

Collection

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Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

Fernando,

Thank you very much for sharing the thoughts. It seems that you are given good opportunities to make practical use of the tools that you just acquired from this course. Please feel free to let me know if you need my assist. Thanks. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 9, 2018 8:49 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Fernando Guirola

Xiaomin,

As mentioned before, I work for a private company and they do not share too much meaningful data with their employees. Recently though I have spoken to my manager and requested more data so I can start diving into forecasting as well as optimization. He has agreed and will share anything that comes his way to me. I will then report back on what I find with him. I know there is so much low hanging fruit at my shop that nobody is even paying attention that I believe we can make an impact just by glancing at the data and making sense of it all. I know that some of the data we have is garbage but that is where this semester and the tools we have learned comes in. I believe I can help with forecasting orders in the shop, inventory levels/needs and optimize inventory based on our forecast. What we have learned in the last two modules is eye opening in my opinion and

encapsulates perfectly one of the reasons of why I joined this program. I wanted to learn new tools to make an impact quite quickly. And with this class you can make a great impact immediately. Again, thank you for the awesome class very useful tools you have taught us.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 9, 2018 9:14 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:**Xiaomin Yang**

Jason,

Hopefully your learning on this topic may provide more insights to the engineering execution initiative. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 9, 2018 9:13 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:**Xiaomin Yang**

Travis,

No problem. When the time comes, you will be ready for applying the optimization principles to the emerging opportunities.

Xiaomin

(Post is Read)

Thread:**Posted Date:**

December 9, 2018 1:03 AM

What might be the potential applications of optimization in your organization?

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Travis Briscoe

Sorry was work off of phone and their were some bad autocorrect words in my reply.

(Post is Unread)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 9, 2018 1:01 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Travis Briscoe

I am having difficult time thinking of a way that a optimization process could be applied to our company. The problem is our company is lacking is so many areas as far as tracking financial items that I think any optimization analysis would be completely inaccurate. Of course, if we kept better records and actually attempted some simple forecasting it would be possible but I have continually attempted to persuade them to keep better track of many records with no success.

While I think it may not be possible to use at our company level, I do think on Individual projects it would be possible. I have my own records for past projects and I think it can be well suited to figuring out the optimal man power and equipment to maximize profit on individual projects. If I could show some benefit of using optimization on projects and other techniques have talked about during the semester mayor will help convince my company to abandon me of their old ideas and start adopt some new techniques that can help our company grow.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 8, 2018 11:57 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Jason Evarad

We are currently in the process of optimizing our engineering execution by analyzing and updating how we create our submittal packages, graphics and software. Currently all of our branches across the country kind of do everything on their own so things look different across each branch. We are working to standardize our applications so we can execute more effectively and share resources more easily across the country.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 8, 2018 3:04 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:**Austin Kinsler**

A large area that we could begin to optimize in my company is interconnect projects (meter stations) we design build anywhere from 30-40 of these a year, and each and every one of them we are recreating the wheel. While there are things such as different state codes, climates, permitting and things and such, there are a lot of the processes that could be optimized. For example, creating a drawing package that is the same layout for every station.

(Post is Unread)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 8, 2018 11:01 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:**Xiaomin Yang**

Joshua, Inventory management is always a promising area for optimization. Cash flow management is another area. It may save you some significant bucks if you optimize your cash flow. Thanks.

(Post is Read)

Thread: What might be the potential applications of optimization in your organization?

Posted Date: December 8, 2018 1:36 AM

Status: Published

Post: RE: What might be the potential applications of optimization in your organization?

Author:  Wesley Ruebman

Optimization is used throughout Cummins. Most of our conversations lately have been about how can we make this cheaper and more profitable. So, from a parts and labor cost stand point, I have seen this optimization since we developed our current emissions portfolio. The other area I have seen a focus on optimization is material and travel cost. We have reduced our parts and material inventory to minuscule amounts. I have seen travel restrictions implemented for any non-necessary customer visits. These reductions are coming during a time of record sales and revenue. I assume this is to optimize our region and maximize our profits during this upswing in oil and gas.

