



THE DATA EXPERTS

An introduction to coBuilder and our BIM4SME award 2017

Pete Foster – coBuilder UK

- Worked in Offsite Construction for over 20 years
- Been involved in “BIM” for over 6 years
- Specialising working with Manufacturers
- Loves American Football



coBuilder International

- ❖ Privately owned construction software company
- ❖ International business, headquartered in Norway
- ❖ Winner of multiple innovation awards in the UK
- ❖ Represented in the UK, Finland, France, Norway, Germany, Italy and Switzerland
- ❖ Biggest office 100+ employees in Bulgaria
- ❖ Members of CEN/TC 442 and ISO/TC 49 committees
- ❖ Contributor to major international standardisation bodies such as ISO, buildingSMART, CEN and CENELEC
- ❖ Developing solutions integrated with Autodesk Revit, Navisworks and ARCHICAD



Our mission: to digitise the construction industry



Best use of BIM for the use of Embedded Data

- National College High Speed Rail - Birmingham Campus





What is Embedded Data?

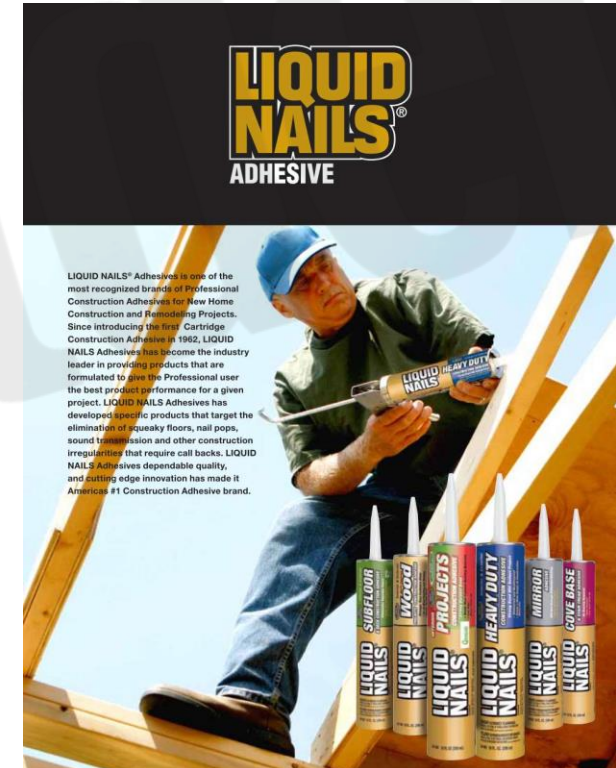


Think of these businesses:



- ◆ Their business is based on: providing clients with standardised, structured data, on-demand data catered to their personal needs.
- ◆ Do we have this in the construction industry? Why not?

The big problem: UNSTRUCTURED DATA





How?

What is a window anyway?

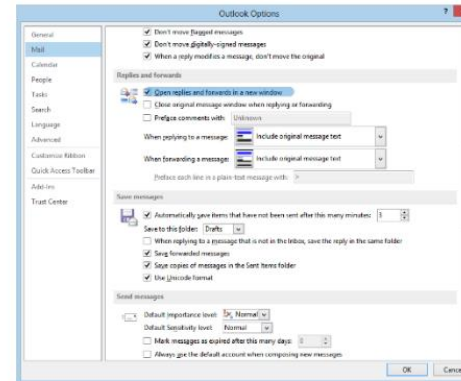
- If you search for a window in Google you will get many results relevant to window, but they are connected to a different CONTEXT
- In order for MACHINES to understand what we want from them we need to organise data and map it to different CONCEPTS (meanings)
- This how we translate 100101 to meaningful things and the other way around.



