

Subject: Construction Project Management

Course: | CPM Special Purpose Award

Session: Spring 2021

Lecturer: | Paul Vesey BEng, MIE, HDip

Filename: CPM003-LIT-00-ZZ-SP-K-001-A1-P01

# Assignment 3 (30%)- Earned Value Tracking in Microsoft Project

| Issue Date:      | As stated on Microsoft Teams |
|------------------|------------------------------|
| Submission Date: | As stated on Microsoft Teams |

#### Introduction

In this assignment you are going to implement EVM a simple Microsoft Project Plan. The key deliverables for this project are:

- 1. Microsoft Project Project Plan, updated with a Baseline and EVM information
- 2. Screenshots of the Status Dates, placed into an MS Word document

### Scenario

You have been provided with a Microsoft Project file for the construction of a domestic dwelling. This file is based on the sample file provided by Microsoft. The .mpp file contains a simple Gantt chart, resources allocations including associated costs.

The objective of the assignment is to create EVM data for the status dates indicated in Table 1. Details of the columns necessary are provided in Figure 1. You will need to add some of the columns manually. Please note that 'Actual Cost' and 'Actual Finish' columns are necessary to edit the data generated by Microsoft Project. You will also need to set a 'Baseline' for the EVM data to be activated.

As part of this assignment you are required to edit the 'Actual Cost' and 'Actual Finish' columns in order to generate variances from the planned data. This is

| No. | Status Date |
|-----|-------------|
| 1   | 9 Dec 2020  |
| 2   | 1 Feb 2021  |
| 3   | 1 Apr 2021  |
| 4   | 1 Jun 2021  |

Table 1: Status Dates

to provide you with experience of tracking project performance within the tool. You are free to set the Actual Costs or Actual Finish dates as you see fit.

## **Submission**

Your completed assignment comprising all computer files are to be uploaded to Microsoft Teams on or before the date and time indicated. Key components of the submission are:

- Microsoft Project (.mpp) file
- Microsoft Word (.docx) file containing screenshots

## **Marking Scheme**

| Element                | Proportion |
|------------------------|------------|
| Microsoft Project File | 80%        |
| Microsoft Word File    | 20%        |

