U.S. Department of Transportation

P3-VALUE 2.3: Quick Start Guide

January 2021

U.S. DEPARTMENT OF TRANSPORTATION
BUILD AMERICA BUREAU

OFFICE OF INNOVATIVE PROGRAM DELIVERY

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Technical Report Documentation Page

1. Report No. FHWA-HIN-21-003	**2. Government Accession No.**	**3. Recipient's Catalog No.**	
4. Title and Subtitle P3-VALUE 2.3: Quick Start Guide		**5. Report Date** January 2021	
		6. Performing Organization Code V327	
7. Author(s) Wim Verdouw, IMG Rebel, Marcel Ham, IMG Rebel		**8. Performing Organization Report No.** DOT-VNTSC-FHWA-19-07	
9. Performing Organization Name And Address Volpe National Transportation Systems Center, U.S. Department of Transportation 55 Broadway, Cambridge, MA 02142		**10. Work Unit No. (TRAIS)**	
		11. Contract or Grant No. HW5NA/SD284	
12. Sponsoring Agency Name and Address Federal Highway Administration Office of Innovative Program Delivery 1200 New Jersey Avenue, SE Washington, DC 20590		**13. Type of Report and Period Covered**	
		14. Sponsoring Agency Code HIN	
15. Supplementary Notes Contracting Officer's Technical Representative: Patrick DeCorla-Souza, FHWA Office of Innovative Program Delivery			
16. Abstract The purpose of the Quick Start Guide is to provide the user with a brief overview of the P3-VALUE 2.3 analytical tool. The Quick Start Guide describes a series of basic step-by-step instructions used to navigate the inputs and outputs of the tool. The P3-VALUE 2.3 analytical tool can help users understand the processes and considerations that go into a rigorous quantitative analysis of public-private partnership procurement options for transportation projects.			
17. Key Words Public-private partnerships, highways, project delivery, project finance, tolling, real toll concessions, availability payment concessions, long-term lease concessions, SEP-15, GARVEE, TIFIA, Private Activity Bond.		**18. Distribution Statement** No restrictions	
19. Security Classif. (of this report) Unclassified	**20. Security Classif. (of this page)** Unclassified	**21. No. of Pages** 14	**22. Price** N/A

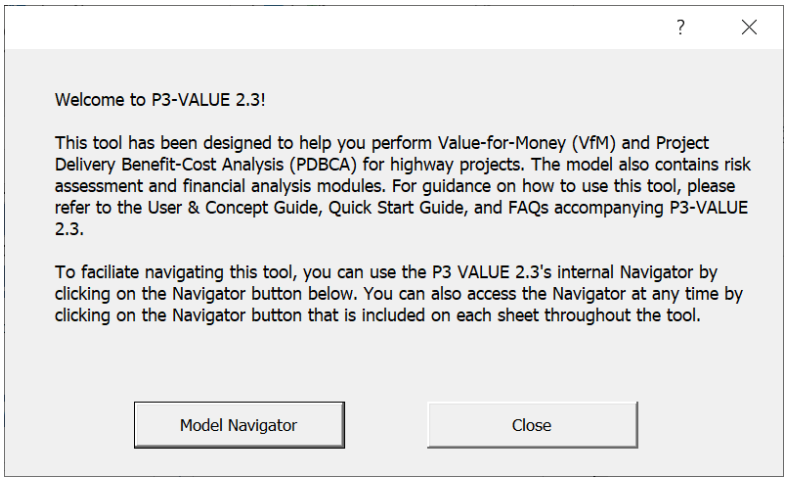
Form DOT F 1700.7 (8-72) **Reproduction of completed page authorized**

1 Use of the Quick Start Guide

The purpose of the Quick Start Guide is to provide the user with a brief overview of the P3-VALUE 2.3 tool. The Quick Start Guide describes a series of basic step-by-step instructions used to navigate the inputs and outputs of the tool. For more detailed instructions and the methodology behind the tool, please see the Guide to P3-VALUE 2.3.

