CMMI for Executives

“The 12 Days of CMMI”

Have Fun Mastering the 12 Generic Practices

One Day at a Time!
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Introduction

Happy CMMI!

“Happy CMMI?” I can hear some engineering and software executives say, “Are you kidding?”

Sadly, for those who’ve had bad experiences in the past, the prospect of a happy CMMI may sound like nothing more than a story, made up to please the children around the holidays.

To us, it’s a reality – not just today but every day in our organizations as we reach for a program of continuous process and performance improvement, company-wide.

And so we invite you, as the leader of your organization, to come with us on a twelve-day bender designed to show you the good times of CMMI, so you can help your organization be a great organization – one day at a time.

The adventure started on our blog, AsktheCMMIAppraiser.com, where we adopted one Generic Practice (GP) per day. It quickly spun off into a holiday party with lots of singing, gift giving, and toasts being raised.

Why? Well, you hardly need a reason to party when you see the CMMI as we see it - as an ongoing celebration, a model for being joyful in the quest for becoming a great company.

So put on your Santa hat, grab a mug of eggnog, and join us for the holiday cheer that lasts all year. This ebook brings the party to you. It’s …

The Twelve Days of Christmas, CMMI style!
DAY 1

All I want for Christmas is a successful CMMI program!

Dear CMMI Appraiser, I’m an executive in a mid-sized engineering firm, leading my first CMMI adoption project. All I really want for Christmas is for it to be a success. Can you give me some tips?

~ Vincent A.

Vincent, thank you for writing in. We get so many letters here at the North Pole this time of year, and we try to answer them all. But let me check my list. . . hold on, I’m checking it twice . . . Yes, I see you’ve been a good executive this year. I’ll be happy to give you tips on how to be even better.

First, let’s be clear that the most important part of the CMMI, IMHO, are the Generic Practices (or GPs). Aply numbered for the season, there are 12 of them, and they are the responsibility of executives like you who are leading the CMMI effort. So why not adopt one for each of the Twelve Days of Christmas?

Allow me to answer your question with a series of posts called ... the Twelve Days of CMMI. Warm up your vocal chords now....

Sing along with me now: “On the first day of Christmas, my boss he gave to me, a box with a shiny policy...”

Generic Practice 2.1 – Establish an Organizational Policy

The first GP guides us to set organizational expectations for all practitioners for performing the processes.
Let’s unwrap that, shall we?

There are 22 process areas in the CMMI. That’s 22 areas of study, so to speak. Each one of those 22 areas has these 12 Generic Practices. The reason they are called “generic” is because they are generic to everything.

Since there are 22 process areas, you as management, have to unambiguously set the expectation that all 22 of them (if that’s what you are doing) have to be used, followed, deployed, measured, and evaluated.

Now, let's not get crazy with all this eggnog. You don't need 22 policies - just be sure the policies you DO have "cover" all of the process areas. And when you're addressing CMMI level three, it gets a little more voluminous.

It may not seem obvious, but GP 2.1 is very pivotal to the success of your program (and your engineers). It guides you to provide a clear and unambiguous setting of expectations by management that the employees will use the process as it has been written and defined.

The Grinch version is "if you want to work here you'll do it!" But I prefer the good cheer version: "if you would like your jobs to be easier, want to go home earlier to do a little Christmas shopping, and have better projects, here's what we need you to do."

Remember, Vincent, adopting the CMMI is 100% about solving business problems. It’s not about documents. But the more we use it, and the more we work with companies that are using the CMMI, the more we realize that this is a model that’s about how great companies perform.

Too many CMMI Consultants don't get this. They thinking it's about passing an audit. All you get from this is some coal in a stinky stocking.

We like the nice, freshly wrapped gift of a great company!

Start setting expectations today. And turn the page for the 2nd Day of CMMI!
DAY 2

Visions of CMMI Certification Dancing in Your Head?

When the executive sent us his Christmas wish list with just one item on it, we knew he was serious: the only thing he really wants for Christmas is a successful CMMI program.

He didn't say so, but I sensed that that fellow had visions of CMMI certification dancing in his head. What he needs to understand, like all good little boys and girls around the world who want a successful CMMI program, is that the most important part of the CMMI are the Generic Practices, or "GPs".

Because there are 12 GPs, and because I am in such a holly-jolly mood, I figure, why not adopt one GP for each of the Twelve Days of Christmas?

So here we go again with ... the Twelve Days of CMMI, part duex.

Sing along with me now: "On the second day of Christmas, my boss she gave to me, two process work-plans, and a box with a shiny policy . . ."

Generic Practice 2.2 - Plan the Process

The second GP guides us to establish and maintain the plan for performing the process.

This is another very pivotal GP in the model. And it's the gift that keeps on giving!

We've already said that GP2.1 is about setting expectations. With GP2.2, we develop an
infrastructure where all processes we expect people to use are planned for. The idea is that we can expect people to do things all we want, but unless it's also planned for, it ain't gonna happen.

It's kind of like getting a gift in one box and the batteries in the other!

Let's unwrap this. For example, suppose you've got a plan for performing the measurement and analysis process. With GP2.2, you might include milestones and tasks for "M and A" (or "Manda" as I like to call her) in your project plan.

Here's another example. Let's say you have a process that includes gathering requirements from your customer. Part of your process includes writing those process requirements down, and part of your process includes getting a sign-off on them from your customer, and part of your process includes validating them. Each project ensures that all of the appropriate steps are in the plan, and that they get scheduled and sequenced.