(Post is Unread)

Thread: What might be the potential applications of optimization in your organization?

Posted Date: December 6, 2018 10:19 PM

Status: Published

Post: RE: What might be the potential applications of optimization in your organization?

Author:  Joshua Barnard

Within my work area, this optimization activity could be done in our part buy processes. What happens on my team is, as we track the life of electronic components we use, we inevitably run into end of life events where the manufacturer decides they are going to discontinue the product. At this point we have many options and in one scenario, where we don't have any other future plans to align to (which will give us a chance to design this part out of the system), the mitigation option becomes cloudy. Do we buy 10 years worth of parts? 20 years? A lifetime supply (decades)? We deal with factors such as storage costs, which at times can be more expensive than the part itself, the cost of the components, shelf life, and because this would be inventory, financial exposure.

I can picture this optimization tool helping us define the best mix of inventory so that our financial exposure is protected and find the "sweet spot" between storage costs, shelf life, and product coverage. As I had mentioned before, buying as many parts as possible is not always the best solution. We have experienced certain situations where we know the cost of kicking off a redesign to specifically take care of this part (although we don't like doing that), we know the cost of the component, but the component required such special storage that pumped up the

cost of a lifetime supply that it actually made more sense to plan for an expensive redesign instead of storing these parts! So, having the tool determine that in a time efficient manner would be excellent. Additionally, along this same example, the question would then be when within the product life cycle to hold the redesign? Do we start 5 years, 10 years, 15 years from now? Where is the balance between cost of component, its storage, and optimum time to hold a redesign so that those costs balance each other out. If we wait too long to do a redesign, the storage costs start to take over. If we do a redesign too soon, then we don't get the biggest "bang" for our investment during the redesign. This is because we have a set of rules when doing a redesign which requires us to mitigate all other obsolete or near obsolete components as well. If we put a data point on a timeline at each expected end of life we predict will occur based off of our bill of materials, then strategically speaking, it would behoove you to start a redesign right around the area with the densest spread of data points. Due to the rules we follow, we must redesign existing obsolete components and say... anything within 10 years of going obsolete, so we would "capture" the mitigation of an preexisting and any future obsolescence within a single redesign getting the best value. However, again we must consider the cost of buying previous obsolete components, storing them, up until this redesign breaks into production and becomes the new current design with new parts. This optimization might find that it really isn't better to wait for a when a lot of components go obsolete, or maybe, the components are cheap and simple so there aren't any storage requirements, and it may say the best option is to buy a lifetime supply! I've seen both scenarios occur, and it is difficult to get everyone on board with the plan when it isn't clear (due to all the factors at play).

On a side note, I was speaking privately with some classmates about how I could see this being used in our personal finances. Trying to determine do I take an auto loan or pay up front, do I fast track mortgage payments, by how much, how will that impact future savings that might be able to be invested, how much do you keep in savings just in case, etc. Again a lot of variables and I think it would be cool to see how the tool finds the optimum balance like it did in the Optimization Example 2.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Kathleen Teodoro

Posted Date:

December 6, 2018 2:19 PM

Status:

Published

Great observation! Thanks for sharing that idea.

- Kathleen

(Post is Unread)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 6, 2018 12:24 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Samuel Woods

I could see the optimization being useful in determining the allocation of resources within our team. In being able to determine which projects are going to be more profitable and require more headcount we can figure out how to use our head count more efficiently. I can also see this as being very helpful in personal investing of money. I will absolutely be using this to help me figure out what a plan of attack should be. It isn't the final deciding factor, but the optimization is a useful tool in deciding how and where to spend our money.

