

BIOGRAPHICAL INFORMATION

Donnette W. Putman
Project Manager
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Specific Responsibilities

Ms. Putman joined Intergraph in 1992. As a Project Manager, Ms. Putman manages telecommunications and utilities projects for customers including Bell Canada, Manitoba Telecommunications Services (MTSC), Hawaiian Electric Company (HECo), Puerto Rico Electric Power Authority (PREPA), Interoute, and Madison Gas and Electric. Her management experience with various aspects of implementing an AM/FM/GIS application includes assessment, definition, design, implementation, QA/QC, data conversion, and development of interfaces between customer systems and third-party applications. She manages the budgets and schedules for these projects and provides status updates to customers. Ms. Putman manages and implements mobile and web-based viewer projects based on G/Technology. She also provides consulting services to customers to assess their needs for Intergraph systems.

Past Experience

While at Intergraph, Ms. Putman has previously been responsible for the following:

- Project Test Manager of Active FRAMME and G/Technology GIS projects.
- Designing and developing customized Field View applications, using the FRAMME Field View Application Development Kit (ADK), Visual Basic, and Visual C++.
- Product Certification of Field View, Field View Application Development Kit (ADK), and Field View Data Loader for the Intergraph Utilities FRAMME product.
- Lead Project Test Analyst for numerous projects within all areas of Intergraph.

At Teledyne Brown Engineering in Huntsville, Alabama, Ms. Putman served as Lead Programmer/Analyst and was responsible for automated testing and independent evaluation of the Battalion Command and Coordination software and the Battalion Communication software of the PATRIOT Air Defense System.

Educational Information

B.S. - Computer Science, University of North Alabama

Professional Memberships

Geospatial Information and Technology Association (GITA)

PROJECT MANAGEMENT SKILLS

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ABSTRACT

Most of us working in the Project Management realm understand the historical “rules” of project management. This paper is not intended to cover these rules nor the theory of project management, but to discuss innovative approaches to actual work activities. It will introduce to you the idea of using “tricks” that are very basic, but may have been overlooked since they are so simple. When I perform a task more than twice, I like to find ways to automate that task so that I do not have to recreate it from scratch each time. Project managers can be creative “developers” too. This is an invitation to open your mind beyond the normal project management process towards the simple tools and innovative thinking processes that can help you and your team do your jobs more easily, quickly, and efficiently.

INTRODUCTION

How many times have you thought “Wow, this certainly takes a lot of my time.”? I suspect quite often. This paper will demonstrate a series of examples that will enable you to track task information efficiently and analyze the information you have gathered using quick and easy visual tools. These examples take you from adding columns to Microsoft® Project to exporting the data from those added columns to Microsoft Excel for statistical calculations; and finally create Charts, Graphs, and Pivot Reports easily in Excel using the data that you have imported.

It is a treat for me to get the occasional opportunity to sit with a colleague while we work together. One thing I have learned in doing this is that everyone does things just a little bit differently. One person will have discovered some tool or trick in using the computer or a software package that someone else has not. Over the years, I have learned a number of very valuable lessons in just sitting at the computer with another person. I hope that this paper can be used in the same way; that you will discover in reading this some bit of information that you can use that you did not know before “sitting with me” through these examples. The examples in this paper are based on Microsoft Office XP Professional.

EXAMPLES

Adding Columns to Microsoft Project for Reporting Purposes

One of the tools I have learned to use in Microsoft Project is custom definition of fields added as columns. This has allowed me to keep track of information on a task-by-task basis that is not

provided for in an out of the box Gantt chart. For example, say you need to keep track of how many test cases have passed or failed for this round of testing on your project. You can add a column to your Microsoft Project Gantt chart that will allow you to track this information for each task. You may also easily create a predetermined set of values that may be used in this column.

The following simple set of steps will demonstrate how you can easily do this in your Microsoft Project Gantts.

1. To begin creation of your custom named column, while in Gantt chart mode, right-click on an existing column and select **Customize Fields**. The **Customize Fields** dialog is displayed.

