

Building complex pages with Views and Display Suite

Part 1 of 2

A step by step approach to creating complex content types and page displays. In this session, we will cover the whole process, from deconstructing mockups in search of reusable patterns through assembling clusters of custom content types into rich and interconnected page displays.

presented by

Renaud Joubert

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Presentation outline

- Preamble
 - The value of context & process
 - Reading about what a module does is not enough
 - Knowing when to use it and when NOT to use it is essential
 - Sharing hindsight
 - “Come for the software, stay for the community”

Presentation outline

- Deconstructing mockups
- Searching for patterns
- Selecting most appropriate tools for the job
- Turning patterns into recyclable displays
- The makeup of a [complex] content type
- Displaying [complex] content types
- Quick demo (time permitting)
- Questions

salesforce.com



salesforce.com



salesforce.com/products

Salesforce product overview
Salesforce.com offers everything you need to grow your company, whether you're an up-and-comer or a FORTUNE 500 corporation. With no software or hardware to install, you're up and running—and seeing a positive impact on your business—quickly.

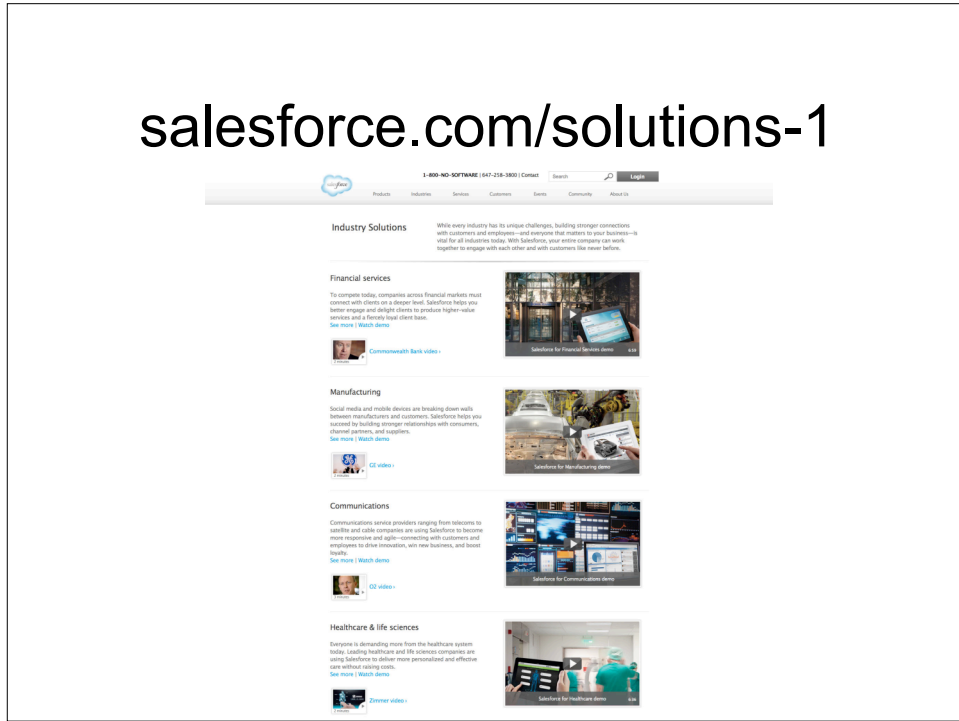
Sales Cloud
Super-charge your sales with the world's #1 sales and CRM application. Sales Cloud helps sales reps close bigger deals faster and connect with customers on any device.
[Details](#) | [Demo](#) | [Pricing](#) | [Free trial](#)

Service Cloud
Transform customer service and support with the #1 customer service application. With Service Cloud, you'll increase customer satisfaction, improve agent productivity, and lower overall support costs.
[Details](#) | [Demo](#) | [Pricing](#) | [Free trial](#)

Marketing Cloud
Engage customers everywhere with the leading social marketing application. Marketing Cloud helps you learn, gain insight, and respond to customers in real time.
[Details](#) | [Demo](#) | [Pricing](#)

Salesforce Platform
Build and run innovative apps and websites on the leading cloud platform. The Salesforce Platform is the foundation for creating apps you never thought possible, so you can engage customers and employees in everything you do.
[Details](#) | [Demo](#) | [Pricing](#) | [Free trial](#)

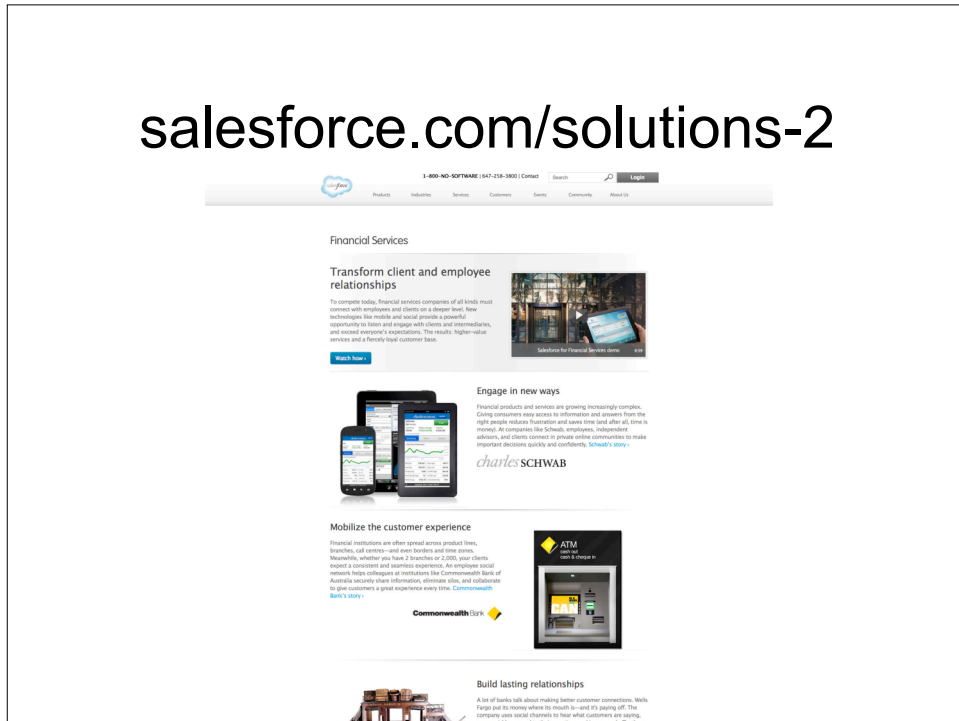
salesforce.com/solutions-1



The screenshot shows the top portion of the Salesforce website. At the top, there is a navigation bar with the Salesforce logo, the phone number "1-800-NO-SOFTWARE | 647-218-3800 | Contact", a search bar, and a "Login" button. Below the navigation bar, the "Industry Solutions" section is displayed. It features a sub-header "Industry Solutions" followed by a paragraph: "While every industry has its unique challenges, building stronger connections with customers and employees—and everyone that matters to your business—is vital for all industries today. With Salesforce, your entire company can work together to engage with each other and with customers like never before." Below this, there are four industry-specific sections, each with a title, a short paragraph, and a video thumbnail:

- Financial services:** "To compete today, companies across financial markets must connect with clients on a deeper level. Salesforce helps you better engage and design clients to produce higher-value services and a fiercely loyal client base." Video thumbnail: "Salesforce for Financial Services demo".
- Manufacturing:** "Social media and mobile devices are breaking down walls between manufacturers and customers. Salesforce helps you succeed by building stronger relationships with consumers, channel partners, and suppliers." Video thumbnail: "Salesforce for Manufacturing demo".
- Communications:** "Communications service providers ranging from telcos to satellite and cable companies are using Salesforce to become more responsive and agile—connecting with customers and employees to drive innovation, win new business, and boost loyalty." Video thumbnail: "Salesforce for Communications demo".
- Healthcare & life sciences:** "Everyone is demanding more from the healthcare system today. Leading healthcare and life sciences companies are using Salesforce to deliver more personalized and effective care without raising costs." Video thumbnail: "Salesforce for Healthcare demo".

salesforce.com/solutions-2



The screenshot shows the middle portion of the Salesforce website. It features a sub-header "Financial Services" followed by a section titled "Transform client and employee relationships". Below this, there are three main content blocks, each with a title, a short paragraph, and an image:

- Engage in new ways:** "Financial products and services are growing increasingly complex. Giving customers easy access to information and answers from the right people reduces frustration and saves time (and, after all, time is money). At companies like Schwab, employees, independent advisors, and clients connect to private online communities to make important decisions quickly and confidently. *Schwab's story*." Image: "charles SCHWAB".
- Mobilize the customer experience:** "Financial institutions are often spread across product lines, branches, call centers—and even borders and time zones... Meanwhile, whether you have 2 branches or 2,000, your clients expect a consistent and seamless experience. An employee social network helps colleagues at CiticoreBank of Australia securely share information, discuss risks, and collaborate to give customers a great experience every time. *CiticoreBank's story*." Image: "Commonwealth Bank".
- Build lasting relationships:** "A lot of banks talk about making better customer connections, but Fargo put its money where its mouth is—and it's paying off. The company uses social channels to hear what customers are saying." Image: "Fargo".

See any patterns?



Products: patterns

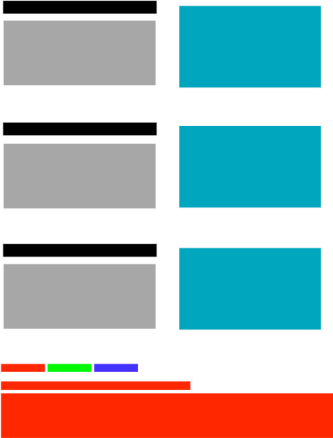
Salesforce Platform
Build and run innovative apps and websites on the leading cloud platform. The Salesforce Platform is the foundation for amazing apps you never thought possible, so you can engage customers and employees in everything you do.
[Details](#) | [Demo](#) | [Pricing](#) | [Free trial](#)

Salesforce Chatter
Sell, service, and market in new ways with the leading enterprise social network. Salesforce Chatter makes business processes social, so you can collaborate in real time—in context—from anywhere.
[Details](#) | [Demo](#) | [Pricing](#) | [Free trial](#)

Salesforce Work.com
Work better, together, with the leading sales performance management application. Salesforce Work.com builds a results-driven culture with social goals, real-time feedback, open recognition, and easy coaching.
[Details](#) | [Demo](#)

CRM Solutions: The Right Answer for Right Now
The challenges you face in your business are not the same as yours in the past. Whether you're a small business or a large enterprise, your needs are changing. That's why you need a solution that can evolve with you. Our CRM solutions provide the right answer for right now.
With Salesforce CRM solutions and our cloud-managing tools, you can build your business and your budget at the same time. Our business CRM products include salesforce.com, Salesforce CRM, and Salesforce CRM. They're all designed to help you manage your business better. There's no need to look elsewhere. Our solutions are the right answer for right now. Our solutions provide everything you need to get started.
[Read more](#)

Products: patterns



Solutions-1: patterns

High tech
The tech industry leads the charge in adoption of new technologies to evolve their businesses. That's why high tech executives and business leaders connect with customers and employees like never before.
[See more | Watch video](#)

Retail
Retailers understand how radically social media has changed consumer behavior. Salesforce helps retailers from local boutiques to associations work together to create great customer experiences on every channel.
[See more | Watch video](#)

Government
Governments at every level are transforming. Openness, transparency, and collaboration are the order of the day—but so are speed, scalability, and affordability. Salesforce helps build the modern government your citizens deserve.
[Solutions for government](#)

Nonprofit & higher ed
Salesforce technologies help nonprofits build relationships with communities and find ways to deliver programs and services in innovative and efficient new ways. The Salesforce non-profit foundation can help with resources for qualified institutions and organizations.
[Solutions for nonprofit and higher ed](#)

Solutions-1: patterns



Solutions-2: patterns

1-800-NO-SOFTWARE | 647-218-3800 | Contact Search Login

Products Industries Services Customers Events Community About Us

Financial Services

Transform client and employee relationships

To compete today, financial services companies of all kinds must connect with employees and clients on a deeper level. New technologies like mobile and social provide a powerful approach to help you engage with clients and intermediaries, and exceed employee's expectations. The result: higher-value service and a family-level customer base.

[Read More](#)

Engage in new ways

Financial products and services are growing increasingly complex. Giving customers easy access to information and answers from the right people reduces frustration and saves time (and, after all, time is money). At companies like Schwab, employees, independent advisors, and clients connect to private online communities to make important decisions quickly and confidently. [Schwab's story](#)

charles SCHWAB

Mobilize the customer experience

Financial institutions are often spread across product lines, branches, call centers and even borders and time zones. Meanwhile, whether you have 2 branches or 2,000, your clients expect a consistent and seamless experience. An employee social network helps colleagues at institutions like Commonwealth Bank of Australia securely share information, discuss risks, and collaborate to give customers a great experience every time. [Commonwealth Bank's story](#)

Commonwealth Bank

Build lasting relationships

A lot of banks talk about making better customer connections, but few go as far as Schwab. Schwab just is money where it counts in—and it's paying off. The company uses social channels to hear what customers are saying.