(Post is Unread)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 6, 2018 11:21 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Xiaomin Yang

Dear Rachel, for a startup, the debt management is important as the business's cash flow is quite thin. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 6, 2018 11:18 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Xiaomin Yang

Dear Taylor, Glad to hear that some tools can help you to be a great leader. You are doing well. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Taylor Leach

Posted Date:

December 5, 2018 6:59 PM

Status:

Published

Now that it is the end of the semester, I am sure I sound like a broken record by now. I don't have a lot of insight into the financial side of things so it's tough to say where I could place this model. But I can say that I am in this program so I can be prepared for the day that I am thrust into the realm of leading a team through these types of situations. With that being said, the decision trees have helped in several areas that have surprised me. They have helped by taking the emotions out of decisions as we have previously discussed.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Rachel Hulett

Posted Date:

December 5, 2018 5:55 PM

Status:

Published

For my business, I imagine we could use optimization for budgeting purposes. Being a start-up investment company, we acquired our first long-term debt this fall. We're a long way from determining maximum long-term debt for continual basis. As we develop as a company, we will be able to better determine what long or short-term loans we need to function as a business. Those are the most immediate applications I can think of in my organization.

Rachel

(Post is Read)

Thread: Thanks!
Post: RE: Thanks!
Author:  Xiaomin Yang

Posted Date: December 4, 2018 10:25 PM
Status: Published

Lisa,

Paul, Thank you for the kind words. Glad to hear that you all enjoy the course.

Xiaomin

(Post is Read)

Thread: Thanks!
Post: RE: Thanks!
Author:  Xiaomin Yang

Posted Date: December 4, 2018 10:24 PM
Status: Published

Paul, Thank you for the kind words. I'm lucky to be with this group of excellent Aggies.

Xiaomin

(Post is Read)

Thread: Thanks!
Post: RE: Thanks!
Author:  Paul Carman

Posted Date: December 4, 2018 6:41 PM
Status: Published

I completely agree. This was an extremely informative course that uses tools that you could immediately apply to your work environment. It did have a "fun" element to it.

Thanks Xiaomin.

(Post is Read)

Thread: Thanks!
Post: Thanks!
Author:  Lisa Ely

Posted Date: December 4, 2018 12:41 PM
Status: Published

A big thanks to XY for being a great instructor and guiding us through our learning process. It's been a fun and informative class.

If you haven't done so yet, be sure and view the Closing video XY posted.

Also, thanks again for being a great cohort. You guys ROCK!

See you all soon!

Lisa :)

(Post is Read)

Thread:
What might be the potential applications of optimization in your organization?

Post:
RE: What might be the potential applications of optimization in your organization?

Author:  Xiaomin Yang

Posted Date: December 3, 2018 3:42 AM
Status: Published

Dear Caroline, your observation is consistent with the results of the MIT managers survey. Financial planning and operation are the two top areas where optimization can make a difference. Thanks. Xiaomin

(Post is Read)

Thread:
What might be the potential applications of optimization in your organization?

Post:
RE: What might be the potential applications of optimization in your organization?

Author:  Xiaomin Yang

Posted Date: December 3, 2018 3:29 AM
Status: Published

Dear Christopher,

Thank you very much for sharing the comprehensive insights about optimizations opportunities in your company. Sounds like a lot of good opportunities. Aerospace

industry is new and exciting to me. If you happen to conduct any optimization analysis to improve business decision making process, I would appreciate a chance to learn how this works in your industry. Please keep me posted.

Thanks. Xiaomin

(Post is Read)

Thread:
Module 8 Tool 3 Aggregate Planning Business Example

Posted Date: December 3, 2018 12:22 AM
Status: Published

Post:
RE: Module 8 Tool 3 Aggregate Planning Business Example

Author:



Samarth Shaileshkumar Mistry

This might be a one-off rounding error in excel. The optimization solvers used in the industry today are robust enough to tackle this.

(Post is Read)

Thread:
What might be the potential applications of optimization in your organization?

Posted Date: December 2, 2018 6:39 PM
Status: Published

Post:
RE: What might be the potential applications of optimization in your organization?

Author:

Stepping a little outside of the box, there may be some quality department optimization applications possible. For example, if we know from historical analysis of rejections to our suppliers that around the holidays, we receive more defective products, we could plan to increase quality inspection headcount temporarily during those times of the year in order to facilitate more rapid response to those defects. Or, if we are awarded a new contract, we should be able to review past data for drawing review and release cycles, as well as other Quality Engineering tasks, to ensure that we have adequate resources available to perform the work in a timely manner, and accurately.

