

SOFTWARE DATA COLLECTION

Defence Form 143

SCAF

November 2008



MINISTRY OF DEFENCE

Supplier Engagement Team

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DEFFORM 143

What is it?

- **A Software Development Questionnaire. To be included in all MOD project Invitations to Tender (ITT's) involving software development.**
- **In its current general form it is a 10 page document that has been in use since the 1980's with little change.**
- **Currently it is the only MOD mandated software questionnaire in use at the moment.**



Contents Covered

What's in it?

- SOFTWARE DEVELOPMENT SCOPE
- DEVELOPMENT ENVIRONMENT
- SOFTWARE SYSTEM CHARACTERISTICS
- SOFTWARE DEVELOPMENT PRACTICES
- SOFTWARE DEVELOPMENT STAFF EXPERIENCE
- SOFTWARE DEVELOPMENT TIME AND SIZE
- SUPPLIER'S PREVIOUS PROJECTS



Purpose

Who completes it?

- **The interested or competing party, who is normally a defence contractor**

Why do we need it?

- **To gain confidence in what has been proposed**
- **Demonstrates the proposal has been thought about**
 - **MOD project de-risking (Entryism)**
 - **Allows SF to capture industrial trends**



DEFFORM 143

How is it used?

The principal uses are

- To produce early stream Rough Order Magnitude estimates
- The collection of past project cost driver data
- To develop a more detailed point of view of the software project
- To spot the serious players from the rest



Need to upgrade

The DEFFORM 143 in its current form

- Doesn't meet the needs of forecasting today. Some of the main problems are:
 - The size separation of New, Adapted, Auto-Generated, Re-Used was not requested.
 - Associating languages to the size separations.
 - Not enough attention paid to the effort involved in the test suite preparation (Test tool changes, Re-Writing, Auto-Generating, Re-Using & Writing of scripts).
 - Staff build up not asked for.
 - COTS was never considered and given the attention they need
 - Risk not acknowledged.
 - Uncertainty not even thought about
 - Mandated completion of questionnaires Pre and Post acquisition.

Some thing had to be done!



Need to upgrade

The DEFFORM 143 in its new form & the principle improvements:

- Address all aforementioned in the previous slide – COTS, Risk, Test Environment, code size separation etc
- No longer paper based & purposely completed in Excel
- Support estimation is more intrusive and includes key drivers found in other studies – SSCM
- Attempts to make far better use of a completed previous projects section



Unnecessarily adding to the bureaucracy!

Is there a real need to complete the Software Questionnaire?



www.european-agenda.com

Adding to the bureaucracy!

A more common train of thought

- **Forecasting at the hardware system level is sufficient – Isn't it?**
- **In comparison to everything else involved in the system, software is minimal - right?**



More US facts

- **Software sales (2006) accounted for \$180 Bn**
- **Software errors cost U.S. economy \$59.5 Bn per year**
- **Boeing spent roughly \$800M on software for the 777,**
- **Aerospace provides ~ \$900 Bn economic activity and is over 15% US GDP, with 15+ million high quality jobs**

National Institute of Standards Technology (NIST) 2007



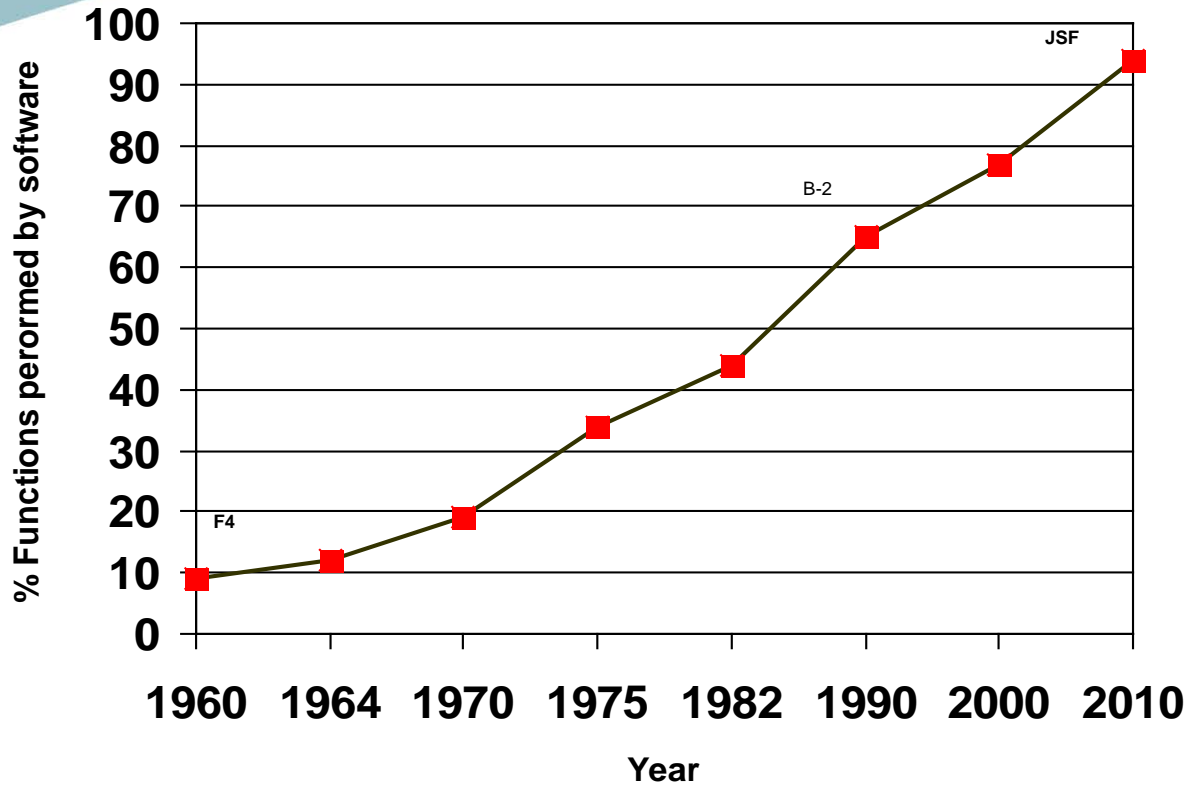
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More US facts

Military Aircraft Dependence (US)



DoD Defence Science task Force on Defence Software, November 2000



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Are we getting the picture now?

Completion of the Software Questionnaire is important



Software

Where has all the DATA gone?

There exists a disconnect – Completed DEFFORM143 returned within the ITT's document pack do not make their way to SET-SF (PFG) team.

- Project software assessment ?



Thank you

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