EMERSON | Digitas

MyEmerson Registration Form Support

Automation Solutions

May 21, 2020

Analytics Recommendations

Overview

Goal: Improve current MyEmerson tracking in Google Analytics to uncover any potential pain points on current experience; address findings in future phases for increased registrations

Note: This is a Google Analytics assessment only, if other existing Emerson tools can address these needs, we recommend leveraging those to answer inputs below

Recommended tracking enhancements (ranked in priority):

1. **High:** Identify drop off by tagging all form fields (slides 3-4)
2. **High:** Capture high value outcomes and success metrics by updating “submit account information” (slides 5-6)
3. **Low:** Understand overall engagement at a glance by implementing VWO heat mapping on page (slide 7)

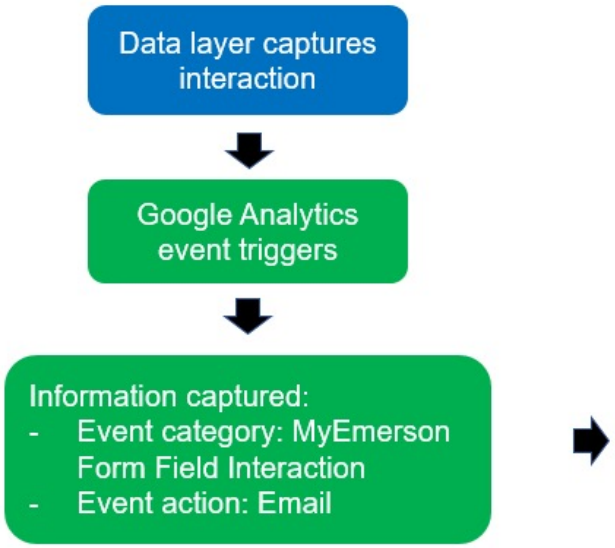
Reminder: Do not pass back PII (personally identifiable information)

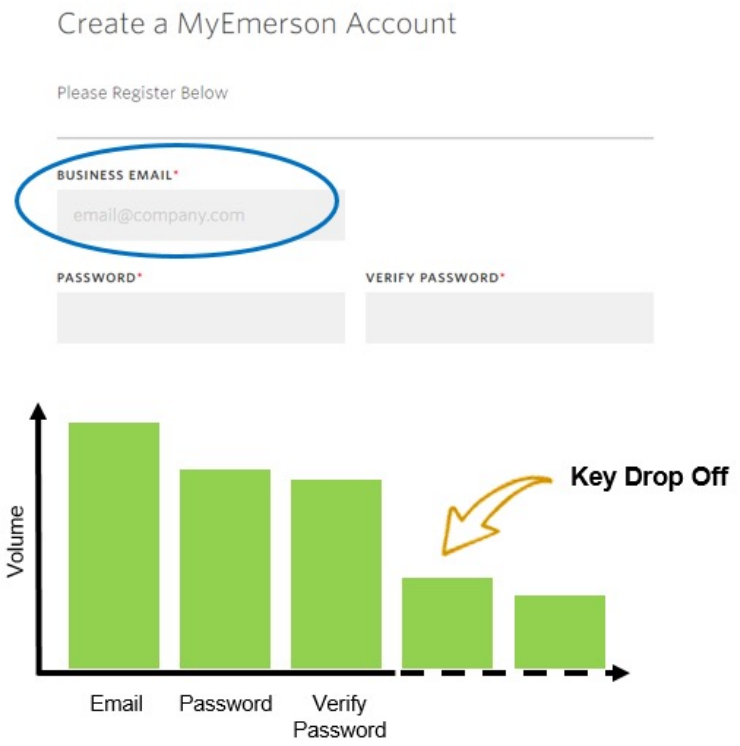
Priority 1: Tag all form fields to identify drop offs

Recommendation: The current form requires a visitor to provide a lot of information upfront. In order to improve registration success rate, we recommend tagging every cell and selection in the form to understand where users are dropping off and further evaluate how to best capture the information that leads to high drop offs in future iterations. We recommend collecting at least 200 samples of initiated forms to draw insights and optimize (could potentially take 2 weeks based on current visits to registration page)

Visual below outlines data capture flow of an example – when visitor clicks into "business email" – see detailed descriptions and implementation recommendations on following slide.

