

Enlightened Bites Entrepreneurship Series

Organizing Yourself and Teams to

Enable Innovative Product Development

Prepared by:
Gary J. Ainsworth
Principal Consultant
Arc Completa, Inc.



A quote...



“Work is work, start by defining it...”

*Dave Marshall
Principal Consultant
The Red Oak Group*

Why do we offer this information



- Because of the Start-Up Challenge
 - The clock is ticking – Start-ups are in a constant non-profitable cash burn scenario
 - No precedence in knowing what might be important or what has the highest risk
 - Literature Search and Basic Research are the norms
 - Low or No Production Volumes to gain understanding of critical requirements
 - Every Build Counts to create collective knowledge base, but infrastructure is often absent and unable collect critical knowledge
 - Simultaneous Knowledge Accumulation in product and process development, test, and manufacturing
 - Inexperienced management team, needing to focus limited resources with strong personalities
 - Poor community habits, including inconsistent communication of direction and priority
 - Great innovators are not necessarily great organizers and managers
 - Investors need concise, quantitative messaging on results and committed work against milestones

What is Three List Management



- Based on the assumption that capturing validated work content is independent of resources and time required to complete the work
- The method's workflow was created to help newly promoted managers get control of their work, priorities, and delivery
- Has helped managers break through organizational barriers that were keeping them from getting promoted
- Allows managers to reduce stress by parking work until resources can be applied
 - Think of parking work as putting it in a known safe place
- Gives visibility to work in a structured way, allowing “bucketing” to shape strategies and resource planning
- Enables technical and operational breakthroughs

Some Definitions



- Validated Work

- Work that you, management and investors agree drives short or long term goals toward a desired outcome
- Often companies can quickly agree on validated work, but fail to execute and complete it

- Bucketing

- The act of correlating and aligning validated work that share:
 - Similar desired outcomes
 - Similar work flows or processes
 - Similar scope or responsibilities
 - Similar required training or technological expertise
- The act of bucketing often reveals phantom roles that are spread over multiple people, leading to a lack of accountability
 - This work is being completed as a “fit it in when you can” part time role

Some Definitions (continued)