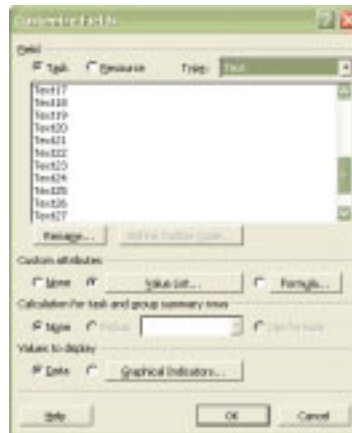


Figure 1 - Customize Fields Dialog

2. Select Type equal **Text**, and then select one of the rows that contain the word “Text” plus a number beside it.
3. Select **Rename** and then add your custom name such as “Pass/Fail”. At this point, you have created a custom named text field that can be used as a column in your Gantt.
4. Now that we have the column named, we can add a set of predetermined values to be used in this column. While still viewing the **Customize Fields** dialog, select the field name that you just created, which is “Pass/Fail” in our example.

- Under the **Custom attributes** section, select the radio button for **Value List**, and then select the **Value List** button. The **Value List for Pass/Fail** dialog will display.

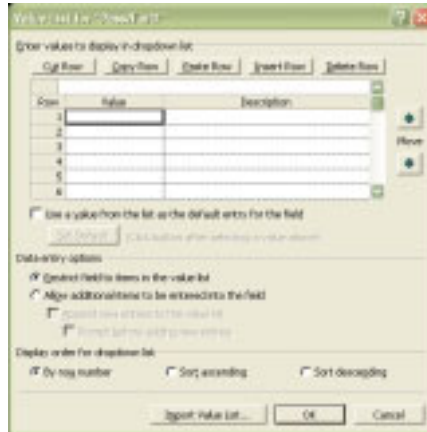


Figure 2 – Value List Definition Dialog

- Type all the values and their descriptions that you would like to use for the column that you have defined. There are options to restrict the list to only the values that you enter, or allow additional items to be added to the field that may either be added to this list for future use or not. For the purposes of our example, we will allow additional items to be added for future use as long as we are prompted first. You might add entries such as those listed in Table 1 below.

Table 1: Value List Example

Value	Description
Pass	Passed
Fail	Failed
Pass?	Think Passed but not sure
Fail?	Think Failed but not sure
CNT	Can Not Test
PCNT	Partial Can Not Test

- Now that custom named field has been created and a list of values associated to it, you may insert it into your Gantt. Right-click on one of the column headers in the Gantt and select **Insert Column**. In the **Field name** drop-down list, select the **Pass/Fail** entry and then select **OK**. The column will be inserted into the Gantt. You may now use this column to track the status of each task individually.

Exporting Microsoft Project Data to Microsoft Excel for Statistical Calculations

Now that we have discussed the ability to add columns to Microsoft Project for the specific data you want to track per task, we will discuss the process to move that data into Microsoft Excel in order to use it for statistical calculations.

The following steps will demonstrate the process to take data from Microsoft Project to Microsoft Excel.

