

## DRAFT

### VISTA PATCH SLAMMER PACKAGE

This is what I call the Patch Slammer. It slams patches into a system. This can be good or bad. If a patch needs to have additional things done other than just installing routines and DD's you may want to read up and do the patch manually. Fileman and kernel patches should be read carefully before using this package. There are things that need to be done to these packages that the slammer will not do, like moving routines to the MGR account and running ZTMGRSET. If files need to be populated or conversions need to be run this is not the way to go about doing them. For the numerous other patches that are just routine installs and or DD changes the slammer works fine. It is the perfect way to get a test account patched up when you are not concerned about having mail groups populated or you do not intend to set up a Taskman job to run a background job, as it is just the test account.

The package consists of two components; VA Developer's package in the 'AND' namespace, and my package in the 'AAK' namespace.

To start with, we have the auto patching system that Tom Ash made and the actually won the Vista challenge contest. His package is setup to auto install patches as they come in. This package is very clever and allows you to do things like verify the package, back up the routines into a mail message and to also setup parameters to turn off Taskman and lock the system if you want to do that on certain packages.

He installs a new field in the package file that allows you to turn auto patching on or off for certain packages. This package is basically the heart of the slammer utility. The package is activated by a server that hangs off the 'g.patches' mail group. When a patch comes in the server will take the patch and do some checking, like making sure it is a patch from forum, making sure the package is set up for auto patching and then will install the patch according to parameters setup in his site file.

I use his package with some revisions. I do not use his server in 'g.patches'. I am not auto-installing any patches. I use my front end to allow the master site to send patches to the servant sites. Once a patch request is received I hand each patch over one at a time to Tom's software for installation.

In order to do this I had to make several alterations to Tom's package. These alterations allow the package to install copied patch messages, which he had screened out. I allow older patches to be installed, patches that were developed before there were mandatory install dates in the patch. I fixed a couple of things that were giving my system gas, like a Taskman bug and I made a special patch sequence 'xref' for patches that do not have their sequence numbers prominently displayed in the install file. I also added a patch sequencer so you could slam a bundle of patches from different packages in and the system would put the patches in one package at a time and in proper sequence. Tom's package dealt with this by being real-time. As I am using this package to catch up on old patches this was a necessary enhancement.

#### STEP ONE:

The way to set this package up is to install Tom's package on any servant systems you plan on sending patches to.

#### STEP TWO

Go through VA Developer's install.

## IV. VAPU Installation

### General Steps to Install and Set Up the VISTA AUTOPATCH UTILITY (VAPU)

- 1) Using MailMan Packman functions, load the KIDS Mail Distribution
- 2) Using the KIDS Install Option Menus, Verify Checksums
- 3) Using the KIDS Install Option Menus, Install the Package
- 4) If you notice in the install it renames the following Routines:

a. ANXPDDCS	to→	XPDDCS
b. ANXPDI	to→	XPDI
c. ANXPDI1	to→	XPDI1
d. ANXPDI1B	to→	XPDI1B

e. ANXPDI1	to→	XPDI1
f. ANXPDIPM	to→	XPDIPM
g. ANXPDIQ	to→	XPDIQ
h. ANXQOO	to→	XQOO

- 1) Using the VAPU Main Menu [AND VAPU MAIN MENU], select Menu 1; EDIT VAPU SITE PARAMETERS [AND VAPU SITE PARAMETERS]. Fill in each field when prompted. Although the Data Dictionaries aren't set to Mandatory the package won't function without error without each field defined.