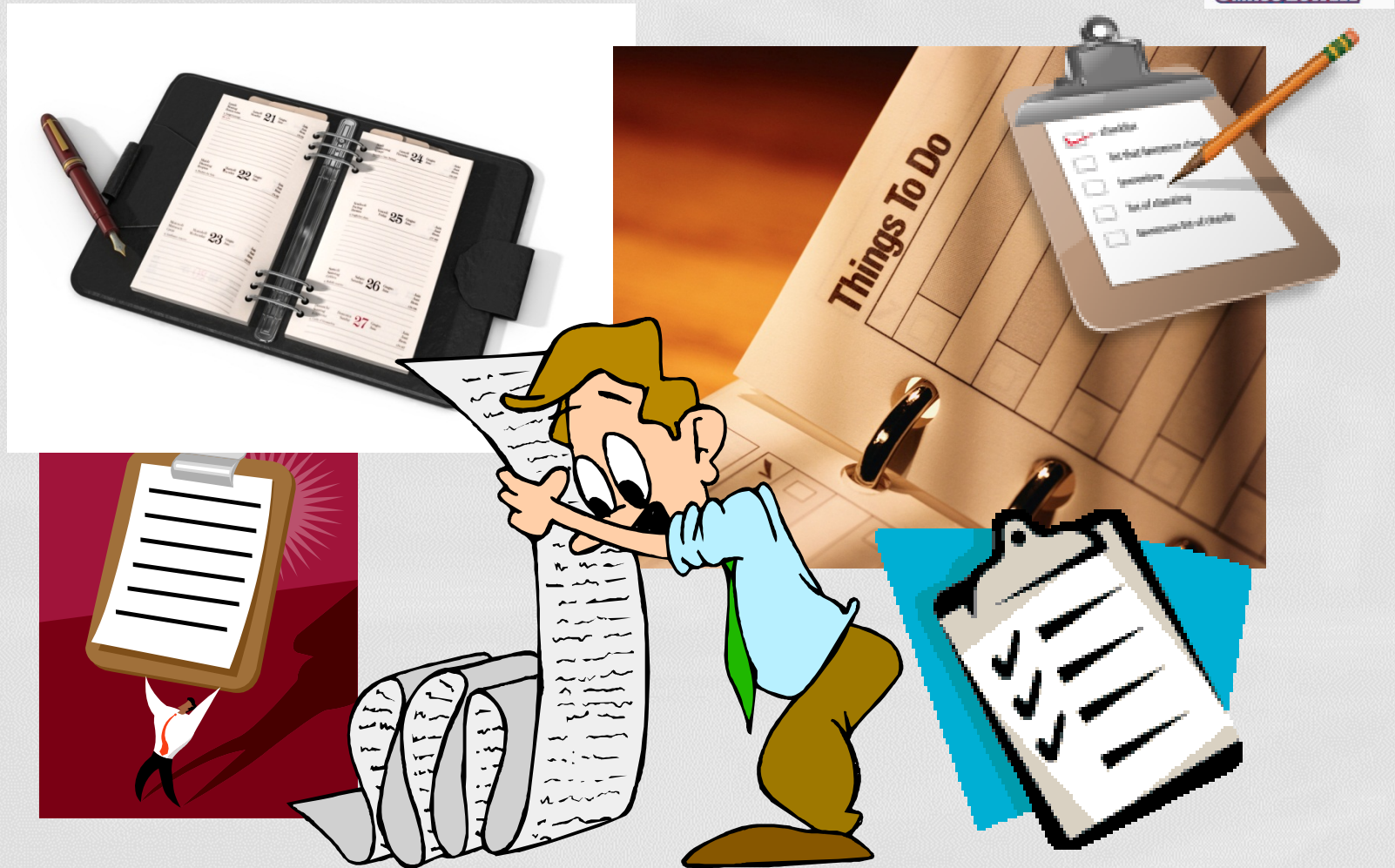


- Strategic Frameworks
 - A place to store (Park) validated work until resources can be applied
 - A tool to view work in terms of functions, products, customers, roadmaps, or technologies
 - Validated work may or may not be perishable
 - Often the first step in resource planning
- Tasks versus Projects versus Initiatives
 - **Tasks**
 - Longer than couple of days, but small in scope, risk, or impact, but that is still important
 - **Projects**
 - Outward Looking Work that requires planning, resources, and coordination that a customer values
 - **Initiatives**
 - Inward Looking Work that requires planning, resources, and coordination that improves how the business performs

