

yscli 说明文档

yscli 是一个通过访问kubernetes环境，与 YS1000所管理的集群进行交互，为YS1000备份恢复操作提供相关的支持的命令行工具。

获取yscli

yscli存放YS1000 agent运行的命令空间下的stub pod中，如下将pod `stub-bfb55d587-nxp8s` 中的文件 `yscli` 复制到本地当前目录

```
[root@cluster1 ~]# kubectl -n qiming-backend get pods
NAME                                READY   STATUS    RESTARTS   AGE
agent-operator-585b8f4bbb-7j98w    1/1     Running   0           28d
amberapp-controller-manager-f5d559ffb-kxhfg  1/1     Running   0           28d
dm-agent-dd59cc76f-2tz97           1/1     Running   0           28d
stub-bfb55d587-nxp8s               1/1     Running   0           28d
velero-6d9b67dc6-7mtfk             1/1     Running   0           28d
volsync-controller-manager-86cbd5d6c4-qcdtf  1/1     Running   0           90d
[root@cluster1 ~]# kubectl -n qiming-backend cp stub-bfb55d587-nxp8s:yscli yscli
```

yscli使用

yscli可以直接运行在 Linux 操作系统上，通过指定-h或者--help 参数来获取yscli支持的命令及参数。

```
yscli -h
ys1000 CLI tool.

Usage:
  yscli [command]

Available Commands:
  cleanup      remove all resources created by ys1000
  completion   Generate the autocompletion script for the specified shell
  download     download backup resource content, volume data from S3 to local directory
  help         Help about any command
  list         List resource on S3
  logs         collect audit, job or ys1000 logs
  prune        Prune resource on S3 for specified backup name and job prefix
  verify       Verify restore result
  version      print the version

Flags:
  --access-key string  s3 access key
  -h, --help           help for yscli
```

```
--kubeconfig string    kube config file of ys1000 cluster
-n, --namespace string  namespace of ys1000 installed (default "ys1000")
--secret-key string     s3 access secret key
```

Use "yscli [command] --help" for more information about a command.

yscli默认使用当前所在集群的kubeconfig文件访问相关信息，如果当前集群不是YS1000运行所在的集群，需要通过指定--kubeconfig命令参数来指定YS1000所在集群的kubeconfig文件

命令

download

download 命令用于从 S3 存储下载备份任务中应用的 Kubernetes 资源和数据卷数据。

Usage:

```
yscli download [flags]
```

Flags:

```
--backup-job string      backup job name
-e, --exclude stringArray exclude volume files (can be specified multiple times)
-h, --help               help for download
-i, --include stringArray include volume files, exclude everything else (can be
specified multiple times)
-r, --repo-addr string    repo address to download volume data
--snapshot-id string      snapshot Id to download volume data
--target string           downloaded file directory (default ".")
-t, --type string         download type - all, resourceOnly, dataOnly or
volumeData. if not specified, download both resource and volume data (default "all")
```

例:

a. 通过指定S3的access key, secret key以及备份任务名称从S3下载备份的kubernetes资源到本地指定目录下，需在Kubernetes环境下运行

```
yscli download --type resourceOnly --access-key <accessKey> --secret-key <secretKey> --
backup-job <backupJobName> --target <targetDir>
```

b. 通过指定S3的access key, secret key以及备份任务名称从S3下载备份数据卷的数据到本地指定目录下，需在Kubernetes环境下运行

```
yscli download --type dataOnly --access-key <accessKey> --secret-key <secretKey> --
backup-job <backupJobName> --target <targetDir>
```

c. 通过指定S3的access key, secret key以及S3上的数据卷存储的repo地址和对应snapshot id下载备份数据卷的数据到本地指定目录下，无需在Kubernetes环境下运行

```
yscli download --type volumeData --access-key <accessKey> --secret-key <secretKey> --
repo-addr <repoAddr> --snapshot-id <snapshotId> --target <targetDir>
```

list

list 命令用于查询备份的应用数据卷所占用的S3存储空间大小，repo地址，快照ID均可在备份任务详情的数据卷页面查询

Usage:

```
yscli list [flags]
```

Flags:

```
-b, --backup-plan string    backup plan name
-h, --help                  help for list
    --path string           list resource under specified path
-p, --prefix string         backup job prefix
-r, --repo-addr string      repo address to download volume data
    --snapshot-id string    snapshot Id to download volume data
-t, --type string           download type resource or volumeData
```

