



# Data Value Program

## White Paper

February 2011

## Making Your Data More Valuable and Your Site More Functional

The drivers for a new website stem from a variety of top line business requirements, for example; introducing new e-commerce functionality, improving design, reducing costs, streamlining processes, generating more sales leads or making it easier to publish. However, your business goals can only be realised if your raw data assets are in the best possible shape.

The benefits of optimising data during migration are numerous - If you don't seize your web development project as an opportunity to improve the value of your data then you're missing a trick.

### Squiz Data Value Program

Squiz's Data Value Program is a dedicated process that analyses, improves and migrates your data and ensures that it's 100% fit for purpose for your new site functionality and ready to grow in line with your future requirements. It's a core part of every Squiz Suite project that's lead by our world-class UK development team, and kicks in once your system functionality and front end design have been specified.

### Data Value Program Objectives

At the heart of the development process lies a variety of technical opportunities to make your new site function even more effectively. Squiz's Data Value Program is designed to identify these 'windows of change' in line with your system requirements and then optimise your core data so that your new website can really sing.

We find it can make your new site even more effective in the following ways:

#### 1) Improved SEO

Simple enhancements to raw data can improve the way in which search engines are able to index your site. New styling techniques can be applied to make your pages more accessible, and a wide range of metadata can be extracted and applied to help the way your content is 'read' by search engine spiders. From the creation of optimised and consistent encoding hierarchies - ensuring the right tags are applied to the right areas of a page - to the addition of keyword-optimised headers and link and image tags, it's possible to add more SEO value at every level of your core data.

#### 2) Improved Usability

The use of new metadata schemas can also improve the way your site is presented to users. When implemented effectively, they can be used to create new interface techniques such tag clouds, related content asset listings and dynamic categories (such as 'most popular' lists) - all of which will help you to promote your most important data assets - whether they're product- or content-based - and increase the commercial value of each visit to your site.

#### 3) Improved Accessibility

The application of simple data 'cleaning' processes will improve the accessibility of your site, with the obvious benefit of making it more available to a wider audience. This may be as easy as improving or applying new Cascading Style Sheets to give more control to the way your content is presented to users (and enable people using assistive technologies to access it more easily). Or, at a basic level, it may involve the improvement of your content encoding and markup to make it compliant with today's web accessibility standards - which in many industries is now an established legal requirement.

#### **4) Improved Functionality**

In many cases, data enhancement is a pre-requisite for introducing new functionality. For example, the creation of a new personalisation engine would be impossible without implementing metadata schemas to help your raw data interact in new ways. Standard structural enhancements to your existing HTML can also improve the overall functionality of your site. For example, flat pages can be revamped to make their contents perform more dynamically - like pulling headlines and excerpts from your news archives onto your home page.

#### **5) Improved Searchability**

The restructuring of old data can also allow you to introduce more radical search functionality into your new site. As described above, the 'flat' pages of yesterday can be broken up into more discreet assets, and these new page types can be re-archived and re-indexed to enable new kinds of interaction. For example, lengthy, flat FAQ's can be broken up into separate assets and recompiled to create a domain-specific 'knowledge base' that allows users to resolve their support issues by searching by category, keywords and product type.

#### **6) Improved Extensibility and Commercial Presence**

In addition to the creation of new data structures and new layers of metadata, transcoding techniques can be applied to your content to make it available to third party systems and applications as a web service - an immensely valuable technique that can provide a wealth of new commercial opportunities for your products and services. For example, with just a few encoding tweaks, your product headers, codes, descriptions and images can be re-implemented in a more web friendly format and dynamically integrated within third party 'price comparison' tools such as Kelkoo.

#### **7) Improved Content Distribution and Merchandising**

Recreating your raw data in more 'web-friendly' formats also enables you to improve the reach of your content beyond your own website and beyond the web browser. For example, your press release archive can be re-implemented to generate a dynamic RSS feed, which will enable users to easily access your content and other webmasters to quickly repurpose it on their own sites without the hassle of software integration.

#### **8) Improved System Administration and Lower Maintenance Costs**

As well as being an opportunity to improve the functionality of your site, your web development project is also an occasion to simplify your wider system administration processes. Your website may currently draw its data from five different databases, but there's no reason why this has to continue - particularly if the development work will involve reformatting and transcoding of your raw data assets.