When visitor clicks into "Business Email"





* Bar chart is for example purposes only

Priority 1 Continued: How to tag all form fields

1. Data layer update to capture form field interactions:
    - Developer to add javascript code to capture two types of form interactions: typing in a field and selecting an option
    - Reference options here, consider using “focus” and “select” to capture form interactions
2. Developer to create Google Analytics event triggers for each form interaction
    - Create “event” trigger and push data layer info into Google Analytics
    - Event should document “event category” and “event action”
    - Taxonomy recommendation:
        - Event category: “MyEmerson Form Field Interaction”
        - Event Action: document the field name where the interaction took place, such as “email”, “first name”, “zip code”

Priority 2: Update “submit account information” to capture success metrics

Recommendation: “Submit Account Information” CTA will inform registration success, whether it’s looking at volume of clicks or action rate. We recommend evaluating the CTA set-up to ensure the correct information is captured and displayed in Google Analytics.

1. Logic Triggers

Form Accepted:
Only trigger GA Event if all information is filled out correctly

Form Rejected:
Create GA event to capture error message when submitted form is incorrect; recommend capturing error message as well

2. Consolidate CTAs

	Event Category	Total Events
		16,541 % of Total: 0.11% (15,089,801)
1.	link click	7,930 (47.94%)
2.	account	3,548 (21.45%)
3.	submit account information cta	3,513 (21.24%)
4.	demandbase	728 (4.40%)
5.	marketing communications check box	411 (2.48%)
6.	menu link click	117 (0.71%)
7.	locale selector module	82 (0.50%)
8.	odeslat informace o účtu cta	70 (0.42%)
9.	oracle service chat	47 (0.28%)
10.	undefined	47 (0.28%)

Seeing that both CTAs are capturing similar volumes, recommend confirming how they are being triggered and aligning on which one is the single source of truth

Priority 2 Continued: Measurement considerations

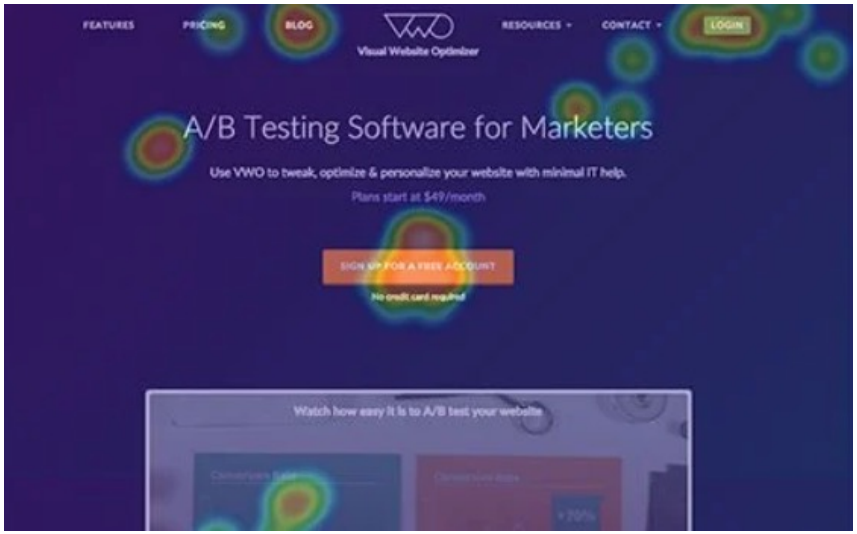
We recommend the business leads align on a measurement framework to define success and ensure metrics are available to report on in Google Analytics.

- When to use measurement framework:
    - Pre-optimization: What are the key metrics that measure success? What are the key metrics to monitor for optimization purposes?
    - Post-optimization: Was the optimization successful? How are key metrics performing before and after?

- What metrics to include:
    - Examples of key metrics: registration rate, registration volume, abandonment rate, time spent on page
    - Ensure alignment on calculations as well

Priority 3: Understand overall engagement through heat mapping

Recommendation: In order to capture what people are doing, we recommend implementing heat mapping to track visitor engagement. This will aggregate all user engagements, in addition to what's shown in the user videos. Leverage this as a quick diagnostic to show where are people interacting on the page (clicking to other areas, such as homepage logo) and where are people interacting on the form the most. This can help form initial hypotheses on areas for improvements.



User Experience Considerations

MyEmerson Registration Current State

This slide reflects our understanding of the required inputs for the registration form, and highlights the purpose of each data collection point.