This may be news to a lot of executives. Maybe the so-called CMMI consultant they have been working with has a heart that's two sizes too small. They see no value in providing resources and assuring that actions are planned for. They insist it's "process debt." Instead, they are like the Grinch who can't find a reindeer for his fake Santa Claus act, and decides to improvise. He takes his dog Max, and he takes some black thread, and he ties a big crooked antler on the top of his head.

... and poor Max does a face-plant in the snow.

A better approach to adopting the CMMI is to remember the "reason for the season" - that is, why are we doing this in the first place? The CMMI is not about getting a CMMI certificate or achieving a CMMI Maturity Level. That would be the equivalent of stealing Christmas. No, the CMMI is more like an ongoing celebration, a model for being joyful in the quest for becoming a great company.

So start establishing and maintaining the plan today.

Turn the page the 3rd day of CMMI!
DAY 3

For the CMMI Program Team That Has Everything

Day Three!

Unless you suffer from extreme memory loss, you know we got a letter from an engineering firm executive named Vincent who only wants one thing for Christmas: a successful CMMI program.

You also know that, as a Certified CMMI Lead Appraiser, I know enough to insist that the most important part of the CMMI are the Generic Practices, or "GPs". I don't care if you’re going for CMMI Level 2 or CMMI Level 3 - the GPs will find you!

And you know that there are 12 GPs, which inspired me to draw a festive connection to the Twelve Days of Christmas, which caused us to drink a bunch of eggnog, go outside, knock on our neighbors’ doors, and make gigantic fools of ourselves yelling "ALL I WANT FOR CHRISTMAS IS A SUCCESSFUL CMMI PROGRAM!"

We’re having so much fun; we’re going out caroling again. So come on … it’s the Twelve Days of CMMI, installment #3.
Sing along with me now: "On the third day of Christmas, my boss she gave to me, three new compilers, two process work-plans, and a box with a shiny policy . . . ."

Generic Practice 2.3 – Provide Resources

The third GP guides us to provide adequate resources for performing the process, developing the work products, and providing the services of the process.

In other words, give your team the presents – the tools and environmental resources – for the processes to be useful, so your team can be successful. What a gift!

Here’s a timely example. Up here in the North Pole, elf-engineers may be employed full-time or part-time (do I need to pay for health insurance?). They busy themselves building toys for the good little boys and girls. A measurement group may even exist to support measurement activities across multiple gift-building projects in Santa's workshop.

How many wooden cars will no kids want? How many cheap flat-screens will all the dads want? You know, that kind of stuff.

A warm and fuzzy picture for sure, but let’s consider the flip side. What if we don’t provide adequate resources?

That would be like Santa saying to his elves, “My policy is that you build toys out of wood, not plastic,” then not giving them access to wood. Meanie. I had a boss like that once. He didn’t have a beard though.

If Santa did that, he wouldn’t be performing this Generic Practice very well (and he would be a mean, nasty Santa), because, if he doesn’t give his elves the wood, he can’t expect them to adhere to the policy of building toys out of wood. What a jerk!

Bring on the lumber, Santa!

This is important because, in software engineering, tools can be quite expensive. For example, let’s say you tell your team, “It’s my policy as a manager that you use these software tools, and that you assemble your team in a co-located fashion in a single room.” And then you don’t clear a single room for them to go work in. Arrggggg!

Not only have they failed to perform this practice, but also you have wasted money on the tools. I’m sure that has NEVER happened to you!

No white Christmas for you! It’s just cold, dark, and snowy.
Notice, this GP has nothing to do with how well the process is performed. There are measures around how well the process is being executed. I talk about it in my CMMI Training class - GP 2.8 (you'll have to wait until the EIGHT day of Christmas for that one!). This GP is concerned only with having management provide the resources so that the processes can be performed ...

... so that all those deserving kids can have toys on Christmas.

Turn the page and celebrate some more!
DAY 4

Won’t You Guide My CMMI Plan Tonight?

Well, the eggnog has been flowing for 4 days in a row, and your previous CMMI Consultant is napping in the bathtub (his loss!), but the rest of us are still going strong. So let’s keep celebrating the 12 Days of CMMI!

As you know – unless you blacked out while following our merry band of Christmas carolers -- the “12 Days of CMMI” started when an executive wrote in that all he wants for Christmas is a successful CMMI program.

I knew I could help him out, sure, but I didn’t want to deprive him the real joy of the season, which is the opportunity to help his company with techniques that make them a great company, using CMMI as one of their tools. In other words, the journey is far more important than the destination, so why stiff the guy? He's been good this year and he deserves a shiny new toy.

“You know?” said Mrs. Appraiser as she warmed up my cocoa, “What this nice young man REALLY needs is the gift of the 12 Generic Practices - screw the pear tree!”

The Generic Practices (GPs) are what I consider the most important part of the CMMI and I wish they were called the "Very Important Practices" instead of the "generic practices." Who would care? Why are GPs so important? Because poor implementation of the GPs will ALWAYS lead to spectacular failure.

Remember process debt, filling out painful forms, nasty QA audits, and useless process? You can avoid them with the GPs.
Given that there are 12 of them, and given that Mrs. Appraiser makes a mean eggnog, well, I started singing "The 12 Days of CMMI" to the tune of "The Twelve Days of Christmas" and dancing around in my red Santa Suit (the missus really likes me in that).

OK, maybe that's too much information.

So fill your mug, fill your heart, and fill-in for that passed-out consultant by joining us in song:

"On the fourth day of Christmas, my boss she gave to me:

four new assignments,
three new compliers,
two process work-plans,
and a box with a shiny policy."

Generic Practice 2.4 – Assign Responsibility

The fourth GP guides us to assign responsibility and authority for performing the process, developing the work products, and providing the services of the process. Services? Huh? It's OK; Hang in there.

