

# West-Life Virtual Folder - connecting data and computation for structural biology

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West-Life is H2020 project aiming to deliver virtual research environment in order to support integrative research in structural biology. Structural biology involves multiple techniques X-ray crystallography, cryoEM, NMR, mass spectroscopy and others. It aims to address two main challenges:

- Allow discovery and deliver multiple software tools and techniques to user lowering the effort for installation configuration and integration.
- Aggregate scattered data into virtual folder view and allow processing them using uniform interface

West-Life Virtual Folder allows to register data storage provider in one place and aggregate them when the data are needed. It supports to register Dropbox or EUDAT's B2DROP service or any data storage service giving WEBDAV interface. It heavily uses WEBDAV interface and protocol to deliver standard method to download and upload data by other services and web sites. There is possibility to integrate proprietary solution provided by each data storage provider delivering better performance.

West-Life Virtual machine templates brings uniform configuration for launching software and processing data. It leverages CernVM-FS technology for distributing software suites, thus they are not included in VM template itself, but are downloaded to VM cache and executed on demand, bringing initial VM image very small (18 MB). Virtual Folder inside virtual machine integrates user's data with software deployed on computation node ready for processing.

Currently software suites of CCP4,CCPEM, SCIPION and others are available for user's of VM.

## Type of abstract

Presentation

## Summary

West-Life Virtual Folder focuses on data management, stored within different storage providers and delivering uniform access to data from different computational nodes following workflows in structural biology community.

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