1. Assume we have data entered into a Microsoft Project Gantt containing custom columns as displayed in Figure 3.

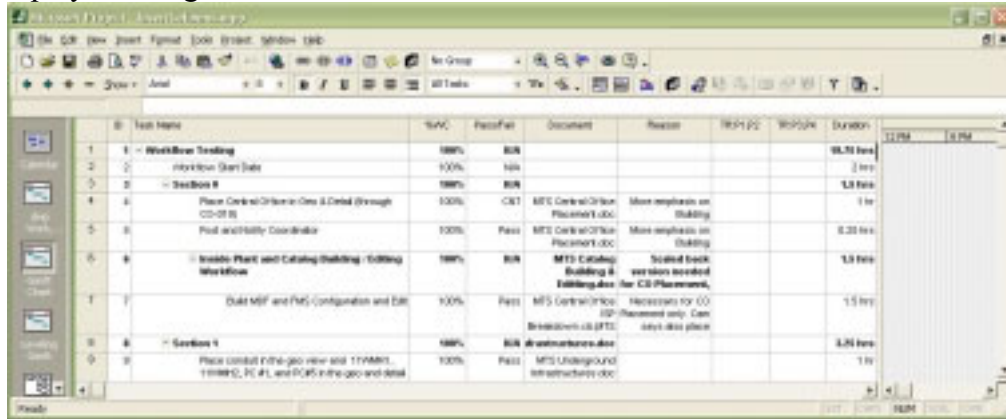


Figure 3 – Gantt with Custom Defined Columns

2. We need to select which columns of data to use in Microsoft Excel. To do this, select with the mouse the column header of the first column of data you would like to use, then hold down the **Ctrl** key and select the column header of each additional column of data. For the purposes of this example we will select **Task Name, %WC, Pass/Fail, TR: P1,P2, and TR:P3,P4.**
3. After you have selected the data, you will copy it from Microsoft Project and then paste it into Microsoft Excel. Select **Ctrl + C** on the keyboard to copy the Microsoft Project data to the clipboard. Start a Microsoft Excel session and ensure that a new sheet is displayed. Select the upper left cell and paste the data from your Gantt to the spreadsheet by selecting **Ctrl + P.**
4. The data will be inserted as shown below. You can make the column width of each column best fit the data by selecting the **Select All** cell and then double-click the right column border in the column header to set all columns to the best fit.

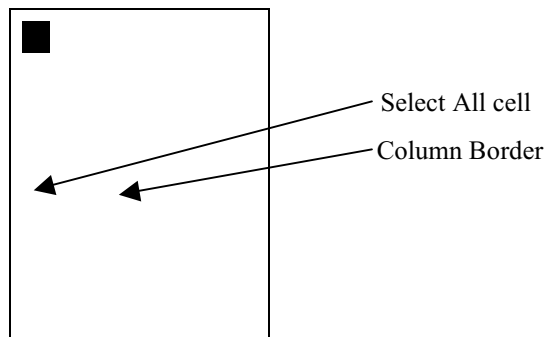


Figure 4 – Data Copied to Excel

5. Now that the data has been moved from Microsoft Project to Microsoft Excel, it can be used to do analysis using charts, graphs, and reports.

Creating Charts, Graphs, and Pivot Reports in Microsoft Excel

Now that we have the data in Microsoft Excel we will discuss the process to use the data that has been collected in your project Gantt for statistical calculations. Microsoft Excel is an easy to use tool that allows the quick creation of useful reports, charts and graphs.

The following steps will demonstrate the process to create statistical visual aids with your data in Microsoft Excel.

1. Assume we have data entered into a Microsoft Excel worksheet as displayed in Table 2.

Table 2 – Data in Microsoft Excel Worksheet

Task Name	% Complete	Pass/Fail	P1/P2	P3/P4
Workflow Testing	98%	N/A		
Workflow Start Date	100%	N/A		
Section 0	100%	N/A		
Place Central Office in Geo & Detail (through CO-019)	100%	CNT		
Post and Notify Coordinator	100%	Pass		
Inside Plant and Catalog Building / Editing Workflow	100%	N/A		
Build MDF and FMS Configuration and Edit	100%	Pass		
Section 1	100%	N/A		
Place conduit in the geo view and 11WMH1, 11WMH2, PC #1, and PC#5 in the geo and detail	100%	Pass		
Post and Notify Coordinator	100%	Pass		
Continue to place conduit in the geo view, and 11WMH3, conduit, PC#2, 11WMH4, PC#3, PC#4, and the multi-story building in the geo and detail	100%	Pass		
Post and Notify Coordinator	100%	Pass		
Section 2	100%	N/A		
Place Conduit in Geo; Closure, Padbase, Passage Connector in Geo and Detail; and Interface in Detail View (DN 000 - DN 006)	100%	Pass		
Place conduit formation in detail	100%	Pass		
Post and Notify Coordinator	100%	Pass		
Place Multi Floored Building in Geo & Detail (through CP-008)	100%	Pass		
Post and Notify Coordinator	100%	Pass		
Section 3	100%	N/A		
Aerial Distribution (After DN 005)	100%	Pass		
Section 4	100%	N/A		
Buried Distribution	100%	Pass		
Section 6	100%	N/A		
ISP for CO (begins at CO-020)	100%	Pass		
Section 8	100%	N/A		
Cable Placement Part A && B	100%	Fail	36	
Cable Placement Part C	100%	Pass		

- For our example, we would like to know how many and what percentage of our tasks passed or failed. A PivotTable quickly summarizes the categories of data and puts it in an easily readable format. Start by selecting the entire worksheet of data. Then select from the pull down menu **Data > PivotTable and PivotChart Report**. Select the options for the PivotTable as shown in Figure 5 below.

