

EPMA MICROSOFT PROJECT 2013

QUICK REFERENCE CARD: MICROSOFT PROJECT INTERFACE

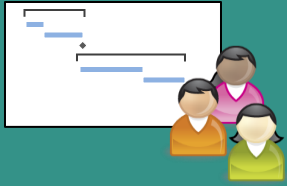
The screenshot shows the Microsoft Project 2013 interface with various components highlighted by numbered callouts (1-32). The interface includes a ribbon with tabs like FILE, TASK, RESOURCE, REPORT, PROJECT, VIEW, and FORMAT. Below the ribbon is a timeline view showing project tasks such as 'General Conditions' and 'Foundations' with their respective durations and start/end dates. A Gantt chart is visible below the timeline, showing task bars and dependencies. The status bar at the bottom displays 'READY' and 'NEW TASKS TO SCHEDULED'. The callouts point to specific elements: 1. Ribbon Tabs, 2. Ribbon Menu, 3. Quick Access Toolbar, 4. Custom Quick Access, 5. Title Bar, 6. Window Minimize, 7. Window Maximize, 8. Exit Application: AVOID, 9. Close File: AVOID, 10. Minimize Ribbon, 11. Help, 12. Restore Window, 13. Timeline View, 14. Timeline V. Scroll, 15. Timeline H. Scroll, 16. Horiz. Window Split, 17. View Bar, 18. Task Table, 19. Select All, 20. Task Row Headers, 21. Column Headers, 22. Task Table H. Scroll, 23. Vertical View Split, 24. Gantt Chart, 25. Gantt Chart Timescale, 26. Gantt Chart H. Scroll, 27. Gantt Chart V. Scroll, 28. Cell Mode, 29. New Tasks Selector, 30. Status Bar, 31. View Shortcuts, 32. Zoom Slider.

KEYBOARD SHORTCUTS

- | | |
|--|--|
| [F1]: Help | [Ctrl]+[F9]: Turn on / off auto-calculation |
| [F2]: Enable direct data entry in cell | [Ctrl]+[Shift]+[M]: Manually schedule task |
| [F3]: Clear any applied filters | [Ctrl]+[Shift]+[A]: Auto schedule task |
| [F5] or [Ctrl]+[G]: Open 'Go To' dialog | [Ctrl]+[H]: Open 'Replace' dialog |
| [F6]: Toggle between split window panes | [Ctrl]+[N]: Create new blank project |
| [F7]: Open 'Spelling' dialog | [Ctrl]+[O]: Open 'Open' dialog |
| [F8]: Turn on / off Extend Selection mode | [Ctrl]+[P]: Display 'Print' page |
| [F9]: Force calculation | [Ctrl]+[S]: Save project |
| [F11] or [Alt]+[F1]: Create new blank project | [Insert]: Insert new task |
| [F12] or [Alt]+[F2]: Open 'Save As' dialog | [Delete]: Delete cell contents or line |
| [Alt]+[F3]: Open 'Field Settings' dialog | [Alt]+[Shift]+[Right Arrow]: Indent task |
| [Alt]+[F4]: Close project schedule | [Alt]+[Shift]+[Left Arrow]: Outdent task |
| [Alt]+[F5]: Go to next overallocation | [Ctrl]+[/]: Zoom in |
| [Alt]+[F8]: Open 'Macros' dialog | [Ctrl]+[*]: Zoom out |
| [Alt]+[F10]: Open 'Assign Resources' dialog | [Alt]+[Left Arrow]: Scroll timescale left |
| [Shift]+[F2]: Open 'Task Information' dialog | [Alt]+[Right Arrow]: Scroll timescale right |
| [Shift]+[F3]: Remove all groupings | [Alt]+[Page Up]: Scroll timescale left 1 page |
| [Shift]+[F5] or [Ctrl]+[F]: Open 'Find' dialog | [Alt]+[Page Down]: Scroll timescale right 1 page |
| [Shift]+[F6]: Activate split bar | [Alt]+[Home]: Scroll timescale to project start |
| [Shift]+[F10]: Show Ribbon keyboard shortcuts | [Alt]+[End]: Scroll timescale to project finish |
| [Shift]+[F11]: Open project in new window | [Ctrl]+[Shift]+[F5]: Scroll to task on Gantt Chart |
| [Ctrl]+[F2]: Link selected tasks | [Alt]+[Shift]+[-]: Hide subtasks |
| [Ctrl]+[Shift]+[F2]: Unlink selected tasks | [Alt]+[Shift]+[+]: Show subtasks |
| | [Alt]+[Shift]+[*]: Show all subtasks |

