QuiStain®able Business Solutions

UWE TECHT
PROJECTS THAT FLOW
More Projects in Less Time

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# Table of Contents

Acknowledgements ........................................................................................................ 11

1  **Introduction** ........................................................................................................ 13

2  **Management summary: More projects in less time** ........................................ 17
    2.1  Initial situation .................................................................................................. 17
    2.2  New approach for multi-project organizations .............................................. 22
    2.3  Challenges in the change process .................................................................... 26

Part 1  **Current Reality in Multi-project Organizations** ........................................ 29

3  **Unreliability and long delivery times** .............................................................. 31
    3.1  Damages through unreliability in project management .................................. 31
    3.2  The implications of long project lead times ................................................. 35
    3.3  Losses on internal projects ........................................................................... 35
    3.4  Are costs/specifications more “valuable” than time? .................................. 36
    3.5  Benefits and uses of improvement ................................................................ 37

4  **Variability, Murphy’s Law, and harmful management mechanisms** .................. 39

5  **WIP and resource allocation** ............................................................................. 43
    5.1  The matrix (resources/projects) ...................................................................... 43
    5.2  Scarce resources/efficient use ....................................................................... 44
    5.3  Fighting for resources ................................................................................... 50
    5.4  The resource manager’s pressure to decide ............................................... 53
    5.5  Bad multitasking ............................................................................................ 53
    5.6  Thinly spread resources ................................................................................ 54
    5.7  Desynchronization .......................................................................................... 57
    5.8  Lack of focus and multitasking in management and support functions .......... 59
    5.9  High WIP creates long project durations and high costs ............................. 61
    5.10 Immediate project launches ......................................................................... 63
    5.11 WIP vicious circle ......................................................................................... 64
    5.12 Poor preparation and mistakes ...................................................................... 66
    5.13 Ailing projects have priority ......................................................................... 69
### Table of Contents