#### **9) Improved Site Analytics**

Another healthy byproduct of improving your data structure is to bring more granularity and meaning to your site analytics. Using our previous example, once you've implemented a searchable 'knowledge base' it will be easy to understand which specific product issues are generating the most interest by simply getting a read of individual FAQ popularity in your analytics - whereas the analytics output for a 'flat' system could only ever tell you how often the entire listings page is being accessed. In other words, the more structured your data is, the smarter your analytics reports can be.

#### **10) Improved Scalability**

Last but not least, a key requirement of any website development project is to improve system scalability and performance. The right approach to enhancing the value of your data - improving how it's encoded and where it sits - will also safeguard your ability to scale the system effectively when the time comes. For example, standardised data structures and formats will enable you to aggregate your content across caching architectures more readily, and to introduce publishing and staging servers more easily.

## Data Value: How We Do It

Squiz's Data Value Program follows an established three-step process that identifies opportunities to enhance your website's performance, improves the value of its underlying data and ensures that everything is migrated in a seamless fashion so that it's functioning and ready for action at launch time - without fail. It's been stress-tested in some very demanding web environments for clients such as the Association of National Park Authorities, Oxford University, the University of Westminster, Hargreaves Lansdown and Emap. The time this process will take depends on the data and requirements, but this program generally reduces migration times from months to a matter of weeks.

Here's how we do it:

### Step 1: Data Value Analysis

Our development analysts begin the process by (re)asking a fundamental question: what are your new site objectives? This is essential: you can only guarantee functional quality of your deliverables if you apply a technical lens to your business goals. A newly designed web form or shopping cart may make sense on paper, but this will only become a working reality in the hands of a skilled developer.

Therefore, at the 'Value Analysis' stage, we have our development team crawl over your system specification and translate paper-based goals into data descriptions and roadmaps - outlining additional functional and technical business opportunities in the process. At the same time this team also dives into your current databases to give us a full audit on your 'data fitness.' This exercise tells us to what extent your current data set is able to fulfil your new requirements and what new work needs to be done to enhance it.

At the end of this stage we give you a formal 'Data Value Plan' that restates your objectives alongside our technical plan of action and a detailed outline of any newly proposed development work that will help to make your new site outperform its commercial goals.

### Step 2: Extraction and Enhancement

This is the main development stage where we extract your current data and enhance it so that it's 100% fit for purpose for your new website functionality and ready to grow in line with your future system requirements.

Starting with the basics, our development analysts will re-engineer your system data documentation to fit with your new system specification. Then we...

- ...Create and apply new system metadata
- ...Build in necessary web standards compliance
- ...Customise your data structure to support your new functionality
- ...Translate and clean your data to optimise front-end presentation
- ...Consolidate your databases wherever possible

Our methodology for data extraction and enhancement is flexible enough to enable you to continue working on your live production system so that your business never misses a beat. Once the development methodology is set (in step one) it's simply a case of taking a snapshot of your data and applying the work on our development servers ready for reintroduction when the new system goes live. Any work that you do in-between this time is then re-channeled through this development process and re-introduced at a later date.

### Step 3: Re-Implementation

Once we've enhanced your data it's ready to be imported back into your new Squiz Suite implementation.

At this stage our development team works shoulder-to-shoulder with our front end implementation team to ensure every single piece of functionality works as specified in your system documentation. Once these teams are happy with your site performance they hand it over to our Support team for a period of rigorous, managed testing... after which we're ready to go live. Any new data is then taken from your old system, worked through the data enhancement stages and applied to the new site. Our dedicated System Administration team then steps in and prepares your servers for launch.

## How We'll Manage it For You

Squiz's Data Value Program is designed to remove the headaches associated with large scale system migration. We realise that your new site can only ever be as good as the stuff that fuels it, and so we approach the task as a rare opportunity to make your data assets work harder - to turn potential data pains into gains.

We've already successfully completed large, complex Data Value Programs for implementations at the Association of National Park Authorities, Oxford University, University of Westminster, Hargreaves Lansdown and Emap. Making your data more valuable and your site more functional is our standard practice. We'll do the same for you.