

# Mitigating Log4j2 vulnerability for Experience Manager Forms

Please note that this guide was created by Ajila for the free use and best possible support of our customers, but we do not take any responsibility about the correctness and completeness.

## General

This article is based on the official Adobe article: [Mitigating Log4j2 vulnerabilities \(CVE-2021-44228 and CVE-2021-45046\) for Experience Manager Forms](#)

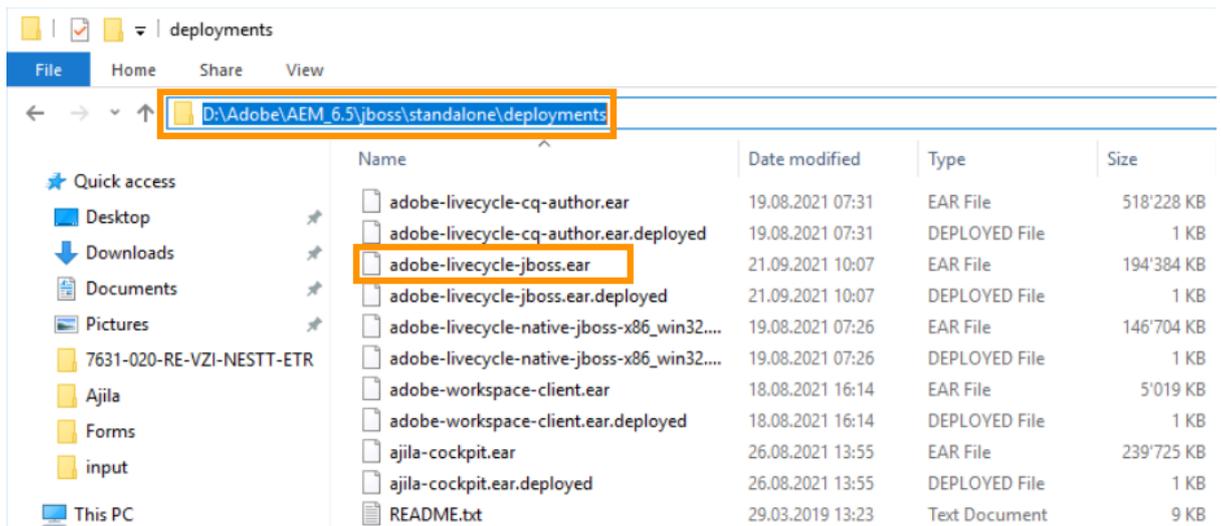
As the official article does not cover all details, we created our own step-by-step guide.

## Needed tools

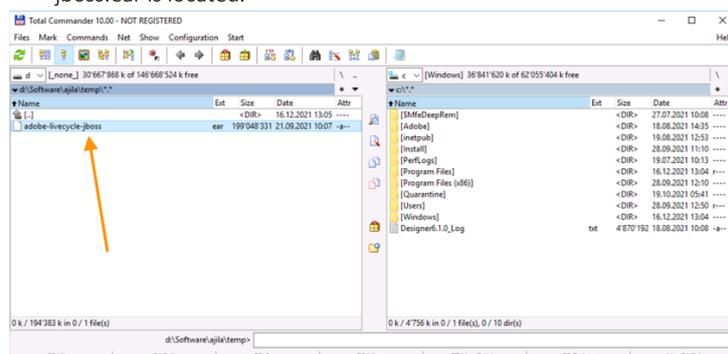
To update the **.ear** and **.jar** a separate tool is needed as the regular ZIP mechanisms are not sufficient. In this article the [Total Commander](#) is used.