12 **Managing WIP** ................................................................. 151  
   12.1 Staggering projects at the constraint ......................... 152  
   12.2 Management as a constraint ..................................... 155  
   12.3 Virtual Drum ............................................................. 163  
   12.4 Benefits ................................................................. 167  
   12.5 Summary ............................................................... 171  
13 **Planning explicit safety buffers** .................................... 177  
   13.1 Bundling safety buffers ........................................... 179  
   13.2 Relay runner principle ............................................ 180  
   13.3 How much safety buffer? ........................................ 181  
   13.4 Project and integration buffer .................................. 181  
   13.5 An aside: Critical path and critical chain .................. 182  
   13.6 In practice ............................................................. 184  
   13.7 Summary ............................................................... 185  
14 **Operational management with robust and synchronized tactical priorities** .................................................. 187  
   14.1 The necessity of tactical priorities .............................. 187  
   14.2 Requirements for tactical priorities ........................... 190  
   14.3 Identifying tactical priorities .................................... 191  
   14.4 Task management ................................................... 197  
   14.5 Project management ............................................... 201  
   14.6 Effects on atmosphere and working relationships ....... 206  
   14.7 Top management intervention ................................. 206  
   14.8 Project status ......................................................... 208  
   14.9 Warnings and cautions .......................................... 211  
   14.10 Summary ............................................................. 212  
15 **PROJECTSFLOW®—Summary** ......................................... 217  
16 **Worksheets and templates** .............................................. 225  
   16.1 Cause & effect .......................................................... 225  
   16.2 Resolved operation and decision conflicts .................. 233  
   16.3 Benefits ................................................................. 244  
   16.4 Negative side effects .............................................. 245  
   16.5 Obstacles/stumbling blocks during implementation ...... 245
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Introduction: Transformation</td>
<td>249</td>
</tr>
<tr>
<td>18</td>
<td>From a conventionally run to a high-performance organization</td>
<td>253</td>
</tr>
<tr>
<td>19</td>
<td>Phase 1: Reducing WIP</td>
<td>261-292</td>
</tr>
<tr>
<td></td>
<td>Step 1.1: Freezing projects</td>
<td>266</td>
</tr>
<tr>
<td></td>
<td>Step 1.2: Accelerating projects</td>
<td>274</td>
</tr>
<tr>
<td></td>
<td>Step 1.3: Defrosting projects</td>
<td>280</td>
</tr>
<tr>
<td></td>
<td>Step 1.4: Starting new projects</td>
<td>285</td>
</tr>
<tr>
<td></td>
<td>Phase 1 Summary</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>292</td>
</tr>
<tr>
<td>20</td>
<td>Phase 2: Good Preparation</td>
<td>293-309</td>
</tr>
<tr>
<td></td>
<td>Step 2.1: Thoroughly prepare active projects</td>
<td>297</td>
</tr>
<tr>
<td></td>
<td>Step 2.2: Defining good preparation</td>
<td>303</td>
</tr>
<tr>
<td></td>
<td>Step 2.3: Dealing with worried clients</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>Phase 2 Summary</td>
<td>307</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>309</td>
</tr>
<tr>
<td>21</td>
<td>Phase 3: Transforming Planning</td>
<td>311-336</td>
</tr>
<tr>
<td></td>
<td>Step 3.1: Creating project network plans</td>
<td>313</td>
</tr>
<tr>
<td></td>
<td>Step 3.2: Explicit safety buffers, critical chain</td>
<td>323</td>
</tr>
<tr>
<td></td>
<td>Step 3.3: Staggering projects</td>
<td>328</td>
</tr>
<tr>
<td></td>
<td>Step 3.4: Integrating new projects</td>
<td>332</td>
</tr>
<tr>
<td></td>
<td>Phase 3 Summary</td>
<td>334</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>336</td>
</tr>
<tr>
<td>22</td>
<td>Phase 4: Transforming management</td>
<td>339-363</td>
</tr>
<tr>
<td></td>
<td>Step 4.1 Progress reporting</td>
<td>342</td>
</tr>
<tr>
<td></td>
<td>Step 4.2: Task management</td>
<td>348</td>
</tr>
<tr>
<td></td>
<td>Step 4.3: Project management</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>Step 4.4: Top management</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Step 4.5: Adjusting speed</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>Phase 4 Summary</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>363</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Phase 5: Clients and suppliers</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>23.1 Step 5.1: Mitigating and reducing harmful client influences</td>
<td>366</td>
<td></td>
</tr>
<tr>
<td>23.2 Step 5.2: Outsourced sub-projects</td>
<td>368</td>
<td></td>
</tr>
<tr>
<td>23.3 Step 5.3: Fast and reliable suppliers</td>
<td>371</td>
<td></td>
</tr>
<tr>
<td>23.4 Phase 5 Summary</td>
<td>373</td>
<td></td>
</tr>
<tr>
<td>23.5 Conclusion</td>
<td>374</td>
<td></td>
</tr>
<tr>
<td>Phase 6: Increasing capacity</td>
<td>375</td>
<td></td>
</tr>
<tr>
<td>24.1 Step 6.1: Improving processes</td>
<td>380</td>
<td></td>
</tr>
<tr>
<td>24.2 Step 6.2: Developing resources</td>
<td>386</td>
<td></td>
</tr>
<tr>
<td>24.3 Step 6.3: Sprint</td>
<td>389</td>
<td></td>
</tr>
<tr>
<td>24.4 Phase 6 Summary</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>24.5 Conclusion</td>
<td>394</td>
<td></td>
</tr>
<tr>
<td>Transformation process—Summary</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td>Phase 6: Increasing capacity</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>QuiStainable Change</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>26.1 Resistance to change</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>26.2 Requirements for significant improvement initiatives</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>26.3 WIP improvement</td>
<td>402</td>
<td></td>
</tr>
<tr>
<td>26.4 High speed implementation</td>
<td>403</td>
<td></td>
</tr>
<tr>
<td>Summary and Outlook</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>409</td>
<td></td>
</tr>
<tr>
<td>28.1 Reference list</td>
<td>409</td>
<td></td>
</tr>
<tr>
<td>28.1 Further reading</td>
<td>409</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>411</td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgements

With the founding and development of the Theory of Constraints and Critical Chain Project Management, Dr. Eliyahu M. has put down the basis for my reflections and explanations.

