Join the Construction Project Management Profession

The Essentials of Construction Project Management course is designed for people who want to learn the basics to successfully manage small to medium-sized construction projects. You don’t need any prior project management experience. You'll learn skills to launch your construction project manager career and increase your salary.

How the Course Works

In this instructor-led online course, you will study with world-class materials and master practical skills, not academic theories. You’ll read your e-textbook that describes all the tools and techniques and shows you examples of how to use them. You’ll watch high definition lecture videos and then practice on a construction project case study so you become confident in using what you are learning. You will also master project management software tools and get templates you can use for your projects at work.

You begin the course whenever you wish and study from anywhere in the world. You set your own pace and schedule. You may take up to one year from enrollment to complete the course.

Work with Your Instructor

Through the entire Essentials of Construction Project Management course, you will work individually with your PMP-certified instructor over the Internet, by telephone and in video conferences. You have the option of giving presentations in online video simulations. They are just you and your instructor so you can practice your communication and presentation skills. Your instructor will send you a video of your session with their comments and suggestions for improving your skills.
Master the Skills to:

Create and Present a Plan
Build a Schedule in MS Project
Make Clear Assignments
Track and Report Progress
Spot and Solve Problems
Give Persuasive Presentations
Answer Questions Effectively

**DEVELOP PM SKILLS**

**PRACTICE IN SIMULATIONS**
You will work on a construction project case study and practice every tool and technique. The assignments include running a planning meeting with the project owner/boss, gathering requirements, creating a work breakdown structure, developing a schedule, making assignments to the crews, tracking and reporting progress and presenting a status report with suggestions for corrective action.

**ENHANCE YOUR COMMUNICATIONS**
Effective communication is a key skill for every successful construction project manager. If your presentations are not persuasive and professionally delivered, your credibility as a project manager suffers.

Three assignments in the Essentials of Construction Project Management course include preparing a presentation that you may deliver in our live online conference center, if you wish. It’s a private session, just you and your instructor, and you get feedback and coaching on your presentation techniques and assignment content.

These optional sessions are filmed and you’ll receive a video of your presentation so you can review your instructor’s comments about your body language, eye contact, gestures, use of visual aids, etc.

**PERSONAL INSTRUCTION**
You study whenever you want. Your instructor is available by phone or email if you have questions about using a tool or technique. They give you written feedback on all your case study assignments. You may also practice these techniques in live, online meetings. Your instructor plays the role of the project owner or boss and asks you the kind of questions they ask project managers.

You get templates to use in your “real” construction projects. And your instructor will give you 1 year of ongoing coaching & advice about using these techniques.

**SPECIFICATIONS**

For Beginning PMs
30 Hours of Work
Use a PC, Mac or iPad
Study When You Want
Study From Anywhere
Take up to 1 Year

PMI Registered Education Provider
#1147

Earns 30 Contact Hours

4PM.com
3547 S. Ivanhoe St.
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Learning the Basic Tools and Techniques of
Construction Project Management

Getting Started
Our fax number is (303) 845-9145. Our e-mail is
studentservices@4pm.com

When we receive your signed license agreement, we'll send your
username and password so you can access all the material on the course
website, including lectures, supplemental reading and the
student library with hundreds of
articles, videos and graphics.

Course requirements
✦ The free Adobe Flash Player
version 10 or later.
✦ The free Adobe Reader 9.2 or
later.
✦ Microsoft Excel or Apple Numbers
for the course template.
✦ Microsoft Project or Gannter, a free
web-based project management
software. We will set you up with
access to Gannter if you do not
have Microsoft Project.
✦ Microsoft Power Point or Apple
Keynote for your live presentations.
✦ You will also need a web camera
for your live presentations.
✦ The following textbooks are also
required for your course:

 Essentials of Construction Project
Management, by Dick Billows, PMP,
GCA, electronic book (e-book,
included with course)
✦ Power Points! How to Design & Deliver
Presentations that Sizzle available on
www.amazon.com as an electronic

Learning Objectives:
Working with your personal
instructor, you will learn all the steps
in the project lifecycle. We will
begin with planning and scheduling
and go all the way through
executing, tracking and status
reporting.

You'll practice each of these steps on
a project case study and receive
written feedback on your work.
Your instructor will ask you to
correct or improve any assignment
that is not at a professional level.
You can ask your instructor
questions whenever you wish via e-
mail or request a phone call. You

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800-942-4323
will receive a response within 24 hours.

Course Process:
Each of the modules in the course has a reading assignment in your textbook(s), a lecture video on the course website, and an assignment, which you complete and send to your instructor via e-mail. You will also work with your instructor to prepare presentations for the owner/boss. You have completed your course when you score 80% or higher on the final exam. The course requires approximately 30 hours of effort for the reading, lectures, case study assignments, and final exam. You have one year from enrollment to complete the course.

Grading Criteria:
To pass the course, you must earn a grade of B or better on each of your assignments and the one-hour final exam. To earn Project Management Institute (PMI) credits for this course, your final exam must be proctored. The proctor can be your organizational superior, a licensed professional attorney or certified public accountant.

Learning Materials
This textbook contains detailed information on all the techniques covered in the course from meeting with project sponsors and team members to building your project schedule in MS Project®. You can highlight text & write notes in the textbook and in the lecture notes. Use the “Sticky Note” and “Highlight” tools in the latest version of Adobe Reader.

Course Lectures-Streaming Media
Each of the 10 modules has a lecture by Dick Billows PMP, GCA that is about 30 minutes long and expands on the techniques you read about in the textbook. Our server constantly monitors your available bandwidth and chooses from four different versions of the course lectures depending on your available bandwidth. The high-definition video requires the most bandwidth and requires a connection at cable TV speed or higher. The lowest quality video requires the least bandwidth and connection speeds slightly faster than a dial-up Internet connection.

Project Simulations & Live Presentations
Some of the simulations are done with email and can be done live over the Internet via web cam. These optional live project simulations are private, just you and your instructor. In each of these simulations, you will play the role of the project manager and your
instructor will play the sponsor and stakeholders. You will use a web camera in the live sessions to record them. Your instructor will send you a copy with their feedback on your speaking and presentation techniques.

You will need to buy a web camera if one is not built into your PC.

You will need an Ethernet or cable company internet connection. You will not be able to use the internet connection provided by a cell phone carrier such as Sprint or Verizon. They will not deliver a quality video, because these connections are not continuous.

**Project Manager in Action Videos**

These videos of a project manager and team show you real-life situations, the wrong way and the right way for project managers to interact with executives and their team members.

**Syllabus: Case Study Assignments**

It is best if you read the entire Essentials textbook when you begin the course. Then for each module go back and re-read the indicated section for each assignment.