(file 619066)

```
Select VISTA AUTOPATCH SITE PARAMETERS SITE NAME: DOMAIN.EXT
SITE NAME: DOMAIN.EXT Replace ← set up domain for servant 1st
DAYS TO INSTALL: 0// ← set this to 0 to install patches immediately
SITE INSTALL TIME: 1// ← will start at 0100 or later
ENABLE/DISABLE AUTOPATCH: ENABLE// ← this turns package off or on
HFS DIRECTORY: c:\scratch\// ← this is where the install dialogues are stored
PATCH INSTALL USER: DEVELOPER, VA A SR// ← name of user to get credit
REBUILD MENUS: NO// ← up to you
FTP FIELD OFFICE NAME: DOMAIN.EXT// ← haven't seen this work
FTP FILE DIRECTORY: SOFTWARE// ← ditto
INFORMATIONAL MAIL GROUP: AAK VISTA PATCH// ← to receive install messages
EXECUTABLE LOCATION:
```

- 2) Packages are disabled by default! To Enable a Package for AutoPatching use VAPU Option; ENABLE/DISABLE AUTOPATCHING BY PACKAGE [AND VAPU ENABL/DISABL PKG]

#### STEP THREE

```
Install my package:
This includes the routines that I altered from Tom's package.
These are:
ANDAUTO
ANDAUTL2
ANDAFTP2
```

The changes that I made in these routines are listed at the bottom of this document. My package sets itself up from your files.

#### STEP FOUR

```
Give yourself the AAK PATCHING MENU option
```

#### STEP FIVE

```
Put the AAK PATCH SERVER option in the Taskman Scheduled options to run every 10
minutes or so both on the master and the servant site(s). The option will know how to
run on which server. You are then ready to go.
```

The way I have this setup:

The AAK namespace is my side part of the package and deals with setting up of the Master - Servant relationship between sites and passes packages to VA DEVELOPER'S package.

A site becomes the Master of other sites and sends the patches and patch install orders to each one singly or in a bunch, that is a bunch of patches or to a bunch or servants. A master can have any number of servants but a servant can have only one master site. This relationship starts then a potential master site sends a mastership request to a potential servant site. The potential servant site has to accept servitude, which is to have someone else slam patches. When the servant site accepts servitude from a master an entry is made in a file at both sites that registers this relationship. Then a master site can send patches to be slammed without intervention from the servant site. There is a master menu and a servant menu. These are the options:

```
*****
WELCOME TO THE REMOTE PATCHING PACKAGE
VISTA REMOTE PATCHING MENU
*****
M Vista Patching System Master Options...
```

S Vista Patching System Servant Options...  
Select Vista Remote Patching Menu Option:

\*\*\*\*\*

WELCOME TO THE REMOTE PATCHING PACKAGE

VISTA PATCHING PACKAGE MASTER MENU

\*\*\*\*\*

- 1 Establish Mastership Over a Site
- 2 Send Patch(es) to Servant(s)
- 3 Report of Patches Installed (Master Sites)
- 4 Send for Patch Install Status at a Remote Site
- 5 Designate a Patch as Informational

Select Vista Patching System Master Options Option:

Option #1 is used to send a mastership request to a potential servant site. You pick the site(s) and the package sends a mailman message to the site in question. Members of the AAK VISTA PATCH mail group get a message asking them to go into an option to respond to the question. If they accept the master - servant relationship an entry is made into their site file stating that they are a servant site and who is the master. A message is returned to the master site and an entry is made in their site file registering them as a master site and entering the servant on the list of their servant sites.

Option #2 is used to send patch requests to servant sites. You enter in the mail message number of the patch you want loaded at the remote servant site. This logs the patch request at your site and records the message that you send to each servant site. A copy of the patch is sent to the servant site(s) along with the patch request. When the servant site gets the patch request it will rest in the message file. Every 10 minutes a Taskman job runs that will enter these patch requests into a file and then the patch will be processed at the site. A scratch directory gets a copy of the patch install and a local person will get the backup message of the patch. Once the patch(es) are installed a job runs that will bundle up the install file entry and send it to the master site. When this message is received at the master site a Taskman job will enter the log of the install file (an abbreviated log) and enter that into a patch file so that someone at the master site can to in and look at all patches entered and see if they are completed at all servant sites.

Option #3 is used to get a report of all patches sent to servant sites in a time frame. The report will show the time the patch request was sent and will show if the patch was installed at the remote servant.