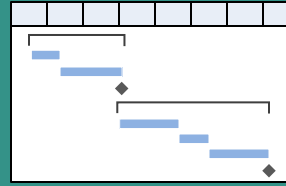
- 1 Ribbon Tabs
- 2 Ribbon Menu
- 3 Quick Access Toolbar
- 4 Custom Quick Access
- 5 Title Bar
- 6 Window Minimize
- 7 Window Maximize
- 8 Exit Application: AVOID
- 9 Close File: AVOID
- 10 Minimize Ribbon
- 11 Help
- 12 Restore Window
- 13 Timeline View
- 14 Timeline V. Scroll
- 15 Timeline H. Scroll
- 16 Horiz. Window Split
- 17 View Bar
- 18 Task Table
- 19 Select All
- 20 Task Row Headers
- 21 Column Headers
- 22 Task Table H. Scroll
- 23 Vertical View Split
- 24 Gantt Chart
- 25 Gantt Chart Timescale
- 26 Gantt Chart H. Scroll
- 27 Gantt Chart V. Scroll
- 28 Cell Mode
- 29 New Tasks Selector
- 30 Status Bar
- 31 View Shortcuts
- 32 Zoom Slider

PROJECT SCHEDULE



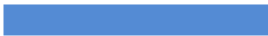
The activities and resources required to produce the deliverables for a project.

GANTT CHART



A visual representation of project tasks, milestones, and summaries on a timeline.

TASK



An activity that must be completed to help produce a deliverable or meet the requirements of a project.

MILESTONE



An important event or deliverable that must be completed to meet the requirements of a project.

SUMMARY



A row within a task listing that represents a group of related tasks in the project schedule.

PROJECT SUMMARY



A top-level row within a task listing that represents the overall duration, work, and costs in the entire project schedule.

RESOURCE



A person or thing that is required to complete tasks or produce deliverables for a project.

RESOURCE POOL



The collection of all resources that are required to complete the tasks or produce the deliverables for a project.

ASSIGNMENT



The association of a single resource with a single task on a project.

DEPENDENCY



A logical link between two items in a project schedule indicating a predecessor / successor relationship.

PREDECESSOR



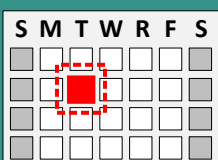
The first of two interdependent tasks or milestones in a project schedule.

SUCCESSOR



The second of two interdependent tasks or milestones in a project schedule.

SCHEDULING CONSTRAINT



A tool for artificially forcing a task to start or finish based on an imposed date.

DEADLINE



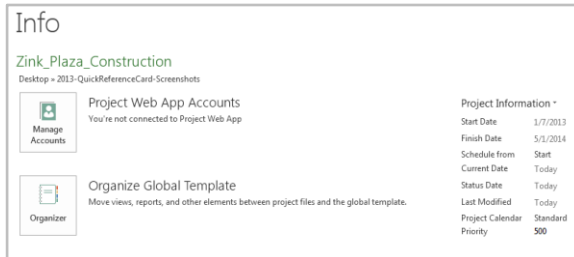
A desired date by which a project task, milestone, or phase should be completed.

