

Backup and Recovery

To restore the Workflow quickly and reliably in the event of a system failure, creating consistent system backups is highly recommended.

Let's take a look at what is covered in this article:

- Which **file directories** should be included in the backup
- Which **services** you need to stop during the backup
- How to **restore** the **Workflow**

1. Backup

A Workflow host backup must be implemented under all circumstances, otherwise in the event of a problem/failure, recovery is impossible. It is essential that you discuss the backup strategy with the IT department and clarify all precautionary measures.

1.1. Manual Backup

To perform a manual backup using a backup software of your choice, the following precautions must be taken or the following instructions must be followed:

The following directories must be included in the backup:

- **PMS Data directory** (by default `C:\PMS_DATA` and possibly `D:\PMS_DATA`)
- **PMS Program directory** (by default `C:\Program Files\PPD`)

If you have user-defined directories that are outside the PMS_DATA directories, they must also be included in the backup. This applies to monitored Hotfolders for example or directories where images are stored for variable data Production Jobs.

Stopping Services before starting the backup process

During the backup process, both the **PMS** and **PPD-PostgreSQL** services must be stopped.

This can be done using the following commands in the [Windows Command Prompt](#):

- `net stop zunicomm`
- `net stop pms`
- `net stop ppd-postgresql`

1.2. Automatic Backups

Since the Workflow does not contain any tools for creating backups and this is also not in the domain of our development, we recommend that you purchase appropriate backup software to back up your data. Maintaining backups offers the ability to return to production as quickly as possible or you can simply rely on the solution provided by the in house IT department.

Software solutions used by customers for creating snapshots and/or backups are:

- **Veeam** – <https://www.veeam.com> (our internal backup solution)
- **Iperius Backup** – <https://www.iperiusbackup.com>
- **CloneZilla** – <https://clonezilla.org>
- **Acronis True Image** – <https://www.acronis.com/en-eu/products/true-image>



Running the Workflow on a Virtual Machine

Running the Workflow on a Virtual Machine, will also allow to create Snapshots periodically on an external storage.



Backup is required

It is absolutely necessary to create a daily (incremental) backup or snapshot to prevent or minimize downtime.

We cannot take any responsibility for problems that occur due to production failures. You are responsible for creating and maintaining your own backup strategy.

For all customers with a maintenance contract, we offer a backup license for an additional fee, which can be used to restore the backup to a second workstation in case of hardware problems on the main workstation.

2. Recovery

If you need to restore a saved state, hopefully you have the option to fall back on an automatically generated snapshot. Restoring manually is more time-consuming and also much more error-prone.



Testing Recovery

Not only performing a backup, but also testing whether a restore is successful is essential for a well-designed backup strategy.

2.1. Manual Recovery

Manual recovery is the equivalent of a **new installation including the restoration of certain directories** from the last backup.

To do this, proceed as follows:

1. Execute the setup routine – see [Installing the Workflow](#). Preferably, use the same version that matches the available backup.
Under no circumstances should an older version be installed!
2. After the installation, the services **PMS**, **ZuniComm** and **PPD-PostgreSQL** must be stopped (see [Stopping Services before starting the backup process](#) above).
3. We recommend deleting all files from the new installation in the following directories before restoring:
 - *PMS data directory (by default `C:\PMS_DATA` and possibly `D:\PMS_DATA`)*
 - **if a newer version of the Workflow has been installed**, you must also delete the *PPD program directory (by default `C:\Program Files\PPD`)* before the next step and replace it with the directory from the backup.
4. Restore the backed up directories to their original locations.
5. After starting the previously stopped services **ZuniComm**, **PMS** and **PPD-PostgreSQL**, the system is ready for use again.
 - `net start zunicomm`
 - `net start pms`
 - `net start ppd-postgresql`

**Restore on new server**

If the system is installed on new hardware, a new license must be requested!

To do this, contact your **Service Partner** for the Workflow.

2.2. Automated Recovery

If you have used backup software and received a corresponding backup or snapshot from the Workflow server, the production environment can be restored in a standardized and reliable manner within a reasonable time frame.

To restore a backup, follow the corresponding instructions of the manufacturer of the backup software.

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