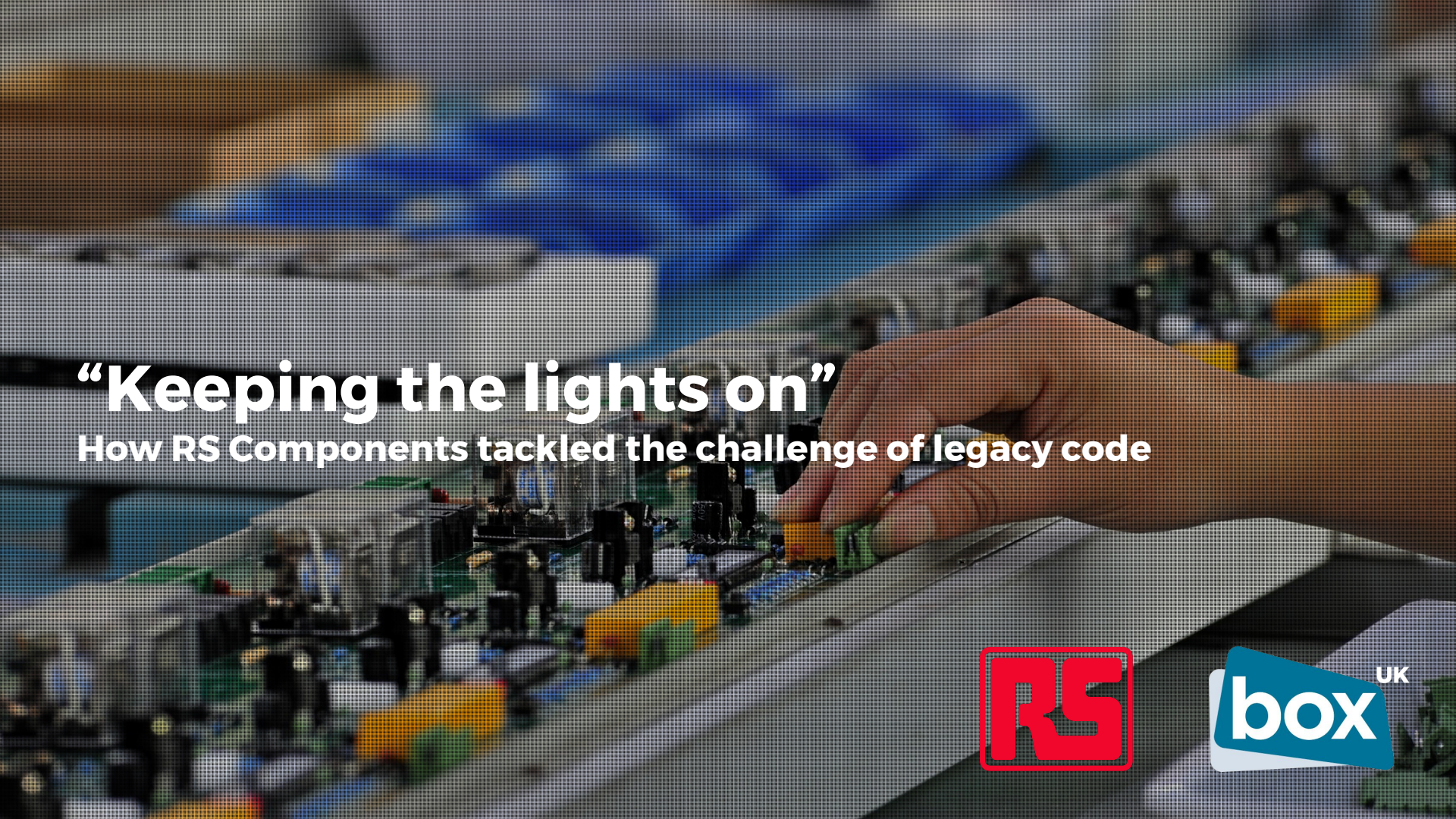

“Keeping the lights on”
How RS Components tackled the challenge of legacy code
RS
box
UK

Introductions

RS Components is the world's leading high-service distributor of electronics, automation and control components, tools and consumables, serving over 1 million customers

ALLIED ELECTRONICS®

Box UK specialise in user centred design, iterative development and the optimisation of digital platforms to support ambitious organisations in achieving their goals