## Step-by-step guide

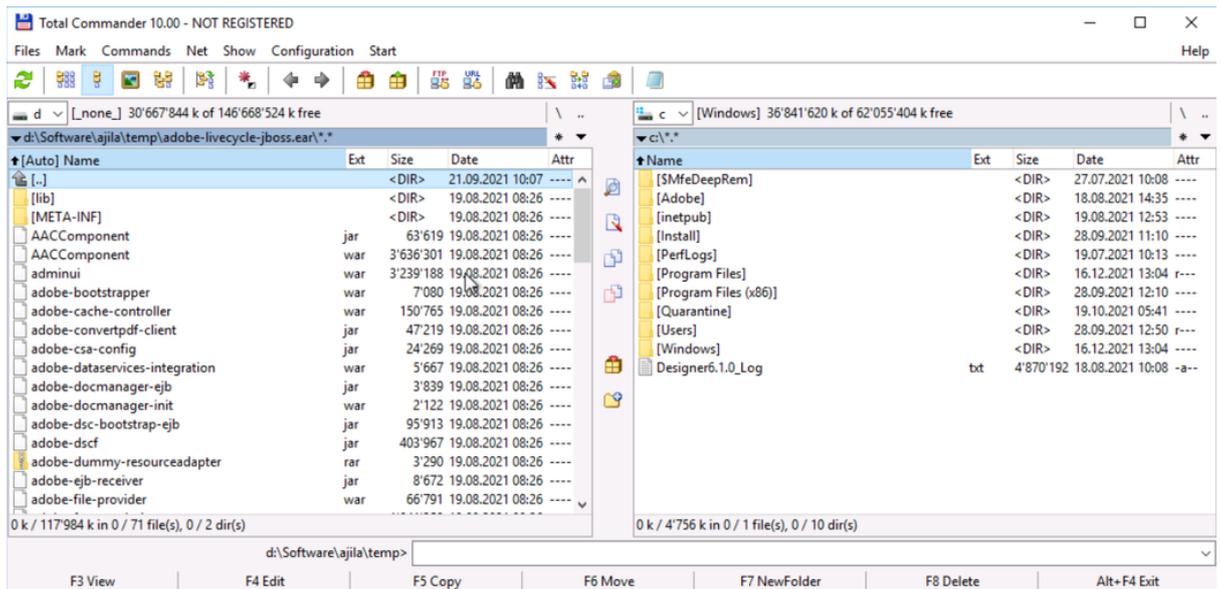
1. Navigate to the directory where the **.ear** files are deployed: [AEM\_HOME]\jboss\standalone\deployments



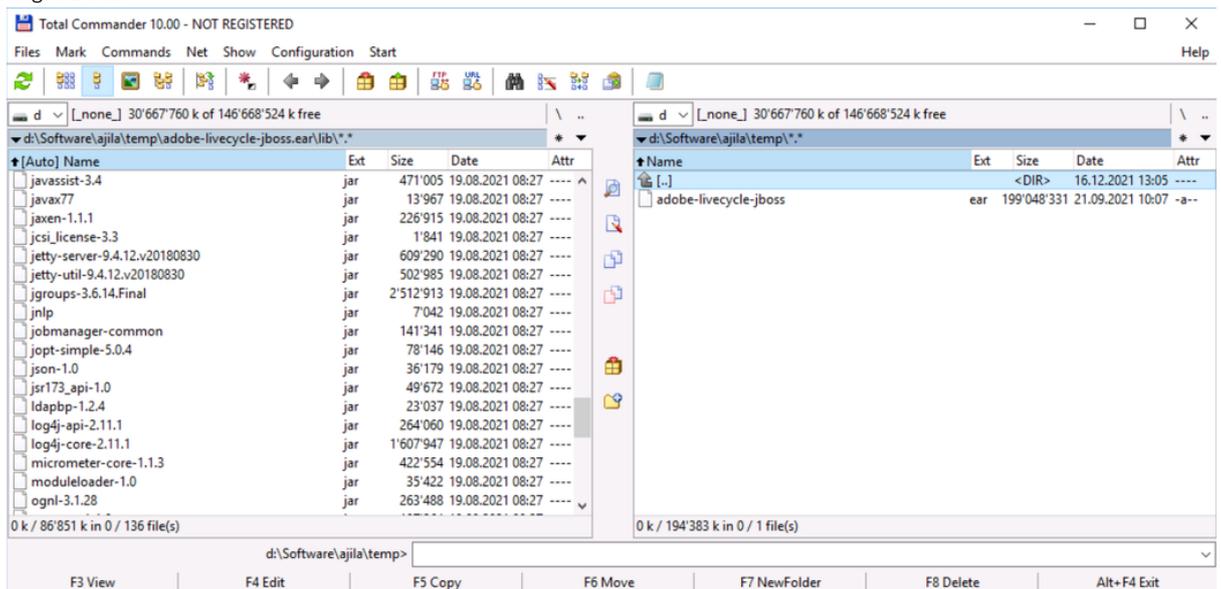
2. Copy the **adobe-lifecycle-jboss.ear** to another location where you can modify it (the server does not need to be shut down for this operation).
3. Open the Total Commander and navigate in the left panel to the location where the copied **adobe-lifecycle-jboss.ear** is located.



