Unlocking Efficiency & Consistency
in Product Development:

The Advantages of a Design System for Your Business

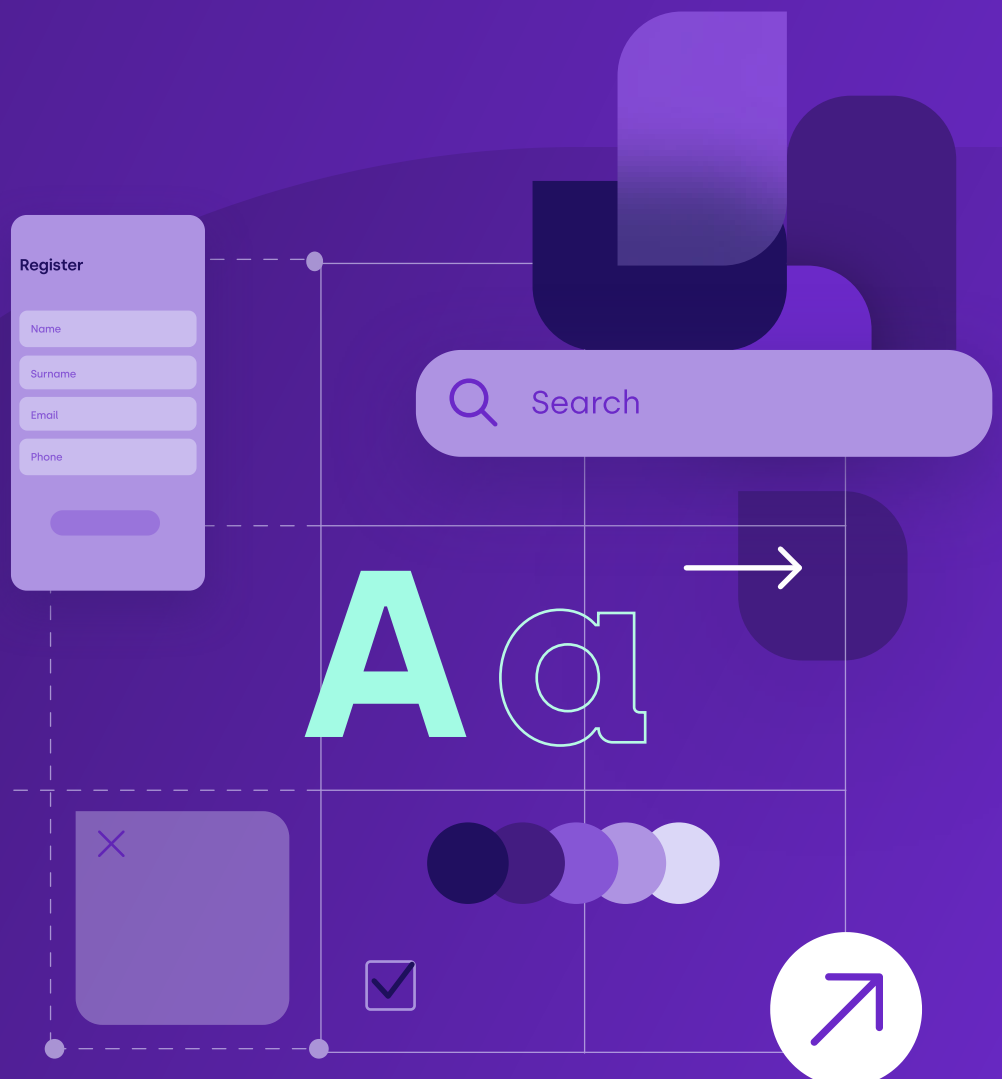# Table of contents

Resolute

Introduction

How often do your design and development teams have to go back and forth many times in order to create a consistent look and feel for your new products?

Does innovation stall and do minor design tasks seem to take forever?

Are you busy dealing with inconsistencies and bugs, instead of providing better and more delightful UX and UI?

Do your users genuinely struggle to use your application most effectively?

If you find the above questions relevant, there may be something you're missing. Keep on reading to find out how a design system can help you streamline your design and development processes.

In this whitepaper, we will:

Content

Explore what design systems are, who they are for, and how they are beneficial to shipping better products faster

Discuss how having a design system can help you maintain product and brand consistency, improve experience, enable faster time to market and ensure quality and product stickiness
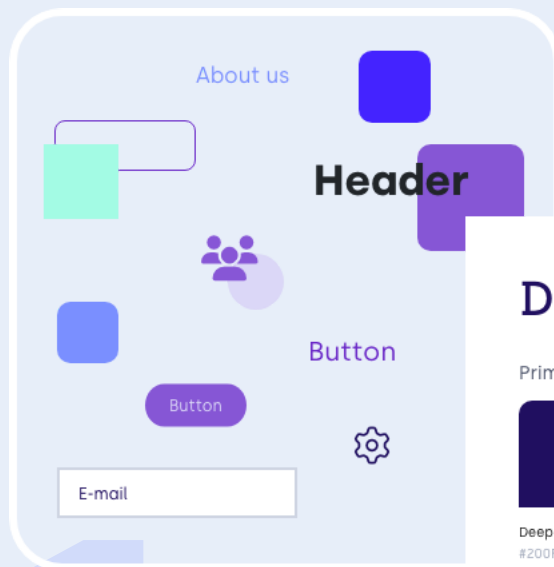
Look at a practical example of a design system that we at Resolute Software created for one of our clients

Here is what you need to know about design systems and how they can help you better shape your product development processes and digital experience.
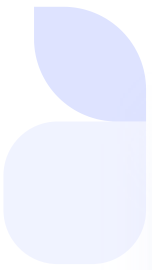
What Is a Design System?
A Single Source of Truth.