Royal College of Nursing

bcs The Chartered Institute for IT

BHA

THE RPS ROYAL PHOTOGRAPHIC SOCIETY

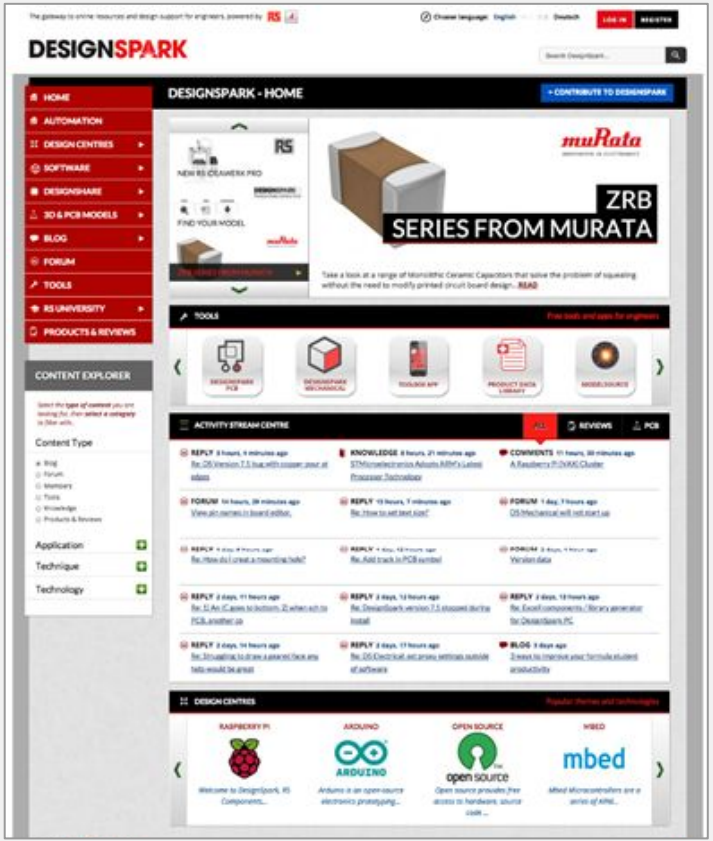
TBC BANK

Questions?

Setting the scene

About DesignSpark

- Online community of engineers
- Over 500,000 members worldwide
- Providing valuable, industry-leading information and tools



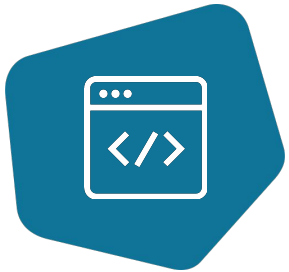
Previous DesignSpark home page

Goals for DesignSpark

- Make DS the go-to destination for engineering information/resources/tools
- Expand offering by encouraging engineers to explore further
- Offer end-to-end support from the earliest stages of design
- Grow community to over 1 million members - making it the largest engineering community in the world

The challenge?

Challenges

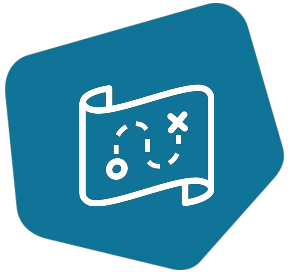


Technical Foundation

High levels of instability within existing sites, threatening reliability

User Experience & Design (UX&D)

A lack of internal UX&D expertise, presenting a potential barrier to the delivery of an exceptional customer experience



Future Roadmap

Uncertainty around whether to keep the two sites separate or combine them into a single platform

DS Electronics

DesignSpark's legacy platform, aimed at electronic engineers

DS Automation

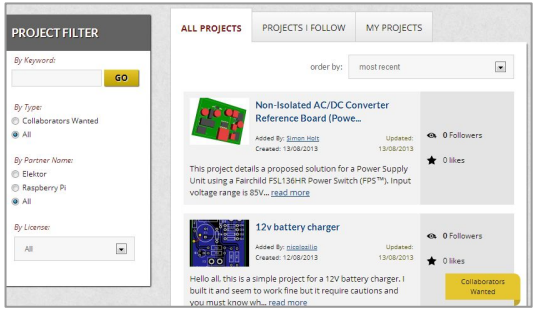
Secondary site (built internally), aimed specifically at design and panel builders