**Module 1 - Broadbrush Plan: Scope Definition**

- Read to page 11, up to "Technique #2 Requirements & High-level Achievement Network" in the Essentials of Project Management e-book.
- Watch the Module 1 lecture on the course website (or from your eBook)
- Watch the video called “Vailcrest Corporation Executives” to familiarize yourself with the organization and the people you will work with and the people on your team.
- Watch the Project Manager in Action video about scope planning on the Breckenridge Expansion project.
- Read the Vailcrest Project Simulation Part One below.
- After reading the case study, use Tab #1 “Project Scope” in your course template to write your notes on the key points about the project the president wants you to manage. Add notes about the questions you need to ask Dan Morton to define the scope and major deliverables. Then send an email to control@4pm.com with your Excel template attached and suggest a couple of days/times if you want to do a live meeting with your instructor. The meeting should take about 15 minutes.
- Your instructor will send feedback on your questions and accept one
of the times you proposed or suggest another.

You will continue the earlier discussion in the case study, and ask Dan Morton your questions to define the project scope and 4-5 major deliverables that lead to it. Your instructor will respond to your questions, playing the role of Dan Morton. When Dan agrees to the scope and the major deliverables, the simulated meeting is over. After the session, your instructor will send you a transcript and give you feedback on how you did in the meeting. Your final step is to enter the scope and major deliverables into your course template on Tab #1 “Project Scope.”

**Vailcrest Simulation Part One - New Customer**

You looked up the Vail ski mountain and then hopped into the slowly moving Vail gondola. You were a little nervous about two things: slipping as you jumped and starting your new job as construction project manager with Vailcrest Corporation.

As the gondola started its climb from Vail village up to the top of the 11,000-foot ski mountain and the company headquarters, you noticed the four other riders all wore blue polo shirts with a yellow “Vailcrest Lodge” logo. It was going to be interesting to ride a gondola to work every day.

Vailcrest offered surgical & medical treatment for professional and serious amateur athletes as well as an elegant hotel with three restaurants and a full spa. The staff of 420 was composed of physicians, therapists and exercise technicians as well as hotel and restaurant employees who catered to the 320 guests the facility could house each night.

As the gondola crested the top of the mountain, you glanced at your watch and saw you would easily be on time for your meeting with Dan Morton, the President of Vailcrest Corp. You’d met Dan during the interview and were impressed that one individual possessed such strong skills. Dan was a former Olympic skier who had founded Vailcrest when his downhill racing days were over. In the distance, you spotted the elegant 4-story lodge that occupied most of the mountaintop. The company, you had discovered, had a worldwide reputation for athletic rehab and resort vacation luxury.

During the interview, Dan had explained that the organization repeatedly failed at its projects. That was his reason for hiring you as project manager. You’d accepted the position with a big increase in salary and were now ready to get started at your new job. It would let you use both your project management and technical skills.

You walked into the main entrance of the grey stone headquarters of Vailcrest. The front desk receptionist’s name tag read “Joyce” and she had black hair, a
deep tan and bulging muscles in her legs and shoulders. She looked like a downhill racer and a good one at that. Joyce recognized you from your previous visits, gave you your ID badge and said, "Welcome on board. I'm sure you remember where Dan's office is." She smiled and then added, "Your meeting with him starts in just a couple of minutes."

You smiled a thank you and hurried down the hall, turning into Dan's office and hearing the pounding of running feet. Dan Morton was on his office treadmill, running at full-speed. A superbly fit man with short brown hair, the company president was in his mid-40s and was a picture-perfect example of lean physical fitness. Red-faced and sweating, Dan switched off the treadmill and gasped, "I can't tell you how excited I am to have a professional project manager working with us. We'll get more done in the next six months than we have in the last three years!"

You nodded and Dan stepped off the grey treadmill saying, "I want you to get started immediately on our new project and be done before ski season. The project is a big one and I want it done right! We are going to turn around the whole organization! That's why I hired you! The heart of the problem is that service screw-ups are killing us. Dr. Horst Buckholtz's therapists and physicians are late or no-shows for patient appointments. Martha Hobson's people don't have a table or a private dining room ready when a party of 15 shows up for dinner. Martha's hotel people often have to tell guests trying to check in that we lost their reservation and have no rooms for them."

Dan shook his head sadly, "Everybody points fingers at other departments and complains how we have outgrown our facility, systems and processes. They're right; we have grown too fast. But I don't want everybody going off on their own to fix things. I want an integrated effort, where we do what we have to do to fix the problems and no more. I've been keeping track and last week we averaged 61 screw-ups a day, which is awful if you have 5,000 guests but we only had 300. The clinic averaged 19 screw-ups a day, the hotel and the restaurant had 42. So 1 out of 6 guests had a screw-up each day! I spend most of my days apologizing. Every division has to improve, the problem is not just the Reservations Department or the outdated facility or the systems. Sure, everyone needs to know what reservations we have and the data has to be up to date and accurate. Now the data is often incomplete and days old. But even with better reservation data, Martha and Horst have to improve their scheduling, facilities and equipment to meet those reservations. Some departments need more office space or additional treatment rooms and most need new systems to get better.

I know construction is your area. I want you to run the whole project, not just build stuff. Hire experts in the areas you don't know. You manage it all and the pieces need to fit together. On the facilities side of things, we don't have a proper computer room for our hardware and the reservations people work in..."
what used to be a storage shed. Their space is so crowded it’s no wonder they can’t do a good job. On top of that, the gondola noise is so loud they can’t hear people on the phone trying to reserve rooms. That all has to be remodeled.

Dan turned away, staring out the window and said, “I’ve scheduled meetings for you with each of our executives tomorrow morning so you can get started fast! I want this finished in two months at the very latest. Will that be a problem? Can you give me a personal commitment that it will be fixed by then?”

You frowned at the idea of committing at this point and Dan nodded acknowledgement and said with a smile, “Think about all this. I had an appointment 5 minutes ago so I have to go. We’ll talk some more in an hour but I want to hold each of the VPs accountable for improvements in their areas.”

You nodded and said, “As you said, some of this is outside my area.”

Dan quickly dried his hair and said, “I know you can’t be the technical expert on everything. Remember, I hired you to manage people and contractors and drive the project; not do all the work. I want you to plan and track progress on an integrated effort. Manage the stuff in your area and hire people to do the rest along with our people.”

Then he hurried out and you sat right there and reviewed your notes on all that Dan had said. Next, you wrote out the questions you needed to ask when you got back together.

Send your meeting notes with questions for Dan in the course template to your instructor with suggestions for a couple of meeting times.

