Hands-On Program Management – An Unorthodox Approach

Three clients with one problem: ineffective program management

"In order to tackle problems of an increasingly complex and interconnected nature, we need to consider new methods of analysis, modeling and simulation. More importantly, we need to consider an alternative way of thinking"

Manuel Lima
Visual Complexity – Mapping Patterns of Information

Making Program Management More Challenging

Program management is inherently difficult, but it becomes even more challenging when confronted with ineffective program modeling, performance monitoring, or reporting. Often, the supporting project governance processes, project team communications, performance reporting, and enterprise project management (EPM) tools informing program management prove to be complicated and challenging to use in any number of ways, such as:

- Inadequate management. Using a hands-off approach, depending on incomplete EPM data, or relying on "bottoms up" project performance data delivery from project managers impairs the program manager's ability to manage the program effectively.
- Insufficient communication. It's common for program and project manager communications to be infrequent or ineffective, limiting the collection of reliable project performance data from project managers.
- Imperfect technology. Many organizations lack EPM tools or rely upon overly complex or poorly implemented tools, creating little or no reliable performance data or status reporting to inform the program management process.

Three Client Situations Crying Out for Solutions

Three client engagements present excellent illustrations of situations in which unconventional methods were used to address deficiencies in program management, significantly simplifying, communicating, and more clearly visualizing program performance:

- $40 Million Infrastructure Rebuild Program. A $24 billion consumer products company instituted a program to rebuild its infrastructure. The company had poorly implemented an overly complex EPM tool, impairing access to relevant project and program performance information. While the EPM system collected time reporting/tracking data for financial purposes, the system proved ineffective for complex program management.
- $30 Million Healthcare Company PMO Buildout. A $30 million healthcare company providing testing services for employers and health plans lacked project governance processes, resources, reporting capabilities, and project

management tools. The organization faced an urgent need to build and staff a formal PMO operation from scratch, as well as to access performance/status insight about critical in-flight projects.

- $22 Million CPG Company Infrastructure Refresh Monitoring. A $26 billion CPG company with a $22 million annual infrastructure refresh budget lacked a practical approach for monitoring and reporting on the status of critical deliverables from multiple programs and nearly 50 projects. Weekly status meetings tracking key deliverables from network hardware, server hardware upgrades, and supporting cabling projects quickly became unnecessarily complex, time-consuming, and ineffective.

A program manager-led solution

Three completely different problems, each involving unique challenges. One client lacked an effective EPM tool to collect and report project data; another grappled with an overly complex EPM implementation. For the third, a bottom-up approach to collecting and reporting relevant project data had failed. In all three cases, relevant performance data needed to understand and manage programs wasn't readily available.

While solving the problems involved a variety of actions, all three solutions were built around an unorthodox program management approach. The key program management elements of the solutions are described in the next several sections. They were applied through a program manager-led, top-down approach that leveraged simple data collection, collaborative communications, simplistic project management tools usage, and program performance visualization.

Top-Down Driven Program Management Data Collection

> *"Small data is big data in disguise."*
> **Brian Christian**
> **Algorithms to Live By: The Computer Science of Human Decisions**

The top-down program management approach leverages limited (but critical) project-level data. Each week, the program manager collected changes from project managers to the following data points:

- Project start/finish dates
- Estimated project completion percentage
- Project status (e.g. red, yellow, green, on-time, or delay anticipated)
- Known project risks/issues

While other project issues were often discussed, this approach focused on collecting that minimum, mandatory reportable data and assigned the responsibility for enforcing accurate and timely data collection to the program manager. Just as important, project managers were empowered to provide accurate project information with no self-incrimination.

Collaborative Project Team Driven Communications

"Technology can do amazing things, but when a human being has a particular question or a problem, the simplest and most satisfying way to resolve it is usually person to person."

Alan Siegel
Simple – Conquering the Crisis of Complexity

Ongoing direct communication between the program manager and project managers was critical. This collaboration involved both formal and informal conversations and occurred at minimum through weekly one-on-one discussions revolving around critical project data.