Addressing the issues

RS Components

&

Box UK


PROJECT FILTER
By Keyword:
GO
By Type:
Collaborators Wanted
All
By Partner Name:
Elektor
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All
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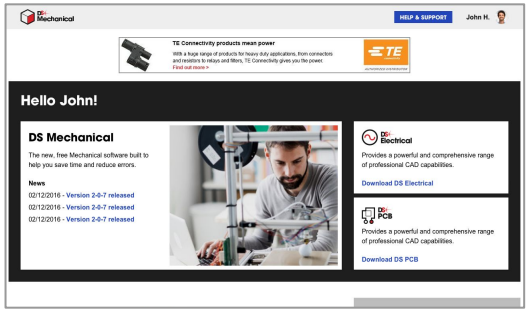
Collaborators Wanted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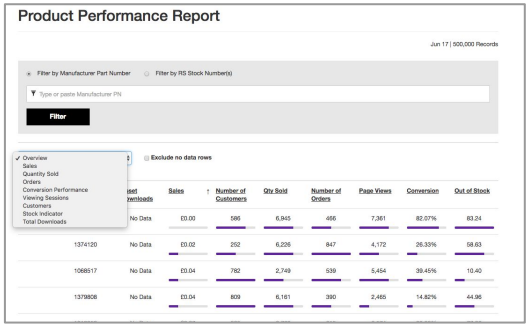
Product Performance Report
Jun 17 | 500,000 Records
Filter by Manufacturer Part Number
Filter by RS Stock Number(s)
Type or paste Manufacturer PN
Filter
Overview
Sales
Quantity Sold
Orders
Conversion Performance
Viewing Sessions
Customers
Stock Indicator
Total Downloads
Exclude no data rows
Sales
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Number of Orders
Page Views
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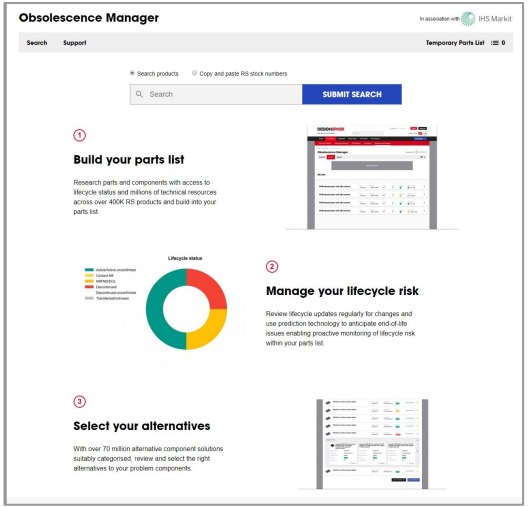
Out of Stock


Obsolescence Manager
In association with IHS Markit
Search
Support
Temporary Parts List
Search products
Copy and paste RS stock numbers
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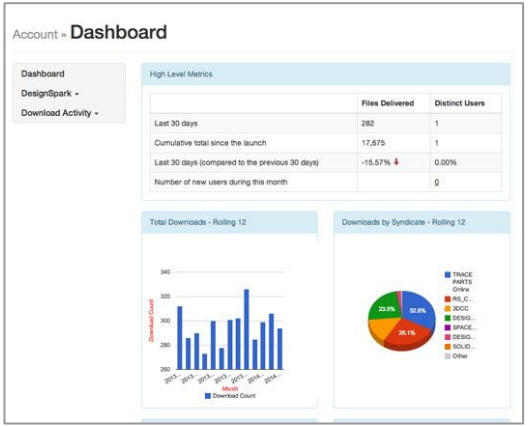
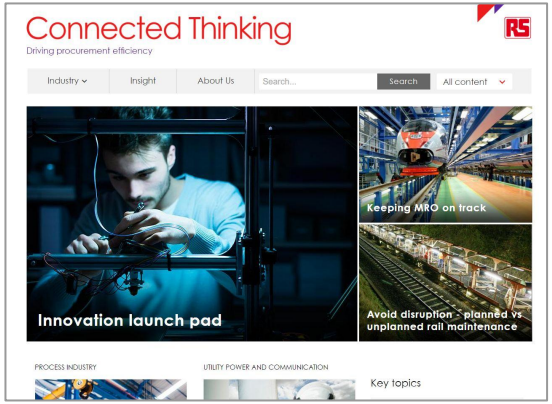
SUBMIT SEARCH
1
Build your parts list
Research parts and components with access to lifecycle status and millions of technical resources across over 400K RS products and build into your parts list.
Lifecycle status
2
Manage your lifecycle risk
Review lifecycle updates regularly for changes and use prediction technology to anticipate end-of-life issues enabling proactive monitoring of lifecycle risk within your parts list.
3
Select your alternatives
With over 70 million alternative component solutions suitably categorised, review and select the right alternatives to your problem components.