Module 2 - Requirements Gathering

♦ Watch the lecture on module 2 on the course website.
♦ Watch the Project Manager in Action video about gathering requirements for the Breckenridge Project.
♦ Read part 2 of the Vailcrest Project Simulation below.
♦ Watch the Vailcrest Executives’ Deliverables Discussion video. Then ask any questions you wish of these Vailcrest executives via email to control@4pm.com.
♦ Using the information you receive back from the executives, decompose each high level deliverable from assignment #1 into 3-4 supporting achievements in your Excel template on tab #2, “Deliverable.” Send the template to your instructor for feedback and coaching.

Vailcrest Simulation Part 2 Senior Management
With the project scope and HLDs approved by Dan, you launched into
a series of meetings Dan had arranged with the executives. You began by meeting Linda Talmer, the VP of Marketing, in her office. She was a tall blond woman who was talking on the phone as you entered her office. She smiled and held up two fingers an inch apart to let you know the call would end soon. As you waited, you noted the shelf full of tennis and basketball trophies on a small side table. Linda, it seemed, was an accomplished athlete.

Linda hung up and said, "Hi, I remember you from your interview. And now you are going to fix my reservations and scheduling mess. Great, it can’t happen too soon for me. I have been after Dan for months to give us the right tools."

She smiled at a young black-haired woman who entered and sat down, "Oh good, here’s Wren. She keeps the company’s reservation system going, writes new patches for it plus creates a ton of customized reports for each department. She uses a lot of outside system contractors."

You smiled and nodded at Wren and then explained the project’s Scope and high-level deliverables including the specific major deliverables that Dan would hold Linda accountable for delivering. Then you asked Wren about the reservations system.

Wren grimaced and answered, "I built the reservation system years ago when we had 20 rooms. It was my first system, right out of school, and it needed to be replaced years ago. I spend 35 hours a week on special reports for the VPs, so, we’ll have to hire outside contractors to make changes to the reservation system. I already have in mind three to four contractors we should use. But we need to start over, no more patches to the old system. The foundation is rotten. I know, I built it. No, we need to design it, get buy in and then build it and test it.”

Linda smiled and said, "I assume you’ll want Wren to plan and direct that work. She knows what we need and the details of our reservation challenges better than anyone."

You made a few more notes and asked, "So what else do we need to do to deliver the performance level we need from the reservation system? The other departments’ performance is dependent on that."

Linda grimaced with a nod, "Yes, we need a new system built from scratch like Wren said. And we must move the reservations people out of that filthy crowded hole in the wall where they have to work. It is awful. It’s so noisy you can’t hear yourself think in there."

Linda looked over at Wren who was gazing off into the distance and asked, "What are you thinking?"

Wren smiled, "We could never do it with the current system but why not build the new reservation system so the reservations staff could work from home? That saves a lot of remodeling and a lot of money. The staff would love it; they talk about it all the time.”
You added that to your notes, smiled and said, “Great idea, let’s think it through. And, Linda, I think Wren would be great to drive the new reservation system part of the project. Maybe we can get all the VPs to back off on special reports for a while.”

Linda answered, “Horst can tell you about the range of treatments, staff and equipment we need. But I think the way to sell it is with a web site that details our services and lets them make a reservation. That way we can get the 15 bookings we need and cut the complaints. We need a high rank in Google to generate a few hundred visitors to the web site and we’ll be able to get our sales.”

Linda nodded, turned to face you and said, “With all the talk about cutting screw-ups, we looked into it and found that we have 10 patients a week whose physicians assumed we offer hyperbaric treatments when we don’t. So they either cancel or get here and are furious with us and the physician who referred them. It is a problem we have to fix because I don’t want to do a mailing on services we don’t offer.

You nodded and added to your notes then said, “Thank you. I have a pretty good understanding now and it’s just about time for my meeting with Dr. Buckholtz.”

Linda rolled her eyes and said, “That will be interesting.” Wren tried to hide a grin. As you walked out you heard all three of them snickering.

You went down the hall to your next session with Dr. Horst Buckholtz, MD, the VP of Sports Medicine and Rehabilitation. When you walked into Horst’s office, he was lying on his back stretching his left hamstring.

The tall physician lay on a black mat that ran under his window overlooking the busy treatment facility. Even while stretching, he kept an eye on what was going on below. White-coated therapists and physicians escorted patients in blue medical smocks from treatment room to treatment room. Large silver machines, CAT scanners and MRIs lined the outer wall. Horst nodded and grunted in your direction but continued his stretching exercises. Suddenly he spotted a problem, jumped to his

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Dan stuck his head into Linda’s office, smiled at everyone and said, “Linda! Are you ready to talk about the hyperbaric program and physician referrals?”

She asked Dan, “Is Horst on board with this new program?”

Dan glared a warning at Linda and then said, “Almost.” Then Dan looked at you, “This really should be part of the big project. It is another screw up we need to fix. I want to reduce our complaints about treatments we don’t offer to 1 a week. Can you add it to the project plan?”

You smiled at how quickly Dan had learned the measured deliverable approach and asked, “Linda what do we need to deliver that achievement?”
feet and rapped his large ring against the window, pointing at a patient at the far end. Several people sprang into action and Horst turned to you. He was a tall slender man with enormously thick and powerful hands.

He took a big step in your direction, extended one enormous hand to you, and said in heavily accented English, "This project will do much to build our reputation in the medical community. I see us offering diagnostic phone calls with our physicians and therapists. We’ll have internet sites where patients, anywhere in the world, can call or log on and describe their problems, symptoms and goals. With that information, we can develop complete treatment programs for the patient’s visit down to each therapy, exercise, and conditioning program. No one offers a service like that because no one has the skilled physicians and therapists we do. People come here because of the quality of our rehabilitation and conditioning treatments. That has to be the emphasis when they plan their stay with us. They will be happy because we cure their injuries and start them on a healthy life.”

You smiled and explained the project and the high-level achievement that Dan had assigned to Horst. Horst listened politely and said, "Yah, yah, yah, Lucien takes care of those details. Horst rapped on the big window again with his ring and beckoned someone to come up. Seconds, later a younger man joined you. Horst introduced him as Dr. Lucien Smyth. You asked them both what they needed to deliver the performance level Dan had specified.

Horst shook his head and laughed, "Everything must revolve around the therapy and the treatments we provide; that’s why people come here. I suppose we could do a little better job telling the schedulers when the physicians and therapists are available and when they are off, but sometimes those reservations people are very difficult. They are always trying to go around me and assign my therapists work. Only I do that!"

An alarm bell went off and Horst said, "Oops, I have a patient waiting so we will have to continue this later." Horst rushed past you and out the door.

Lucien waved you back to your seat and said, "He'll dump this in my lap anyway, so let’s continue. We need better and more timely data from reservations. When I look at our appointment screw-ups, as Dan so elegantly describes them, half are due to us not knowing that a patient had made a reservation. A third come from the reservations people scheduling more treatments than we have people and equipment to deliver. The rest were our fault for sloppy scheduling. So we need appointment data that is updated continuously and the reservations system needs to schedule within our capacity to deliver. We need lots of two-way communication to hit that performance level Dan wants and the system should..."
schedule our rooms, equipment and people.”