The output looks like this:

```
REMOTE PATCH INSTALL REPORT                                APR 30, 2004 11:23    PAGE 1
DATE PATCH INSTALL PATCH REQUESTED DESIGNATION FROM SERVANT    DATE PATCHED
-----
APR 29,2004   09:34   SR*3.0*114   DOMAIN.EXT 4/29/2004@094053
APR 29,2004   09:34   SR*3.0*120   DOMAIN.EXT 4/29/2004@094053
APR 29,2004   09:35   SR*3.0*122   DOMAIN.EXT 4/29/2004@100022
APR 29,2004   09:35   SR*3.0*126   DOMAIN.EXT 4/29/2004@100022
APR 29,2004   11:40   PPP*1.0*10   DOMAIN.EXT 4/29/2004@145853
APR 29,2004   11:40   PPP*1.0*11   DOMAIN.EXT 4/29/2004@145853
APR 29,2004   11:41   PPP*1.0*16   DOMAIN.EXT 4/29/2004@145853
APR 29,2004   11:42   PPP*1.0*38   DOMAIN.EXT 4/29/2004@145853
APR 29,2004   11:43   PPP*1.0*19   DOMAIN.EXT 4/29/2004@145853
APR 29,2004   15:26   SOW*3.0*40   DOMAIN.EXT 4/29/2004@153922
APR 29,2004   15:27   SOW*3.0*51   DOMAIN.EXT 4/29/2004@153922
APR 29,2004   15:27   SOW*3.0*54
```

The last patch in the example above shows no message from the servant site yet which would indicate that the patch may not have been installed.

Option #4 is used to send a query to the servant site(s) to see where the patch status is. This will send a mail message to the servant and will generate a report that is shipped back to the master site with information from the install queues. From this report a person from the master site could tell at which point the patch was waiting. They would then want to open a session to the scratch share to see at what stage the patch was at. They could then fix any problems and then restart the process for that patch.

Select Vista Patching System Master Options Option: 4: Send For Patch Install Status at a Remote Site

```
*****
WELCOME TO THE REMOTE PATCHING PACKAGE
Request Patch Status From Servant Site(s) Option
*****
```

OK, let me get this straight, you want a patch status report from these sites:

1. DOMAIN.EXT

Do you wish to continue? NO// YES

The option shows only the one servant and doesn't ask you to choose because this master has only one servant site. There would be a choice if there were more than one servant available.

This is the message you might receive:

Subj: ~~#~~ PATCH STATUS RESPONSE FROM A SERVANT SITE~DOMAIN.EXT [#14089637]

30 Apr 2004 15:43:07 -0500 (EST) 9 lines

From: <xxx@DOMAIN.EXT> In 'IN' basket.

Page 1 \*New\*

-----  
~~#2~~5~~#~~ PATCH STATUS RESPONSE FROM A SERVANT SITE~DOMAIN.EXT Patches that have not been sent to queue yet:

1. ECX\*3.0\*58

2. ECX\*3.0\*66

Patches that have been queued but are have not been installed yet:

1. ECX\*3.0\*62

2. ECX\*3.0\*55

Date and time of transaction: 4/30/2004@154307

Enter message action (in IN basket): Delete//

Option #5 is used to send a message to a servant site to mark a patch as informational and thereby enter the patch in the 'E' 'xref' so the next patch in sequence will be able to run. This message will generate an 'xref' build at the remote site for the patch specified. You can use this on informational patches, patches that are entered in a hold status, patches entered in error etc...

Select Vista Patching System Master Options Option: 5: Designate a Patch As Informational

Enter the informational patch to be marked as installed: SOW\*3.0\*13

Enter the sequence number: (1-999): 15

OK. I entered a notation for this patch sequence.

This option looks the same whether you use the master or servant option. The servant option patches the local system and the master option sends a message to the servant to make the xref entry.

This is what the xref looks like:

^DIZ(405850,"E","SOW\*3.0\*15",9999)=""

The entry is the sequence, not the patch so it does not show SOW\*3.0\*13, but SOW\*3.0\*15.

