THE INDEPENDENT VOICE IN TECH DATA

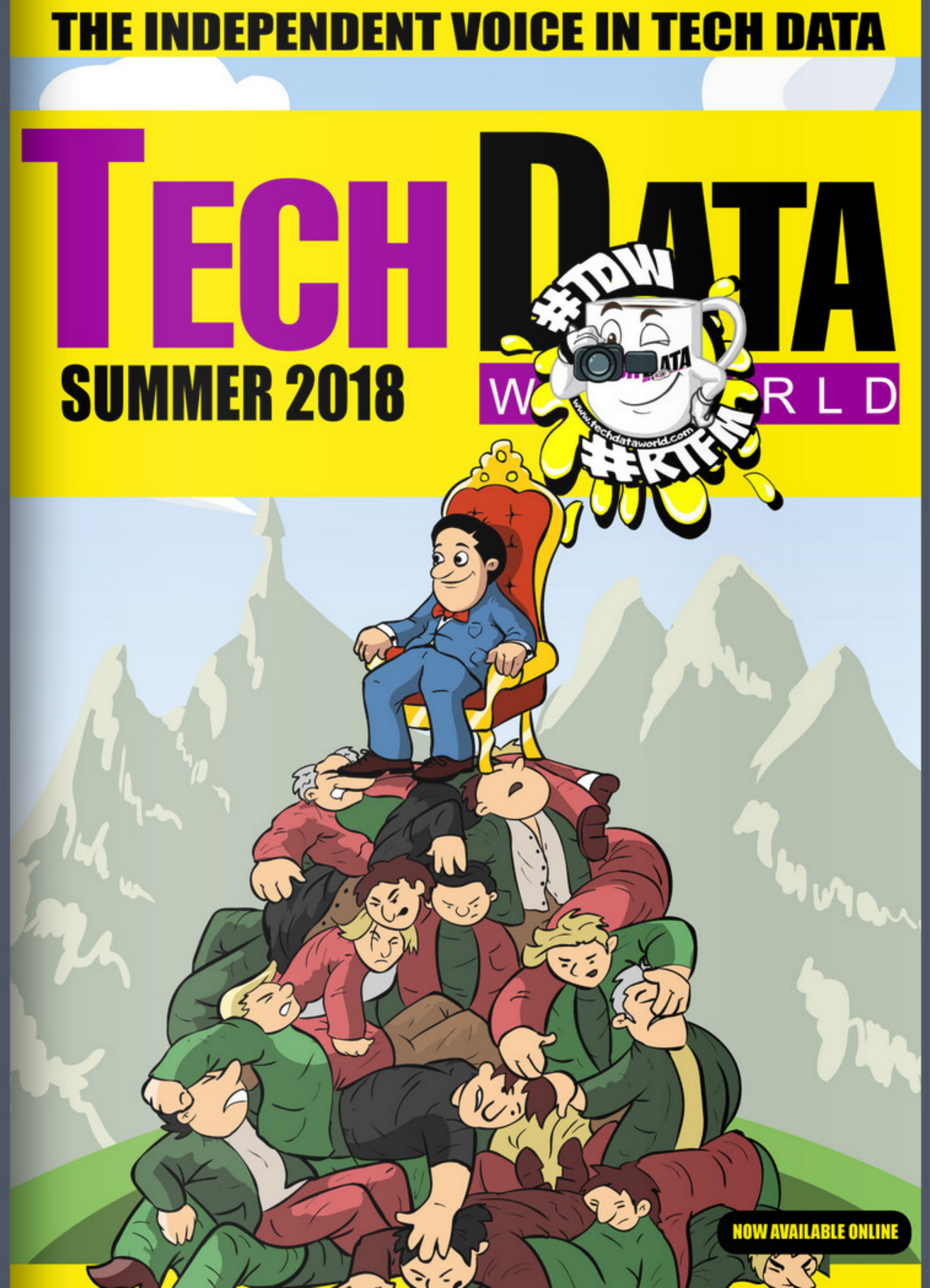
TECH DATA

SUMMER 2018

#TDW

W RLD

#RTFM



NOW AVAILABLE ONLINE

WELCOME

ANOTHER JAM-PACKED QUARTER FOR US HERE AT TDW, SO WHERE TO START?

I want to start by thanking all of you who have signed up to our technical communication training course that kicks-off shortly - I told a number of you we were working on something special and we were, quietly and secretly, under the radar! The most comprehensive, online course for technical communication professionals in our domain. (More at the back of this issue). I wanted to develop something that was valuable to both learners and employers alike, I wanted to deliver something that added value to the entire community and demonstrated know-how and competence - I think we are on the road to achieving this, with many other courses planned. A huge thank you to those of you who sent in your suggestions on topics for the course!

What else in Q2? Lots, and I mean LOTS, of road trips and events. We racked up the miles, filled out the vLog and blog schedule and took some happy snaps along the way.

TDW-Live planning is well underway, Claire and her team have released a new and pretty website. The registrations have come in thick and fast, I know this is the one event that we like minded professionals can get together and discuss the things that are important to us! The theme this year is **Back to Process** and along with our friends at Aspire we have some very interesting and new subjects to talk about.

I keep getting asked if I am planning on attending the S1000D show in September as you would like to meet me. Well, we were about to book my tickets and a training request came in that will clash with the dates of the event, so alas, this year I will not travel to the S1000D show, I will have to push it off until 2019 and the S1000D User Forum, London. I am sure it will be another fantastic event and I look forward to your feedback from the show.

TECHNICAL COMMUNICATION TRAINING

There really has been so much happening again this quarter, many of you renewed your support for us at TDW and I truly thank you from the bottom of my heart. Adobe renewed their marketing package with us as well as a number of members renewing your memberships, again I thank you all.

A great day out was had by TDW at this years Army v Royal Navy rugby game. We were kindly invited to the hospitality suite by **CDS Defence Support** and had a wonderful day. A full video was released and these is a short report inside. See if you can spot where I may have over indulged slightly!

It leaves me to say a massive thank you to all of the contributors in this issue, you make our lives that bit easier when filling this magazine with quality, informative content that is fun and educational to read!

I hope you enjoy this issue and see you on the circuit! - Mike

#TECHDATAWORLD

INSIDE

14 IOT AND TECHNICAL PUBLICATIONS

18

32 SUPPORT SYSTEM RESILIENCE

THE MESSAGE ON THE COVER?

One question I am asked all the time is how do we promote what we are doing in technical publications and support information to the wider corporate or product team?

This is naturally a great question, but one thing that surprises people is that I always say that it depends on where you sit in an organisation, this affects how technical information, support information and product support is perceived. Keep an eye out in Q3 where I will dive deeper into this subject - Mike

6

8

What have we been up to in the second quarter of 2018? Here is a brief summary of some of what we have been doing just incase you missed it!

Background image taken from our day out at the Overlord Show and our **Hunting Technical Publications** YouTube vLog

01

TDW podcasts have hit hundreds of subscribers! A new podcast series will hit in Q3 focused on technology and innovation in information

02

The all new TDW-Live website was published by the TDW team - making it easier for delegates to book - multiple speakers secured

03

Various meetings this Q. DCS-Sonovision, CDS Defence Support, Rheinmetall Defence, CTDWG, SEMCON to name just a few!

04

TDW asked to support a client who does not wish to use S1000D on deploying technical information to an affordable IETP solution - more blogs to follow!

05

TDW asked to support the identification and implementation of an S1000D viewer

06

The all new Tech Data Direct has been launched making it easier for clients to find their perfect partners and suppliers.

07

On the hunt for technical publications - Vlog from the Overlord Show was published

08

New Magazine Portal is now live as the magazine subscription rate continues to rocket

09

Mike attended the Tank Fest event going live for the first time to our YouTube channel!

10

TDW renews membership to ADS in the UK with some exciting new updates to follow!

11

TDW launches Tech Comm Training a new website focused on skills developement for communicators in aerospace, defence and space

12

TDW-Live bookings hit record with majority of spaces already now sold!

GDPR COMPLIANCE

AND
TECHNICAL PUBLICATIONS!

GDPR and Technical publications

Have a spare EURO 20 million?

Well this is the size of the fine you face if you ignore the new GDPR regulations. Yes EURO 20 MILLION.

Unless you have been hiding under a rock recently and not frequented any of the standard business connection sites, GDPR has and continues to be everywhere!

So what is the big fuss all about and what do we need to know about this in technical publications?

FIRSTLY, WHAT IS GDPR?

The General Data Protection Regulations, which are now fully in force to all those organisations doing business within or with the European Union countries, are designed to give individuals maximum clarity and control over the type of information third parties may be able to store about them and specifically how an organisation plans to use that information.

The data protection regulations have not been updated for many years, yet technology and the way data is used has moved on dramatically and at pace. The recent news items clearly shows what social media platforms are doing with information, how it is being mined, sold and analysed to give everyone a '*personal shopping experience*'.

Recent high-profile data leaks and security breaches has forced the European Union to force all organisations to be transparent about what they are collecting, how, why and most importantly **what** the individuals' rights are around this information.

The right to be forgotten is a new phrase that is coming out of these regulations, an individual has a legal right to demand a full account of the information you hold about them as well as a right to be completely erased from an organisations system all within a mandated time frame.

But what does it all mean for technical publications?

Many of us sell either products or services, many of us sell our technical information to our customers and prospects, be it an MRO, airline or other third party.

In order to do this, many of us will have a database of clients, contacts, sales prospects and so on. If you fall into this category, then the GDPR regulations affect you.

THE STING IN THE TAIL OF THE GDPR REGULATIONS

The kicker here for the GDPR enforcers is that even if you have a full and existing database of customers, users, sales prospects – the GDPR regulations state that you MUST be able to demonstrate that ALL of these contacts consented under the new regulations to be in your database, even if they have been there well before GDPR existed!

For some this means a strategy of contacting each and every person in the database and asking them to reconfirm their acceptance to be stored!

Not only this, if you are selling software or services in our market (again within or with the EU) and you attend ANY industry event, gathering business cards, mailing lists delegate lists and so on, the GDPR rules affect you!

No longer can you simply mine this data and enter it into your sales funnels, you are not able to scrape websites or third party services for email contacts, all of the names on these lists and contacts BEFORE you use them must have consented to be on those lists and agredd for you to use their data.

USING THIRD PARTY (HOSTED) TOOLS?

If you are using third party Customer Relationship Management or mailing list tools, you need to be sure and assured that all of these tools are GDPR compliant.

THE DOUBLE OPT IN!

What GDPR is saying is that all subscribers to any mailing lists MUST double opt in! In practical terms this essentially means that there must be a check-box that is unchecked by default accepting the terms and conditions of use and an email confirmation link that is then sent to the subscriber confirming that sign-up – therefore **double opting** in to a list!

DATA PROTECTION OFFICERS?

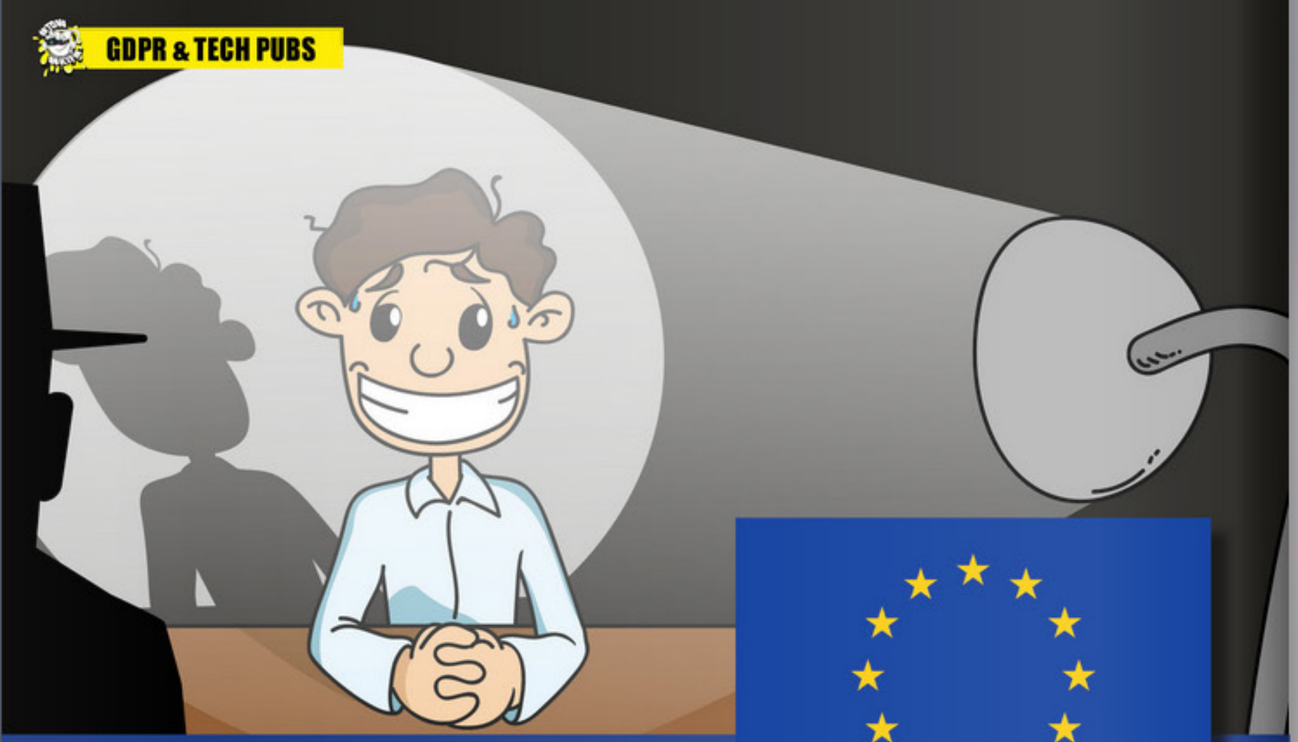
There has now been a spike in the trend of organisations either appointing or employing a data protection officer, a specific individual that is responsible for compliance to the GDPR regulations as well as training the entire team on requirements and ultimately the consequences of falling foul of the rules.

