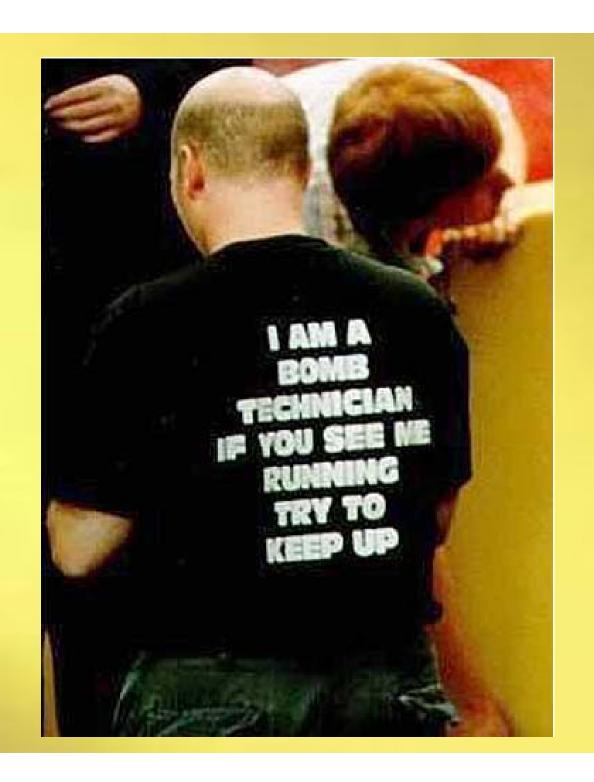
# Adapting Test Plans to Your Environment

SQuAD 2007 6th Annual Conference March 14th - 15th, 2007 PPA Center, Denver, Colorado

Presentation by Cordell Vail, cste csbs

What is a QA plan?

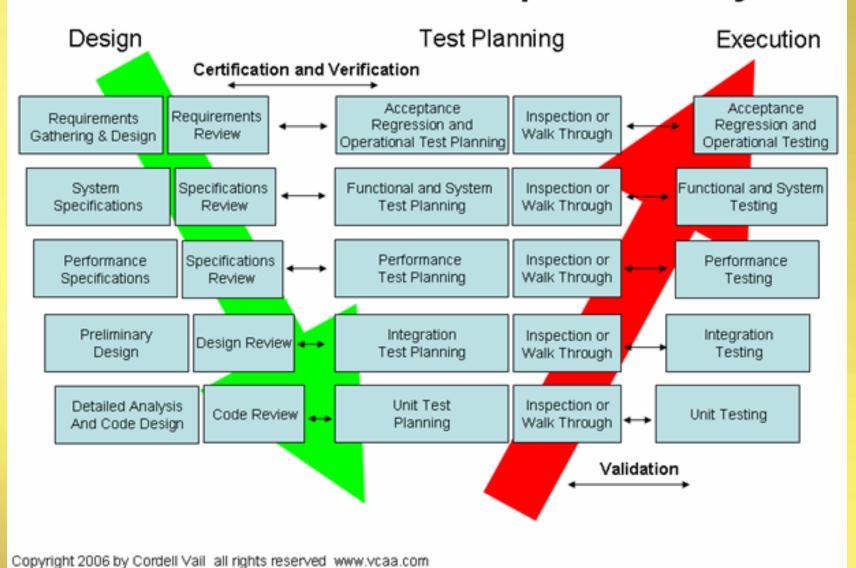
What is a test plan?



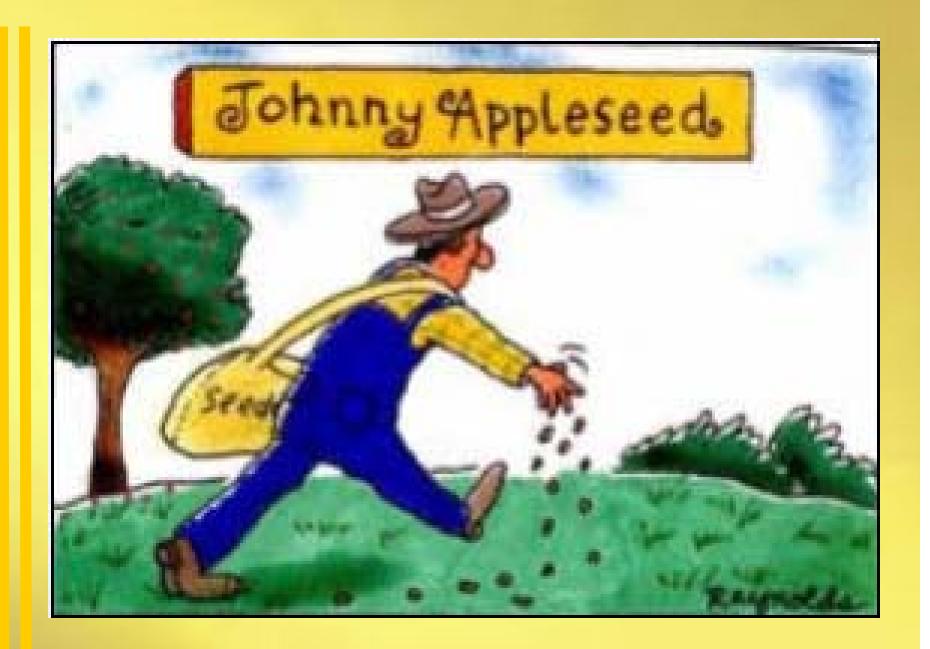
What is a test plan used for?