INFORMATION TO COLLECT	INPUT	WSC ORGANIZATION?	OKTA REGISTRATION?
BUSINESS EMAIL*	TEXT	YES	YES
PASSWORD*	TEXT	YES	YES
VERIFY PASSWORD*	TEXT	YES	YES
COMPANY NAME*	TEXT	YES	NO
FIRST NAME*	TEXT	YES	YES
LAST NAME*	TEST	YES	YES
COMPANY STREET ADDRESS*	TEXT	YES	NO
CITY*	TEST	YES	NO
COUNTRY / REGION	DROPDOWN	YES	NO
STATE / PROVINCE*	DROPDOWN	YES	NO
ZIP CODE / POSTAL CODE*	TEXT	YES	NO
PHONE NUMBER*	TEXT	YES	NO
JOB TITLE	DROPDOWN	NO	NO
INDUSTRY	DROPDOWN	NO	NO
CHALLENGE QUESTION*	DROPDOWN	NO	YES
CHALLENGE ANSWER*	TEXT	NO	YES
PASSWORD RECOVERY QUESTION*	DROPDOWN	NO	YES
PASSWORD RECOVERY ANSWER*	TEST	NO	YES
COMMUNICATIONS OPT-IN	CHECKBOX	NO	NO

Modern Web Form Best Practices

Web forms are one of the most essential interactive components online. Unfortunately, they can often be one of the most frustrating experiences for users. Below is a non-exhaustive list of web form best practices to help make web forms simpler, more user-friendly and convert more effectively:

- **Less Is More**
  Minimizing the number of fields and simplifying the appearance of the form greatly increases success and conversion
- **Group Related Fields**
  Grouping fields into logical sections makes the form easier to understand and faster to complete
- **Use Field Length as Affordances**
  Affordances intuitively convey characteristics and functionality. Sizing fields to the content they take helps users know what information to enter
- **Provide a "Show Password" Option**
  Masking passwords doesn't necessarily increase security, but it does increase the opportunity for mistakes
- **Positive Error Messaging**
  Avoiding confusion is key to successful form completion. Use helpful, clear and concise messaging to tell users exactly what needs to be corrected
- **Enable Submit Button Once Initial Validation Passes**
  Disabling form submission until all required fields are filled out and field validation is confirmed is a simple way to prevent page errors and avoid unneeded user frustrations

B2B Competitor Review

Objective: Evaluate the registration processes of competitors in Emerson's industry against modern web form best practices and usability heuristic principles to uncover insights on how to improve the MyEmerson registration user experience and increase registrant conversions

Competitors Reviewed:

- ABB
- Eaton
- Endress+Hauser
- Festo
- GE Power
- NHP Engineering
- Rockwell Automations
- Schneider Electric
- Siemens
- Yokogawa

Usability Heuristics Assessed:

- Visibility of system status
- Matching between system and the real world
- User control & freedom
- Consistency and standards
- Error prevention
- Recognition vs. recall
- Flexibility & efficiency of use
- Minimalism
- Error recognition, diagnosis & recovery
- Help & documentation

B2B Competitor Summary Review Findings

Overall, we observed 3 interesting UX patterns we believe Emerson could leverage to create a better registration experience that will the decrease time and effort spent completing registration, which will directly impact increased conversion metrics. These techniques include:

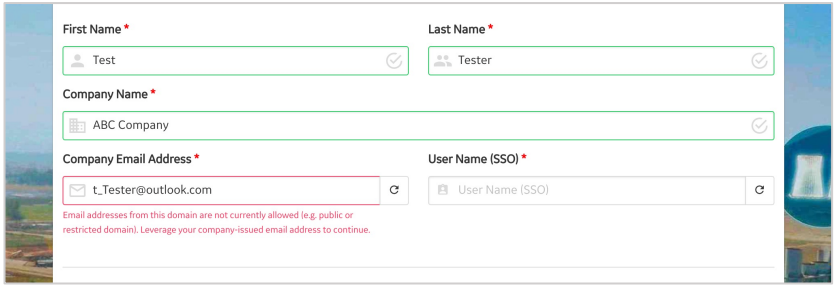
- **Inline Validation** – just-in-time feedback that lets a user know they've successfully inputted information
- **Progressive Disclosure** – chunking up longer form experiences into sections that confirm a like-minded groups of form fields have been successfully inputted
- **Smart Microcopy & Dynamic Hint Text** – supporting copy that provides real-time feedback and hint text to confirm a user is on the right track