- 1 FILE
- 2
- 3 Info
- 4 New
- 5 Open
- 6 Save
- 7 Save As
- 8 Print
- 9 Share
- 10 Export
- 11 Close
- 12 Account
- 13 Options

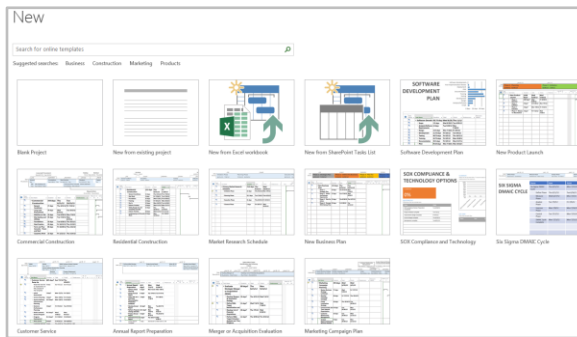
1 **FILE:** Display the Backstage

2 **HIDE THE BACKSTAGE**

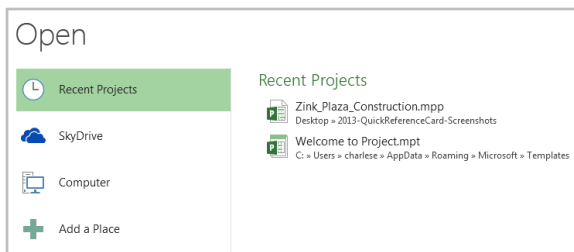
3 **INFO:** Information about accounts and the current project schedule



4 **NEW:** Options for creating a new project schedule

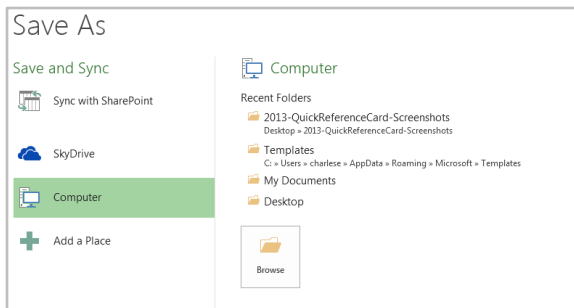


5 **OPEN:** Open an existing project and see a list of recent projects

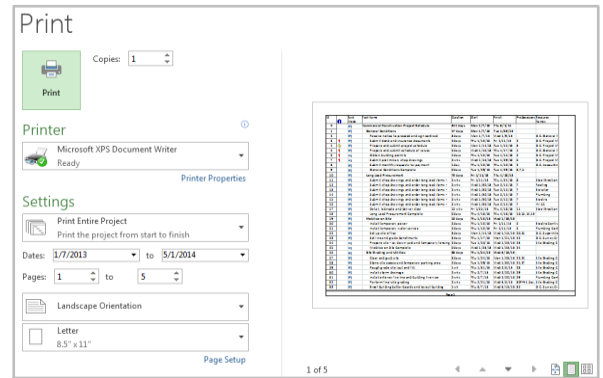


6 **SAVE:** Save the current project

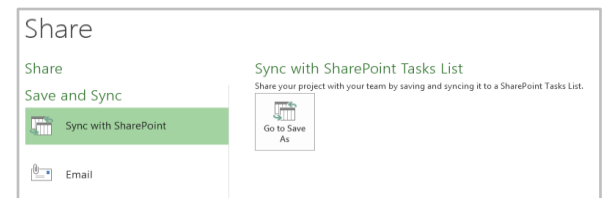
7 **SAVE AS:** Options for saving the current project schedule



8 **PRINT:** Options for printing the current project schedule



9 **SHARE:** Options for sharing project



10 **EXPORT:** Export project to a PDF/XPS document

11 **CLOSE:** Close the current project

12 **ACCOUNT:** User account information

13 **OPTIONS:** Program options



PROJECT RIBBON GROUP

1. Compare Projects: Compare selected data fields in two different versions of a project schedule.

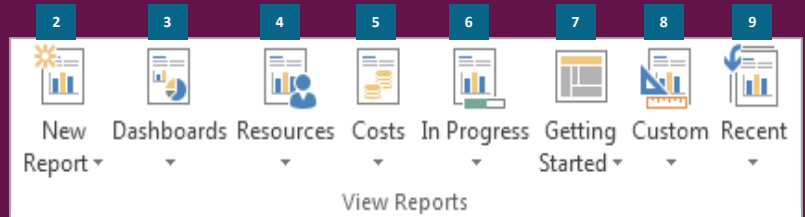


EXPORT RIBBON GROUP

10. Visual Reports: View the project's data in Microsoft Excel PivotTables, Microsoft Excel Pivot Charts, and Microsoft Visio Professional PivotDiagrams.



