VALIDATING AND ENCRYPTING A VPR RESEARCHER FILE USING MATCH*PRO

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PROCESSING WORKFLOW

Below is the general workflow for preparing your data file for upload to the VPR.

1. Download and install the Match*Pro software.

2. Validate the VPR Researcher File

3. Resolve Validations Errors

4. Encrypt the Validated Researcher File

5. Upload the Encrypted, Validated Researcher File to the VPR
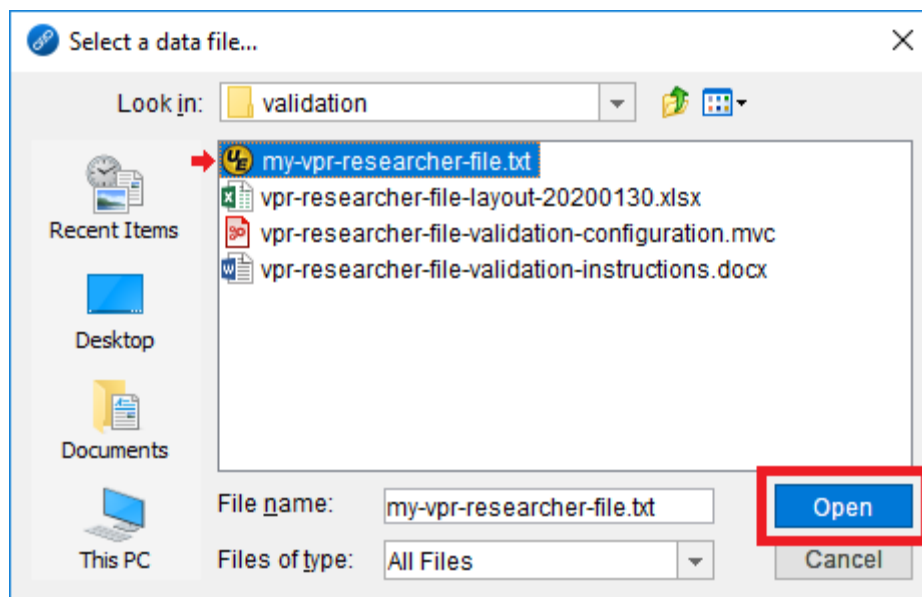
DOWNLOADING AND INSTALLING THE SOFTWARE

1. Using your web browser, visit http://surveillance.cancer.gov/matchpro/download/ .

2. Scroll down the page until you reach the **Register for Software** section.

3. Check the box to accept the terms of the license agreement.

4. Enter your email address, name, and other information into the spaces provided.

5. Indicate whether or not you wish to be notified of software updates via email. If you are only using Match*Pro to validate your VPR researcher file and you will have no further use for the software after you've finalized your data and uploaded it to the VPR website you will probably want to select **No**.

6. Press the **Request Download** button. A short time after you press the button, an email will be sent to the email address you entered into the registration form.

7. Check your inbox for an email from "**Match*Pro Admin**" <matchpro-requests@imsweb.com>.

8. Open the email and click on the link to download the installer.

9. If you do not receive the email within 1 hour please check your junk mail folders for an email from "**Match*Pro Admin**" <matchpro-requests@imsweb.com>. If you do not see the email, please contact matchpro-requests@imsweb.com and let them know about the issue and someone will get in touch with you.

10. Once you have downloaded the installer, double-click on it to begin the installation process. The installation is very straight forward and can be completed in just a few clicks.