A design system is the single source of truth regarding all elements that designers and developers require to create a product successfully. It defines the rules, standards, and patterns that will guide the design and development process or in other words - provide the building blocks.

The design system is constantly developed throughout its lifespan. Its usefulness lies in its consistency and continuity. Once the standards and elements are defined, they can simply be reused every time they are required. This allows product teams to scale their operations significantly while reducing the effort required for development and maintenance.

To better understand what a design system is, and what it provides, we should turn to the question of its purpose.

Why have a design system?
Isn't the office whiteboard enough?

From an organizational standpoint, developing and maintaining a design system can serve three primary purposes:

1 **Define the organization's core** in terms of purpose, character, vision, and strategy in a systematized and accessible way.

2 **Provide clear guidelines and specifications on how to apply the brand identity and values** with the help of templates, checklists, visual elements, UX/UI patterns, tone of voice, and more.

3 **Enable cross-functional collaboration** that helps teams create and scale products quickly, consistently, and efficiently across platforms and devices via reusable elements, components, and patterns.

A design system can span the whole range from defining the foundations of a brand on a meta-level to the specifics of how design and development elements fit together, or how a brand comes across online.

It's like a map to the brand maze that leads people to the goal and not down paths with no exit.

Guidlines

GOAL

Organization's core

Consistency

Does this mean your design system needs to include all of this? No, that's up to you! But here's when it might make sense to start thinking about having a design system.

When and how should you create a design system? At any time, really.

Developing and maintaining a design system is an activity that takes time and requires specialized effort. It also takes time for people to learn how to use it. Moreover, there is frequently a perception of projects and products as standalone, static creations that cannot benefit much from a system of reusable elements or components, or predictable processes.

All of this may leave stakeholders thinking there's little business value to investing in creating a design system. **So, why bother creating one in the first place? When does it make sense?**

Design systems can be helpful when:

- You want to streamline the work between design and development teams

- Your brand is changing and you need to keep things consistent

- You diversify and develop your suite of products

- You are adding a new application or feature to a platform

- Clients' needs and demands evolve

- You are moving ahead with several projects at once

- You are working with different contractors for design and development and need them to follow the same principles and rules

Some form of design system makes sense as soon as you have a designer and a developer working together on a job or two designers working alongside each other. That may not always sound convincing to decision-makers but in hindsight, it frequently turns out to be true. To make sure this isn't just empty talk, in section II we will have a look at who uses the design system and how it benefits them in an immediate way.

That said, **the higher the complexity of a project or the greater the number of products, and teams involved**, the more it makes sense to sit down and create a system that will guide the development process. A design system serves as a starting point and a touchstone, and as such, it can offer the stable foundation that you require to move forward securely.

To come back around to the initial question: when should you create a design system? Unless you are really limited in your scope and your operations are very small or niche, you are already likely to benefit from even a basic form of design system.

Yes, design systems don't all come in the same shape and size.

An example
from our practice

To illustrate how the need for a design system arises, we will look at our work with AMATAS, a cybersecurity services company.

AMATAS approached us to help create a design system to use when developing their products, as well as reworking their current product stack.

As an initial use case of the design system, they planned to:

1. create a CRM platform that they would use internally to manage their clients

2. use the design system for products that are part of their core cybersecurity services

While they had their own development team in-house, they did not have the design capacity to create all the necessary elements and components that would become part of their products. In fact, AMATAS already had a UI for some of their products, however, it was not consistent and thus provided a poor user experience.

To refer back to the core purposes of a design system, they understood that a design system would provide them with clear guidelines on how to apply the brand's values and identity and that it would enable cross-functional collaboration.

Lacking a dedicated design team to tackle this problem and understanding the need to develop a consistent look and function for their products, AMATAS reached out to us.

What are the elements of a design system?

Depends on your company's needs.

Some design systems serve as simple pattern libraries of UI elements, whereas others cover the whole territory from a style guide, libraries of code snippets, and visual elements to carefully documented processes, tools to be used, governance rules and agreements, and more.

While a design system can cover all of the above, its scope is not fixed but depends on each organization's specific needs. Design systems differ widely in their content and complexity and there's no "should" or "must" when you are making one for your company.