Example, you say? Sure, let's go back to Santa’s Workshop.

The fourth GP informs Santa that it is critical to assign responsibility for the elf-engineers to execute the processes associated with building toys for all the good boys and girls of the world. Without that, the little girl elves would be making footballs and . . . oh, wait. Stop. Reverse that.

Who leads a JAD workshop? Who performs estimates? An elf has GOT know!

Santa calmly spells it all out ahead of time. He says, “Elf-John is responsible for making baseball gloves, and Elf-Sarah is responsible for making aprons (I never said Santa was politically correct!),” and so on and so forth ... assigning the elf that he expects to perform each process. Expects? Hmmm, sounds like GP2.1 to me.

If he didn’t do that, none of the elves would really know what they were supposed to do, and what they were responsible for. Elf-John would build a puppy that meowed. Elf-Sarah would build a set of legos that repelled each other. Defects would abound in Christmastown! Oh nooooooo! Think of all the crying children and angry parents! IT WOULD BE THE NIGHTMARE BEFORE CHRISTMAS!

Some of you might be saying, “Such is life! Herding elves is what management is all about.”
I say otherwise. I say it is a waste of time when I see management sending out an email to the entire team saying, “I want everybody to do this.” Then they wonder why nobody does it.

My favorite is: "Quality is everyone's job" or the even better: "you have to build quality into everything you do!" What the *#$% does that mean?

That won’t fly in Santa’s Workshop.

Here’s what will fly. Focus on the fact that the CMMI is about the transformation of the culture of your company. It’s about improving and changing the way your company behaves, so that you build toys that are better than other workshops that are building similar, but inferior, toys.

Assign responsibility and authority, and you will be guiding your company like a sleigh through the night.

After sampling Mrs. Appraiser's eggnog, you've certainly got the right color nose for it.
**DAY 5**

**Yule Love Your CMMI Training**

This holiday party is really roaring down the track!

What started as an innocent request at Santa’s knee (“All I want for Christmas is a successful CMMI program”) has evolved into a full-blown celebration of adopting one of the CMMI’s 12 Generic Practices (GPs) each day.

As you know, the GPs are foundational to the success of any or all of the processes you deploy. So we figured, what better gift than to help you make these GPs your own?

So let’s stand back and take in the scene.

The previous CMMI Consultant is napping in the bathtub. The Project Manager is dancing on the couch with a process work-plan in each hand. The Quality Assurance Manager and the CFO have teamed up to eat their way through an entire plate of Christmas cookies, while a bunch of engineers are huddled in the corner challenging each other as to who can bench-press the most Dungeons and Dragons books. Ah, tradition!

And then there’s us, the undaunted carolers. We’re putting on our coats, bracing ourselves with another shot of Mrs. Appraiser’s eggnog, and stepping back out into the cold because ...

It’s the 12 Days of CMMI, installment #5. Full voices now!

“On the fifth day of Christmas, my boss she gave to me:
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy."

Generic Practice 2.5 – Train People

The fifth GP guides us to train the people performing or supporting the process.

In other words, if Santa expects (there’s that pesky GP2.1 again!) his Project Manager-elves to be efficient at estimating and planning, he needs to train them on estimating and planning. If not, those proud elves, who are loath to admit they don't know how to do something will ACTUALLY TRY TO DO SOMETHING! Oh no!

If he’s going to plan for (GP2.2 - ding!) his QA-elves to run process and product quality assurance, he needs to train them on running process and product quality assurance.

If he’s going to provide resources (GP2.3 - bada bing!) for his BA-elves to trace requirements and run JAD workshops, he needs to train them on performing requirement traceability and running JAD workshops.

And if he’s going to assign responsibility (GP2.4---Voilà) to his elf-engineers to perform peer reviews, he needs to train them to perform peer reviews.

Then he needs to mentor them and give them encouragement and support.

This might be what you’d expect from the North Pole. But not here in North America, oh no. Here, the idea of needing training is considered a weakness by too many Scrooge-like bosses. Engineers are trained by being thrown into the fire and learning on the job. They're trained like MEN! They get put on a project and they learn as they go - if they're brave enough to ask.

Oh no Tiny Tim, you need to pull yourself by your bootstraps. That’s right. Bah-humbug!

GP2.5 requires different behaviors from executives. And most executives see the value, once they see the numbers. Training increases productivity early in the tenure of someone’s employment. Where it takes an average engineer about a year to get up to speed in terms of productivity with peers, this GP helps them get up to speed in a matter of weeks.

Santa has 15 different CMMI training courses that he provides to his elves, that are related to CMMI, Scrum, or general process improvement. With real life examples, lessons and proven
techniques, class participants take away – and retain – valuable information to be used on the job, immediately.

Then instead of worrying about what they're supposed to do, our happy elves just have fun DOING IT! As one old elf put it - can't we just make some toys now?

Be like Santa. Apply agile methods to continuous improvement, and be rapid, flexible, and able to meet the needs of the good little boys and girls of the world quicker than your competition might be. And believe me, if Santa doesn't come through, someone's Mom and Dad will!

And while you're at it, have another Christmas cookie.
DAY 6

**It's a Wonderful CMMI Program**

We started our Christmas party on Ask the CMMI Appraiser.com when an engineering exec wrote in that all he wanted for Christmas was a successful CMMI program. Nothing a little of Mrs. Appraiser's eggnog couldn't fix, so away we went!

He was frustrated because previous attempts to get a CMMI certificate had failed. Asking for CMMI Certification is like asking for a Commodore-64 for Christmas when you clearly need an XBox - big waste! Our hope in throwing the party was to remind this fellow of the immortal words of Clarence the Angel, who said, “No man is a failure, if he has friends.”

