**Introduction**

The following describes the ECMAPI RESTful Service (ERS). ERS is a service deployed on one or more of the OpenLab servers to IIS. Each transaction with ERS is atomic, logging into the OpenLab ECM via the ECMAPI and logging out upon return. At this time, the service only support XML messages, although future releases may support JSON. Examples of messages are provided for each endpoint

**Authentication**

Authentication adheres to HTTP Basic Authentication. The username and password are validated at ECM. The username consists of a concatenated string composed of the ECM Domain, the ECM Account, and the ECM username separated by the “|” character

For example: BUILT-IN|ol\_account|ol\_username

**DateTime Format**

All date times are in one format:

MM/DD/YYYY HH:MM:SS AA

For example:

10/9/2014 7:18:14 PM

**Methods of the ECMAPI currently not implemented:**

CheckinFile

CheckoutFile

UndoCheckoutFile

DeleteFolder

UpdateSystemUDK

**ECMAPI REST Service endpoints**

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/version

Returns the current version of the RESTful service.

Returned:

<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">1.0</string>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/domainid

Returns the ECM Domain ID.

Returned:

<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">{59B4BF70-2E8D-48E0-A379-1A89424B0642}</string>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/userid

Returns the ECM User ID.

Returned:

<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">BUILT-IN::\_uploadagent::\_UploadAgent::{615CBF53-2116-44D2-BF55-DB3B5A24250F}::{4EAF3D4E-371B-49B3-BB9F-F4978CF0C88C}</string>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/folderinfos

Returns the entire hierarchical tree of folders in ECM from the root down. This does not include files in folders.

Returned:

<ArrayOfFolderInfo xmlns="http://schemas.datacontract.org/2004/07/EcmapiRestService.Models" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<FolderInfo>

<ID>{31240C43-34E9-4F03-A612-5A142E7CF64C}</ID>

<Level>0</Level>

<Name>\_AP3</Name>

<ParentID/>

<Path>\\_AP3</Path>

<fileinfos/>

<folderinfos>

<FolderInfo>

<ID>{221F3F60-A723-417A-9D10-E6CF571E2ADE}</ID>

<Level>1</Level>

<Name>PostQC</Name>

<ParentID>{31240C43-34E9-4F03-A612-5A142E7CF64C}</ParentID>

<Path>\\_AP3\PostQC</Path>

<fileinfos/>

<folderinfos>

<FolderInfo><ID>{DF6EC6F7-3039-4D1E-89D7-B971FFF636AB}</ID>

<Level>2</Level>

<Name>LC-MS</Name>

<ParentID>{221F3F60-A723-417A-9D10-E6CF571E2ADE}</ParentID>

<Path>\\_AP3\PostQC\LC-MS</Path>

<fileinfos/>

…

<folderinfos>

</FolderInfo>

…

</FolderInfo>

</ArrayOfFolderInfo>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/folderinfo/{name}?level={level}&like={like}

Returns the folder matching the name. The name can contain SQL LIKE clause syntax if the option parameter like is set to true.

Optional parameters:

Level – the level to start the search from, defaults to the root level 0

Like – a Boolean (true | false) that if set to true allows the name to be treated as a SQL LIKE condition. Defaults to false.

<ArrayOfFolderInfo xmlns="http://schemas.datacontract.org/2004/07/EcmapiRestService.Models" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<FolderInfo>

<ID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</ID>

<Level>3</Level>

<Name>Masshunter</Name>

<ParentID>{40B7169C-1A09-41E6-87A8-0E62DE6ABAD8}</ParentID>

<Path>\Qualification\Configuration\Test\Masshunter</Path>

<fileinfos/>

<folderinfos/>

</FolderInfo>

</ArrayOfFolderInfo>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/folderinfo/{id}

Returns the folder info for the folder id value.

Returns:

<FolderInfo xmlns="http://schemas.datacontract.org/2004/07/EcmapiRestService.Models" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<ID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</ID>

<Level>3</Level>

<Name>Masshunter</Name>

<ParentID>{40B7169C-1A09-41E6-87A8-0E62DE6ABAD8}</ParentID>

<Path>\Qualification\Configuration\Test\Masshunter</Path>

<fileinfos/>

<folderinfos/>

</FolderInfo>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/fileinfo/{id}?includedetails={includedetails}

Returns the file info for the id.

Optional Parameters:

Includedetails – Boolean (true|false) value, if true returns the file keysets and user defined keys associated with the file. The default is false.