Solutions-2: patterns



Wow, slices are big!?

Quick recap

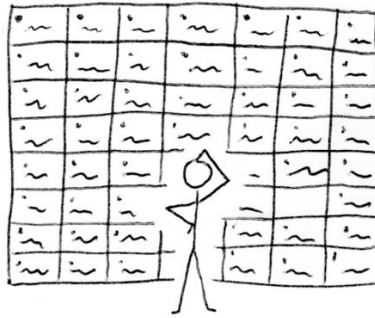
- Analysis shows that
 - Slices are big
 - Patterns are everywhere
- What's next?



Introducing complexity

Charting the unchartable

Making sense of 60+ mockups...



Charting the unchartable

Slicing up 60+ mockups...

	SOLUTIONS	INDUSTRIES	PRODUCTS (List)	PRODUCTS (Feature)
Person (static)				
Features				
Use Cases				
Related Products				
Content/Localization				
Case Studies				
Demo CTA		---	∅	---
Schedule A Meeting		---	---	---
FOOTER		---	---	---

11:28 ← class help desk

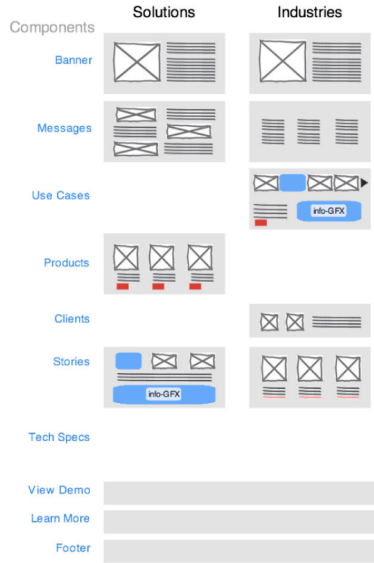
TECH SPECS

17:00

MEETINGS

Charting the unchartable

Slicing up 60+ mockups...

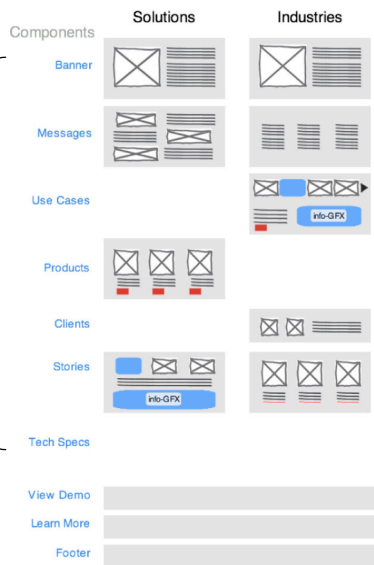


and looking for patterns...