| b Content of Conditions CC4,948.00   | 9 |  | €78,448.00 | €78,448.00 €113,348.00 | 113,348.00 | €113,540.00 | 0.69 | -€34,900.00 | €0.00 | NA           | 1 57 | 1 57,359.45 47,328.00 10,031.45 | 38.00 10,03 | 11.45 | 32%  |  |
|--|---|--|------------|------------------------|------------|-------------|------|-------------|-------|--------------|------|---------------------------------|-------------|-------|------|--|
| time grapher control (£5,000.00) (£6,000.0 |   | <b>○</b> General Conditions                  | €24,848.00 | €24,848.00             | €24,848.00 | €24,848.00  | 1    | €0.00       | €0.00 | Wed 06/01/21 | 1 62 | 4,848.00 €24,8                  |             | 60.00 | 100% |  |
| representation of E2,000.00 C2,000.00 C2,000.00 C13,000.00   |   |  | €6,000.00  | €6,000.00              | €40,900.00 | €40,900.00  | 0.15 | -€34,900.00 | €0.00 | Wed 23/12/20 | 1 €4 | 0,900.00 €6,0                   | 00.00 €34,9 | 00.00 | 100% |  |
| Lemporary power service Cf.,200.00   |   | Clear and grub lot                           | €2,000.00  | €2,000.00              | €13,000.00 | €13,000.00  | 0.15 | -€11,000.00 | €0.00 | Wed 16/12/20 | 1 €1 | 3,000.00 €2,0                   | 00.00 €11,0 | 00.00 | 100% |  |
| underground utilities €2,800.00 €2,500.00 €5,200.00 €5,200.00 €1,800.00 €2,800.00 <td></td> <td>Install temporary power service</td> <td>€1,200.00</td> <td>€1,200.00</td> <td>€2,700.00</td> <td>€2,700.00</td> <td>0.44</td> <td>-€1,500.00</td> <td>€0.00</td> <td>Fri 11/12/20</td> <td>1 €</td> <td>2,700.00 €1,2</td> <td>00.00 -€1,5</td> <td>00.00</td> <td>100%</td> <td></td>  |   | Install temporary power service              | €1,200.00  | €1,200.00              | €2,700.00  | €2,700.00   | 0.44 | -€1,500.00  | €0.00 | Fri 11/12/20 | 1 €  | 2,700.00 €1,2                   | 00.00 -€1,5 | 00.00 | 100% |  |
| numbles C47,600.00 C47,600.00 C47,792.00 C 60.00   | 1 | Install underground utilities                | €2,800.00  | €2,800.00              | €25,200.00 | €25,200.00  | 0.11 | -€22,400.00 | €0.00 | Wed 23/12/20 | 1 €2 | 5,200.00 €2,8                   | 00.00 €22,4 | 00.00 | 100% |  |
| (6.00)<  |   | > Foundation                                 | 647,600.00 | 647,600.00             | 647,600.00 | 647,792.00  | 1    | 60.00       | 60.00 | NA           | 1 65 | 5,800.00 €56,8                  |             | 60.00 | %98  |  |
| ribitishes Cond  |   | > Framing                                    | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           | 0 €2 | 0,560.00 €20,5                  |             | €0.00 | %0   |  |
| etc Concrete 60.00   |   | ▷ Dry In                                     | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           | 0 €1 | 8,240.00 €18,2                  |             | €0.00 | %0   |  |
| ete Contrate 61.00   |   | > Exterior Finishes                          | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           | 0 €1 | 8,240.00 €18,2                  |             | €0.00 | %0   |  |
| CLOOK <th< td=""><td></td><td>∪ Utility Rough-B97Ins and Complete Concrete</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>0</td><td>€0.00</td><td>€0.00</td><td>NA</td><td>0 €3</td><td>9,600.00 €39,6</td><td></td><td>€0.00</td><td>%0</td><td></td></th<>  |   | ∪ Utility Rough-B97Ins and Complete Concrete | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           | 0 €3 | 9,600.00 €39,6                  |             | €0.00 | %0   |  |
| (0,00)<  |   |  | 60.00      | 60.00                  | 60.00      | 60.00       | 0    | €0.00       | €0.00 | NA           | 0 64 | 8,080.00 €48,0                  |             | 60.00 | %0   |  |
| 61000 <th< td=""><td></td><td>▷ Insulation</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>0</td><td>€0.00</td><td>€0.00</td><td>NA</td><td></td><td></td><td></td><td>€0.00</td><td>%0</td><td></td></th<>  |   | ▷ Insulation                                 | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| COLOR <th< td=""><td></td><td>▷ Drywall</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>€0.00</td><td>0</td><td>€0.00</td><td>€0.00</td><td>NA</td><td></td><td></td><td></td><td>€0.00</td><td>%0</td><td></td></th<>   |   | ▷ Drywall                                    | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| 61.00  |   | Paint and Wallpaper                          | 60.00      | 60.00                  | 60.00      | 60.00       | 0    | €0.00       | €0.00 | NA           |      | 7,200.00 €7,2                   |             | 60.00 | %0   |  |
| 60.00 60.00 60.00 60.00 60.00 60.00 60.00 60.00 MA 0 64.400.00 65. |   | ▷ Cabinets                                   | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| 60.00 60.00 60.00 60.00 60.00 60.00 60.00 60.00 60.00 MA 0 65.800.00 65.800. |   | Finish Plumbing                              | 60.00      | €0.00                  | €0.00      | 60.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| 60.00 60.00 60.00 60.00 60.00 60.00 60.00 60.00 NA 0 62,800.00 62, |   | ♭ Finish Electrical                          | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| 60.00 60.00 60.00 60.00 0 60.00 60.00 NA 0 66,400.00 66,400.00 66,400.00 66,400.00 66,400.00 66,400.00 66,400.00 60,00 60.00 NA 0 68,640.00 68,640.00 60.00 60.00 60.00 NA 0 68,640.00 68,640.00 60.00 60.00 NA 0 68,640.00 68,640.00 60.00 60.00 NA 0 68,640.00 68,640.00 60.00 NA 0 68,640.00 68,640.00 60.00 NA 0 68,640.00 |   | ▷ Finish HVAC                                | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
| 60.00 60.00 60.00 60.00 0 60.00 60.00 NA 0 68,640.00 68, |   |  | 60.00      | 60.00                  | 60.00      | 60.00       | 0    | 60.00       | 60.00 | NA           |      |                                 |             | 60.00 | %0   |  |
| 60.00 60.00 60.00 60.00 60.00 60.00 60.00 NA 0 66,320.00 66,320.00 66,320.00   |   | ▷ Landscaping and Grounds Work               | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
|  |   | ▶ Final Acceptance                           | €0.00      | €0.00                  | €0.00      | €0.00       | 0    | €0.00       | €0.00 | NA           |      |                                 |             | €0.00 | %0   |  |
|  |   |  |            |                        |            |             |      |             |       |              |      |                                 |             |       |      |  |
|  |   |  |            |                        |            |             |      |             |       |              |      |                                 |             |       |      |  |

Figure 1: Sample EVM Data