



Loading ExpressVote Media: "Manifest Signature Verification Failed"

Technical Bulletin #FYIEWR0026

Product: Electionware

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Version: EVS4500, EVS520x, EVS5300

Distribution: External

QUESTION:

When loading ExpressVote media, how do I avoid the error "Manifest signature verification failed"?

ANSWER:

Finalize the ballot layout, regenerate Accessible data, and re-burn the election media.

Background

All files on the media device are digitally signed by Electionware. The equipment uses the digital signatures for security reasons to validate that the files came from a trusted source, and were not changed or modified after being created.

For the Express Vote, these files are signed using the RSA digital signature algorithm. That algorithm can occasionally generate a digital signature with a leading zero byte, and the leading zero is not written to the media device for that file. Therefore, if the leading zero is not written, the ExpressVote will not consider the file valid. This causes a signature mismatch on the ExpressVote.

The likelihood of this occurrence is less than 1 in 250.

Caution



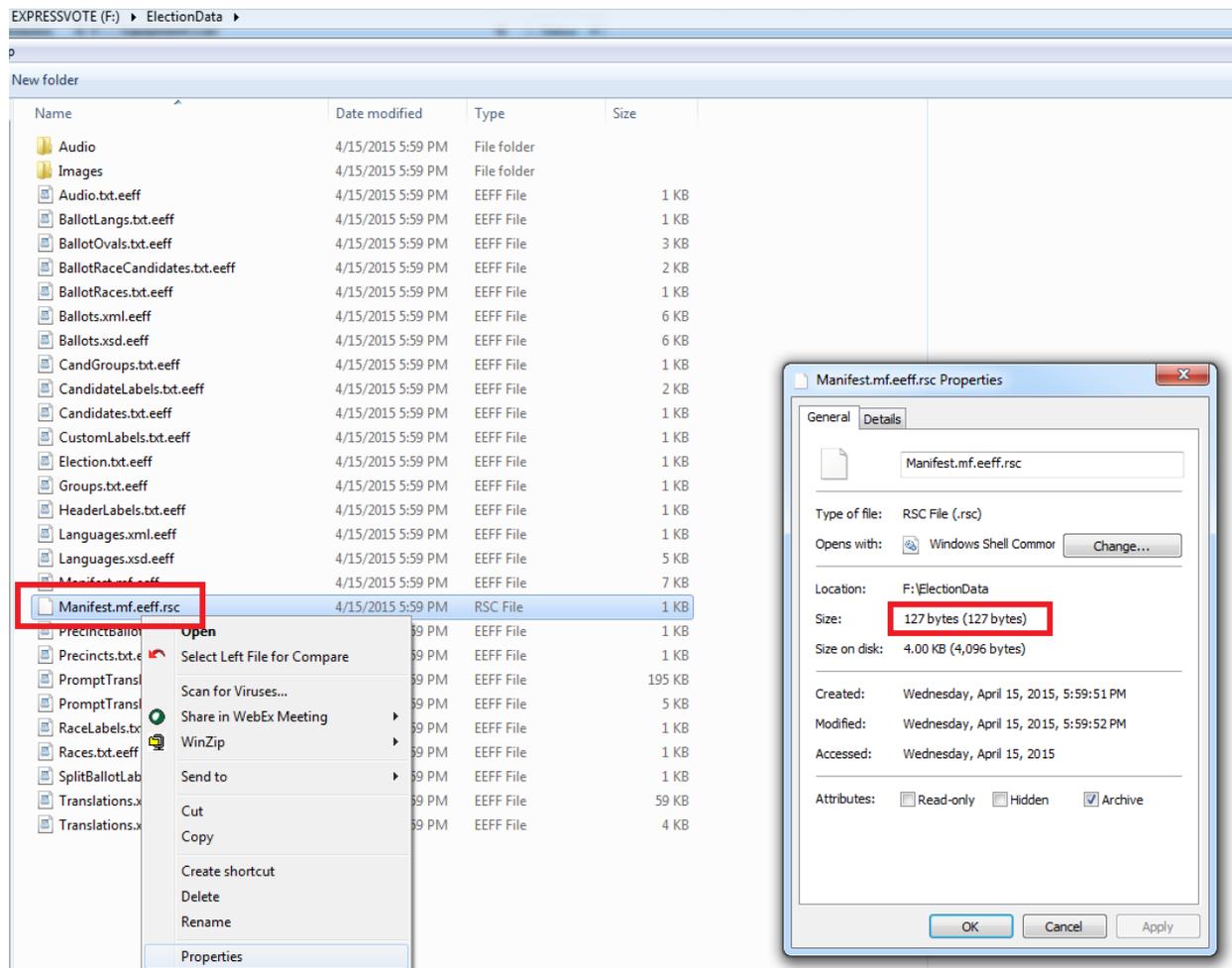
If the error occurs while loading ExpressVote Qualification media, call ES&S Technical Support for assistance as soon as possible.

Check Media Prior to Loading ExpressVote

To check for a mismatch before loading the media on the ExpressVote, first examine two data files in Windows:

1. Insert the media on your computer.
2. In the root folder of the media is a file named `Readme.txt.rsc`.
In the `ElectionData` folder is a file named `Manifest.mf.eeff.rsc`.
Right-click each of these files (see the figure on the following page) and select **Properties**.
3. In the Properties window, on the General tab, check the size of the file. If the size of either file is less than 128 bytes, there is a mismatch.