DATA LOSS OF BREACH?

The new regulations mean that ANY breach or loss of personal data MUST be reported to the country representative where a full report must be submitted, and a likely investigation will be carried out!

FINES AND CONSEQUENCES

Failing to comply with GDPR regulations will prove costly if you are found to be negligent! Either 4% of turn-over or a EURO 20M (USD 23m give or take a few pennies) fine could be coming your way if you or your organisation is found to be guilty of ignoring the GDPR rules!



IN THE UK AND THINK BREXIT WILL SAVE YOU?

Bad news! The UK was at the heart of many of the production of these regulations and the indications are that the UK will write these into law after BREXIT.

THE UPSIDE OF GDPR?

GDPR should not be seen entirely as a pain in the proverbial, it is of course work, but there is a serious upside here for those who are compliant.

Not only do you free yourself from the worry of being prosecuted and ultimately fined for none-compliance, but you can guarantee those people on your lists WANT to be spoken to, they want to hear from you and are therefore far more likely to want to buy something from you!

WHAT TO DO IF YOU ARE UNSURE?

Appoint a data protection officer and call in some help, as with all of these major shifts in regulation, there has been a surge of consultants offering their services to help you understand and implement a GDPR strategy.

There are many steps you need to go through and need to be able to demonstrate if the GDPR police come knocking on your door.

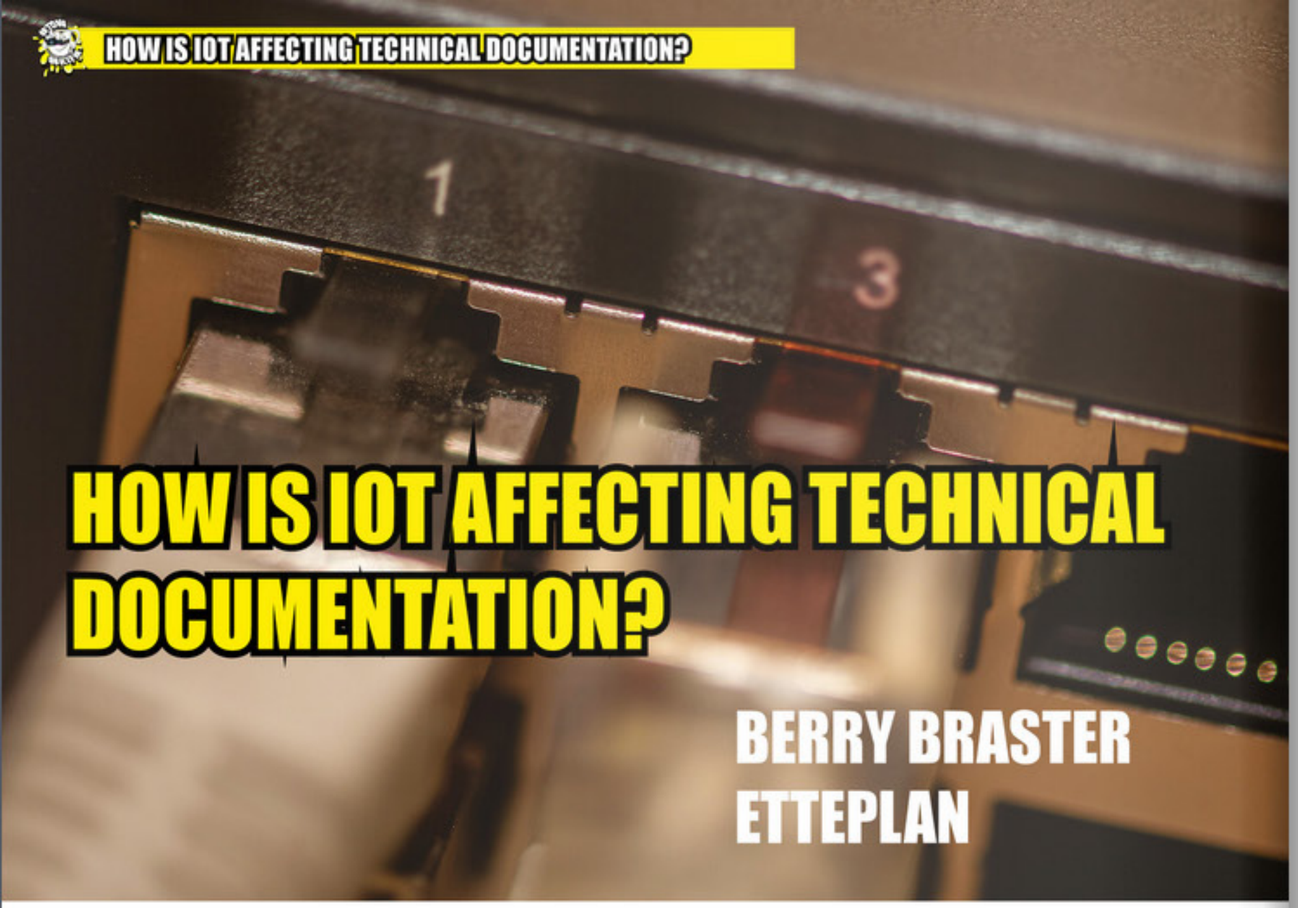
To summarise, GDPR is affecting everyone who is doing business with or within the EU and YES that includes you UK!

Ignoring these regulations is not a strategy, especially around the selling of products or services. Ignorance is not a defence and could cost you serious numbers if found to be negligent.

All breaches of data MUST be reported to the countries local GDPR office (or nominated office if outside of the EU), failure to do so will be painful.

MORE?

We created a two-part GDPR series on our website, two short videos explaining what TDW is doing as well as what organisations must be doing when it comes to GDPR.



HOW IS IOT AFFECTING TECHNICAL DOCUMENTATION?

BERRY BRASTER
ETTEPLAN

IoT creates a framework to offer new services, foster innovation, and identify new sources of revenue. Technical documentation plays a major part in how the information is created, managed, accessed and delivered. IoT enables manufacturers (and service organizations) who are looking for new revenue streams to productize predictive maintenance as a service (PMaaS) in addition to their core products or equipment.

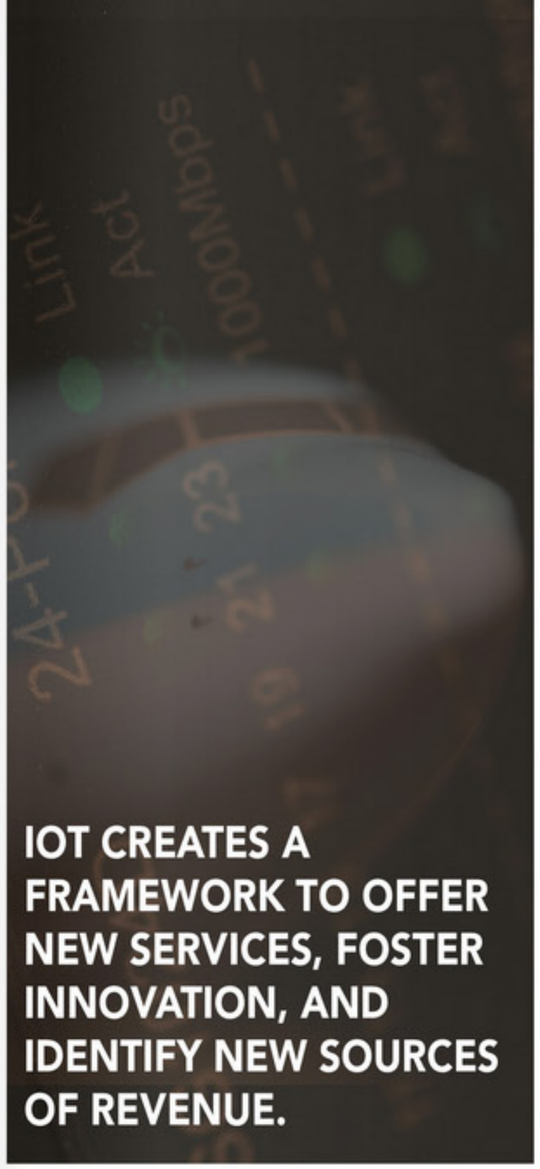
This is having a significant impact on the traditional technical documentation creation and deployment model. Historically technical documentation has been viewed as a bottom line cost center:

- "It's not our core business."
- "It's not a profit center."
- "It's mandatory" as part of the product or service, where you must have documents like user guides, service manuals, safety datasheets and so on.

With this transition already taking place, we are moving from a product transaction model that is non-core, to a strategic model that is focused on services and ensuring a positive customer experience (CX) and user success. What's different is that content, which is already part of the brand, becomes part of the new revenue stream of PMaaS. This flips the switch and makes technical documentation as much a part of the core business as the product and is now a revenue driver as opposed to a bottom line cost center.

The business models are therefore changing from a product-based model to a more customer-centric success and services model with an emphasis on better, more predictive/ preventative service where unplanned downtime is reduced and often eliminated as costs are dramatically reduced, while revenue often dramatically increases.

A good example of this shift, is how GE



IOT CREATES A FRAMEWORK TO OFFER NEW SERVICES, FOSTER INNOVATION, AND IDENTIFY NEW SOURCES OF REVENUE.

moved their jet engine business model away from just selling jet engines to "delivering thrust by the hour and thrust as a service." GE is now responsible for the uptime on all of the jet engines they sell. They service them, rather than the airlines and the terabytes of data that is produced is theirs be-cause they are the manufacturer and service provider, this enhances their relationship with their customers, driving up product confidence with the airlines – as well as their revenue since margins of services are greater and customers can see the Return On Investment (ROI) on PMaaS much sooner. Obviously PMaaS, SLAs, and eliminating downtime all require timely, accurate, consistent, and easily understood technical documentation and support information

in every language in which services will be provided.

Service and maintenance is becoming all about the connection of information with sensors, 'the cloud', real time analytics, all collecting and working with other systems such as:

- Enterprise Asset Management
- Decision Support
- Service Information Systems and Parts

Field engineers can create service orders to perform the task at hand according to the work order, this shortens downtime for diagnostics and maintenance because the technical documentation, if properly done, is accurate, up-to-date, easier to find and access, and often enhanced with visual search for a complete interactive experience.

The importance of proper technical documentation

- "25%-50% of a field service engineer's time is used in finding and understanding maintenance tasks. " Deloitte, "The Service Revolution in Global Manufacturing Industries"
- "40% of failed service visits of a capital goods manufacturer's service network were caused by lack of information." Lehtonen, T. Ala-Risku and J. Holmström, "Enhancing field-service delivery: the role of information" Professional technical documentation helps solve the following problems:
- Work is becoming more complex. Technical documents help to clarify the complexity providing clear and accurate instructions and guidance.
- Information is becoming more complex. Technical documents explain the in-formation in a way that field service technicians can understand, if field service technicians have suggestions on how to improve the technical documents, this can be fed back and information can be updated quickly.
- New markets and geographically-dispersed service centers. Consistent, and accurate translations based on Simplified Technical English (STE) ensure all service centers are receiving the same information.

- Less experienced workforce with varied levels of technical skills. Technical documentation can be as detailed as necessary based on the service technician's level of expertise.
- Increasing number non-native English speakers and writers. Again, consistent translations based on STE will address this concern, providing technical documentation conforming to clear guidelines that reduce the requirement for interpretation by none-English speakers.

How Technical Documentation is changing
We see technical documentation changing in six discrete ways:

1. Information Consumption . End users of your technical documentation today want to be able to access the information with ease as they can access information in their daily lives. We must deliver as close to a home user experience to the work or customer site.

2. The manner in which the information is delivered. Text, video, augmented re-ality, virtual reality, interactive. All of these methodologies are being used to en-sure the service tech is provided with the information they need to service the customer's equipment in a thorough, timely, and cost-efficient manner.

3. The types of information being provided. This may be installation, use, maintenance, or service depending on what the customers' needs are at the particular stage of the relationship. We do know that customers prefer to find solutions on their own, as such, it is in the OEM's best interest to provide them with this information in an easy to find manner.

4. The devices beginning used to access the information. Laptops, mobile de-vices, (AR/VR) glasses are all (started to) being used by service technicians
today, leading brands like Volkswagen have already issued service engineers with AR glasses. As such, documentation needs to be created in an optimized fashion to work on whichever device the customer or the service technician wishes or desires accounting for operating systems and screen resolutions.

