When you start a job, you establish a budget based on estimates of final costs and revenue that you expect at the completion of the job, and you enter your budget into the cost codes setup on the job. As the job progresses, these projections for final cost and revenue amounts at completion will change. The system calculates projected final costs and revenues (Estimates at Completion or EAC’s) based on the Method of Computation you assign to each cost code. Some Methods of Computation automatically update the EAC based on budget, commitments or other amounts, while other Methods overwrite the EAC value with user input. This document outlines the most commonly used Methods of Computation, how each calculates EAC and examples of when they might be used. In the below examples, Units can be substituted for Amounts, so rather than forcing an EAC Value, one would force a Projected Final Unit amount. The calculations would remain the same, substituting Units for Amounts.

**D - Default**

“D” is the most fundamental method of projecting EAC and is the default Method of Computation when adding new cost codes. This method assumes the estimated cost at completion will equal the revised budget, unless actual costs plus open commitments on that code exceeds the revised budget. This Method of Computation can be used when it is assumed that the forecasted cost at completion will equal the revised budget. Most Subcontracts are good examples. The EAC is calculated as the greater of Revised Budget, or Actual Cost + Open Commitments. *(Note: The system will use this calculation for EAC in any instance where the required information for the Method of Computation is not entered.)*

**Examples:**

Revised Budget = $2,000,000
Open Commitment = $1,000,000
Actual Cost = $500,000
**EAC remains at $2,000,000**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Current</th>
<th>Cost To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Revised Budget</th>
<th>Original</th>
<th>Current</th>
<th>EAC At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>04200001</td>
<td>S070</td>
<td>Masonry</td>
<td>$500,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revised Budget - $2,000,000  
Open Commitment = $2,000,000  
Actual Cost = $500,000  
**EAC increases to $2,500,000**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Current</th>
<th>Cost To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Revised Budget</th>
<th>Original</th>
<th>Current</th>
<th>EAC At Comp. Amt</th>
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<tr>
<td>04200001</td>
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<td>Masonry</td>
<td>$500,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ensure that your open commitments are relieved properly by following the correct order of operations and posting each receipt and/or voucher batch before moving on to the next step in the process. If you see an EAC value higher than your current budget when using Method of Comp D, it is likely that the open commitment value is the cause. Use the “TPC” Column Version in the JSI to see revised budget, actual costs, open commitments and EAC value laid out in columns right next to each other. Costs to accounts with commitments that are processed outside the commitments will also cause issues (i.e. accruals, journal entries, etc.).
F = Forced

When Method of Computation “F” is used, the EAC value is manually entered in the “Update Job Progress (EAC)” program located on the Operations/Project Management menu. The value you are entering is the amount above or below your budget that you will finish the job, on that account. The difference between EAC and budget is entered into the FA ledger, or the Force Total field in the Progress Entry programs. You can update the EAC value by either entering a Force Total (FA Ledger), a Force +/-, or a Projected Final Amount. Notice when you enter a Projected Final Amount the system inputs the difference between that value and the budget in the Force Total field automatically. This Method of Computation is dependent on there being a value in the Force Total, or FA Ledger. When there is no amount in the FA Ledger, the Method of Computation is missing the information it needs to calculate and will instead calculate the EAC Value using the Default calculation (the greater of Actual Costs + Open Commitments OR Revised Budget). The system will hold the manually entered EAC value, as long as it is not equal to the revised budget, until actual costs exceed that value, at which point, the EAC value will be automatically updated by the system to equal actual costs. Method of Computation “F” only works with positive numbers in the EAC value. Method of Computation “F” is best suited for when manually entered forecast is based on a ROM, and there is a possibility that actual costs can exceed that EAC value.

Examples:
Forced Amount (FA) Ledger = $0
Actual Cost = $5,000,000
Open Commitments = $0
EAC = Revised Budget or $9,000,000

Forced Amount (FA) Ledger = $0
Actual Cost = $9,500,000
Open Commitments = $0
EAC = Actual Cost + Open Commitments or $9,500,000

Forced Amount (FA) Ledger Entered or Calculated = $100,000
EAC Value Entered or Calculated = $9,100,000
Actual Cost = $8,000,000
Open Commitments = $500,000
EAC = Manually Entered Value $9,100,000 until actual costs exceed it, then it updates to equal actual cost
**Methods of Computation (Updated 8/20/15)**

