

PMP Process-Asset Matrix Instructions

Intro

This matrix is designed to show the structure of the PMI PMBOK both with a high level viewpoint and with great detail at the same time. It should increase your intuition about the process groups, knowledge areas, processes, assets/docs and how they all fit together and flow throughout a project. All this on a single A4 page!

Matrix Structure

Across the top of the matrix, columns are identified by their process. Their corresponding process group and knowledge area are marked and color coded. These three rows encode all the information that there is in the “Project Management Process Group and Knowledge Area Mapping” Table that you can find in the PMBOK.

Down the side of the matrix are listed all of the project assets/docs/input-outputs.

The inner squares of the matrix mark the relationship of a project asset to a process. The relationship can be

- Input – “i”
- Output – “o”
- Input/output – “io”

For example, you can see on the third row that “project charter” is an output of the “develop project charter” process and an input of the “identify stakeholders” process.

Color Coding of Project Assets

There are 2 color encodings for each project asset outlined below

Primary Process Group – column 1

In column 1 the primary Process Group that the project asset belongs to is encoded with the color of the Process Group from row 1 of the matrix header. In most cases this is determined by the Process Group that the asset functions as an output for. However, in some cases this is overridden.

Knowledge Area – column 3 (the asset name itself)

The project assets themselves are mostly color coded according to where they function as an output of a process and are assigned the color of that process’s Knowledge Area (KA). In most cases the assets are the output of only one process and so this assignment is unambiguous. If this assignment is deemed inappropriate then another color coding may be selected for a more sensible KA. In the cases where an asset is the output of multiple KAs either a sensible KA is selected (e.g. asset “change requests”) or no coding is given (e.g. asset “project docs”).

Color Coding of Inner Squares

Outputs

These are coded yellow.

Input/Outputs

These are coded green

Inputs

These have 4 possible color codes

- Blue – inputs are coded blue if the following is true about the input
 - It is an input to a process in the same Knowledge Area as the asset has been assigned to and (see “Color Coding of Project Assets” above)
 - It is an input to a process in the same Process Group as the asset has been assigned to
- Orange – inputs are coded orange if the following is true about the input
 - It is an input to a process in the same Process Group as the asset has been assigned to
- Purple – inputs are coded purple if the following is true about the input
 - It is an input to a process in the same Knowledge Area as the asset has been assigned to
- Red - inputs are coded purple if the following is true about the input
 - It is an input to a process that is neither in the same Process Group of Knowledge Area

Building Intuition

Inputs

There are not very many ‘Red’ inputs. This means that usually assets are inputs to PGs and KAs that they belong to.

Usually assets appear as inputs to process that come after the process to which the same asset was an output. For example take “Schedule Management Plan”. It appears as an output to the process “Plan Schedule Management” and then as an input only to processes to the right.

Asset Process Group and Outputs

Look at the Process Group assignments for the assets and how well they are ordered. Now look at where the assets appear as outputs on the inside of the matrix. See how they make a diagonal line.

This shows how linear project management is according to the PMBOK. The assets are produced in order as you proceed through the Process Groups. Of course we know that the process groups themselves can be iterative and repetitive but largely the flow is from initiation to closing and the assets can be order similarly.

Patterns

When learning inputs and outputs to processes this grid can be very useful. You can notice patterns in the grid, for example where assets appear as inputs and outputs in a block e.g. “Schedule Management Plan”. In fact reproducing this entire matrix should not be too much of a challenge to the conscientious student.

Abbreviations

- “c” – control
- “def” - define
- “eef” – enterprise environmental factors
- “est” - estimate
- “id” - identify
- “KA” – Knowledge Area
- “m” – manage/management/...
- “opa” – organizational process assets
- “p” – project
- “PG” – process group
- “proc” - process
- “q” – quality
- “reqs” - requirements
- “sh” – stakeholder
- “sow” – statement of work