5. Security has become a huge issue. With the number of vulnerabilities and hacks being reported on a daily basis, it's critical that you keep your devices and your documentation secure to protect personally identifiable information (PII) as well as ensure that hackers are not able to access the machine through an internet of things (IoT) device to damage the machine or the client's company the way Target was hacked through a third-party HVAC contractor.

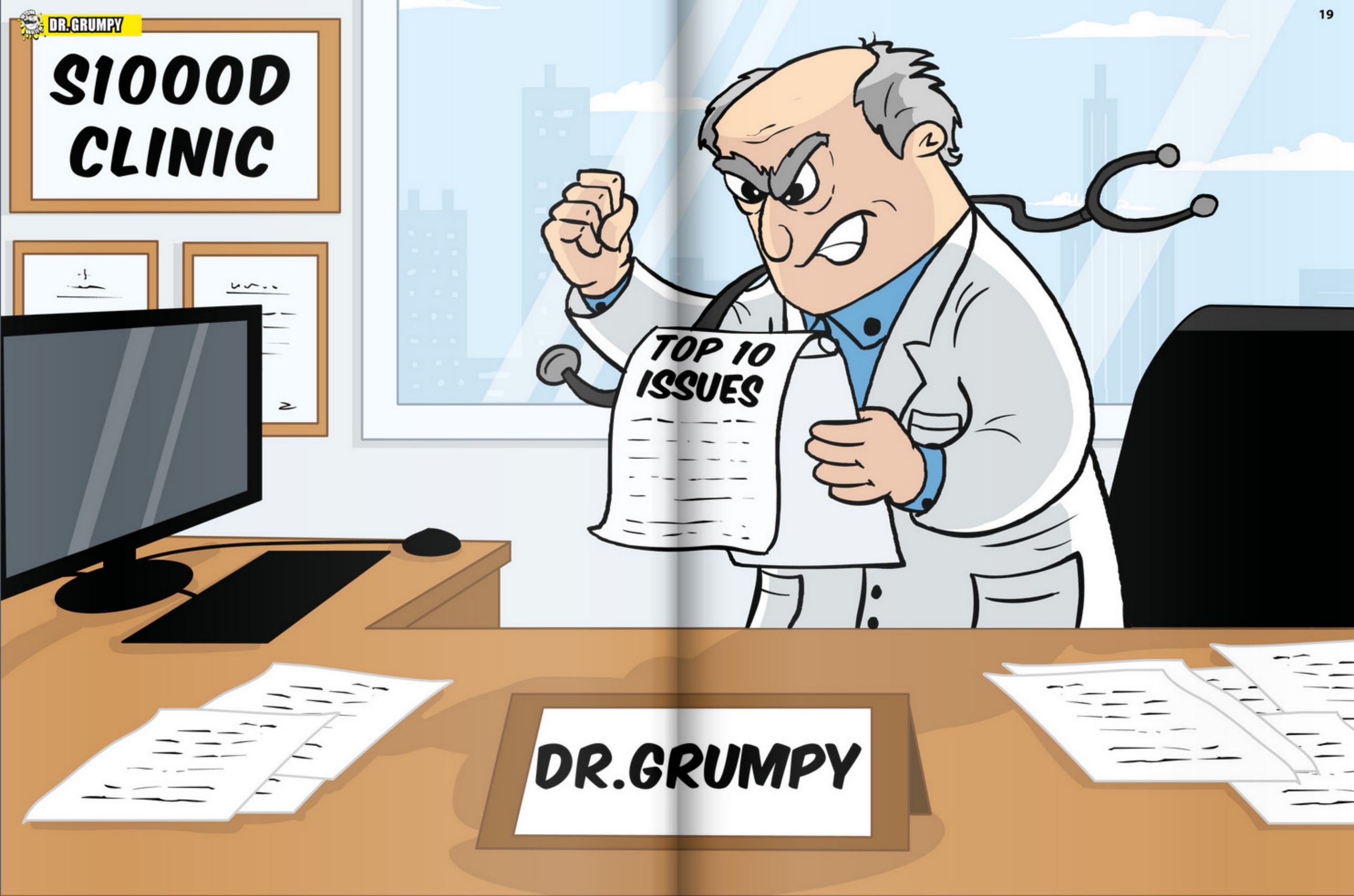
6. Data is exploding and you have the opportunity to use this to your ad-vantage. GE collects 30 million data points from their aircraft engines on a flight from Texas to London – 100 billion data points annually. They are using this in-formation to identify preventive maintenance as well a fleet optimization and product improvement and development. A two percent reduction in fuel saves an airline $20 million per year.

How does this impact the way we create, manage and deliver technical documentation?

- Content is created, managed, published and consumed in standardized ways
- A delivery model will be defined to allow information to be published interactively on mobile devices in addition to printed or digital PDF delivery
- Connections between your product and IoT devices will be defined, with the applicability of content validated

Do you want to learn how the IoT is changing the way technical documentation is being consumed? Follow Etteplan on Twitter, YouTube or visit our website - all details in the directory at the rear of this issue or on

www.techdatadirect.info



DR GRUMPY - MY TOP TEN GRIPES AT S1000D®

AN ANONYMOUS AND FRUSTRATED S1000D USER & DATA DELIVERY EXPERT

Hello everybody, my name is Dr. Grumpy and I'm angry. I've been asked by those nice people at TDW to write the first of two articles about the advantages and disadvantages of S1000D®. This then is written by me and gives me the chance to really moan about S1000 flaming D – and I'm going red already as I think of my top ten gripes!! I wish it could have been a top 20 as I am sure that there's some that I didn't include that should bloody be there!! By the way Peter Perfect will write the next top ten harpin' on about the nice things about S1000D - that will appear in the next issue of the mag – but don't listen to him as he's a plonker and a whipper snapper!

"So here they are in reverse order – my top ten gripes!"

NUMBER 10 – TRIVIAL BUSINESS RULES

What makes me really angry is the business rule is that mandates a format for ID/ID references. It makes me so mad! BRDP-S1-00101 in Chapter 3.9.5.2.1.2 of S1000D Issue 4.2 it says "*Decide the format of the cross-reference attributes id and internalRefId*" and it goes further to suggest values like "fig" (fig-0001) and "tab" (tab-0001) for tables. Well, my system adds ids automatically for me and gives them object ids from its database and these aren't in the format in the customer's business rules – who gives a frig? They work!! It really annoys me that I have to write a sausage machine to change them all! Yes it's good practice if the data is being written manually, but really!? Why add the extra cost? While I agree that the id formats reflecting the type of element referred to is a good idea for consistency, however the **internalRefTargetType** attribute does the same thing!

In the most stupid of business rules implementations, I have seen checkers checking that the order of the ids complies – for example "fig-0002" identifies Figure 2! This means that the flaming author has to renumber the IDs each time a Figure is inserted between two existing ones and in a large data module if no automated method is available, this means a lot of unnecessary work for the author for no purpose. Money to burn! This makes me really angry!!

This gets my goat! Business rules such as the ID/IDREF , and others like these ….. They are trivial! Do they matter as much as an incorrect catalogue sequence number, a typo in a part number, the wrong tool quoted, or an incorrect torque value? No!!! Technical content rules are conspicuous by their absence in business rules documentation! And they are bleeding obvious! Why shouldn't you check CSNs are in the IP data along with part numbers and lists of tools? Or that the torque value is correct from the torque schedule – okay that one is more difficult but not impossible!! And much more important than a missing title on a friggin' paragraph! ! Ohh that makes my blood curdle!!

NUMBER 9 - A NON-MOVER IS THE IPD SCHEMA

Gosh my blood pressure is rising!!! In earlier issues of the spec the IPD schema matched the structure of the S2000M data. First they frigged it by adding non-2000m data elements – I could live with that, but wasn't happy!! But I never am! Now they have added lots of stuff that means nothing to me!! Grrr! Why couldn't they leave the flaming IPD schema matching S2000M and develop another one for a non-S2000M IPC? Gosh that really bugs me!

NUMBER 8 – IN TO THE LIST COMES THE RIDICULOUSLY LONG NEW ELEMENT AND ATTRIBUTE NAMES ADDED AT ISSUE 4

Flaming Nora! All tags and very little data! Yes they are more readable by a human, but some of the tag names are now over 30 characters! I mean, what a waste of bytes!! Why have an element called <identAndStatusSection> to replace the old and much loved <idstatus> which does what it says on the tin!! By changing the tag names they have increased the size of my files – not to mention retraining my authors! When I open a document all I can see is bloody tags!! I mean: look at this: **<quantityPerNextHigherAssy>**1**</quantityPerNextHigherAssy>** - 45 characters for the tags for one character of data! Absolute nonsense! In old money it was **<qna>**1**</qna>** for flips sake! My S2000M guys recognise a QNA but not the S1000D equivalents. The file size explodes – perhaps they guys that write the spec have unlimited storage or something!!! Gordon Bennett! The IPD is not authored but converted from the S2000M message – so be green and save bloomin'disk space and go back to the old 3 character element names that we always understood!! Grrrr! Flamin' 'eck!

FIGURE 1 - SPOT THE DATA AMONG THE TAGS (1063 CHARACTERS OF WHICH 68 ARE DATA THAT'S 995 CHARACTERS FOR MARK-UP 93 BLEEDIN' PERCENT!)

NUMBER 7 - PROJECT-CONFIGURABLE ATTRIBUTES

And don't even get me started on configurable attributes – why the bloomin' 'ell have they replaced emphasisType = bold with a meaningless value em01 – surely this begs for errors? How does my author know which to choose without referring to S1000D? Besides em01 is always "bold" so why not just call it flamin' "bold" and have those silly "em" numbers for the ones the project can choose? Also why aren't they standardising for stuff like emphasis and list prefixes? Surely nobody invents their own. Do they? All of the project configurable bleedin' attributes need you to read the spec to know what they mean!!

"WHY NOT JUST CALL IT FLAMIN' "BOLD"?"

And where a project can decide on the values, each project will have different values for the same thing – this could be serious with the bleedin' wrong value shown when my data is reused in another flaming project. If I gave my data modules to another project, em56 may come out sky blue pink shot with a bleeding carrot rather than the overstrike I intended. Oh poo!

NUMBER 6 - SOFTWARE VENDORS NOT BEING ABLE TO SUPPORT MULTIPLE VERSIONS OF S1000D IN THE SAME CSDB

BRDP-S1-0003 – decide which issue or issues of S1000D to be used. No problem with the rule itself, but I have issues with how projects have interpreted this. They make a decision and demand that all data complies with the issues of S1000D selected. My argument is when data already exists – why spend the time and effort converting from one specification issue to another on mass? I always argue that any conversion can go wrong, it could miss complete blocks of data out for example and this may not be discovered until it is too late. Flip! If you convert, then you must re-QA the data and approve it or otherwise. Money to burn! Why not let data to multiple issues of S1000D reside in the same CSDB and upgrade the data to a newer issue the next time it is amended?

The friggin' software vendors do not help here as although many COTS systems support multiple issues of S1000D, they demand that a particular CSDB is to one and only one issue of S1000D!!

What also nags me is the many different ways that something can be done in S1000D! It's a standard so why not standardise on one way? It's not rocket science!! Gordon Bennett!! Why, why, why?

NEXT ARTICLE - PETER PERFECT

NUMBER 5 - A LONG STANDING ENTRY - LOCKING DOWN THE SCHEMAS SO THE TYPES OF DATA AND LENGTHS OF DATA HAS TO BE AS DEFINED IN S1000D

Before XML came along and we used something called SGML and that did not check that the values between the tags conformed to any particular pattern. This meant that we could use the DTDs and Schemas for legacy projects which weren't quite S1000D – they had longer SNS codes for example. In this way we could gradually migrate to S1000D. Now we can't do diddly squat as the values have to comply!!! Why didn't they do the type checking through business rules and not through the Schema. Annoying or what!! Grrr!

NUMBER 4 - THIS WEEK AT NUMBER 4 ARE MULTIMEDIA BUSINESS RULES

Okay! I create my graphics and export them as CGM files and check that they are fit for purpose by doing a technical approval and after several arguments (I like to argue) with the technical authority my data modules and graphics are technically correct. Happy days! Then I send them to the customer and he only goes and opens them and what happens – they send them back and say my metafile identifier is not the ICN number – bloomin' eck! What does that matter? Does it view in the viewer ?- Yes of course it does! Can the maintainer understand what he needs to do from my lovely picture – no problems there! So why the frig does a text value matter in the CGM file itself – it never gets viewed! Then guess what – I correct that taking me a week or so to understand what I need to do, send it back and the customer has only gone an added bleedin' new rules to the checker and he has noticed my line weights aren't to spec, and I'm using Arial instead of Helvetica!! Yearrghhhh! They bloomin' look the same!!! He has also checked the dimensions of the graphic and has rejected them because they are

all **170.01mm x 220.01mm** – 0.1mm out – that's a Hare's Breath! Gosh it makes my hair curl! Grrrr!

