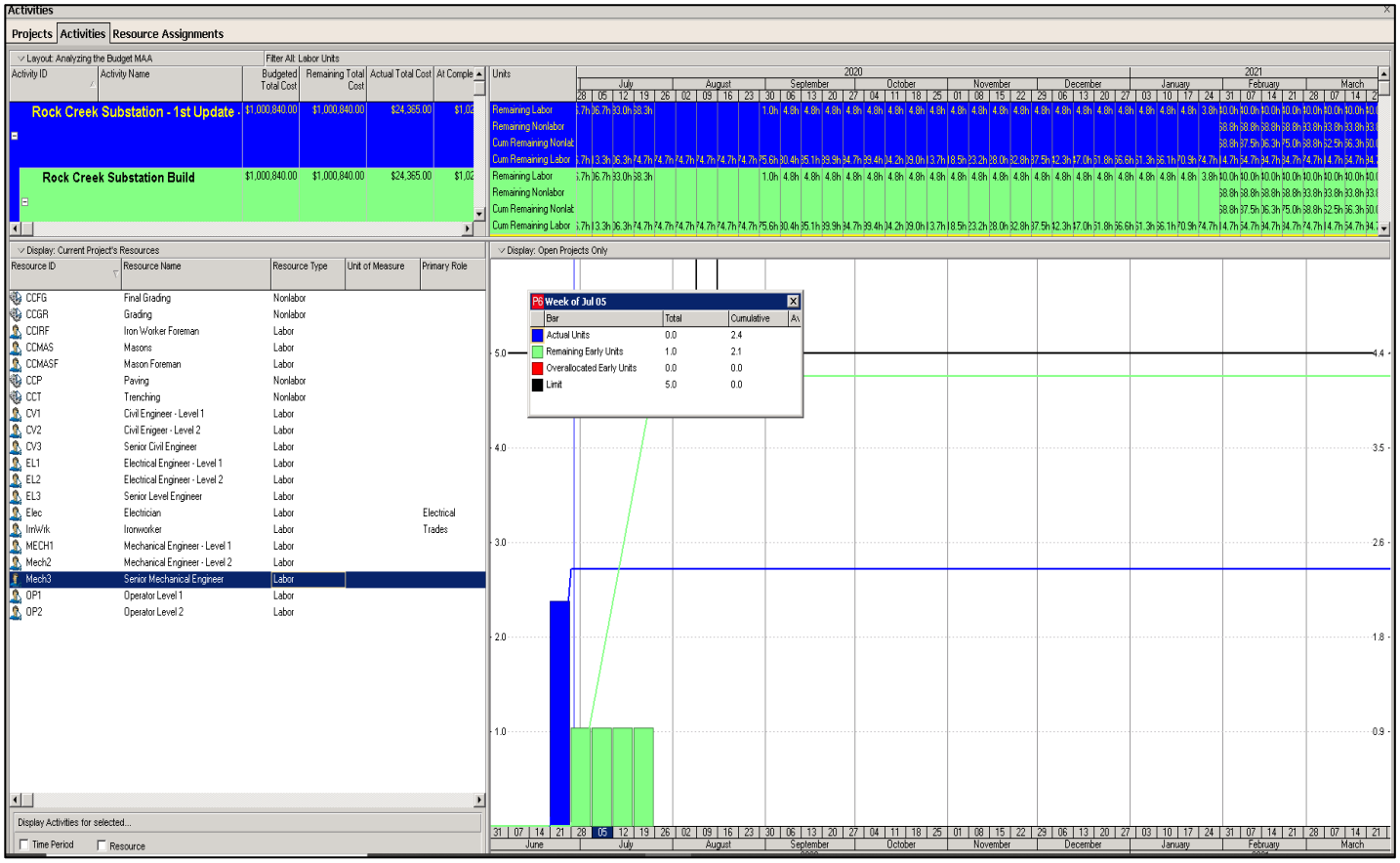
Any field that had 8h per day in the cell on the Resource Usage Spreadsheet was replaced with a FTE of 1.0. In the highlighted activity 60% Electrical Design (1) Full Time Employee is needed for each day of the week for the week of June 28. In addition please note that activities in which a FTE was not needed the FTE is measured in decimals which represent a Part-time employee.

Primavera P6 also allows users to show FTE tracking in a graphical representation. Navigate to the Resource Usage Profile. Right-click on Resource Histogram to show options. Click Resource Usage Profile Options.



Once the dialog box screen is open it will show the figure above. Under Additional Display Options in the Graph Tab check the Calculate Average and in the Divide Interval totals by field input 8.

Results are shown below



The resource Senior Mechanical Engineer for the Week of Jul 05 is assigned as a FTE. This statement is true because the Remaining Early Units Total is showing a FTE value of 1.0.

Conclusion

Forecasting Man-hours and FTE tracking can be beneficial throughout the project life cycle. Forecasting Man-hours can show P6 Users how many hours a particular activity may need to complete it. Which can give clients time to plan staffing and plan accordingly. FTE is a useful tool to measure how many resources a project requires, assuming that employees are full-time. If a part-time resource is needed then the FTE value will be broken down into decimals and reflect on the Resource Usage Spreadsheet / Profile in Primavera P6.