Global Flags:

```
--access-key string    s3 access key
--kubeconfig string    kube config file of ys1000 cluster
-n, --namespace string namespace of ys1000 installed (default "ys1000")
--secret-key string     s3 access secret key
```

例:

a. 指定备份计划和全量备份任务的prefix，查询该全量周期内s3上备份的应用数据的repo大小

```
yscli list --type resource --backup-plan backup-test --prefix host-254-backup-test-w1-1716912000
```

Backup plan: backup-test, job prefix: host-254-backup-test-w1-1716912000

Repo size: 41279304

b. 通过指定S3上数据备份的repo地址，快照ID，查看存储在S3上的备份的应用的指定路径下的数据文件

```
yscli list --type volumeData --access-key <accessKey> --secret-key <secretKey> --
repo-addr s3:https://obs.cn-sz1.ctyun.cn/ym-ty/host-254-backup-test-w1-1716912000/restic/wordpress --snapshot-id 75faebc0 --path /wp-includes/widgets
```

```
repository 0aea9bc5 opened (repository version 1) successfully, password is correct
snapshot 75faebc0 of [/var/lib/kubelet/pods/a9712b8f-6312-4ca9-8587-9d6b1675e0ba/volumes/kubernetes.io~csi/pvc-05ce8750-3847-45ba-a26e-8a7b719532eb/mount]
filtered by [/wp-includes/widgets] at 2024-05-28 00:14:12.33493293 +0800 CST):
/wp-includes/widgets
/wp-includes/widgets/class-wp-nav-menu-widget.php
/wp-includes/widgets/class-wp-widget-archives.php
/wp-includes/widgets/class-wp-widget-calendar.php
/wp-includes/widgets/class-wp-widget-categories.php
```

```
/wp-includes/widgets/class-wp-widget-links.php
/wp-includes/widgets/class-wp-widget-media-audio.php
/wp-includes/widgets/class-wp-widget-media-image.php
/wp-includes/widgets/class-wp-widget-media-video.php
/wp-includes/widgets/class-wp-widget-media.php
/wp-includes/widgets/class-wp-widget-meta.php
/wp-includes/widgets/class-wp-widget-pages.php
/wp-includes/widgets/class-wp-widget-recent-comments.php
/wp-includes/widgets/class-wp-widget-recent-posts.php
/wp-includes/widgets/class-wp-widget-rss.php
/wp-includes/widgets/class-wp-widget-search.php
/wp-includes/widgets/class-wp-widget-tag-cloud.php
/wp-includes/widgets/class-wp-widget-text.php
```

logs

logs命令用于下载YS1000的运行日志，审计日志以及任务日志。

Usage:

```
yscli logs [flags]
```

Flags:

-h, --help	help for logs
--job-name string	job name
--job-type string	job types: backup, restore or migration
--namespaces string	multiple namespaces with commas (default "ys1000,qiming-backend")
--target string	logs saved directory (default ".")
-t, --type string	log types: ys1000, audit or job

Global Flags:

--access-key string	s3 access key
--kubeconfig string	kube config file of ys1000 cluster
-n, --namespace string	namespace of ys1000 installed (default "ys1000")
--secret-key string	s3 access secret key

例:

a. 下载YS1000的运行日志,

```
yscli logs --type ys1000 --target ys1000-logs
2024-05-29T09:35:57+08:00 INFO Create log path /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00
2024-05-29T09:35:57+08:00 INFO Collecting crds
2024-05-29T09:35:58+08:00 INFO Completed collecting crds, path /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/crds
2024-05-29T09:35:58+08:00 INFO Collecting custom resources
2024-05-29T09:36:00+08:00 INFO Collecting custom resources, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/ys1000/resources
```

```
2024-05-29T09:36:00+08:00 INFO Collecting configmaps
2024-05-29T09:36:00+08:00 INFO Completed collecting configmaps, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/ys1000/configmaps
2024-05-29T09:36:00+08:00 INFO Collecting controller logs in namespace ys1000
2024-05-29T09:36:01+08:00 INFO Completed collecting controller logs in namespace ys1000, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/ys1000/logs
2024-05-29T09:36:01+08:00 INFO Collecting custom resources
2024-05-29T09:36:03+08:00 INFO Collecting custom resources, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/qiming-backend/resources
2024-05-29T09:36:03+08:00 INFO Collecting configmaps
2024-05-29T09:36:03+08:00 INFO Completed collecting configmaps, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/qiming-backend/configmaps
2024-05-29T09:36:03+08:00 INFO Collecting controller logs in namespace qiming-backend
2024-05-29T09:36:04+08:00 INFO Completed collecting controller logs in namespace qiming-backend, path: /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00/qiming-backend/logs
YS1000 logs are saved in directory /root/ys1000-logs/ys1000-logs-2024-05-29T09:35:57+08:00
```