Post-Its and Piles



Lists, Clip Board, and Notebooks

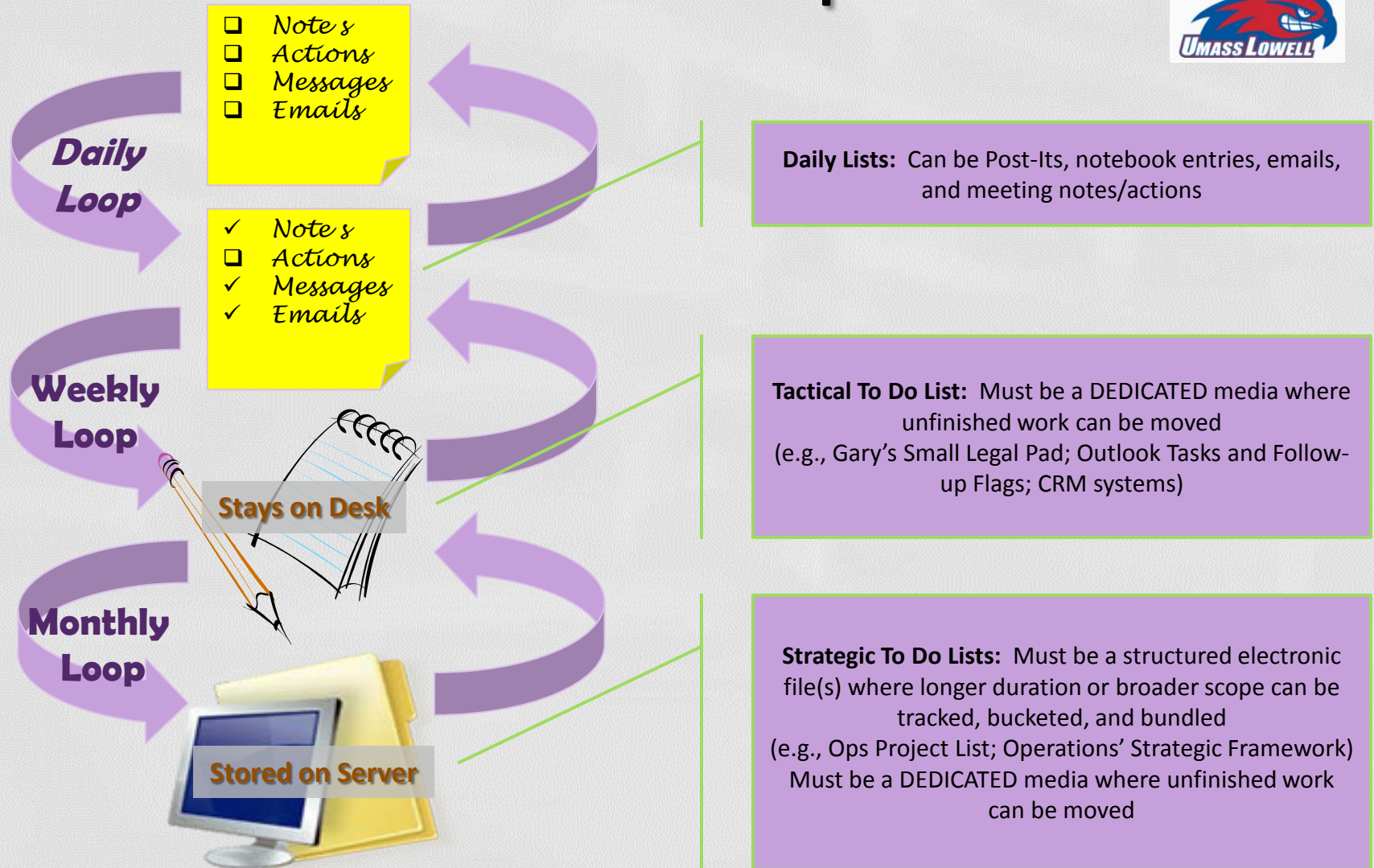


Typical Modus Operandi



- People Change “Systems” Often
 - Notebook to Clipboard to Legal Pads to Notebook again
- People Lose:
 - Business Information and Content
 - Scraps of paper
 - Customer Requests and Requirements
 - Internal and External
- People take notes and actions, but don’t go back to review them, publish them, get buy-in, or complete them
- People seem to be in a reactive drama, never turning the corner or escaping
- Often there is no traceability or priority after initial content or action capture

Three Lists = Three Loops

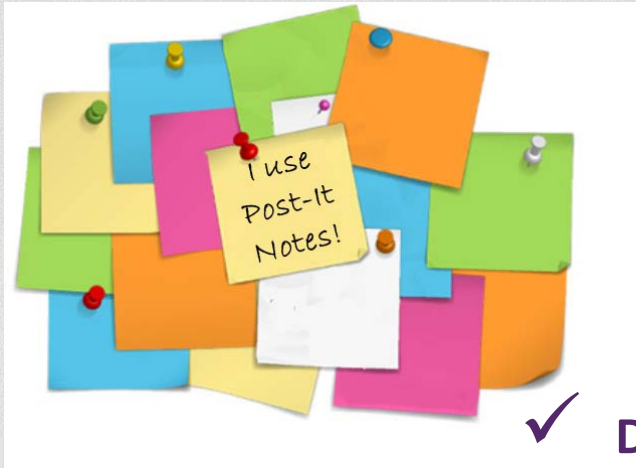


Discipline is in the Looping



- An individual's work contributes **only when**:
 - It's completed at an agreed level of quality and thoroughness
 - It's in a framework of business needs and goals
 - It's acceptably on-time as not to disrupt interdependent work
- By disciplined looping back to review and capture, you can:
 - Track Progress and Mark Completions
 - Free up resources in a timely manner for the next thing
 - Observe trends in work that didn't immediately seem related
 - Bucket work for correct assignments and resource loading
 - Bundle work to create projects and initiatives
 - Feel **GOOD** about your completions!
...it may be the only good thing that day...