(Post is Read)

Thread:
What might be the potential applications of optimization in your organization?

Posted Date: December 2, 2018 6:37 PM
Status: Published

Post:
RE: What might be the potential applications of optimization in your organization?

Author:  Christopher Maguire

In my organization, the potential applications for optimization could be done in terms of either scheduling for production and sustainment bids, or even new business capture and work bidding cycles.

When we are attempting to capture new business in terms of competition, using optimization could give us better insight into the ideal number of components/systems or even aircraft to produce for just the right “Head Count” and contract sizing. Perhaps the Customer really wants 230 aircraft a year, but if we could show that the OPTIMIZED value, in terms of cost for us and cost for them, might be higher/lower, and then could yield a key negotiation or bargaining piece. This could be particularly true when dealing with legislative demands of using a certain supplier, keeping a fixed number of heads in a respective state, or using X or Y number of small businesses.

From a sustainment perspective, this is the big push in our organization.... How many of our products can we support and sustain adequately in order to give the highest fleet readiness possible to our customers. This goes into prioritizing certain sustainment types (computers, flight control, hardware, maybe structural elements, flaps and physical controls, even tires or engines, etc) into what is most needed by the customers versus what is most beneficial for any one of our suppliers or locations to tackle or address, and when. This would enable us to prioritize/queue certain sustainment contracts or bids as needed based on modelled demand and ideal throughput for whatever that system constraint may be. When dealing with multiple long lead items, it requires a certain degree of magic and vision to see ahead... and proper optimization models could enable that.

As we attempt to model capacity for production and sustainment, we will inevitably have our own levels of constraints and financial targets to hit, but we will also need to forecast what our demand should be, human capital requirements, and machine/production capacity in the plant and those of our suppliers.

Even in terms of flight test (ESPECIALLY IN TERMS OF FLIGHT TEST), we have a given demand of aircraft that need to be tested before delivery, only so many ideal flight envelopes to do each day, so many pilots on call any given day, so many assets available for use on any given day.... Weather conditions.... Everything. Flight test is in critical demand, and our rockpile method of

determining needs is one of many ways we try to optimize and model our path forward of capability, demand, and priority. Knowing you have A planes available, B ground crews, C test assets, or D given models or variants, E days of appropriate weather, F days of consecutive flight option for any one given aircraft, or G specific number of test points to reach for each flight, is everything right now for us and this hits close to home as the year winds down and aircraft deliveries must be met timely.

I could see optimization becoming even more critical as new customers surprise us with new or larger than expected orders, or on the other side of that, when a customer suddenly cancels or adjusts a huge order... what do we do with those production assets? The seed assets? Did we overestimate labor expenses? Do we need to lay people off? Are there other tasks that can be worked instead by that work force? How do we balance and move people and other resources around in the event of a surge or burst in demand? Again, modelling is the flashlight in the room dark with uncertainty.

These topics, and really ALL the topics we encountered this semester, have come into play in the working realms and this course gives us insight and even competitive advantages over our peers in terms of these strategic decision making processes and needs. Thank you, Xiaomin!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 2, 2018 6:36 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Caroline Stasiowski

The most obvious application of optimization in my current organization is for budget and production planning. Due to certain program ramp-ups, the demand for some of our product lines is far exceeding any past demands (four-five times the demand 1-2 years ago), and it is continuing to ramp. However, being in the Aerospace industry, we have visibility to the bulk of the customer's demand through long term scheduling agreements, so we have some reasonably accurate data to pull from and base our estimates off of. Using past data for takt time of our products through each station, rework in cell, and the returns to vendors for quality problems as-received, I think we could potentially perform some optimization at a more granular level, down to the production cycle specifics.

