

**NAME**

ClusterTools2 – Tools for setting up and managing pacemaker HA clusters

**DESCRIPTION**

The **ClusterTools2** package provides tools for setting up and managing pacemaker HA clusters. The tools are aimed to make tasks easy around the pacemaker HA cluster manager and the Linux storage stack.

Main command for managing a running cluster is **ClusterService**. This ASCII-terminal based menu system allows to perform common administrative tasks. It can be used instead of `crm_gui` or `Hawk` if no webserver and no X desktop is available.

Tools like **cs\_list\_failcounts** and **cs\_show\_cluster\_transistion** help to analyse the cluster behaviour. A set of tools based on **wow** allows to make configuration of clusters reproduceable and efficient.

Currently the tools are mainly used to setup and manage high-availability cluster for following workloads:

- SAP application servers, SAP central instances, SAP database servers
- SAP HANA System Replication automation
- XEN virtual machine hosts
- Novell eDirectory servers
- NFS file servers
- Apache web servers, LAMP servers
- MySQL, PostgreSQL, DB2, Oracle database servers

**EXAMPLES**

```
# wow cc --config edir01.wow 01-A-07-group_add_ndsd
    add configuration for a resource of type Novell eDirectory to the cluster. Use configuration agent
    01-A-07-group_add_ndsd. Read information about the resource from file edir01.wow .

# cs_precheck_for_sap --all sap_C11.wow >precheck-sap_C11-$HOST
    check for almost all pre-requisites that are needed to set up an HA cluster for SAP instance C11.
    Read information about the needed resources from file sap_C11.wow . Write output into file
    precheck-sap_C11-<hostname>.

# ClusterService
    start ASCII-terminal based menu to perform administrative tasks on a running cluster.

# cs_sum_base_config >$HOST.cs_sum_base_config.txt
    write checksums for common base config files of an node to a file. This is useful in a cluster, to
    check if the basic configuration is really identical on both nodes.

# cs_list_clone_files --md5sum
    look for files that should not be identical, after a VM image was cloned.
```

**FILES**

```
/etc/ClusterTools2/
    configuration files.

/usr/lib/ClusterTools2/
    ClusterTools2 components in general.

/usr/lib/ClusterTools2/agents/
    wow configuration agents for pacemaker.
```

/usr/lib/ClusterTools2/scripts/  
     wow configuration scripts for pacemaker.

/usr/share/ClusterTools2/\*.rsc  
     menu engine resource files.

/usr/share/ClusterTools2/cli/  
     wow configuration templates for pacemaker.

/usr/share/ClusterTools2/samples/  
     samples of config files and scripts.

## BUGS

Tools in ClusterTools2 version 3 are tested with SLE-HA 12, SLES 12, and SLES-for-SAP 12 only. Some people pronounce the package's name "ClumsyTools". Feedback is welcome, please use the project page at <https://build.opensuse.org/package/show?package=ClusterTools2&project=home%3Afmherschel>

## SEE ALSO

**ClusterTools2(7)**, **wow(8)**, **cs\_precheck\_for\_sap(8)**, **ClusterService(8)**, **cs\_sum\_base\_config(8)**, **cs\_list\_failcounts(8)**, **cs\_show\_cluster\_transition(8)**, **cs\_clusterstate(8)**, **cs\_reset\_failcounts(8)**, **cs\_show\_scores(8)**, **cs\_delcib(8)**, **cs\_show\_error\_patterns(8)**, **cs\_show\_supportconfig(8)**, **menueng2(8)**, **menueng2(5)**, **ha\_related\_suse\_tids(7)**, **ha\_related\_acronyms(7)**, **rear(8)**, **omping(8)**,  
<https://www.suse.com/products/highavailability/> ,  
[https://www.suse.com/releasenotes/x86\\_64/SLE-HA/11-SP4/](https://www.suse.com/releasenotes/x86_64/SLE-HA/11-SP4/) ,  
[https://www.suse.com/releasenotes/x86\\_64/SLE-HA/12-SP1/](https://www.suse.com/releasenotes/x86_64/SLE-HA/12-SP1/)  
[https://www.suse.com/documentation/sle\\_ha/](https://www.suse.com/documentation/sle_ha/) ,  
<https://www.suse.com/promo/sap/high-availability.html> ,  
<https://www.suse.com/support/kb/doc.php?id=7007613> ,  
[http://clusterlabs.org/wiki/Main\\_Page](http://clusterlabs.org/wiki/Main_Page)

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