Do you feel crushed by a rigid, “one size fits all” view of the CMMI? Depressed by "over-compliance?" Too much process overhead? Saddled with hideous process debt?

Sounds like you need a friend. And I know just the guy

In our opinion, the best way to make friends with your CMMI program is to understand the Generic Practices (GPs), which are not discussed nearly enough. Because there are 12 GPs – like the Twelve Days of Christmas – and because we are always ready for a party, we got the great idea of adopting one GP per day. This was quickly followed by the not-so-great idea of going around the neighborhood, signing about it at the top of our lungs. Turns out the lady at the end of my block does not share my enthusiasm about CMMI. Her loss!

What can we say? There was eggnog involved.

We're having too much fun to turn back now! So join us for Day 6 of the 12 Days of CMMI. All together now!
“On the sixth day of Christmas, my boss she gave to me:

six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy.”

Generic Practice 2.6 – Control Work Products

GP2.6 guides us to place designated work products of the process under appropriate levels of configuration management.

Why? Because it’s awful to lose things. Remember George Bailey (Jimmy Stewart), when the money turns up missing from the Bailey Building and Loan Association in “It’s a Wonderful Life”? They searched everywhere, but can’t find it. George concludes that he is worth more dead than alive – and it takes a guardian angel to convince him otherwise. Please don’t that happen to you!

What if the same thing were to happen to your work products? What if they were lost and the pressure was bearing down on you to produce them, or else?

Don’t jump! GP 2.6 is your guardian angel.

GP 2.6 basically provides a double layer of protection for you. First, it offers us guidance to manage all of your reams of documents, databases, and other work products that are produced as a result of running a successful project. Second, it provides guidance on how to store those documents and work products, and manage them in some kind of repository or system.

Examples of work products placed under configuration management include:

• Specifications of base and derived measures
• Data collection and storage procedures
• List of configuration items
• Design templates

and more . . . .

Pretty logical, right?

At any rate, that’s how it works at Santa’s Workshop. The elf-engineers need consistent access.
to the descriptions of how the process works. They need examples, templates and tools. If they can’t get access to them, or don’t know where to find them, the work products of the process won’t get found or used. They’ll have no place to store their work products. Christmas would be canceled. Oh noooooo!

But the good news is, thanks to GP 2.6, the elves CAN find them. Work products of the process ARE found and used. And we know this is true because, every Christmas morning, all around the world, the good little boys and girls wake up to yet another perfectly orchestrated gift launch. All thanks to GP2.6!

Of course, a CMMI Training class will help all the elves understand what they are supposed to do with GP2.6.

We tried to tell our exec friend with the failed CMMI certification: there's a lot to like about Santa as a jolly, generous fat man. But his best characteristic as a leader is that he understands that adopting the CMMI is all about solving business problems. It’s not about documents, forms, certificates or ratings. It’s about adopting a model that's about how great organizations perform ...

... Which, in turn, is about living a wonderful life.

So, my friends, let's apply GP 2.6 in our workshop today and every day. Let's live a wonderful life.

Each time you do, an angel earns his wings.
DAY 7

Yes, Virginia, there is a successful CMMI Program

It’s a holly, jolly Christmas here at the CMMI Appraiser’s 12 Days of CMMI party. The eggnog is flowing, and everyone is warm and toasty except for the Director of Quality, who lost her boot in the back yard while stomping out a giant message in the snow:

DEAR SANTA, ALL I WANT FOR CHRISTMAS IS A SUCCESSFUL CMMI PROGRAM!

A programmer named Virginia objected. “Some of my friends in testing say there’s no such thing,” she said (isn't it always the testers that bring us down?). “Prove to me that there is a successful CMMI program.”

As you know, the whole point of our 12 Days of CMMI party is to celebrate the 12 Generic Practices (GPs), which are foundational to the success of any CMMI program.

Apparently, Virginia is late to the party. So why don’t we take her along with us on another trip around the neighborhood, because ...

It’s Day 7 of the 12 Days of CMMI. Sing it!

“On the seventh day of Christmas, my boss she gave to me:

seven roles connected,
six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans, and a box with a shiny policy.”

Generic Practice 2.7 – Identify and Involve Relevant Stakeholders

The seventh GP guides us to identify and involve relevant stakeholders of the process as planned.

GP 2.7 is another pivotal practice. It advocates the idea that if you identify and INVOLVE all the relevant stakeholders, and PLAN for their involvement, you'll increase the chances that they will show up and do what you want them to do.

Especially people like Virginia, who won’t believe the CMMI can be successful until they see it. Perhaps Virginia was being treated as if she is an "irrelevant" stakeholder. Not cool!

Hey Virginia, maybe you want me to come by and rough a few people up?

Now, a process might have within it dozens or hundreds of interactions between individuals or groups. In Santa’s workshops, for example, everything is made by thousands of interconnected elves, all of whom wear green shoes. GP 2.7 holds the team together by identifying and involving all the right elves at the right time.

And what a team they make! They can build anything from electronics to joke books to live pets, with few defects. That’s because Santa has identified and mapped what those interactions are, and who the stakeholders are in each interaction.

This interpretation of the CMMI (and GP 2.7) has worked so well for Santa over the years that he expanded it to cover all operations of all of the North Pole. He mapped everything from marketing to product design to manufacturing to shipping and handling, with each elf responsible for each part of the process.

Except for those lawyers. You just can't get them under control no matter what you do. Just ask Bill Shakespeare.