I don't currently know how the planning is done, as I'm pretty new to this

company. However, I do know that they are actively managing their labor and operations as they try to catch up on their backlog. They have hired a lot of people, both full time and contractors, and many of the shop floor employees are working voluntary overtime in order to help catch up, so I know the company is taking steps to increase short-term headcount in order to gain capacity to meet the market demand.

(Post is Read)

Thread:

Module 8 Tool 3 Aggregate Planning Business Example

Posted Date:

December 2, 2018 6:18 PM

Status:

Published

Post:

Now RE: Module 8 Tool 3 Aggregate Planning Business Example

Author:

Christopher Maguire

Now that sure is squirrely.... could be rounding in the background? Set precision to displayed for the work book or maybe its some rounding/truncation error going on. Hmm.... a good question.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 2, 2018 3:52 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Lisa Ely

Buck,

It makes a person wonder how companies such as your last one stay in business with so much inefficiency. Having a great product alone won't keep a company afloat.

(Post is Read)

Thread:**Posted Date:**

December 2, 2018 12:24 PM

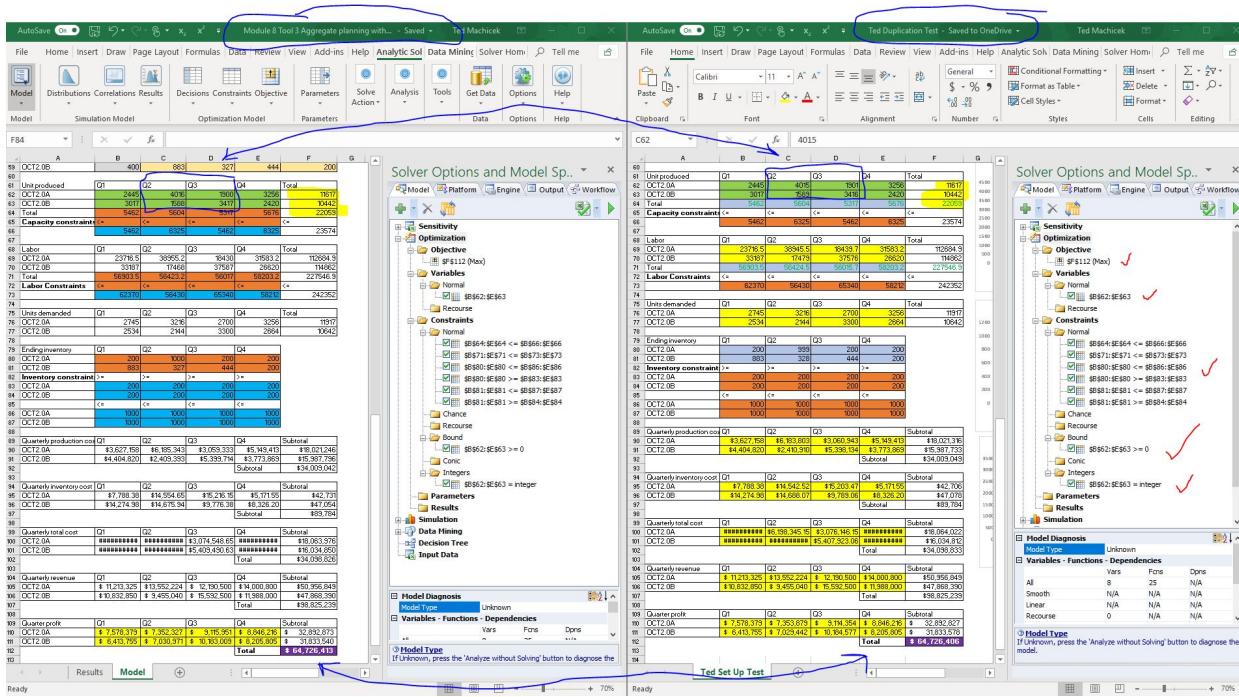
Post:

Module 8 Tool 3 Aggregate Planning Business Example

Author:

Theodore Machicek

Using the business model provided, I testing creating the same setup. Without changing ANY of the supplied information, my solution is off. The variable found - for both products is off by 1 for Q2 and Q3 - and provides me with a different maximum objective value. If you look at the picture below...Lecture example is on the left, my duplicate is on the right. Again...focus on the variables values in Q2 and Q3. I end up with the same TOTAL number of units produced; however that shift results in a max profit down by \$7 from that lecture calculated. Inserted picture and attached JPEG for your review.



