

# Announcing SoftwareCollections.org

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Red Hat has been working on new and innovative ways to deliver alternate versions of system software for some time. In 2012, we released the 1.0 of the Red Hat Developer Toolset (DTS) which was the first product to use Software Collections. About six months ago, Red Hat took the wraps off of Red Hat Software Collections 1.0 (<https://developerblog.redhat.com/2013/09/12/rhsc11-ga/>) for Red Hat Enterprise Linux (RHEL). Now we're pleased to announce [SoftwareCollections.org](http://softwarecollections.org) (<http://softwarecollections.org>), a project for creating, hosting, and delivering community created Software Collections for RHEL, CentOS, and Fedora.

## Software Collections in a Nutshell

Software Collections allow you to build and install applications without being constrained by the default versions that are installed on your system. Say you want to deploy an application that requires MariaDB 5.5 and PHP 5.4 or Python 3.3 on a system running CentOS 6.5. You don't want to have to deploy a new OS. You don't want to compile your own, and you may have other applications that depend on the system versions of those components.

Software Collections (or SCLs) allow you to install those components into an alternative directory structure **without** disrupting system versions, but still run applications that depend on different versions of platform software like Python, Ruby, PHP, MariaDB, Perl, Node.js, and more.

## SoftwareCollections.org

Currently, select RHEL subscriptions (<https://access.redhat.com/site/solutions/472793>) offer a set of languages, databases, and web servers (like Ruby 1.9.3 and 2.0, Python 2.7 and 3.3, MariaDB 5.5, Apache httpd, etc (<https://developerblog.redhat.com/2014/03/20/rhsc1-1-1-beta-available-apache-mongodb/>)). The CentOS team also offers a similar set of SCLs for its community.

While that's a good start, we want to expand the set of SCLs available to the community and make it easy for projects and organizations to create and maintain SCLs for any software they may want to use for their applications.

SoftwareCollections.org will provide the tools and focal point for the community to develop and share their own SCLs. Specifically:

- A build system for creating SCLs.
- A centralized hosting location for community developed SCLs.
- Developer documentation and templates for developing SCLs.
- A developer mailing list for packagers and developers depending on or creating SCLs.

# A Quick Start to SCLs

To be honest, getting started with Software Collections isn't terribly difficult. Let's take CentOS for example. To enable Software Collections for CentOS, you just need to install a few packages to get started:

```
su -c "yum install -y centos-release-SCL scl-utils"
```

Run a quick ``yum update`` and you'll be able to choose from SCLs that are available in CentOS (<http://wiki.centos.org/AdditionalResources/Repositories/SCL>). For instance, if you'd like to use PHP 5.4, you can install that quickly with `su -c "yum install -y php54"`.

Now you can enable it for an application using `"scl enable php54 'bash' "`. Here `"scl enable php54 "` is the command to enable the Software Collection for the application `"bash "`. In other words, this will start a bash shell which finds PHP 5.4 instead of the system default for PHP (if it's installed).

NOTE: There are numerous articles for installing on RHEL including this (<https://developerblog.redhat.com/2013/01/28/software-collections-on-red-hat-enterprise-linux/>).

## Collections on SoftwareCollections.org

The collections in CentOS or with a RHEL subscription are just the tip of the iceberg. We also want to let the community share collections through this site. You can do that easily by [browsing the collections on the site](https://www.softwarecollections.org/en/scls/) (<https://www.softwarecollections.org/en/scls/>), opening the collection you're interested in, and installing using Yum.

```
su -c "yum install <link to collection rpm>"  
su -c "yum install <collection name>"
```

After installing the collection, you can enable it just as easily as the SCLs you get from the distro repos.

```
scl enable <collection name> bash
```

## Finding More Information

To get started packaging, you can find a [softwarecollections.org](https://www.softwarecollections.org/en/docs/add-to-catalogue/) guide (<https://www.softwarecollections.org/en/docs/add-to-catalogue/>) (try to ignore the misspelling of "catalog" ) along with Red Hat's excellent documentation ([https://access.redhat.com/site/documentation/en-US/Red\\_Hat\\_Developer\\_Toolset/2/html/Software\\_Collections\\_Guide/](https://access.redhat.com/site/documentation/en-US/Red_Hat_Developer_Toolset/2/html/Software_Collections_Guide/)). You'll also want to keep tabs on this Red Hat Developer Blog site with the Software Collections tag (<http://rhdevelopers.wordpress.com/tag/software-collections/>), which features tutorials and updates on SCLs that you should find interesting.

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For more information about Red Hat Software Collections or Red Hat Developer Toolset, visit [https://access.redhat.com/products/Red\\_Hat\\_Enterprise\\_Linux/Developer/](https://access.redhat.com/products/Red_Hat_Enterprise_Linux/Developer/) ([https://access.redhat.com/products/Red\\_Hat\\_Enterprise\\_Linux/Developer/](https://access.redhat.com/products/Red_Hat_Enterprise_Linux/Developer/)).

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