Python programming interface (reading) version 1.0

CellH5File(filename, mode)
Constructor: Initialization of CellH5File instances. For a given filename and access mode (read, write)

class_definition
Attribute: classification definitions (if available)

close()
Closes the hdf5 file handle and frees internal caches

image_definition
Attribute: image definitions

get_current_position()
Returns current CellH5Position instance

get_position(pos_key)
Returns CellH5Position instance for position pos_key

object_definition
Attribute: object definitions

plates
Attribute: list of all available plates

positions
Attribute: list of all available positions

set_current_position(pos_key)
Sets current position instance to the CellH5Position with position key pos_key

wells
Attribute: list of all available wells (experiments)

CellH5Position(plate, position, hdf5grp_pos, parent)
Constructor: Initialization of CellH5 Position instances. For a given plate, position_key, hdf5 group handle (hdf5grp_pos) and parent object

Operator()[key]
Index operator: Returns the hdf5 handle for a position identifier (key)

class_name_definition(object)
Retrieves the class name definition of a given object from

definitions
Attribute: reference to parent definitions

get_center(index, object)
Returns center position (x,y,[z]) of a given object index

get_class_color(index, object)
Returns color (hex string) of given object index

get_class_label(index, object)
Returns the class label of given object index

get_class_name(index, object)
Returns the corresponding class name of a given object index

get_class_prediction_table(object)
Retrieves the full class prediction table for all object indices

get_crack_contour(index, object)
Returns the segmentation (represented by its crack contour polygon) of a given object index

get_events()
Retrieves all stored events

get_feature_table(object, feature)
Returns the full feature table for a given feature and object

get_gallery_image(index, object)
Returns the gallery image for a given object index

get_gallery_image_contour(index, object, color)
Returns the gallery image for a given object index overlaid with the segmentation contour in the specified color

get_gallery_image_rgb(index, object)
Returns the gallery image for a given object index as RGB image

get_image(time, channel, zslice)
Retrieves an 2D image for a given time point, channel and zslice

get_object_table(object)
Return the object index table

get_object_features(object)
Return the full object feature table

get_time_idx(index, object)
Returns the time index of a given object index

get_tracking(object)
Returns the full tracking table for an object

has_classification(object)
Returns True if object includes classification results

object_feature_definition(object)
Retrieves the feature definition for an object

track_all(start_idx, object)
Recursively computes all tracking paths for a given object. All returned paths start with start_idx

track_first(start_idx, object)
Computes single tracking paths for a given object. By taking the first choice in all split decisions. All returned paths start with start_idx

track_last(start_idx, object)
Computes single tracking paths for a given object by taking the last choice in all split decisions. All returned paths start with start_idx