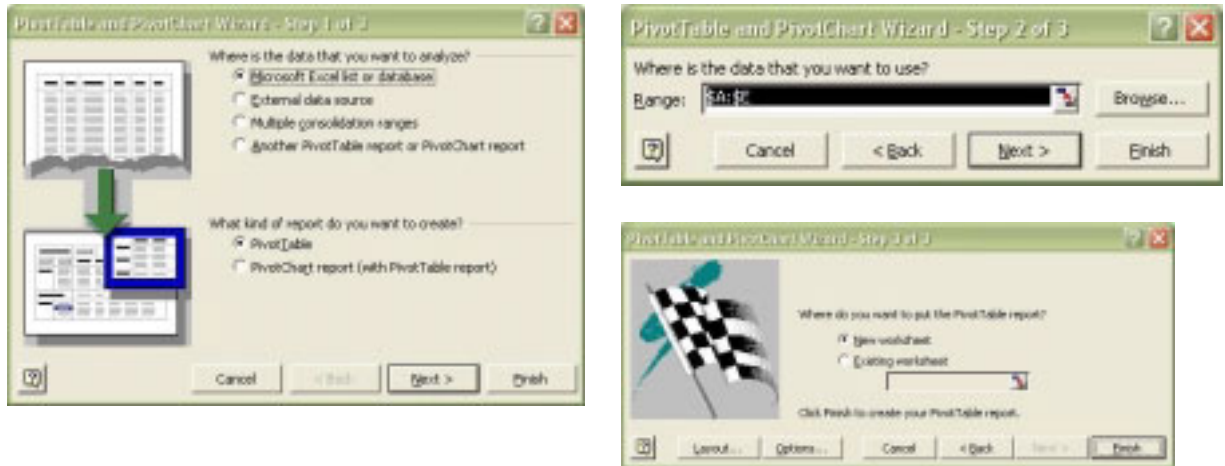


Figure 5 – PivotTable Options

- A default setup for the PivotTable will be placed in a new worksheet as displayed on the left side of Figure 6. Select and drag the **Pass/Fail** field from the **PivotTable Field List** dialog to the **Row Fields** area. Select and drag the **Task Name** field from the **PivotTable Field List** dialog to the **Data Items** area. The result will be as displayed on the right side of Figure 6.

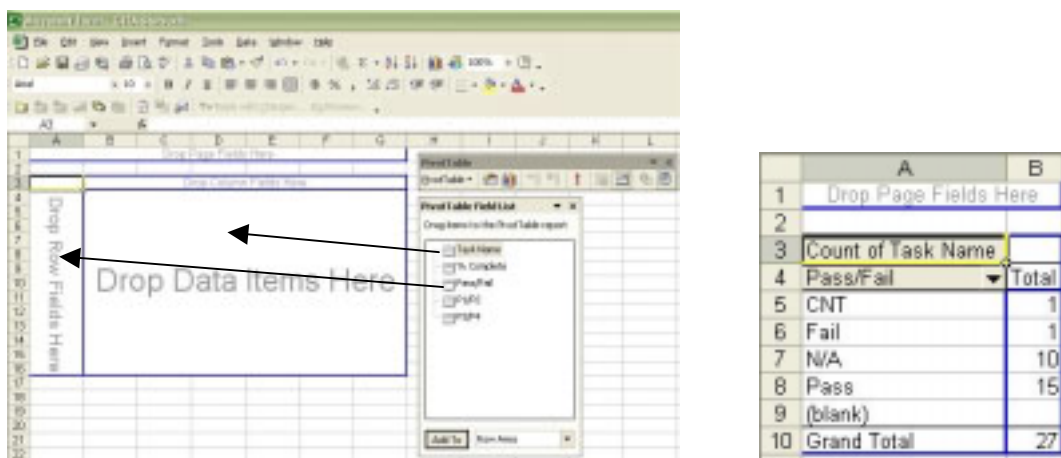


Figure 6 – PivotTable Default and Drag Field Result

- The N/A items represent the rollup tasks from the Gantt. There is no need to see the numbers of blank items displayed, nor the N/A items. To turn these off, select the **Pass/Fail column heading drop-down list box**. Unselect the checkboxes beside **N/A** and **(blank)** as shown on the left side of Figure 7. The result will be as displayed on the right side of Figure 7.