Sanjeev Gupta and his team from Realization Technologies Inc. have repeatedly distilled and passed on the extensive experiences they have collected across the globe.

Jaideep Srivastav has allowed me deep insights into the dynamics of change processes.

Dr. Georg Angermeier has offered me helpful advice with many of my articles to ensure a reader-focused structure.

Claudia Simon, Jens-Oliver Schumacher, and Gerhard Stix have assisted me with the early versions of texts found in this book.

Rudolf G. Burkhard, Franz Nowak, and Wolfram Müller have always provided thoughtful feedback on my presentations and articles.

Claudia Simon and the VISTEM office team have supported me in every phase of the creation of this book, through many ups and downs.

My heartfelt thanks to all of them.

Uwe Techt
März 2015
1 Introduction

Projects can go over budget, exceed deadlines, or deliver restricted features and quality. This can result in economic damage for companies and their clients.

The difficulties arise at source. Established metrics and management methods slow projects down by creating conflicts in operations and decision-making.

A radically new approach is needed; one that features:

- Simple, constraint-oriented management
- Clear, robust priorities
- Company-wide, rather than locally focused optimization
- A focus on speed, on ProjectsFlow®

Discover how you can:

- complete more projects with the same amount of resources;
- reliably deliver all projects to specs; and
- significantly shorten project lead times.

In Part 1, “The reality of a multi-project organization,” I describe the typical current situation of a multi-project organization, including:

- Typical problems experienced in project management, their impact, and potential benefits of improvements
- Interactions and cause-and-effect relationships

In Part 2, “The future of multi-project management,” you will find out under which conditions multi-project organizations can work much faster, more reliably, and more efficiently:
- Managing Work in Process, planning explicit security buffers, using operational priorities for control.
- The direction possible solutions could take, solution components, and their positive effects.
- Identifying potential negative side effects and ways to prevent them.

In **Part 3, “Transformation,”** I describe the path for change in detail:

- Obstacles and resistance during implementation
- Change process
- Project plan
- Necessary preparation: Unity in management

The integrated **study materials** (analytic questions, logic diagrams, checklists, etc.) help you tailor and apply the ideas to your organization’s specific situation, and to answer the following questions:

- Does the current situation of my organization correspond to the assumptions described here? (Symptoms, causes, cause-and-effect relationships)
- Can the described solution components significantly improve the performance of our multi-project organization?
- What impact will it have on the organization as a whole?
- How can I introduce the necessary changes to my colleagues, managers, and employees?
- What sort of resistance can I expect and how should I handle it?
- What are the negative side effects that could result from the changes? How can I/we prevent them?
- What implementation obstacles could arise? How can we get around them?
Introduction

The study materials are available for download at www.projectsflow.de.

If any questions should arise during your reading, please feel free to contact me at projectsflow@vistem.eu!
2 Management summary: More projects in less time
Reliability, flexibility, and high speed in the project business

2.1 Initial situation

Many project and multi-project organizations suffer from:

- their projects already taking far too long and being too costly on paper; and
- rarely being able to complete a project on time, within budget and fulfilling all specifications.

This fact has far-reaching consequences for the organization and its partners:

- Clients suffer material impact
- Suppliers find themselves under pressure
- Employees and executives are stressed
- Payments are late
- Returns and solvency decrease

Variability

One cause of delays, setbacks, and long project lead times is variability:

- It is impossible to know in advance how long a specific task is going to take and how complex and time-consuming it will be.
- Similarly, we cannot know in advance how many change requests the client will have and the consequences this will have on the project.
- Even with perfect planning it is possible to overlook something.

Processes taking longer than planned or additional tasks becoming necessary both lead to delays or higher costs. It is also common to make adjustments to the specifications to meet the promised deadline or budget.

A much bigger cause of unreliability, however, is the way organizations try to achieve reliability:

**Projects compete for resources**

Projects should be fast and reliable. This is why organizations employ project managers. Each project manager is solely responsible for his or her own project, not for that of colleagues or for the overall results of the organization. As a consequence, project managers compete for employees and other scarce resources.