Gary's Dirty Secret...



BUT!

- ✓ Daily I push to complete as many short term captures as possible, minimizing incompletes moving to my Legal Pad
- ✓ I dutifully loop between my Three Lists, moving items from my Post-It Notes to safe keeping
- ✓ I use Outlook Email Follow-Ups, Tasks, and Reminders *(Just ask folks that have worked for me...)*

Why does Gary use a Small Legal Pad?



- Takes away my excuses...
 - “...my Laptop was off...”
- Portable
 - Consider buying a leather cover to protect it from it’s hard life from desk to briefcase, from briefcase to desk
- Visceral
 - Makes you **feel good** when a page of captured work is completed
 - I developed my own notations and coding
 - ☐ Open Box – Not Done
 - ☒ Circled Open Box – Visited, not done
 - ☒ Checked Box – Should be obvious
 - PUSH** – Assigned to team member or moved to longer term list
 - EMAIL/Date** – Follow-Ups sent, waiting for answer
 - Write notes in the margin
 - Keep finished page as reference for defense, reviews and history
- **Hasn’t change in years**



Shouldn't you worry about Priorities and Due Dates?



No and Yes...

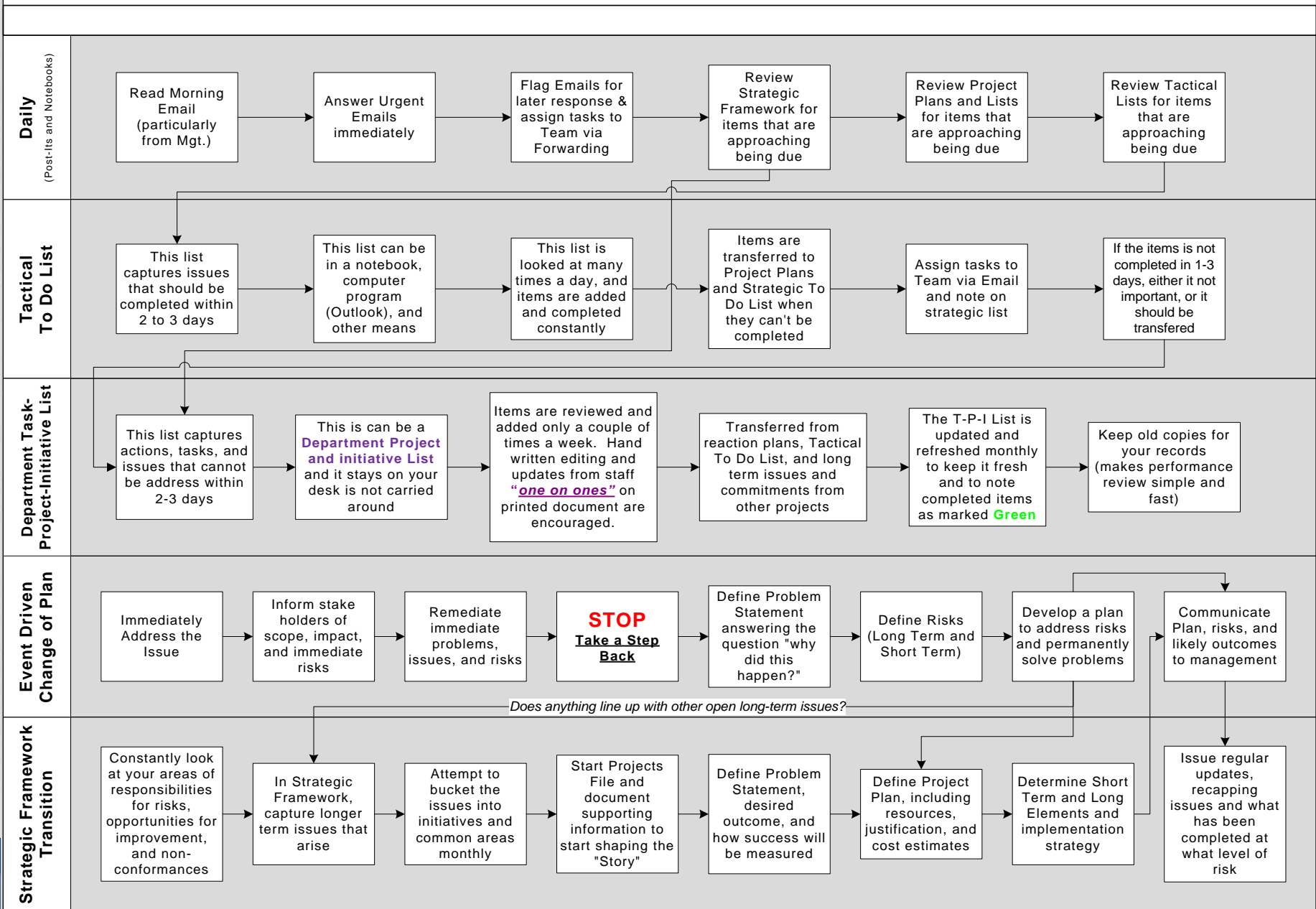
No

- Not when capturing work
 - Priorities are dictated by the business' goals
 - Due Dates support priorities
- Folks often freak out and start planning and prioritizing before the work is defined, only to have to do it again and again

Yes

- Once the work is defined
 - **Harvest** validated work from long term storage (Strategic Framework)
 - Assign resources
 - Determine scope, requirements, critical dates, and acceptable outcomes
 - Commit to Completion
 - Track the progress and adjust
 - Communicate changes, planned and unplanned
- Note
 - If resources aren't available, the work won't be completed
 - If priority is determined to be high, resources will be shifted

Arc Completa "THREE LIST" Work Flow Chart



Basics - Daily to Weekly



- To start, everyday review your notes, notebook, and Post-Its, and mark completed items
- Move anything not completed by the end of the day to your Weekly Loop List, noting it as open and if there's a due date
 - Take a quick look to assess if there's anything that has been or can be checked off the Weekly Loop List
- When reading email, if you can't response to a request, mark it for follow-up