Account » Dashboard
Dashboard
DesignSpark
Download Activity
High Level Metrics
Files Delivered
Distinct Users
Last 30 days
282
1
Cumulative total since the launch
17,575
1
Last 30 days (compared to the previous 30 days)
-15.57%
0.00%
Number of new users during this month
0
Total Downloads - Rolling 12
Downloads by Syndicate - Rolling 12
Download Count
Month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Driving procurement efficiency
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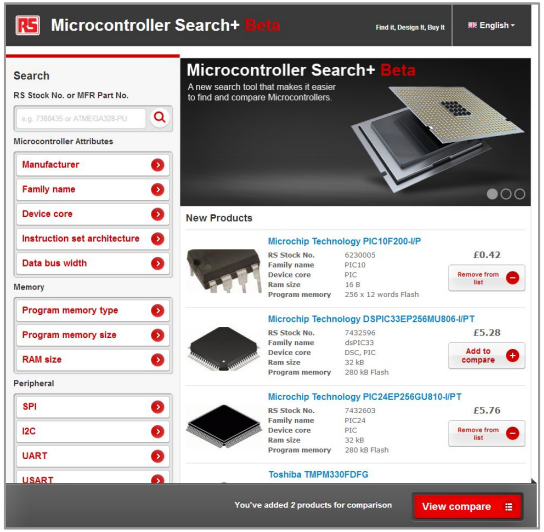
Innovation launch pad
Keeping MRO on track
Avoid disruption - planned vs unplanned rail maintenance
PROCESS INDUSTRY
UTILITY POWER AND COMMUNICATION
Key topics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Manufacturer
Family name
Device core
Instruction set architecture
Data bus width
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Program memory type
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Device core PIC
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Family name dsPIC33
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Ram size 32 kB
Program memory 280 kB Flash
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Device core PIC
Ram size 32 kB
Program memory 280 kB Flash
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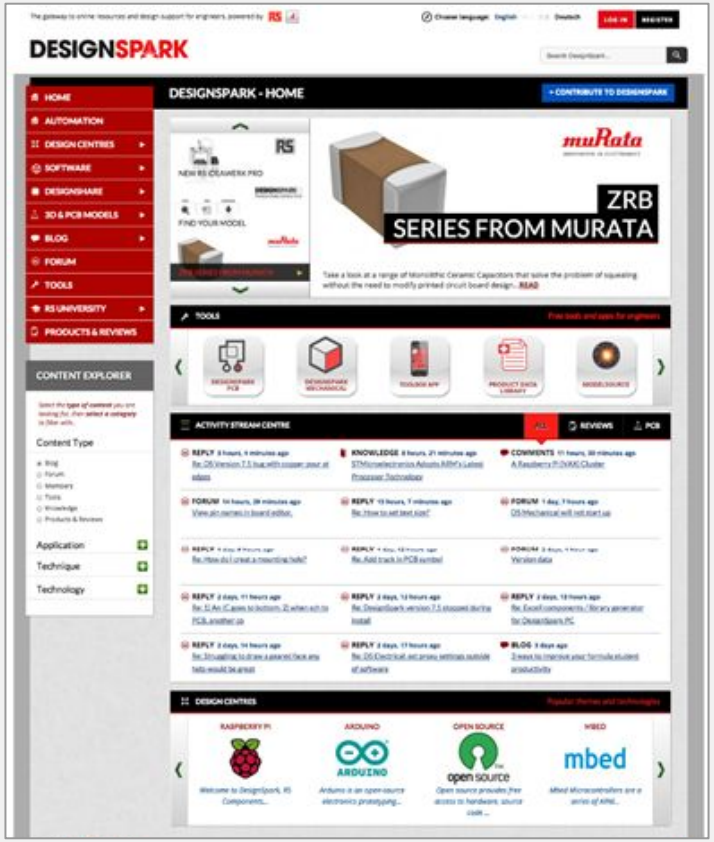
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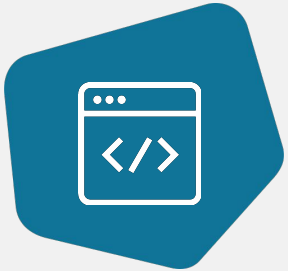
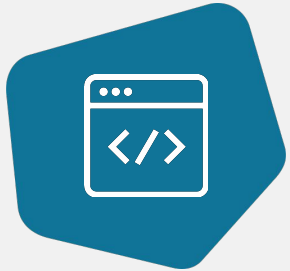
Step 1: review

Defining the ‘as-is’ situation



DS Automation Code Review

Review of DS Automation codebase with detailed findings and recommendations



DS Electronics Code Review

Review of DS Electronics codebase with detailed findings and recommendations

Architecture Review

Review of DS Auto and DS Elec server architecture with findings and recommendations

UX Review

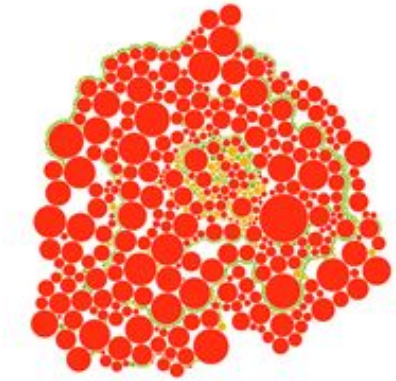
UX review of DesignSpark covering layout, navigation, interaction, content and visual design with findings and recommendations

Audit findings

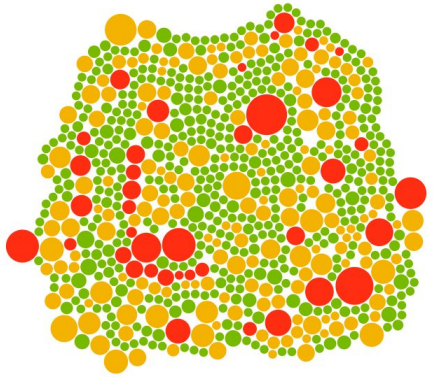
- Code did not always follow industry best practice
- Content findability was negatively impacted by the existing Information Architecture (IA) and navigation, which had not been updated as content had grown organically
- As a result, nearly all traffic was being directed at tools, with limited additional exploration