So Virginia, are you starting to get the big picture? There’s a whole other side to process and performance improvement that you’ve never experienced. It's the side that makes Santa so successful that he can bring every kid in the world toys in one night. Now that's an awesome process!

Unfortunately, we’ve found that the typical software engineering organization is too chaotic. Performance is unpredictable, projects are late and over budget, and you can never predict what you’re going to get. It’s the only engineering discipline in the world allowed to operate
this way.

By contrast, take a look at Santa. Clean shop. Happy elves. Work products on time, on budget and with all the requirements managed and documented. That’s because he uses a lightweight, agile approach to the CMMI, with GP 2.7 guiding him to identify and map what those interactions are, and who the stakeholders are in each interaction.

If they didn't have GP2.7 they would always be at ELF-CON 1!

Notice how he takes out the unpredictability and replaces it with sound engineering practices? See how performance improves across the board?

Results like that will get everyone believing in the true spirit of the CMMI, which is to do the things that make a company great.

Yes, Virginia, there is a successful CMMI program.
DAY 8

The Ghost of CMMI Appraisals Past

The previous CMMI consultant gave us a real scare today when he suffered flashbacks to past CMMI appraisals, and let out a scream: "BUT I GOT THEM THEIR CERTIFICATE!"

For those who came late to the party, here’s what’s happening.

We’re two-thirds into our annual 12 Days of CMMI holiday party, the festivus for the rest of us, or as I like to call it "holiday treats for the process geeks." Each day we’ve celebrated one of the 12 Generic Practices (GPs), which are the very essence of the CMMI.

Sounds like harmless fun, right?

Well, it was ... until the previous CMMI consultant – last seen napping in the bathtub – had a nightmare, and let out a blood-curdling shriek.

"It was awful," he said as we rushed to his assistance. "I saw the Ghost of CMMI Appraisals Past. He showed me everything I ever did wrong."

“There, there,” Virginia, the developer, said. “It was just a dream.”

“No, it was real!” the previous CMMI consultant said. “It really happened! I told my client they had to ‘get a level.’ I told another client ‘the CMMI Institute makes you document everything.’ To a third client I actually said ‘it’s all about the documents!’”

Now, the CMMI Appraiser is a compassionate guy, but how could we possibly empathize? The rest of us have always known that CMMI Appraisals are NOT about documents. Documents are merely one method for verifying process performance. And the amount of documents
(number, size, and scope) should reflect the needs of your projects. If you took a CMMI Training course and "learned" that the CMMI was about documents – go ask for your money back!

The previous CMMI consultant started sobbing, “I want to be like you guys! I want to change!”

Yea, I'll help you change.... professions.

Christmas can be an emotional time. Only the joyful acquisition of knowledge would set him free. So we gave the poor guy a belt of eggnog, threw a coat over his shoulders and took him out in the cold to go caroling with us. After all ...

It’s Day 8 of the 12 Days of CMMI. Sing it!

“On the eighth day of Christmas, my boss she gave to me:

eight measures captured,
seven roles connected,
six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy.”

Generic Practice 2.8 – Monitor and Control the Process

The eighth generic practice guides us to monitor and control the process against the plan for performing the process and take appropriate corrective action.

GP 2.8 is all about answering one simple question:

"How do you know?"

How do you know if the process works? How would you make it better? Are things improving? Getting worse? Static? Because if they’re getting worse, guess what! You blew it!

This is a very pivotal practice - maybe the most pivotal. This gives us data about how well the process works. If we don’t know that - why are we doing this?

Here are some of the data:
• How is the process performing?
• Are we getting the results we expected?
• How can we make it better?

Example? Let’s say Santa wanted to monitor and control the process of knitting sweaters. In an effort to monitor and control the elves’ development process, Santa will want to capture how many stitches it takes to knit a sweater using the current process, how many mistakes are discovered during formal "elf-reviews," and how many defects are in his sweaters. This is data about how well the sweater-making is going. GP 2.8 keeps Santa’s Workshop in a holly-jolly mood.

There are many different options for monitoring process performance. Data is reported on, at some point in time (potentially in real time), throughout the entire life-cycle. Sometimes it's more anecdotal. A healthy company has a combination of both quantitative and qualitative data.

Failing to monitor and control processes is not an option. And yet we see many so-called "CMMI consultants" exhorting their teams to finish the projects and present documents with no real insight into how things are going or how they can be made better. You end up with some really ugly sweaters.

But it's not about goodness they say! Bah humbug! It may not be about "goodness" but it is about KNOWING whether or not you have goodness.

Talk about the nightmare before Christmas!

Fortunately, there are better dreams to be had, and GP 2.8 helps make them a reality. As we keep saying, the CMMI is not about documents. It’s about learning to be a great company.

Our advice to the previous CMMI consultant? Be a great CMMI consultant. In my opinion, here are the characteristics of a great CMMI consultant:

A great CMMI consultant will TEACH you how to become successful Process Designers and Implementers so you can synthesize the right solutions for your company

A great CMMI consultant will TEACH you the most effective ways to communicate

A great CMMI consultant will TEACH you how to run a successful Process Action Team, or Special Interest Group

A great CMMI consultant will TEACH you about how your SEPG can be successful, and how it should evolve

Learn more about CMMI Training, CMMI Appraisals and CMMI consulting at www.broadswordsolutions.com

Process Innovation at the speed of life
A great CMMI consultant will TEACH you how to get value from your process – not just to “pass” an appraisal

A great CMMI consultant will TEACH you about “Just Enough, not Too Much”

Learning is something we do in Christmas Present. GP 2.8 assures that there is no need to live in Christmas Past.