Figure 7 – Turning Off Undesired Fields

- We can now clearly and quickly see the numbers of tasks that passed, failed, or could not be tested. We did this with just a matter of data transfer and mouse actions, but no manual calculations or formula design! We can now take this one step further and create a PivotChart.
- Select one of the items in the **Pass/Fail column** and then select the **Chart Wizard** button (📊). A default chart will display in a new worksheet as Chart1.
- This may not be the chart type that you desire. In the **Chart** toolbar, select the **Chart Type** drop-down list box (📊). A selection of chart types will display. Select the **Pie Chart**. The pie chart will display as in Figure 8.

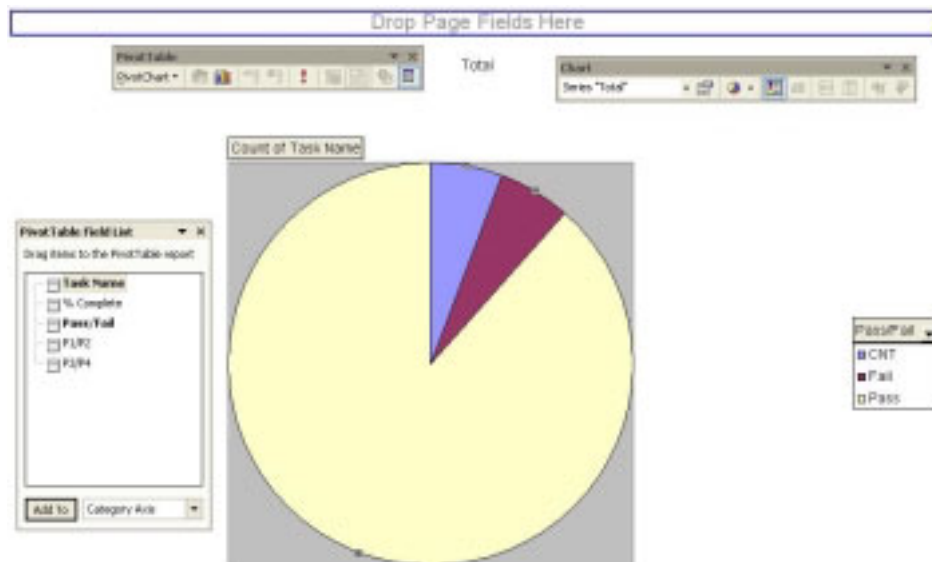


Figure 8 – Default Pie Chart

- It would be helpful to have the numbers and percentages of items that passed, failed or could not be tested on the chart. It is very simple to display this data on the chart. Right-click within the pie chart and select **Format Data Series**. Then select the **Data Labels**

tab. In the **Label contains** box, select **Category Name, Value,** and **Percentage.** The resulting chart will have the selected values included as displayed in Figure 9.

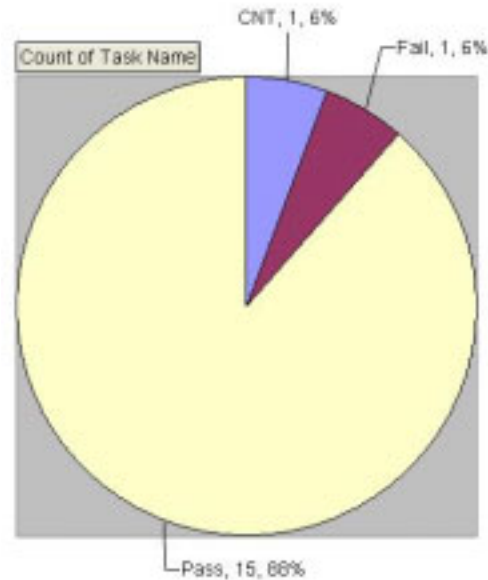


Figure 9 –Pie Chart with Values Displayed

9. The chart can be fully configured. For example, you might want to change the color and font of the data labels. Simply select the text of a label, then right-click and select **Format Data Labels.** Select the **Font** tab and then configure your font. The font will be changed for all the data labels on the chart. Many items on the chart can be configured, but the point here is that you can create a very useful and appealing default chart without much work. These charts and reports can be used to email, copy into documents, and use in presentations such as Microsoft PowerPoint just to name a few. I am sure you will not have trouble finding uses for them now that you know how easy it is to track extra data about your tasks and analyze it.

CONCLUSION

Automating or semi-automating some of your day-to-day tasks is not normally difficult, nor is it typically rocket science once you have some ideas of how to get started. I hope you can use a few of the examples I have provided as a starting point for setting you on a thought process that will help you find easy and simple ways to improve your daily productivity.