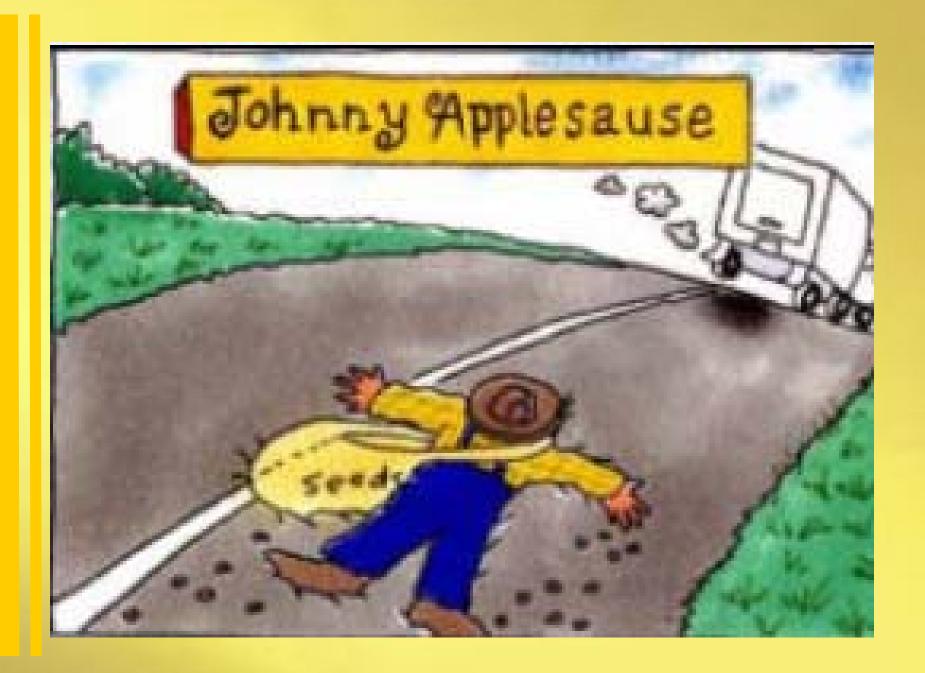


## V Model - Software Development Lifecycle



How do you use test plans where you work?





#### Remedy 86612 – DM for QTD/YTD Non-Wage and Excess Life amounts System Test Script

#### DESCRIPTION

The data from Legacy field 425 was not converted which caused the Fed taxable gross to be understated by the total amount in the field. A data manipulation is required to correct the QTD/YTD totals for the Fed Taxable gross wage.

#### TEST OBJECTIVE

- DM will add all the QTD Non-wage to the WesPac QTD Fed Taxable wages
- DM will add the Excess Life to the YTD Excess Life and YTD Fed Taxable wages
- The W2 Information statement reflects the correct <u>Box 1</u> dollars, i.e., includes the Non-Wage dollars
- The Fed Tax Gross on the QTD report shows the correct Federal Taxable Gross, i.e., includes the Non-Wage dollars

STEP	STEP DESCRIPTION	EXPECTED RESULTS	ISSUES /NOTES/ACTUAL RESULTS	Verified by/date
1.0	- Create BEFORE copies of the following: - HPAHSY-YTD-HIS - HPAHSF-FTD-HIS - HPAHDP-HIST-PAY  - Create the following QTD reports: - Quarterly Fed Tax Return - Quarter-to-date report  Create the W2 Workfile Create the W2 Info Statements		Pass Fail pass	
2.0	Have Release Management apply the DM to the dbase above	Data manipulation runs successfully     Log file created		
3.0	Verify the log information	- Totals and log information are accurate		
3.0	Create AFTER copies of the following: - HPAHSY-YTD-HIS - HPAHSF-FTD-HIS			

## Normally Test Plans in header lack detail:

Remedy 86612 – DM for QTD/YTD Non-Wage and Excess Life amounts System Test Script

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Who did the testing?
What date was it tested?
What database or setup was used?
What are the resources needed?