NUMBER 3 – A NON-MOVER – THE RATE THAT S1000D CHANGES

S1000D changes too much! As soon as I get used to and set my system up for one issue along comes a' flaming 'nother. My software vendor cannot cope and the software updates are way behind the spec issue. And now they are even making point issues and bug fixes. Come on lads, enough is enough!! I was happy with 1.8!! We seem to be adding new friggin' capability just because it is sexy and not because there is a business need for it! Stop it! Solidify the spec and don't keep changing it for flip's sake!!! You issue a new version and my bloomin' customer wants it but my software vendor can't keep up with you. Oh sugar, please slow down!

NUMBER 2 - AND DON'T GET ME STARTED ON S1000D PROMOTES REUSE – I SAY NO IT FLAMING DON'T!

My equipment gets fitted to many weapon systems. Technically the data is the same yet I have to change it as each platform vendor has used different versions of S1000D and even if they are the same, they have different bleedin' business rules meaning I have to maintain several CSDBs for the same equipment and have to update the same data many times. Reuse? Tell me where the reuse is there?

Going back to my earlier nag, I can't even standardise on an output stylesheet as each project has selected different meanings for the project configurable attributes and some customers have used pre-Issue 3 schemas and others those bloody long tag name versions!! Money to waste!! No standard!! The spec is also ambiguous. One customer interprets something one way and another another. Come on s1000d standardise and do it one way only!!

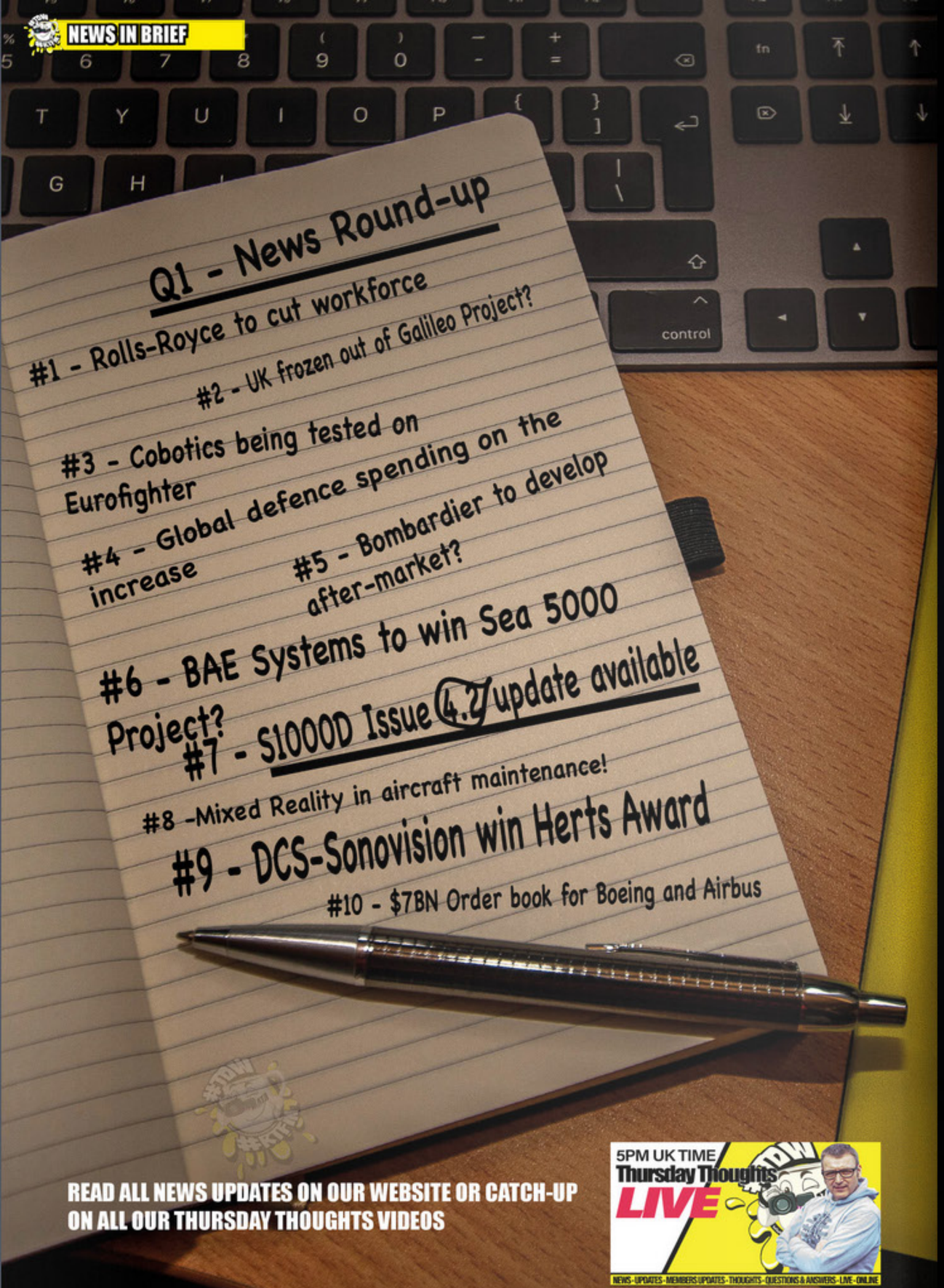
NUMBER 1 – ALL THOSE NICE TAGS AND WE TURN THE DATA INTO A DUMB FORM!

I spent time and effort training my guys to use XML and S1000D and go to all the effort putting all those meaningful tags in like partNumber, CatalogSequnceNumber, proceduralStep and so on. Brilliant I thought! At last we have a logistic database that we can query. No!! I got sight of the customer's IETP the other day and was absolutely flaming shocked to see that they do absolutely flippin' nothing with all that good data in the tags and they spit it out to the end user as PD flaming F!

I mean what's the point in adding all those tags in the first place!! We could have used Microsoft Word® for heaven's sake!!!

"THEY SPIT IT OUT TO THE END USER AS PD FLAMING F!"

Well – that's it for my top ten. I'm about to explode with anger! I need to go away and have a lie down. How I wish I'd also included these issues misinterpretation the spec, two different ways of encoding ICNs, opening up the spec to whatever flaming graphic file type you want, the change marking fiasco, not listening to the guys who actually do the job – what do they need (common bleedin' sense), ambiguity, grr! Now where's me chill pills?



READ ALL NEWS UPDATES ON OUR WEBSITE OR CATCH-UP ON ALL OUR THURSDAY THOUGHTS VIDEOS

ARE THERE REASONS NOT TO USE STE?

CIARAN DODD

In this article Ciaran Dodd, trainer in STE for 16 years, asks: are there reasons not to use STE? What questions do you need to ask to succeed with STE?

INTRODUCTION

Last month, I read a LinkedIn comment from an experienced technical documentation consultant that said: "It's about time the Great STE Myth was countered." (Bergstrom, 2018) Intrigued, I read on. To summarise, his main objections to STE were:

- STE is only for skilled writers to write maintenance procedures for non-native English speaking users. STE is not for descriptive text.
- STE vocabulary is too restrictive to write clearly and precisely, and that Plain English (Plain English, 2018) is preferable.
- STE should not be used for translation because STE was not intended for translation. Translating from standard English to STE and then other languages will create inaccuracies.
- STE is expensive because writers spend all their time running compliance software to try to meet the specification.
- STE is dangerous because writers try to comply with STE by replacing perfectly good but non-STE words and grammatical constructions with STE approved words and constructions which are "inferior" and may change the meaning of the original.

I like a challenge, so I've been seeking support for these assertions. From reading and talking about STE, I have concluded that using STE successfully is not without challenges. However, STE does give many of the benefits that its proponents claim and to succeed with STE there are a number of questions that you need to ask before you proceed with STE. In this article I will briefly examine both the challenges and the questions.

CHALLENGES TO STE

It is true that to write well in STE you need to have a "good command of English," (STE Maintenance Group, STEMG, 2017) and training in STE. I would add that you need to see STE as a new language with its own grammar and vocabulary rather than a 'lesser' version of standard English. It is not true to say that STE was only intended for maintenance procedures for non-native English speaking users. The STE specification has always included rules for writing descriptive text in STE. The rules and examples in section 6 of the specification provide excellent guidance for writing descriptive text. I agree that it is easier to write procedural text in STE than to write descriptive text. Writing descriptive text in STE is hard. You have to show how your ideas link together in short, well-structured sentences, rather than leaving the reader to guess what you mean in long, complex and passive sentences.

Is Plain English preferable to STE for technical documents? The rules of STE are very similar to the principles of Plain English. Two key differences are that:

1. STE provides full guidance to technical authors in the specification but there is not an equivalent specification for Plain English.
2. Plain English specifies the use of simple everyday words but does not specify which words you can and cannot use.

I can see why a technical author may prefer Plain English, especially because it does not restrict the words or the grammatical structures that you can use in the way that STE does. But, if you want consistency of terminology and style for reuse or translation, then I think that STE is more effective.

About the intended audience and translation, it is not entirely true to say that STE was only intended for non-native English speakers and was not intended for translation. The drive for Simplified English was a need to make technical manuals written in English easier to read by non-native English speaking aircraft personnel. But the STEMG write that STE improves communication between native English speakers too. (STEMG, 2017) Also, where users do not have basic English, technical documents will still need translation. "When STE was created, one of the primary objectives was to make translation easier. If the vocabulary, meanings of words, and the types of sentence constructions in a text are controlled, the variation between texts will be minimal. Thus, it is easier for translators or translation machines to translate text written in STE into the target language." (STEMG, 2017) For more on the issues around translation, see Disborg (2008).

On the issue of STE being expensive because technical authors spend a lot of time checking compliance software, that depends on whether they use checking software and which software they use. The STEMG state that a checker or other software is not necessary to write STE. (STEMG, 2017) This is because software cannot replace the knowledge of an author trained to write in STE. Nevertheless, checking software can help with the STE implementation. That said, most of the authors that I have trained over the years do not have checking software to rely on.

Finally, STE could be dangerous if the writers have not been trained in STE or simply swap non-compliant words or structures with compliant words or structures without looking at the text as a whole. The STE specification contains rules that deal specifically with this issue in section 9. In my experience of reviewing documents, STE puts more discipline and structure into technical writing because you cannot hide unclear thinking in shorter sentences written in the active voice with precise and consistent language.

QUESTIONS TO CONSIDER BEFORE YOU IMPLEMENT STE

What the discussion in the previous section demonstrates is that successfully adopting STE is anything but simple. Implementing STE needs change management like any other implementation, especially as everyone has their own views on writing. Here are some questions to consider before you begin. (See also a useful presentation by Huettner and Huettner, 2008.)

ABOUT YOUR INDUSTRY:

- Which industry are you in?
- Is STE commonly used in your industry?
- What is the working language of your industry?

ABOUT YOUR DOCUMENTS:

- How many documents do you produce?
- What type of documents / text do you produce?
- Who are the users of your documents?
- What languages do your users speak?
- How do you publish and maintain your documents? Do you use structured authoring?
- What software / tools do you use for your technical documentation?
- Do you have a dictionary of technical terms for your organisation?
- Do you translate your documents? Which languages?
- Do you use machine or human translation?

ABOUT YOUR AUTHORS:

- What languages do your authors speak?
- Are the authors the technical experts or do they refer to subject matter experts?
- Are they writing completely new text or adapting / modifying existing text in standard English?
- How does your review process work?

ABOUT YOUR PLANS FOR STE:

- What is your business case for adopting STE?
- Is adopting STE a standalone project or part of a bigger project?
- How will you measure success?
- What type of text will you write in STE? procedures, descriptions, service bulletins…
- Will you translate your documents and into which languages?
- Do you plan to use an STE checker tool? What criteria will you use to select a checker?
- How do you plan to implement STE?
- What training will you give? To whom?
- Have you communicated to everyone affected by the STE?
- Have you planned time to allow authors to master STE after training?
- What support will the authors have after training?
- How will you monitor progress / cost / time / quality of implementation?

FINAL THOUGHTS

IT IS HEALTHY TO HAVE SOMEONE CHALLENGE YOUR VIEWS, SO I THANK MICHAEL BERGSTROM FOR SHARING HIS OPINIONS. MY THINKING THIS WEEK AND YEARS OF TRAINING EXPERIENCE LEAVE ME CONVINCED THAT THE BENEFITS OF STE ARE MORE THAN A MYTH. IT IS TRUE THAT THERE ARE CHALLENGES TO IMPLEMENTING STE SUCCESSFULLY. BUT LIKE ALL CHANGE, MANY OF THE CHALLENGES CAN BE MANAGED AND MITIGATED WITH CAREFUL RESEARCH, PLANNING AND CHANGE MANAGEMENT.

Ask Ciaran!

Do you have a question around the use of Simplified Technical English? Not sure where to start or even know if STE will deliver benefit to your organisation? Well, why not "Ask Ciaran!"? Send us your questions and we will ask the expert.

memberservices@techdataworld.com

FURTHER INFORMATION

Bergstrom, Michael. (2018). Comments on Mike Unwalla's article on LinkedIn. Available at: https://www.linkedin.com/pulse/increase-clarity-text-using-asd-simplified-technical-english-unwalla/ [Accessed 30 June 2018].