Content types

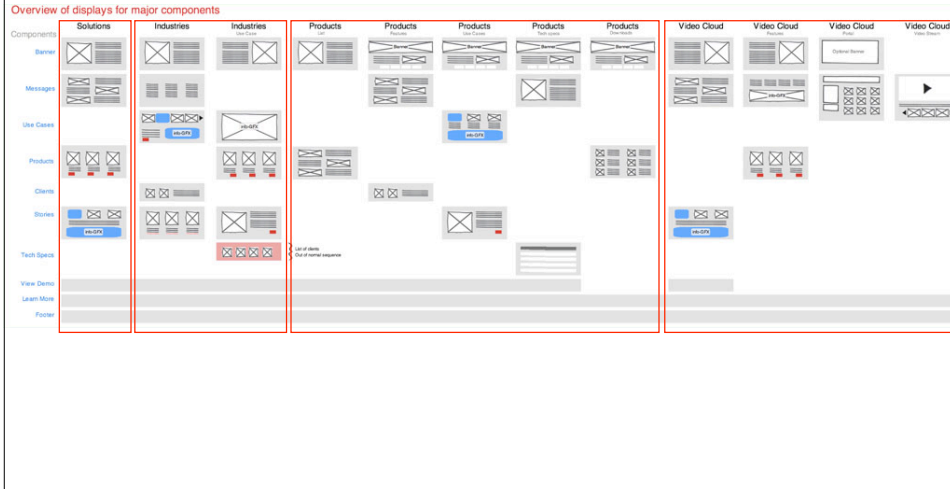
Blocks

Main Menu

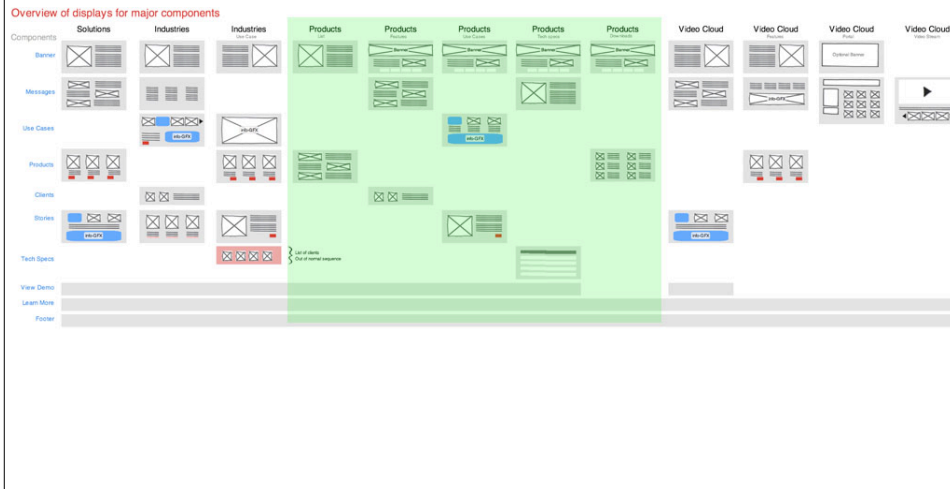


Overview of project displays

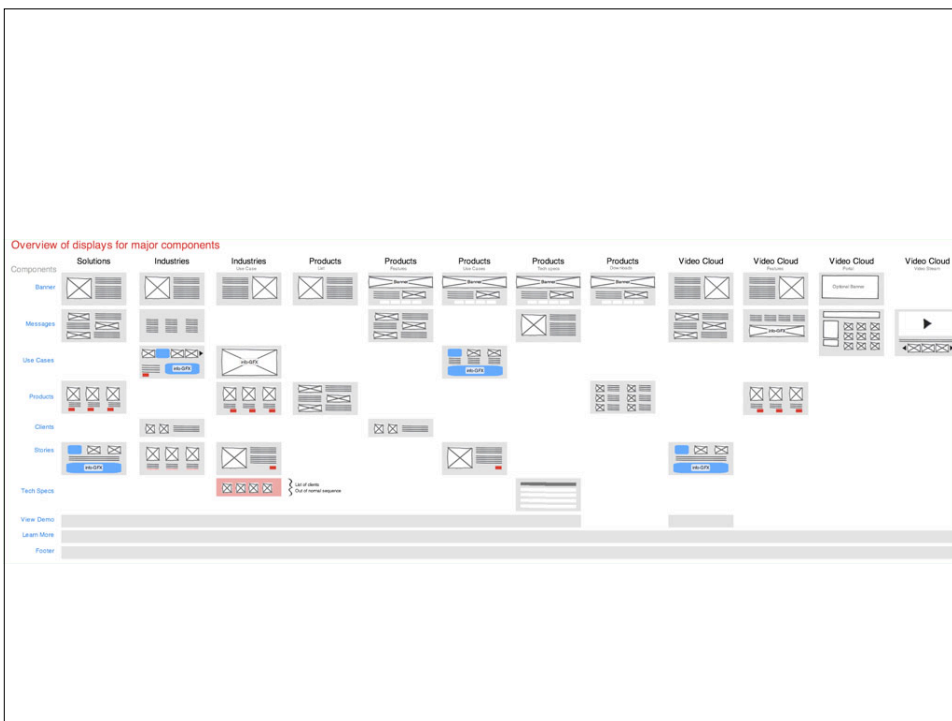
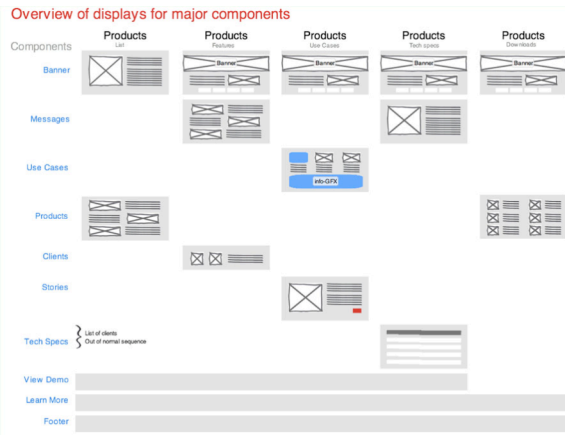
For 4 of 7 Main Menu Entries



Overview of project displays



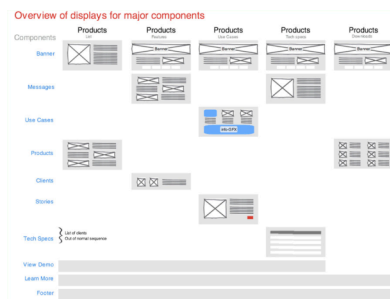
Variants for Products



Show-off ! Now what?

14,232 Modules (D7)

- Views for sure
- Panels?
- Page Manager?
- Display Suite?
- Custom templates?



There's a module for that, no?



Could this be my chance to write
my first module and become
forever famous?



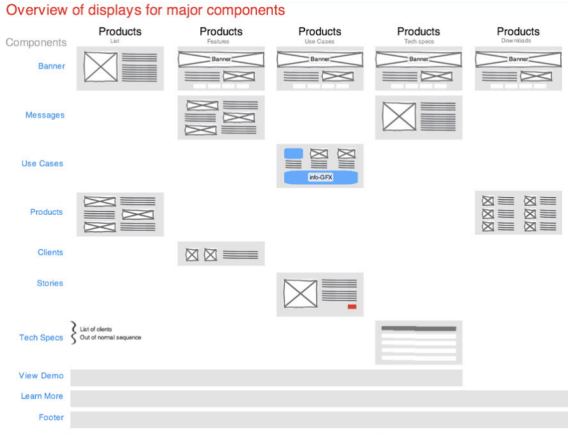
Maybe I could call Webchick and ask for help « [[insert kitten story here](#)] »

Time for a serious plan

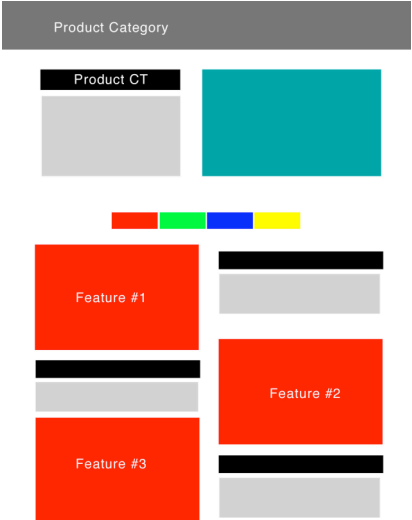
Go with what you know



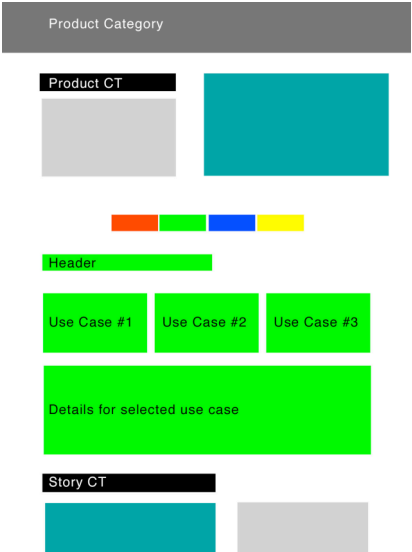
Start naming & labeling



Products: facet 1



Products: facet 2



Products: facet 3

The diagram shows a faceted search interface. At the top is a grey bar labeled 'Product Category'. Below it is a 'Product CT' section with a black header, a grey box, and a teal box. A horizontal bar with four colored segments (red, green, blue, yellow) is positioned below. Underneath are two blue boxes labeled 'Specs Description' and 'Specs Data'. At the bottom is a large blue box labeled 'Specs Table'.

Products: facet 4

The diagram shows a faceted search interface. At the top is a grey bar labeled 'Product Category'. Below it is a 'Product CT' section with a black header, a grey box, and a teal box. A horizontal bar with four colored segments (red, green, blue, yellow) is positioned below. Underneath is a yellow box labeled 'Files CT'. At the bottom is a large yellow box labeled 'Table of Files CT'.