We normally use Excel spreadsheets with a tab that has our test plan for short projects:

► Test Plan Test Script Issue Log

Test Plan Name: W2 and 1099 - Elect Transfer			
		ļ.	
Author:	Cordell Vail	Date: 11/17/2004	
Objective:			
This test plan tests the W2 and 1099to ensure that they will electronically transfer data from the employer to the IRS.			
Requirement:			
1. A .DAT file wil	I be created by the district ready to	) be sent to IRS.	
Assumption:			
IRS will allow tes	st data to be transferred		
Dependencies:			
The W2 and 109	9 Reports will have been created a	ind accesble.	
Last Update By:		Last Update Date:	
Cordell Vail		1¥17/2004	
Test Plan / Test Script / Issues Log /			

90% of our testing is less that 4 hours. We therefore use an even shorter test plan that is just a header in the test script:

### Start with a clear Test Plan as a header:

## SYSTEM TESTING FAI

REMEDY TICKET #: 59224

PCS #: 124

DESCRIPTION: Insurance Tracking Benefit Tests only

DATE TESTED: 08/02/06

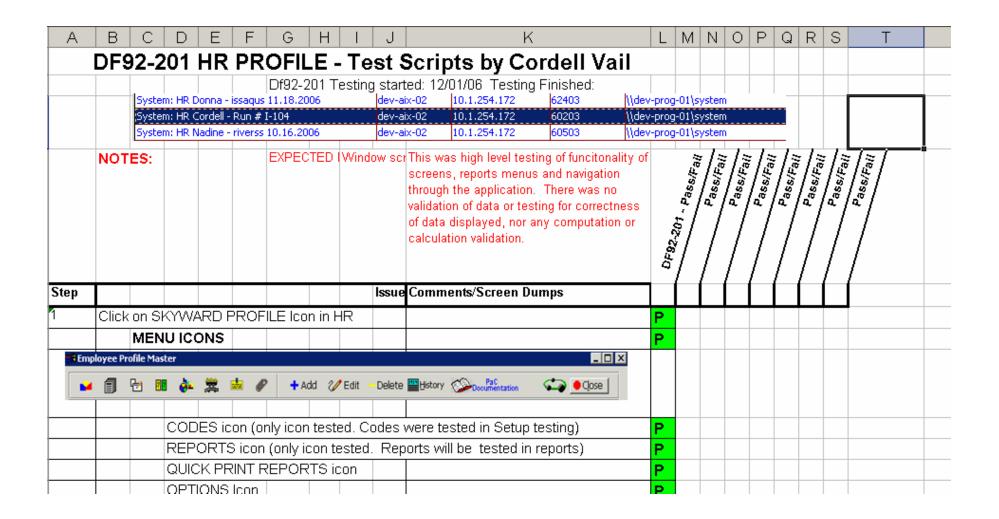
DATABASE USED: 60203 SYSTEM – Issaquah Data from Feb 2006

TESTED BY: Cordell Vail

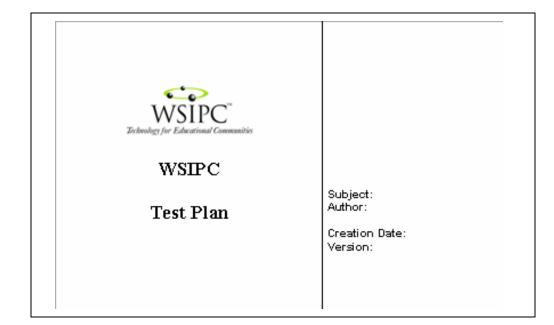
TEST SCRIPT:

Each test project may require different information

The summary test plan information can be placed on VERSIONING test scripts.



For enterprise projects or projects that are of several months duration, we use a test plan template.



#### **Document Conventions**

1)OTE: The act holde of the square brackets [] in blue tables gives general suggestions about what is so be placed in each field. When act is added following the blue help act, the added act will automatically be set to normal (style -Body Text). I When the document is complete all blue act should normally be deleted.

#### **Revision History**

Dete	Version #	Description of the Revision	Revised By

## www.vcaa.com

## Cordell Vail CSTE, CSBS

Quality Assurance Analyst



Speed Learning

Weekly Testing Tips Software Testing Links Software Testing Tools

Goal Setting Seminars Research Library Testing Seminar Notes



**Cordell Vail, cste** 

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Cordell Vail, cste, csbs – Quality Assurance Analyst -

Cordell grew up in Utah. He graduated from the Brigham Young University and has completed two years of graduate school work at the University of Utah in Interpersonal Communications. He served as an Infantry Platoon Leader in Vietnam. He was an instructor at Ft. Benning, GA Infantry School for 2 years and achieved the rank of Captain before his discharge from the Army. His work experience includes being a Controller for International Exchange Students Inc., and Laser Image Systems Inc., Assistant Plant Manager at Designer Line Manufacturing Inc., Software Developer and Senior Systems Analyst at Nixdorf Computer Inc and Software Developer at Software Systems Solutions Inc. With this wide range of business experience, Cordell also brings to the presentation a test engineer's perspective. He is a Certified Software Test Engineer and Certified School Business Specialist with ten years experience in manual and automated testing. He now lives in the Seattle Washington area, where he was a Software Test Engineer at Weyerhaeuser for 8 years, and for the past 4 ½ years has been a Quality Assurance Analyst with the Washington School Information Processing Cooperative. WSIPC is a cooperative of 290 Washington State school districts. Cordell has helped several Test Engineers pass their CSTE certification test. He has published 5 books and is currently writing a book on the Social Psychology of Software Testing. His humorous and memorable presentations have entertained and educated audiences across the continent from Vancouver, British Columbia to Orlando, Florida - from Toronto, Ontario to Los Angels, California.