Disborg, Karin. (2008). Advantages and disadvantages with Simplified Technical English - to be used in technical documentation by Swedish export companies. Available at: http://liu.diva-portal.org/smash/get/diva2:16816/FULLTEXT01 [Accessed 30 June 2018].

Huettner, Brenda. and Huettner, Alison. (2008) Choosing the English That's Right for You Simplified Technical English and Other Controlled Languages. Available at: https://www.slideshare.net/thecontentwrangler/choosing-the-english-thats-right-for-you-simplified-technical-english-and-other-controlled-languages-presentation/7 [Accessed 30 June 2018].

Plain English. (2018) Available at: www.plainenglish.co.uk

STEMG. (2017). (All references to the FAQ pages.) FAQ. Available at: http://www.asd-ste100.org/faq.html [Accessed 30 June 2018].

The Army v Royal Navy rugby match is always a fantastic and special day out and this year it was made extra special with an invite from **CDS Defence Support** to be hosted in their corporate hospitality suite at the home of English Rugby, Twickenham.

Of course, we at TDW were never going to pass up such an extra special invite and were looking forward to swapping our standard seats for the comfort of an air-conditioned CDS Defence Support suite.

Both serving and ex-serving come together for this annual get-together, reuniting friends and colleagues, whilst raising necessary funds for military charities.

Although the Army were victorious, the event is a symbol and celebration of the armed forces as a collective and the community that is supporting the work that they have done and continue to do.

A huge thank you goes to CDS Defence Support from us here at TDW for the very kind offer and opportunity to see the game from a different angle and the comfort of a corporate box, sharing some excellent food, washed down with some welcome complimentary beverages!

SUPPORT SYSTEM RESILIENCE

THERE HAVE BEEN A FEW ARTICLES APPEARING IN THE MEDIA RECENTLY THAT HAVE RAISED CONCERNS ABOUT THE VULNERABILITY OF LINES OF COMMUNICATION AND OUR SUPPLY CHAINS GENERALLY.

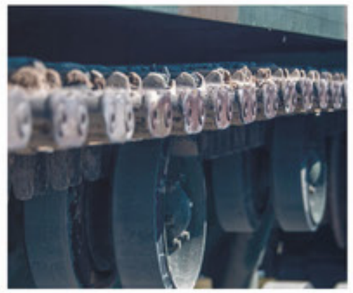
PETER STUTTARD

How resilient are our Support Systems? How resilient are they to enemy attack, to random failure, are they robust enough for the environments into which they will be deployed?

Consider that effective Equipment Support is ever more reliant on IT systems, systems which are designed to facilitate ever more optimal logistic solutions. But as we all know such systems rely on having access to sufficient bandwidth and they are vulnerable to cyber-attack. A well-publicised and recent example is that of the F35 combat aircraft 's (Lightening II in the UK) Autonomous Logistics Information System [ALIS] a system designed to enable the operators to plan, to maintain and to sustain the aircraft, but there are concerns regarding its cyber vulnerabilities, ALIS will be a target for potential adversaries. But we also have to consider more conventional warfare, IT systems generally are not bomb or bullet proof. They are also subject to random failures, we must also consider how any deployed components will behave in extreme operating environments.

In the case of the F35, are we in danger of, inadvertently, making our combat air capability reliant on a functioning air conditioning system; reliant on the availability of air conditioning unit spares? Farfetched? Possibly not, one commentator has already remarked the system's susceptibility to high temperatures.

This issue isn't just restricted to IT systems, consider; how effective would our Armed forces be if they had no batteries, if they could not recharge portable devices?



How many other, superficially trivial, resources are there that are absolutely critical to combat effectiveness?

Another F35 example will serve to illustrate the sort of thing I mean. An American Serviceman received a commendation recently, because he used a 3D printer to manufacture a small plastic buffer for a panel on an F35 aircraft. The original buffer had been lost or damaged, the repair policy was for the entire panel to be returned to the manufacturer for repair, this would have taken many weeks, there were no spares panels. By manufacturing that seemingly innocuous spare the engineer kept an asset worth circa £150,000,000, operational. Now this one story begs a whole host of questions, such as, who decided on that repair policy, and has any one considered the impact of such a policy if the aircraft were operating many thousands of miles from home on a critical combat mission? The mission could fail for the want of a part worth a couple of dollars. But please don't be tempted to mock this approach, it is surprisingly common, I have railed against such policies applied to UK systems in recent years.

How many, seemingly innocuous spares parts, services, information systems, etc are critical to combat readiness, to combat effectiveness? I suspect that the answer is a very significant amount.

We should ask ourselves, where do these resources, these services, these data originate, and how do they make their way into the theatre of operations, i.e. what are the "Lines of Communication"?

Then we need to ask, how many ways are there that an enemy, or a potential enemy, could disrupt such Lines of Communication? Our enemies will be very willing and very able to do just this, disrupting the enemies Lines of Communication is a key strategy in warfare, and has been since time immemorial (quite literally in this case). It featured in the Peloponnesian War in the fifth century BC, it is the reason why the British took Gibraltar in 1704, it was the logic behind the Dam Buster Raid in WWII. It was the reason ex Cold War warriors like myself used to dig perimeter defences around our positions when maintaining Army and Royal Marine helicopters in Germany and Norway in the 1970's and 1980's, because we were part of the support infrastructure that the Russia Spetsnatz special forces were tasked with "disrupting".
We need to recognise that as we deploy ever more complex and capable weapons systems, (of which we tend to have fewer than in the

past, and hence maintaining them is ever more critical) that these systems are more dependent on support than their predecessors.

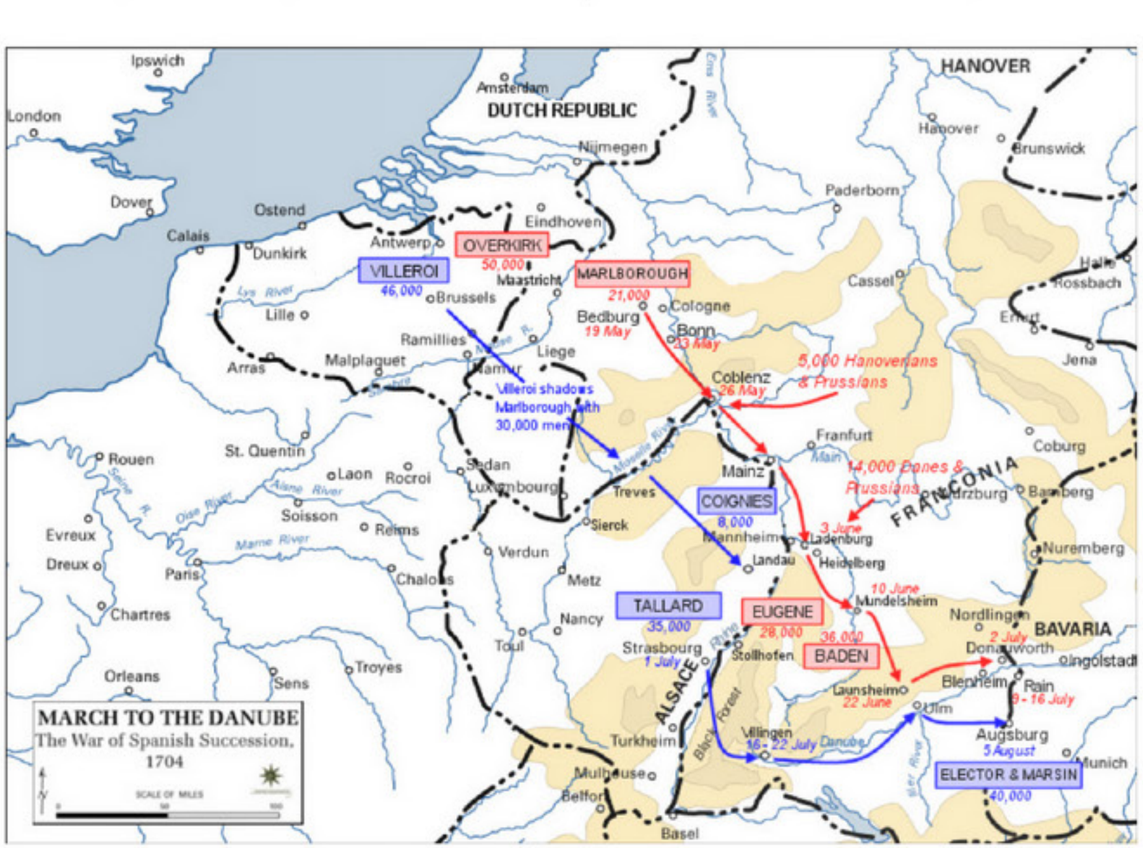
It is reported that the support of some systems, e.g. the United States' M3 Bradley - Cavalry Fighting Vehicle (CFV) - is so challenging, that deploying them at all is a strategic decision. It is imperative therefore that that support is itself as robust and resilient as is practicable. An analysis of the resilience of any given Support System, which includes the Lines of Communication, is self evidently a logical and laudable activity.

Historically, Lines of Communication have tended to be "Linear", comprised of Supply Chains running from "Foxhole to Factory". An examination of the Lines of Communication on historical battlefields reveals just how vulnerable such arrangements could be. The map below shows the march of the Duke of Marlborough to the Danube in the early 18th century, which ended with the battle at Blenheim. The route (red) also indicates the Duke's extended Lines of Communication, continually threatened by the French (blue).

Modern Lines of Communication are more complex, we have access to sophisticated, often parallel, Land, Sea and Air transportation systems, radio and digital communication systems, etc. Modern Lines of Communication are however still, to great degree, Linear in nature, and If we implement a Forward to Depth, 1st to 4th, maintenance policy, if we are dependent on information residing in the home country, then they can be extremely long and hence vulnerable.

Given that it is relatively easy for an insurgent using low technology weapons to disrupt Supply, never mind the potential of enemy Nation States, we now need to consider designing and implementing more resilient Support Solutions.

One general approach would be to translate, in so far as is practicable, Linear Supply Chains into Support Networks.
Nets are more resilient than chains, they have multiple pathways, any constraints, due to enemy interdiction, random failures, a lack of robustness, are therefore more readily by passed, we have alternatives, they have shorter



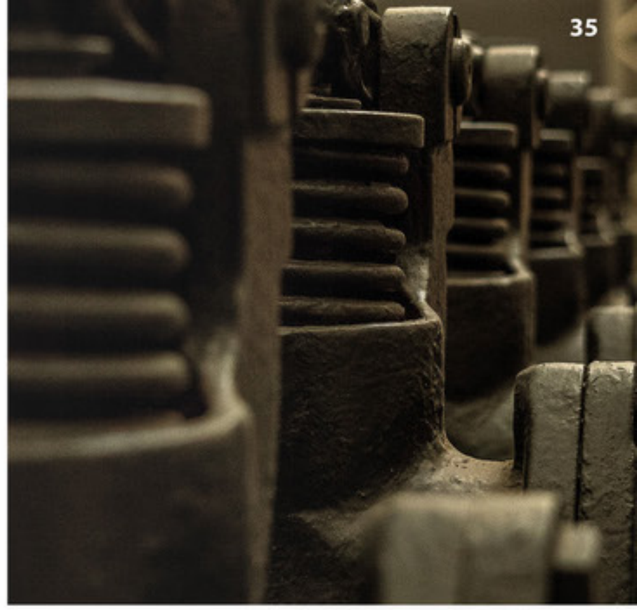
links, they have inherent resilience.

Such an approach requires us to develop a structured definition of the extant or the proposed Support infrastructure, in order to facilitate an assessment of the resilience (to enemy action, systemic failures, natural disasters, etc) of any given system. We could use such a model to identify, to understand, and to evaluate any inherent vulnerabilities, to predict the consequences of an undesirable event, such as the cutting of a LoC, the destruction of resources (e.g. critical spares, transport, etc), a cyber-attack, or the attrition of Support Manpower, etc.

We could adopt and adapt a number of extant techniques to support such evaluations, for example, the much under-utilised Damage Mode Effect Analysis [DMEA] approach could be applied to a Support System "Definition". We could apply a variant of Event Tree Analysis [ETA] in order to facilitate the identification of single, or multiple points of failure or interdiction, or "Common Mode Failures" that could significantly impact our ability to provide Engineering Support and hence have a potentially catastrophic impact on Operational Capability.

We should look to eliminate a situation where one event **OR** another could disable or severely constrain our ability to operate and instead strive for a situation where one event **AND** at least one other are needed to disrupt operations.

New technology may help as well as hinder us in this quest, consider for example, the potential Impact of Additive Manufacturing. Imagine a future scenario where many units in a conflict have a flexible, mobile, additive manufacturing capability. Now the supply lines do not have to run back to a manufacturer in the UK, Europe, the US etc, for many items they only need to reach back to a unit with the appropriate additive manufacturing capability; and there may be several alternatives available, held by our own forces or by our allies. We would have the additional benefit of reducing the volume of spares carried into conflict zones, and a possible reduction in costs.