Simplistic Data Collection / Project Management Tool Usage

The program manager leveraged a software tool to collect data from the project managers, monitor progress, and report program performance. Of the many tools available for these purposes, the program manager opted to use Microsoft Project (MSP) as a standalone solution for all three clients, rather than using EPM software such as Microsoft Project Online and Primavera. The program manager's use of MSP focused on these high-level tasks:

Single Project File / Task Tracking

For simplicity, each entire program was monitored within a single MSP file, with each project within the program represented by a single MSP task.

Key Project Data Collection

The most basic data was collected for each task (again, each depicting a single project), including:

- Project start/finish dates
- Estimated project completion percentage
- Project status (e.g. red, yellow, green)
- Interdependencies with other program projects (e.g. predecessor or successor projects)

Additional data was collected and reported for each project:

- Project team resources and percent utilization (e.g. project manager, software developers, QA analyst)
- Project expenses (e.g. hardware, software, internal labor, contracting expenses)

Program Modeling / Forecasting

The simplistic single file/task approach and the collection of crucial data-supported effective program modeling and reporting, accomplishing several objectives:

- Program Timeline Roadmap. Leveraging MSP project dependencies (e.g., MSP task predecessor, successor fields) allowed for modeling a timeline for an overall program.
- Program Budget Modeling/Forecast. Easily created custom fields such as personnel, software, hardware, and consulting expenses were used to track and forecast project/program expenses. As a bonus, adding expenses for ongoing IT operations as a single project line item for a year made it possible to model both the program budget and the IT department's annual budget.
- Program Resource Forecasting. Adding all project team resources (project manager, business analyst, quality assurance, software developers, etc.) to a project, and applying the percent utilization for each generated a resource forecast for the program. Incorporating hourly wages for each resource created accurate forecasts of program personnel costs. This approach made it possible to perform resource leveling for an entire IT department by adding resources for ongoing operations as a single project line item for a year.

Multiple Methodologies Supported

Because projects are tracked at the highest level, program monitoring and reporting can work with waterfall, agile, or hybrid project methodologies.

Effective Program Reporting

Using MSP, monitoring performance at the highest level of each project, and leveraging existing reporting functionality within MSP allowed for more effective program reporting.

Enterprise Program Management Tool Value

It's important to note some points about using standalone software to monitor and report program performance:

- MSP is not meant to replace any EPM application used by an organization.
- Independent MSP use by the program manager helps to validate program performance data provided separately by an EPM or financial system.
- Standalone MSP use forces the program manager to take a hands-on approach to program management.
- MSP usage is invaluable when a company lacks or has poorly implemented an EPM tool.

Correctly implemented EPM tools can help companies solve many program management challenges. Even when sound EPM tools are available, top-down-driven program management, simplicity of critical data collection, and project team collaboration to collect essential data remain valid.

Simplistic Visualizations and Reporting

"Once we stumble across the right vision of complexity, it will take little to bring it to fruition."

Albert-László Barabási

Linked – How Everything Is Connected to Everything Else

The program manager used MSP's default reporting capabilities to create single-page status summaries of program performance for each client. These one-page visuals were invaluable for group program performance discussions. The approach proved successful for a client when the PMO was not operational and no EPM tool was available. It also benefited the client whose EPM had been poorly implemented and was too complex for practical use.

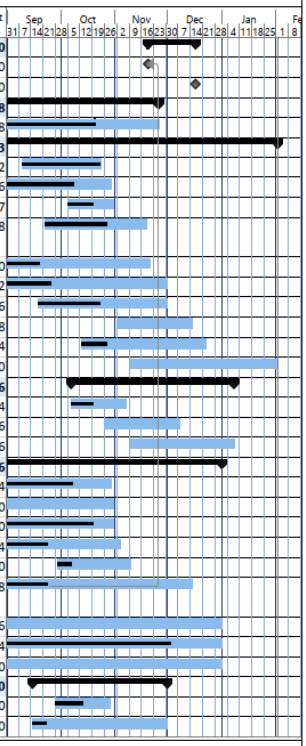
Microsoft Project > OnePager Pro Visual Examples

A single MSP file generated the following visual, depicting all active project activity for a healthcare company that had just begun to build out its PMO and governance processes. The document helped the organization gain oversight and control its project activity. The first, more-detailed visual was primarily used by the program manager, project managers, and project team for weekly status discussions. The second is a more simplistic view of program activity generated using an MSP add-on application known as OnePager Pro that was used for executive management program reporting and discussions.