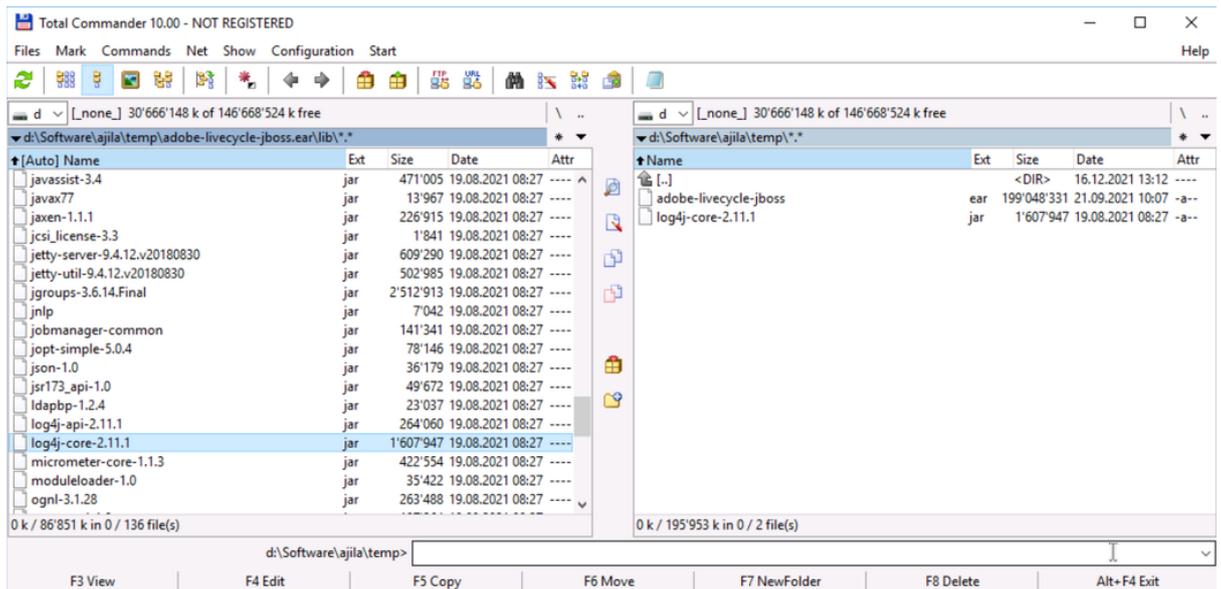
4. Select the **adobe-lifecycle-jboss.ear** file and press **CRTL + Page Down** to navigate into the **.ear** file