Search result: Window
Context: Product



Search result: Window
Context: Client email

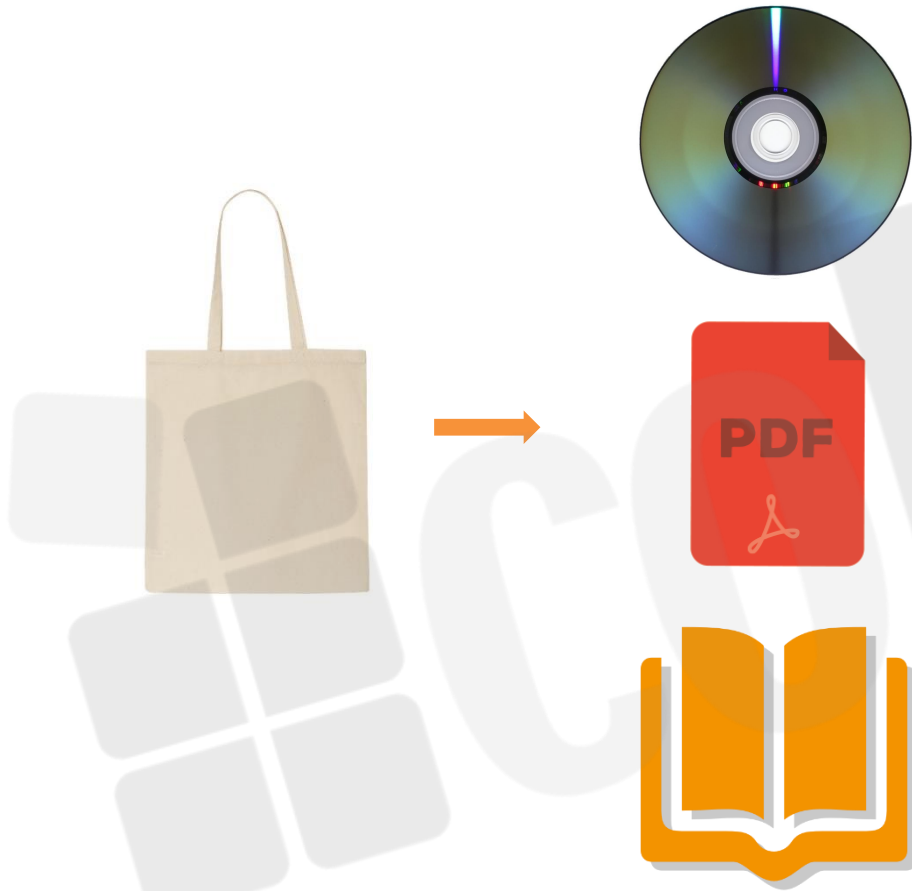


Search result: Window
Context: Support backlog



Search result: Window
Context: Microsoft OS

The big solution: A Product Data Template



Add item specifics
Buyers often refine their search using these item specifics. If you don't provide these d

Brand Remove
Vera Bradley

Type Remove
Tote Bag

style name Remove
colorblock tote

color name Remove
Go Wild

size Remove
21" W x 13 1/4" H x 8 1/4" D with 11" strap drop

outside pockets Remove
Two side slip pockets

inside pocket Remove
Hanging zip pocket and handy key clip inside

care Remove
spot clean

Country/Region of Manufacture Remove
Specifying the country/region of manufacture can help streamline customs clearance.
-

+ Add your own item specific

Type in a unique detail that your buyers might look for.

UPC

For example, Brand, Material, or Year

For example, Ty, Plastic, or 2007

Save Cancel

This is how a coBuilder PDT looks like

The screenshot displays the 'Properties' section of the coBuilder interface. At the top, there's a navigation bar with 'goBIM', 'PRODUCTS', and 'DOCUMENTS' tabs. Below this, a 'View All Properties' link is visible. A note states: 'By default all properties are visible. To limit the properties list to your desires you can limit properties by uses below.' Below the note, there are three columns of standards: 'Ifc' (EN Standards, BS Standards, EPD), 'MoJ Filter' (US Standards, SKANSKA, Revit), and 'NZ Standards' (MoJ, AS Standards, COBie.Type). The main section is titled 'Geometric Data' and contains a table with columns: PROPERTY, TEST METHOD, VALUE, and UNIT. The table lists various properties like 'nominal width; nominal width', 'trim width', 'width', 'area; area', 'sash height', 'dimensional tolerance', 'nominal height', 'sash width', 'height', 'shape', 'nominal length', and 'size'. Each property has a corresponding test method and a value field with a unit. Below the 'Geometric Data' section is the 'Operations and Maintenance Data' section, which also has a table with columns: PROPERTY, TEST METHOD, VALUE, and UNIT, listing 'ExtSystem'.

PROPERTY	TEST METHOD	VALUE	UNIT
nominal width; nominal width			
trim width	label		unitless
width			
area; area	area		square metre
sash height			
dimensional tolerance			
nominal height			
sash width			
height			
shape	label		unitless
nominal length	length		millimetre
size			

PROPERTY	TEST METHOD	VALUE	UNIT
ExtSystem	label		unitless

According to the appropriate test methods = meaningful

Data structured in property sets = structured

Based on standards = standardised

Interoperable, Machine-readable data = cleansed, unique

A PDT with data populated by the manufacturer is a single source of truth: A PDS (A Product Data Sheet)

- ◆ Version control
- ◆ No duplicates
- ◆ Always up-to-date
- ◆ Integration with objects, merchant DBs etc.
- ◆ Automated translations

= up to 25% reduction in the cost for data management

Veka matrix 70

Classification:

coBuilder – Window

Uniclass 2 – Ss_25_30_95

Pset 1

- Assessment date = 01.06.2017
- Assessment condition = hEN 15694
- Article number = 380585813

Pset 2

- Type designator = BGH08
- Special instructions = External use only
- Construction method = Fixed window
- Lifting strength = 7
- Point of contact

Pset 3

- Environmental impact indicators

Manufactured Product



Delivery and Outcomes

A close-up photograph of a hand holding a pen, writing on a checklist in a notebook. The checklist has several items with checkboxes, some of which are already marked. The background is slightly blurred, showing more of the notebook pages.A solid orange square with rounded corners and a white border, positioned in the upper left corner of the image.

Step 1: Understand the Clients Needs

Step 2 ProductXchange™

Set the requirements





Step 3: Invite the Sub-Contractors



Step 4: Manage the Information



Step 5: Information Exchange

Conclusion

- ◆ Collect the asset data (COBie) and product information (O&M product PDFs) throughout the construction phase of the 'National College for High Speed Rail' project.
- ◆ Deliver an accurate and validated as-built COBie sheet based on the client's data requirements
- ◆ Deliver a full repository of product-related PDFs in the O&M manual, in the required structure and embedded as-built product data, into open formats.
- ◆ Ensure that all stakeholders could benefit from accurate, paperless construction product data – ready to be transparently shared with anyone who might need it.

THANK YOU!



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