



Easily migrate your Attachments to Salesforce Files. <https://douglascayers.com/2015/10/10/...>

70 commits 1 branch 1 release 1 contributor MIT

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images	updated screen shots 17 days ago
src	Fix #19 by querying ContentDocumentLink instead of ContentVersion rec... 2 days ago
.gitignore	Fixed #3 allow attachments and notes to be deleted during conversion ... a year ago
LICENSE	Update LICENSE 24 days ago
README.md	Update README.md a day ago

README.md

Convert Attachments to Salesforce Files

Overview

Salesforce [announced](#) that in **Winter '18** the "Notes & Attachments" related list will no longer have an upload or attach button. Customers will be required to migrate to and adopt Salesforce Files.

At the time of this project, Salesforce has not (yet?) provided an official conversion tool from Attachments to Files.

This project enables the manual or automatic conversion of classic [Attachments](#) into [Salesforce Files](#) to take advantage of more sophisticated features, like sharing, revisions, larger file sizes, etc.

The package includes visualforce pages that let you:

- Configure sharing and conversion options
- Run test conversions
- Enable near real-time or scheduled conversions

Additional Background:

- [Why You Should Add the Files Related List to Your Page Layouts](#)
- [Add the Files Related List to Page Layouts](#)
- [5 Reasons to Use Files Related List](#)
- [Chatter Files: A Better Option for Attaching Files to Records](#)
- [ContentVersion Documentation](#)

Pre-Requisites

- Enable [Create Audit Fields](#) so Attachment create/update/owner fields can be preserved on the new files

Setup>Build>Customize>UserInterface

Setup

- Enable Enhanced Page Layout Editor
- Enable Enhanced Profile List Views
- Enable Enhanced Profile User Interface
- Enable Streaming API
- Enable Dynamic Streaming Channel Creation
- Enable "Set Audit Fields upon Record Creation" and "Update Records with Inactive Owners" User Permissions [i](#)
- Enable Custom Object Truncate
- Enable Improved Setup User Interface [i](#)
- Enable Advanced Setup Search (Beta) [i](#)

- Enable [Email-to-Case](#). You don't have to begin using it, just have it enabled. The code references the `EmailMessage` object. [Setup>Build>Customize>Cases>Email-to-Case](#)

Email-to-Case Settings

Email-to-Case settings for your organization

To create cases from Outlook, select the options Enable Email-to-Case, as well as Enable On-Demand Service. After you enable Email-to-Case, you can't disable it. You can, however, disable the On-Demand Service.

Enable Email-to-Case

Notify Case Owners on New Emails

Enable HTML Email

Packaged Release History

Release 1.1 (latest) [Use the latest version of app](#)

- Install package
 - [Production URL](#)
 - [Sandbox URL](#)
- Fixes [Issue 19](#) inconsistency when detecting if a file has already been converted or not due to special access rules on ContentVersion object.
- If error log records are generated then email is sent to all Salesforce Users listed in [Setup | Email Administration | Apex Exception Email](#) notifying them to review the error log records. **Misc Notes:**

Release 1.0

- Install package
 - [Production URL](#)
 - [Sandbox URL](#)
- Initial managed package offering
- Split out Notes Conversion into its [own project](#)

To capture debug logs in case of loading/running issues, turn on Apex Exception emails:
[Setup>Administer>Email Administration>Apex Exception Email](#)
AND set Email Deliverability to All Emails: [Setup>Administer>Email Administration>Deliverability](#)

Installing the Source Code (Developers)

You may install the unmanaged code from GitHub and make any desired adjustments. You are responsible for ensuring unit tests meet your org's validation rules and other requirements.

- [Deploy from Github](#)

Getting Started

Performed as Pre-Requirement: Setup>Build>Customize>UserInterface

1. Enable setting [Create Audit Fields](#) so Attachment create/update/owner fields can be preserved on the new files
2. Enable setting [Files uploaded to the Attachments related list on records are uploaded as Salesforce Files, not as attachments](#) [Setup>Build>Customize>Salesforce Files>Settings>General Settings](#)
3. Add "Files" related list to your page layouts (e.g. Accounts, Contacts, Tasks, Events, etc.)
4. Deploy the package using one of the installation links above
5. Assign yourself the permission set [Convert Attachments to Files](#) then switch to the app by the same name
6. On the [Convert Attachments to Files](#) tab page, click on [Setup Conversion Settings](#) to configure sharing and conversion behavior
7. Perform a **test** conversion
8. Consider **automating** conversion

Home Files **Convert Attachments to Files** Convert Attachments to Files Logs +

MAIN MENU
Convert Attachments to Files

1. Setup Conversion Settings
Customize sharing and conversion options.

2. Test Conversion
Run a test conversion job limited to specific parent records.

3. Automate Conversion
Choose how often to convert new attachments to files.

Troubleshooting
Frequently Asked Questions

Always test in a sandbox and backup your data first before performing conversions in production.

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Home Files **Convert Attachments to Files** Convert Attachments to Files Logs +

MAIN MENU > CONVERSION SETTINGS
Convert Attachments to Files

Files have more powerful [sharing options](#) than attachments, one of the [many reasons to switch](#) to files!
Please take a moment to carefully review your conversion sharing options below.

Who should converted files of private attachments be shared with?

- Keep files private; only the attachment's creator and System Administrators may access the files
- Share the files with all users who have access to the attachment's parent record

Which community of users who have access to the attachment's parent record get access to the converted files?