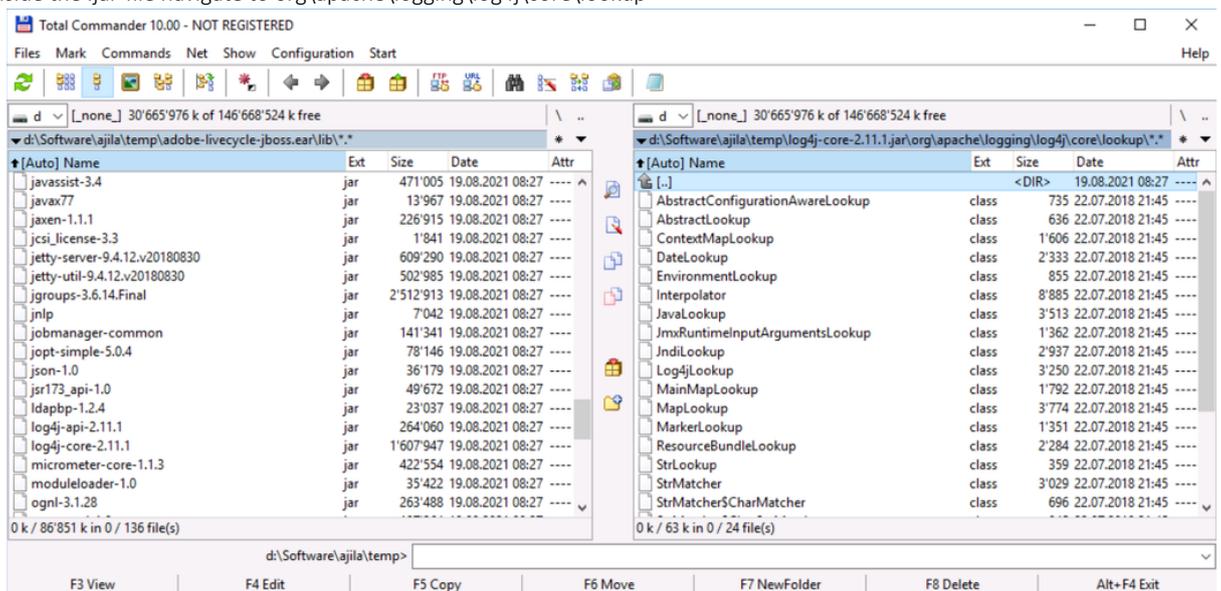
5. Navigate into the lib folder
6. In the right panel, navigate to the location where the adobe-livecycle-jboss.ear is located. You should end up with a listing like this:



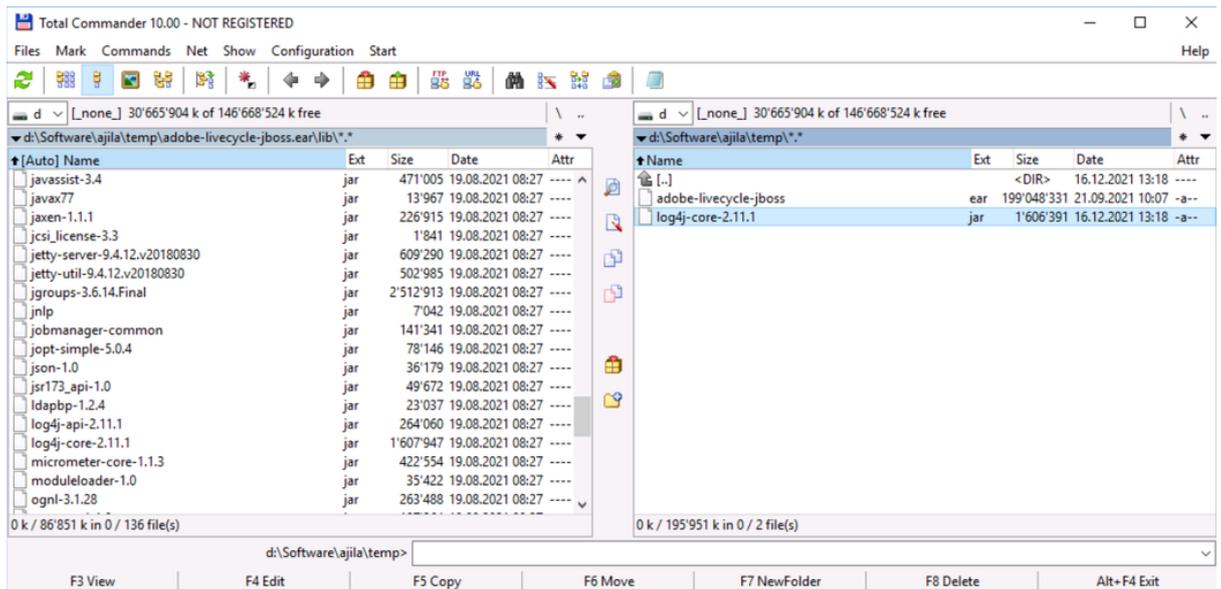
7. Now navigate in the left panel to the log4j-core-2.xx.jar (xx representing the version used in your AEM form installation)
8. Now press F5 to copy the log4j-core-2.xx.jar to the right panel. This operations extracts the .jar-File into the directory which you opened in the right panel:



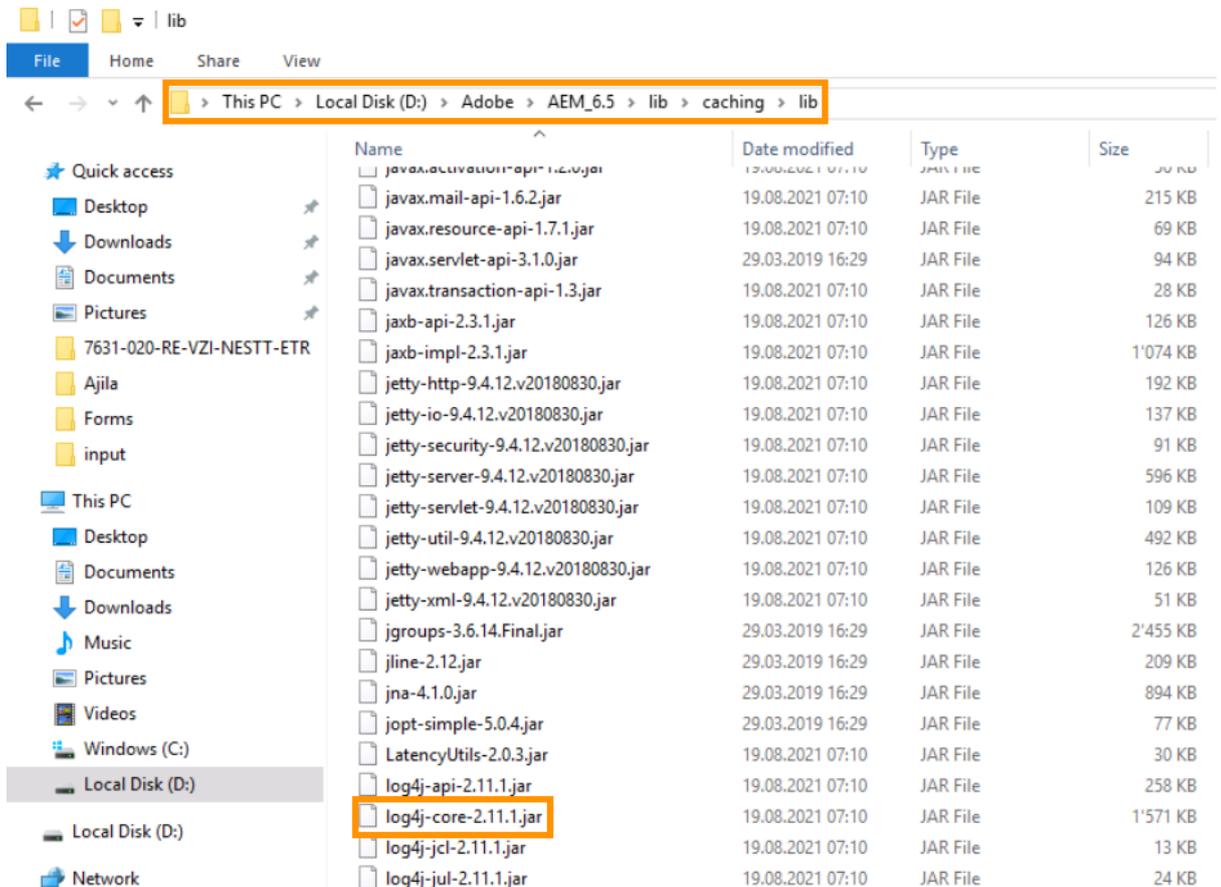
9. Now select the log4j-core-2.xx.jar in the right panel and press CTRL + Page Down again to navigate into the .jar-file
10. Inside the .jar-file navigate to org\apache\logging\log4j\core\lookup