VIEW REPORTS RIBBON GROUP



2. New Report: Create reports to analyze the project data which can be shared with the team members. Has built in charts, tables and comparison graphs.

3. Dashboards: These reports are generated based on specific parameters to help make project decisions. Comes with built in options like Burndown, Cost overview, Project overview, Upcoming tasks, Work overview, and others.

4. Resources: Reports to check the work done by each resource in a team. Types of reports based on Over allocated Resources and Resource overview.

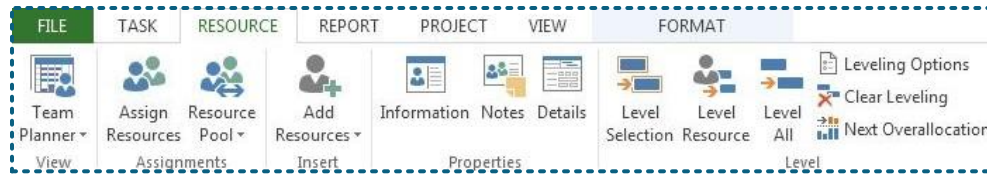
5. Costs: Reports to show various project costs. Report categories offered are Cash flows, Cash Overruns, Earned Value report, Resource cost overview, Task cost overview, and others.

6. In Progress: Gives the current status of the project with options to view Critical tasks, late tasks, Milestone report, Slipping tasks, and others.

7. Getting started: Gives tips on how to get started with Microsoft Project 2013. Options include Best Practice analyzer, Create Reports, Get started with Project, Organize Tasks, Share with your team, and others.

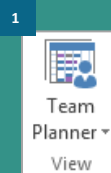
8. Custom: Customized reports will appear here.

9. Recent: Shows a list of the most recently used reports.



VIEW RIBBON GROUP

1. Team Planner: Apply the 'Team Planner' view (button graphic), or select a different view (button text) and access other view tools. Custom and built-in views appear in the list if 'Show in menu' option is selected in the view definition, otherwise select 'More Views'.



ASSIGNMENTS RIBBON GROUP

2. Assign Resources: Assign Resources to tasks in the project.



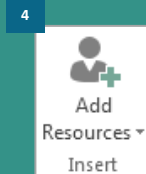
3. Resource Pool: Share resources among multiple projects through a resource pool.



INSERT RIBBON GROUP

4. Add Resources: Add resources to the project team from multiple sources:

- Built Team from Enterprise (Project Server only)
- Active Directory
- Address Book



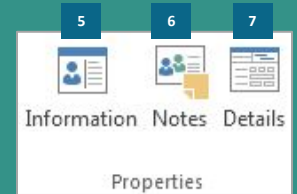
Also manually create resources for the project team:

- Work Resource
- Material Resource
- Cost Resource

Import Resources to Enterprise option (Project Server only) imports resources from a file to the Project Server Enterprise Resource Pool.

PROPERTIES RIBBON GROUP

5. Resource Information: Show the Resource Information dialog box for a selected resource.



6. Resource Notes: Show the Notes tab in the Resource Information dialog box to write a note relevant to the selected resource.

7. Display Resource Details: Split the current view to display the Resource Form.

LEVEL RIBBON GROUP



8. Level Selection: Level the resource overallocations on one or more selected tasks by rescheduling or splitting the tasks.

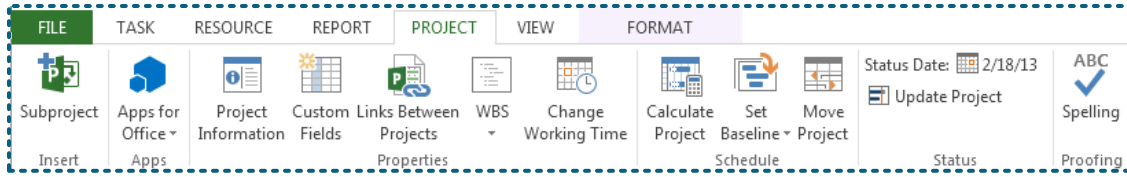
9. Level Resource: Level the resource overallocations on for one or more selected resources by rescheduling or splitting their assigned tasks.