 - If the email is customer related, at least send an acknowledgement of receipt and that you'll have an answer by [commitment date]
- Every week, review your weekly loop list:
 - Marking off completions
 - Seeing if trends are developing
 - Line up a couple to be attacked by the end of next week by sending out emails and meeting notices with explanation if needed
 - Review follow-up flags and tasks in Outlook

Basics - Weekly to Monthly



- If you're a manager or supervisor, organizing your team's work is important to optimizing output
 - Use your Weekly List to highlight work that just can't get done by you
 - You may to have shape it, organize it a bit more, and delegate it as a Task
 - At times, indicators pop up as work, only to be symptoms of larger requirements or needs
 - Use the Weekly List to capture such work, noting it may be a component of something larger like a project or initiative in the making, but not fully sorted out
 - If enough of the work has aligned and realized itself, capture it as a project or initiative in a Department Task, Project and Initiative List
 - If the resources are available assign it to a lead for execution and completion
 - If it can't be resourced in a month, consider moving it to a Framework Document, noting it as "On Hold"

What is an “Event Driven Change of Plan”



- This is a fancy way of saying what happens everyday
 - Something broke without warning
 - A critical resource took unplanned personal time off
 - A customer needs immediate attention
 - Weather conditions forced a shut down
- As managers you have to decide how to immediately contain, inform stakeholders, mitigate risks, and redirect resources to handle the occurrence
 - We have to ask ourselves: Is this an ad hoc event, or something systematic?
 - Regardless, plans and commitments will shift and change, usually taking up your or another resource's time
- The art of management is how quickly normal activities can be reestablished, changes communicated, and event considered from an ongoing operational basis or corrective action
 - When the work is well defined in three lists, employees can return to their previous focus, with existing reminders to **help them transition back to normal**