Returns:

<FileInfo xmlns="http://schemas.datacontract.org/2004/07/EcmapiRestService.Models" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<COState>NotCheckedOut</COState>

<CanHaveRevisions>true</CanHaveRevisions>

<CanHaveSignatures>true</CanHaveSignatures>

<CheckSum>0</CheckSum>

<CheckoutLocation/><CheckoutReason/>

<CheckoutTime/>

<CheckoutUser/>

<Comment/>

<CompoundUserID/>

<CreateDate>10/9/2014 7:18:14 PM</CreateDate>

<DisplayName>09192014-1.D.ChemStation.SSIZip</DisplayName>

<DocumentRetentionClass/>

<DomainID/>

<FileSize>11334091</FileSize>

<FolderID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</FolderID>

<ID>{86E21FF1-105C-461B-AD1A-582A22DA64A6}</ID>

<LatestRevision>true</LatestRevision>

<LoggedInUserAtUpload>AMER\AMRGRO-SINGHA04</LoggedInUserAtUpload>

<MD5Checksum>06C8640AA1C7B8AD02DD76B2E5009369</MD5Checksum>

<MaxRevisions>0</MaxRevisions>

<ModifiedDate>10/3/2014 8:33:30 PM</ModifiedDate>

<NumSignatures>0</NumSignatures>

<OSOwnerAtUpload>BUILTIN\Administrators</OSOwnerAtUpload>

<OriginalName>09192014-1.d.chemstation.ssizip</OriginalName>

<Permanent>false</Permanent>

<ProcessingState/>

<ReadOnly>false</ReadOnly>

<RevisionNumber>0</RevisionNumber>

<ShortDisplayName/>

<SourceComputerName>AMRNDHW4158</SourceComputerName>

<SourceFolder>C:\Users\amrgro-singha04\Desktop</SourceFolder>

<UploadDate>10/9/2014 7:18:45 PM</UploadDate>

<UploadReason>test</UploadReason>

<UploadUser>SinghA04 (AMER\SINGHA04)</UploadUser>

<fileKeySets/>

<userDefinedKeys/>

</FileInfo>

## POST http://{host[:port]}/EcmRestService/EcmApi.svc/findfiles

Executes a file search at ECM. Refer to the ECMAPI documentation for information about the fields of the post data. Note that when the IncludeFileDetails field in the Post data is false, much of the data is omitted, as in the example below.

Post data:

<SearchQuery>

<SearchType>AdvancedSearch</SearchType>

<FolderId>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</FolderId>

<Query>[File Information.General Information.File Name] contains "example\*"</Query>

<MaxNumberFiles>-1</MaxNumberFiles>

<StartingMetadataTableNumber>-1</StartingMetadataTableNumber>

<NumberOfMetadataTablesToSearch>-1</NumberOfMetadataTablesToSearch>

<StartDate/>

<EndDate/>

<IncludeFileDetails>false</IncludeFileDetails>

</SearchQuery>

Returns:

<ArrayOfFileInfo xmlns="http://schemas.datacontract.org/2004/07/EcmapiRestService.Models" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<FileInfo>