Inline Validation

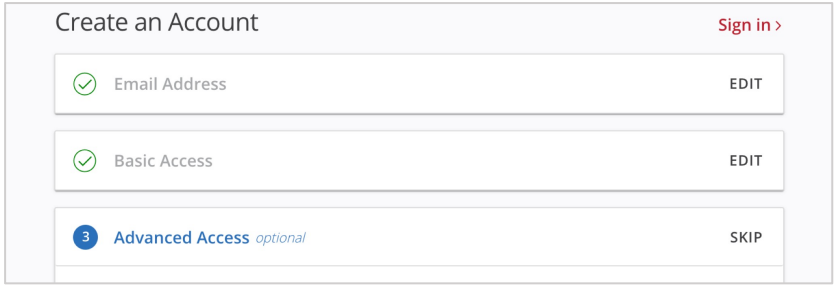
Inline validation gives users just-in-time feedback on form entries at the field level. The MyEmerson registration form already provides this to an extent with inline error messaging when a field is filled out incorrectly, but this is only one side of the coin. Positive validation on successful field entries helps to gamify the form completion process and encourages users to continue toward the goal of a successful form submission, leading to fewer errors, faster completion and increased conversions

Recommendation: Include positive inline validation to let users know their entries are valid and avoid confusion. Also, make sure any error messaging for invalid entries are clear, helpful and convey exactly what needs to be fixed

Examples:



GE Power: field-level inline validation https://zpl.io/VkRDgg5



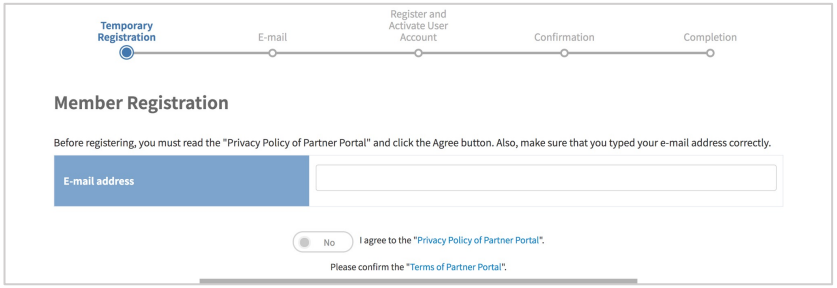
Rockwell Automation: group-level inline validation https://zpl.io/2jnZADW

Progressive Disclosure

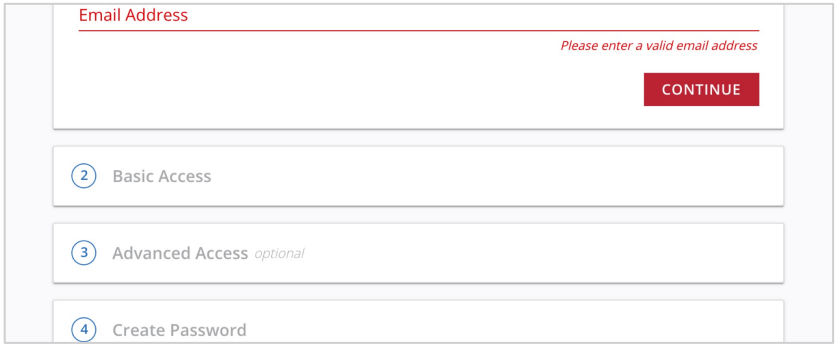
Progressive disclosure is the design pattern of sequencing information to simplify complex user experiences, promote user comprehension and reduce error rates. Essentially it aims to break things down into manageable pieces or steps and give users cues on where they are in the process and how many more steps are required to complete a goal

Recommendation: Group form fields into sections and expand/collapse sections as the user completes them. In conjunction with inline validation at the section level, this helps guide users more easily through form completion

Examples:



Yokogawa: multi-page progress bar (good) https://zpl.io/blwlG81



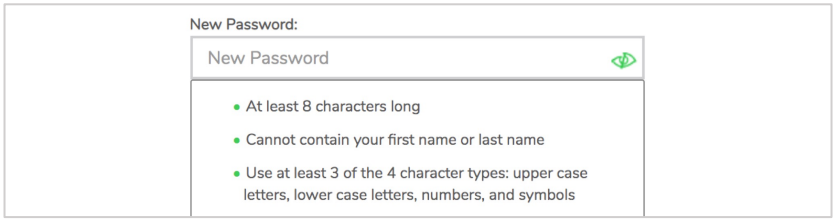
Rockwell Automation: single page segment accordions (better) https://zpl.io/VKZGXK7

Smart Micro-copy & Dynamic Hint Text

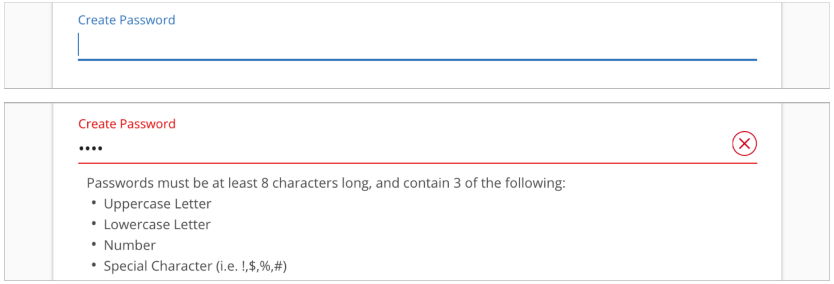
Micro-copy provides instructional context to form fields and validation states, but increasing the amount of text in forms can often make forms appear more complex and negatively impact conversion. Smart microcopy bypasses this negative effect by automatically displaying textual cues at the exact moment a user needs it – when they're engaging with a given field. Including hint text that dynamically changes states based on user input takes smart microcopy a step further by providing an additional layer of interactive feedback to keep users on the expected path (see GE example)

Recommendation: Display instructional micro-copy for fields only when the field is in focus/active. For fields that may be confusing or have strict requirements (e.g., passwords) clearly list the requirements and dynamically update each as the user's entry meets the specified criteria

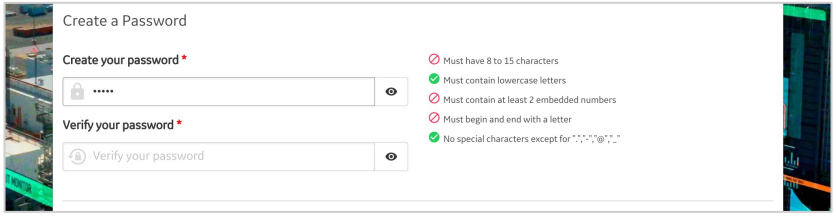
Examples:



Schneider: on-focus display https://zpl.io/bPJq0wm



Rockwell Automation: on-keypress display https://zpl.io/29xqXLe



GE Power: on-keypress dislay https://zpl.io/VkRDgg5

UX Competitor Summary

Rockwell Automation - Above-the-fold, digestible experience with form fields grouped into discrete sections. Provides real-time feedback for successful and failed attempts of input fields. Inputs within a section are validated as is the successful completion of a section. Includes dynamic micro-copy to help users meet complex password requirements.

ABB - Clean, simplified single-column layout with categorized form content and clear micro-copy. Error-feedback only, no positive reinforcement that you are progressing through the registration successfully. Uses a dated CAPTCHA model.

GE Power - Robust inline validation for success and failure as well as dynamic micro-copy with sub-validation for each password requirement. No help text around the role of entering the “User Name (SSO)” field. Includes an embargoed country section to determine if you can register.

Yokogawa- Uses a progress indicator to section off the registration process into steps. Form is dated and looks more complicated than it actually is. Uses non-standard alignment practices to present input fields. Specifies both optional and required fields, which is also non-standard. Dynamic password strength indicator is useful.

Schneider Electric - Categorized form content with social login options and a three-step progressive disclosure registration process. Includes dated “clear” functions and doesn’t use field size as an affordance to help user’s comprehend nature of required input. Text-heavy with static microcopy causes form to feel heavier/longer than it actually is. Includes dynamic micro-copy for passwords.

UX Competitor Summary

EATON - Two-column form violates best practices. Includes a multi-step registration process without conveying to user how many steps there are to complete. Unclear which applications a user is registering for (“Warranty Claim Center” or “Other”). Shorter and cleaner than most.