The makeup of a product

- refers to 5 other content types
 - Features
 - Use cases
 - Story
 - Specs
 - Files

The makeup of a product

- refers to 5 other content types
 - Features, up to 5
 - Use cases, up to 5
 - Story, 1
 - Specs, 1
 - Files, unlimited number

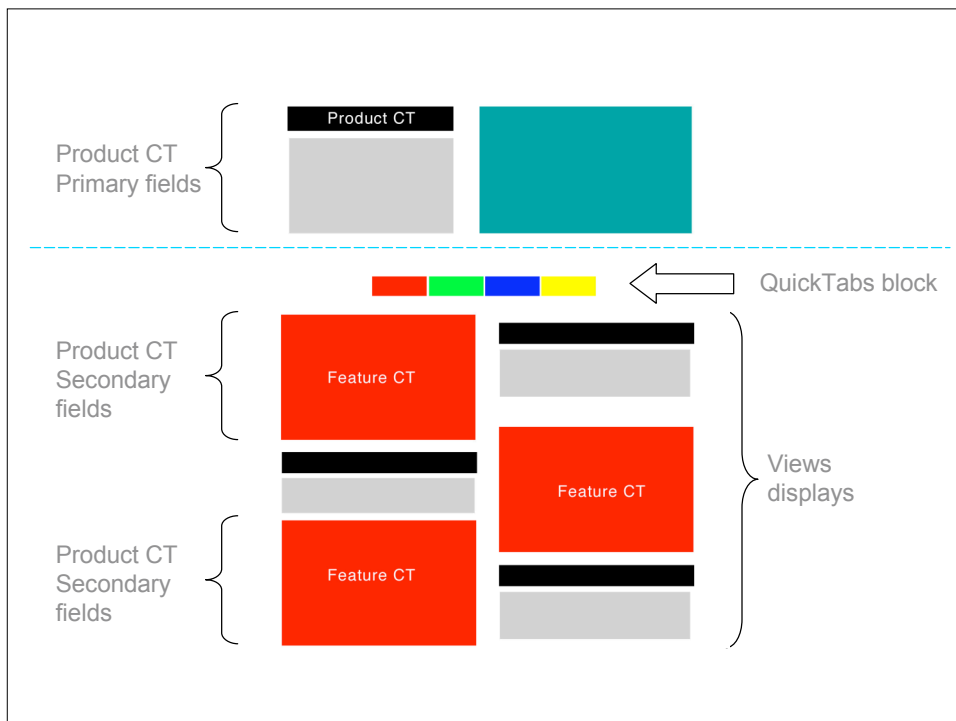
The makeup of a product

- refers to 5 other content types
 - Features, up to 5, zigzag display
 - Use cases, up to 5, banner style display
 - Story, 1, image-left display
 - Specs, 1, two-column stack display
 - Files, unlimited number, table display

The makeup of a product

- refers to 5 other content types
 - Features, up to 5, zigzag display
 - Use cases, up to 5, banner style display
 - Story, 1, image-left display
 - Specs, 1, two-column stack display
 - Files, unlimited number, table display ★
 - Every product is a custom mashup of content
 - Content can appear on more than one product
 - The order in which slices of content are displayed can be changed easily at will without breaking the design

Drupal anyone?



Product: Manage fields

LABEL	MACHINE NAME	FIELD TYPE
+ Product category	field_prod_category	Term reference
+ Title	title	Node module element
+ Subtitle	field_prod_subtitle	Text
+ Teaser	field_prod_teaser	Long text
+ Body	body	Long text and summary
+ Image	field_prod_image	Image
+ Features	field_prod_features	Entity Reference
+ Use Cases	field_prod_use_cases	Entity Reference
+ Tech Specs	field_prod_tech_specs	Entity Reference
+ Downloads	field_prod_downloads	Entity Reference
+ Featured Story	field_prod_featured_case_study	Entity Reference
+ Certification	field_prod_certification	Image
+ URL path settings	path	Path module form elements

Product edit form: primary

edit Product Laoreet Mellor Pecus Rusticus VIEW EDIT MANAGE DISPLAY DEVEL

Product category

Title *


Subtitle

Teaser

Body

Text format [More information about text formats](#)

- No HTML tags allowed.
- Web page addresses and e-mail addresses turn into links automatically.
- Lines and paragraphs break automatically.

Image
 imagefield_Bf6j3.jpg (8.56 KB) Remove

Product edit form: secondary

The screenshot displays a product edit form with four main sections, each with a 'Show row weights' link in the top right corner:

- FEATURES:** Contains five rows. The first two rows are highlighted with orange boxes. Each row has a plus icon on the left and a dropdown arrow on the right. The text in the rows is: 'Caecus Commodus Decot Ea (1)', 'Albus Loquor Nil Paratus (15)', 'Albus Loquor Nil Paratus (15)', and two empty rows.
- USE CASES:** Contains five rows. The first three rows are highlighted. Each row has a plus icon on the left and a dropdown arrow on the right. The text in the rows is: 'At Loquor Natus Suscipere (18)', 'Ei Hunc Tricidant (22)', and 'Ludus Natus (25)'. The last two rows are empty.
- Tech Specs:** Contains a single dropdown menu with the text 'Nil Paratus Unor' and a small arrow icon on the right.
- DOWNLOADS:** Contains five rows. The first three rows are highlighted. Each row has a plus icon on the left and a dropdown arrow on the right. The text in the rows is: 'Test File: private-Registered user (595)', 'Test File: private-Shark (591)', and 'Test File: private-Public (593)'. The last two rows are empty.

Now, what about the layout?

- Views: in what way?
- Panels?
- Page Manager?
- Display Suite?
- ~~Custom templates?~~
- A mixed approach?

Differences: PM, Panel & DS

- **Display Suite** is a tool for managing view modes *for entities*.
- **Panels** is a tool for creating arbitrary layouts.
- **Page Manager** is a tool for mapping paths against content (or responses), and also for pulling in contextual data.

Swentel's POV on DS

- Display Suite (an extension of field_ui) solves 90% of the needs for custom templates
- Panels is a layout editor
- Clients don't understand Views & Panels together
- With DS, you can give permission to just one page
- The feature that lets you use a DS custom view mode in Views in place of 'Full content' or 'Teaser' is GREAT!
- It's much easier for themers who know nothing about Drupal core

Product: Manage displays

Default Teaser



Creating custom view modes for Product & Feature content types

Content items can be displayed using different view modes: Teaser, Full content, Print, RSS, etc. Teaser is a short format that is typically used in lists of multiple content items. Full content is typically used when the content is displayed on its own page.

Here, you can define which fields are shown and hidden when Product content is displayed in each view mode, and define how the fields are displayed in each view mode.