The xref lists the package, the version and the sequence. Not the patch number.

The Servant sites have a different menu. It looks like this:

```
*****
WELCOME TO THE REMOTE PATCHING PACKAGE
VISTA PATCHING PACKAGE SERVANT MENU
*****
1 Respond to a Mastership Request
2 Check Patch Install Status (for servant sites)
3 Install File Patch Listing Dump
4 Un-stick The Processing Queue (Servants Only)
```

5        Designate a Patch Informational  
      Select Vista Patching System Servant Options Option:

Option #1 is the option used to respond to a mastership request. Members of the AAK VISTA PATCH mail group would receive a mastership request message that would instruct them to use this option. They can accept or refuse. Either way a message will be sent back to the prospective master. If they accept the relationship their parameter file will be updated to reflect that they are a servant site and would indicate the master site.

Option #2 is used to generate a local status report of slammed patches.

Option #3 is used to generate a report of all patch entries in the install file. This summary report is used to determine which patches have not been installed so a master site can start the patch slamming process. This report can only be run at the local site, so it would have to be sent to the master site, or better yet, a master site person could run this report at the servant site and store it in the scratch directory. Then it can be consulted remotely to see which patches need to be slammed.

Option #4 is used when there is a problem found that halts the installation of patches. Problems such as the particular package may not be activated in the package file for auto patching, or a patch sequence may not be in and that may stop several patches from installing. Once the problem is repaired this option will re-queue all patches stuck in the queue. This option is run at the servant site, since there is a need to inspect the remote site to see why patches did not come back in the master's report a person at the master site would need to sign on at the remote servant to check the status and fix the problem. At this point they can un-stick the queue and the patches will install when the Taskman job runs the next time.

Option #5 is the local version of the 'designate the patch as informational' option. This is run at the local site for what ever reason rather than running it at the master site and having it sent as an email order. This could be used by the master site when they sign on remotely to the servant to see why patches did not come back as installed. When they see that patches are waiting for a certain sequence number to be in they can run the option locally rather than send it.

Steps to catching up patches using the patch slammer.

1. The first step to using the package above is to run option #3 in the servant menu: 'Install File Patch Listing Dump' on both the Master site and Servant site. This option will give you the list of all patches loaded in the install file. You compare the two lists and see which patches that are loaded on the Master site are not on the Servant site. This will show you which patches need to be 'caught up' or 'slammed'.
2. You can go into the Forum patch module and get a summary listing of all patches in a each package to get an idea of how far the servant site is behind, but it takes longer than step #1.
3. You then need to sign on to an OIFO FTP account and download all the patches in a package that are in the patch ranges you need to install. This will accomplish two things. It will bring in patches that you will need to download anyway, and it will give you break points in your slamming, as you will need to stop for each of these download patches and load them manually. Place these downloads in your scratch directory on the servant systems.
4. Next look through the patch summaries that you printed off and look for informational patches and patches placed on hold or entered in error. Once you find these you will need to run option 5 in either the master or servant options to put the 'xrefs' in place for the sequence numbers for these patches. This way patches will not be held up for patches that are not actually installed.
5. Next on your master system, do a global listing for any patches that are still on your system that you need to install. You can accomplish this by putting the following in the global lister:

```
VAH>D ^%G
Device:           Right margin: 80=>
Global ^XMB(3.9,"B","Released IB":"Released IBzzz" -- NOTE: translation in effect
^XMB(3.9,"B","Released IB*2*103 SEQ #118",7586444)=
^XMB(3.9,"B","Released IB*2*123 SEQ #141",9253850)=
^XMB(3.9,"B","Released IB*2*137 SEQ #160",10857143)=
^XMB(3.9,"B","Released IB*2*51 SEQ #138",9018520)=
^XMB(3.9,"B","Released IBD*3*30 SEQ #40",9744416)=
^XMB(3.9,"B","Released IBD*3*56 SEQ #50",13883487)=
and...
Global ^XMB(3.9,"B","EMERGENCY Released IB":"EMERGENCY Released IBzzz" -- NOTE:
translation in effect
```

```

^XMB(3.9,"B","EMERGENCY Released IB*2*166 SE",10147602)=
^XMB(3.9,"B","EMERGENCY Released IB*2*176 SE",11552228)=
^XMB(3.9,"B","EMERGENCY Released IB*2*179 SE",11557250)=
^XMB(3.9,"B","EMERGENCY Released IB*2*180 SE",12219132)=
^XMB(3.9,"B","EMERGENCY Released IB*2*189 SE",11401438)=