# For Additional Information

Web Page: http://www.vcaa.com

Email: MakingSuccessWork@yahoo.com

# More Accurate Test Scripts In Less Time

**SQuAD 2007 6th Annual Conference** 

**Dates: March 14th - 15th, 2007** 

**Location: PPA Center, Denver, Colorado** 

Presented by Cordell Vail, cste csbs

Test scripts are normally created as an Excel spread sheet or as a MS Word Table

#### Remedy 86612 – DM for QTD/YTD Non-Wage and Excess Life amounts System Test Script

#### DESCRIPTION

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STEP	STEP DESCRIPTION	EXPECTED RESULTS	ISSUES /NOTES/ACTUAL RESULTS	Verified by/date
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2.0	Have Release Management apply the DM to the dbase above	Data manipulation runs successfully     Log file created		
3.0	Verify the log information	- Totals and log information are accurate		
3.0	Create AFTER copies of the following: - HPAHSY-YTD-HIS - HPAHSF-FTD-HIS			

## What are some of the problems with typical test scripts?

### Test Plan in header lacks detail

Remedy 86612 – DM for QTD/YTD Non-Wage and Excess Life amounts
System Test Script

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Who did the testing?
What date was it tested?
What database or setup was used?

## Steps assume prior technical knowledge

Create BEFORE copies of the following:

- HPAHSY-YTD-HIS
- HPAHSF-FTD-HIS
- HPAHDP-HIST-PAY
- HPACFD-DED-CTRL-FILE
- HPACFF-BEN-CTRL-FILE
- HPADCF-BEN-CODES
- HPADCD-DED-CODES

## So what do I do if I don't know how to create a BEFORE copy?

## Multiple procedures in same test step

STEP	STEP DESCRIPTION	EXPECTED RESULTS	ISSUES /NOTES/ACTUAL RESULTS
1.0	- Create BEFORE copies of the following: - HPAHSY-YTD-HIS - HPAHSF-FTD-HIS - HPAHDP-HIST-PAY		PASS

Awkward to indicate which parts passed and which parts failed.

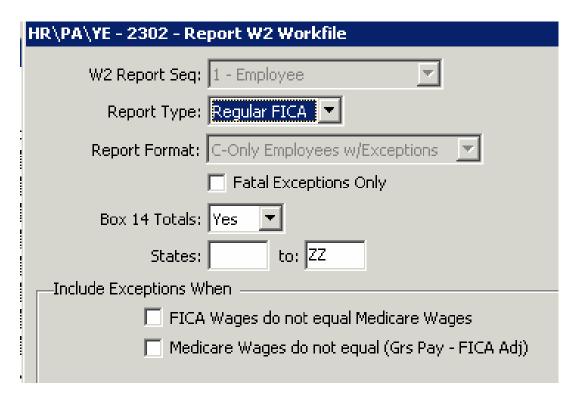
How do you show retesting of the part that failed?

## It is very time consuming to type out in text format all the necessary parts to a step

The W2 Information statement reflects the correct <u>Box 1</u> dollars, i.e., includes the Non-Wage dollars

The Fed Tax Gross on the QTD report shows the correct Federal Taxable Gross, i.e., includes the Non-Wage dollars

# If description is vague, you don't know what options were selected so the results will be the same on the next test run?



## Here are some testing tips for test scripts so they are:

- 1. Faster to create than old style scripts
- 2. Easier to create than typing text detail
- 3. Shows steps so none are missed
- 4. Give more accurate test results on retest
- 5. Don't take Technical knowledge to run
- 6. Show future testers all options selected
- 7. Allow testers to see other screen changes
- 8. x

## I started adding a short Test Plan as a header:

### SYSTEM TESTING FAIL



REMEDY TICKET #: 59224

PCS #: 124

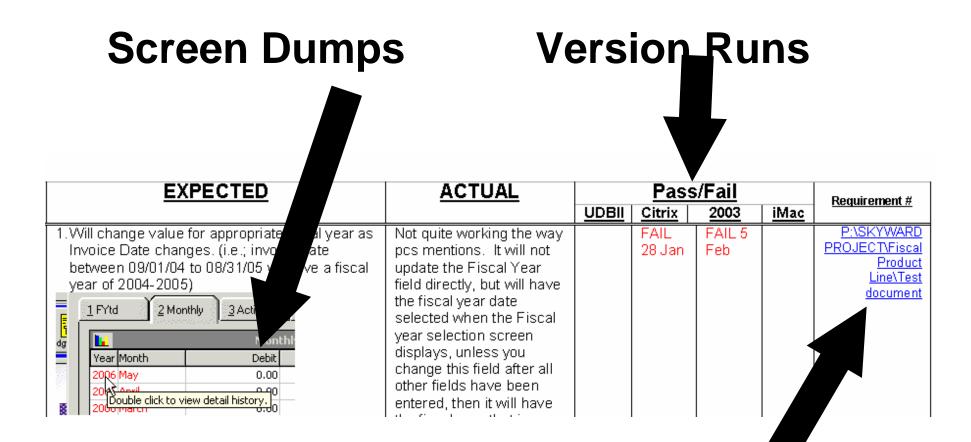
DESCRIPTION: Insurance Tracking Benefit Tests only