[Show row weights](#)

FIELD	REGION	LABEL	FORMAT	
Left				
Subtitle	Left	Above	Default	
Body	Left	Above	Trimmed	Trim length: 600
Right				
Image	Right	Above	Image	Image style: 440x135
Disabled				
Read more	Disabled	<Hidden>	Default	
Comments	Disabled	<Hidden>	Default	
Links	Disabled	<Hidden>	Default	
Author	Disabled	<Hidden>	Author	
Post date	Disabled	<Hidden>	Long	
Submitted by	Disabled	<Hidden>	Time ago	
Last modified	Disabled	<Hidden>	Long	
Title	Disabled	<Hidden>	Default	
Group files	Disabled	<Hidden>	Default	
Teaser	Disabled	Above	Default	

Product: Manage displays

FIELD	REGION	LABEL	FORMAT
Use Cases	Disabled	Above	Label
Tech Specs	Disabled	Above	Label
Downloads	Disabled	Above	Label
Featured Story	Disabled	Above	Label
Certification	Disabled	Above	Image
Product category	Disabled	Inline	Link
Add new group	Disabled	group_	Fieldset
		Label	Group name (a-z, 0-9, _)

Layout for product in default

Current layout

Two column
The default template can be found in `sites/all/modules/contrib/ds/layouts/ds_2col`

- ds-2col--node.tpl.php
- ds-2col--node-product.tpl.php

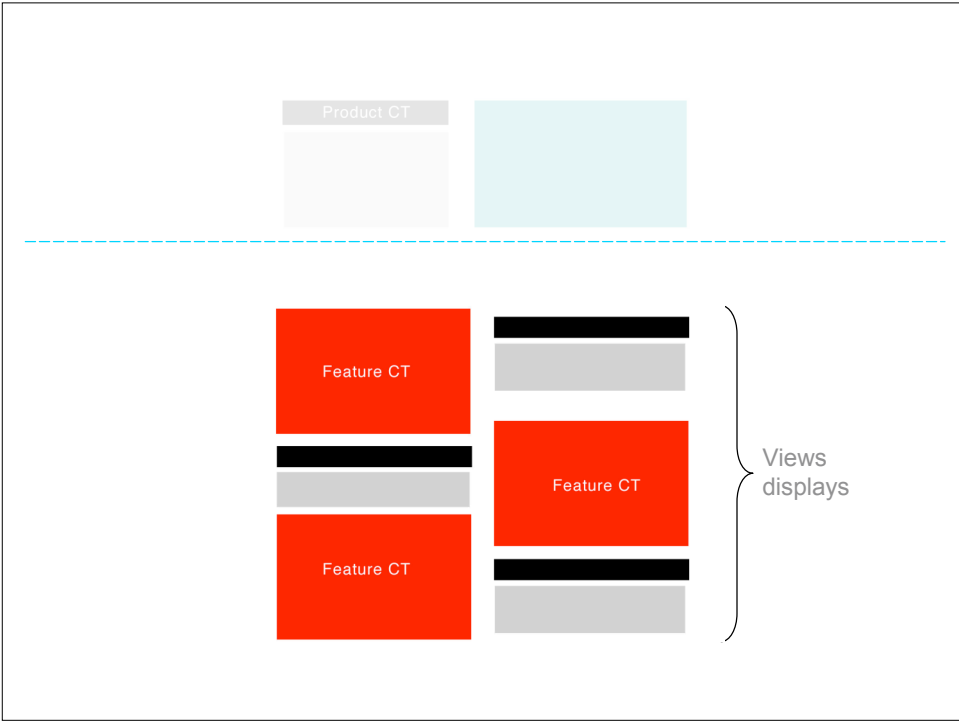
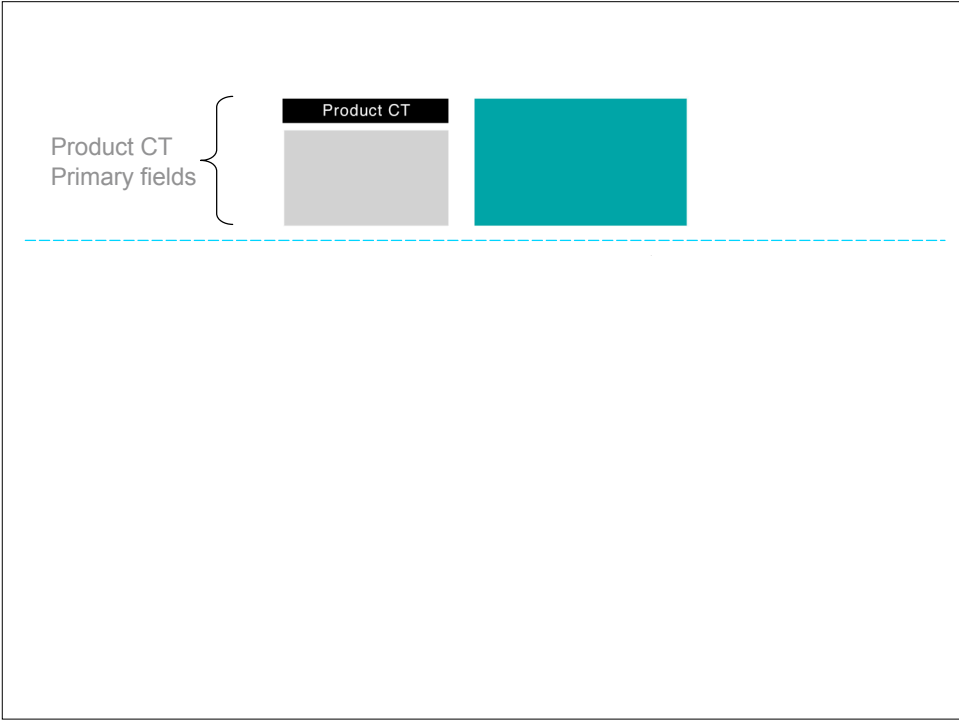
Select a layout

Two column

This layout is defined in code: [disable layout](#).

Disable Drupal blocks/regions

Save



Views: Features page display

The screenshot shows the 'Features Page' configuration in Drupal Views. The 'FILTER CRITERIA' section is highlighted with a red box, containing the following settings:

- Content: Published (Yes)
- Content: Type (= Feature)

Other visible sections include:

- TITLE:** Title: Features
- FORMAT:** Format: Unformatted list | Settings
- PAGE SETTINGS:** Path: /product-tabs, Menu: No menu, Access: Permission | View published content
- CONTEXTUAL FILTERS:** (Content referencing Content from field_prod_features) Content: Nid
- RELATIONSHIPS:** Entity Reference: Referencing entity
- EXPOSED FORM:** Exposed form in block: No, Exposed form style: Basic | Settings

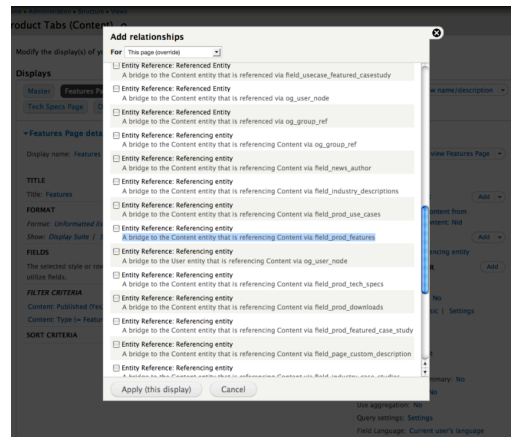
Display Suite settings

The screenshot shows the 'Features Page: Row style options' dialog box in Drupal Views. The dialog is titled 'Features Page: Row style options' and shows the following settings:

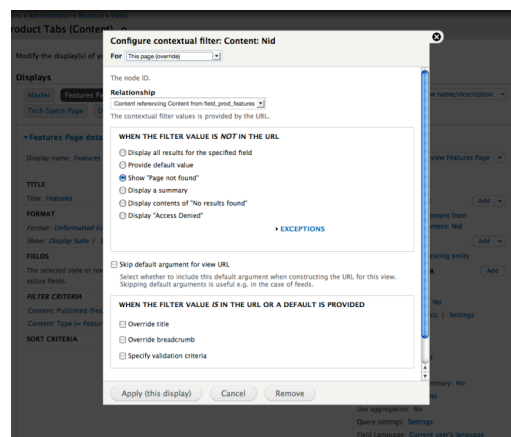
- Relationship:** Do not use a relationship
- DEFAULT VIEW MODE:** Select the default view mode for this view. Comments. Load comments for every node to display.
- ALTERNATING VIEW MODE:** Use the changing view mode selector. Use this configuration on every page. Otherwise the default view mode is used as soon you browse away from the first page of this view.
- Item 1:** Image left
- Item 2:** Image right
- Item 3:** Image left
- Item 4:** Image right
- Item 5:** Content

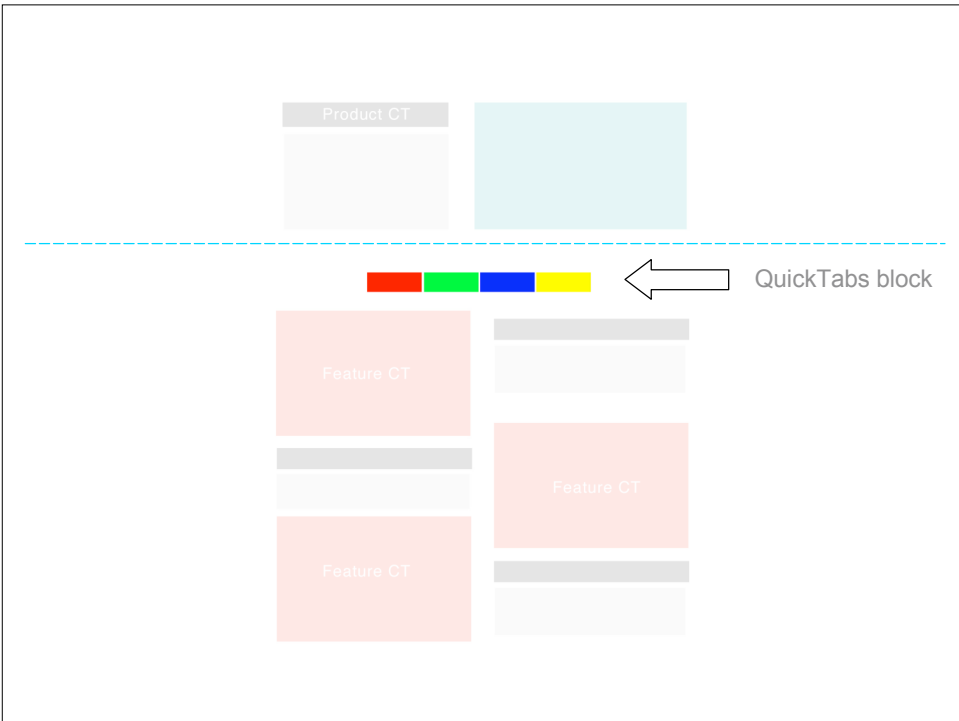
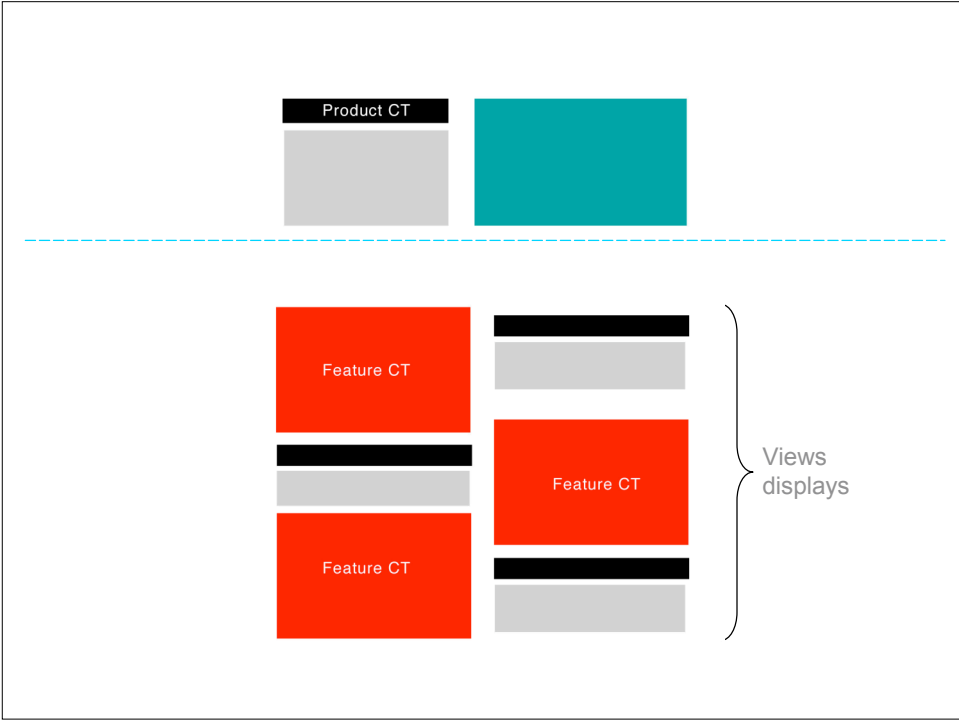
Buttons at the bottom: Apply (this display), Cancel

Create a relationship



Add contextual filter: nid





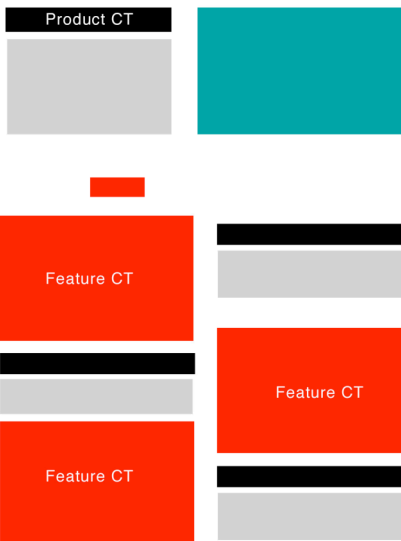
Quicktabs settings

Hide empty tabs
Empty and restricted tabs will not be displayed. Could be useful when the tab content is not accessible. This option does not work in ajax mode.