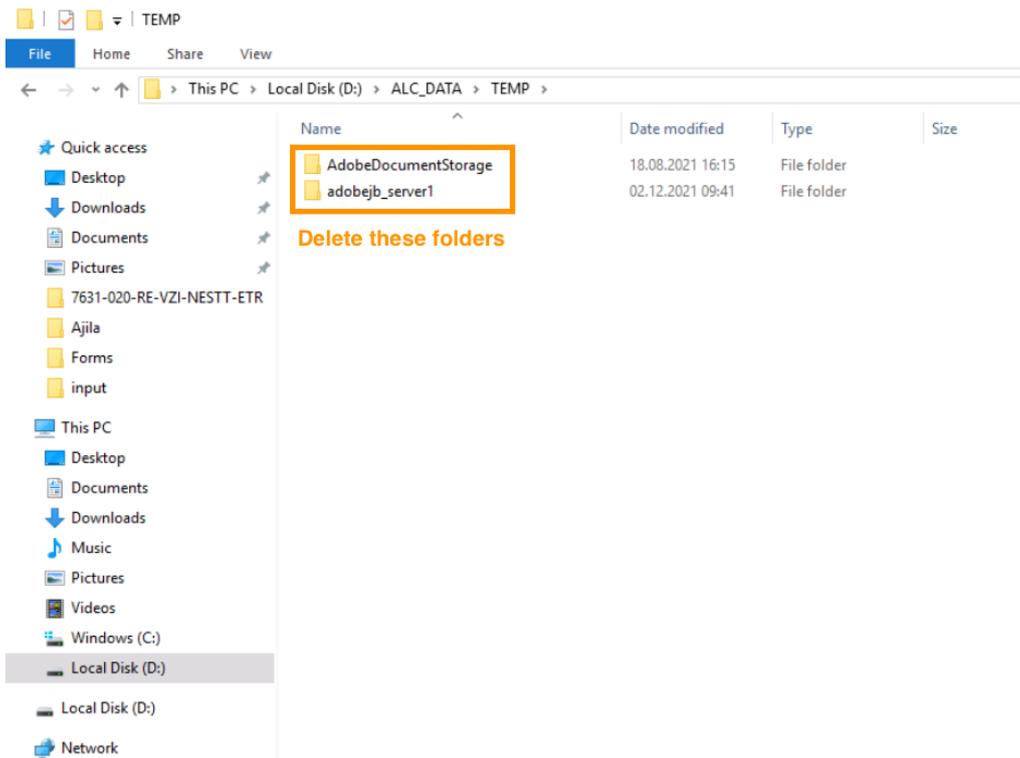
11. Delete the file JndiLookup.class and confirm the dialog
12. Navigate in the right panel back to the directory where you previously saved the .ear and .jar file



13. Select the (now modified) .jar file and hit F5. This operation will copy the .jar file back into the .ear file (which should still be open in the left panel) Please confirm the two dialogs which open.
14. Now the last modification date should be updated in the .ear file
15. You now can shut down the AEM Forms server and replace the adobe-livecycle-jboss.ear with the newly modified version (making a backup of the un-modified version might be a good idea ☺)
16. Navigate with the Windows explorer to [AEM\_HOME]\lib\caching and replace the log4j-core-2.xx.jar with the modified version



17. Navigate to the TEMP directory configured for your AEM Forms installation and delete the contents of this directory (please check *Finding the configured TEMP directory* if you are not sure where the mentioned directory is located)