This forces resource managers (department/team managers) to spread resources thinly and to employ bad multitasking, which multiplies project lead times. If delays are already the norm, project managers are forced to begin their projects as early as possible; only then are they allowed to take part in the fight for resources. Inevitably this increases “Work in Process.” A vicious circle!
Management Summary:
More projects in less time

Figure 1: WIP vicious circle

**Efficiency before effectiveness**

Resources must be used efficiently, i.e., used to their full capacity as much as possible. At the same time, the right resources need to be available for all projects. This is why an organization employs resource managers, who end up stuck between “increasing resources” (to be able to always service all projects) and “decreasing resources” (so resources are used to full capacity as much as possible).
The pressure to keep costs low usually exceeds the pressure to be reliable. Resource managers, therefore, tend to “decrease resources,” which, in turn increases the workload. The consequences are shown above.

**Parkinson’s Law**

Employees who are judged on their ability to keep deadlines will schedule personal safety buffers into their time to make sure they can deliver reliably. These safety buffers are used up during the project to ensure their time estimates are not cut in the future.

This is known as “Parkinson’s Law”: “Work expands to fill the time available for its completion.”

**Effects:**

- Nothing is ever completed early;
- Once a delay occurs, it is very hard to catch up again.
Consequently projects are usually completed late, are more expensive than estimated, or cannot fully deliver the agreed results.

Mechanisms and rules based on the paradigm of local optimization lead to departments and functions that have contradictory or competing targets. This results in suboptimal performance and an unsatisfying company culture.

Summary of the initial situation

Organizations have developed rules and procedures to make sure business goals are achieved despite uncertainty and Murphy’s Law. Many of these procedures are based on the paradigm of local optimization: “The optimization of parts automatically leads to the optimization of the whole”:

- Project managers have to compete for resources
- Resource managers must not have idle resources
- Employees must look out for themselves

Rules and procedures based on the paradigm of local optimization lead to departments and functions that have contradictory or competing targets. This results in suboptimal performances and an unsatisfying company culture.

*The term “Murphy’s Law” was coined by the American engineer Edward A. Murphy, Jr. It states that “Anything that can go wrong will go wrong.”*
2.2 New approach for multi-project organizations

Every manager knows it is possible to complete an individual project in a fraction of the normal time. To achieve this, all employees, managers, and even the top management must give the project (“Project A” hereafter) the highest priority throughout its existence and ensure it has all resources, support, and decision power it needs.

This will ensure that every task is completed in the shortest possible time, as:

- it will be supplied with all resources needed and not be interrupted by changing priorities;
- thanks to the optimal supply of resources and the uninterrupted working environment, we have circumstances that exist nowhere else in the business. Therefore, original time and effort estimates no longer apply (and may well be considerably undercut);
- the project receives any support it needs (from managers and other areas); it may also include incentives for suppliers to deliver more quickly.

In addition, there will be few, if any, waiting periods between tasks, since all necessary resources are always available (as long as they are not in use by another process within Project A).

The problem is, however, the clear preferential treatment of Project A happens at the expense of all other active projects, which will now be completed even later.
Despite this, this approach is used again and again. After a while, new A-Projects appear—putting us straight back to the initial situation.

The challenge for the management of a multi-project organization, then, is to create these “Project A working conditions” for every project if possible, without needing additional resources or otherwise increasing costs.

How is that possible?

**Reducing workload**

Thin distribution of resources, dangerous multitasking, desynchronization, and defocusing result when active projects get in the way of each other. This happens if the workload (Work in Process, WIP) is too high, i.e., there are more active projects than the organization can handle without the projects interfering with each other.

To achieve a significant improvement, the organization must reduce the WIP to a reasonable level and ensure that this reduced WIP level is maintained.

As a first step, part of the projects will be frozen, which accelerates the completion of the non-frozen projects. The frozen projects will then be gradually “defrosted” in a controlled manner. After this, new projects are started in a way that ensures the WIP does not start flooding the system again.

To do this, projects will be staggered according to their strategic priority at the organization’s constraint; the constraint is what limits the organization’s output anyway.
Experience shows that a 25% decrease in WIP increases the performance of a business by at least 20%. With increased performance, all projects—including the temporarily frozen ones—will be completed sooner.