Style guide

Visual language

Design system

Pattern library

Component library
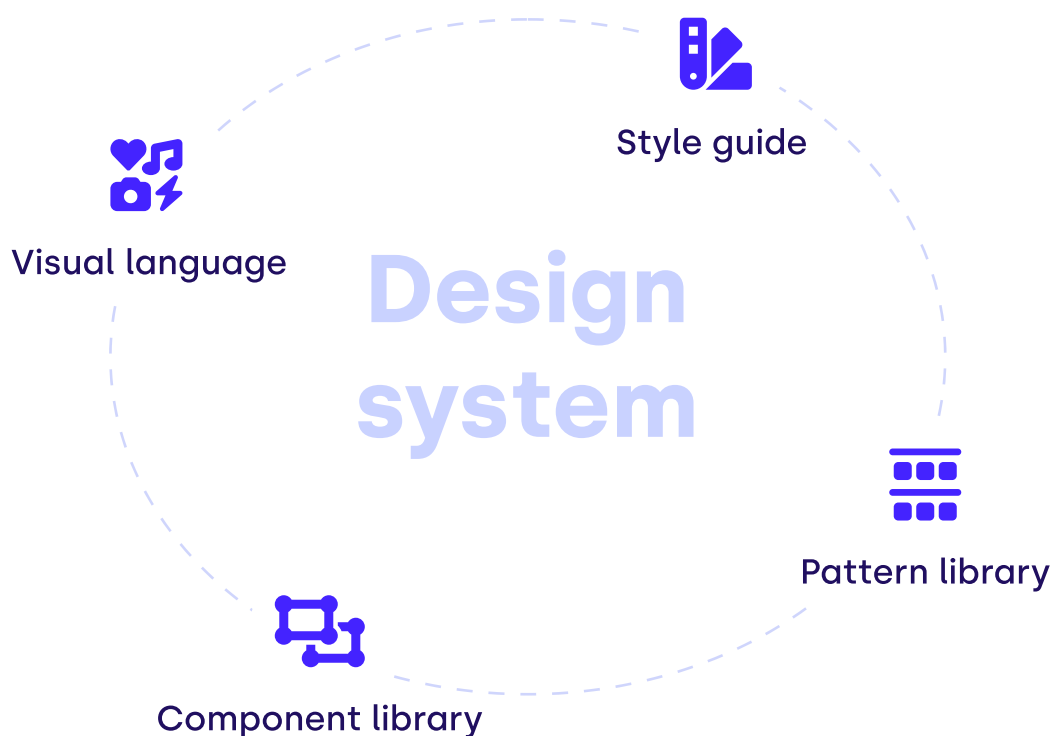
Most commonly, the building blocks of design systems include the following, nested into each other in increasing complexity:

Style guide

Documentation and guidelines in the form of editorial instructions that specify how all the previous elements are to be used in a meaningful way, including how code should be written to ensure consistency in function. It touches on all of the above, and also includes content requirements such as tone of voice, and more.

Visual language

Sometimes included as a subclass of the design system that refers to the design principles, the best practices, and the specifications to be used when creating new designs. It seeks to extend the component and pattern libraries in a consistent fashion into new products and solutions being designed.

Pattern library

A set of reusable component and pattern groupings such as layouts, templates, responsiveness parameters, and other elements that specify use cases, and possible or fixed relations between components - i.e. rules of use and examples.

Component library

A set of reusable standalone components that includes elements such as buttons, headers, footers, lists, and their various states, along with portions of reusable code, and more. Prior to creating a library, separate components must be designed and all of their different elements such as colors, fonts, styles, classes, effects, etc. must be settled. I.e. these are the most basic design building blocks, the "atoms" that make up later patterns and more complex forms.

Design system is all of the above. The design system constitutes the coming together of all of the preceding elements in a coherent whole that allows design, development, and all related product creation to be scaled while reducing efforts and costs associated with them.

A design system is an example of a "system of systems". While the different elements that constitute it function by themselves, their coming together is what enables the product design and development process to become efficient in ways that aren't possible without one. However, that doesn't mean it needs to be highly complex - technically.

a handful of components and patterns, organized along a consistent visual language, with a clear stylistic direction, constitute a design system.

One of the reasons that a design system is really helpful is because it enables different teams to proceed toward the same goal at the same time, and do so with certainty. But let's get more specific.

An example from our practice

The process of defining the scope of the design system for AMATAS included many conversations back and forth. In dialog with them, learning more about their current tools and future development needs, we sought to establish what kinds of elements the design system would encompass.

This also involved clarifying the purpose of the different components and communicating with them, from a UX design perspective, how things needed to look and function, in order to work well for users, regardless of their level of expertise.