11. Double-click on the **vpr-researcher-file-validation-configuration** file. The file will be opened in Match*Pro.

12. On the **Input** tab, press the browse button (circled below).
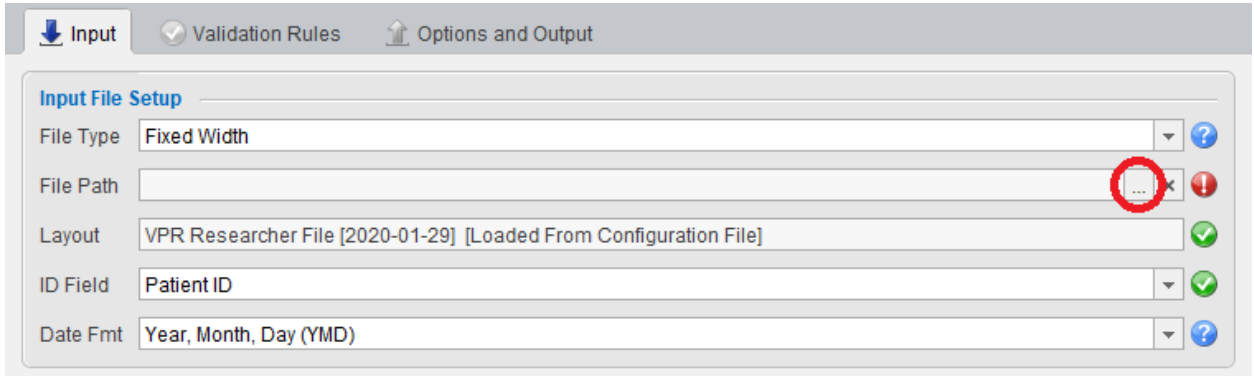
13. A dialog box will appear. Select your VPR researcher file and then press the **Open** button.

14. The Fixed-Width File Setup dialog will be displayed. The layout parameters have been pre-filled to match the VPR researcher file specifications. A preview of the file is shown in the table towards the bottom-right. If you are happy with how everything looks, press the **OK** button.

15. The file path will be updated.

16. You should **SKIP** over the **Validators** tab and **CLICK** on the **Options and Output** tab unless you have additional last names, phone numbers, addresses, etc. in one or more custom fields that you'd like to use for the linkage. If you do have additional names, phone numbers, etc. that were placed in the custom fields section you should add them on the Validators tab. See the Match*Pro help for more information on how this is done. Again, this is only necessary if you have names, phone numbers, addresses, etc. in the custom fields section.
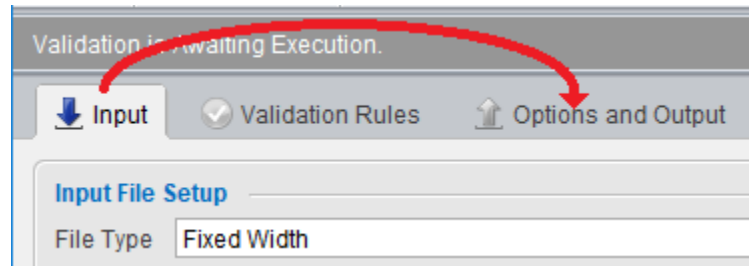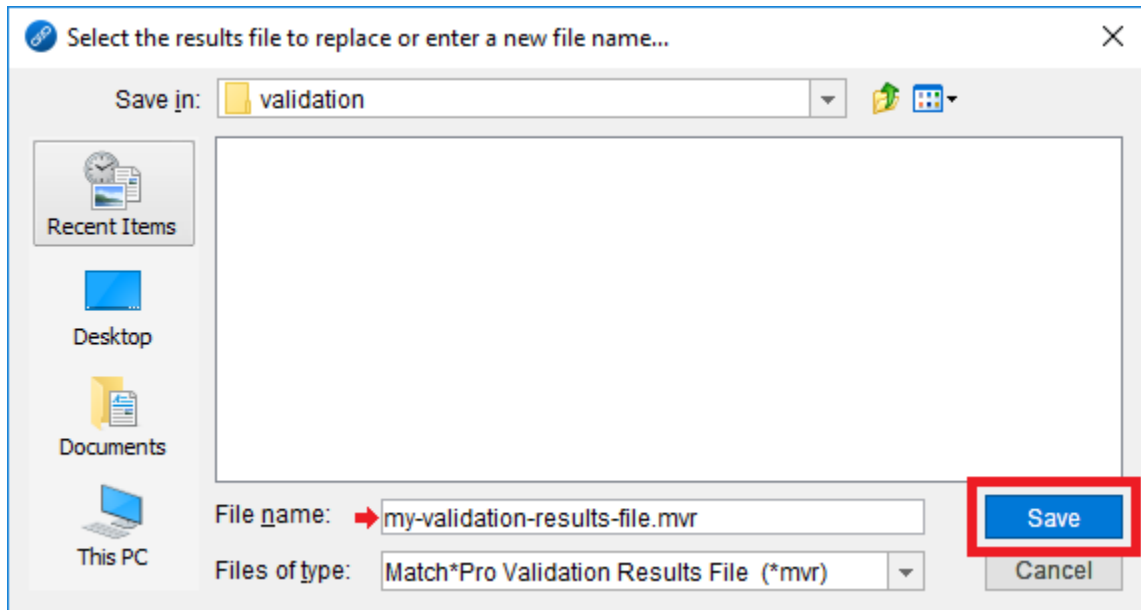