- Internal Users Only (not available if communities is disabled)
- All Users (recommended if communities is enabled)

If Communities are turned on, use "All Users"

How should view or edit access to the converted file be granted to users with access to the attachment's parent record?

- Users can only view the file but cannot edit it, even if the user can edit the attachment's parent record
- Users inherit view or edit access to the file based on their view or edit access to the attachment's parent record (recommended)

What should happen to the original attachments once converted?

- Keep them; I have great plans for the attachments...
- Delete them; I have backups and I need the data storage back!

Important: If you choose to delete attachments upon conversion, make sure you have made [backups](#) of your data. Understand that even with [Recycle Bin](#) some records may not be recoverable depending on [volume of data](#) deleted.

Save Cancel

FAQ

Max Documents or Versions Published Governor Limit

When converting classic Notes & Attachments the new data is stored in the `ContentVersion` object. There is a [limit to how many of these records can be created in a 24 hour period](#). If you have a lot of Notes & Attachments to convert plan around this limit and split the work across multiple days.

Field is not writeable: ContentVersion.CreatedById

When you deploy the package you might get error that files are invalid and need recompilation and one of the specific messages might say "Field is not writeable: ContentVersion.CreatedById". The conversion tool tries to copy the attachment's original created and last modified date/user to the converted file. To do so then the "Create Audit Fields" feature must be enabled. Please see [this help article](#) for instructions enable this feature.



This app can't be installed.

There are problems that prevent this package from being installed.

- Field is not writeable: ContentVersion.CreatedById** ConvertAttachmentsToFilesService: Field is not writeable: ContentVersion.CreatedById
- Dependent class is invalid and needs recompilation: ConvertAttachmentsToFilesTrigger: Dependent class is dca_cnvr_file.convertattachmentstofilequeueable:** invalid and needs recompilation:
- line 12, column 18: Invalid type:** dca_cnvr_file.convertattachmentstofilequeueable: line 12, column 18: Invalid type: ConvertAttachmentsToFilesService.ConversionResult

Setup

- Enable Enhanced Page Layout Editor
- Enable Enhanced Profile List Views
- Enable Enhanced Profile User Interface
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- Enable "Set Audit Fields upon Record Creation" and "Update Records with Inactive Owners" User Permissions
- Enable Custom Object Truncate
- Enable Improved Setup User Interface
- Enable Advanced Setup Search (Beta)

Visibility InternalUsers is not permitted for this linked record.

When the conversion tool shares the file to the attachment's owner and parent record the **ContentDocumentLink.Visibility** field controls which community of users, internal or external, may gain access to the file if they have access to the related record.

When communities are **enabled** then both picklist values `AllUsers` and `InternalUsers` are acceptable. When communities are **disabled** then only the picklist value `AllUsers` is acceptable.

This error usually means communities are **disabled** in your org and you're trying to set the visibility of the converted files to `InternalUsers`.

To fix then either (a) enable communities or (b) change the visibility option to `AllUsers`.

FIELD_INTEGRITY_EXCEPTION, Owner ID: id value of incorrect type: 035xxxxxxxxxxxxxxxx: [OwnerId]

Prior to Spring '12, Salesforce customers could have [Self-Service Portals](#), which pre-date the modern Communities we have today. This error means the Attachment is owned by a Self-Service User and ContentVersions cannot be owned by them. You may want to consider changing ownership of those attachments to actual user records whose IDs start with `005` prefix.

Are there any objects that don't support attachment conversion?

Yes, the [EmailMessage](#) object. Although technically you can convert their attachments to files, you cannot **share** the files to the email message records. You will receive error `INSUFFICIENT_ACCESS_OR_READONLY`, You can't create a link for Email Message when it's not in draft state.: `[LinkedEntityId]`.

How are private attachments converted?

Classic Notes & Attachments have an [IsPrivate](#) checkbox field that when selected makes the record only visible to the owner and administrators, even through the Note or Attachment is related to the parent entity (e.g. Account or Contact). However, ContentVersion object follows a different approach. Rather than an explicit 'IsPrivate' checkbox it uses a robust sharing model, one of the reasons to convert to the new Files to begin with! In this sharing model, to make a record private then it simply isn't shared with any other users or records. The caveat then is that these unshared (private) Files do not show up contextually on any Salesforce record. By sharing the new File with the original parent record then any user who has visibility to that parent

record now has access to this previously private attachment. Therefore, when converting you have the option to specify whether the private attachments should or should not be shared with the parent entity once converted into new File.

If I run the conversion multiple times, do duplicate files get created for the same attachments?

No, no duplicate files should be created once an attachment has been converted once. When attachments are converted into files we store the `Attachment.ID` in the `ContentVersion.Original_Record_ID__c` field for tracking purposes. The conversion logic first checks if there exist any files that have been stamped with the attachment id, if yes then we skip converting that attachment again.

Of course, if you choose the conversion option to delete the attachments upon conversion then no such attachment would exist the second time around. But if you choose to keep the attachments post conversion they will not be converted again if you run conversion process multiple times.

Disclaimer

This is not an official conversion tool by salesforce.com to migrate Attachments to Salesforce Files. This is a personal project by [Doug Ayers](#) to assist customers in migrating to and adopting Salesforce Files. Although this tool has been successfully tested with several customers since 2015 that have between dozens to tens of thousands of attachments, please do your own due diligence and testing in a sandbox before ever attempting this in production.

Always make a backup of your data before attempting any data conversion operations.

You may read the project license [here](#).

Special Thanks

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