



Fall 2014

RVTools Combine Multiple Reports

VBA Final Project



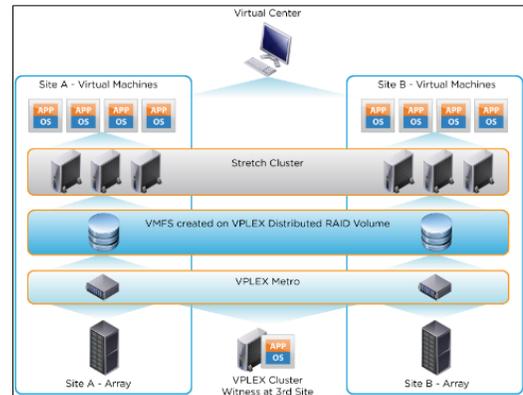
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1 Executive Summary

For my currently internship we work with a lot of different virtualization technologies. There is a pretty standard tool that many companies use to inventory their VMware environments called RVTools¹. We receive many of these reports from clients and needed a way to combine all of these reports into one excel sheet.

Much of the work previously has been done manually which involved copy each excel sheet that contains over 20 tabs into one excel sheet. This would take consultants a couple of hours to complete so they could perform additional analysis without having to look at multiple workbooks.

The other task that had to be done is the mapping clusters with their respective hosts across all vCenters and vSpheres. The diagram provided shows a basic sample configuration. This information becomes very important in terms of software asset management and licensing of these assets. There can be potential licensing implications with virtualized servers running in a high availability cluster with distributed resource scheduling. In which most cases specific information on each cluster and their hosts that the virtual machines are running on become relevant in managing these assets.



This is where my VBA macro comes in. My macro can take multiple reports and combine them into one consolidated excel sheet. It will also provide a summary sheet with the list of clusters and the hosts that are a part of each clusters on the same line. The summary tab will also show if High Availability is turned on along with the number of vMotion events that have taken place on that cluster.