At the end of this process, we had clearly specified deliverables that would make up the design system and could proceed with work.
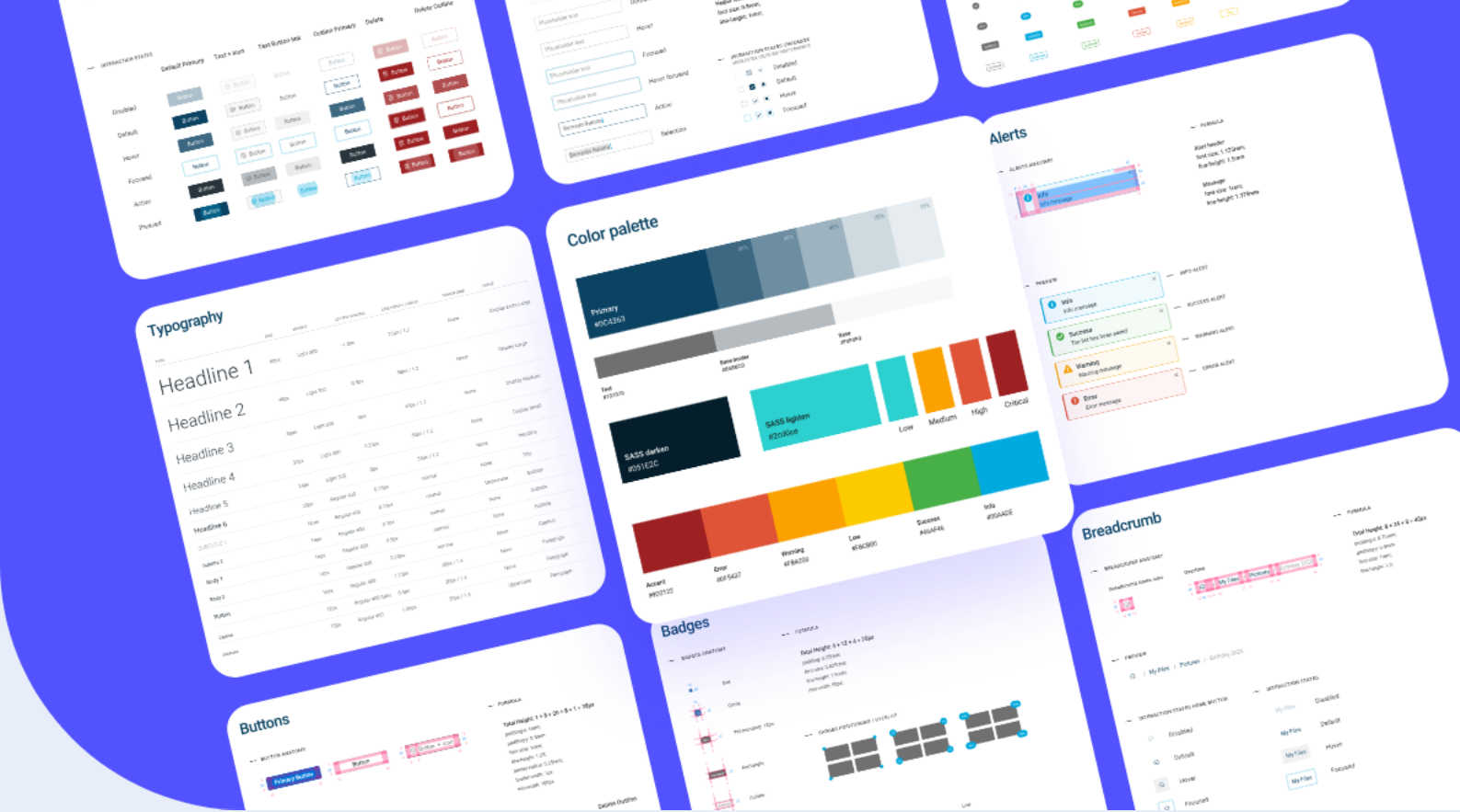
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AMATAS requested that we create a color palette and typography that they could use throughout their products. Then, at a more complex level, we proceeded with designing different standalone components that included functional pieces within their system. These were alert messages, badges that would act as status labels, breadcrumbs, buttons, button groups, and more.