Endress-Hauser - Asks if you are a current customer, then doesn’t appear to make it easier for current customers to register or reduce the number of required fields. Single-column forms is a best practice but in this case is very long. Sizing approach creates lots of dead space and leads to excessive scrolling. Content is grouped by categories and well-organized but includes outdated inputs like Fax number. Asks for Billing Data earlier in the process than most competitors.

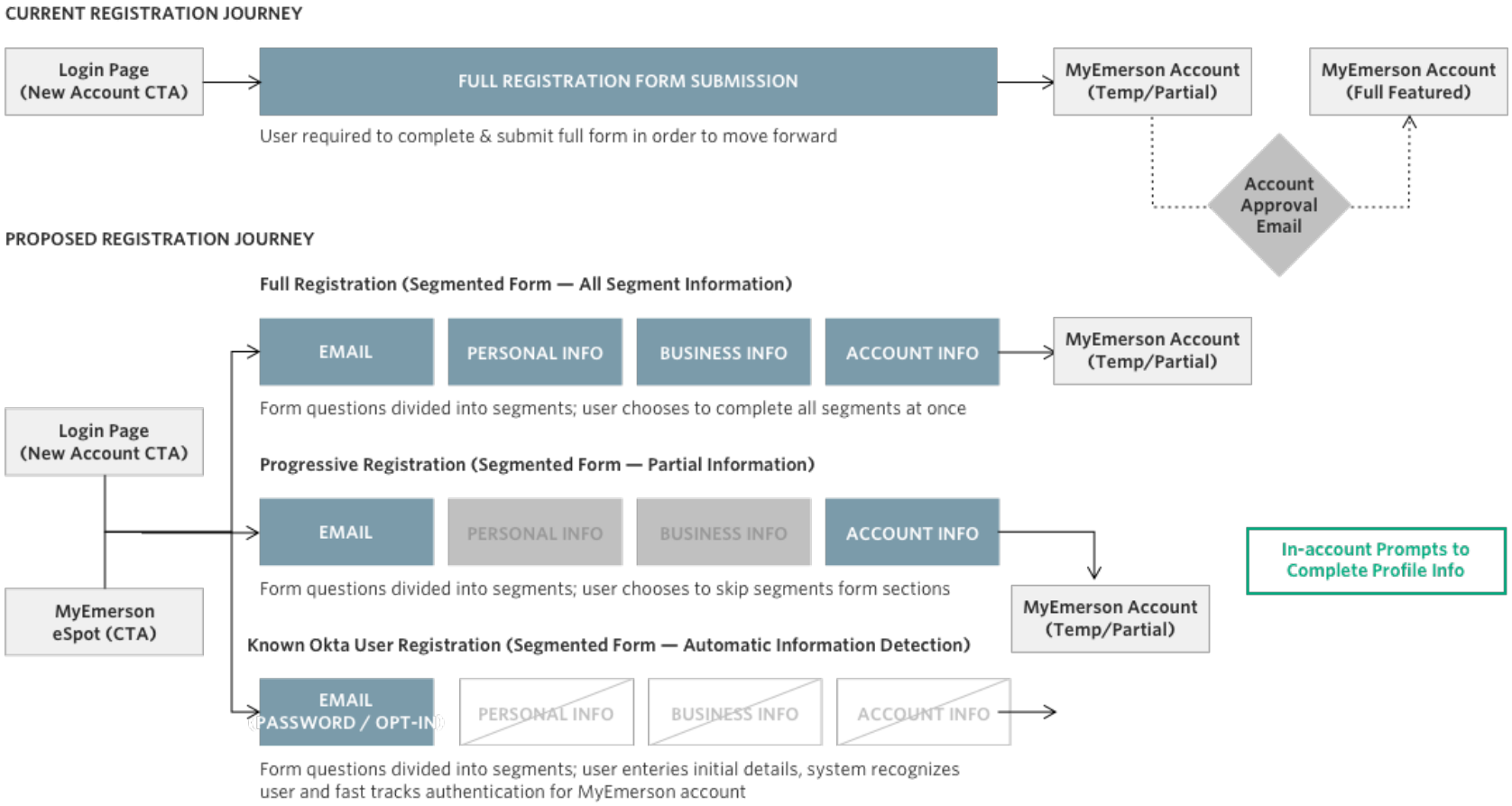
Festo - Allows for individual or corporate account creation. Includes a right rail of support copy detailing input requirements to complete the form. Includes a single column with categorized groupings but requires lots of scrolling, and gives the user the option to enter account number information but so low in the page it doesn’t save a user time or provide apparent benefit. No inline validation to provide feedback if input is correct. Page-level validation only.