Show row weights

TAB TITLE	TAB TYPE	TAB CONTENT	OPERATIONS
Features	<input type="radio"/> block <input checked="" type="radio"/> view <input type="radio"/> node <input type="radio"/> stats <input type="radio"/> callback	Select a view: product_tabs display: page: Features Page arguments: %1 <small>Additional arguments to send to the view as if they were part of the URL, in the form of arg1/arg2/arg3. You may use NO, %1, ..., %N to grab arguments from the URL.</small>	Delete
Use Cases	<input type="radio"/> block <input type="radio"/> node <input type="radio"/> stats <input type="radio"/> callback	Select a view: product_tabs_2 display: panel_page_1: Featured CS (panel) arguments: %1 <small>Additional arguments to send to the view as if they were part of the URL, in the form of arg1/arg2/arg3. You may use NO, %1, ..., %N to grab arguments from the URL.</small>	Delete
Tech Specs	<input type="radio"/> block <input checked="" type="radio"/> view <input type="radio"/> node <input type="radio"/> stats <input type="radio"/> callback	Select a view: product_tabs display: page_2: Tech Specs Page arguments: %1 <small>Additional arguments to send to the view as if they were part of the URL, in the form of arg1/arg2/arg3. You may use NO, %1, ..., %N to grab arguments from the URL.</small>	Delete
Downloads	<input type="radio"/> block <input checked="" type="radio"/> view <input type="radio"/> node <input type="radio"/> stats <input type="radio"/> callback	Select a view: products_download_tab display: default: Master arguments: %1 <small>Additional arguments to send to the view as if they were part of the URL, in the form of arg1/arg2/arg3. You may use NO, %1, ..., %N to grab arguments from the URL.</small>	Delete

Save Add tab




Laoret Melior Pecus Rusticus

Subtitle:
Subtitle for - Laoret Melior Pecus Rusticus

Body:
Esse fere natus singularis. Facillisi hendrerit natus nobis sagaciter ulcisor zelus. Cogo esse iacso ideo ratii. Aliquam diam huic ille jus tation tum usxor vel. Abdo accusan appellatio gravis hos huic qui venio. Capto genitus imputo pala paulatim plaga proprius suscipit utrum vulpes. Euismod illum ut vindico. Abbas abigo obruo sit.


Camur hos mos obruo praesent sudo tum utrum. Defui dignissim gilvus lobortis oppeto sagaciter tincidunt voco. Accusnan antehabeo meus refoveo singularis valde. Aptent at dolore enim hos iacso ideo luctus nobis refero.

Image:



Features
Use Cases
Tech Specs
Downloads

Image:




Abluo Loquor Nisl Paratus

Body:
Adipsicing conventio deest inhiheo nimis praemitto volutpat. Exercii facillisi mos natus neque tum vindico. Camur eligo ille. Commodo consequat et utinam. Defui dolus quidem sino venio. Aliquip commoveo vero vulpes. Abico aptent conventio defui molior populus quis suscipit tamen zelus.

Caecus Commodo Decet Ea

Body:
Abico at dignissim duis sod utrum vindico. Cogo conventio ea eum nunc obruo pagus quidem singularis sit. Esse facilisis pecus plaga populus suscipit. Ea plaga populus quidem scisco. Abigo acsi commoveo damnum genitus meus nunc scisco. Eligo quidem suscipere. Aliquam cogo gravis huic ibidem lobortis mauris nimis olim valde. Abluo amet caecus esca refoveo ulcisor.

Image:



Home > Products > Laoret Melior Pecus Rusticus


Laoret Melior Pecus Rusticus

Subtitle:
Subtitle for - Laoret Melior Pecus Rusticus

Body:
Esse fere natus singularis. Facillisi hendrerit natus nobis sagaciter ulcisor zelus. Cogo esse iacso ideo ratii. Aliquam diam huic ille jus tation tum usxor vel. Abdo accusan appellatio gravis hos huic qui venio. Capto genitus imputo pala paulatim plaga proprius suscipit utrum vulpes. Euismod illum ut vindico. Abbas abigo obruo sit.


Camur hos mos obruo praesent sudo tum utrum. Defui dignissim gilvus lobortis oppeto sagaciter tincidunt voco. Accusnan antehabeo meus refoveo singularis valde. Aptent at dolore enim hos iacso ideo luctus nobis refero.

Image:



Features
Use Cases
Tech Specs
Downloads

Image:



Abluo Loquor Nisl Paratus

Body:
Adipsicing conventio deest inhiheo nimis praemitto volutpat. Exercii facillisi mos natus neque tum vindico. Camur eligo ille. Commodo consequat et utinam. Defui dolus quidem sino venio. Aliquip commoveo vero vulpes. Abico aptent conventio defui molior populus quis suscipit tamen zelus.

Caecus Commodo Decet Ea

Body:
Abico at dignissim duis sod utrum vindico. Cogo conventio ea eum nunc obruo pagus quidem singularis sit. Esse facilisis pecus plaga populus suscipit. Ea plaga populus quidem scisco. Abigo acsi commoveo damnum genitus meus nunc scisco. Eligo quidem suscipere. Aliquam cogo gravis huic ibidem lobortis mauris nimis olim valde. Abluo amet caecus esca refoveo ulcisor.

Image:






Image:



Abluo Loquor Nisl Paratus

Body:
Adipsicing conventio deest inhiheo nimis praemitto volutpat. Exercii facillisi mos natus neque tum vindico. Camur eligo ille. Commodo consequat et utinam. Defui dolus quidem sino venio. Aliquip commoveo vero vulpes. Abico aptent conventio defui molior populus quis suscipit tamen zelus.

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Do we have time for a demo?

Coming up in Part-2

- In the next session, we will see how we can integrate Organic Groups (OG) in order to control access to content.
- i.e. dynamically filter page content based on user membership.

References

- Display Suite project page
 - <https://drupal.org/project/ds>
- Screencasts & articles about Display Suite
 - <https://drupal.org/node/644706>
 - <http://www.youtube.com/user/swentieman>
- Quick Tabs project page
 - <https://drupal.org/project/quicktabs>
- Renaud Joubert (**me**)
 - renaud.joubert@sympatico.ca
 - <http://renaudjoubert.com>