10. Level All: Level all resource overallocations in the entire project.

11. Leveling Options: Show the Leveling Options dialog box to select the options controlling how Project levels resource overallocations in the project when using the built-in leveling tools.

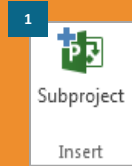
12. Clear Leveling: Clear any leveling delays that were previously added to project.

13. Go To Next Overallocation: Move to the next row where a resource is scheduled for more work than can be accomplished in the available working time.



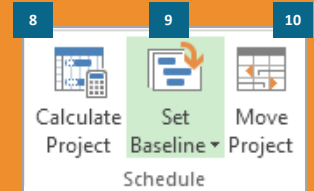
INSERT RIBBON GROUP

1. Insert Subproject: Insert a related project as a subproject, turning the project into a master project schedule.



SCHEDULE RIBBON GROUP

8. Calculate Project: Calculate the project after you make a change.



9. Set Baseline: Save or clear a snapshot of the schedule that includes information about tasks, resources, and assignments. Start, Finish, Duration, Work, and Cost values are copied into their corresponding Baseline fields and used to calculate variances and Earned Value.

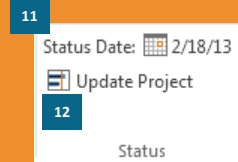
10. Move Project: Adjust the start and finish dates for all tasks based on the new project start date.

APPS RIBBON GROUP

2. Apps for Office : Apps can be downloaded from the public office store. An app is a self contained, interactive program that performs a small number of related tasks.



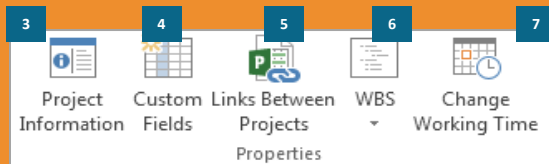
STATUS RIBBON GROUP



11. Status Date: Set the status date to report progress for the project. Used to manually indicate when the project schedule was last updated, and used for Earned Value calculations.

12. Update Project: Update progress information or reschedule work for all or selected tasks in the project schedule.

PROPERTIES RIBBON GROUP



3. Project Information: Display the Project Information dialog box to update various aspects of the project, such as start date and status date.

4. Custom Fields: Show the Custom Fields dialog box to create custom fields to store information specific to your organization.

5. Links Between Projects: Review information about tasks linked to and from other projects.

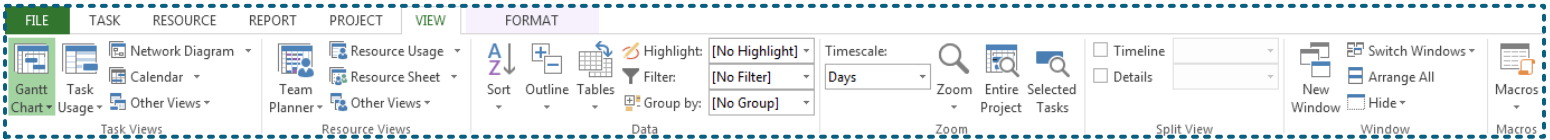
6. WBS: Define or renumber the work breakdown structure (WBS) for the project, as shown in the built-in WBS data field.

7. Change Working Time: Set days off and change working hours for the project or for specific resources.

PROOFING RIBBON GROUP

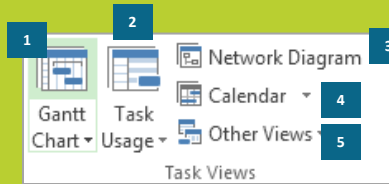
13. Spelling: Check the spelling of selected text in the project schedule.





TASK VIEWS RIBBON GROUP

1. Gantt Chart: View the task sheet on one side of the view and graphical bars corresponding to task durations on the other side of the view.