```

This will find all patches that you still have at the master site and do not have to forward from Forum.

6. Determine which patches you do not have on site that you need to slam and go to forum and resend them. To do this you go into the patch module and forward a patch to yourself in forum. You then go into Forum mail and do a copy of the patch and send the copy to yourself at the master site. Delete the message in forum when you are done copying so you will not fill up forum. You need to send copies as patch messages that are already received will not forward to your site.

7. When you have all the patches at your master site that you need to install at the servants, either by listing them in the mailman global or forwarding copies from forum you are ready to slam them. Go into option #2; Send Patch(es) to Servant(s) in the master menu. Put in the IEN number of each patch mail message. You need to record these from the message copies you forwarded from forum or from the global listing you did above: ^XMB(3.9,"B","EMERGENCY Released IB\*2\*166 SE",10147602)=

^  
This number----|

8. Put in a list of the patches to slam but stop at the first patch that needs to be manually downloaded. This patch will need to be done manually. After you select the patches you can select whichever servants you want and send them the patch orders. The mail messages with the patches will be forwarded to the servant along with the patch orders.

9. The patches will load automatically and will send back messages that will self install in your patch files when they are done. You can use option #3 of the master menu to check on the status of patches at the remote sites. If a patch does not install in a short period of time, 1/2 hour or so you can use option #4 of the master menu to see what happened to the patch. You can then sign on to the scratch directory to see why the patch is not installing. There will be a record in there for each patch that looks like this:

```

SOW_3_0_40      1KB      Text Document      4/29/2004 12:10

```

If you look in this document it will give you a status of the patch:

```

ACTION REQUIRED: Sequence # 58 could not be found.
An Install file entry with File Comment containing #Seq-number must exist
before I can continue!!!
XXX*1.0*33 HASD BEEN REQUED FOR INTALL!
PLEASE CORRECT DEFICIENCY DESCRIBED IN THE LOG FILE FOR SUCCESS
TASK REQUEUED TO TASK # 30995

```

From this message you can see what the problem is and correct it. You can then either go into the Tbox Taskman option and re queue the task number above it this is a single patch that is waiting for the fix or you can use the servant option to un-stick the queue. This depends on the number of patches waiting for that sequence or if the patch is waiting on a patch from a different package to be installed or whatever.

Notes for Vista patching solution merger:

A: My changes to Tom's package:

1. TEST+2^ANDAUTL:

WAS:

```

S X=^XMB(3.9,XMZ,0),X1=$P(X," ",2) I X1['*" S X1=$P(X," ",3) I X1['*" S
X1=$P(X1," ")

```

Changed To:

```

S X=^XMB(3.9,XMZ,0) ;X1=$P(X," ",2)
S X1=$P(X,"Released ",2),X1=$P(X1," SEQ",1) ;DAF;CHANGED TO COVER COPIED
MESSAGES

```

This change was made to have package allow copied patch messages to install. Previously patches would only install if they were direct patches from forum. If you are installing old patches you need to copy them as they will not ship to the site once they have been sent once.