Additive manufacturing technology is possibly not mature enough to deploy onto the battlefield in a manner that will impact operational and support concepts; not yet at any rate, but this is a viable option in the near future. Research and trials looking at the practicalities of deploying the technology on board Naval or Navy support vessels Is underway, and it is almost inevitable that it will be possible to deploy some form of the technology on wheeled vehicles in due course. There are other mechanisms of course by which a Support System may be made more resilient, obvious examples include cross trained service personnel supported by advanced technical publications, and the use of distributed data systems.

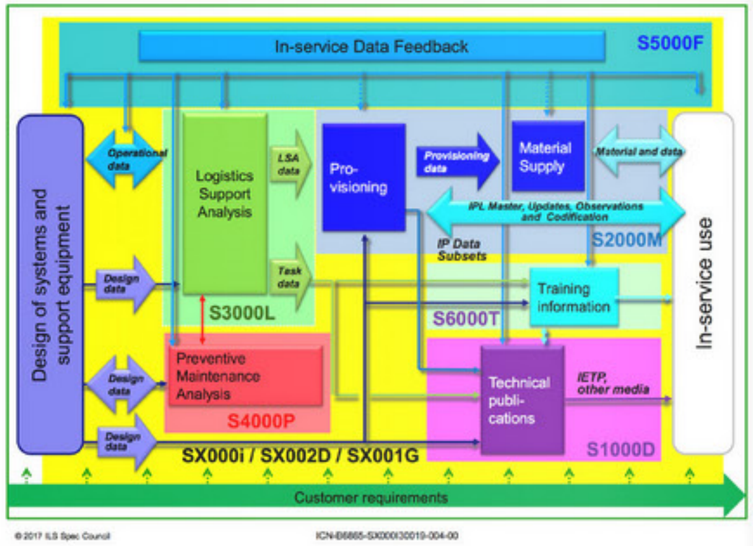
Similarly, the elimination of special to type software (including Electronic Publication readers), special to type support equipment, tools, etc and their replacement with generic tools and test equipment will be advantageous. The use of commercial mobile devices as the core of highly portable test and data gathering systems is another potential example.
We need to undertake a holistic review of the resilience of our Support Systems, because we can be sure that our potential enemies are doing so, they will be seeking the best, and most economical, points at which to strike.
We need to stop regarding Support as an "add on" the "Logistics Tail" trailing behind the Teeth Arms and start treating it for what it is, a vital element of capability, a force enabler.

WORKING BEHIND THE SCENES WITH THE S-SERIES ILS SPECIFICATION (PT2)

The benefits of working with standards are widely known. However, many of the standards and specifications related to Integrated Logistic Support (ILS) are disparate and not aware of each other. The S-Series is the first suite of ILS specifications that are truly integrated. This integration is achieved by having the processes of each specification take inputs from the shared domains, ILS elements and outputs from each of the other specifications. It should be noted though that while invoking multiple specs on a program yields greater benefits, they can also be used as standalone specifications. The diagram below shows the data flow between the specifications, all supported by a Common Data Model (CDM). The CDM contains data common to two or more specifications.

PAUL HASLAM

PRINCIPAL S1000D & S-SERIES ILS SPECIFICATIONS EXPERT



The governing body managing this work is the ILS Specification Council, which is staffed by industry members from the parent organizations, Aerospace Industries Association of America (AIA) and the AeroSpace and Defence Industries Association of Europe (ASD).

S-SERIES ILS SPECIFICATIONS - RECAP:

ASD-STE100 is the Simplified Technical English (STE) specification that provides writing rules and a controlled dictionary to enable consistent technical writing for the preparation of technical documentation. Issue 7 of ASD-STE100 was released in January 2017 and includes significant changes.

Downloads can be requested at www.asd-ste100.org.

S1000D provides rules and guidance for developing, producing and exchanging technical publications. It uses eXtensible Markup Language (XML) schemas to create small chunks of information called "data modules", which are stored in a Common Source Database (CSDB).

S1000D can be downloaded at www.s1000d.org.

S2000M provides rules and guidance for the supply business process relationship between

contractor and customer by providing the process flow, the relevant transactions and data elements used for the provisioning, delivery and invoicing for the required spares supply and engineering resource/effort.

S2000M can be downloaded at www.s2000m.org.

S3000L provides rules and guidance for conducting Logistics Support Analysis (LSA) business processes. It's the core specification because the LSA activities are closely linked to engineering and design domain data, the 12 ILS (support) elements and inputs and outputs to and from the rest of the S-Series.

S3000L can be downloaded at www.s3000l.org.

S4000P provides rules and guidance for conducting the analysis to determine preventive maintenance task requirements for a new Product. The analysis comprises systems, structural and zonal analyses of a complex technical Product. To continuously improve maintenance, there is a completely new feature called In-Service Maintenance Optimization (ISMO).

S4000P can be downloaded at www.s4000p.org.

S5000F provides rules and guidance for gathering in-service data for feedback to the support business processes as well as to design and engineering and provides feedback to the S-Series ILS specifications themselves.

S5000F can be downloaded at www.s5000f.org.

S6000T is currently in the latter stages of the first internal draft, which is planned for release to AIA/ASD members for comment by Q4/2018. This initial issue focuses on the analysis processes of the Analysis, Design, Development, Implementation and Evaluation (ADDIE) model. When complete S6000T scope will include the first 2 phases in the process; Analyze and Design and will define all level of requirements and design data necessary to support product training.

S6000T will be available for download at www.s6000t.org.

SX000i is the specification that over-arches the rest of the S-Series of ILS specifications by providing the overall framework and defining the overall processes and their interfaces.

SX000i can be downloaded at www.sx000i.org.

Working within the Memorandum of Understanding between the AIA and ASD,

ONEIL is responsible for editing and publishing S1000D and all the S-Series (except ASD-STE100)

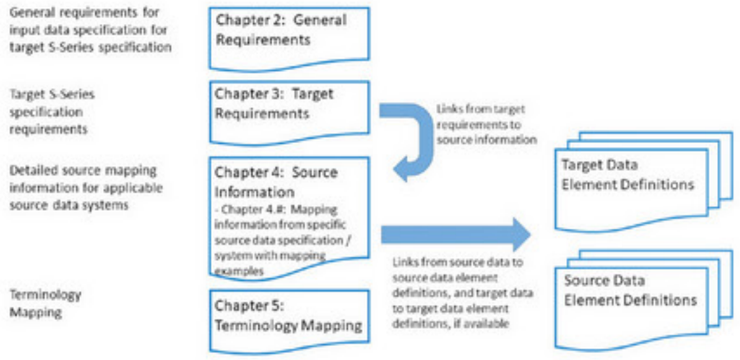
INTERFACE SPECIFICATIONS

Most primary specification of the S-Series have or will have an interface specification. These interface specifications describe the inputs each specification requires from the other industrial domains with a special focus on the interfaces among process implemented using specifications in the S-Series. The original plan for including this information in the exiting S-Series specifications, was for each specification to include the detailed relationships with every other

specification, in a dedicated chapter. The flaw spotted in this plan was one of configuration control. If, for example, S3000L changes any relationship information, then all the other specifications could become out of sync, until they are up-issued to include the effects of that change. The benefits of these interface specifications are that, if such a change is made in one or more primary S-Series specifications, only the affected associated interface specification needs to assess the impacts of the changes.

S1000X is currently in draft at Issue 0.1 and is due for internal review by Q4 2018. This first draft has concentrated on the S1000D Issue 4.1 input requirements (target), mapped to the S2000M Issue 6.1 elements and S3000L 1.1. Issue 0.1 of S1000X also includes a mapping for input from GEIA-STD-0007B (source), to S1000D. The organization of the specification is quite simple, as shown in the graphic below:

S-Series Specification Input Data Specification Document Relationships



The mapping itself, however, is detailed to lowest level of granularity with chapter 3.x listing every target element and attribute (objects) in the respective S1000D schema. The target objects in chapter 3.x are presented as an XPath and have a link to a graphic of the element or attribute.

Every target element and attribute listed in chapter 3.x also has a link to the relevant chapter 4.x which defines the source data mapping.

For example, the S2000M element <descrForPart> (description for part) is displayed with its XPath, content/illustratedPartsCatalog/catalogSeqNumber/itemSeqNumber/partSegment/itemIdentData/descrForPart. Clicking on this XPath opens the graphic shown below:

There is a definition of what the object does in this Illustrated Parts Data (IPD) data module and a link to the associated chapter 4.x, which contains the S2000M source information, locipd/msgContent/pas/dfp/descry, in this case. There is also a link to the associated chapter 5.x, which gives the S2000M terminology, as shown below:

No.	Data-element-name	TEI-/-Acronyme	Formate	Type	Min-length	Max-length	Definition-/-Purpose
1	partName	DFP	an..130	string	1	130	Provides a detailed description of the item as given by the party that allocates the part number.

S2000X is a planned specification that will describe all the input requirements related to parts. Likely inputs include, but are not limited to:

- S1000D - the hierarchical breakdown for the Product using its chapterized Standard Numbering System (SNS) and requirements for Illustrated Parts Catalog (IPC) or IPD publication requirements, such as the intended text display of information about parts and the rules for the preparation of illustrations.
- S3000L - through its task definitions provides the basis for both IPD and provisioning, such as the maintenance concept and support policy, the level of repair, parts for procurement required to support a maintenance task, etc.
- S4000P - None.
- S5000F - in-service feedback related to continuous monitoring of parts movement and consumption as well as configuration of all operational Products.
- S6000T - Input related to the acquisition of training equipment defined as result of the training analysis.
- SX000i - Program-level information, including contracts and contract clauses, locations, planning, etc.

S2000X will be available for download at www.s2000m.org.

S3000X is a planned specification that will describe all the input requirements related to LSA. Likely inputs include, but are not limited to:

- S1000D - Data module scope as related to maintenance.
- S2000M - identification and availability of parts.
- S4000P - two main outputs resulting from significant systems, structure and zonal analysis plus the interval requirements.
    - Preventive Maintenance Task Requirements with Intervals (PMTRI), which are determined by performing:
        - System analysis provides the affected system and the requirements to maintenance task types based on applicability, effects on safety, integrity of law/environment and operation/mission and the economy. The task types are servicing, operational test/simple inspection, functional test, restoration/overhaul and Time Change Item (TCI).
        - Structural analysis provides the required type of maintenance. Environmental Deterioration (ED) analysis provides preventive maintenance task types for corrosion prevention and contributing factors for corrosion control. Accidental Damage (AD) analysis provides damage information for metallic, non-metallic and composite materials.
        - Zonal analysis provides accessibility and zonal relevant data, such as adjoining zones and dimensions.
    - Preventive Maintenance Task Requirement for special Events (PMTRE), which are determined by performing:
        - Analysis of previous analyses that identifies changes to previous PMTRI caused by previously unforeseen impacts of events.
        - New PMTRI that minimize or avoid impacts of such events.
- S5000F - in-service feedback related to maintenance. Likely inputs include reliability, availability, maintainability, capability, testability, maintenance analysis, safety data, life cycle cost data and obsolescence data.
- S6000T - information on the in-service phase related to human factors including anthropometric, ergonomic and environmental aspects.
- SX000i - Program-level information, including contracts and contract clauses, locations, planning, etc.

S3000X will be available for download at www.s3000l.org.

S4000X is a specification planned for initial internal release Quarter 2, 2019 and will describe the S4000P input requirements related to preventive maintenance. S4000P analysis is, to a large extent dependent on information that is sourced from outside the S-Series and so S4000X will also include these. Likely inputs include, but are not limited to:

- External sources - Engineering and supplier data, Reliability, Maintainability, Testability and Supportability analysis results, customer requests and other inputs.
- S1000D - Product breakdown structure from the SNS to identify gaps and/or conflicts with the Product Breakdown Element Identifiers (BEI) structure from S3000L. Inputs to the ISMO process include the applicability of scheduled preventive maintenance tasks and task supplements documented in the Product technical publications, and customer deviations. Inputs related to PMTRE, such as in-service experience of the impacts of special events and

recommendations for documenting preventive maintenance tasks.

- S2000M - None.
- S3000L - BEI information. The PMTRI development review and optimization inputs include BEIs and revisions, in-service impact rating, new and/or better knowledge from Maintenance Task Analysis and requested and/or recommended design changes. The PMTRE development, review and optimization inputs include the applicability of scheduled preventive maintenance tasks being performed and the potential effect on existing scheduled maintenance tasks.
- S5000F - Collection, quality evaluation, completion, combination and delivery of in-service feedback data into the ISMO analysis and follow up processes. Likely inputs include but are not limited to Product configuration data, built-standard data, life cycle monitoring data, execution of maintenance tasks etc. Feedback to the ISMO analysis process for scheduled inspections or functional test tasks, replacements of equipment/item, scheduled overhauls, and zonal inspections. Inputs for reviews of PMTRE include completeness and correct selection of PMTRI or sets of PMTRI applied after the occurrence of an expected special event.
- S6000T - None.
- SX000i - Program-level information, including contracts and contract clauses, locations, planning, etc.

S4000X will be available for download at www.s4000p.org.

S5000X - there are no plans for an S5000X.