2. Task Usage: View all of the tasks and the resources assigned to them.

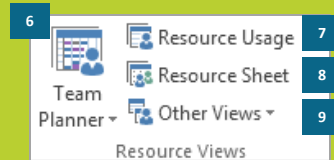
3. Network Diagram: Display tasks represented as boxes and view dependencies between the tasks.

4. Calendar: View tasks from the project in a calendar view.

5. Other Views: Switch to a different task view.

RESOURCE VIEWS RIBBON GROUP

6. Team Planner: Clearly see your resources' work over time, and drag the tasks to make adjustments.

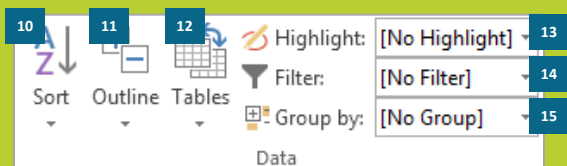


7. Resource Usage: View all of the resources and the tasks assigned to them.

8. Resource Sheet: Update details about resources on the project.

9. Other Views: Switch to a different resource view.

DATA RIBBON GROUP



10. Sort: Arrange the items in the view.

11. Show Outline: Select which outline level should be used in the view.

12. Tables: Switch to a different table.

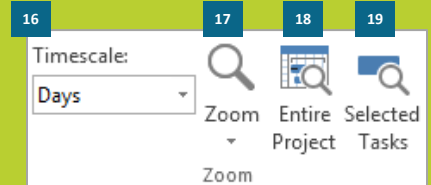
13. Highlight: Highlight items in the view based on the selected criteria.

14. Filter: Filter the view based on the selected criteria.

15. Group By: Group the items in the view by specified criteria.

ZOOM RIBBON GROUP

16. Timescale: Select the time units that appear on the timescale.



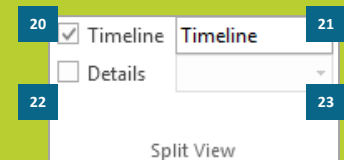
17. Zoom: Zoom the project timescale to show more or less detail in the view.

18. Zoom Entire Project: Update the timescale in the view so the entire project is visible on the screen.

19. Zoom Selected Tasks: Update the timescale in the view so the selected tasks are visible on the screen.

SPLIT VIEW RIBBON GROUP

20. Timeline View: Create a high level view of the project schedule.



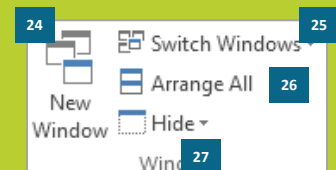
21. Timeline Views: Select the Timeline view to display.

22. Details View: Split the screen and show the details pane on the lower part of the screen.

23. Detail Views: Select the view to display in the details pane.

WINDOW RIBBON GROUP

24. New Window: Open a new window containing a view of the current document.



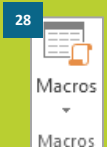
25. Switch Windows: Switch to a different currently open window.

26. Arrange All: Tile all open program windows side-by-side on the screen.

27. Hide Window: Hide the current window so it cannot be seen.

MACROS RIBBON GROUP

28. View Macros: View the list of macros, from which you can run, create, or delete a macro.



The following equation controls the relationship between the **Work**, **Duration**, and **Assignment Units** for a task assignment:

$$\text{Work} = (\text{Duration}) \times (\text{Assignment Units})$$

OR

$$\text{Duration} = (\text{Work}) / (\text{Assignment Units})$$

OR

$$\text{Assignment Units} = (\text{Work}) / (\text{Duration})$$

Work: The number of hours of real work effort spent performing the task.

Duration: The amount of working time between the start and finish dates of the task.

Assignment Units: The percentage of the resource's average workday spent performing the task.

***Work** and **Duration** are measured in the same units, i.e. they are both measured in hours or they are both measured in days.