The Fourth List



- Once enough projects have shaped up, start mapping them in a Framework Document by:
 - Group/Team
 - Function
 - Or Customer
- Keep it simple, using colors updates and project plans to capture details
- The upfront work makes performance measurement and reviews simple and objective
- Keep it fresh and available for important ad hoc updates to let's say, INVESTORS!
- One might say that once you have a Framework defined, it's the first step in creating a strategy

An easy way to get use to Creating Strategies



- One can think of a strategy as a story with:
 - A past
 - A present
 - A future
- Looping list will help define the past and present
 - Reoccurring and systematic failures of processes, work flows, and systems tend to repeat with clues, hints, and indicators
 - Having the ability to bucket and bundle related work helps to shape reality, but also help with determining the relative priority
 - Once you capture and assess the present, you can start visualizing the future
- The future is defined by a strategy and the ability to execute in order fulfill it
 - The tactical to strategic transitional planning can be the most difficult facet of management
 - The higher your position, the simpler the statement of goals and the harder to execute

Some Examples of Tools



- Don't be afraid of formality in defining work for your team; most will likely appreciate it
 - See the sample of a “Department Task-Project-Initiative List” and try working on yours
- As the work is identified and captured, Start Creating your “ Strategic Framework”
- If you lack confidence initially, privately create it and use it behind the scenes until you prove to yourself it's helping
- **Stage 3** will focus almost exclusively on these tools and others to help organize emerging technology commercialization efforts and drive them forward