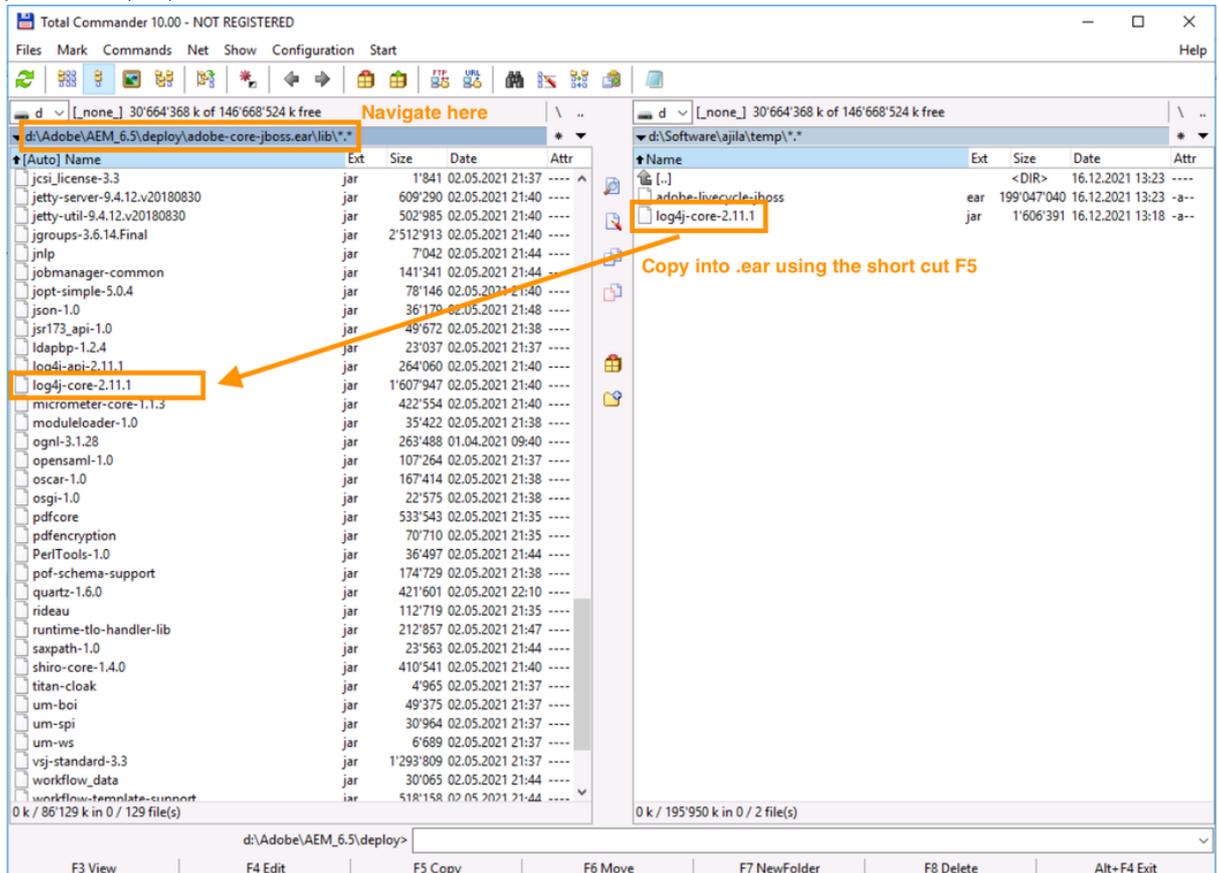


18. Now you can restart the JBoss

## Update the configuration manager

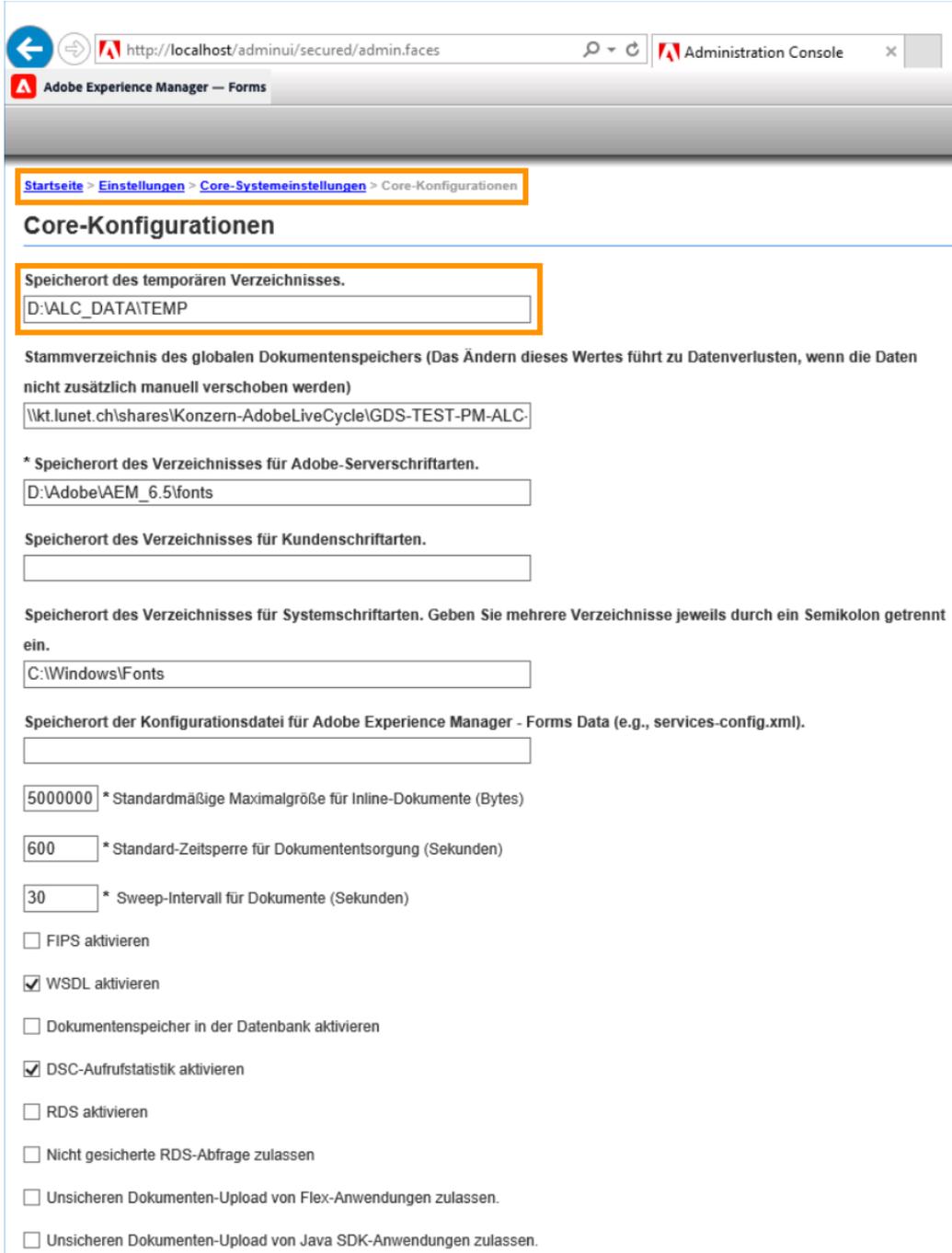
In case you should need to run the configuration manager it is recommended, to also change the configuration manager files. Should you not change these files, you might end up with an .ear file which again contains the leaky library as the configuration manager rebuilds the .ear file when it is ran (e.g. for installing additional modules).

1. Navigate with the left panel of the Total Commander to [AEM\_HOME]\deploy\
2. Open the adobe-core-jboss.ear in the left panel and replace the existing (detailed procedure and short curs see previous chapter):



## Finding the configured TEMP directory

1. Navigate to the AdminUI of your server (e.g. <http://localhost:8080/adminui>) and log in with a user with the needed access rights (e.g. the administrator)
2. Navigate to the Core System Settings and find the configuration for the TEMP directory:



Startseite > Einstellungen > Core-Systemeinstellungen > Core-Konfigurationen