2 Opening P3-VALUE 2.3

1. Open P3-VALUE 2.3 excel file.
2. When opening the file, Excel may prompt the user to approve the use of macros. To do so, click "Enable editing" and/or "Enable content" on the yellow bar across the top of the screen.
3. After the model opens, the following user form will appear.

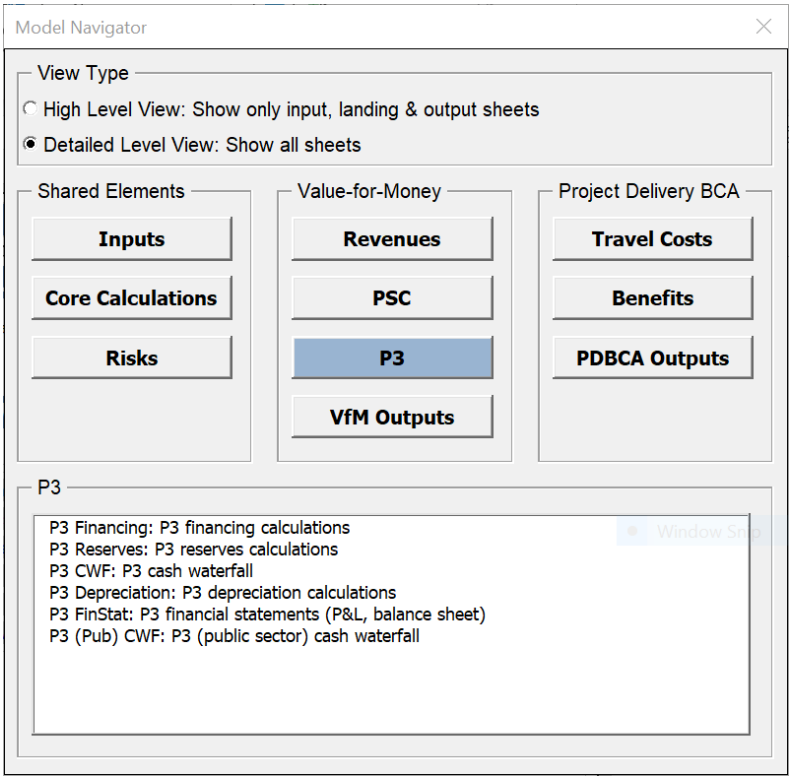


Select the "Model Navigator" to access P3-VALUE 2.3's internal navigation tool. Alternatively, click on "Close" if you do not want to use the Model Navigator at this point.

3 Using the Model Navigator

If "Model Navigator" is selected, the following user form will appear. The Model Navigator enables the user to navigate the P3-VALUE 2.3 tool. The user can exit the Model Navigator at any point by clicking on the exit "X" at the top right corner of the Model Navigator. To access the Model Navigator again, simply click on the "Navigator" button on the toolbar (see below). The user can also launch the Model Navigator by using the following shortcut key combination: Control + N. The Model Navigator has two different view options: a high-level and a detailed-level view. Users can choose between the high-level view and detailed-level view using the radio buttons at the top left of the Model Navigator.

In the high-level view, the user has access only to the inputs, landing sheets (see below) and outputs. Detailed calculation sheets are hidden to provide the user with overall understanding of the model flow and logic. By clicking on any of the buttons in the high-level view, the Model Navigator will either list the relevant input sheets (for the "Inputs" button), output sheets (for the "Risks", "VfM Outputs" and "PDBCA Outputs" buttons) or take the user to the relevant landing sheet (for all other buttons). For the listed input and output sheets, the user can click on them to directly access these input and output sheets.

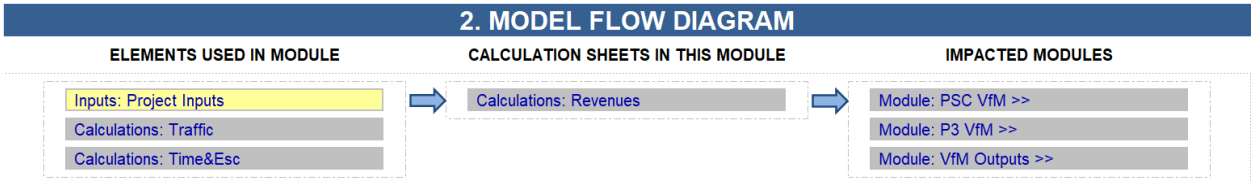


In the detailed-level view, all sheets are visible and accessible to the user. By clicking on any of the buttons in the detailed-level view, the Model Navigator will list all relevant worksheets. The screenshot to the right shows what the user will see if he or she clicks on the P3 button (in the Value-for-Money section).