Healthcare Company Active Project List

12/29

Project #	Project Status	Project Name	Start	Finish	Duration	%	Project Manager	Personnel Costs	Total Project Cost
		BASE Release Schedule	**12/17**	**11/19**	**19d**	**0%**		**$0**	**$0**
129		BASE Release - 03.05.07-00	11/19/20	11/19/20	0 days	0%	Scrum Master	$0	$0
132		BASE Release - 03.05.08-00	12/17/20	12/17/20	0 days	0%	Scrum Master	$0	$0
		Platform Project	**5/27**	**11/25**	**131d**	**80%**		**$34,584**	**$301,088**
78		Healthcare Database Implementation	5/27/20	11/25/20	131 days	80%	Scrum Master	$34,584	$301,088
		Integration Project	**7/13**	**11/20**	**146d**	**41%**		**$345,993**	**$466,993**
121		Hepatitis C Test Implementation	9/9/20	10/23/20	33 days	99%	Tiffany Smith	$20,592	$27,592
96		API Bulk-Ship Deployment	7/13/20	10/29/20	79 days	80%	Drew Wilson	$58,776	$58,776
135		Multiple Lab Integration	10/5/20	10/30/20	20 days	54%	Tiffany Smith	$5,187	$6,187
128		HL7 Request-Channel Collection Date Mirth Import	9/22/20	11/18/20	42 days	60%	Drew Wilson	$19,908	$27,408
72		DX Lab Integration	8/31/20	11/20/20	60 days	25%	Tiffany Smith	$49,680	$57,180
122		Assurance Scientific Lab Integration	8/26/20	11/30/20	69 days	32%	Tiffany Smith	$65,412	$72,412
127		API Production Migration Testing	9/18/20	11/30/20	52 days	49%	Drew Wilson	$33,696	$33,696
134		API Secondary Production Migration Testi	11/2/20	12/14/20	31 days	0%	Drew Wilson	$16,368	$16,368
133		Five Pack Panel Test Implementation	10/13/20	12/22/20	51 days	20%	Tiffany Smith	$42,534	$63,534
101		Centralized Integration-Phase 2	11/10/20	2/1/21	60 days	0%	George Burdell	$33,840	$103,840
		Analytics Project	**10/7**	**11/6**	**67d**	**8%**		**$41,856**	**$41,856**
131		Lab Transaction Dashboard	10/7/20	11/6/20	23 days	35%	George Burdell	$13,524	$13,524
136		BASE to ODS Reporting Change	10/26/20	12/7/20	31 days	0%	Wes Blade	$18,786	$18,786
67		2020 Clinical Lab Report Update	11/10/20	1/7/21	43 days	0%	Scrum Master	$9,546	$9,546
		Infrastructure Project	**3/2**	**11/9**	**219d**	**61%**		**$448,426**	**$660,046**
77		Fulfillment / Eligibility Services Phase 1	5/18/20	10/29/20	119 days	86%	Wes Blade	$59,604	$59,604
114		Profile Services - Kafka Implementation	8/3/20	10/30/20	65 days	30%	Wes Blade	$19,890	$19,890
116		Microsoft Project Online Implementation	8/3/20	10/30/20	65 days	85%	Rhanda Capers	$18,340	$34,930
83		Sage Intacct Implementation-Phase 2	7/24/20	11/3/20	73 days	60%	Scrum Master	$38,544	$123,984
124		Pentaho Environment Upgrade	9/29/20	11/9/20	30 days	20%	George Burdell	$12,600	$35,400
89		Salesforce Physician Approve All Functionality	6/15/20	12/14/20	131 days	55%	George Burdell	$135,978	$160,978
48		Vometric Data Encryption Implementation	3/17/20	12/31/20	208 days	50%	George Burdell	$89,856	$151,646
59		Microsoft Intune Security Tool Deploymer	3/2/20	12/31/20	219 days	90%	Wes Blade	$60,444	$60,444
103		Managed File Transfer (MFT) Automation	6/19/20	12/31/20	140 days	30%	Wes Blade	$13,170	$13,170
		Software Development Project	**9/15**	**10/28**	**55d**	**22%**		**$90,660**	**$90,660**
130		Register Your Kit / Eligible Population	9/28/20	10/28/20	23 days	50%	Drew Wilson	$35,880	$35,880
94		BASE Fulfillment Decoupling Phase 2	9/15/20	11/30/20	55 days	10%	Drew Wilson	$54,780	$54,780



