



DATA REPAIR POINT AND REPAIR

Planning Process

It is important to understand the different repair levels and how they best accommodate your environment. Computer groups and computers can be assigned different levels of repair depending upon your needs.

Computers must have the Persysistent Client installed by either having a base image installed containing the Persysistent Client or by inheriting the computer into Persysistent. A repair point should be taken once Persysistent Client is installed on the computer. The most recent repair point or the one which is marked as the “Active” repair point in the Persysistent WebUI will be used to repair the computer.

Repair Point

A repair point is a snapshot of operating system and application files. It only contains files and folders that are operating system and application specific. You can optionally include other files and folders that are not automatically part of the repair point by using the “Repair Point Include Filter” feature. Here is the list of files and folders that are part of the repair point by default:

Default on Windows XP:

- C:\boot.ini
- C:\ntldr
- C:\NTDETECT.COM
- C:\AUTOEXEC.BAT
- C:\IO.SYS
- C:\MSDOS.SYS
- C:\CONFIG.SYS

Captured on Windows XP:

- C:\Windows (Excluding C:\Windows\CSC)
- C:\Program Files
- C:\Program Files (x86)\
- C:\Documents and Settings\All Users
- C:\Documents and Settings\Default User
- C:\Documents and Settings\LocalService
- C:\Documents and Settings\NetworkService
- C:\inetpub



Default on Windows Vista, Windows 7/8/8.1/10

C:\Bootmgr
C:\Bootsect.bak

Captured on Windows Vista/Windows 7/8/8.1/10

C:\Windows (Excluding C:\Windows\CSC)
C:\Program Files
C:\Program Files (x86)\
C:\ProgramData
C:\Users\Public
C:\Users\Default
C:\Boot
C:\inetpub

A repair point should be taken immediately after authorized changes have made to the system. Examples of authorized changes are Windows Updates, application updates, installation of new applications, installation of new devices, etc... This will preserve the authorized changes and ensure the integrity of the repair process.

How is a repair point created?

A repair point can be created by scheduling a task using WebUI, using command-line option or using Notifier agent on the machine itself. Machine must be rebooted to take a snapshot since this will allow us to capture all files and folders and they would not be locked or in use by the operating system.

Where is repair point created?

A repair point is created locally to the machine and does not transfer any data back to the Persysent Server while it is being created. A machine can be completely offline and still be able to create repair point.

How long does it take to create a repair point?

First repair point of a machine will take the most amount of time since the local repository on the machine is blank. Typical machine will take anywhere from 10 minutes to 30 minutes to create the first repair point. The each additional repair point will take anywhere from 30 seconds to 2 minutes depending amount of change that has occurred on the machine since the last repair point.

How repair points are stored on the machine?

Repair points are compressed 3:1 in an average and stored in to Persysent partition. For example, 30 GB of OS and Application files will be compressed in the repair point to about 10 GB. Also, repair points are stored using single instance repository where it would not duplicate files in the repository. This allows us to store multiple copies of repair points of a machine in the Persysent partition.

How are repair points uploaded to the server?

Repair points can be uploaded to the Persistent server using policy. The purpose of uploading repair points to the server would be for disaster recovery. If the policy is enabled to upload repair points to the Persistent server, the Persistent Client Service will upload the repair point to the Persistent server. The machine will only upload files that the Persistent Server doesn't already have. The Persistent server also stores repair points of machines in single instance repository. It will not duplicate files in the server repository which makes repository size small and this will allow machines to upload only files that the server does not already have.

Once the first machine uploads all of its repair point files to the server then every other machine will only upload small amount of data to the server. This reduces the network load and machines now will only take few seconds to couple minutes to upload all of its repair point information.

Repair Levels

There are three different repair levels: Low, Medium and High. You may select any of these repair levels for use with Persistent computers. A computer will repair on every boot if it is assigned a Low/Medium/High level repair policy. If you do not want to repair a computer on every boot, then you can assign "No Repair" policy to that computer.

Low Level Repair

- Repairs any operating system or application files that are either modified or deleted back to the repair point state.
- Deletes any new files/folders that are added in operating system and application folders.
- User profiles are left intact. All change in the user's profile are preserved and not repaired.
- Any new files/folders created at the root of C:\ will be left intact.

Medium Level Repair

- Repairs any operating system and application files that are either modified or deleted back to the repair point state.
- Deletes any new files/folders that are added in operating system or application folders.
- User profiles are left intact. All change in the user's profile are preserved and not repaired.
- Any new files/folders created at the root of C:\ are deleted.

High Level Repair

- Repairs any operating system or application files that are either modified or deleted back to the repair point state.
- Deletes any new files/folders that are added in operating system or application folders.
- User profiles are deleted so that new user profiles will be created when a user logs on.
- Any new files/folders created at the root of C:\ will be deleted.

In all 3 repair level, Persistent will always repair the registry files (except for the keys that are excluded in filters). Repair levels can be changed at any time by changing policy. Also, you can exclude files/folders

from repair by using the “Repair Exempt” filter on the Persysent WebUI. The most common files/folders that you would exclude are Virus Definition Files.

	Low Level Repair	Medium Level Repair	High Level Repair
Protects OS and Application Files	✓	✓	✓
Leaves User Profiles and User Settings intact	✓	✓	DELETE
Leave User Data at root of the C:\ intact	✓	DELETE	DELETE

UTOPIC

Utopic Software
 1215 E 6th Avenue
 Tampa, FL 33605

813.444.2231

support@utopicsoftware.com

Copyright © 2017 Utopic Software.

All rights reserved. Printed in the United States of America.

Information in this document is subject to change without notice. Persysent Software makes no warranties, express, implied, or statutory, as to the information in this document. This document contains proprietary information protected by copyright. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, without written permission of Utopic Software, 1215 E 6th Avenue, Tampa, FL 33605, except as specified in the Product Warranty and License Terms.

Persysent® Suite logos are registered trademarks; Persysent Suite is a trademark of Persysent Software.

Microsoft, Windows Server 2012, Windows Server 2008, Windows Server 2003, Windows XP, Windows Vista, Windows 7, Windows 8/8.1, Active Directory, SQL Server, SQL Express, and .NET are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

All other registered trademarks and service marks mentioned are the property of their respective owners.