The user can click on any of the listed worksheets to navigate to a particular worksheet. While the high-level view enables the user to navigate the model through landing sheets, the detailed-level view enables the user to navigate to each individual sheet in the model.

4 Using the Landing Sheets

The landing sheets provide an overview of each module's components (elements used as inputs to the calculations in the module, calculations carried out within the module, and a list of modules and/or outputs that are affected by this module's calculations) in a flow chart format. As an example, the screenshot below shows the landing sheet for the Revenues module.



The landing sheet can also be used to navigate the model. To access the landing sheet, click on any of the ten module buttons in the Model Navigator. By double clicking on any of the sheet names listed on the landing sheet, the user will be taken to the selected sheet. This functionality works both in the high-level and detailed-level view (in the high-level view, the selected sheet will in fact be unhidden to become visible to the user).

5 Using the Toolbar

The model also contains a toolbar that is visible in all worksheets. The toolbar contains the following three buttons.

The user can use the toolbar to navigate or optimize the model:

- Click the **Home** button (or Control + H) to view the model flow diagram.
- Click the **Navigator** button (or Control + N) to load the Model Navigator and navigate to a worksheet.
- Click the **Optimizer** button (or Control + O) to calculate the required subsidy/availability payment while simultaneously optimizing the project's financing.

6 Enter Inputs

To enter inputs in P3-VALUE 2.3 for your project, navigate to the following worksheets (input worksheet tabs are highlighted in yellow). All yellow-shaded cells within these sheets can be altered whereas non-highlighted cells should not be modified.

- **Project Inputs**: This sheet contains all key inputs that a user should enter to evaluate a project including, project timing; cost; delivery; funding and financing requirements; traffic and tolling; roadway characteristics; and escalation, discount, and tax rates. It also contains inputs related to lifecycle performance risk, and revenue uncertainty adjustment as well as certain benefit-cost analysis (BCA) inputs. In addition, it contains non-changeable (constant) inputs, which are used throughout the model and should not be changed.
- **Risk Matrix**: This sheet contains a detailed risk matrix for pure risks as well as inputs for base variability. To use the Risk Matrix, users must respond "True" to the following question on the Project Inputs sheet: "Do you want to use the detailed risk matrix input sheet?"
- **Other BCA Inputs**: This sheet contains additional inputs required for BCA calculations. To use the detailed inputs for transit and carpooling, users must respond "True" to the following question on the Project Inputs sheet: "Do you want to use detailed transit and carpooling forecasts instead of the above inputs?"

7 Optimize P3-VALUE 2.3

Once inputs have been entered and reviewed, click the **Optimizer** button, which calculates the required subsidy/availability payment required to make the project financially feasible while simultaneously optimizing the project's financing. The user can also launch the Model Optimizer by using the following shortcut key combination: Control + O.

8 Review Detailed Calculations

Use the Model Navigator to navigate to the various modules and worksheets to review the detailed calculations used for VfM and PDBCA. To be able to access the calculation sheets, the user should switch to the detailed-level view. The user may want to review some or all of the following calculation modules:

- Shared Elements (Both VfM & PDBCA): Core Calculations, which include timing and escalation, traffic, construction and O&M cost, base variability, pure risk, and lifecycle performance risk calculations
- VfM: Revenues, PSC & P3 financial calculations
- PDBCA: Travel costs and benefit calculations

9 Review Outputs: Risk, VfM and PDBCA

Click on the various output sheets under each of the output modules – Risks, VfM Outputs and PDBCA Outputs in the Model Navigator to review the results of the risk analysis, VfM analysis, and Project Delivery BCA.