b. 下载ys1000的audit日志到指定目录下

```
yscli logs --type audit --target audit-logs
time=2024-05-29T09:36:37.444+08:00 level=INFO msg=Start
time=2024-05-29T09:36:37.444+08:00 level=INFO msg="Start collecting real time audit log"
time=2024-05-29T09:36:37.579+08:00 level=INFO msg="Complete collecting real time audit log"
time=2024-05-29T09:36:37.579+08:00 level=INFO msg="Start collecting audit log from S3"
time=2024-05-29T09:36:39.157+08:00 level=INFO msg="Complete collecting audit log from S3"
time=2024-05-29T09:36:39.157+08:00 level=INFO msg="Completed, log dir: /root/audit-logs"
```

c. 通过制定ys1000的任务类型和任务名称下载任务日志到指定目录

```
yscli logs --type job --job-type backup --job-name backup-test-1716912000 --target backup-logs
time=2024-05-29T09:37:30.176+08:00 level=INFO msg="Start collecting job log from S3"
time=2024-05-29T09:37:30.791+08:00 level=INFO msg="Complete collecting job logs from S3, Log dir: /root/backup-logs"
```

prune

对于周期全量的备份计划，只清理具有指定作业前缀的那些备份任务备份的无效数据资源。例如：

```
Usage:
yscli prune [flags]
```

Flags:

```
-b, --backup-plan string    backup plan name
-h, --help                  help for prune
-p, --prefix string         backup job prefix
```

Global Flags:

```
--access-key string    s3 access key
--kubeconfig string    kube config file of ys1000 cluster
-n, --namespace string  namespace of ys1000 installed (default "ys1000")
--secret-key string     s3 access secret key
```

例:

```
yscli prune --backup-plan backup-test -p host-254-backup-test-w1-1716912000 --access-
key 9UDMVLXFHISINDJQZF3F --secret-key q6lhgK6B9rMgHCh4EmzjUUC37F4whxtXq5uTGGwY
```

```
2024-05-28T00:28:31+08:00 INFO  backup plan backup-test doesn't have full backups with
prefix host-254-backup-test-w1-1716912000
```

```
2024-05-28T00:28:31+08:00 INFO  Step 1. List for repo s3:https://obs.cn-
sz1.ctyun.cn/ym-ty/host-254-backup-test-w1-1716912000/restic/wordpress before prune
12
```

```
2024-05-28T00:28:32+08:00 INFO  Step 2. Prune for repo s3:https://obs.cn-
sz1.ctyun.cn/ym-ty/host-254-backup-test-w1-1716912000/restic/wordpress
repository 0aea9bc5 opened (repository version 1) successfully, password is correct
loading indexes...
```

```
loading all snapshots...
```

```
finding data that is still in use for 2 snapshots
```

```
[0:00] 100.00%  2 / 2 snapshots
```

```
searching used packs...
```

```
collecting packs for deletion and repacking
```

```
[0:00] 100.00% 12 / 12 packs processed
```

```
to repack:          5 blobs / 61.347 KiB
```

```
this removes:       1 blobs / 45 B
```

```
to delete:          0 blobs / 0 B
```

```
total prune:        1 blobs / 45 B
```

```
remaining:          1750 blobs / 39.079 MiB
```

```
unused size after prune: 0 B (0.00% of remaining size)
```

```
repacking packs
```

```
[0:00] 100.00%  1 / 1 packs repacked
```

```
rebuilding index
```

```
[0:00] 100.00% 12 / 12 packs processed
```

```
deleting obsolete index files
```

```
[0:00] 100.00%  2 / 2 files deleted
```

```
removing 1 old packs
```

```
[0:00] 100.00%  1 / 1 files deleted
```

```
done
```

```
2024-05-28T00:28:34+08:00 INFO Step 3. Unlock for repo s3:https://obs.cn-sz1.ctyun.cn/ym-ty/host-254-backup-test-w1-1716912000/restic/wordpress repository 0aea9bc5 opened (repository version 1) successfully, password is correct successfully removed locks
2024-05-28T00:28:35+08:00 INFO Step 4. List for repo s3:https://obs.cn-sz1.ctyun.cn/ym-ty/host-254-backup-test-w1-1716912000/restic/wordpress after prune
12
```