Join us tomorrow for Christmas Future.
DAY 9

The Abominable CMMI Program Man

Merry Christmas! It’s the 12 Days of CMMI Party here the CMMI Appraiser’s workshop. Hope you brought a toothbrush because this party is in its second week, and we’re not letting up any time soon!

As you know, early last week, a bunch of us process geeks got together and decided to celebrate the 12 Generic Practices (GPs) by championing one GP each day.

Why? Because we love the GPs! We believe they are the very spirit of CMMI. And because we love any excuse to sample Mrs. Appraiser’s eggnog and get a little wild and crazy!

Have we succeeded? Well, a former CMMI Consultant was discovered taking a nap in our bathtub. The QA director lost her boot when she stomped out ALL I WANT FOR CHRISTMAS IS A SUCCESSFUL CMMI PROGRAM! in the snow. And a neighbor got irate because we keep circling the block singing “The 12 Days of CMMI” (to the tune of the Twelve Days of Christmas”) at the tops of our lungs.

I’d say, so far so good.

But the wildest thing to happen so far was when the CMMI sponsor, formerly the grouchiest,
meanest, foulest-breathed person at the party, decided to drop his threatening demeanor ("Do CMMI or you're FIRED!") and become a positive supporter of the CMMI program as a way to actually improve performance. Who could have seen THAT coming?

So yes, it’s wild. Yes, it’s crazy. And yes, it’s ...

... Day 9 of the 12 Days of CMMI! So put your coat back on and join us for some more caroling around the neighborhood. Let them hear you now!

“On the ninth day of Christmas, my boss she gave to me:

nine months adhering,
eight measures captured,
seven roles connected,
six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy.”

Generic Practice 2.9 — Objectively Evaluate Adherence

The ninth generic practice (GP2.9) guides us to objectively evaluate adherence of the process against its process description, standards, and procedures, and address noncompliance.

In other words, GP 2.9 is the act of capturing the data about adherence and reporting it out. This implies some level of oversight.

Take Santa’s Workshop. Santa must understand whether the elves are using the process or not. If they are not, why not? What’s the problem? How can we fix it? What did we do wrong? How could they get more value out of it?

If they don’t know whether the elves are USING it, how can they know they need to fix it? So, to all you people that say, "this process blows, I'm not using it.” . . . uhhh, WAKE UP!

GP 2.9 instructs Santa, as an executive, on what to look at to assure his processes are being embraced. It also instructs him on what to do with what he sees (i.e., report on his findings with some frequency).

What does that mean, “with some frequency?” How often should you report?
Well, every workshop is different. Your choices include reporting weekly, monthly, quarterly, hourly, or whatever is the right frequency for you. Santa does it annually, but he’s special. Whatever your frequency is, the important part is that you objectively evaluate adherence to the process, and report on it regularly.

Performing at the highest level of organizational excellence is what we’ve come to expect of Santa. I mean, what would happen if he didn't actually deliver all those presents? Have you seen "The Santa Claus?" It's unthinkable!

But we were shocked when we saw the CMMI sponsor starting to ask questions about GP 2.9.

Used to be, the old CMMI sponsor was an absolute monster. His CMMI team did the work it took to be a great company (and, as a natural consequence, achieved the appropriate CMMI Maturity Level).

The CMMI sponsor gave them about 90 seconds to celebrate before pulling out his watch and saying, “OK, how soon do we get to Level 4?”

Imagine how horrible that sounded to the CMMI team. Here they were, making significant personal investments in transforming themselves and their company, and the CMMI sponsor didn’t get it. He still thought it was a race.

“I want the next level by Tuesday!” he growled.

It was really abominable.

He was just like Bumbles, the Abominable Snowman, in that cartoon, Rudolf the Red-Nosed Reindeer. Remember? The mighty Bumbles captures Rudolf’s parents and girlfriend, and threatens to ruin Christmas, until he is defeated by Rudolf and the dentist-elf, and tamed by their friend the Prospector.

The same thing apparently happened with our CMMI sponsor. He kept dealing with the same issues of time, personnel and costs until, ultimately, those issues conquered him. His boss called him on the carpet and said, “Transform, or else.”

The CMMI sponsor finally began to realize that, instead of farming work out overseas, or laying people off, he had to look at the CMMI as a way to dramatically and radically improve the way he ran his department, and not just a way to document their work.

He took our CMMI Training. At the end of the second day, he came up to us, his face flushed with excitement.
“I see the light!” he said. “I see that the CMMI really is a tool-set to solve most of our strategic problems!”

Phew! Looks like we saved Christmas again.

So, party on, revelers! And join us on the next page for Day 10 of the 12 Days of CMMI!
DAY 10

The True Spirit of the CMMI

Yesterday here at the CMMI Appraiser’s “12 Days of CMMI” party, we witnessed a true Christmas miracle.

Yes, the abominable old CMMI sponsor, known for shouting at his engineers, “Do CMMI, or you’re FIRED!” suddenly became a champion of the 12 Generic Practices (GPs).

As you know, the GPs are the heart and soul of any successful CMMI program, and that’s all we really want for Christmas – a successful CMMI program.

Awww . . .

Today a new challenge has arrived. Bliss Unobtrusive, the CEO, finally showed up at the party.

We love Bliss. He’s a chilled-out boss. But that “no problem” attitude of his keeps feeding slack into the organization, which we keep trying to tighten. But we’ll deal with Bliss when we get back from our daily round of CMMI caroling, which we like to think of as our happy path to greatness. Especially when we’ve had this much eggnog.

Still with me? Today is Day 10 of the 12 Days of CMMI. Let’s make a joyful noise!

“On the tenth day of Christmas, my boss she gave to me:

ten process levers,
nine months adhering,
eight measures captured,
seven roles connected,
six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy.”