Attachment: Module 8 Tool Compare Question.JPG (524.352 KB)

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Posted Date:

December 2, 2018 7:34 AM

Status:

Published

Author:



Buckley Edwards

I was in a similar situation as Lisa, I never got the chose in optimizing anything. The company is small and they do not use any software to assist them in making such decisions. The optimizing type decisions are made in small group meetings of the managers. The technicians are more or less left out of meetings where their input could help change things for the better. A box with most of the parts for a unit assembly can be left on a shelf longer than it should be because something else took priority. Which a call from a customer asking for an expedition of there unit could have been what did this. The company I was at is old school, but they produce great products.

Buck

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 1, 2018 8:31 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Kathleen Teodoro

Everything CJ shared is true of our customers, the businesses who purchase our software, One of my goals in the program is to gain keener understanding of businesses and challenges, so I might connect with one of the customers with whom I have a close relationship to share what I've learned in this unit to explore the applications. Ted mentioned inventory management, and I can imagine applications there as well.

Lance also mentioned vendor/partners, and that got me thinking that I might be able to use a similar optimization tool to analyze the impact of establishing a different financial agreement with our software partners. A small ecosystem of related software products has now developed around our company, with our partners expanding our footprint or impact by developing add-on products. My intuition tells me that we are nickel-and-diming those partners in a way that is penny wise and pound foolish because they are driving sales and increasing the transition costs for customers to leave us. I look forward to exploring how I might employ some combination of these analytic tools to test my intuition.

(Post is Read)

Thread:

Posted Date:

December 1, 2018 8:16 PM

What might be the potential applications of optimization in your organization?

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Kathleen Teodoro

Ted, thanks for suggesting we look for past cases. Great idea!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 1, 2018 8:15 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Kathleen Teodoro

Yes, thank you for that example. Very useful!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 1, 2018 8:13 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Kathleen Teodoro

Thanks for sharing those ideas, Leigha. I can't wait to brainstorm with our product owner to see if we could do something similar! I hadn't thought of applying this kind of optimization tool that way, but we could do it almost immediately to prioritize our internal development projects. As you mentioned, "If we had numbers associated with each feature/task that helped us quantify the backlog to help identify the features that need to be higher in the queue, we might find a way to deliver more within our sprints." Really interesting idea!

(Post is Read)

Thread:

Posted Date:

December 1, 2018 11:03 AM

What might be the potential applications of optimization in your organization?

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Lisa Ely

This one is hard for me. I'm in engineering and manage technicians and engineers. We are an Operations team so our work is driven by the needs of the development team. We don't have production deliverables but do have project deliverables. For most of the team, our projects are chosen by priority and what can be completed in an iteration. The only place where I can see we can utilize optimization is in our people resources. Deciding whom to put on projects would be a way of optimizing those resources.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 1, 2018 10:56 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Xiaomin Yang

John,

You are welcome.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

December 1, 2018 9:52 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



John Portillo

Dr. Yang,

Thank you for the recommendation. This will be well received by my data driven management.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

Posted Date:

November 30, 2018 4:01 AM

Status:

Published

Ted, thanks for trying to identify some opportunities in your company. It's wise to start with past cases and show what you can do to improve them for the future operations. Thanks. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

November 29, 2018 11:03 PM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Theodore Machicek

For my role, in operations, I see myself using this for inventory planning for multiple program and location scenarios. In addition, I see large potential in applying the portfolio optimization. When time allows, I would like to pick some scenarios from the past - in my org - to see how data could have been applied (in hindsight).