verify

verify命令用于检查存储在S3上的备份资源是否全部在目标集群成功恢复

Usage:

```
yscli verify [flags]
```

Flags:

```
-h, --help                help for verify
--restore-job string       name of ys1000 restore job
```

例:

指定备份任务的名称检查备份资源是否全部恢复成功, 备份任务的名称可以从ys1000应用恢复页面获得

```
yscli verify --restore-job restore-application-xws
```

cleanup

cleanup命令用于在YS1000卸载前对YS1000创建的资源进行清除

Usage:

```
yscli cleanup [flags]
```

Flags:

```
--cancel-running-jobs    cancel all running jobs and wait till they are canceled
                           completely
-f, --force               force delete all resources
-h, --help               help for cleanup
--stale-clusters string   stale clusters to be force deleted, separated by comma,
                           e.g. cluster1,tenant-ns1/cluster2
```

例:

```
yscli cleanup --cancel-running-jobs
```

2024-04-18T04:51:08+08:00	INFO	Start to delete resources
2024-04-18T04:51:08+08:00	INFO	Force deleting stale clusters
2024-04-18T04:51:08+08:00	INFO	Deleting data repo maintenances
2024-04-18T04:51:08+08:00	INFO	Deleting migration plans and jobs
2024-04-18T04:51:08+08:00	INFO	Deleting backup plans and jobs
2024-04-18T04:51:09+08:00	INFO	Deleting restore plans and jobs
2024-04-18T04:51:09+08:00	INFO	Deleting other ys1000 resources
2024-04-18T04:51:10+08:00	INFO	Deleting resource migration.yinhestor.com/v1alpha1, Kind=BackupJob with name intree-only-0-default-kbrz5 in namespace ys1000
2024-04-18T04:51:10+08:00	INFO	Deleting resource migration.yinhestor.com/v1alpha1, Kind=BackupJob with name mysql-2-1708456854 in namespace ys1000
2024-04-18T04:51:10+08:00	INFO	Deleting resource migration.yinhestor.com/v1alpha1, Kind=BackupJob with name mysql-2-1708486800 in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-ceph-mysql-1711989654-ceph-mysql in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-ceph-mysql-1711989666-ceph-mysql in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-exp-mb-label-1712851246-wp-ceph in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-exp-mb-label-1713067200-wp-ceph in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-exp-mb-label-1713317924-wp-ceph in namespace ys1000
2024-04-18T04:51:11+08:00	INFO	Deleting resource ys.jibudata.com/v1beta1, Kind=ResticOperation with name remove-snapshot-hostpath-mysql-1712092343-hostpath-mysql in namespace ys1000
2024-04-18T04:55:39+08:00	INFO	Removing ys1000 dependent resource finalizers
2024-04-18T04:55:41+08:00	INFO	Deleting migConfig resources
2024-04-18T04:55:41+08:00	INFO	Deleting resource migration.yinhestor.com/v1alpha1, Kind=Migconfig with name qiming-config in namespace ys1000
2024-04-18T04:56:22+08:00	INFO	Deleting cluster resources
2024-04-18T04:56:22+08:00	INFO	Deleting CRDs
2024-04-18T04:56:23+08:00	INFO	Deleting crd archivejobs.ys.jibudata.com
2024-04-18T04:56:23+08:00	INFO	Deleting crd backupjobs.migration.yinhestor.com
2024-04-18T04:56:24+08:00	INFO	Deleting crd backupjobs.ys.jibudata.com
2024-04-18T04:56:24+08:00	INFO	Deleting crd backupplans.ys.jibudata.com
2024-04-18T04:56:24+08:00	INFO	Deleting crd backuppolicies.ys.jibudata.com
2024-04-18T04:56:24+08:00	INFO	Deleting crd backups.migration.yinhestor.com
2024-04-18T04:56:25+08:00	INFO	Deleting crd backuptemplates.ys.jibudata.com
2024-04-18T04:56:25+08:00	INFO	Deleting crd clusters.ys.jibudata.com

