Yum Repository to Smart Package Manager convertor script.

Preface

I wrote this yum2smart-converter script in 2009, while running Fedora Linux. There were no smart channel configuration files then, and the channels - aka repositories, had to be configured manually.

I originally released it on the Fedora forum under my forum name of CD-RW.
http://forums.fedoraforum.org/showthread.php?t=211956

To make it easy for others to find all my work in one place, I'm moving all my BSD-licensed code to my Github account: **https://github.com/sputnik-1/**

All I ask is that you abide by the liberal BSD license, and give me the credit for initial development of create-smart-channels.php. Any feedback is welcome.

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yum2smart-convertor.

The create-smart-channels.php script will create any missing smart channel files from the equivalent yum repo files. Any new smart channel files will be placed in a /new-smart-channels subdir of the yum repos directory.

Installation

These instructions are for Linux based OS's. After downloading the file called create-smart-channels.php, change the permissions to something like:

chown root:root create-smart-channels.php
chmod 755 create-smart-channels.php

Then place the script in the directory that contains your yum repo files, usually
/etc/yum.repos.d/

If you have set any open_basedir restrictions in /etc/php.ini, you will also need to add '/etc/smart/channels/:' to the search paths to allow create-smart-channels.php to read the contents of the /etc/smart/channels/ directory.

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Warning:

Do not allow php access to the whole of the /etc directory. This could be a security issue. Whatever access restrictions are set with open_basedir (if any), you should override these in your httpd.conf file, to restrict apache's php module to only allow access to php files under your apache's document root. To do this, use something like this in your httpd.conf file:

<Directory />
Options None
AllowOverride None
Order Deny,Allow
Deny from all

these are the only directories which the apache PHP module can
have access to. This setting overrides the settings in the
global php.ini file, which applies to the CLI version of PHP.

php_admin_value open_basedir '/path/to/htdocs/:/path/to/php-manual/'
php_admin_flag display_errors OFF

</Directory>

Running the script

create-smart-channels.php is run using the command-line version of PHP, and requires two arguments. It also accepts an optional third argument. The invocation line for the script is:

./create-smart-channels.php <*release-version*> <*basearch*> [d]

- <*release-version*> is a required parameter for the Fedora version number.
- <*basearch*> is a required parameter for the target OS platform.
- [d] is an optional parameter to turn on debugging output.

You can find the release-version and basearch for your particular machine, by comparing a yum repo file, with the equivalent existing smart channel file.

If we compare the yum fedora.repo file and the smart fedora.channel file:

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yum fedora.repo file (1st section):

[fedora]
name=Fedora $releasever - $basearch
failovermethod=priority
#baseurl=http://download.fedora.redhat.com/pub/fedora/linux/
releases/$releasever/Everything/$basearch/os

mirrorlist=http://mirrors.fedoraproject.org/mirrorlist?repo
=fedora-$releasever&arch=basearch

enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-fedora file:///etc/pki/rpm-gpg/RPM-GPG-KEY

smart fedora.channel file (1st section):

[core]
name=Fedora 8 - i386
baseurl=http://download.fedora.redhat.com/pub/fedora/linux/releases/8/Everything/i386/os/
type=rpm-md

You can see that on my machine, $releasever equates to 8, and $basearch is equal to i386.

So the command to run create-smart-channels.php on my machine would be:

[root@localhost yum.repos.d]# ./create-smart-channels.php *8 i386*

The script would run silently, and create any missing smart channels in
/etc/yum.repos.d/new-smart-channels/ . If there are no missing Smart channels,
the script will terminate.

Adding the optional [d] argument would cause the script to output a lot of debugging info.
This is handy for knowing how the script works, and what it's doing.

Installing new smart channels

To install the newly created smart channel files, shut down smart package manager GUI if it is running. Copy the new smart channel files to /etc/smart/channels/, and restart smart GUI.

Smart should now detect the new channel files, and ask whether to include those channels. Answer 'Yes' to include the new channel files.

If you copy the livna channel files to /etc/smart/channels, you will be asked if you want to replace the existing Livna channels.
On Fedora 8, selecting yes does not appear to create any problems.

Resetting Smart to it's default installation settings

Smart keeps some configuration files in /var/lib/smart. Channel data is kept here as well. When a new installation of Smart PM is done, this directory is empty.

When Smart PM finishes, it saves it's cache and config files in /var/lib/smart/cache & /var/lib/smart/config.

To reset Smart to it's default installation values:

Quit Smart PM.

Make some backup copies of /var/lib/smart directory, to something like:
/var/lib/smart-prev

Remove the contents of:

/var/lib/smart/channels and /var/lib/smart/packages, and the cache and config file. That will leave two empty subdirs, /channels & /packages.

Restarting Smart after removing the contents of /var/lib/smart will cause Smart to re-read the channel information in /etc/smart/channels/

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