Code quality

DS Electronics



DS Automation

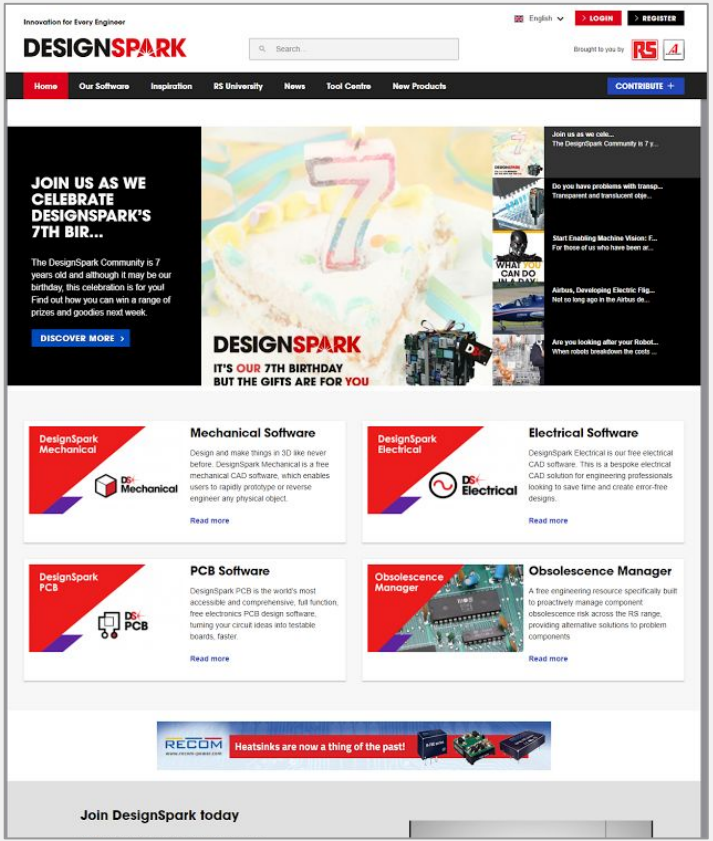


Step 2: making the business case

A case for...

Defining a suitable solution

- Single platform merging both both Electronics and Automation services
- Better serving cross-requirements between the two audiences
- Updates to IA, navigation and content to ensure engineers can still find the specific information they need



The right approach

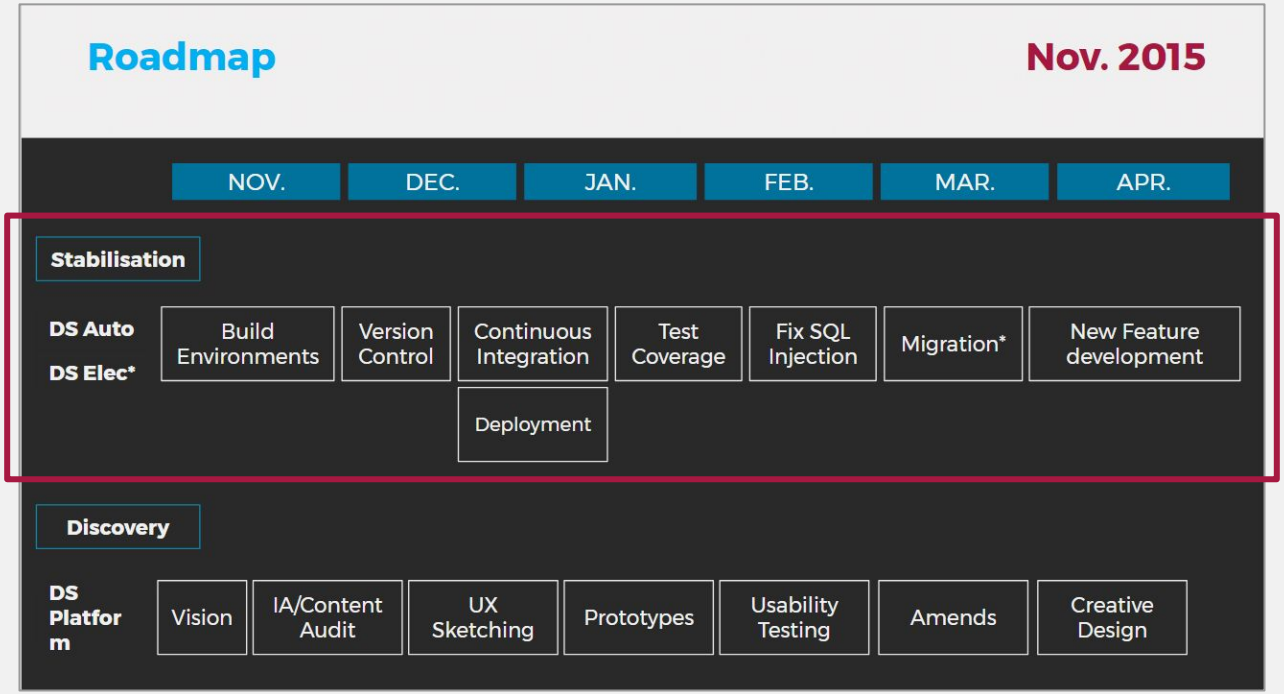
- Legacy platform to be kept in place until it could be replaced by the new work, in order to:
  - Retain existing following/SEO benefit
  - Demonstrate/deliver value more quickly