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

November 29, 2018 11:24 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

John, good luck. A portfolio with many one-off projects is not hugely different from that with planned projects. You just need to develop a optimization template and run it when a new project comes in. The tool can be more powerful in your company's situation as you can re-allocated resources, at different time points, say now, one month, later two-month later, to different projects in a timely manner to maximize the project delivery. You may develop simple formula to relate project value of man-power, such as X hours less than required man-power, may cause a delay and cost Y thousand dollars.

This can be a very valuable practice for your company. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

November 29, 2018 11:12 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



Xiaomin Yang

Dear Leigha, good initiatives. I look forward to leaning how you optimize sprint planning, this is a new topic for me. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

November 29, 2018 10:23 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:



John Portillo

I will be discussing using optimization in my leadership meeting tonight. 90% of all projects are one offs for us so it is difficult to plan and prioritize resources. Using the optimizer and in putting the available labor hours for engineering and production along with the constraints of the business may help us devise a more efficient work flow plan. The "fire fighting" method does not work very well when trying to maximize GM and operating income.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author: Leigha Carter**Posted Date:****Status:**

November 29, 2018 7:44 AM

Published

We have just completed our annual budgeting cycle, but I could see us using all of this together to estimate budget received vs. story points/features our teams could produce with their current velocity, giving us more data to use to choose the projects we tackle. We assign a certain number of development teams to a project based on its estimated size, and we can estimate how many features each team could produce (on average). Add to that the potential customer experience impact, and I think that we could find a way to really focus on the development projects with high impact.

I think that the teams could also take this down to a feature level and make the same optimization calls - we currently groom our backlogs and try to balance the priority and task size for development, but it's subjective based on discussions with the product owner, business, and scrum teams. If we had numbers associated with each feature/task that helped us quantify the backlog to help identify the features that need to be higher in the queue, we might find a way to deliver more within our sprints. Thanks to these talks, I've started looking into how others in the industry optimize their sprint planning, and if there are ways we can leverage those practices!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

Posted Date:**Status:**

November 28, 2018 11:57 PM

Published

Dear Lance, thanks for the insightful note. Please let me know if you need any help of modifying the aggregate planning model for your company. Also, I have developed some lecture slides and tools for contract optimization which includes batch size constraints that you mentioned in the above note. I can share them if you need. Thanks. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Paul Carman

Posted Date:

Status:

November 28, 2018 6:39 PM

Published

Yes this is very interesting and helpful. I have some understanding of what finance does for the group budgets. I am going to try to use this for one of the business units to look at optimizing product cost in some of the different areas that we operate.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Lance Decker

Posted Date:

Status:

November 28, 2018 4:47 PM

Published

Between decision trees and optimization, I can go to a lot of places. We have a lot of competing priorities for projects, and products, it is often hard to understand what to work on first. Decision trees are helping here, but not getting much traction. The optimization I can see as eventually helping us get a grip on measuring demand and driving that to production. We are in the midst of moving a great deal of our manufacturing from in house to a partner, especially for the smaller components. That said, we still have the responsibility for planning production. The vendor/partner has a constraint on minimum batch sizes so they can work efficiently. That drives a great deal of conversation internally. Today sales is very poor at estimating market demand. We know what is already in the pipeline, but we don't forecast well. That hurts both ways. On one side we overproduce and have stale inventory and on the other, we have a starvation for product with a 3 month lead time.

I work for a start up that is trying to make the transition from start up to a formal organization. There's a lot of challenge here, but it is a great place to try out things from the courses. I am operating far above my pay grade right now at work and it is being noticed by the top levels of the company.

I have found this optimization intriguing, once I got it figured out. The Assessment 3 is very very interesting and can have some application for me at work.

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

Posted Date:

November 27, 2018 11:47 PM

Status:

Published

Crystal, glad to hear some immediate application opportunities of your learning at work. Thanks.

