

R-1

Deployment Platform

UDL and Pre Sorted Lists

Software Version 5.0

For Windows, Linux and UNIX operating systems

May 17, 2011

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Please direct correspondence or inquiries to:

RepliWeb, Inc.
6441 Lyons Road
Coconut Creek, Florida 33073
USA

Telephone: (954) 946-2274
Fax: (954) 337-6424

Sales & General Information: info@repliweb.com
Documentation: docs@repliweb.com
Technical Support: <http://support.repliweb.com>
Website: <http://www.repliweb.com>

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1. Overview

The **User Defined List** (UDL) is a powerful feature designed to externally specify which files are to be included in the Replication process, for example it allows a 3rd party application to create a list of files for R-1 to distribute across the network (UDL specifies the list of files only, the same job definition can be used with a different UDL each time).

The UDL is a text file containing the specifications of R-1 inclusion list (relative to the replication source directory).

The UDL acts as a filter for the snapshot stage. It selects and puts into the snapshot only the files listed in the UDL. From that point, a Comparative Snapshot (CST) takes place. Specifying files in your list, only those files will be in the generated snapshot. If those files are identical on the source and target, they will not be replicated and/or purged.

The UDL format is identical to the Include File Specification format, meaning, any file specification can be used (using non-recursive and recursive parts) to maximize effectiveness.

NOTE: The UDL is an extension to the filter. If the Job Properties contain Include File Specification, the Specifications listed in the UDL are added to those listed in the Include File Specification.

The **Pre-Sorted List** is intended for users required to specify which specific files from the source tree will be distributed. The Pre-Sorted List is a text file supplied by the user containing the names of these files (relative to the replication source root).

If the Pre Sorted List is applied to the source, it is used only on the source tree. A regular snapshot is done only on the target tree.

Scope

The User Lists are applied to both source and target. This means that only the files that are part of the list are synchronized. The User Lists act as a 'filter' and target files that are not part of the List are not handled in any way during the replication process.

2. UDL Format

To create a UDL, edit a text file.

- The list must contain the file specification of all files that you wish to distribute
- File Specifications are relative to the Source Directory
- File Specifications may include wild cards
- File Specifications may include a non-recursive and recursive part, separated by a comma
- The list does not need to be sorted in any way

NOTE: For complete information on file specification please refer to the *R-1 File Specification – Include / Exclude* guide. This guide contains a detailed explanation on File Specification in R-1.

Example:

To replicate the following files:

- All `.htm` and `.html` files from all over the tree
- All `.gif` and `.jpg` images from sub directory `final_images`
- The file `user_guide.pdf` from `english\docs` sub directory
- All files from `styles\` sub directory

The list should read:

```
,*.htm*  
final_images\,*.gif  
final_images\,*.jpg  
english\docs\user_guide.pdf  
styles\*,
```

NOTE: If the file name contains a comma `,`, please use `','`

3. Pre Sorted List Format

Using Pre-Sorted List is intended for users required to specify which specific files from the source tree will be distributed. The Pre-Sorted List is a text file supplied by the user containing the names of these files (relative to the replication source root). The file can either be edited by the user or generated by an outside process.

- Each hierarchic level (files and directories that are under the same directory) should be sorted in lexicographic order (doesn't matter if it is directory or a file).
- The path should be relative to the source directory, no need to put '/' or '\' in the beginning of the path.
- Each line in the list represents a single file or directory. Wildcards cannot be used.
- Each file and directory should be specified only once in the list.
- Only files to be transferred (if different from the target) should be specified in the list.
- The directories that should be included in the list are only those that their sub tree contains a file that should be transferred.
- A directory should be specified in the list only after all its files and subdirectories.
- Using of '\' or '/' must be according to source file system type.

Example:

To replicate the following files:

```
a.a
b.b
subdir1/a.1
subdir1/a.2
subdir1/subsub/c.c
subdir2/b.1
```

The list should read:

```
a.a
b.b
subdir1/a.1
subdir1/a.2
subdir1/subsub/c.c
subdir1/subsub
subdir1
subdir2/b.1
subdir2
```

NOTE:

- The list must be in increasing lexicographic order.
- Any subdirectories must be specified immediately after the files contained therein.
- All paths are relative to the path entered in the `Path` field.