For each of these initial components, we defined different sizes, types, and states which would allow them to be reused at a later time, in future products, and to be available for different scenarios.
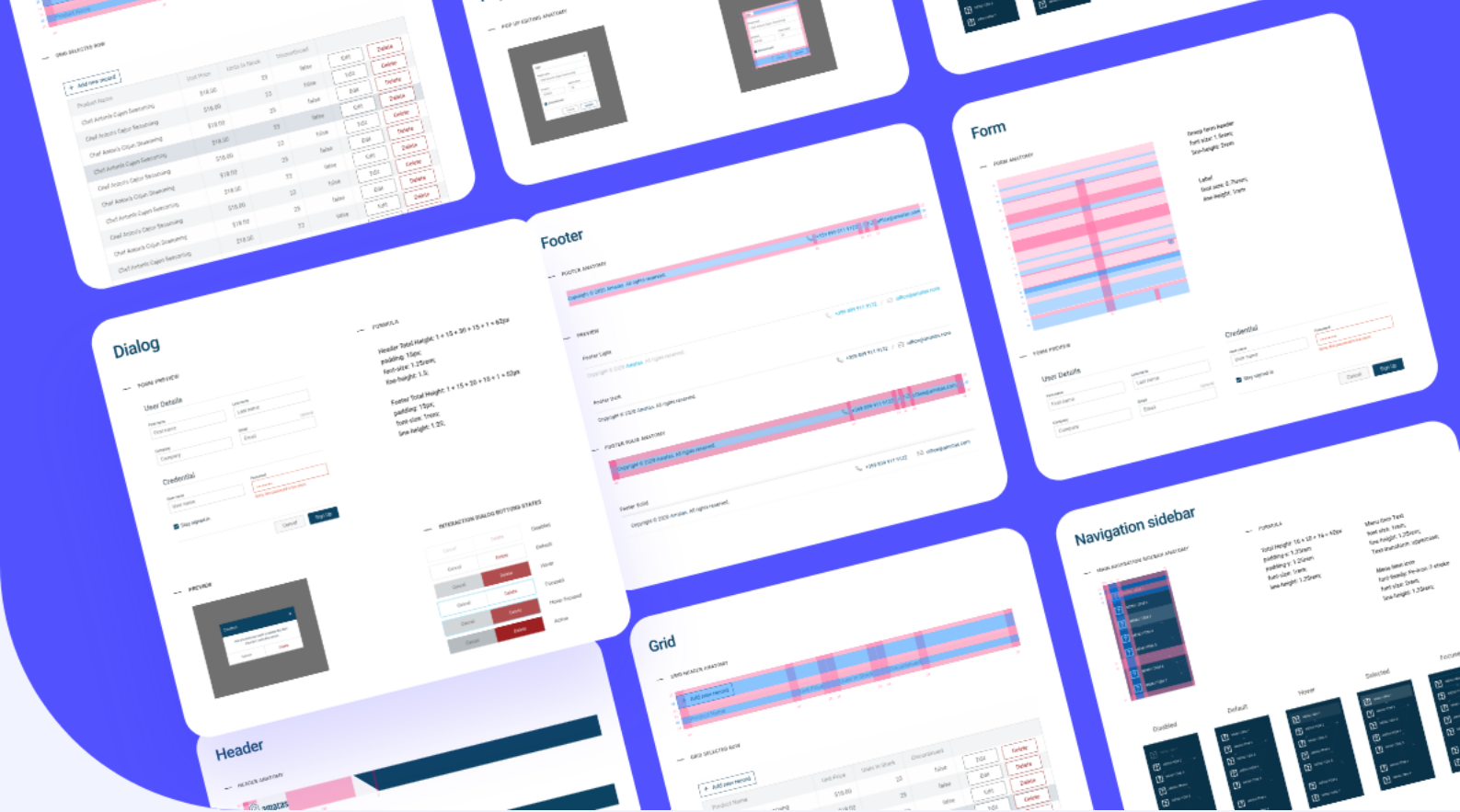
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Taking these simpler components, we then created dialog windows, forms, footers, headers, grids, a navigation sidebar, and various other more complex patterns that would constitute central elements of their products.

At this stage, their design system was mostly ready. It included separate components that together made up a component library. It also featured various configurations of such components into patterns that made up more complex elements. And, finally, all of these together began constituting a type of visual language that was becoming specific to AMATAS as a company.
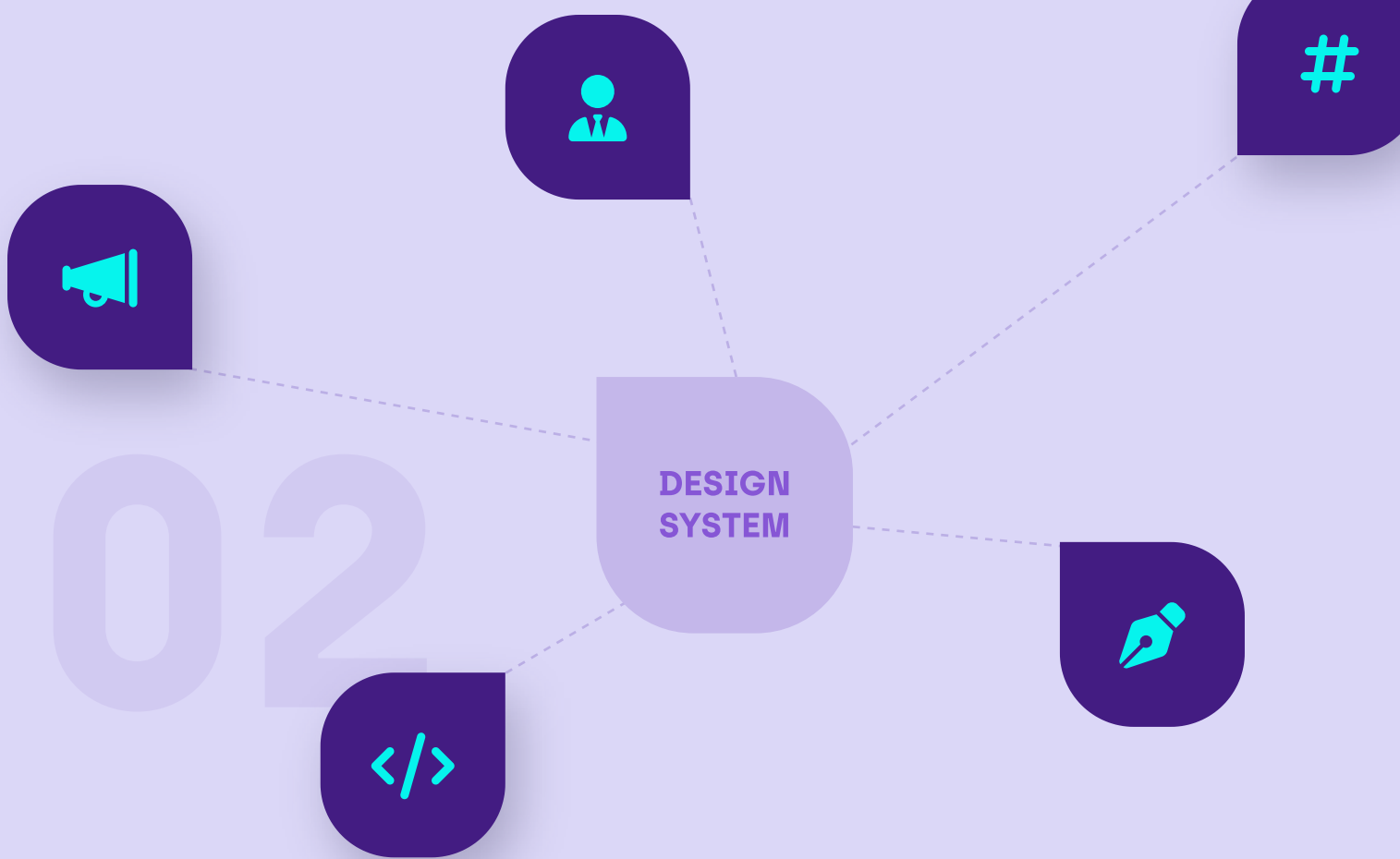
Who Benefits From Using a Design System? Pretty Much Everyone.