2. +7^ANDAUTO:

WAS:

```

I $P($G(^XMB(3.9,XMZ,0)),U,2)'=("<"National Patch Module"@DOMAIN.EXT >") G
EXIT
CHANGED TO:      I $P($G(^XMB(3.9,XMZ,0)),U,2)'=("<"National Patch
Module"@DOMAIN.EXT>") G EXIT ;COMMENTING OUT:DAF;4/19/04
This change was made to allow install of patches that were copied from forum. See
above note. As I do not use the server to run this package, but had each patch off one
at a time to ^ANDAUTO.
3. +30^ANDAUTO
WAS:
S ANDXMZ=XMZ,ZTRTN="QUE^ANDAUTO",ZTSAVE("AN*")="",ZTSAVE("XM*")="",ZTDESC="AUTO
PATCH for Message #"_XMZ_" Subject:
"$P($G(^XMB(3.9,XMZ,0)),"^"),ZTDTH=ANDDT,ZTREQ="@ D ^%ZTLOAD
CHANGED TO:      S
ANDXMZ=XMZ,ZTRTN="QUE^ANDAUTO",ZTSAVE("AN*")="",ZTSAVE("XM*")="",ZTDESC="AUTO PATCH
for Message #"_XMZ_" Subject:
"$P($G(^XMB(3.9,XMZ,0)),"^"),ZTDTH=ANDDT,ZTREQ="@,ZTIO="" D ^%ZTLOAD ;DAF;ADDED
ZTIO TO STOP DEVICE ERROR

```

This change was made to stop an error every time the package tried to queue up the job to Taskman. In Cache you cannot assume a device, so I set ZTIO to null.

```

4. OPEN+17^ANDAUTO
WAS:      I $P($G(^XMB(3.9,XMZ,0)),U,2)'=("<"National Patch Module"@DOMAIN.EXT >") D
G EXIT
CHANGED TO:      I $P($G(^XMB(3.9,XMZ,0)),U,2)'=("<"National Patch Module DOMAIN.EXT
>")&($P(^0),"^",2)'[("DOMAIN.EXT >")) D G EXIT ;DAF;ALLOWED ANY MESSAGE FROM
FORUM;AM SELECTIVELY HANDING MESSAGES ANYWAY

```

This is another fix to allow copied messages to be installed.

```

5. TRACK+11^ANDAUTL2
ADDED NEW LINE AFTER TRACK+10      I XMRG["Run Date: " S RNDATE=$P($P($P(XMRG,"Run
Date: ",2)," ",1)," ",2) I RNDATE<2004 S ANDCOMP=DT K RNDATE ;DAF;STOP LOOPING FOR
OLD PATCHES

```

This change was made to stop the program from constantly looping trying to find an install date on old patches that did not have a completion date. I give them a completion date of today.

```

6. OPEN1+3^ANDAFTP2
ADDED NEW LINE AFTER OPEN1+2:      I $G(ANDCHK2)
S:$O(^DIZ(405850,"E",$P(ANDNM,"*",1,2)"_"(ANDSEQ-1),""))!(ANDSEQ=1) ANDCHK2=0 ;DAF
if patch DID NOT ENTER SEQ # IN FILE COMMENT CHECK 405850      The package will
stop patching if it thinks that the last sequence number patch was not installed. It
was looking for an entry in the field File Comments. Some patches do not put the
sequence number here. I entered an 'E' xref on file 405850 for patches that are
installed. I also made an option to allow a person to stick an 'E' xref entry for
patches that are informational or such. This line will look for that entry if it
cannot find the File Comments.

```

#### APPENDIX. PROBLEMS:

PROBLEM	SOLUTION
Folder in file directory with nothing in it	No data entry in file 9.4 for that package
Folder in file directory with nothing in it	Field 619000 not set to enable in 9.4
Folder in file directory with 1k of data	Previous 'patch sequence' not there. Make sure the previous patch is in there or see number 5.
SOW is SOWK in package file.	Added SOW synonym
Patches don't start off at one, or for some reason they skip a number. This would stop Tom's software because it is looking for the previous number. Patches won't load and do not get any File entry in scratch folder	Use the 'designate a patch as informational' option. This will put the patch sequence in there thus fooling Tom's checker. Make sure that current version field in Package file has proper version number For patches.