NOTE: If the file name contains a comma ',', please use ','.

Example: Recursive Folders:

To recursively replicate the following folders:

```
wwwroot/subdir1/subdir2/*,  
wwwroot/subdir1/subdir3/*,
```

The list should read:

```
wwwroot\subdir1\subdir2\,*  
wwwroot\subdir1\subdir3\,*
```

4. GUI

User List values are specified in the **Job Properties / Snapshot Tab**.

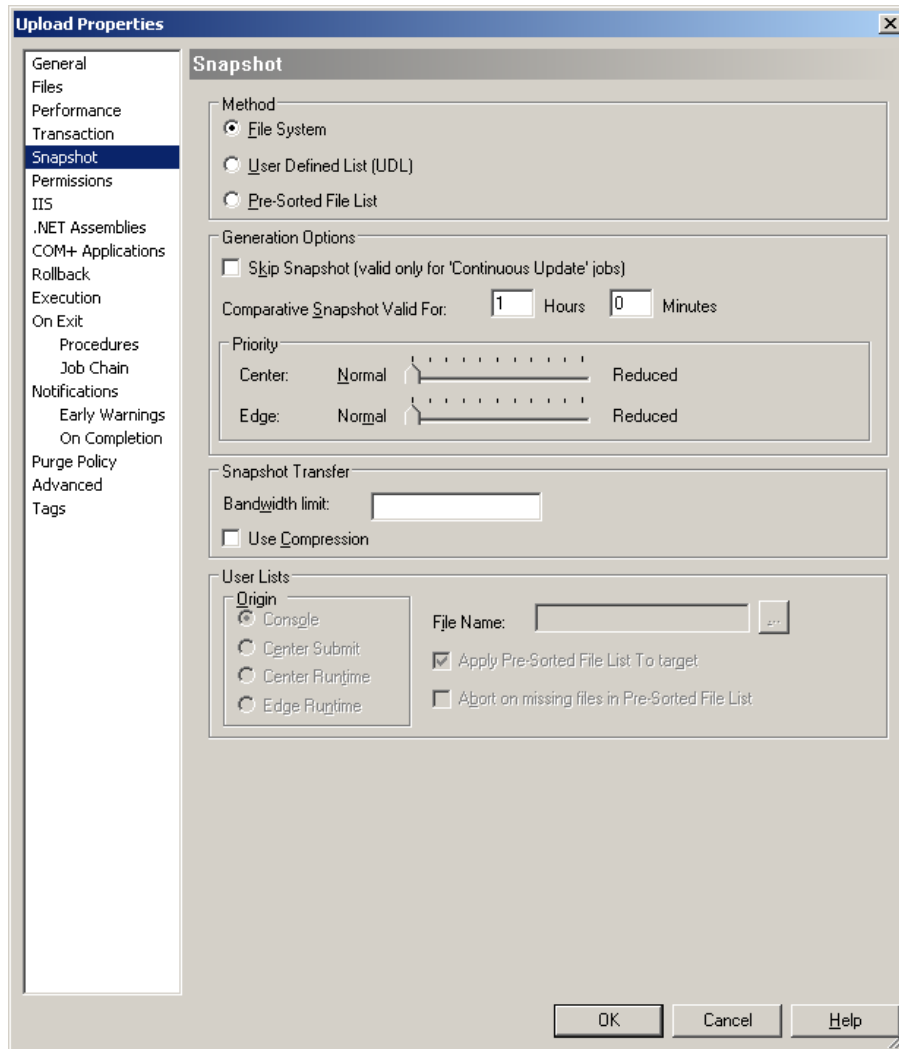


Figure 1: Snapshot Tab – Using UDL

1. Open a new Replication or Distribution job.
2. Click the **Properties** button and then click the **Snapshot** tab from the **Properties** dialog's left pane.
3. From the **Method** area, select the **User Defined List (UDL)** option.
4. In the **User Lists** area at the bottom of the tab, specify the User list's properties.
5. From the **Origin** frame, select the User list's origin. These values specify where and when the list is taken.