DATE TESTED: 08/02/06

DATABASE USED: 60203 SYSTEM – Issaquah Data from Feb 2006

TESTED BY: Cordell Vail

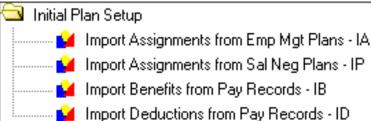
TEST SCRIPT:



And hyperlinks to error documentation

For Regression Testing I use an Excel Spreadsheet and just listed every function in the application





🔁 Plan Utilities
🔼 Salary/Hourly Amounts Mass Change - SH
Account Mass Processing - AP
Mass Change Number of Positions - MC
🔼 Mass Add of Add Ons to Assignments - AO
A Placement Tracker Mass Add - MA
10-

### Plan Processing

...[] Generate Plan Detail - GP

.. 🗐 Audit Assignment Salaries - 🗚

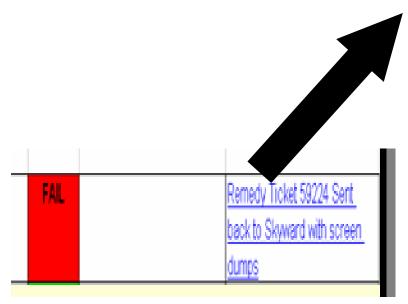
# Regression Testing put every Step in EXCEL

SETUP	
	Import Assignments from Emp Mgt Plans
	Improt Assignments from Sal Neg Plans
	Import Benefits from Pay Records
	Import Deductions from Pay Records
UTILITY	TESTS
	Position/ Assignment Mass Change
	Step Increase Process
	Salary Hourly Amounts Mass Change
	Benefit Mass Processing
	Deduction Mass Processing
	Plan Calendars Cycle
	Filter Mass Processing
	Account Mass Processing
	Mass Change Number of Positions
	Mass Add of Add Ons to Assignments
	Placement Tracker Mass Add
CALCU	LATE
5,1250	Generate Plan Detail
	Audit Assignement Salaries

		/.	A State of	8 / S	Kely (	St. St. C.	Si' Jest'	Passifail Method	Contract
I ARY N	  EGOTIATION	<u> </u>	<u> </u>	_	<u> </u>	_	<u> </u>		/ • •
SETUP	LOGIATION								
3L TOI	Import Assignments from Emp Mgt Plans	11-Jul	Х				Pass		
	Improt Assignments from Sal Neg Plans	11-Jul	X				Pass		
	Import Benefits from Pay Records		26-Jul				Pass		
	Import Deductions from Pay Records		26-Jul				Pass		
	import B caactrone from Fay 1.000140								
UTILITY									
	Position/ Assignment Mass Change			28-Jul			Pass	Only checked functionality	
	Step Increase Process			28-Jul			Pass	Only checked functionality	
	Salary Hourly Amounts Mass Change				13-Oct		FAIL	Only checked functionality	
	Retest-Salary Hourly Amounts Mass Chang					9-Nov	Pass	Retested in DF92-1 after fix	John S. fix
	Benefit Mass Processing	12-Jul	27-Jul				Pass	totals	
	Deduction Mass Processing					9-Nov	?	No deductions displayed for change ???	
								Must need setup	
	Plan Calendars Cycle			28-Jul			Pass	Only checked functionality	
	Filter Mass Processing			28-Jul			Pass	Only checked functionality	
	Account Mass Processing					9-Nov	?	Could not get run button activeated after	
								selecting accounts??? Must need setup	
	Mass Change Number of Positions			28-Jul			Pass	Only checked functionality	
	Mass Add of Add Ons to Assignments			27-Jul			Pass	Only checked functionality	
	Placement Tracker Mass Add			27-Jul			Pass	Only checked functionality	
				27-Jul			Pass	Only checked functionality	
CALCU	LATE								
	Generate Plan Detail	13-Jul	27-Jul				Pass	totals	
	Audit Assignement Salaries	12-Jul	27-Jul				Pass	totals	

	lding reen Dumps	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Mared			SV GESV	passin Mathod	Commonts!
SALARY N	NEGOTIATION							
SETUP								
	Import Assignments from Emp Mgt Plans	χ	χ			Pass		
	Improt Assignments from Sal Neg Plans	χ	χ			Pass	Only tested functionality	
Prir	nt Checks with PRINT ENGINE	Х	Х			FAIL	Ran Report on app server	(App server not started for Print Engine)
RET	TEST:Print Checks with PRINT ENGINE		Х			Pass	Compared totals to last year	Passes in acceptance testing database
	Deduction/Benefit History			X		Fail	** Unable to update CP-Table Field. (142)	This report says gross total is 43,830.35 not 40,510.15 ????? Goes from 06/30/06 back to 05/31/05 difference is 3,320.20
	100R Personnel Report				Х	FAIL	Not sure why I got this error. The report displayed ???	ERRORM - NO UNIX NAME  ON ERROR HAS OCCURRED  * You are encouraged to print this Error Message *  and call your local data center invediately. *
POOL N	MAINTENANCE							
Poo	I Report for but did not withdraw		X	Х		FAIL		Remedy Ticket 59224 Sent back to Skyward with screen dumps