Typical Department Task-Project-Initiative List



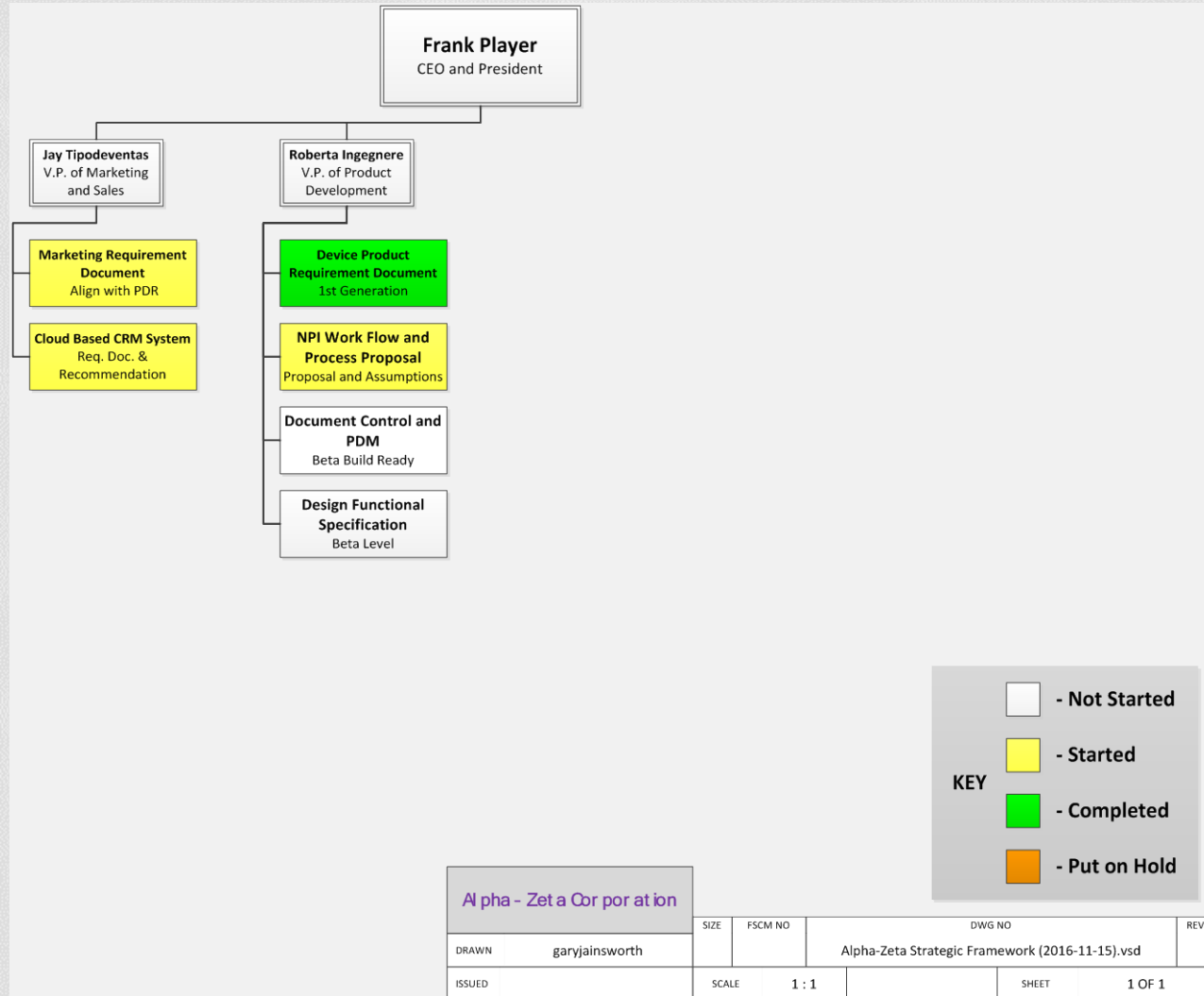
Roberta Ingegnere	V.P. of Product Development	
Role	The Vice President of Product Development has management responsibility and accountability for the Product Development Group to help the company achieve its goals. They are responsible for strategically driving the pro-active development of the road map of products and services to be offered by the company. Additionally, they are responsible for tactically organizing, implementing, and maintaining all of the day-to-day activities and personnel needed to manage the company's current product and service offerings in a manner which efficiently and effectively communicates to our clients and our employees the appropriate expectations of timeline, pricing and functionality of such offerings.	
Scope	<ul style="list-style-type: none"> Manages entire Product Life Cycle process, ensuring technology, process, reliability, and regulatory roadmaps are understood and valid. Assure accurate proper product realization process selection, and operation process loading to assure customer requirements are met (product realization includes purchasing, individual manufacturing processes used, handling, preservation, packaging, and shipment). Assure that customer technical requirements are fully understood and/or anticipated for all new product orders and any ambiguous requirements are resolved before accepting an order. Participates in quotations review to provide insight on potential risks because of violation of design rules Documents "lessons learned" to ensure that future products are developed more effectively 	
Tasks	1. Task: Hire Senior Level Electrical Engineer with expertise in migrating sub-systems from analog to digital platforms <ul style="list-style-type: none"> a. Signal Processing and Firmware development is a requirement b. Temp to Perm will be considered 	11/1/2016 12/15/2016
	2. Task: Develop Board Presentation on "Make – Buy" decision breakdown from initial design review <ul style="list-style-type: none"> a. Must include BOM cost estimate b. One slide summary of commercially available roadmap and design alignment 	11/30/2016
	3. Task: Support newly hiring VP of Ops effort of Parametric Process Mapping of the Alpha units' fabrication process	12/30/2016
Projects-Initiatives	1. Project: Compose Medical Device Product Requirement Document <ul style="list-style-type: none"> a. Working with CTO, Sales and Marketing, and V.P. of Operations compose Top Level Product Requirement Document 	Complete
	2. Project: NPI Work Flow and Process Proposal <ul style="list-style-type: none"> a. With V.P. of Ops, create basic framework for PLC transitions and hand offs b. Establish PLC stage gates boundaries c. Propose top level PLC and NPI assumptions and process 	12/30/2016
	3. Initiative: Establish Document Control and PDM system requirement before moving to Stage 2 (Beta Builds); must including provisions for: <ul style="list-style-type: none"> a. BOM control b. Hardware content control c. CAD/PDM database control d. Firmware Control e. Extensions for process, reliability, and test documentation f. Extension for reports 	1/30/2016
	4. Project: Develop top level design functional specification and family tree construct to enable for first customer design review: <ul style="list-style-type: none"> a. System, Sub-System, and Component design capture b. Roadblock identification c. Parametric analysis of tolerance budgets 	1/30/2016