(Post is Read)

Thread:

Quizzes for Module 8

Post:

RE: Quizzes for Module 8

Author:

Fernando Guirola

Posted Date:

November 27, 2018 7:49 PM

Status:

Published

Thanks for the birthday wishes Tyler!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Crystal Moreno

Posted Date:

November 27, 2018 3:46 PM

Status:

Published

With a large ramp up in build being projected this next year. This entire year has been full of conversations around optimizing every area of our business: cash, resources, equipment (also cash), schedules, capacity, etc. I am very intrigued after using the analytic solver to see how I can begin to plug in some of the information I have today and see how it compares to decisions we have begun to

make. We have a weekly meeting with each department from human resources, supply chain, operations, etc to figure out what activities and objectives each team needs to accomplish to maximize our capability and capacity within the plant. Putting more math to this may help us make decisions we have not been 100% certain on. This was a great topic!

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Xiaomin Yang

Posted Date:

November 27, 2018 11:55 AM

Status:

Published

Dear Tyler,

Thank you very much for sharing your thoughts. Cash flow optimization can help a company with a large amount of cash transactions to minimize financing cost which materially reduce the firm's profit margin, particular for these low margin companies.

Thanks. Xiaomin

(Post is Read)

Thread:

What might be the potential applications of optimization in your organization?

Posted Date:

November 27, 2018 10:33 AM

Status:

Published

Post:

RE: What might be the potential applications of optimization in your organization?

Author:

Tyler Hurst

After going through the lectures I can see how this could be used in my organization to prioritize budgets in each department/module. Although we don't need to take out massive long term or short term loans (at least in my company) to keep growing, minimizing optimization for budgets to keep us on track on our costs per quarter would be a major victory. The main issue why I believe it's not really feasible (currently) is because we typically spend money when we need it rather than preemptively because we can usually engineer a solution far cheaper than budgeting for a typical upgrade or vendor related item.

On a side note, I can see how the top companies in each industry use analytic solvers to help them make the most out of their budgets rather than doing it manually if your budget allows for it. This is very powerful tool.

(Post is Read)

Thread: Quizzes for Module 8
Post: RE: Quizzes for Module 8
Author:  Xiaomin Yang

Posted Date: November 25, 2018 1:57 PM
Status: Published

Yes. Also corrected.

Thanks.

(Post is Read)

Thread: Optimization project: Constraints
Post: Ye
Author:  Xiaomin Yang

Posted Date: November 25, 2018 12:49 PM
Status: Published

Tyler, You are right. I corrected the third constraint and made an announcement. Please accept my apologies. Xiaomin

(Post is Read)

Thread: Optimization project: Constraints
Post: Optimization project: Constraints
Author:  Tyler Hurst

Posted Date: November 25, 2018 12:41 PM
Status: Published

The constraints are messed up in the optimization assignment. You can't make them out any more.

Also, I went over the assignment and I cannot seem to get it working. I tried to solve for X1 and X2 for the constraints for analytic solver and excel tells me it doesn't want to cooperate. Can I get some help on how to do the assignment? The example has fixed constraints while the assignment has equations. Do we solve for X1 and X2? Sam, can you help?

(Post is Read)

Thread: Quizzes for Module 8
Post: RE: Quizzes for Module 8
Author:  **Tyler Hurst**

Posted Date: November 25, 2018 9:58 AM
Status: Published

One is due November 3rd (overdue already). I assume it will be corrected to *Dec 3rd* ?

P.S. Happy Birthday Fernando!

(Post is Read)

Thread: Quizzes for Module 8
Post: RE: Quizzes for Module 8
Author:  **Xiaomin Yang**

Posted Date: November 24, 2018 11:22 PM
Status: Published

Fernando, All of the three quizzes are available now. thanks. Xiaomin

(Post is Read)

Thread: Quizzes for Module 8
Post: Quizzes for Module 8
Author:  **Fernando Guirola**

Posted Date: November 24, 2018 12:29 PM
Status: Published

Do we know when the quizzes for Module 8 will be posted?

(Post is Read)

Thread:
What might be the potential applications of optimization in your organization?

Posted Date: November 24, 2018 2:37 AM
Status: Published

Post:
What might be the potential applications of optimization in your organization?

Author:  **Xiaomin Yang**

(Post is Read)

← OK