**G = Budget Default: Forced**

When Method of Computation “G” is used, the EAC value is manually entered in the “Update Job Progress (EAC)” program located on the Operations/Project Management menu, similar to Method of Computation “F”. Method of Computation “G” differs from Method of Computation “F” in two ways. The first is that the system will hold the manually entered EAC value, **as long as it is not equal to the revised budget**, even if actual costs exceed that EAC value. The value does not update automatically. In addition, the value can be negative, where Method of Computation “F” cannot. This Method of Computation is appropriate in a backcharge or reimbursement situation when actual cost will be reduced in a future period. **Similar to Method of Computation F, the value you are entering is the amount above or below your budget that you will finish the job, on that account. The difference between EAC and budget is entered into the FA ledger, or the Force Total field in the Progress Entry programs. You can update the EAC value by either entering a Force Total (FA Ledger), a Force +/-, or a Projected Final Amount. Notice when you enter a Projected Final Amount the system inputs the difference between that value and the budget in the Force Total field automatically. This Method of Computation is dependent on there being a value in the Force Total, or FA Ledger. When there is no amount in the FA Ledger, the Method of Computation is missing the information it needs to calculate and will instead calculate the EAC Value using the Default calculation (the greater of Actual Costs + Open Commitments OR Revised Budget).**

**Examples:**

Forced Amount (FA) Ledger = $0  
Actual Cost = $5,000  
Open Commitments = $0  
**EAC = Revised Budget or $10,000**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % or Units Complete</th>
<th>To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Original</th>
<th>Current</th>
<th>Budget</th>
<th>Estimate At Comp.</th>
<th>FA Ledger</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456789</td>
<td>3456789</td>
<td>Trailer</td>
<td>50</td>
<td>10,000.00</td>
<td>$0</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$10,000.00</td>
<td>$10,000.00</td>
<td>$10,000.00</td>
<td></td>
</tr>
</tbody>
</table>

Forced Amount (FA) Ledger = $0  
Actual Cost = $15,000  
Open Commitments = $0  
**EAC = Actual Cost + Open Commitments or $15,000**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % or Units Complete</th>
<th>To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Original</th>
<th>Current</th>
<th>Budget</th>
<th>Estimate At Comp.</th>
<th>FA Ledger</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456789</td>
<td>3456789</td>
<td>Trailer</td>
<td>50</td>
<td>10,000.00</td>
<td>$0</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$10,000.00</td>
<td>$10,000.00</td>
<td>$10,000.00</td>
<td></td>
</tr>
</tbody>
</table>

Forced Amount (FA) Ledger Entered or Calculated = $10,000  
EAC Value Entered or Calculated = $20,000  
Actual Cost = $10,000  
Open Commitments = $500  
**EAC = Manually Entered Value or $20,000**
**P = Percent Complete**

When Method of Computation “P” is used, the EAC value calculates based on the percent complete of the cost code. The percent complete is manually updated in the “Update Job Progress (EAC)” menu option on the Operations/Project Management screen. In situations where you do not want an EAC calculated early in the work, a threshold can be entered on the Job Master, whereby the EAC will equal revised budget until the Percent Complete Threshold is met or exceeded. One possibility for using this Method of Computation would be a subcontractor performing work on a T&M basis. If cost to date is current, then EAC will be calculated to equal final cost at completion based on that progress percent complete. This Method of Computation is generally used on the Header accounts, while the detail accounts are Method of Computation “C” (see below).

**Examples:**

No Percent Complete Threshold  
Entered Percent Complete = 20%  
Cost to Date = $5,000  
**EAC = $25,000 (Cost to Date / Percent Complete)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % Complete</th>
<th>To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Original</th>
<th>Current</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01002050</td>
<td>5015</td>
<td>Staging</td>
<td>20.00%</td>
<td>$5,000.00</td>
<td></td>
<td>$20,000.00</td>
<td>$25,000.00</td>
<td>$25,000.00</td>
<td></td>
<td>$25,000.00</td>
</tr>
</tbody>
</table>

No Percent Complete Threshold  
Entered Percent Complete = 10%  
Cost to Date = $5,000  
**EAC = $50,000 (Cost to Date / Percent Complete)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % Complete</th>
<th>To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Original</th>
<th>Current</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01002050</td>
<td>5015</td>
<td>Staging</td>
<td>10.00%</td>
<td>$5,000.00</td>
<td></td>
<td>$45,000.00</td>
<td>$25,000.00</td>
<td>$25,000.00</td>
<td></td>
<td>$50,000.00</td>
</tr>
</tbody>
</table>