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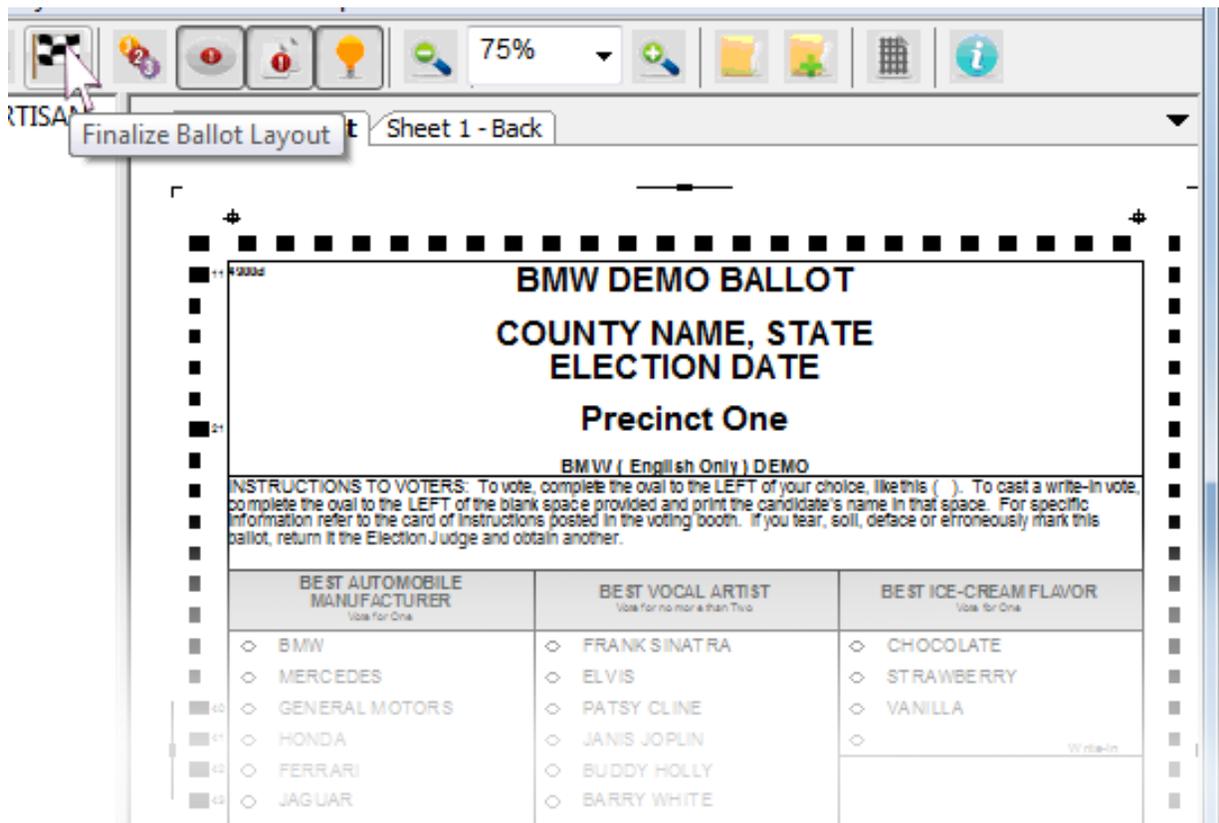


If a mismatch is discovered (either by checking the file or while loading ExpressVote Election media), perform the following procedure.

Steps in Electionware

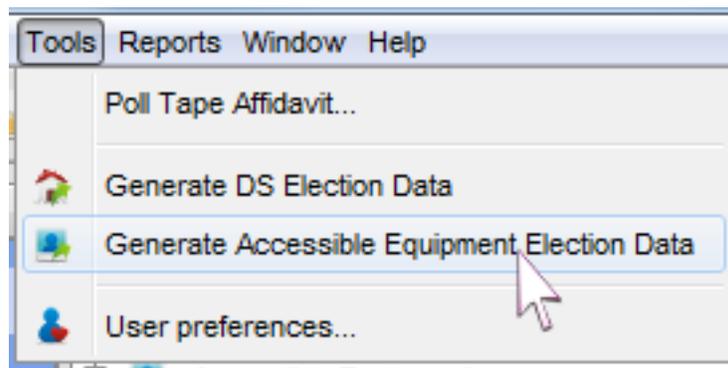
Caution  The following procedure takes place after you have finished printing ballots. The only Paper Ballot task in this procedure is to finalize the ballot layout. Do not do anything else in Paper Ballot.

1. In Paper Ballot, finalize the ballot layout.



Warning  If you have made formatting changes in Accessible Ballot (i.e. Format Headings, Format Contests, Format Contest Summary, Format Candidates, Format Ballot Styles), these tasks must be repeated after each time you Finalize Ballot Layout in Paper Ballot.

2. In Configure, from the **Tools** menu, regenerate Accessible Equipment Election Data.



3. In Package, recreate the ExpressVote election media for the affected poll.
4. Load the ExpressVote election media. If the error appears again, repeat the steps in Electionware.

Caution



This procedure will cause the error "Inconsistent Data Version" to appear in ERM.

When this message appears, you should always check the version of the data. There is normally only one Electionware data version, but the manifest issue will cause multiple data versions. To bypass the error message when processing media, select **Update**. However, if there is only one data version, then make sure you have the most up-to-date ERM election loaded.

This issue will be corrected with a new release upon certification. Once available, ES&S will provide the update.

ES&S Support

If you require additional technical support for ES&S products, contact information is provided below.

Contact an ES&S Support Representative	
Telephone:	877-377-8683 (USA & Canada)
Fax:	402-593-8107
Write:	Election Systems & Software 11208 John Galt Blvd Omaha, NE 68137 USA

ES&S support services are subject to the prices, terms, and conditions in place at the time of service.



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