Part of the beauty of a design system is how it helps align different people with diverse skill sets and responsibilities. Ultimately, that's also one of the most fundamental problems that it is intended to solve. Trying to bring a group of professionals to work together runs into significant problems, without a system to manage the process.

At its most developed, a design system can be put to good use by all of the following teams and roles:

✓ **Design teams**
UX/UI designers, visual designers, illustrators

✓ **Product teams**
Managers, owners, engineers, developers

✓ **Brand teams**
Ambassadors, PR specialists

✓ **Marketing teams**
Content creators, copywriters, social media managers

The reason that it can encompass so many functions is because users don't interact with brands in only one way. Users interact with a brand through various channels and platforms and a design system can cover all those points of contact.

So what if you don't have a design system? What could go wrong?

To get a better sense of how a design system helps its users, here are some of the areas that are impacted in the absence of a design system:

Teamwork

Already within single-disciplinary teams, a lack of systemic organization creates hurdles due to differences in approaches, personal aesthetic and functional preferences, etc. This is especially visible with junior members who are trying to find their place in a team and have no stable reference point. At scale, all of this becomes even more dramatized.

Costs and time

In effect, the cost of product development, across all teams, can balloon out of proportion due to the back-and-forth that becomes necessary when no central organizing principle is present. Production speed is also affected, requiring deadlines to be shifted. Costs also increase due to creating things repeatedly, instead of reusing them.

Collaboration

Moving up a notch, multidisciplinary or cross-functional collaboration is significantly hampered, and communication between teams can seem like trying to read smoke signals. A lack of shared vocabulary leaves plenty of room for ambiguities, further slowing down the process. And in case you are working with external contractors, all of this can get even messier and more chaotic

User experience

Lack of a design system leads to a higher probability of bad user experience, suffering due to visual or functional inconsistencies in interfaces. Lack of predictability translates into a reduced desire to use a website or app, feeding back into the issues associated with poor teamwork and collaboration.

All of the above issues are magnified and increase progressively as a project becomes more complex and more people become involved. Of course, in the absence of a design system, companies find creative solutions to keep things going. However, there is usually plenty of room for improvement!

What does a design system do that an email can't? The immediate benefits from design systems.

Looking back at the issues that can arise in the absence of a design system, how does one help resolve them? How does it assist the various teams that are involved in the product creation and marketing effort?

1

Teamwork and collaboration

A design system helps teams create coherent and consistent processes across the whole spectrum of product creation. This puts designers and developers, whether internal or external, on the same page leaving no room for guesswork. It also supports onboarding junior team members and provides them with a go-to solution for their creative challenges.

2

Brand presence

A design system enables marketing and product teams to create a user-friendly, yet vivid and recognizable brand presence across different digital touchpoints. It helps define the brand in specific terms, from a visual and content perspective, and specify how it is to be communicated to different groups of users. This reduces ambiguities for both brand managers as well as for users and aids in their interaction.

3 User experience

A design system enables companies to work with already-established mental models and to meet users where they are, instead of trying to reeducate them. It also assures that user interactions are consistent across interfaces and platforms, increasing ease of use and satisfaction.

4 Costs, time, energy

All of these are reduced and used more efficiently with the help of a design system, especially one built with consistency and with testing in mind. This eliminates significant deviations between different products and product iterations, and the need for repeated corrections.

The above are the immediate benefits that a design system offers to the different teams that make use of it and, ultimately, to the product's final users. These may sometimes not seem enough for decision-makers and stakeholders to build a business case. However, if we zoom out a bit, it becomes obvious what the overall impact of a design system is on a business as a whole.

An example
from our practice

Having a design system made all the difference for AMATAS. If previously, they had a UI that wasn't functional and had inconsistencies, now they had all the necessary tools at hand to create products that were visually and functionally aligned and congruous. They could start creating designs that would reflect the purpose of their products and do so with greater efficiency, better collaboration, and at a lower cost.

After the final approval of the design system, AMATAS proceeded to create their first two designs.