<table>
<thead>
<tr>
<th>Example:</th>
<th>WIP</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial situation</td>
<td>40 Projects</td>
<td>5 Projects / Month</td>
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<tr>
<td>Change</td>
<td>- 25%</td>
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</tr>
<tr>
<td>Effect</td>
<td>30 Projects</td>
<td>6 Projects / Month (= + 20%)</td>
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Table 1: Reduced WIP leads to increased performance

**Relay runner principle and explicit safety buffers**

In project management, safety buffers are—due to variability and Murphy’s Law—necessary; without safety buffers no project can be remotely reliable. If employees are judged on their individual ability to keep deadlines, they (and their managers) will add a safety buffer to their time estimates and will make sure to use them up (Parkinson’s Law). Thus, employees appear to be working reliably, and yet projects are longer than necessary on paper and still unreliable.

To significantly improve performance, the organization implements procedures that focus on completing each task as quickly as possible once begun. To this end:
Management Summary:
More projects in less time

• management convinces employees that they are no longer judged on their individual ability to keep deadlines; and
• the organization plans project tasks without individual safety buffers and instead adds explicit buffers for the whole project in a bundle at the end.

Experience shows that these procedures quickly result in the following:

• Planned project durations are reduced by at least 25%.
• The new reduced project lead time is generally achieved (when previously even the longer project durations were mostly overrun).

Synchronized operational priorities

Variability and Murphy’s Law ensure that things rarely happen as planned. Even with reduced WIP, projects (and project managers) will repeatedly compete for resources and management attention. Once again the threat of thinly distributed resources and multitasking arises.

To improve performance, the organization (via an appropriate system) provides resources and all management roles (resource, project, and general management) with clear, robust, and synchronized operational priorities.

These priorities result in:

• Resource managers start project tasks in the order that is right for the business, allocate all necessary resources to the project, and protect employees from interruptions that induce multitasking.
• Project managers concentrate on preparing project tasks that have not yet started and support resources with the
execution of active tasks; they no longer try to interrupt resources working on other projects (as this will now have negative repercussions for them).

- Senior managers stay out of project implementation, unless their help can significantly increase the speed of the project. If many projects require their attention, they know which one has priority and which projects have to wait.

These operational priorities are determined on an ongoing basis, based on the relation between the progress of the project and how much of its safety buffer is used up; this is an objective value that does not rely on the “gut feeling” of the project manager.

Extensive experience shows that with this approach:

- thin spread of resources and dangerous multitasking are mostly eliminated;
- friction losses are dramatically reduced, while an atmosphere of collaboration emerges;
- the need to determine which project has priority disappears, which vastly reduces time lost in meetings; and
- the same resources can finish considerably more projects.

### 2.3 Challenges in the change process

The necessary changes in the planning and management of the portfolio are based on “common sense.” Therefore, it usually is not very difficult to obtain active collaboration from managers and employees.

A major reservation that employees and lower management tend to have is lack of trust; they do not believe that senior management will permanently stick to these changes. Managers can only refute this—often justified—preconception by practicing what they preach.
The true challenge of change, however, lies in the danger resulting from its success:

Employees and managers quickly realize that change leads to a significantly increased capacity. They then ask, justifiably, how this extra capacity is going to be used. Management has to find a convincing answer to this question and take the required actions (e.g., through sales).
PROJECTS THAT FLOW
More Projects in Less Time

Projects can go over budget, exceed deadlines, or deliver restricted features and quality. This can result in economic damage for companies and their clients. The difficulties arise at source. Established metrics and management methods slow projects down by creating conflicts in operations and decision-making. A radically new approach is needed; one that features

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Discover how you can:

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- significantly shorten project lead times.

PROJECTS that FLOW
Part 1: Current Reality in Multi-project Organizations
Part 2: The Future in Multi-project Management
Part 3: Transformation – The Path to ProjectsFlow®

Uwe Techt is the managing director of VISTEM and is considered a pioneer and expert in the application of the theory of constraints and critical-chain project management. He is a well-known speaker, author of books and specialist articles, as well as top management coach and strategic thinker.

ISBN: 978-3-8382-0699-8

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