You looked at Lucien with a question on your face.

Lucien laughed, “Sure, Horst will scream bloody murder if you try to take scheduling away from us but we should let the system do it, not continue with Horst’s yellow pad schedule. I am sure you can convince him.”

You laughed and joked, “Thanks for your help.”

Lucien laughed back, “You make the case for it and I will work behind the scenes to convince him. I’ll also help you with all the other therapies, on top of hyperbaric, that he want to add.”

Lucien went on, “I also think we need a website for online reservations. It is ridiculous that patients or physicians have to call us rather than make their reservations on the web. As long as we are doing a new reservation system, let’s add a web interface and let web reservations be merged with phone reservations. It would be good for marketing too.”

You nodded and asked, “Why is this website necessary for the clinic to deliver its achievement or for Vailcrest to deliver the Scope?”

Lucien thought for a moment and said, “With a website we would hear about new reservations 24/7 and have the data earlier than we get it now from the reservations system. Second, the website would avoid people thinking we offer services we don’t offer and prevent them from making reservations for dates or time that are fully booked.”

You added to your notes and thanked Lucien.

Your last meeting was with Martha Hobson, the VP of Hotel & Restaurant Operations. When you arrived at Martha’s office, she greeted you with a serene smile on her tanned face. She tucked a tendril of dark hair into the bun on the back of her head and motioned you to a seat, ignoring the shouting match that was going on between a chef in a white uniform and tall chef’s hat and a woman in a blue dress with a scarf. You remembered that she was Monica, the hotel manager who worked for Martha.

The chef yanked off his white chef’s hat, threw it into a corner of Martha’s office, and yelled, “How can I possibly be expected to prepare lunch for 10 people when I don’t know they are coming until they arrive? All I can serve them is canned tuna! Monica, is it not a mess?”

"Pierre is quite correct," Monica said to you and Martha in a crisp voice. “For that same group of guests, we are short two rooms and have two very unhappy company executives who had to sleep elsewhere in Vail Valley. I anticipate that the whole group will leave today.”

Martha rolled her eyes up to the ceiling, gave you another weak
smile and said, “Pierre, Monica, this is the project manager who’s going to fix our reservations problems.”

Martha held up her hands to end the discussion and smiled calmly at you, “We need to take control of the reservations so our guests don’t have to fight through all our scheduling issues. I pray for a situation where these problems happen to 1 guest in 100 not 1 out of every 5.”

You smiled at her words and said, “Funny, that is just the goal Dan set. Tell me what you need to deliver that level of performance?

Monica interrupted saying, “All the hotel and restaurant managers badly need new PCs with new software and I think we should all have cell phones for instant communications and we need...” Monica, looked at you and asked, “You stopped writing?”

You smiled and said, “What I need are your requirements for delivering the specific level of performance Dan requires. I am sure all the things you mentioned are good ideas but are they really necessary to reach the targeted performance level?

Monica said, “You bet there are! We need those things!”

You nodded politely and asked, “Please tell me why not having new PCs will make it impossible to reach the performance goal?”

Monica said, “Well, I think...OK they won’t prevent us from hitting the goal. But we still need them.”

You nodded and smiled.

Martha smiled tiredly and said, “What we do need is current, up-to-date reservation information for lodging and meals. We’ll tell the system how many waiters and kitchen staff we have scheduled and how many guests we can serve. It will book the available seats and the available rooms and tell us when we need to bring in more people.”

You asked, “How accurate and timely does the scheduling data need to be?”

Martha thought for a moment, “I think we need real time data on reservations. Whenever they add a dinner reservation they send us updated work load data so my people can adjust the schedule.”

You asked, “So you want to continue to do your own schedule?”

“Absolutely!”

You nodded and made a note.

Martha went on, “But the reservations room has snowmaking and gondola noise that is so loud they can’t hear themselves think. We need to stop the noise!”

You nodded agreement and asked, “How quiet does it need to be?”

Martha laughed and said, “Good question. We measured the noise and it is between 90-125 decibels during the daytime. That’s rock concert level. They need it under 65 decibels.”
You nodded and smiled back at Martha, and said, "Great answer. Is that for your requirements to deliver the specified performance?"

Martha said with a sly smile, "Yes, unless you give Horst something we forgot to ask for."

You laughed again and headed back to your cubicle to assemble all the requirements information into your achievement network for the whole project.

**Module 3 - Project Charter**


- Watch the Module 3 lecture on the course website.

- Watch the Project Manager in Action video to see how the project manager handled the charter.

- Read Part 3 of the Vailcrest Case Study below.

- Develop your charter in the course template on tab #3 “Charter” and send it to your instructor for feedback.

**Vailcrest Case Study Part 3 Charter**

As you walked past Dan’s office, he rose and beckoned you in, "Can you stay a moment? I have a couple of concerns about the achievement network and the summary of how things are going.

We’re really counting on Wren to do a lot of important work on this project, aren’t we?

You agreed saying, "The reservation system has to be modified and the website has to be changed. While Wren can’t do all of that, she’s got to be involved and contribute her knowledge of the reservation issues."

Dan groaned, "Well, she was up here this morning complaining about all the work that Horst, Linda and Martha give her. Heck, I count on her to generate data for me every day. She says it is like an avalanche of requests and reports that just keeps growing. She’s worried that she won't have the 4 hours a day to work on the project that you want. She doesn’t want to be the one who gets blamed if the project fails."

Horst burst into the room and pointed an angry finger at your face, saying, "I have just heard about your plans from a trusted source. I want to be sure that you have no intention of interfering with my authority over my therapists or using my people on the project."

"I wouldn't dream of interfering with your management," you answered. "But important project achievements have to take place in your clinic as in all the other departments. We won’t achieve the business results we need if we don’t change the procedures and the communication in all the areas that use the reservation system."
"But I decide what happens in my department, not you!" With that, Horst stormed out of the room.

You watched Horst leave and then turned to Dan and said, "We need an integrated effort to make effective change in the organization. I expect resistance to operating process changes including the central scheduling of staff from the VPs. I also need people from each of the departments to work on the team and take assignments from me. Plus, we will have to hire contractors in the systems and construction areas. Those will all be issues I will address in the charter meeting."

Dan nodded and smiled at you, saying, "Good thing I'm going on that month-long trip up the Amazon... just kidding. Use Wren, Lucien and Monica and those contractors you mentioned."