S6000X - is a planned specification that will describe the input requirements for the analysis, design and development phases. Likely inputs include, but are not limited to:

- S1000D - Data module coding using specific learn and learn event codes.
- S2000M - information on things used in a maintenance task such as Shelf Life Code and Shelf Life Action Code.
- S3000L - Task and subtask requirements, BEI, task narrative, task conditions, task frequency, etc.
- S4000P - none
- S5000F - in-service feedback related to training such as current personnel skills, management of licenses, effectivity of training, etc.
- SX000i - Program-level information, including contracts and contract clauses, locations, planning, etc.

S6000X will be available for download at www.s6000t.org.

I WOULD LIKE TO THANK THE SPECIFICATION'S STEERING COMMITTEE CHAIRPERSONS FOR THEIR INPUT INTO THIS ARTICLE.

THESE CHAIRPERSONS ARE FROM THE FOLLOWING COMPANIES:

- **AIRBUS DEFENCE AND SPACE (GERMANY & SPAIN)**
- **BOEING (US)**
- **ISSELNORD (ITALY)**
- **SAAB (SWEDEN)**

O'NEIL IS PLANNING TO PROVIDE THE REQUIRED RESOURCES TO STAFF THE EDITING AND PUBLISHING OF ALL THE INTERFACE SPECIFICATIONS OF THE S-SERIES

TRAINING IN TECHNICAL COMMUNICATION

The aerospace, defence and space technical communication ***trade*** is facing a deep and real crises, a skills crises!

At TDW, along with our clients, friends and industry experts, have identified that there is a significant shortage of those entering the technical communication domain within our sector. This problem will only increase as the more seasoned communication veterans retire, leaving a void behind them.

A MAJOR CAUSE

A major cause for this is the lack of know-how, appreciation and skills recognition in career development paths available to technical communicators in our domain.

This is why at TDW over the last four years we have been developing what we believe to be the most comprehensive syllabus for technical communication in the aerospace, defence and space domains.

A syllabus that looks at everything from the role of technical information today and where the discipline and role of technical information is going.

A RECOGNITION PATH

Working with clients world-wide a common question is one of skills recognition, a global issue is that there is not one source of a common skills database or certification for those wishing to pursue and demonstrate capability within aerospace, defence and space technical communication.

This is where TDW has stepped in, not only are we passionate about this discipline, we believe there should be a greater appreciation of those with the relevant skills in our markets.

THE COURSE

A full online video-lead course designed to fit in with heavy and tight work schedules, full of short sharp lessons to aid the learning process, supported with examples and quiz sessions to demonstrate understanding.

WHAT YOU GET

At the end of the course all students are issued with a TDW certificate that lists the syllabus that was completed and a method of demonstration of your acquired know-how and skills.

CONTINUOUS IMPROVEMENT?

The field of technical communication is a rapidly changing and fluid landscape, we have recognised this at TDW and will update the course regularly to keep pace with technology and domain advances and changes.

Learn more:
www.techcommtraining.com

SOME TOPICS COVERED

The Now

The role of technical communication, technical documentation and the types of content that is produced in our domain. We look at the functions of a technical document, the major components and the processes used to collate, combine and produce a technical manual.

The Developing

What are the current trends in technical documentation, how is technical documentation being used as a competetive advantage? How is current technology being used to drive up customer satisfaction and engagement? All will be covered in this section of the course.

The Future

The rapid growth of innovation adoption, big data, IoT, Block Chain will all affect technical documentation and the technical communicator - in these sessions we will look at how we need to be developing our skills to keep pace with these developments

www.techcommtraining.com

TECHNICAL
COMMUNICATION TRAINING

The TDW Magazine™

Technical Documentation World Limited trading as Tech Data World, A fully registered limited company within the United Kingdom.

COPYRIGHT

TRADEMARKS AND INTELLECTUAL PROPERTY RIGHTS (IPR)

OPINION AND COMMENT

Any opinion and comment within this publications is strictly that of the author and not necessarily the opinion of Technical Documentation World Limited.

COMPANY INFORMATION

Technical documentation world is a Limited company registered in the United Kingdom REG: 07304547. VAT Reg: GB 984842665

CONTACT US

POSTAL ADDRESS:

Tech Data World
St Johns House
St Johns Street
Chichester
West Sussex
PO19 1UH
United Kingdom

CALL US:

+44 (0) 023 92 160 776

EMAIL US:

memberservices@techdataworld.com

Technical Documentation World is a full member of the UKCeB an ADS organisation within the United Kingdom.

We may from time to time change the advertised content of a magazine to accommodate late submissions.

ASK MIKE

Mike Ingledew has been supporting organisations achieve tech data success for over 20 years - here he answers some questions that came in to us at TDW.

Is there such a thing as an IETP that is none-S1000D?

Um, YES! S1000D does not have the monopoly of technical information production and deployment. In fact your question is the same question we get in to us here at TDW all the time.

For many the idea of having to use something like S1000D is just too much, often met with deep resistance and can lead to frustration on 'well what then?'. The first thing I would say, is do not believe for a moment that going down the route of DITA will be cheap and affordable, depending on your infrastructure, the investment can be as big as investing in something like S1000D!

What you are after is an affordable way to create sensible, XML, structures so you can deploy an interactive manual with your product - the great news - yes there are commercial off the shelf tools that will help you do this EASILY and cost-effectively - take a look at TD-iQ we show you exactly how!

I want to have my team do your Tech Comm Training - is there a qualification?

A very good question and one I have answered a couple of times now on Thursday Thoughts - the short answer is - there is no formal qualification, but there IS a TDW recognition path, here's why!

When I decided to fill this gap in the market I chatted with numerous industry bodies and organisations and the reality was that they had no idea what was talking about, they had no idea about technical information in aerospace, defence or space! I was actually educating THEM and this was eternally frustrating. I chatted with a number of trusted industry experts and the consensus was to 'do our own thing'. That is why we dropped the discussions with these certification bodies and decided to develop our own recognition path, something we can develop with industry, learners and employers.

TECHNICAL COMMUNICATION TRAINING

So a rather long winded answer to your fantastic question!

SEND YOUR QUESTIONS TO:
memberservices@techdataworld.com

SEARCH: MICHAEL INGLEDEW TDW

Michael INGLEDEW

Do you do sales training?

The funny thing is that I get asked to do this all the time, by organisations and by many individuals. Behind the scenes I have been working on a 'Michael ingledew' service and website to do just this.

We have launched the full service already to some close clients and have started producing blogs and vLogs specifically for this involved in sales and marketing. This could be anyone from those selling software or service solutions through to those trying to grow their departments, capability or business!

The website will be formally launched to the wider public some time in July/August and I will be sure to announce it via the TDW channels, so please make sure you are following the TDW news feeds to get the information.

I am super excited by it as I believe the soft skills I have developed over the years will benefit almost all of those wishing to grow their revenues and capabilities - will there be a cost? Of course! My mentor once said to me, "there are no free rides Mike.. ***none***" - but I hope you will see the value and like what I am doing, we are truly excited about it, or as my US friends say "pumped"!

WANT MORE FROM TDW? MAKE SURE YOU JOIN US EACH WEEK FOR THURSDAY THOUGHTS WHERE WE GO OVER THE LATEST INDUSTRY NEWS AND INFORMATION FROM THE WORLD OF TECH DATA!.

NEWS - UPDATES - MEMBERS UPDATES - THOUGHTS - QUESTIONS & ANSWERS - LIVE - ONLINE

FIND YOUR PERFECT SOFTWARE AND SERVICE PARTNER

TDW DIRECTORY

ASN Ingenieursgesellschaft mbH & Co. KG

WWW.ASN-GMBH.COM

Your specialist in technical documentation

We at ASN Ingenieursgesellschaft mbH and Co. KG are service providers in technical documentation for the aircraft industry, the sector of renewable energies, ship building, mechanical engineering and military documentation. We base our services on the international specifications of ATA, ASD, ANSI and DIN. Located in Hamburg a city with aviation-, ship building- and energy production-industry, we rely on our qualified staff and our long term experience. Our customers are international operating companies.

We produce description and operation manuals, maintenance manuals as well as material and spare parts documentation. Text in English or German including the required technical illustration. New documentation as well as updates are produced to the requirements of ATA iSpec 2200 (ATA 100), ATA 104, ATA 2000, ASD S1000D, S2000M and ASD-STE100 Simplified Technical English, TDv, MIL-Spec or BD007, RDS-PP for renewable energy products, 2006/42/EG machine instructions or DIN EN ISO 14121, Ril 900.503, Ril 900.504, Ril 984 26, Ril 915 02, 2006/861/ EG (railway TSI), 98/ 37/ EG, VDI 4500, DIN EN 62079, ISO 3864, ANSI Z535 or others.

Due to our long term experiences in the sector of technical documentation production we support our customers in tailored trainings and workshops.

Technical Authoring, Technical Authoring Training, Illustration Services, ASD S1000D & ATA iSpec 2200

BMT

BMT is a leading international design, engineering, science and risk management consultancy; we are an Employee Benefit Trust (EBT), which guarantees our independence to deliver without any potential conflict of interest from external stakeholders. Our Markets include Vessel Design, Ports and Terminals, Oil and Gas, Water and Environment, Buildings Infrastructure and Rail and Defence.

To support these markets BMT has a comprehensive Technical Data and Documentation capability delivered by a team that has all the required skills, experience, software applications and templates required to produce technical documentation to industry and military publication standards, including ISO 8879, DEFSTAN 02-40, DEFSTAN 00-600, ASD AIA S1000D (International Standard for Technical Publications), Joint Service Publications (JSP) 181 to 188, JSP(D) 543, AESP 0100-P-005-010 and AESP 0100-P-011-013. Technical Authoring is further supported by our Draughtsmen and illustrators to create 2D/3D illustrations, animations, photographs and interactive illustrations as required.

We use our 6 stage through life system of 'intelligent authoring' covering Definition, Authoring, illustration, Compilation, Delivery and Maintenance; this prevents misinterpretation and eliminates ambiguous information for the effective and efficient generation and maintenance of technical publications. BMT ensures that the information contained in documentation is accurate, concise, consistent, unambiguous and complete.

Technical Authoring, Illustrations, CSDB, IETPs,ILS

Aspire Consulting Ltd

WWW.ASPIRECL.COM

Aspire has been providing niche System Engineering services for over two decades. We specialise in the optimisation of complex systems and processes, we are experts in the application of Supportability Engineering techniques: Integrated Logistics Support (ILS) & Logistic Support Analysis (LSA); Maintenance Optimisation, including Reliability Centred Maintenance (RCM) analysis and MSG-3 studies, Modelling & Analytics, and Advanced Technical Publications.

Aspire provides expert training in these subjects, to date we have trained over 2,000 people in 10 countries around the world.

In addition to our Supportability Engineering heritage, our brands provide IT security and support, specialised software development and innovative applications of technology, utilising, amongst others, mobile Apps, and the Internet of Things.

Aspîre - Analyse. Optimise. Deliver.

Support, ILS, LSA, RCM, Modelling

Capgemini Plc.

WWW.CAPGEMINI.COM/P&ES

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

With more than 190,000 people, Capgemini is present in over 40 countries and celebrates its 50th Anniversary year in 2017. A global leader in consulting, technology and outsourcing services, the Group reported 2016 global revenues of EUR 12.5 billion. Together with its clients, Capgemini creates and delivers business, technology and digital solutions that fi t their needs, enabling them to achieve innovation and competitiveness. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Capgemini's Product and Engineering Services brings together deep domain and technology expertise for both the digital and the physical world of products. A recognized leader, with over 10,000 engineers across the globe and 30+ years of experience, P&ES offers a highly differentiated, comprehensive portfolio of services and solutions to meet the needs of digital engineering in a connected world.

Capgemini's Digital Technical Content Management (DTCM) is an evolution for technical publications by bringing interactivity into consumption of technical data. DTCM enables simplification and visualization for product use and serviceability. It initiates digital transformation through incorporation of interactive 3D, AR, VR and multi-platform mobile interfaces.

Technical Publications, AR/ VR Data, Digital, MRO Documentation, Aerospace Engineering

CDS Defence Support

WWW.CDSDS.UK

CDS Defence Support is an award winning technical consultancy providing high quality, innovative services to clients in the global Defence sector. With over 50 years of experience and an absolute commitment to quality the company has a well-deserved reputation for providing its clients with complete peace of mind. CDS DS work directly with the UK MoD to ensure the safe and effective use of its equipment portfolio and also help to shape the development of future leadership in the armed forces via our training and education services.

CDS DS comprehensive range of services includes Technical Documentation, Integrated Logistics Support (ILS), Training, Safety Management, Information Assurance (IA) and Programme Management. Operating from government-approved secure premises, our team of ex-military engineers is experienced at meeting tough deadlines on urgent operational requirements as well as long-term projects.

We pride ourselves on working effectively with our defence sector partners to ensure the best possible solution for military end users. We embrace the Whole Force Approach and are delighted to be signatories to the Armed Forces Covenant and recipients of the Defence Employers Recognition Silver Award for our support to Armed Forces reservists in the company.

CDS DS is conversant with all recognised military and commercial standards.