These included a CRM system that they would use internally to manage their clients. It features a navigation bar, grids with client entries, and a detailed view with different actions that apply to each individual client. The second product featured a simple service intended to shorten and cloak URLs, making it difficult to hack them. Finally, they also created a login screen to be used for gaining access to the URL shortening service.
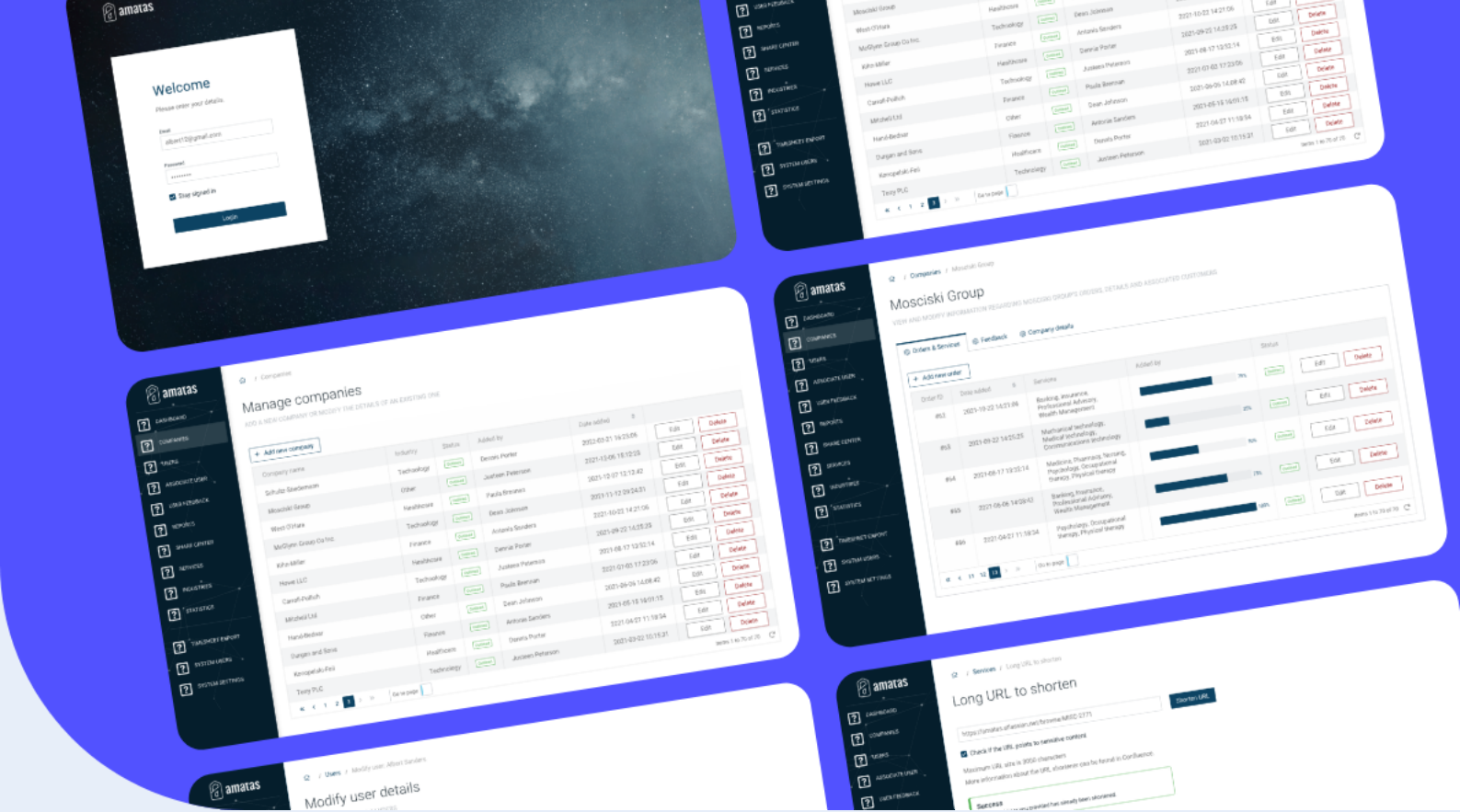
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The end result of this initial use of the design system was a consistent look and feel throughout all of these products.

