

SiLK and the Virtual **Training Environment**

George Warnagiris (Presenter: Markus De Shon) **FloCon 2010**



Carnegie Mellon

Goals

Enable remote training delivery Modularize for maintainability Standardize across target audiences Transition as widely as possible Scale best-practice training to all students



The Virtual Training Environment

Adobe Presenter-based

• Plays using standard Adobe Flash plugin

Slides

- Must be PowerPoint
- Audio (MP3)
- Video (if available)
- Transcription or script
- Virtual lab environment
 - VMware images
 - Virtual network
 - Reuse/enhance standard system images where possible



Lessons learned so far

Distributed module development grouped by common theme is possible

- Need project lead to keep organized
- Results can be of uneven quality
- Helps identify best training developers
- Permits rapid development/update
- Labs end up decoupled from lectures

Different target audiences require different data sets

Future efforts

Greater utilization of best trainer(s)

- Update to keep pace with software releases Additional tools
 - iSiLK
 - Visualization



Training access

VTE https://www.vte.cert.org/

SiLK course links http://tools.netsa.cert.org/





Software Engineering Institute | Carnegie Mellon. Virtual Training Environment

Home | Library | Training | About VTE | Get Access | Help

My Profile Course View About this Page Using SiLK for Network Traffic Analysis The list of topics and content items in Using SiLK for Network Traffic Analysis Description Description: this course are listed to the right. By clicking on the content item, you can Print Progress Report < Progress: (100%) retrieve information about and launch 3 Hours the class material. Duration: Course Certificate Instructor: Virtual Office Office Hours: Functions Support Forum: Access Forum -- User --Using SiLK for Network Traffic Analysis My VTE Details Introduction to Using SiLK My Profile My Courses Network Flow [C] Using Einstein for Network Traffic SiLK Beginning Flow Analysis [C] Analysis My Training History Basic Tools // rwfilter [C] Counting Tools: rwcount, rwstats, rwuniq [C] rwappend-rwsplit [C] 7 rwfileinfo-rwglob [C] rwcut and rwcat [C] 7 rwsort [C] Advanced Tools 7 Sets [C] Prefix Maps (pmaps) [C] Advanced SiLK Tools: Bags [C] Using Tuples with SiLK [C] 🛓 🦜 SiLK Summary

Software Engineering Institute | CarnegieMellon

CERT-NetSA - SiLK Training -CountingTools2

C Adobe Presenter

7	<u>A</u>		Lotaknorming			
Recycle Bin	Microsoft					
riocyclo bin	Baseline Sec					
6						
1 - E - V	2					
Email Client	NMa 🚰 silk@training932	2~				
	login as: silk	5				
-	silk010.0.1.9'	s password:				
G 🖕	Last login: Fr	i Apr 24 15:40:0	8 2009			
	[silk@training	1932 ~]\$				
Remote	Putt [silk@training	1932 ~]\$				
Desktop	Clier [silk@training932 ~] \$					
_	[silk0training	(932 ~]\$ rw				
	rwaddrcount	rwilleinio	rwpackchecker	rwsetcat		
	rwalliormats	rwillter	rwpmapbulla	rwsetintersect		
SFTP client	Terrwappend	rwflownach	rwpmapcac	rwsettool		
	rwhachuild	rwgeoin2ccman	rwreceiver	rwsetunion		
	rwbagcat	rwaroun	rwresolve	rwsort.		
	rwbagtool	rwquess	rwrtd2split	rwsplit		
	rwcat	rwidsquerv	rwscan	rwstats		
VNC Client, exe	rwcount	rwip2cc	rwscanquery	rwswapbytes		
	rwcut	rwmatch	rwsender	rwtotal		
100	rwdedupe	rwnetmask	rwset	rwtuc		
I 😴	rwfglob	rwp2yaf2silk	rwsetbuild	rwuniq		
Web Browser	[silk@training	1932 ~]\$ rw <mark>.</mark>				
Web browser						
- FA						
Winfingerprint						
27						
Scan Tools						
🛃 Start 🛛 🔞 🧶 🧐 👋 🔐 silk@training932:~						
Labi LAB: Sil K Training Lab Manual Time Demaining: 2:54 Extend I'm Dana L Destart Lab L Haln						
Lab: LAE	SILK Haining Lab I	<u>Manual</u> Time Ren	ianning: [2:34] <u>Exte</u>	nu in Done. Res	tart Lab neip	

NO WARRANTY

THIS MATERIAL OF CARNEGIE MELLON UNIVERSITY AND ITS SOFTWARE ENGINEERING INSTITUTE IS FURNISHED ON AN "AS-IS" BASIS. CARNEGIE MELLON UNIVERSITY MAKES NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, AS TO ANY MATTER INCLUDING, BUT NOT LIMITED TO, WARRANTY OF FITNESS FOR PURPOSE OR MERCHANTABILITY, EXCLUSIVITY, OR RESULTS OBTAINED FROM USE OF THE MATERIAL. CARNEGIE MELLON UNIVERSITY DOES NOT MAKE ANY WARRANTY OF ANY KIND WITH RESPECT TO FREEDOM FROM PATENT, TRADEMARK, OR COPYRIGHT INFRINGEMENT.

Use of any trademarks in this presentation is not intended in any way to infringe on the rights of the trademark holder.

This Presentation may be reproduced in its entirety, without modification, and freely distributed in written or electronic form without requesting formal permission. Permission is required for any other use. Requests for permission should be directed to the Software Engineering Institute at <u>permission@sei.cmu.edu</u>.

This work was created in the performance of Federal Government Contract Number FA8721-05-C-0003 with Carnegie Mellon University for the operation of the Software Engineering Institute, a federally funded research and development center. The Government of the United States has a royalty-free government-purpose license to use, duplicate, or disclose the work, in whole or in part and in any manner, and to have or permit others to do so, for government purposes pursuant to the copyright license under the clause at 252.227-7013.

