

Joint Agile Software Innovation (JASI) Cost IPT

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JASI Cost IPT

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- Collaboration between NSA, DHS and NGA Cost Estimation Groups.
- Explore the use of Simple Function Points in the estimation of Agile and DevOPS projects
- Based on usage at NSA since 2011
- Two working groups
 - One focused on estimation with Simple Function Points
 - One focused on data collection and measurement with Simple Function Points

Software Size Estimation & Measurement

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Source Lines of Code (SLOC)

- Difficult for now SW engineers to estimate source code early in a
- Only becomes really viable during the design phase
- Complications
 - DBMS
 - COTS, FOSS and GOTS
 - Difficult to link code back to requirements
 - Different tools different code count numbers
- Can be measured on a completed project
- **Code metrics not meaningful to developers only used by cost estimators**
- **Evil.....**

Functional Size

- Can be estimated early in the program
- Easy to link to requirements
- Can be used to estimate code size
- Can be used to estimate effort and cost per requirement
- **Function Point metrics not meaningful to anyone who is not a cost estimator**

Simple Function Points

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- ▶ Simple Function Points (SFP)
- ▶ SFP counts two components
 - ▶ Elementary Process: which is defined as the smallest level of activity that is meaningful to the user
 - ▶ Logical Data Groups: A user identified group of data or control information maintained by an application
 - ▶ www.sifpa.org/en/index.htm for more information
- ▶ Since we are counting requirements it is not possible to perform an IFPUG function point count.
- ▶ User group meetings are in Italy

Simple Function Point Math

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- ▶ SFP took the ISBG data and analyzed it.
 - ▶ Added all the data for transactions up
 - ▶ Total Function Points and Total number of transactions
 - ▶ Transactions (Input, Output and Inquiries)
 - ▶ Total Function Points/Count of all transaction types = 4.6
 - ▶ Repeated analysis for Internal Logical Files and External Interface Files
 - ▶ Total Function Points/Count of all File types = 7

Verbs...soon to be followed by Nouns

	Create	Update	Delete	Read	Report	Save	
Keyword	EI (Add)	EI (Chan)	EI (Dele)	EQ (Vie)	EO (Rep)	ILF (Sav)	EIF (Int)
Accept	1			1		1	
Add	1			1		1	
Allocation	1					1	
Allow	1						
Apportion	1					1	
Approve	1					1	
Assign	1					1	
Associate	1					1	
Create	1			1		1	
Define	1						
Enter	1			1		1	
Error	1					1	
Import	1			1		1	0
Interface	1	1	1	1	1	1	0
INPUT	1			1		1	0
Issue	1						
Link	1			1		1	
Load	1					1	
Log	1			1		1	
Map	1					1	
Manage	1			1		1	
Prioritize	1						

Anyone interested in Collaboration?

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- ▶ Next IPT meeting is next week at DHS downtown DC L'Enfant Plaza Sept 26..right Kammy?
- ▶ Send me an email and I will forward to DHS to add you to the list of invitees
- ▶ david.p.seaver.civ@mail.mil