Reassuring stakeholders

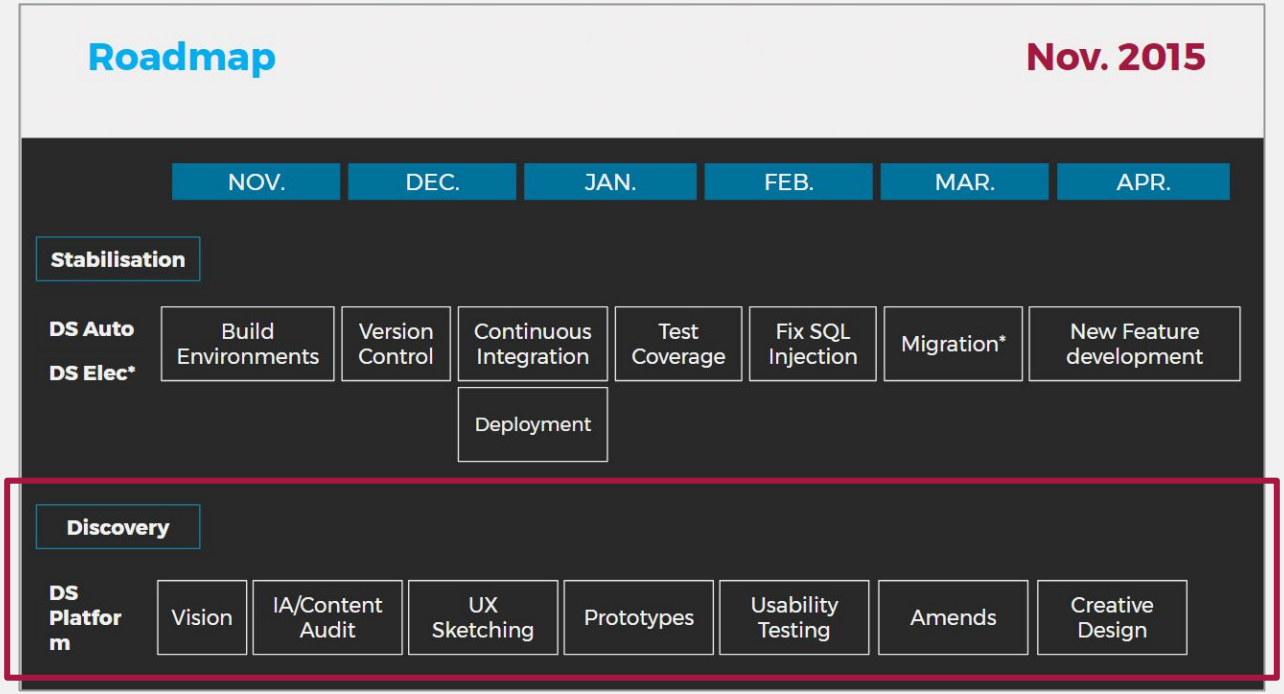
- All initiatives/activities tied to clear, specific KPIs
- Regular progress reviews/checkpoints
- Frequent communication between the product team (both DesignSpark and Box UK representatives) and the RS Steering Group
- Time and materials approach employed
- Epics estimated prior to development
- Budget use monitored throughout

Step 3: implementing change

Stabilising what's there...