NHP Engineering - Buries the form lower in the page with unclear use of iconography before the form. Single-column layout but doesn’t fit to the content that is being collected. Allows users to register before notifying them that they can only register in Australia. Pollutes their database?

Siemens – Dated design and layout patterns with poor relationship between field label and field input. Hidden help text unresponsive. Uses Captcha method instead of preferred Re-Captcha. Relies on multi-step but suffers from a small font size that hurts readability. Selection choices become increasingly unclear as user moves through registration process.

Registration Journey

User Journey



Form Grouping

- Business Email
- Personal Information
- Business Information
- Account Information

Form Grouping

Business Email

Business email

Personal Information

First name	Last name
Job title (optional)	Industry (optional)

Business Information

Company name	Site location (Country)
City, State/Province	Site street address
Zip code/Postal code	Business phone number

Account Information

Password	Verify password
Password recovery question	Password recovery answer
Challenge question	Challenge answer
Preferences opt-in	

Form Grouping

Validation steps

Business Email

Business email

→ 1. new email > complete entire form
2. new email > bypass rest of form for demo/limited functionality
3. known email > prompt password or other required inputs

Personal Information

First name	Last name
Job title (optional)	Industry (optional)

Business Information

Company name	Site location (Country)
City, State/Province	Site street address
Zip code/Postal code	Business phone number

→ 1. Most likely country appears at the top of the dropdown
2. Address Doctor confirms address

Account Information

Password	Verify password
Password recovery question	Password recovery answer
Challenge question	Challenge answer
Preferences opt-in	

→ 1. Real-time feeback about password characteristics

Problem Statement

Problem Statement

Based on what we just learned from our current state review, competitive and best of breed reviews, and our current understanding of business needs (increase registration/keep all fields) and user pain points (take a long time to finish, eyes don't know where to focus), we have formulated a Problem Statement for Enterprise IT to consider during its investigative phase.

Registering for MyEmerson requires that users provide 19 pieces of information before they can join. Although competitors have similar business requirements, several peers such as Rockwell Automation and Yokogawa present their form fields in more intuitive, digestible and dynamic ways, using persistent inline validation, progressive completion markers and smart micro-copy to help guide users to successful completion (and feel good about the registration process they just completed).

How can the registration experience be re-organized using similar interaction and validation techniques to increase the success rate and speed of MyEmerson registrations?

Investigation Considerations

Summary

The goal of this IT investigation in PI 2 (2.3) is to determine the technical feasibility and implementation roadmap for the following items:

- Path 1: Segmented & Optimized Registration Form (Priority!)
- Path 2: Progressive User Registration
- Path 3: Known Okta User Registration

Path 1: Segmented & Optimized Registration

Minimize the number of fields

Ability to limit the minimum required fields for a user to complete registration

- Preliminary investigations show that most fields are required in order to tie a user to an organization except Job title, Industry and Communication opt-in checkbox.

Goal: Determine if any additional fields could be removed or optional based on Okta and WebSphere needs.

- Determine if there are alternate ways to tie a user to their organization (ex, company name + zip code)

Progressive disclosure

Ability to re-organize and segment the registration fields into digestible chunks that show progress and/or multiple steps to complete registration.

- These could be broken down into Personal information, Business information and Account information steps.

Goal: Determine if there are any technical implications in breaking down the registrations form into steps and re-ordering the fields.

Path 1: Segmented & Optimized Registration

Inline validation

Ability to show users the field has been completed successfully or not successfully

- Provide the user with immediate feedback once they have clicked out of the field or as they complete it

Goal: Determine if there are any technical implications in providing immediate feedback to a user

Smart Microcopy & Dynamic Hint Text

Ability to display instructional microcopy for fields only when the field is in focus/active.

- For fields that may be confusing or have strict requirements (e.g., passwords) clearly list the requirements and dynamically update each as the user's entry meets the specified criteria

Goal: Determine if there are any technical implications for this item

Implementation Roadmap

Confirm if these Path 1 items can align to the roadmap timing in the later slides

Path 2: Progressive User Registration

Progressive account registration

Ability for the user to fill out limited information in order to gain access to MyEmerson; the user is then prompted to gradually complete registration as they explore MyEmerson.