When you assign a resource to a task in a project schedule, you need to specify two of these three assignment variables, and Microsoft Project will calculate the third variable based on the assignment equation:

IF YOU SPECIFY:	IF YOU SPECIFY:	IF YOU SPECIFY:
Duration & Assignment Units	Work & Assignment Units	Work & Duration
MICROSOFT PROJECT CALCULATES:	MICROSOFT PROJECT CALCULATES:	MICROSOFT PROJECT CALCULATES:
Work	Duration	Assignment Units
EXAMPLE	EXAMPLE	EXAMPLE
<p>If you specify: Duration = 10 days (80 hours) Assignment Units = 50%</p> <p>Microsoft Project calculates: Work = 40 hours</p>	<p>If you specify: Work = 40 hours Assignment Units = 50%</p> <p>Microsoft Project calculates: Duration = 10 days (80 hours)</p>	<p>If you specify: Work = 40 hours Duration = 10 days (80 hours)</p> <p>Microsoft Project calculates: Assignment Units = 50%</p>
THE MATH:	THE MATH:	THE MATH:
<p>Work = (Duration) x (Assignment Units)</p> <p>Work = (80 hours) x (50%)</p> <p>Work = 40 hours</p>	<p>Duration = (Work) / (Assignment Units)</p> <p>Duration = (40 hours) / (50%)</p> <p>Duration = 80 hours</p>	<p>Assignment Units = (Work) / (Duration)</p> <p>Assignment Units = (40 hours) / (80 hours)</p> <p>Assignment Units = 50%</p>

$$\text{Work} = (\text{Duration}) \times (\text{Assignment Units})$$

OF THE THREE VARIABLES IN THE ASSIGNMENT EQUATION, ONE OF THEM ALWAYS NEEDS TO REMAIN FIXED TO ENFORCE MATHEMATICAL INTEGRITY OF THE RELATIONSHIP:

Fixed Work: Microsoft Project attempts to hold the *Work* of a task fixed.

Fixed Duration: Microsoft Project attempts to hold the *Duration* of a task fixed.

Fixed Units: Microsoft Project attempts to hold the *Assignment Units* of a task fixed.

If a resource assignment *needs to change* for a task in a Microsoft Project schedule (i.e. the *Work*, *Duration*, or *Assignment Units* value needs to change), then Microsoft Project will hold one of the three assignment variables fixed and recalculate the remaining variable in the equation.

RECOMMENDATION:	EXAMPLE:
If the task will always take the same amount of work effort, regardless of how that effort is distributed over a duration, then the Task Type should be set as <i>Fixed Work</i> .	<p>Painting a room will take 16 hours of Work; <i>this does not change</i>.</p> <p>Assigning Todd full time to the task (100% Assignment Units) results in a 2 day task Duration.</p> <p>If Todd can only work half time (Assignment Units change to 50%), then the task Duration is recalculated to 4 days (Work is held constant).</p> <p>If Todd will spread the task over a 4 day Duration, then his effective Assignment Units will be recalculated as 50% (Work is held constant).</p>

RECOMMENDATION:	EXAMPLE:
If the task will always take the same duration, regardless of how much effort is spent working on the task, then the Task Type should be set as <i>Fixed Duration</i> .	<p>An automobile takes 10 days of Duration to move down an assembly line; <i>this does not change</i>.</p> <p>Assigning Lauren half time to the auto assembly task (50% Assignment Units) results in 40 hours of Work that can be done.</p> <p>If Lauren can only work quarter time on the task (25% Assignment Units), then her Work is recalculated to 20 hours (Duration is held constant).</p> <p>If there are 80 hours of Work that need to be done on the task, then her Assignment Units would be recalculated to 100%, forcing her to work full time (Duration is held constant).</p>

RECOMMENDATION:	EXAMPLE:
If a resource can only spend a specific portion of their workday completing the task, then the Task Type should be set as <i>Fixed Units</i> .	<p>Michael is only allowed to spend 50% of his time (Assignment Units) harvesting tobacco; <i>this must not change</i>.</p> <p>Initially the harvesting is estimated to take 1,000 hours of Work, therefore assigning Michael to the task will result in 250 days of Duration.</p> <p>If the Work is re-estimated at 2,000 hours of Work, then the Duration is recalculated to be 500 days (Assignment Units are held fixed).</p> <p>If the Duration is changed to 125 days because of flooding, then the Work is recalculated to be 500 hours (Assignment Units are held fixed).</p>