

Package Activity (Position, Connection,...)

Package summary

In Cytomine, we try to store a lot of data about user activities. We mainly store:

- Once every 5 seconds AND everytime the user move (zoom+/-, move left/right/top/down,...): the user position (visible image area) on the image.
- Once every 20 seconds: the project open by the user.

This kind of data is usefull for:

- **analyzing user activity**: a teacher may want to see where students go on the image and their zoom level.
- **tracking system**: a user A lock its view on another user B's view. This mean that we need to know the last location of user A.
- **user online in project**: when you open a project, you can see the list of online user in the project and their open images
- ...

This package is store in the MongoDB database.

Package main classes

Domain

Domain	Description	Main properties
PersistentUserPosition	A position (screen area) for a user on an image at a specific time (created)	Long image Long user Geometry location Date created
LastUserPosition	Same as PersistentUserPosition, but the collection is store in a TTL collection. Older data (x min) are automatically removed	
PersistentConnection	A user connection for Cytomine. We only store project (optional, if user has not open any project), date and user.	Long user Date date Project project
LastConnection	Same as PersistentConnection, but the collection is store in a TTL collection. Older data (x min) are automatically removed	

Package description

Request	Domain
user online	We query LastConnection.
user online in a project	We query LastUserPosition (we need the open image) and LastConnection (if a user is in the project but no open image).
tracking system	We query LastUserPosition: we just need the last position for a user in an image.