2024-04-18T04:56:25+08:00	INFO	Deleting crd dataexports.migration.yinhestor.com
2024-04-18T04:56:26+08:00	INFO	Deleting crd dataimports.migration.yinhestor.com
2024-04-18T04:56:26+08:00	INFO	Deleting crd datalayouts.js.jibudata.com
2024-04-18T04:56:26+08:00	INFO	Deleting crd datarepomaintenances.js.jibudata.com
2024-04-18T04:56:26+08:00	INFO	Deleting crd datasyncs.migration.yinhestor.com
2024-04-18T04:56:26+08:00	INFO	Deleting crd dataverifies.migration.yinhestor.com
2024-04-18T04:56:27+08:00	INFO	Deleting crd disasterrecoveries.migration.yinhestor.com
2024-04-18T04:56:27+08:00	INFO	Deleting crd drconfigs.migration.yinhestor.com
2024-04-18T04:56:28+08:00	INFO	Deleting crd drgroupoperations.migration.yinhestor.com
2024-04-18T04:56:28+08:00	INFO	Deleting crd drgrouprequests.migration.yinhestor.com
2024-04-18T04:56:28+08:00	INFO	Deleting crd drgroups.migration.yinhestor.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd droperationrequests.migration.yinhestor.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd droperations.migration.yinhestor.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd drrehearsals.migration.yinhestor.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd drworkflows.migration.yinhestor.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd globalclusters.js.jibudata.com
2024-04-18T04:56:29+08:00	INFO	Deleting crd globalstorages.js.jibudata.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd hooks.js.jibudata.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd imagebackups.js.jibudata.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd imageregistries.js.jibudata.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd managedapplications.js.jibudata.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd miganalytics.migration.yinhestor.com
2024-04-18T04:56:30+08:00	INFO	Deleting crd migclusters.migration.yinhestor.com
2024-04-18T04:56:31+08:00	INFO	Deleting crd migconfigs.migration.yinhestor.com
2024-04-18T04:56:31+08:00	INFO	Deleting crd mighooks.migration.yinhestor.com
2024-04-18T04:56:31+08:00	INFO	Deleting crd migmigrations.migration.yinhestor.com
2024-04-18T04:56:32+08:00	INFO	Deleting crd migplans.migration.yinhestor.com
2024-04-18T04:56:32+08:00	INFO	Deleting crd migrationjobs.js.jibudata.com
2024-04-18T04:56:33+08:00	INFO	Deleting crd migrationplans.js.jibudata.com
2024-04-18T04:56:33+08:00	INFO	Deleting crd migstorages.migration.yinhestor.com
2024-04-18T04:56:34+08:00	INFO	Deleting crd resourcesyncs.migration.yinhestor.com
2024-04-18T04:56:34+08:00	INFO	Deleting crd resticoperations.js.jibudata.com

2024-04-18T04:56:34+08:00	INFO	Deleting crd restorejobs.migration.yinhestor.com
2024-04-18T04:56:35+08:00	INFO	Deleting crd restorejobs.js.jibudata.com
2024-04-18T04:56:35+08:00	INFO	Deleting crd restoreplans.js.jibudata.com
2024-04-18T04:56:35+08:00	INFO	Deleting crd restores.migration.yinhestor.com
2024-04-18T04:56:35+08:00	INFO	Deleting crd storages.js.jibudata.com
2024-04-18T04:56:36+08:00	INFO	Deleting crd systemreports.js.jibudata.com
2024-04-18T04:56:36+08:00	INFO	Deleting crd systemsettings.migration.yinhestor.com
2024-04-18T04:56:36+08:00	INFO	Deleting crd tenantmanagers.js.jibudata.com
2024-04-18T04:56:37+08:00	INFO	Deleting crd tenants.js.jibudata.com
2024-04-18T04:56:37+08:00	INFO	Deleting crd tenantworkers.js.jibudata.com
2024-04-18T04:56:38+08:00	INFO	Deleting crd users.js.jibudata.com
2024-04-18T04:56:38+08:00	INFO	Deleting crd workspacebindings.js.jibudata.com
2024-04-18T04:56:39+08:00	INFO	Deleting crd workspaces.js.jibudata.com
2024-04-18T04:56:39+08:00	INFO	Finish to cleanup resources