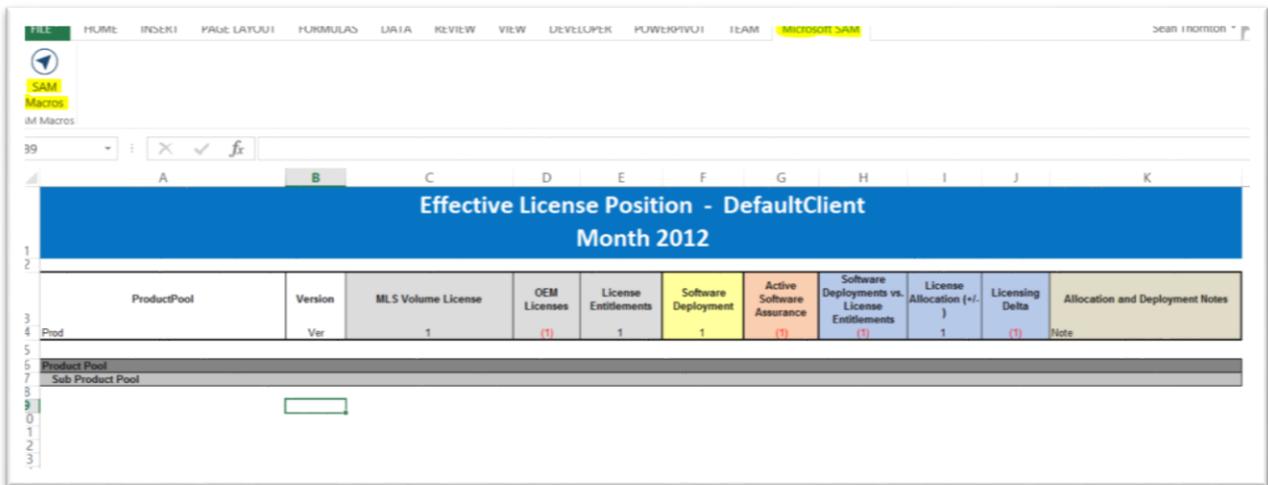
¹ <http://www.robware.net/>

2 Implementation Documentation

At a high level the VBA macro takes into inputs

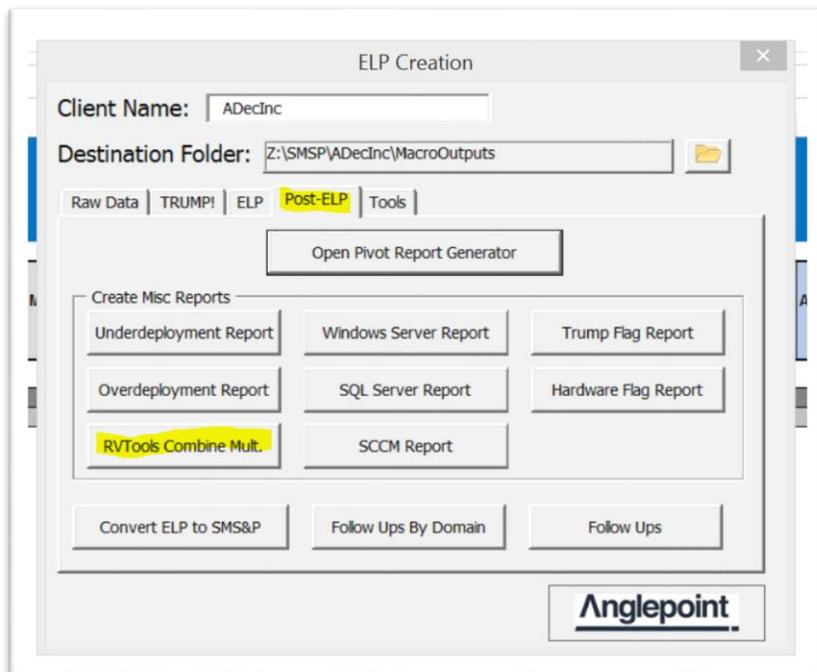
- Output Location
- Input Folder Location

When you first open the macro you will need to open the Microsoft SAM Tab and click the “SAM Macros” on the ribbon.

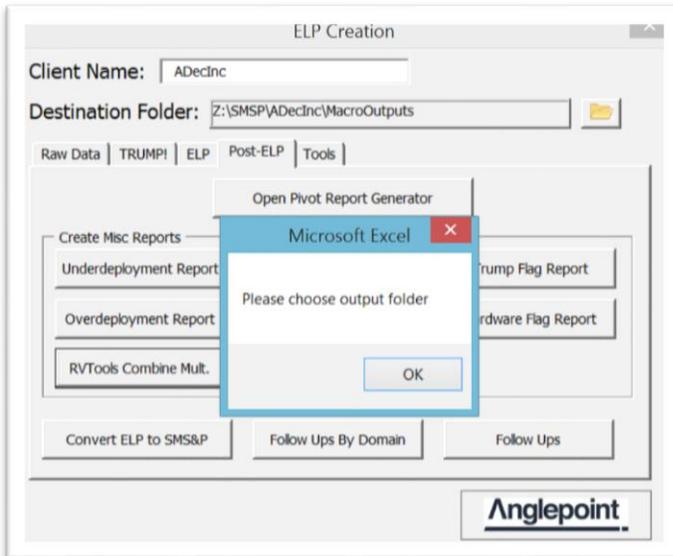


ProductPool	Version	MLS Volume License	OEM Licenses	License Entitlements	Software Deployment	Active Software Assurance	Software Deployments vs. License Entitlements	License Allocation (+/-)	Licensing Delta	Allocation and Deployment Notes
Prod	Ver	1	(1)	1	1	(1)	(1)	1	(1)	Note

This will open up all the SAM Macros for my project I had to integrate my code with the existing solution. My macro is found on the “Post ELP” tab



This will then open up a prompt where you want to save the output file.