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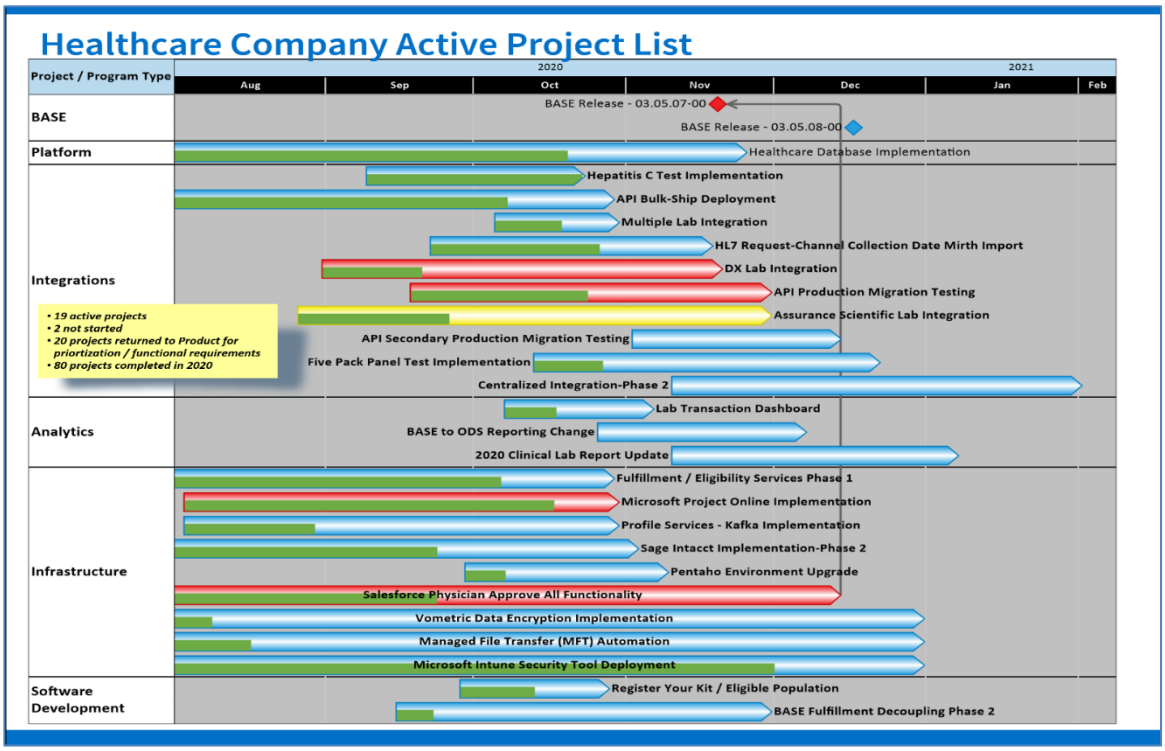
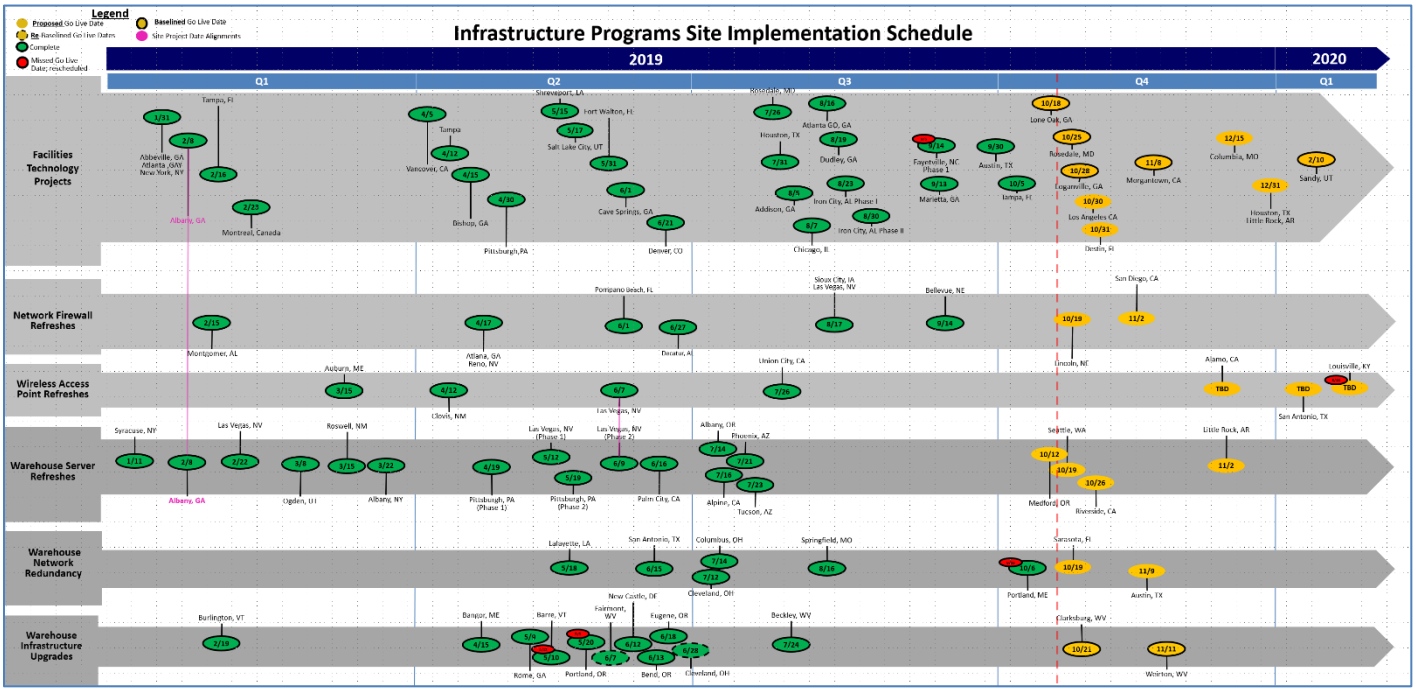


Microsoft PowerPoint Status Report Visual Example

Visual status reports such as these can be generated without MSP. The following is an example of a visual prepared in Microsoft PowerPoint. Such a visual created from MSP or EPM data focuses almost entirely on crucial deliverable dates and status. Other data such as project start and end dates was ignored. This visual report proved highly effective for informing weekly program status updates meetings with project and program participants.



The benefits of increased program manager responsibility

The unorthodox top-down approach described here complements any best practice approach to program management. It succeeds because it invests program managers with increasingly greater responsibility for:

- Collaborative and ongoing communications with project managers.
- Collection of the minimal data needed to monitor all projects within their program.
- Use of standalone project management tools where one is non-existent or poorly implemented.
- Simplistic project performance reporting, including high-level visualizations of the overall program.

To learn more about how this approach could streamline and simplify your company's technology program management efforts, reach out to BCS today at Dan.Smith@BCSinc.org.