… and building for the future



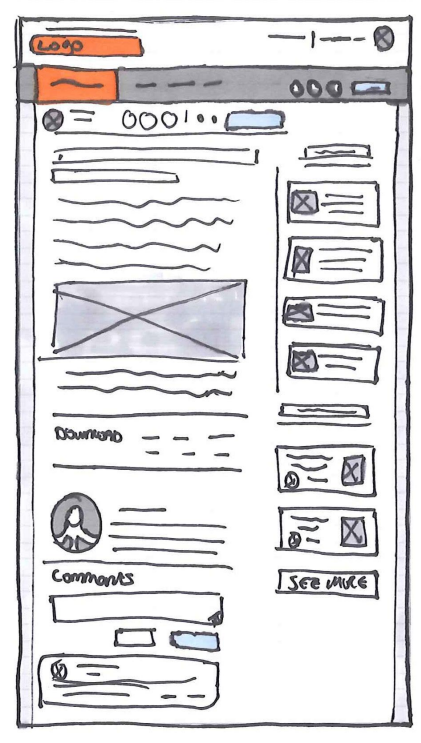
Development process

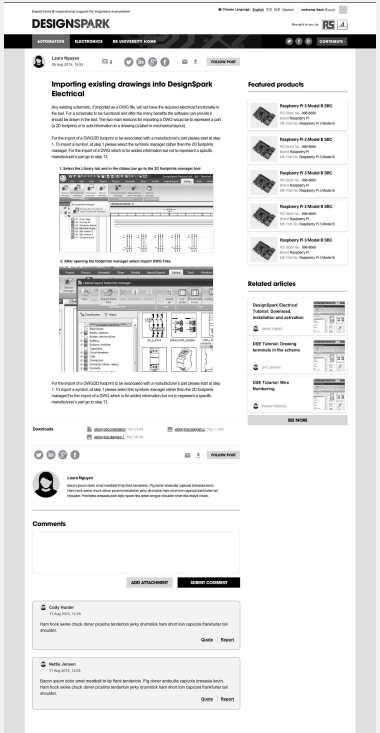
Understand requirements

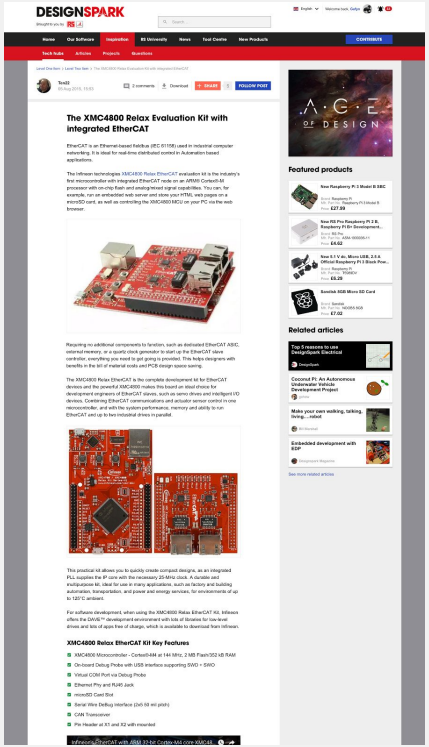
User-centred design

Build, test & deploy

Collaborative, iterative user-centred design







The outcome

Innovation for Every Engineer

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Obsolescence Manager

A free engineering resource specifically built to proactively manage component obsolescence risk across the RS range, providing alternative solutions to problem components

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Latest Activity Stream

COMMENTS

Redstone
28 minutes ago

Happy birthday DS! Wishing you many happy returns of the day.

in Join us as we celebrate DesignSpark's 7th Birthday... all week long!

SheldonCooper
29 minutes ago

Congratulations on existing for 220,934,966 seconds. Live long and prosper.

Happy Birthday

in Join us as we celebrate DesignSpark's 7th Birthday... all week long!

Professor Bean

ARTICLE

leonia
Robotics - July 5, 2017 10:01

Meet Team Carbide - Robot Wars UK Champions 2017

Team Carbide – 2017 champion of UK TV show 'Robot Wars' – talk to RS Components about what's inside its winning robot.

ARTICLE

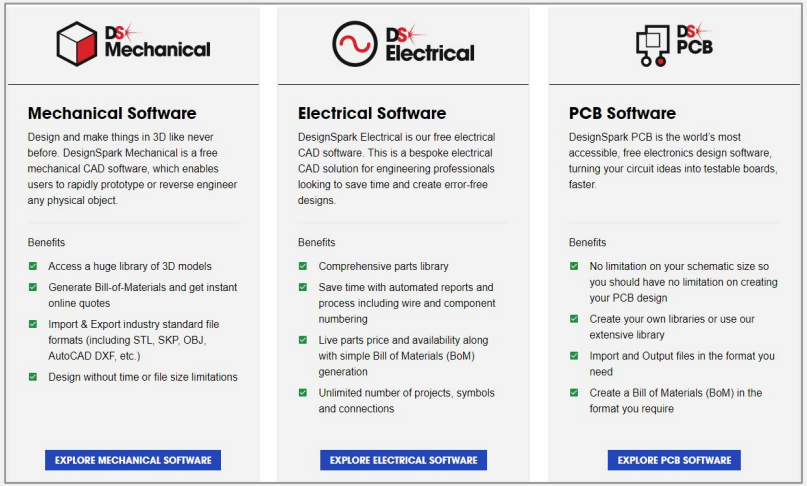
DesignSpark
Articles - July 5, 2017 09:27

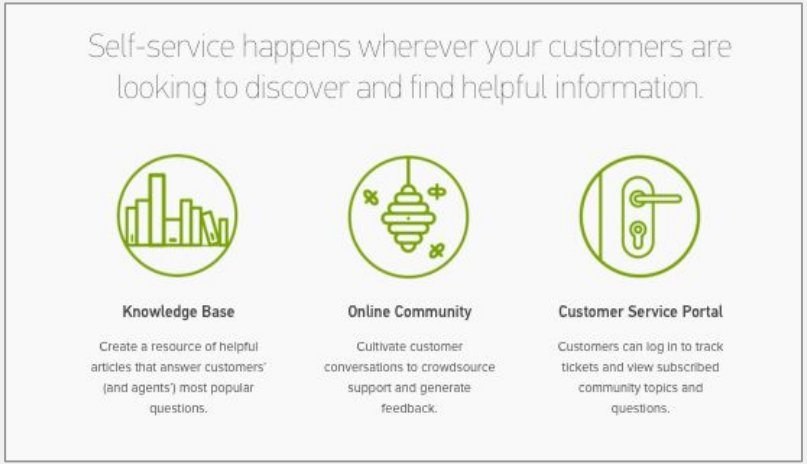
Join us as we celebrate DesignSpark's 7th Birthday... all week long!