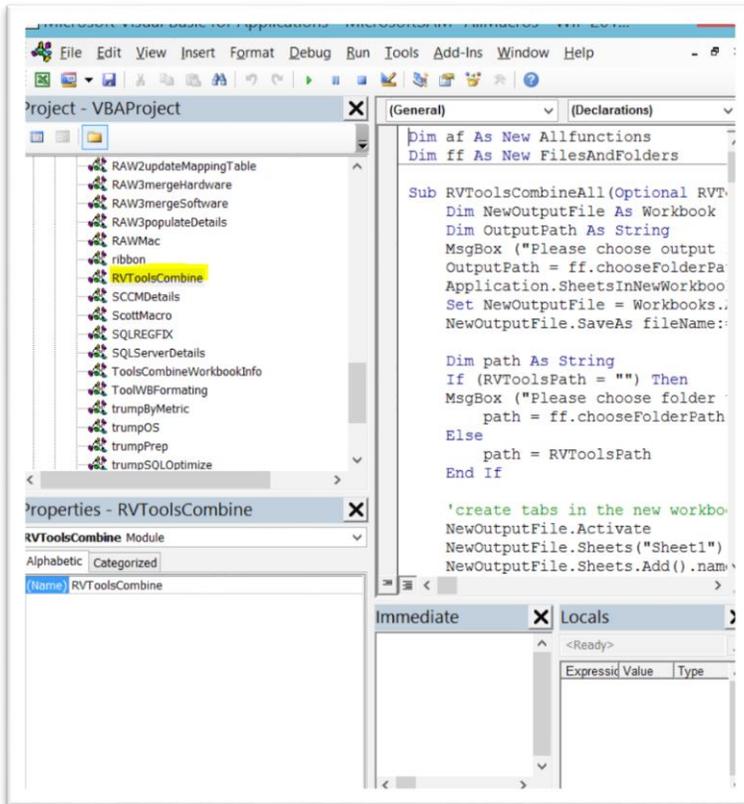


After you select the output folder you will be ask for the input folder location. Note that only RVTools exports can exist in this folder and nothing else. The macro will then start open each file and copy the information into the RVTools combined sheet that the macro created.

Number of VMs	2593				
Number of Hosts	255				
Cluster	HA Enabled	vMotion Events	Hosts		
Aveda Blaine Cluster	True	141	us-abl-vm01.am.elcompanies.net	us-abl-vm02.am.elcompanies.net	us-abl-vm03.am.elcompanies.net
Bumble Cluster	True	144	us-w13-vm01.am.elcompanies.net	us-w13-vm02.am.elcompanies.net	us-w13-vm03.am.elcompanies.net
Canada Cluster	True	119	ca-ona-vm01.am.elcompanies.net	ca-ona-vm02.am.elcompanies.net	ca-ona-vm03.am.elcompanies.net
Melville RP Cluster	True	414	us-rp-vm01.am.elcompanies.net	us-rp-vm02.am.elcompanies.net	us-rp-vm03.am.elcompanies.net
MiamiCluster	False	37	us-mia-vm01.am.elcompanies.net	us-mia-vm02.am.elcompanies.net	
MX-MEX-VCLUS001	True	5	mx-mex-esx01.am.elcompanies.net	mx-mex-esx02.am.elcompanies.net	mx-mex-esx03.am.elcompanies.net
Newark Production	True	6,619	us-nwk-vm01.am.elcompanies.net	us-nwk-vm02.am.elcompanies.net	us-nwk-vm03.am.elcompanies.net
NewarkDMZ	True	72	us-nwk-dmzvm01.am.elcompanies.net	us-nwk-dmzvm02.am.elcompanies.net	
NewarkExchangeCluster	True	273	us-nwk-exvm01.am.elcompanies.net	us-nwk-exvm02.am.elcompanies.net	us-nwk-exvm03.am.elcompanies.net
NewarkLiveCache	True	21	us-nwk-scmvm01.am.elcompanies.net	us-nwk-scmvm02.am.elcompanies.net	
NewarkLyncCluster	True	528	us-nwk-dwvm01.am.elcompanies.net	us-nwk-dwvm02.am.elcompanies.net	us-nwk-dwvm03.am.elcompanies.net
NewarkSAPApplication	True	122	us-nwk-sapvm01.am.elcompanies.net	us-nwk-sapvm02.am.elcompanies.net	us-nwk-sapvm03.am.elcompanies.net
NYC767Cluster	True	54	us-gm-vm01.am.elcompanies.net	us-gm-vm02.am.elcompanies.net	us-gm-vm03.am.elcompanies.net
NYCDMZCluster	True	1	us-gm-dmzvm01.am.elcompanies.net	us-gm-dmzvm02.am.elcompanies.net	
PADCCluster	True	12	us-nth-vm01.am.elcompanies.net	us-nth-vm02.am.elcompanies.net	

3 Learning and Conceptual Difficulties/Assistance

For my project requirements I had to integrate the code into Anglepoint’s existing macros. The only assistance I received is from some of the building functionalities we have built. These functions we things like getting last row of a column etc. Other than that I received no assistance in writing the macro.



All of the code I wrote for the project is found in the module “RVToolsCombine”. The code to be able to be integrated with our existing macros can take an optional path parameter so in the future it could be automated if needed.

The most difficult thing to overcome with the macro was being able to do the analysis and mapping of the hosts to their perspective clusters. I ended up using going to the cluster tab and putting all of the clusters into an array. Then I went to the hosts tab sorted on the cluster they were in and put it into the summary tab with its details of High availability and the number of vMotion events.

I really enjoyed working and solving this problem we have had at my internship. It proved to be challenging and I learned how to better work with arrays and filtering on tables. It was a worthwhile

experience and I have already received compliments from consultants who have started using the macro. It has been fulfilling to see my work being put into action for a real world use.