### Core-Konfigurationen

Speicherort des temporären Verzeichnisses.

Stammverzeichnis des globalen Dokumentenspeichers (Das Ändern dieses Wertes führt zu Datenverlusten, wenn die Daten nicht zusätzlich manuell verschoben werden)

\* Speicherort des Verzeichnisses für Adobe-Serverschriftarten.

Speicherort des Verzeichnisses für Kundenschriftarten.

Speicherort des Verzeichnisses für Systemschriftarten. Geben Sie mehrere Verzeichnisse jeweils durch ein Semikolon getrennt ein.

Speicherort der Konfigurationsdatei für Adobe Experience Manager - Forms Data (e.g., services-config.xml).

\* Standardmäßige Maximalgröße für Inline-Dokumente (Bytes)

\* Standard-Zeitsperre für Dokumententsorgung (Sekunden)

\* Sweep-Intervall für Dokumente (Sekunden)

FIPS aktivieren

WSDL aktivieren

Dokumentenspeicher in der Datenbank aktivieren

DSC-Aufrufstatistik aktivieren

RDS aktivieren

Nicht gesicherte RDS-Abfrage zulassen

Unsicheren Dokumenten-Upload von Flex-Anwendungen zulassen.

Unsicheren Dokumenten-Upload von Java SDK-Anwendungen zulassen.