Generic Practice 2.10 – Review Status with Higher Level Management

The tenth GP guides us to review status with higher-level management. But that doesn't mean what you think it means.

It means management needs to care....

Enter Bliss, the CEO I was just telling you about. “Of course I care!” Bliss says. “I love this company like one of my children. Specifically, Hope, my oldest daughter, who needs glasses.”

Gotcha. But that’s not the issue, Bliss. We know you care ... but do you care about the right things? Are you looking at the right indicators? Do you even know what the right metrics are?

“Well, no.”

How happy are your customers? Do you have a lot of rework here? How productive are your employees? What kind of defects do you have?

“I don’t know. But we hire great people.”

So I turned to the CFO, who has been snarfing Christmas cookies as fast as Mrs. CMMI Appraiser can bake them. Sir, what are your two biggest challenges right now? Please finish chewing first.

“We have late projects, and over-budget projects,” he said. "Our clients are unhappy. Our people are unhappy. They have to come in earlier, stay later, work weekends, work nights, do whatever they can do. We have too many meetings. Our best people quit to go work for our competitors. Nothing we do is sustainable or scalable. We’re losing market-share. We’ll be lucky if we’re still in business one year from today. My stomach hurts.”

Dude, that was like 50 problems. I only asked for two.
Now let’s ask the CEO. Bliss, what is the solution?

“GP 2.10?”

Correct. Or better stated, applying the lessons of GP 2.10 in our adoption of the CMMI toward continuous improvement.

Again, GP 2.10 means management needs to care. It doesn’t necessarily mean that Bliss doesn’t care. It just means he doesn’t care about the right things. The answers I was seeking are exactly the kind of information he needs to have in order to manage his business with process levers. But he didn’t care about that.

See, when you care enough to embrace GP 2.10, you get this wonderful gift called Process Levers.

A process lever is something you do to the process to change a behavior or an outcome. They use process levers at Santa’s Workshop (you knew that was coming). In fact, Santa thinks about the CMMI primarily as a magical construct that gives him the framework to develop process levers.

Let’s say Santa was faced with lots of changing requirements, lots of mistakes in requirements and lots of disagreement about what needs to be done. If the Workshop is churning a lot on this – if they have more than 10% or 15% churn on their requirements – Santa can pull a process lever.

The lever he pulls says, “We need to validate the requirements in a different way as they come in the door. We need to catch these things before they get to test, before they get to design and code or build, and before they get to requirements spec drill-down.” In other words, we need to CHANGE the process.

Process levers are built right into the CMMI at the North Pole. But you can use them anywhere.

See, the cool thing about the CMMI is that it is not so much an engineering model as it is a behavioral improvement model. It actually gives us data (which comes from GP 2.8 and GP 2.9.) that allows us to say, “The next time we do this thing, is there a way to do it better, faster, cheaper, with higher quality and less costs?” – or whatever our goals and objectives might be.

Know how well the process is working, and whether or not people are using it.

That’s the true spirit of the CMMI, Bliss.
DAY 11

'Twas the Night Before CMMI

On the night before CMMI, the process police showed up waving their damn CMMI books at our “12 Days of CMMI” party, and asked the CMMI Appraiser to pipe down. Apparently, the neighbors complained. They didn't like our well-organized and efficient partying!

The cops took down our side of the story. We described the awakening of the former CMMI Consultant, who saw a ghost and discovered that CMMI certification is not a very cheery goal. We told them about the transformation of our CMMI sponsor, who learned that the CMMI really is a tool-set to solve strategic problems. And we explained how our blissfully ignorant CEO gained a modicum of understanding that he needs to care about the right things to make his organization great.

We tried to prove to the officers: All we want for Christmas is a successful CMMI program.

“Save it for the judge,” they said. “All we want is to STOP the noise.”

Noise? You mean our song? You mean “The 12 Days of CMMI?” THAT SONG? It's a joyful song that is sung to the tune of “The Twelve Days of Christmas,” which we use to celebrate the 12 Generic Practices (GPs), without which, no CMMI adoption can be successful?

THAT song?

OK, we're up to one of my favorites - GP 3.1! Let's go!

“On the eleventh day of Christmas, my boss she gave to me:

eleven process flowcharts,
ten process levers,
nine months adhering, eight measures captured, seven roles connected, six storage systems, FIVE DAYS IN CLASS! four new assignments, three new compliers, two process plans, and a box with a shiny policy."

Generic Practice 3.1 – Establish a Defined Process

GP 3.1 guides us to establish a defined process.

This takes some explaining. Yes, the long arm of the law may be after us, but let’s pause long enough to make ourselves clear. There’s more to GP 3.1 than establishing a defined process. GP 3.1 is really guiding us to define how each process is going to be performed within the context of the project.

Now, before his awakening, our old CMMI Consultant insisted that, in order to "do CMMI," then "EVERYTHING MUST BE DONE THE SAME WAY EVERY TIME!" Phooey!

This is where the architecture comes in. For example, in the North Pole, Santa provides a facility for his elves to define their own process, based on guidelines and standards. For each project, they will establish a process that is defined for their project to meet their needs, all thanks to GP 3.1.

By the way, did you notice the numbering of these GPs? The first 10 GPs started with the number 2. That’s because they provided guidance through Maturity or Capability Level 2. These last GPs start with the number 3 because they are specific to Maturity or Capability Level 3.

GP 3.1 gives companies some definition around how they perform their work. After all, every project is going to have some uniqueness to it. It’s up to management to provide an environment in which the organization can manage that uniqueness in a structured way - based on a SET of processes that are available for use.