From that point forward, AMATAS could use the design system when developing or revamping their products. Moreover, they now had a visual language that they could refer back to whenever they needed to update the system to include new components and patterns. All of this also translated into a coherent visual identity that users could recognize and associate with their specific services.
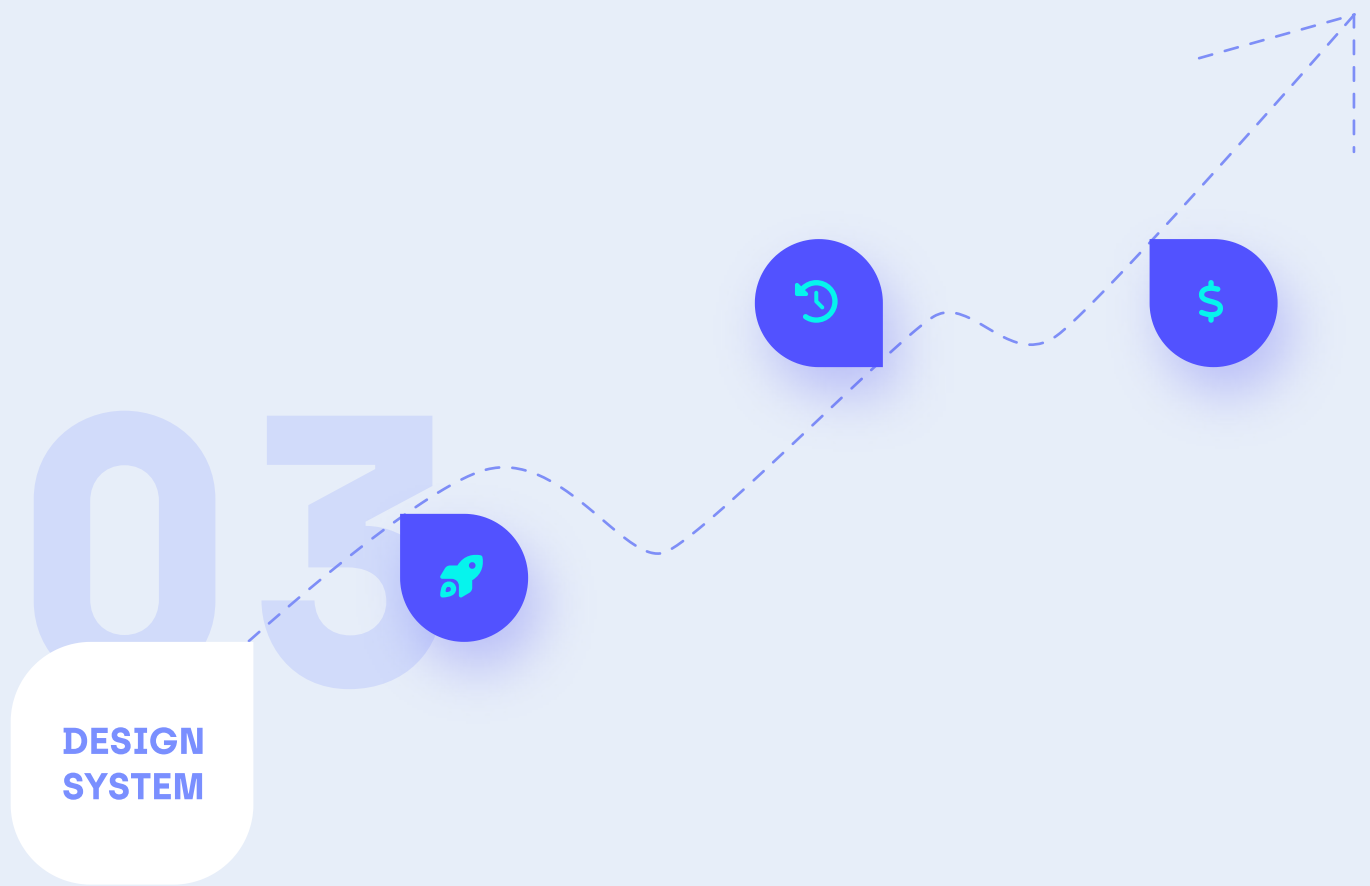
**DESIGN
SYSTEM**

How Is a Design System Good for a Business? Let's Zoom Out.

Much like there is a cascading effect and problems tend to build up in the absence of a design system, the same principle holds true in the reverse case. Creating, maintaining, and using a design system translates into very specific and measurable results and benefits, and these tend to increase with every step in the product creation process.

The following is an incomplete list of all the ways in which your business will benefit from a design system:

Productivity

Clear, specific, and consistent design rules and principles promote higher development speed, and higher decision speed. In effect, error prevention is increased, reducing the total time-to-market.

Efficiency

The reduction of wasted time, effort, and money is one of the most valued attributes of design systems. This feeds directly into increased productivity and opens up resources to be used toward creative solutions and improved usability of products.

Repeatability & consistency

Repeatability makes production easier and allows the emphasis to be on testing and usability, whereas consistency improves the overall visual quality, reduces friction for users, and has a positive impact on your brand's and product's image.

Scalability

A design system helps keep the non-linear increase in complexity at bay, allowing you to scale with less disruption and fewer bottlenecks in the process.

Quality

Across the board, product quality is increased, and designers and developers can engage more deeply with the creation process and user needs in order to provide an experience that distinguishes the brand.

Knowledge sharing & innovation

Design systems are the opposite of siloed knowledge. In-depth collaboration and innovation become possible thanks to the vocabulary and language that the system provides. Onboarding junior team members is facilitated, and brand values and design philosophy are communicated in an immediate and specific way, rather than as abstract concepts.

Return on investment

While a design system is an upfront investment that requires ongoing maintenance, it pays off repeatedly in all of the above ways by removing hurdles, reducing errors, and improving speed, efficiency, and quality.

Create Your Design System With Resolute Software

We have vast experience in creating design systems for clients worldwide. Whether you need to create a design system from scratch or need help with expanding and polishing an already existing one, our design and development professionals have the necessary skills and expertise to assist you.

Resolute

Resolute

sales@resolutesoftware.com

Let's talk about your technology requirements.

Get in touch

USA

MA 01701, Framingham,
945 Concord St,

+1-617 386-9697