- A user can access basic tasks in MyEmerson but when they try to partake in restricted activities that require full registration; provide prompts to complete registration.

Goal: Overall, determine the feasibility of this path.

- Determine what the minimum number of fields a progressive user can initially register with.
- Determine the technical feasibility of “gating” certain areas of MyEmerson and providing a user with an overlay to complete the remaining information needed.

Implementation Roadmap

Confirm if these Path 2 items can align to the roadmap timing in the later slides

Path 3: Known Okta User Registration

Progressive account registration

Ability for the registration process to immediately recognize that a user already has an Emerson Okta account (with another application like Guardian) after entering their email address.

- The user will be prompted to enter their password, enter additional information that may be required and complete the MyEmerson registration process

Goal: Overall, determine the feasibility of this path.

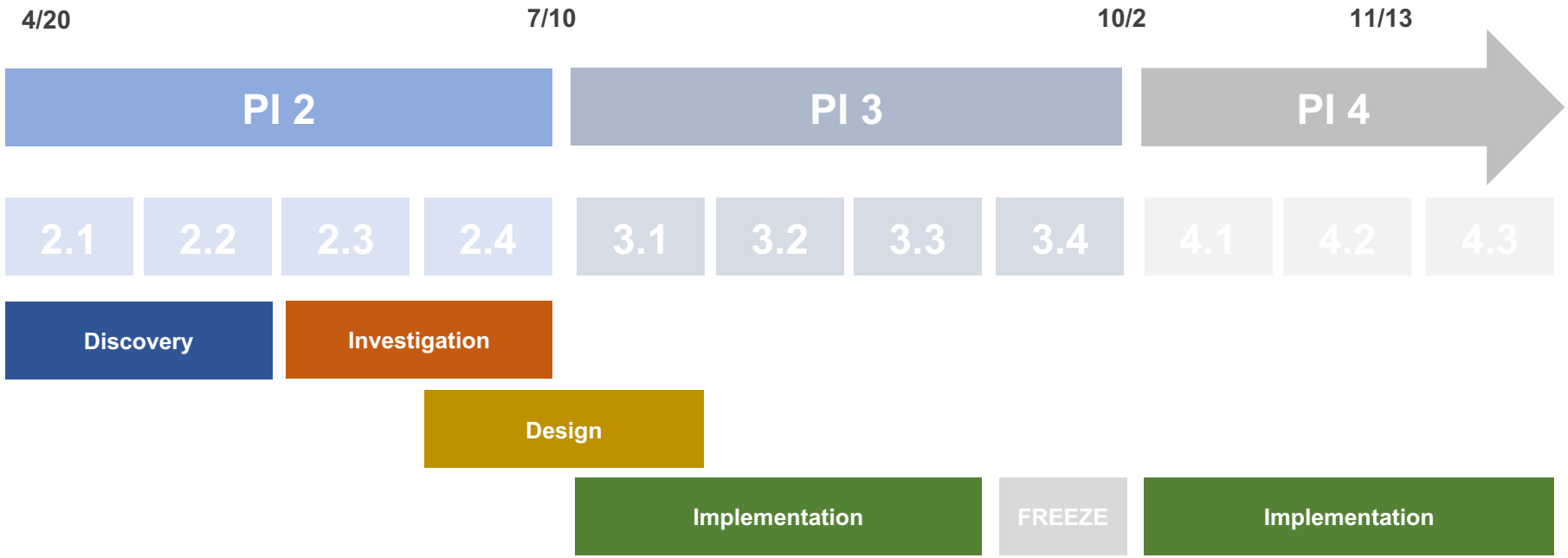
- Determine if the user can be marked as a known Okta user after entering their email address
- Determine if the form can dynamically display fields that are missing from the user's existing account information

Implementation Roadmap

Confirm if these Path 3 items can align to the roadmap timing in the later slides

Roadmap

Roadmap



PI 2 Goals

- Understand the problem
- Competitive assessment
- Analytics tagging
- IT Investigation of proposed paths
- Design based on investigation findings & analytics reporting

PI 3 Goals

- Implementation of priority path 1 items: Segmented and Optimized Registration

PI 4 Goals

- Implementation of path 2 items: Progressive User Registration
- Implementation of path 3 items: Known Okta User Registration