<COState>NotCheckedOut</COState>

<CanHaveRevisions>true</CanHaveRevisions>

<CanHaveSignatures>true</CanHaveSignatures>

<CheckSum>0</CheckSum>

<CheckoutLocation/>

<CheckoutReason/>

<CheckoutTime/>

<CheckoutUser/>

<Comment/>

<CompoundUserID/>

<CreateDate/>

<DisplayName>example.xls</DisplayName>

<DocumentRetentionClass/>

<DomainID/>

<FileSize>0</FileSize>

<FolderID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</FolderID>

<ID>{C8C23DF1-A558-4D61-990A-394EA225F6C7}</ID>

<LatestRevision>false</LatestRevision>

<LoggedInUserAtUpload/>

<MD5Checksum/>

<MaxRevisions>0</MaxRevisions>

<ModifiedDate/>

<NumSignatures>0</NumSignatures>

<OSOwnerAtUpload/><OriginalName/>

<Permanent>false</Permanent>

<ProcessingState/>

<ReadOnly>false</ReadOnly>

<RevisionNumber>0</RevisionNumber>

<ShortDisplayName/>

<SourceComputerName/>

<SourceFolder/><UploadDate/>

<UploadReason/>

<UploadUser/>

<fileKeySets/>

<userDefinedKeys/>

</FileInfo>

<FileInfo>

<COState>NotCheckedOut</COState>

<CanHaveRevisions>true</CanHaveRevisions>

<CanHaveSignatures>true</CanHaveSignatures>

<CheckSum>0</CheckSum>

<CheckoutLocation/>

<CheckoutReason/>

<CheckoutTime/>

<CheckoutUser/>

<Comment/>

<CompoundUserID/>

<CreateDate/>

<DisplayName>example3.xls</DisplayName>

<DocumentRetentionClass/>

<DomainID/>

<FileSize>0</FileSize>

<FolderID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</FolderID>

<ID>{9EF942CB-BCC0-4E9A-A4F6-EDC2F5C4FD69}</ID>

<LatestRevision>false</LatestRevision>

<LoggedInUserAtUpload/>

<MD5Checksum/>

<MaxRevisions>0</MaxRevisions>

<ModifiedDate/>

<NumSignatures>0</NumSignatures>

<OSOwnerAtUpload/>

<OriginalName/>

<Permanent>false</Permanent>

<ProcessingState/>

<ReadOnly>false</ReadOnly>

<RevisionNumber>0</RevisionNumber>

<ShortDisplayName/>

<SourceComputerName/>

<SourceFolder/>

<UploadDate/>

<UploadReason/>

<UploadUser/>

<fileKeySets/>

<userDefinedKeys/>

</FileInfo>

</ArrayOfFileInfo>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/filelink/{id}?secure={secure}&expirydatetime={expirydatetime}

Returns an ECM generated file link to a file.

Optional parameters:

secure – returns a link that will invoke the ECM web application to prompt for credentials before downloading. Note that this will only work when the client is running under Windows and has installed the ECM web application.

expirydate – the date and time the link provided will be expire. If none given, the link will not expire.

Returns:

<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">

<http://amrndhw4159/ECM/url.asp?SessID=1757AD6AF56903B107B204F378ADB3F4D523B7B8C91C20F3BE57E50CFCCC7439C0E8E7591F80EA080>

</string>

## POST http://{host[:port]}/EcmRestService/EcmApi.svc/filelinks?secure={secure}&expirydatetime={expirydatetime}

Returns a list of ECM generated file links matching the list of file ids posted.

Optional parameters:

secure – returns a link that will invoke the ECM web application to prompt for credentials before downloading. Note that this will only work when the client is running under Windows and has installed the ECM web application.

expirydate – the date and time the link provided will be expire. If none given, the link will not expire.

Post data:

<ArrayOfstring xmlns="http://schemas.microsoft.com/2003/10/Serialization/Arrays" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<string>{B72B44B4-B539-4DCE-931E-FF3FC4ADB02F}</string>

</ArrayOfstring>

Returns:

<ArrayOfstring xmlns="http://schemas.microsoft.com/2003/10/Serialization/Arrays" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<string>

<http://amrndhw4159/ECM/url.asp?SessID=1F7A8996B467B6B311768AD5EDC6DC79039F8E71B306B1E30E5CDEC0B47E73F8DBE8AA51E62E7B234>

</string>

</ArrayOfstring>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/userdefinedkey/{id}/{key}

Returns a the user defined key for a file id and key value.

Returns:

<UserDefinedKey z:Id="i1"xmlns:i="http://www.w3.org/2001/XMLSchema-instance"xmlns:z="http://schemas.microsoft.com/2003/10/Serialization/">

<Key>UDK-DT\_Test</Key>

<Value>1/12/2008 3:28:21 PM</Value>

<DataType>Datetime</DataType>

</UserDefinedKey>

## PUT http://{host[:port]}/EcmRestService/EcmApi.svc/userdefinedkey/{id}

Updates the value of a user defined key of a file.

Put data:

<UserDefinedKey>

<Key>UDK-DT\_Test</Key>

<Value>1/12/2008 3:28:21 PM</Value>

<DataType>Datetime</DataType>

</UserDefinedKey>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/userdefinedkeys/{id}

Returns all the user defined keys for a file.