Module 4 - Charter Presentation
❖ Read chapters 1-7 in Power Points! book.
❖ Watch the Module 4 lecture on the course website.
❖ Prepare your PowerPoint or Keynote slides for the charter presentation.
❖ Send the presentation to your instructor and suggest 2-3 days/times if you want to do a live online presentation. Your instructor will either agree to one of your times

or propose another. The project simulation should take approximately 20 minutes.

❖ Your goal in this assignment is to secure the stakeholders' approval of the charter and approval to proceed with detailed scheduling. Your instructor will play the role of the stakeholders, asking you questions and challenging you. If you do a live simulation, your instructor will send you feedback on your presentation techniques and the way you conducted the meeting. You will also get a link to view the video of your presentation and the Q&A session.

Module 5 - The Work Breakdown Structure
❖ Watch the Module 5 lecture on the course website.
❖ Watch the Microsoft Project software video. There are two versions of the software videos. One version of the lectures is for people using Project 2010 and the other is for people using earlier versions of Microsoft Project. The material covered is the same but the steps in the software are different.
Copy and paste your WBS from the template tab #3 “Charter” into MS Project or Ganntter. Further decompose the deliverables if necessary. Send the Microsoft Project or Ganntter file as an e-mail attachment to your instructor for feedback.

**Module 6 - Predecessor Relationships**
- Watch the Module 6 lecture on the course website.
- Watch the Project software video on adding predecessor relationships to the schedule on the course website.
- Using your approved WBS, link the achievements (tasks) with predecessors. After you have put in the predecessors, check the network diagram for danglers. Send your instructor the resulting Project file for review and feedback. With your feedback, your instructor will send you a Project file for you to use on the next assignment.

**Module 7 - Resources & Estimating Process**
- Watch the Module 7 lecture on estimating and resource assignments on the course website.
- Watch the project software video on setting up resources.
- Read the Vailcrest Simulation #7 - Estimating below
- Use the work and cost estimates from the simulation below to enter resource, work and cost information into the MS Project schedule your instructor sent you at the end of the last module. You will:
- Set up your resources in the Resource Sheet entering their max. units, hourly rates and other cost information for people and materials.
- Assign resources to tasks and enter their availability information.
- Enter the 3-point estimating data provided in the simulation into the course Excel template and use the calculated work estimates for 50% confidence in your Microsoft Project schedule (We’ll use other probabilities in Module 8).
- Finally, before you send in the schedule for review, you will need to make some calendar adjustments for company

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holidays. In the second week of your project, Vailcrest is closed on Friday for the Rocky Mountain Festival and no one will work.
The Wednesday after that is a half-day of work to recognize Dan's Olympic gold medal in the downhill.

**Vailcrest Simulation 7- Estimating**
You walked into the Vailcrest boardroom, surprised to see all the project team members, all the vice presidents, Dan Morton and a gray-haired man in a three-piece suit who you assumed was the company lawyer. No wonder they were all on time. Dan motioned you to the head of the table and you sat down in that seat and welcomed everyone to the estimating session. Everyone looked at you in anticipation.

You smiled and said, "Let’s start with the work we have to do on the new reservation system. Our 1st achievement under that HLD is that the VPs sign-off on the design and acceptance criteria they will use to evaluate the system when it is built."

Horst said, "Why do we have to decide how we’ll judge it before we have seen it in operation?"

You nodded and leaned forward and said, "Because that’s how the engineers will know what to build."

Horst grunted, thought for a moment and nodded. Then he said, "I think it will take 3 weeks."

Martha said, "It would be my guess that I will have to spend 20 hours in meetings with my people to lay out what we want. This is important but I have other duties so I think I would limit my time to 2 hours a day."

You nodded your thanks to Martha and said to the group, "That’s how we need to estimate. We use hours of work and your availability to calculate duration. Will that same estimate work for you Horst?"

Horst nodded agreement and you went on, "I have talked to some prospective contractors and our corporate counsel who will help on the contract. We estimated that the statement of work and the request for proposal to send to them will take about 60 hours of work and I will work on it full-time so that will be 2 weeks duration."

The gray-haired man at the back of the room stood up and said, "I am Joel Grayson, the corporate attorney, and I estimate that it will take us a week of negotiation to get a signed contract."

You nodded your thanks to Mr. Grayson and asked if that meant 40 hours of work?

He agreed with a smile.

You said, "In talking to various vendors who are interested in proposing, I got some very rough ballpark estimates that it would take them 3 months time to develop software that meets general specifications. We’ll be using a fixed price contract so we
don’t need to manage their hours, just the developmental checkpoints on the software. Now the other thing that has to take place during this time is to train everybody on their part in the new reservation process. Wren, you’re going to be doing that. “How many hours of work will that take?”

Wren said nervously, “I can’t be precise but I think it would take me 40 hours to design the course and probably another week to hold classes and teach the course to our people.”

You smiled, nodded, and said, “Of course you can’t start to develop the training material until we know how the process works so we’ll set things up so you start when the contractor has finished their detailed design. We also need to have a test of how well people learned the new system. Can you factor that in?”

Wren did some quick figuring on a note pad and said, “I can do that as part of the 132 hours of course design and teaching.”

Lucien raised his hand and said, “We will have to have a training class for our clinic people on that achievement about meeting 98% of their scheduled assignments. That will take some training.”

You asked, “How many hours do you need to develop the training and deliver it?”

Monica interrupted and said, “We need the same training for our hotel and restaurant people so we might as well just develop 1 training program.”

Wren said, “After we know how the system will work, I think it would be a matter of creating the class and then conduct 10 or 12 sessions of 8 hours each with our people. Say 132 hours total.”

“You agree, Lucien?” you asked.

Lucien nodded and said, “That sounds reasonable to me.”

The meeting continued for another 2 hours and at the end, you had work estimates and availability numbers for the entire project.

**Module 8 - Optimizing your Schedule**
- Watch the Module 8 lecture video.
- Watch Microsoft Project software video on optimizing your schedule using the critical path.
- Make a copy of your approved project schedule from module #6 save the original.
- Use the copy to model your options. Develop the following separate project schedules with:
  - Modifications that will allow you to finish the project two weeks earlier than your original schedule. Then...
model an option for 4 weeks earlier the same way.

Document the changes you make to achieve the shorter durations in your Excel template.

- Modifications that will cost 20% less than your approved project from the previous module and another for 40% less. Document the changes you make to achieve the smaller budget.

- In your write up, offer Dan options for a higher level of certainty, using the 3-point estimating data in your template.

- Send your completed project schedules and a brief write up of the trade-offs you used to achieve the alternative results to your instructor for feedback and coaching.

**Module 9 - Team Conflict**


- Watch the Module 9 lecture on the course website.

- Watch the Project Manager in Action video of the project team conflict.

- In an e-mail or a Word document attached to an e-mail, write up your analysis of the mistakes the PM made in the conflict situation.