# And Hyperlinks to test error document



SYSTEM TESTING FAIL REMEDY TICKET #: 59224

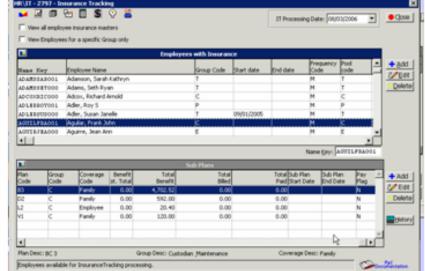
PCS#: 124

DESCRIPTION: Insurance Tracking Benefit Tests only

DATE TESTED: 08/02/06 TESTED BY: Cordell Vail

Take an employee who is in a pool

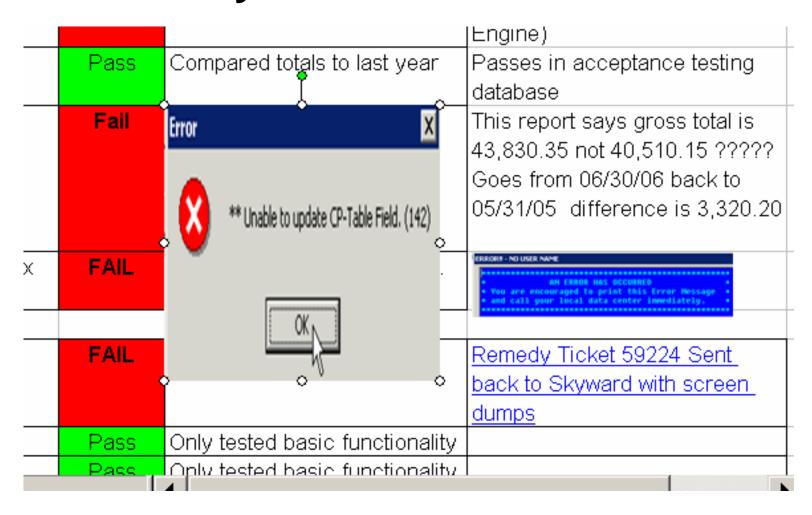
TEST SCRIPTS:



Those regression test scripts can be reused over and over with only minor changes to accommodate change to the application

# M.S. WORD Tables have some advantages over Excel spreadsheets

# Excel Screen dumps often slide out of cell when you save it



# It helps some to right mouse click screen dump in the cell, then set this option

Ŀ	ormat Pic	ture			
	Colors and Lines	Size	Picture	Protection	Properties
	Object positioning  Move and size  Move but don  Don't move or	't size with o			

# IN WORD, step by step screen dumps are easy to insert

Step	Action	Expected Result	Actual Result	Pass/ Fail	Remarks
	EXAMPLE				
1.1.3	Click on the Run Button	The Import Default Security screen is displayed  SA\SE\SG\UT\ID - 5228 - Import default security  This utility will dear any existing default security groups for the selected systems and import the current defaults.  Financial Management			

And they don't change size or move

My preference is to use a MS Word document with no table at all

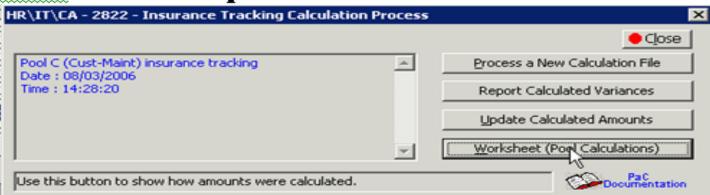
### Go to Insurance Tracking



### Take an employee who is in a pool



### and shows up on the work sheet



## Employee is not found in work file **FAIL**

Name Key	Employee Name	Group Code	Start date	End date	Code	code
ABRAHKEN000	Abraham, Kenneth Wayne	T			М	T
ACKLESHE000	Ackley, Shelby Munson	T	09/01/2005		м	T
		-				-

The test script becomes a testers user manual

# Easy to cut and paste notes into the MS WORD document test script

#### REMEDY TICKET NOTES:

ETPP) W-2 Box 13 Retirement Plan box has been checked for employees who were on Plan 0. Many of these employee contributed nothing to a retirement plan this year and the box should not be checked for those employees. Can we correct the programming to test for retirement deductions before checking Box 13 on the W2?

Client is currently having to reissue W2's for affected employees. Other sites may not be aware of this issue yet, so an alert message should be released to notify them.

See notes for specific names of employees that were affected.

#### Tier III Analysis:

In order to correctly check box 13 on the W-2 for plan 0 employees, and to also allow ded/ben default functionality to work the following must occur:

- Set all employees that have current Retirement Member profile records to have HAAPRO-PROFILE.HAAPRO-RET-YN values of YES. Employees that would be in this situation are ones that have been added since conversion. This would require a WSIPC data manip.
- Upon adding a Ret Member profile record, set the HAAPRO-PROFILE.HAAPRO-RET-YN value to YES. This is a change to WA feature set. The issue of what to do about removing or modify Ret Member profile records would need to be analyzed and addressed also.
- Conversion needs to be changed back to setting the HAAPRO-PROFILE.HAAPRO-RET-YN values to YES as it was before.