Let’s say Santa’s elves are welding bike frames for Christmas. Now, you may not have known this, but most elves are left-handed, and so the processes naturally are designed for left-handed elves. But a few of the elves are right handed. They naturally want to hold the blowtorch on the right side, rather than the left side, which is what the process calls for.
What to do? Well, Santa’s very flexible and agile. He understands the value in having his right-handed elves to do things rightly. Imagine what could happen if he didn't! You've heard of a "scorched-earth policy?" This is a scorched elf policy! Accommodating the righty will require a customization of the process, based on the specific needs of the project. But Santa’s OK with that, because he’s got GP 3.1 to guide his sleigh tonight.

See, that’s why GP 3.1 is so important. Many companies try to standardize the way work gets done. When they do that, they try to make everybody do everything the same way. But when they do that, then they’ve got all of their people doing things the same way, but they are not necessarily the right things for their project. They actually make it HARDER! Those people deserve a piece of coal in their stocking.

In fact, without GP 3.1, the process police would surely head straight to the North Pole and burst in on Santa’s Workshop. They would apprehend each right-handed elf and move the blowtorch to the left side, because that’s what the process says. And Christmas would be ruined. And so would some elves.

Oh, look! What good timing! Mrs. CMMI Appraiser has brought out a fresh batch of eggnog.

Let the record show that the process police sampled a mug, then another, then another ...

And the next thing you know, the men in blue were out there caroling along with the rest of us. And there was not a darn thing the neighbors could do except cover their heads with a pillow and hope that Saint Nicholas soon would be there.

Call it Christmas justice.
DAY 12

*Hark, the CMMI Angels Sing*

Rejoice! Rejoice! All across the land of CMMI, the day is finally here!

Since you’ve been partying with us at the CMMI Appraiser’s 12 Days of CMMI holiday party, you know all we wanted for Christmas was a successful CMMI program. Well, guess what?

WE GOT IT! Woo-hoo!

We know we never could have had a successful CMMI program without the wonderful Generic Practices (GPs), which every software and engineering executive needs to own to have any hope of experiencing continuous process and performance improvement. The GPs guided our every sure step.

Wow, what a day! The former CMMI consultant got a pair of footie pajamas. The CMMI sponsor got a new process tool-belt, and the CEO got a cute puppy to love on. And the CMMI Appraiser?

Check it out! Mrs. CMMI Appraiser gave me this cool vintage CMMI guitar.

So, what do you say, my revelers? The CMMI Christmas Carolers go electric! Let’s hit it one more time!
“On the twelfth day of Christmas, my boss she gave to me:

twelve new improvements,
eleven process flowcharts,
ten process levers,
nine months adhering,
eight measures captured,
seven roles connected,
six storage systems,
FIVE DAYS IN CLASS!
four new assignments,
three new compliers,
two process plans,
and a box with a shiny policy.”

Generic Practice 3.2 - Collect Process Related Experiences

GP 3.2 guides us to collect process related experiences – or ways of “doing it better” next time.

This is the last Generic Practice, and it is my all-time favorite. It’s another pivotal practice, and it’s the gift that keeps on giving, all year, every year.

GP 3.2 is about making the process better, based on data and experience.

What is the “experience” of the project? This is the lesson we learned from implementing the process.

Like at Santa’s Workshop. As we said yesterday, nearly all of Santa’s elves are left-handed. But not all; some are righties. Santa found out early on that it does little good to design processes for all left-handed elves. Here’s how he figured it out:

One day, while attempting to weld a bicycle frame and earnestly trying to utilize the process as it was written, a right-handed elf took a blowtorch in his left hand – and burned down Santa’s Workshop. Though the elves escaped from harm, three snowmen tragically melted.

Santa decided his process created too many errors. He wanted to fix it to allow elves use the blowtorch on either side. Now his new write-up of the process says, “Place blowtorch on the left side or the right side, depending on your welding style. And for God’s sake, do not operate around snowmen!”

Same holds true in our organizations. Without GP 3.2, companies would keep running the
project the same way they ran every project. Or, more commonly, your people would find that the process did not work, and just avoid or ignore the process, and do it any old way they wanted to.

Remember, we’re not building a product. We’re building a process, and that process has an architecture. Like a product . . . but not. Well maybe yes.

This might be a tall order, given all the eggnog we’ve consumed these last 12 days, but we’ve got to wrap our head around the idea that we are not creating some process flowchart. We are creating a product that our company is going to use, and the essence of that product is that it is the architecture in which we do our work.

If I can leave you with one thought that will carry you through the new year, it is this: The Generic Practices represent the things that have to happen to make the architecture possible. These things are strategic in nature. As such, they are under YOUR control as management of the company.

GPs enable the Specific Practices (SPs) to be successful.

GP 3.2 calls on YOU to learn this lesson. Have your teams collect information at the end of projects, at the end of phases and the end of durations (or sprints), that help you improve. Once this information has been collected, GP 3.2 allows you to actually do something with it. Hold a retrospective that really gets this good information and feeds back into the process. Tell the team, “We can do this better next time, and here’s how.”

That’s it, my friends. Though our party is ending, remember that the CMMI is an ongoing celebration, a model for being joyful in the quest for becoming a great company. And GPs guide the way.

Have a happy New Year, and rock on!

Jeff Dalton is a Certified SCAMPI Lead Appraiser, Certified CMMI Instructor, author, and consultant with years of real-world experience with the CMMI in all types of organizations. Jeff has taught thousands of students in CMMI trainings and has received an aggregate satisfaction score of 4.97 out of 5 from his students.

Visit www.broadswordsolutions.com for more information about running a successful CMMI program.