- Then make recommendations on how to achieve a better result. Your instructor will send you feedback on your assignment with status reports for you to use in your next assignment.

**Module 10 - Tracking & Status Report**


- Read chapters 8-13 in Power Points!

- Watch the Module 10 lecture on the course website.

- Watch the Microsoft Project software video on tracking.

- Use the approved project schedule you completed in module 6 and the status data your instructor sent you with your feedback on module 9. Following the process you learned in this module;

- Save the baseline.

- Update your tasks with the reported actual and remaining work.

- Update the schedule to move uncompleted work to start on the status date.
Analyze what’s happened to the project and document the project status in the Excel template. Describe what’s happened and the results if you take no corrective action. Then identify your solutions and trade-offs to remedy the situation.

♦ Last, prepare a status report presentation in PowerPoint, using the information from your course template. Also, paste a copy of the tracking Gantt into a slide.

♦ Send the Excel template, PowerPoint and updated schedule to your instructor for feedback and coaching. If you want to do a live status report simulation, suggest 2 or 3 days/times. Your instructor will either agree to 1 of your times or propose another.

The project simulation should take approximately 20 minutes. In it, you will present your status report and answer the stakeholders’ questions about the problems and the solutions you have proposed. Your goal in this assignment is to secure the stakeholders’ approval to proceed with your plan for corrective action.

Module 11 – Final Exam

Hard as it is to believe, the course is nearly over. What are left is your final exam and the course evaluation. The exam is open book, open notes and your boss or a licensed professional must proctor it (lawyer, accountant, doctor are fine, anyone who is not a friend or relative).

Send us an e-mail with the date and time you wish to take the final (you will have one hour to complete it). Good luck and thank you for taking this course.
Project Workbook for

ESSENTIALS OF CONSTRUCTION
PROJECT MANAGEMENT

By Dick Billows, PMP, GCA
12th edition

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Overview of the 5 Step 4PM Methodology

I've titled this book "Essentials of Construction Project Management" and it's just that. We're going to take you through a five-step process for planning projects, developing a work breakdown structure, building a dynamic schedule, assigning people to tasks and tracking results.

There are things this book will not teach you. We won't deal with the statistics of risk or the alternative ways to develop work estimates or the cost accounting required for project budgets. You'll learn the essence of project management but not all of the detailed information in the Project Management Body of Knowledge (PMBOK™). I wrote this book for people running smaller projects with most of the project team coming from their own organization.

You'll also learn to use project management software in a very straightforward, simple way. This book has many illustrations of applying this simple methodology in Microsoft Project®. Using project management software with this simple methodology is a big time saver so we recommend that approach. Our objective is not to spend a lot of time in the software. I designed the methodology so you spend only an hour or two developing the plan & schedule and then 10 or 15 minutes a week using the software to update it. You'll spend the rest of your time managing the project.

In sum, Essentials of Construction Project Management teaches you basic-level project management tools and techniques. It's appropriate for smaller projects and teams with a few people from different functional units. Our more advanced publications like Managing Information Technology Projects, Managing Healthcare Projects, Managing Construction Projects and Advanced Project Management Techniques address managing larger, more complex projects.

5-Step 4PM Process

I list the 5 steps in the process on the chart on the next page along with the 12 best practices techniques you will learn. We're going to take you through a five-step process for planning projects, developing a work breakdown structure, building a dynamic schedule, assigning people to tasks and tracking results.
5-Step 4PM Process

As you move through those five steps, you'll learn 12 best practice techniques for delivering projects on time. You'll go through the process of working with the Customer and other interested parties who will be affected by your project (we’ll call them project stakeholders).

The 12 best practice techniques you'll learn are:

1. Defining the Project Scope As a Measured Business Result
2. Decomposing the Scope into a Deliverable Network
3. Avoiding Problems with the Project Charter
4. Using Project Software in 10 Minutes a Week
5. Decomposing Deliverables into a Work Breakdown Structure
6. Sequencing Your Tasks to Finish As Early As Possible
7. Making Clear Assignments to Your Project Team
8. Using the Critical Path to Optimize Your Schedule
9. Leading a High-Performance Team
10. Using the Baseline to Spot Problems Early
11. Solving Problems and Reporting to the Customer
12. Closing Projects to Make the Next One Easier
Overview

Key Outputs from the 5-step Process

Broadbrush Project Plan - 1½ page Document for Project Initiation

The Broadbrush Plan is a concise 1½-page plan that allows executives to make decisions and exercise strategic control over projects and the business value they produce. It also provides them with hard-edged metrics for measuring performance and the quality of the deliverables.

Scope & High-Level Deliverable Network

This network of deliverables is the path from where we are now to where we want to be, which is the scope of the project. Every entry in the network is a deliverable that you define with a metric. The metric tells everyone what you will produce and how you will define success.

Work Breakdown Structure Decomposition - Crystal-clear Accountability & Scope Control

Rather than creating mindless "to do" lists, project managers (PMs) craft work breakdown structures by breaking down the scope into a high-level deliverable network of measurable results that become peoples' accountabilities. Every team member's assignment is in the form of a measurable business outcome. The resulting WBS is compact so the PM can update it quickly. You will support each entry with a work package that makes the details clear so they miss nothing. The PM and the Customer have unambiguous checkpoints to measure progress.

Dynamic Project Scheduling - Update Schedules in 10 Minutes a Week

PMs use dynamic project scheduling techniques that let them update plans in minutes each week and quickly model alternatives to cut duration, lower budgets and adjust the business value a project produces. These techniques give executives the hard data they need for decision-making and consideration of alternatives.

Status Reporting - Clear Checkpoints to Identify Problems Early

With weekly tracking, PMs and Customers have hard-edged checkpoints to measure progress. They can anticipate problems and implement corrective action early, when it costs the least. PMs make concise status reports on projects and always offer alternatives for the Customer to consider.
Step One: Broadbrush Project Plan

You will start your project management work by defining the scope of the project with the Customer. That is, you’ll define the business objective the Customer wants the project to deliver. When you set about defining the scope during project planning there are a number of traps to avoid. One trap is thinking about what you have to do rather than the project’s end results. Thinking about the activities you need to complete is much easier than thinking about the business outcome the project should produce. This is the activity trap where you focus on the details and ignore the project’s business purpose. In the activity trap, a PM receives a project assignment, thinks about the first thing to do and starts work, figuring to think about the next step when they come to it.