The DesignSpark Community is 7 years old and although it may be our birthday, this celebration is for you! Find out how you can win a range of prizes and goodies next week.

Community benefits

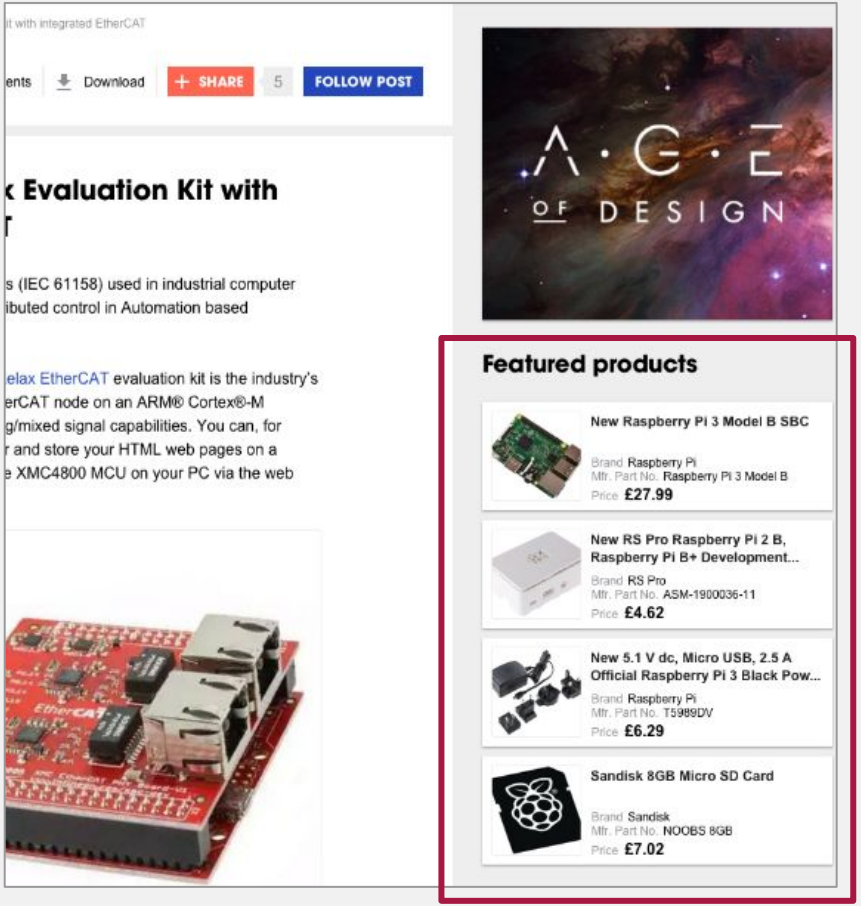
- Bringing DesignSpark tools together
- Consistent experience
- Clear product information/instructions on how to download/register/activate
- Self-service capabilities
- Enhanced end-to-end support for community members
- Improved ability to capture user feedback, which can then be used to inform future development work





Strategic benefits

- Cementing RS Components' position at the early stages of the design process
- Putting the organisation front-of-mind for subsequent purchases
- Supported by links from the DesignSpark site to the main RS Online store
- Dedicated regional sites increase global reach
- Third-party advertising solutions are also helping make DesignSpark self-sufficient



Measurable return on investment

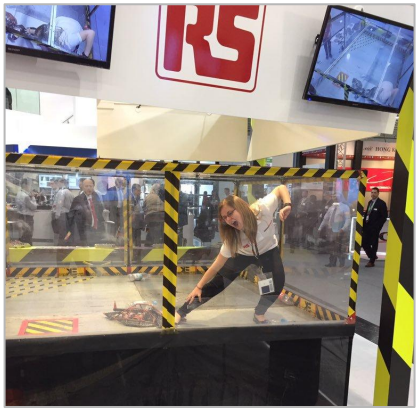
9.2% growth in traffic YoY.

Registered engineers **increased by 32%** since launch.

RS share price **risen 233%**.

Cultural benefits

- Change in team atmosphere and expectations
- DesignSpark now seen as innovators within RS Components, able to make changes quickly
- Complementing a wider organisational shift towards Agile ways of working



Building on success

Sound familiar?

Thank you!

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