## The new test run is just added at end

#### TEST RUN #3

ORIGINAL ERROR THAT BROUGHT ABOUT THIS REMEDY TICKET:

Default deduction and benefit codes are set by Employee Type

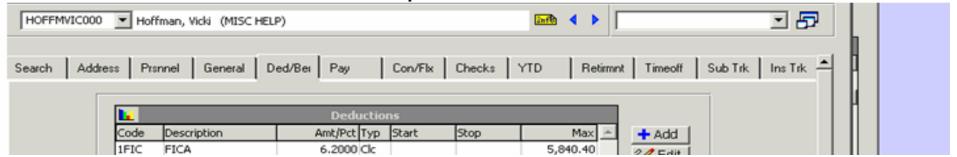
	IR\SE\CO\	PR\ET - 3173 - Employ	ree Types	<del>, ,,</del>	×
П	<u>k</u>		Employee Types		√ <u>S</u> elect
	Employee Type	Short Description	Description	Count	+ <u>A</u> dd
	1COB	COBRA	COBRA	20	<b>⊘</b> Edit
	1DD	DON'T DELETE	DON'T DELETE	5	<u> — D</u> elete
<u>t</u>	1FIX	NEW EMPLOYEE-CT	NEW EMPLOYEE - CT	7	Report
	1L	LEAVE	LEAVE	47	13 Count
2	1LF	LEAVE - FAMILY	LEAVE - FAMILY	2	
Z	1LFUF	FAMILY UNFILLED	FAMILY UNFILLED	0	<u>● Cl</u> ose

If the HAAPRO-RET-YN flag is set to NO for that person,

 LAST-NAME
 FIRST-NAME
 MIDDLE-NAME
 HAAPRO-RET-YN

 Hoffman
 Vicki
 no

then when you do the loading of default deductions and benefits, if one of those benefits is a retirement benefit it will not add it

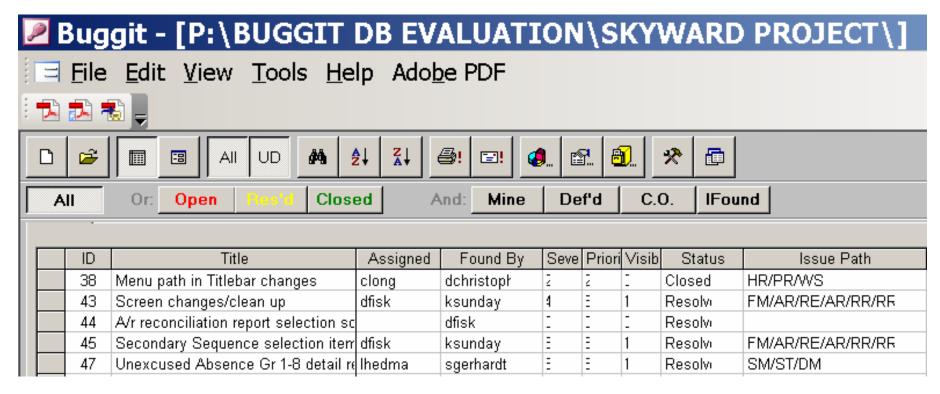


J

All Test Scripts need to be tied to some type of bug tracking tool.