20% Percent Complete Threshold  
Entered Percent Complete = 10%  
Cost to Date = $5,000  
**EAC = $25,000 (Greater of Revised Budget or Actual Amount + Open Commitments)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % Complete</th>
<th>To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Original</th>
<th>Current</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01002050</td>
<td>5015</td>
<td>Staging</td>
<td>10.00%</td>
<td>$5,000.00</td>
<td></td>
<td>$20,000.00</td>
<td>$25,000.00</td>
<td>$25,000.00</td>
<td></td>
<td>$25,000.00</td>
</tr>
</tbody>
</table>

**Q = Quantities**

Method of Computation “Q” is similar to Method of Computation “P” in that it uses the calculation of Cost to Date / Percent Complete to populate the EAC Value. The difference is that rather than manually inputting a percent complete, the quantities complete are input manually and the system uses that value to calculate percent complete. The quantities complete are manually updated in the “Update Production Quantities” program located on the Operations/Project Management menu. In situations where you do not want an EAC calculated early in the work, a threshold can be entered on the Job Master, whereby the EAC will equal revised budget until the Percent Complete Threshold is met or exceeded. This Method of Computation can be used on cost codes where quantities completed drive the final cost at completion (i.e. material for a
specific scope of work on a project or General Conditions labor and burden). This Method of Computation is generally used on the Header accounts, while the detail accounts are Method of Computation “C” (see below).

**Examples:**
No Percent Complete Threshold
Entered Quantities Complete = 5 of 100
Percent Complete = 5% (5/100)
Cost to Date = $6,315
\[ \text{EAC} = \$126,300 \text{ (Cost to Date / Percent Complete)} \]

No Percent Complete Threshold
Entered Quantities Complete = 15 of 100
Percent Complete = 15% (15/100)
Cost to Date = $50,000
\[ \text{EAC} = \$333,333 \text{ (Cost to Date / Percent Complete)} \]

20% Percent Complete Threshold
Entered Quantities Complete = 5 of 100
Percent Complete = 5% (5/100)
Cost to Date = $50,000
\[ \text{EAC} = \$120,000 \text{ (Greater of Revised Budget or Actual Amount + Open Commitments)} \]

C = Percent Complete from Cost Code Header
Method of Computation “C” is used in combination with Method of Computation “P” or “Q”. It calculates the EAC values of detail accounts based on the percent complete or quantities complete of the header account. The percent complete or quantities complete are manually updated on the header account in the in the “Update Job Progress (EAC)” or the “Update Production Quantities” program on the Operations/Project Management menu respectively. In situations where you do not want an EAC calculated early in the work, a threshold can be entered on the Job Master, whereby the EAC will equal revised budget until the Percent Complete Threshold is met or exceeded. This Method of Computation is appropriate for Labor and Burden lines, where the combined EAC value, which incorporates both line items, should be updated to reflect the percent complete or quantities complete of a single scope item.

**Examples:**
No Percent Complete Threshold
Method of Computation on Header = P, Method of Computation on Detail lines = C
Methods of Computation (Updated 8/20/15)

Entered Percent Complete = 10%
Cost to Date = $1,000

**EAC = $10,000 on Detail Lines (Actual Cost / Percent Complete)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % or Units Complete</th>
<th>Cost To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01003005</td>
<td>5050</td>
<td>Drinking Water</td>
<td>10.00%</td>
<td>$1,000.00</td>
<td>$9,000.00</td>
<td>$9,000.00</td>
<td>$9,000.00</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>01003005</td>
<td>5055</td>
<td>Materials</td>
<td></td>
<td>$1,000.00</td>
<td>$9,000.00</td>
<td>$7,500.00</td>
<td>$7,500.00</td>
<td>$10,000.00</td>
</tr>
</tbody>
</table>

No Percent Complete Threshold
Method of Computation on Header = P, Method of Computation on Detail lines = C
Entered Quantities Complete = 5 of 100
Percent Complete = 5% (5/100)
Cost to Date = $1,000

**EAC = $20,000 on each Detail Line (Actual Cost / Percent Complete)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % or Units Complete</th>
<th>Cost To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01003005</td>
<td>5050</td>
<td>Drinking Water</td>
<td>$</td>
<td>$1,000.00</td>
<td>$19,000.00</td>
<td>$9,000.00</td>
<td>$9,000.00</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>01003005</td>
<td>5055</td>
<td>Materials</td>
<td></td>
<td>$1,000.00</td>
<td>$19,000.00</td>
<td>$7,500.00</td>
<td>$7,500.00</td>
<td>$20,000.00</td>
</tr>
</tbody>
</table>

20% Percent Complete Threshold
Method of Computation on Header = P, Method of Computation on Detail lines = C
Entered Quantities Complete = 5 of 100
Percent Complete = 5% (5/100)
Cost to Date = $1,000