Sometimes, PMs cloak their descent into the activity trap by writing a long and flowery mission statement for the project. This does no harm unless it is a substitute for politely pushing the Customer to make the hard “end result” decisions up front. You need to specify exactly what the project will deliver and what it will not deliver. The Customer has to make this decision and tell you how he will judge the success of the project. Being that explicit at the beginning may cause some discussion and disagreement but it is far better to work through those conflicts before you start work rather than discovering the success measures when you are almost done. Unfortunately, the activity trap snares so many PMs that it is one of the two leading causes of project failure. The activity trap wastes resources and frustrates project team members with continuously changing assignments. The lure of the activity trap, that bottomless pit, has ruined countless projects.
Step One: Broadbrush Project Plan

Top Down Project Planning

You’ll avoid the activity trap with a 1-2 page document, called the Broadbrush plan, which covers the big-picture decisions that are required before you can start your project. When the project Customer and stakeholders approve the Broadbrush plan, the Initiation phase of the project is complete. The key to this process is to avoid those delicious technical details that quickly drag you into the "activity trap." Your focus during a Broadbrush planning process is to provide the Customer with the opportunity to make decisions about the end results the project will produce. Your focus is on the measured business-relevant outcomes not the details of how you will achieve them. You also want to secure the project executive’s decisions on the authority you’ll need to manage the project team. You keep the document short and high-level so you engage the executive’s attention. You can develop long formal plans later when the Customer has approved the strategy.

A Broadbrush project plan is never long but requires thought, decisions and agreement on three things:

- Project Scope - an unambiguous measurement of the project's outcome. For example, “Answer 90% of our customers’ inquiries in 120 seconds or less with no more than 5% callbacks on the same problem.”

- A High-level Deliverable Network (HLD) - a hierarchical network of measured deliverables that leads to the scope.

- Project Charter – a short narrative covering risks, assumptions, constraints, resource requirements, change control, and PM authority.

Collectively, these elements define our project scope, requirements and charter. Your organization may also require other narrative documents but the elements above are critical for controlling projects and achieving success. They are the strategic foundation for a project.

Technique #1 Scope & Measure of Success
Top Down Project Planning

We need to drive projects from quantifiable scope definitions. Driving a project plan from the success measures keeps the focus where it should be; on achieving the end result. By working with the Customer to define success before the project starts, the PM is in a much better position to control the project.

As an example, let's say the Director of Human Resources for a medium sized company, contacts you about doing a project. She says, “I know that this is not your specialty but you are the only project manager I know. I need your help. Our personnel records are so out of date that it takes me days to find out what department a person works in. On top of that, employees’ quarterly performance reviews are useless, if they get them at all. I want you to straighten out that whole mess so when a line manager calls, we can find up-to-date employee personnel records on the system and quickly give them the data they want. We may also need some remodeling of our office to make all this work. And we want the employee reviews to give solid, detailed feedback on their performance.”

You finished writing some notes, wishing you could stick with your kind of project. Then the Customer went on, “You can use anyone you want to get this done. This is a high priority. You'll probably have to involve five or six people from our group, some line managers and someone from Administration, IT, and Construction so you get a lot of good input. Decide on how to organize the files and what standards the performance reviews should meet. A good place to start is probably by updating all the records. Then maybe you can draft a memo, for my signature, telling managers that they have to do performance reviews on time and give their people useful feedback on their performance and developmental needs. You get the team put together and we will figure out the rest of the project from there."
Step One: Broadbrush Project Plan

The Customer has given you a lot of information about this project and what you’re supposed to do. It would be very easy to start work on the files and draft that memo. However, all of the information is in the form of activities. The Customer hasn’t told you what end result she wants. To succeed with this project, we have to know how the Customer is going to measure the success of the project when you’re done. That definition will give you a tool to control the scope of the project and decide what should, and what should not, be included in the project work.

So, you have to ask the Customer some questions to get at the business purpose of the “laundry list” of changes that she talked about. You might start by asking, “After the files are up to date and managers are doing thorough performance reviews on time for all the employees, what will that do for us?”

The Customer answers, “We’ll be on top of things!”

You sense the Customer is getting just a little bit angry at the questions but you press on because if you don’t find out what problem the Customer wants to solve and how they will measures success, you have almost no chance of delivering it. So you continue.

“If I know exactly what end result you want, I can do a good job and give you exactly what you want. So let me ask this, three months after we finish this project, what will be different; what will you expect to see?”

“Okay,” the Customer sighs and then pauses for a moment to think. “Three months after the project’s done, I won’t have managers complaining to me that we don’t know what’s going on and how it takes forever to get employee information from us.”

The Customer is talking about end results instead of activities so you know you’re on the right track. Now you have to change these end results into metrics.

You ask, “So if I understand what you want, the employee records have to be current. How current? Would five days be good enough?”

The Customer thinks for a moment and says, “No, we can do better than that. Let’s say the personnel system is never more than 3 days behind.”

You make a note and then ask, “With the records current to within 3 days, how fast do we have to answer a line manager’s questions about our people?”
"That’s a hard one," the Customer says, frowning in thought. "Some complex data requests will take time- a day or two, others just a few seconds."

"Well, how about we set the goal at 80% of the requests are answered in 10 minutes or less?"

The Customer grins and says, "How about 95%?"

You smile back and say, "It will take a lot longer to get that close to perfection. What percentage are we answering within 10 minutes now?"

The Customer frowns again and says, "About 1%. Let’s go with 80%; that’ll be a great improvement."

What you’ve done in this planning session is to get agreement on the scope of the project. You now have an unambiguous scope defined with a metric. You have quantified the Customer’s expectations for the project and you will use it to drive the planning process. You’ve also given yourself a tool for controlling changes to the scope of the project. When the Customer was talking about objectives like “straightening up the records” and “being on top of things” it’s very hard to decide what is, and what is not, a change in the scope. With a measurable deliverable to quantify your scope, controlling scope creep is much easier.

**Activity Trap**

You avoided the activity trap in the discussion with the Customer, but it is such an obstacle to project success that we should delve into it in a bit more detail. The deadly lure of the activity trap defeats many efforts to clarify the scope of projects during initial planning. This initial planning phase is the point at which a Project Manager (PM) and the Customer can easily fall into the activity trap. The Customer usually has a few ideas about features and the first several steps for
Step One: Broadbrush Project Plan

you to do and then says, “It’s time to get going on that project and start work immediately.” That “start fast and plan later” approach is a project killer.

Why? Everyone has a list of good ideas and activities that we can make in it a long "To Do" list. We can hope that these activities improve performance and hope the result satisfies the Customer. But there's entirely too much hoping going on here. In the activity trap, the project manager has no way to measure when the tasks are successfully completed. How does the PM decide what tasks to include or how much time and resources to invest in each of them? Politics and power alone will determine what’s in the project and it will forever be a moving target.

The main problem is that none of the activities connects with a deliverable. Because the PM never asked the executive to define success, the PM is in a situation where the Customer will define success as the project progresses or at its conclusion. Worse, the definition of success will be a moving target and people will change it to move the effort in directions they favor.