Typical Department Task-Project-Initiative List



Jay Tipodeventas	V.P. of Marketing and Sales (New Hire)	
Role	The Vice President of Marketing and Sales plans, directs, and set the strategic direction of the sales and marketing program to maximize profit and increase product or service visibility. Direct the sales and marketing management staff in effective use and development of business plans and strategies. Works closely with V.P. of Product Development and V.P. of Operations to understanding the inherent technical and operational strengths of the company's product offering.	
Scope	<ul style="list-style-type: none"> Complies and contributes to the Product Life Cycle process, ensuring technology, process, reliability, and regulatory roadmaps are understood and valid from a customer perspective. Analyze sales statistics to determine sales potential, monitor customer preferences and inventory requirements. Ensure services are in compliance with professional and company policy standards. Plan, direct, and set the strategic direction of the sales and marketing program to maximize profit and increase product or service visibility. Direct the sales and marketing management staff in effective use and development of business plans and strategies. Develops objectives and policies for the sales and marketing department. 	
Tasks	1. Task: Identify existing sales funnel's contacts to date and make introductory calls a. Take opportunity to ensure that we have the correct contact information and all of the decision makers at the customer	12/20/2016
	2. Task: Develop Board Presentation on initial impressions of sales climate compared to your baseline experience a. Must contrast our competitors b. Must include initial impression on sales funnel maturation	11/30/2016
	3. Task: Meetings with the key company stakeholders: a. CTO b. V.P. of Ops c. V.P. of Product Development	11/30/2016
	4. Task: Review newly written Medical Device Product Requirement Document a. Meet with stakeholders to understand technology and operational basis b. Start to consider product and its value proposition c. Start to consider the Generic Buyer Profile	11/20/2016
Projects-Initiatives	1. Project: Compose Marketing Requirement Document a. Working with CTO, V.P. of Product Development and V.P. of Operations compose Top Marketing Requirement Document	12/30/2016
	2. Project: Research and Make Recommendation on Cloud Based CRM System a. Write functional requirements specification, ensuring hooks for existing system integration and usage are considered b. Complete research and RFQ cycle c. Make recommendation	1/30/2017

Strategic Framework



Closing Thoughts



- The system you use is not as important as conscientiously and dutifully using a system to capture, track, and prioritize validated work
- Try out a method, get it working, and make it your own!

What's Next?



Does your company need a basic foundation for success?

If so, **The UMass Lowell Enlightened Bites Entrepreneurship Series** presents the next two parts of this breakthrough series

December 1, Noon to 1 p.m. - **Problems: Corner Them and Measure Them**

December 8, Noon to 1 p.m. - **Moving from Tactical to Strategic Planning**

About Gary Ainsworth



My area of practice focuses on emerging technology product commercialization in hardware start-ups.

Also, I work with existing companies on new product introduction, operations, and product development performance improvement. In all instances I usually work in the gray area between R&D and Product Development -and- Operations and Supply Chain, employing methods to lower the inherent noise level allowing better decision making in a more accountable framework.

I'm currently working with UMASS Lowell's New Venture Business Development team and iHub on content around understanding start-up behaviors, leading to a higher probability of successful commercialization and profitability.

Contact Information:

Gary Ainsworth

Arc Completa, Inc. - Principal Consultant

Gary_Ainsworth@uml.edu

gainsworth@arcompleta.com

(m) 781-856-0448

Additional Information

What are the origins of Three List Management



- Time Design Systems in the 1990's had a similar system which worked well, but didn't link Time Management to Risk Management
 - Nor did it state that effective management of work content is a form of bottoms up strategic planning in the form of frameworks
- Another management theory drove a concept of finishing what could be finished as soon as possible
- Ainsworth discovered early that people are often and easily knocked out of productive work, and then they can not simply regain momentum
 - This is exacerbated when the individual is a manager, often causing entire teams to spin out of control or lose focus
- **My personal goal is to make sure that people in organization's he manages understand their roles, goals, scope, and responsibilities to an 80% coverage level**
 - 20% is always changing and driven by event driven changes
 - Effective work content management de-stresses organizations, while increasing efficiency and quality of output
 - Well managed work content allows better and lower risk decision making
 - Event driven changes do not cancel previously validated work's importance