**EAC = $9,000 and $7,500 (Greater of Revised Budget or Actual Amount + Open Commitments)**

<table>
<thead>
<tr>
<th>Cost Code</th>
<th>Cost Type</th>
<th>Cost Code Description</th>
<th>Entered % or Units Complete</th>
<th>Cost To Date</th>
<th>Open Commitments</th>
<th>Est To Complete</th>
<th>Budget</th>
<th>Estimate At Comp. Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01003005</td>
<td>5050</td>
<td>Drinking Water</td>
<td>$</td>
<td>$1,000.00</td>
<td>$8,000.00</td>
<td>$9,000.00</td>
<td>$9,000.00</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>01003005</td>
<td>5055</td>
<td>Materials</td>
<td></td>
<td>$1,000.00</td>
<td>$6,500.00</td>
<td>$7,500.00</td>
<td>$7,500.00</td>
<td>$7,500.00</td>
</tr>
</tbody>
</table>

**B = Buyout or Fixed Price Contracts**
Method of Computation “B” can be used when Buyout Savings should be taken up as profit. The EAC value will remain equal to revised budget until a commitment is entered or actual cost is incurred. At that time, the EAC value will be updated by the system to equal Actual Cost + Open Commitments. Throughout the project, the EAC value will be equal to Actual Cost + Open Commitments, similar to Method of Computation “D”.

**Examples:**
Total Commitments = $0
Cost to Date = $0
**EAC = $1,000,000 (Revised Budget)**
Total Commitments = $900,000
Cost to Date = $0

**EAC = $900,000 (Total Commitments)**

Open Commitments = $885,000
Cost to Date = $15,000

**EAC = $900,000 (Total Commitments)**

**N = No Projection**

Method of Computation “N” will not calculate an EAC Value. It can be used in situations where the EAC Value is being calculated on header accounts (in order to avoid duplication of EAC values) or in a backcharge or reimbursement situation when actual cost will be reduced in a future period. The EAC Value will remain at $0 regardless of actual cost, commitments or budget. **It should be noted that if you entered a reversing journal on an account while it had a Method of Computation other than N, the system will already make the entry for the EAC Value update associated with the reversing side of the journal. It will not clear this entry out when the Method of Computation is changed to N. Therefore, in order to get an EAC Value to correctly show as $0 when you have a reversing journal entered when the Method of Computation was different, is to go into the Progress Entry program, change the Method of Computation to a D, save it, and change it back to an N.**

**Example:**

Budget = $138,000
Cost to Date = $1,000

**EAC = $0**

**V = Absolute Value**

Method of Computation “V” is used on Revenue Accounts (i.e. WIP – Billings, Object Account 4005) that have credit balances. The entries into the WIP - Billings account are always negative numbers because positive revenue entries are credits to the Revenue account. The system will calculate the EAC Value as the greater of: the Absolute Value of Revised Budget, the Absolute Value of Actual Cost + Open Commitments, or the Absolute Value of Actual Cost.

**Example:**

Budget = ($47,000,000)
Cost to Date = ($5,400,000)

**EAC = ($47,000,000) (Greater of ABS of Revised Budget and ABS of Actual Cost)**
Two other Methods of Computation exist in JDE, but further testing is needed to see exactly how they work and how they could and should be used. Those Methods of Computation are:

**Method of Computation H & L** – used when you want to measure the progress of an account based on quantities in place and earned values. When using this Method of Computation, the system calculates a performance factor using earned value units. Earned value units are divided into actual units to determine the productivity on that activity. The productivity is then used in conjunction with the remaining units to determine EAC Value. The Method of Computation can be used in conjunction with a Threshold Percentage to ensure that EAC is only calculated after a certain percent complete is achieved.

For example, if percent complete is 40% and the revised budget labor costs are $30,000, then the earned value cost = $12,000 or $30,000/40.

The performance factor amount = actual labor costs/earned value cost.

If actual labor costs = $11,500 and the earned value cost = $12,000 then the performance factor amount = .9533.

Using these values your EAC Value would be (30,000 * .9533) or $28,599.

**Method of Computation U** – used when you want the EAC Value to be calculated based on a revised unit cost applied to the remaining units to be completed. This Method of Computation requires that all actual costs and units be up to date in order to function effectively. You would enter a revised unit cost for the remaining units and the EAC Value will then be calculated based on the entered projected unit cost * remaining units.

It is not suggested that your Business Unit stop using a known Method of Computation and start using one of the two Methods of Computation above on all your accounts & jobs. More testing and experimenting with these methods are needed before they should be used extensively. If you would like more information on using either of these two Methods of Computation, please contact the Job Cost Business Analyst for more details.