- **Console** - The list will be copied from the Console machine at the time the job is submitted to the Center. If the job is scheduled, the same list will be used for all subsequent jobs.
- **Center Submit** - The list will be taken from the Center at the time the job is submitted. Any changes made to the list between the time the job is submitted, and the time the job is actually run will be ignored. In Scheduled and Continuous Update jobs, the same list will be used for all subsequent jobs.
- **Center Runtime** - The list will be taken from the Center at the time the job actually runs. In Scheduled and Continuous Update jobs, each scheduled instance or full synchronization will use the list as is when the instance is spawned.
- **Edge Runtime** - The list will be taken from the Edge at the time the job actually runs. In Scheduled and Continuous Update jobs, each scheduled instance or full synchronization will use the list as is when the instance is spawned.

This option is available for Replication (Upload / Download) Jobs only.

6. Browse to the **File Name** of the User List file to be used. The file must reside on the Console, Center or Edge, according to the **Origin** specified.
7. Select the **Apply Pre Sorted File List to target** checkbox. The use of a Pre Sorted List on the source machine results in greatly reduced system resources during the snapshot generation stage of the replication. This is because the snapshot is assumed to be the Pre-Sorted List itself. However, on the target machine, a standard snapshot is still issued. When this option is enabled, the Pre-Sorted List is transferred to the target and only the files present in this list are examined for existence and modification. This greatly reduces the associated costs of the target snapshot for large content repositories.
8. Select the **Abort on Missing Files in Pre Sorted File List** checkbox to abort the job if the User Pre-Sorted List contains files that do not actually exist.

5. CLI

In a distribution job, the User List options are controlled by qualifiers of the **edge_default** command. These qualifiers cannot be specified at the **edge_override** command.

-user_list=file_name

file_name is the name of the UDL file name.

-user_sorted_list=file_name

file_name is the name of the User Pre Sorted List file name.

-use_sorted_list_on_target|-nouse_sorted_list_on_target

Defines applying the User Pre Sorted List to target machine. Specify whether the list is replacing the Tree Snapshot on Source only or also on Target. Selecting to apply Sorted List to target will skip the scanning of the target directory and apply the list instead. That way, only the files listed in the Sorted List are handled during the replication phase, all other files on target stay intact, as they are excluded from the replication. Using the Sorted List on the Replication Source only, the target directory is scanned, all List files are transferred, and the Target is changed according to the Replication Logic selected.

-abort_sorted_list_on_missing_file|noabort_sorted_list_on_missing_file

Defines handling missing files, specified in the Pre Sorted List. By default, if R-1 tries to transfer a file specified in the list that cannot be found, it will skip the file and exit successfully. Using **-abort_sorted_list_on_missing_file** will have R-1 abort the job, exiting with an error.

-list_source=none|console|center_runtime|center_submit|edge_runtime

The User List can be prepared on the Console machine and passed at the time of submit or it can be specified at the time of submit to be taken from the Center.

There are four options for the origin of the **-user_list**. These values state where and when the list will be taken from.

console - The list will be taken from the Console machine at submit time.

center_submit - The list will be taken from the Center at the time the job is submitted. Any changes made to the list between the time the job is submitted, and the time the job is actually run will be ignored. In Scheduled and Continuous Update jobs, the same list will be used for all subsequent jobs.

center_runtime - The list will be taken from the Center at the time the job actually runs. In Scheduled and Continuous Update jobs, each scheduled instance or full synchronization will use the list as is when the instance is spawned.

edge_runtime - The list will be taken from the Edge at the time the job actually runs. In Scheduled and Continuous Update jobs, each scheduled instance or full synchronization will use the list as is when the instance is spawned.

This option is available only for Upload and Download jobs (**-type=replication**).

For any additional information, contact us at support.repliweb.com