Returns:

<ArrayOfUserDefinedKey xmlns:i="http://www.w3.org/2001/XMLSchema-instance">

<UserDefinedKey z:Id="i1" xmlns:z="http://schemas.microsoft.com/2003/10/Serialization/">

<Key>UDK-AN\_Test</Key>

<Value>This is a test</Value>

<DataType>String</DataType>

</UserDefinedKey>

<UserDefinedKey z:Id="i2" xmlns:z="http://schemas.microsoft.com/2003/10/Serialization/">

<Key>UDK-AN\_Test</Key>

<Value>This is a test</Value>

<DataType>String</DataType>

</UserDefinedKey>

<UserDefinedKey z:Id="i3" xmlns:z="http://schemas.microsoft.com/2003/10/Serialization/">

<Key>UDK-DT\_Test</Key>

<Value>1/12/2008 3:28:21 PM</Value>

<DataType>Datetime</DataType>

</UserDefinedKey>

<UserDefinedKey z:Id="i4" xmlns:z="http://schemas.microsoft.com/2003/10/Serialization/">

<Key>UDK-NM\_Test</Key>

<Value>47</Value>

<DataType>Number</DataType>

</UserDefinedKey>

</ArrayOfUserDefinedKey>

## PUT http://{host[:port]}/EcmRestService/EcmApi.svc/userdefinedkeys/{id}

Updates a collection of user defined keys for a file.

Put data:

<ArrayOfUserDefinedKey>

<UserDefinedKey>

<Key>UDK-AN\_Test</Key>

<Value>This is a test</Value>

<DataType>String</DataType>

</UserDefinedKey>

<UserDefinedKey>

<Key>UDK-AN\_Test</Key>

<Value>This is a test</Value>

<DataType>String</DataType>

</UserDefinedKey>

<UserDefinedKey>

<Key>UDK-DT\_Test</Key>

<Value>1/12/2008 3:28:21 PM</Value>

<DataType>Datetime</DataType>

</UserDefinedKey>

<UserDefinedKey>

<Key>UDK-NM\_Test</Key>

<Value>47</Value>

<DataType>Number</DataType>

</UserDefinedKey>

</ArrayOfUserDefinedKey>

## GET http://{host[:port]}/EcmRestService/EcmApi.svc/file/{id}

Returns a file via http streaming.

## POST http://{host[:port]}/EcmRestService/EcmApi.svc/folder/{folderid}/{filename}?reason={reason}

Streams a file via http streaming to a folder.

Parameters:

filename - Filename for the file.

Optional Parameters:

reason – reason for the new file.

Returns:

<FileInfo>

<COState>NotCheckedOut</COState>

<CanHaveRevisions>true</CanHaveRevisions>

<CanHaveSignatures>true</CanHaveSignatures>

<CheckSum>0</CheckSum>

<CheckoutLocation/>

<CheckoutReason/>

<CheckoutTime/>

<CheckoutUser/>

<Comment/>

<CompoundUserID/>

<CreateDate/>

<DisplayName>example3.xls</DisplayName>

<DocumentRetentionClass/>

<DomainID/>

<FileSize>0</FileSize>

<FolderID>{E8842EB1-576B-4D45-B02A-8AA14F8A8F7B}</FolderID>

<ID>{9EF942CB-BCC0-4E9A-A4F6-EDC2F5C4FD69}</ID>

<LatestRevision>false</LatestRevision>

<LoggedInUserAtUpload/>

<MD5Checksum/>

<MaxRevisions>0</MaxRevisions>

<ModifiedDate/>

<NumSignatures>0</NumSignatures>

<OSOwnerAtUpload/>

<OriginalName/>

<Permanent>false</Permanent>

<ProcessingState/>

<ReadOnly>false</ReadOnly>

<RevisionNumber>0</RevisionNumber>

<ShortDisplayName/>

<SourceComputerName/>

<SourceFolder/>

<UploadDate/>

<UploadReason/>

<UploadUser/>

<fileKeySets/>

<userDefinedKeys/>

</FileInfo>

## DELETE http://{host[:port]}/EcmRestService/EcmApi.svc/file/{id}?reason={reason}

Deletes a file.

Optional parameters:

reason – reason for file deletion.

## PUT http://{host[:port]}/EcmRestService/EcmApi.svc/activitylog

Makes a new entry in the ECM activity log

Put data:

<ActivityLogEntry>

<Description>description<Description>

<Reason>reason</Reason>

<ActivityType>File</ActivityType>

<ComputerName>MyComputer</ComputerName>

<Application>MyApplication<Application>

<ObjectId>{86E21FF1-105C-461B-AD1A-582A22DA64A6}</ObjectId>

<ObjectType>File</ObjectType>

</ActivityLogEntry>

ActivityType can be one of “File”, “Folder”, “Instrument”, “Scheduler”, “Storage”, “System”, “None”

ObjectType can be one of “File”, “Folder”, “None”