Technical Documentation, Technical Illustrations, Authoring Services, Integrated Logistics Support, AESP

Etteplan

WWW.ETTEPLAN.COM

WWW.SIMPLIFIEDENGLISH.COM

Our services cover engineering, technical documentation, embedded systems and IoT solutions. Our customers are the world's leading companies in the manufacturing industry. Our services are geared to improve the competitiveness of our customers' products and engineering processes throughout the product life cycle. The results of Etteplan's innovative engineering can be seen in numerous industrial solutions and everyday products.

Authoring services, illustration services, STE checker

DCS Sonovision UK Ltd

WWW.DCS-SONOVISION.CO.UK

DCS Sonovision UK Ltd provides Technical Publications, Computer Based Training, Integrated Logistic Support (ILS), Graphic Design, Animation, Marketing and Translation Services to the Defence (Land, Sea and Air), Aerospace, Energy (Nuclear, Oil and Gas), Marine, Commercial Engineering, Electronics and Consumer Product industries.

DCS Sonovision UK have the proven ability in the preparation of a full range of Technical Publications, from complete system manuals to individual handbooks for both large and small projects. All phases of the production life-cycle, from source data analysis through to preparation and delivery are expertly handled. Our in-house technical writers/authors and illustrators combine to provide industry specific expertise to develop any type of printed or online documentation, including but not limited to:

- Data Modules (S1000D), Army Equipment Support Publications (AESP), Aircraft Publications (AP), Book of Reference (BR), Aircraft Maintenance Manuals (AMM), Rotorcraft Maintenance Manuals (RMM), Structural Repair Manuals (SRM), Component Maintenance Manuals (CMM), Illustrated Parts Catalogues (IPC), Service Bulletins (SB), Aircraft Schematic Drawings (ASD), Flight Manuals (FM), Computer Based Training (CBT)

Technical Publications, Technical Authoring, Technical Illustrating, Computer Based Training, S1000D

Flatirons Jouve

WWW.FLATIRONSJOUVE.COM

Flatirons Jouve™ (www.flatironsjouve.com) provides solutions and services that organizations need in order to harness their most complex data, optimize their business processes, and create compelling digital experiences. A longtime leader in content driven markets like aviation and publishing, Flatirons Jouve™ also provides leading-edge innovations to meet knowledge delivery requirements in the manufacturing, banking, insurance, education and public sector.

Flatirons Jouve™ counts 2,500 employees and operates worldwide in 15 countries from offices in North America, Europe, Asia, and Africa.

S1000D, CSDB, XML, BREX, BPM

GPSL Limited

WWW.GPSL.CO

GPSL provides, develops and delivers applications and software to solve complex business challenges in various environments.

As a global PTC channel and service partner, we provide implementation, custom configuration and integration services for customers across most industry sectors. Our team includes some of the most experienced leaders, project specialists and developers in the world. Whether you are looking to address your product development challenges, expand your CAD capabilities, manage your product content from concept to service, or automate your content publishing environment, we simply find the best route to the right solution.

The technology we install or customized solution we develop is tailored to you. The journey is different, but the end result is the same: a solution that works.

Arbortext, Creo, XML Content Management Solutions, Publishing Solutions

JANA, Inc.

WWW.JANACORP.COM

JANA is a technical documentation services company with 45 years of experience in providing best-in-class technical data authoring and management services. JANA's service and software solutions are employed by several of the world's largest and most successful companies.

JANA's core business is the authoring, illustrating, publishing and delivery of technical publications. Regardless of the industry, JANA's clients know that they can rely on our broad base of technical knowledge and experience to deliver on the promise of a final delivery which is highly accurate and on-time.

As industries, trends and methods continue to evolve, JANA stands firm in the belief that the basic requirements for a successful data management strategy - reliable, scalable services supported by well-established, repeatable processes - have not changed. JANA's clients will always be able to rely on the quality of our people and the quality of our processes to provide the right solutions, right now.

Authoring Services, Illustration Services, S1000D, ATA iSpec 2200, Documentation Software Consulting

HiCo-ICS GmbH

WWW.HICO.COM

Since 1997, HICO has established economically attractive, efficient and sustainable software solutions as well as services for "Integrated Product Support (IPS)" in various industries.

HICO IS A FULL-LINE SUPPLIER FOR INTEGRATED PRODUCT SUPPORT (IPS). The focus is the whole product life cycle and the service life cycle of our customer's complex technical products and systems.

HICO offers a full spectrum of IT-solutions and services from a single source – from engineering-support and -integration in the IPS-process, development of maintenance programs, material supply concepts to innovative solutions for technical documentation and technical communication.

HICO solutions are based on globally recognized specifications and international standards (such as ASD/AIA/ATA S1000D®, ATA iSpec 2200 or iETD-ExportStandard) as part of the ASD Suite of ILS-specifications and standards from the ATA e-Business Program.

CSDB, IPS System Integration, Technical Authoring Services, 2D/3D Illustration Services,

Lionbridge

WWW.LIONBRIDGE.COM/GCE

Lionbridge International operates as an integrated content development, translation and training solutions organisation within the Lionbridge Technologies, Inc. group of companies that provides a comprehensive range of technical documentation, language translation, ILS, design drafting and training/learning services.

For over 40 years, Lionbridge has provided technical documentation services to leading companies in the Aerospace, Defence, Marine, IT/Telecoms, Transportation, Energy & Power, and Automotive industries. We possess the expertise and dedication to customer service required to provide exemplary technical illustration and documentation, content development, engineering and data services. Our content development teams comprise of over 1,000 highly skilled technical authors, technical illustrators, engineers, data analysts, and data coordinators. These technical resources are located around the globe, including European locations in the UK (Derby, Coventry and Bristol), Poland, Finland, and France as well as international locations in the US and India.

Technical Authoring, Illustration Services, Training, Integrated Logistics Support, Documentation Services

JOIN TDW - WWW.TECHDATAWORLD.COM

TechDataDirect

O'Neil & Associates, Inc.

WWW.ONEIL.COM

For 70 years, O'Neil & Associates (ONEIL) has specialized in creating product support documentation to serve the aerospace, military, and industrial markets. Our clients often depend on us to enhance their processes; infuse new technology; or create entirely new product information support systems, eLearning tools, and Interactive Electronic Technical Manuals (IETMs). Each year, we produce tens of thousands of graphics, animations, models, and diagrams.

Our clients depend on us to: Author support materials that take advantage of new technologies, Create a cost-effective IETM, Develop eLearning tools and programs, Comply with S1000D™ standards, Create database-driven authoring systems for serial-number-specific manuals

The latter involves implementing a content management system to output a technical manual covering a user's particular serial-numbered piece of equipment, instead of a range of models. These custom manuals can be provided in 40 different languages and preprinted and shipped with the product. Often, the manuals are delivered via the web.

We serve customers worldwide from our corporate headquarters located in Miamisburg, Ohio (just south of Dayton), and several other locations around the world. We offer our customers an excellent source of capacity, expertise, technology, and quality.

Technical Writing, Technical Illustrating, Content Management Systems, S1000D, ATA iSpec2200

Raytheon EAGLE

WWW.RAYTHEONEAGLE.COM

The Raytheon EAGLE team has produced logistics support software for over two decades. The EAGLE Logistics Support Analysis Record (LSAR) toolkit is used by thousands of analysts around the world to develop logistics data to the following specifications; MIL-STD-1388-2B, ASD S3000L, DEF-STN-0060 and GEIA-0007.

EAGLE Publishing System is an authoring tool and common source database (CSDB) used to produce and manage ASD S1000D data for interactive electronic technical manuals. EPS is fast, powerful, intuitive and robust and incorporates features for program management and data development, on time at minimal cost. Easy to use productivity tools include an integrated editor with a real-time preview. Data modules can be linked to EAGLE LSAR records to populate procedural, fault, maintenance schedules and illustrated parts technical data directly from engineering data. Authoring changes made in EPS flow back to the LSAR. Authors can preview the data with a choice of integrated IETM viewers.

EAGLE Web can give customers review access to the LSAR and technical publications data with commenting capabilities using nothing more than a browser. The EAGLE Maintenance Management Information System (MMIS) is a thin-client tool used to support fielded systems with asset tracking, configuration management, FRACAS, work-flow and more.

CSDB, EAGLE Publishing System, EAGLE Editor, EAGLE Logistics Toolkit, LSAR

RTP-UK Ltd

WWW.RHEINMETALL-TP.COM

Rheinmetall Technical Publications UK (RTP) LTD is a 100% subsidiary of RTP GmbH, part of Rheinmetall AG.
RTP are based in Bristol and provide Integrated Logistic Support (ILS), Technical Documentation and Training Solutions. RTP have been providing these services for 40 years to both the defence and commercial sectors.
ILS - ILS Service for military and civil systems and equipment, Safety Case, System development support based on reliability and maintainability studies, Life Cycle Cost (LCC) calculation

Technical Documentation: RTP offers its customers vast experience in both the military and civil domains. Its authors, engineers and specialists operate in a military and civil environment, allowing an interdisciplinary approach to Land, Sea and Airforce programs. With over 300 staff, operating in an international environment, together with additional low cost off-shore production facilities, customers can benefit from the company's specialist knowledge in multinational programs.

Training Solutions: RTP is capable of developing and delivering: Analysis of Training Needs (TNA to JSP822 if required), Generation of Training Material to DSAT quality standards:, e-Learning Material, Electronic Technical Documentation, Modeling & Simulation, Computer/Web Based Training (CBT/WBT), CAI for Classrooms, Learning Management Systems (LMS/LCMS), Provision of Training personnel, SCORM Compliant

Authoring, Illustrating, ILS, Safety, Training

SDL plc.

WWW.SDL.COM

SDL is the global innovator in language translation technology, services and content management, including technical content creation, management and delivery solutions for the aerospace and defence industry. For more than 20 years, SDL has transformed business results by enabling Eighteen of the top 20 aerospace and defence leaders to manage and publish technical documentation using complex industry standards such as S1000D and iSpec 2200 to deliver accurate, up-to-date content.

S1000D, authoring, publishing, delivery, technical documentation

Semcon Product Information UK

WWW.SEMCON.COM

Semcon is an international technology company that develops products and product information based on human needs and behaviours. We strengthen our customers' competitiveness by always starting from the end user, because the person who knows most about the user's needs creates the best products and the clearest benefits to humans. With more than 2,000 specialised employees, Semcon has the ability to take care of the entire product development cycle, from strategy and technology development to design and product information.

Semcon Group has operations in more than 30 locations in Sweden, Germany, UK, Brazil, Hungary, India, China and Norway. Our international presence means that we help our clients globally by utilising networks of specialist resources from different regions of the world.

Semcon has extensive experience in working with companies operating in challenging environments, with technically complex products. We are used to describing complex products in a simple manner. Semcon's product information offer covers the entire information development cycle – from strategy, information design, development and production to distribution. The information is made available in an appropriate manner for the user – which today means more frequent distribution via digital solutions, such as animations, mobile apps, virtual and augmented reality.

Authoring Services, Illustration Services, Augmented Reality, Digital Distribution, Content Management System

WebX Systems Ltd.

WWW.WEBXSYSTEMS.COM

WebX systems develops and supplies a range of high-end software products for the defence and aerospace industries. WebX's flagship products include UltraCSDB™, UltraXML™, UltraAuthor™, UltraPortal™ and UltraIETP™ address the needs of high-end global TechPubs users. WebX's years of experience in developing and supplying content lifecycle management solutions to the industry allows it to provide quality project management and consulting services.

CSDB, S1000D, ATA iSpec, LSAR, IPC

Technodata

WWW.TECHNO-DATA.DE OR WWW.IETP-X.COM

Technodata GmbH founded in 1985 and has since then operated as one of Europe´s leading service providers of Technical Publications as a competent, economic and reliable partner in the creation of Technical Documentation for aircrafts, helicopters, aircraft systems and for the equipment provisioning and aviation industries in the military and civilian aviation sectors.

Our team consists of specialists with wide-range and long-time experience in applicable civil and military programs including the related standards such as S1000D / S2000M, ATA iSpec2200, SBs, NSGs, GDs, Style Guides, manufacturer regulations & requirements etc. and has all the capabilities necessary to meet contractual requirements and any kind of specifications at reasonable cost and on time.

Our core competence concerning technical publications in the equipment provisioning and aviation industry ranges from small size aircraft over helicopters to airliners and military jets.

In addition to the a.m. areas of Tech Pubs we also provide CSDB- and IETP-X Browser software solutions as well as support in the areas of Technical Trainings / Aircraft System Trainings, illustration production and support, Service Bulletins, LSA, MSG3, LORA, ATPs, TEMs, Engineering Dispositions and MTAs (Maintenance Task Analysis).

Authoring Services, S1000D, ATA iSpec2200, Illustration Services, CSDB, IETP, Training

YOUR COMPANY NOT HERE?

EMAIL: MEMBERSERVICES@TECHDATAWORLD.COM

JOIN TDW - WWW.TECHDATAWORLD.COM

TechDataDirect

TechDataDirect

FINDING YOUR PERFECT PARTNER IN TECH DATA

Finding your perfect tech data supplier just got a whole lot easier