# You can track bugs with open source software

www.bugit.com



# Excel spreadsheets can have a tab with a built in bug tracking tool



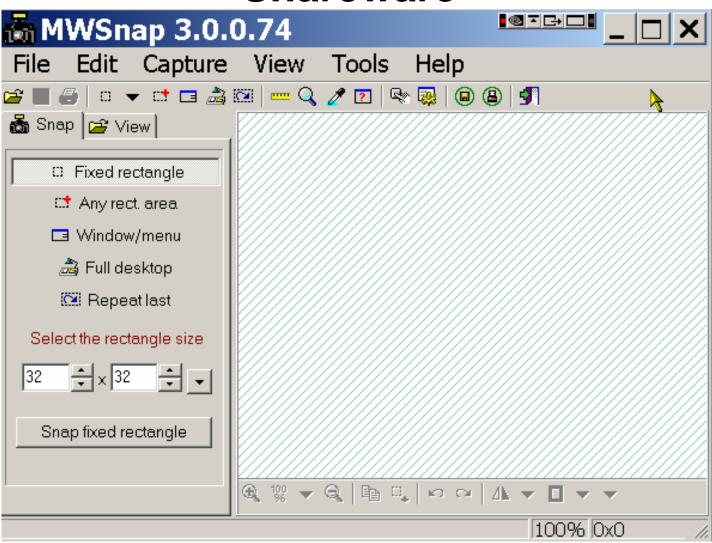
# **Excel Spread Sheet Issue Log**

7-1-	.1 -	Pavrol	∥- Par	allel T	est -	First	: Pavrol	l After	Conversion			
ls:		Seve 🔻	Date Report	Repa d B ▼	Da Fix ▼	Fii ▼	Issue Type	Affect ▼	Description of Issue	Resolution of Issue and Note	Verif -	Criti ▼
i2-31	Closed	Major	21-Feb	Mark			Conversion	AP	WESPAC MS frequency AP check for Key Bank (auto deposit) is different from WISE by - 1.99	WISE, WESPaC is correct. Close issue.	,	
i2-32	Closed	Major	22-Feb	Mark			Conversion	AP	WESPAC MS frequency AP check for Total is different from WISE by +\$973.17. In i-5 the difference is -\$6.24. In i10 the difference was 14.18	WESPaC processes WC compared to	,	
112-38	Closed	Minor	6-Apr	Debbie			Format	ACH Extract	Format differences are the same as identified and determined to be ok by Doug as documented in ESD189.			
i15-39	Open	Minor	6-Apr	Mark			Skyward	Ach Report	Ach direct deposit report count for employees is 1 higher than WISE and the number on the extract. Believe it is a skyward counting bug.	5		
Seve	itv exp	lanation:										
				to perform	i task and	d no wa	rk around or	major featu	ure not in product.			
Major	- Unab	le to perfo	rm task as c	locumente	d but the	re is a (	difficult work	around, or	minor feature not in product, or data corr	upted.		
Mino	- Cosm	netic, or un	able to perf	orm task a:	s docum	ented b	out there is a	n easy work	around to perform task.			
Issue	Summ	агу:										
	Total #:		34									
	Open:		1									
	Trainin	g:	0									
	Closed:		33									
			Total	Open Iten	ns:							
	CONV		31		0							
	Critical		0		0							
	Fatal:		0		0							
	Major:		32		0							
	Minor:		2		1							
	Spec:		0		0							
	Trainin	g:	0		0							
			l n									

# **Screen Capturing**

## www.mirekw.com

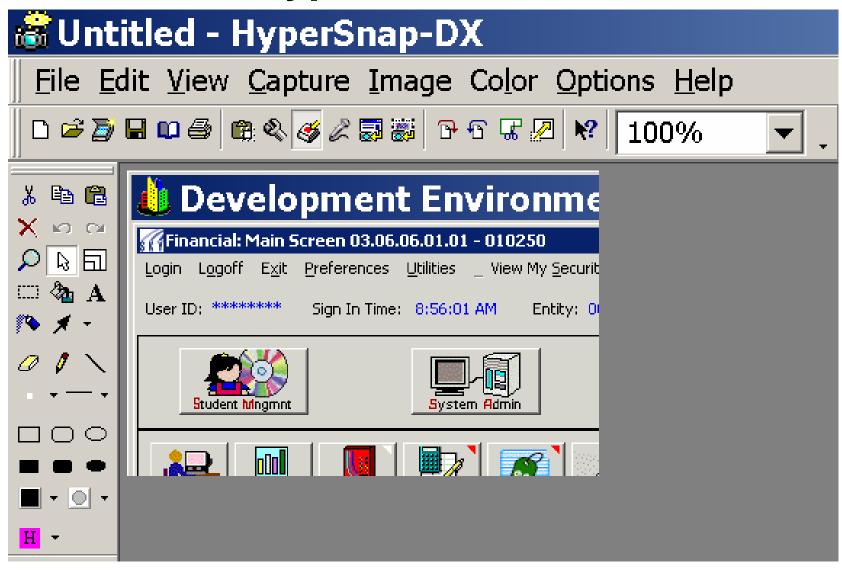
### **Shareware**



### www.techsmith.com



## www.hyperionics.com





Cordell Vail, cste

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Cordell Vail, cste, csbs – Quality Assurance Analyst -

Cordell grew up in Utah. He graduated from the Brigham Young University and has completed two years of graduate school work at the University of Utah in Interpersonal Communications. He served as an Infantry Platoon Leader in Vietnam. He was an instructor at Ft. Benning, GA Infantry School for 2 years and achieved the rank of Captain before his discharge from the Army. His work experience includes being a Controller for International Exchange Students Inc., and Laser Image Systems Inc., Assistant Plant Manager at Designer Line Manufacturing Inc., Software Developer and Senior Systems Analyst at Nixdorf Computer Inc and Software Developer at Software Systems Solutions Inc. With this wide range of business experience, Cordell also brings to the presentation a test engineer's perspective. He is a Certified Software Test Engineer and Certified School Business Specialist with ten years experience in manual and automated testing. He now lives in the Seattle Washington area, where he was a Software Test Engineer at Weyerhaeuser for 8 years, and for the past 3 ½ years has been a Quality Assurance Analyst with the Washington School Information Processing Cooperative. WSIPC is a cooperative of 290 Washington State school districts. Cordell has helped several Test Engineers pass their CSTE certification test. He has published 5 books and is currently writing a book on the Social Psychology of Software Testing. His humorous and memorable presentations have entertained and educated audiences across the continent from Vancouver, British Columbia to Orlando, Florida - from Toronto, Ontario to Los Angels, California.

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