The project manager and the executives have fallen into the “activity trap.” They'll add new activities each week rather than driving the project plan toward the scope. They buried themselves in the minutia of tasks rather than focusing on the end result. They added tasks to the plan because they sounded good or they had used them before. The project won't solve the business problem that triggered it.

Technique #2 Requirements & High-level Deliverable Network

The scope is not the last measured deliverable we'll develop, but it is the most important and the most difficult to conceive. With the Customer’s approval of the scope, the project manager can begin decomposing it into high-level deliverables that lead to the scope. The high-level deliverables are not activities; they are also measured business results. You don't think about how you’re going to do the work, you simply identify the major measured results which will carry you from where you are now to where you need to be; the project scope.

Let’s continue with our example and see how you need to handle the development of the high-level deliverables for the personnel department project, using the scope the Customer has approved.

Sometimes, you’ll sit down and lay out the requirements for a project yourself. Other times, you’ll involve the project team in the process. Let’s start by thinking it through, develop some requirements
Top Down Project Planning

ideas and then show them to the team. To reach the project’s scope, “80% of the info requests answered in 10 minutes,” the Customer gave you a few ideas.

- The records have to be current on personnel actions
- Managers have to turn their quarterly performance reviews in on time
- The performance reviews have to be thorough
- HR staff has to know how to efficiently answer inquiries in the system.

With these ideas in mind, you might start talking to a number of other people, including line managers, HR staff and the IT department, to flesh out the deliverables. Each of these discussions starts with you acquainting everybody with the project scope. These discussions are another opportunity to dive headfirst into the activity trap and all those delicious ideas. You keep the conversations on track by talking about end results. If people think the requirements make sense, then you work to convert them into measured deliverables.

Let’s take one of the requirements, “The performance reviews have to be thorough,” as an example. Now that is an activity and you’ll have to convert it into a measured deliverable. That’s your normal process. You think through the activity and then convert it into a measured deliverable. You might talk to some managers and find that they don’t know what should be in a “thorough” performance review or how to do it. This gives you some ideas. You talk to the Customer in Human Resources and get a list to 17 items that are required for a thorough employee performance review. Another requirement is to train the managers on how to complete those 17 reviews. From this thinking, you might come up with an end result like “95% of the quarterly reviews contain the 17 required items.” That’s your high-level deliverable, and to support it you’ll need sub-deliverables for developing and getting approval of the standard. How do you measure that requirement? Maybe the management committee should approve the review standard. So you’ll assign a team member to develop the performance review standards and that assignment will produce a measured business outcome of “Management committee approves 17 item performance review standard.”

You also need to train the managers in doing performance reviews that meet the standard. How do you measure training? You think through the purpose of the training, which is to increase the managers’ competency in doing employee performance reviews. Then you think about how you will assess the training program you finish it. Last, you think about how you would measure if the training succeeded.
Step One: Broadbrush Project Plan

You might decide that a test at the end of training is the best way to measure its effectiveness. That might lead to a deliverable of “90% of the managers score 80% or higher on a test of the performance review standards.”

The thinking you’ve gone through is to gather ideas on your requirements then transform them into measured deliverables. You think about the activity and how you will assess the assignment when the team member finishes it. The criteria you will use in assessing the completed assignment becomes your measured deliverable. Conceiving measured deliverables is difficult for everybody because we are all so accustomed to activity lists. But the thinking investment leads to everyone knowing what you expect of them before they start work.

The completed high-level deliverable network, with the deliverables subdivided, is below. This is a very simple looking document, reflecting a great deal of thought. When the Customer approves this network, you can proceed with the rest of the plan.
The graphic above shows the requirements for the project in deliverable network form. You’ll use this deliverable network as the backbone of your project plan after the Customer has approved it. There is a blank copy in your homework template for your use.

With the scope and high-level deliverables defined, you can move on to the other components of your charter.
Technique #3 Charter: Problem Avoidance

The risk section of the Charter is the place to identify potential issues concerning resources and politics. Uncovering the assumptions underlying a deliverable requires some thought. Below are a few risks for your project. Note that we've stayed at the business results level and avoided those pointless assumptions like, "everyone will do their task on time." Instead, we have focused on what can cause the project to fail:

1. Notifications of missed review dates from HR do not cause managers to turn their reviews in on time.

2. Managers and their bosses don't do reviews that meet the approved standards.

That's it. You may add another one or two but the point here is to keep the list short so the risks to the project's success get the attention they deserve.

With the scope, a high-level network of deliverables and risks, you can complete the plan by proposing to the Customer the authorities you will need to manage the project.

Assumptions, Constraints & Risks

- Risk assessment and avoidance
- Assumptions about customer or employee behavior and reactions
- Politics, conflict and messy turf issues
- Covers only the "show-stoppers" that threaten the MOS™
It’s time to do a little thinking on the resources you need and your authority to manage them. You’ll use your deliverable network for this and it shows the deliverables you’ll need from many other people. When you subdivide the high-level deliverables, you involve people from other organizational units who will produce some of the deliverables.

Now not all the people who’ll be on the team work for you. Many may have the same boss but you don’t have any formal authority to assign them work or evaluate their performance. They all have other jobs besides working on the project.

So your project charter aims at getting the Customer to help you secure the resource and the authority to manage them. You’ll want to avoid going to the Customer every time a team member’s assignment is late. So you establish your authority now to avoid problems later.

You ask for the resources you need and the authority to manage them during the planning process because your chances of getting some level of authority are far better now than if you wait until you have a problem with a team member. So in the charter you’ll ask for resources and authority. For a trainer named Jill, you might say, “I need approximately 50 hours of Jill’s time during the next 60 days to develop and deliver the performance review training. Please adjust her workload to make these hours available and tell her that I will be assigning her work within that 50-hour block of time. Also, my evaluation of her work will be considered in her quarterly performance review.” You may not always get that authority but it’s worthwhile to ask for it.

Another part of the charter is your recommended procedure for controlling changes to the scope of the project. This process should include documentation of the requested change, analysis of the impact on scope, time, cost and resources, which the Customer accept or rejects.
**Charter Plan Approval**

With the preceding elements of the plan complete, you are ready for the first of your project presentations. At this first meeting, you’re looking for the Customer to approve your charter & strategy for the project. Some Customers want a detailed schedule and a final commitment on the completion date at this first session. But you are far better off to get approval of the high-level plan and then develop the details. There are several reasons for taking this two-step approach:

First, putting a schedule together is a lot of work. You avoid redoing it by getting the Customer’s approval on the scope and charter before you put the schedule together. Second, when you present a schedule people tend to dive into the details and you want some attention paid to the big picture. This session need not be a long meeting, particularly if you’ve been showing the Customer the pieces as you finish them. But the two-step approval process is the better way to do it.