17. On the **Options and Output** tab, press the browse button (circled below).
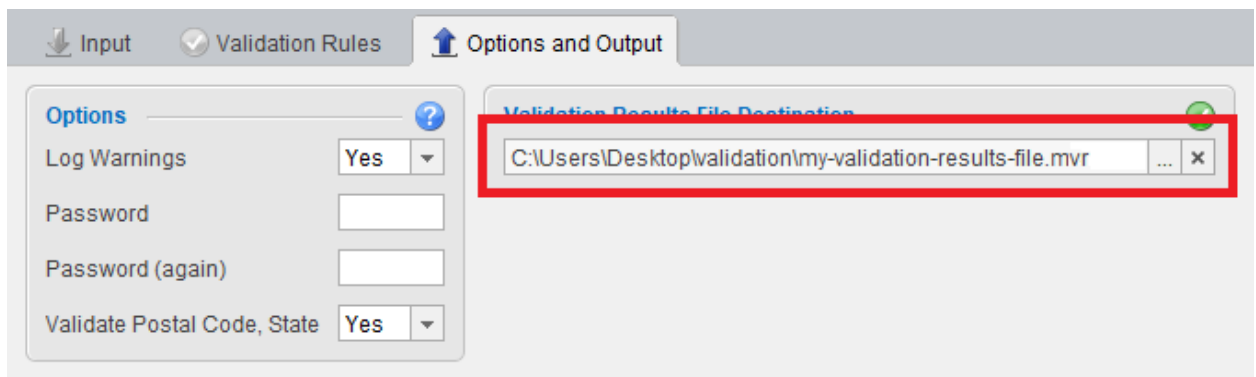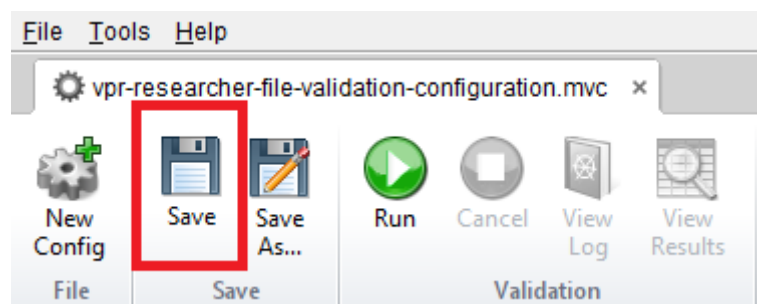
18. A dialog box will appear. Specify where you would like to write the validation results file and then press the **Save** button.
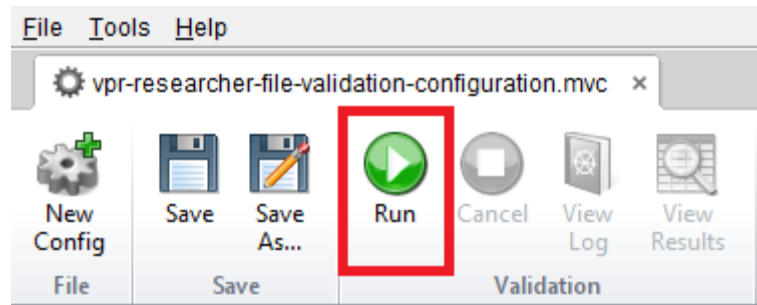

19. The file path will be updated.

20. Press the **Save** button at the top of the screen to save the changes you've made to the configuration file.
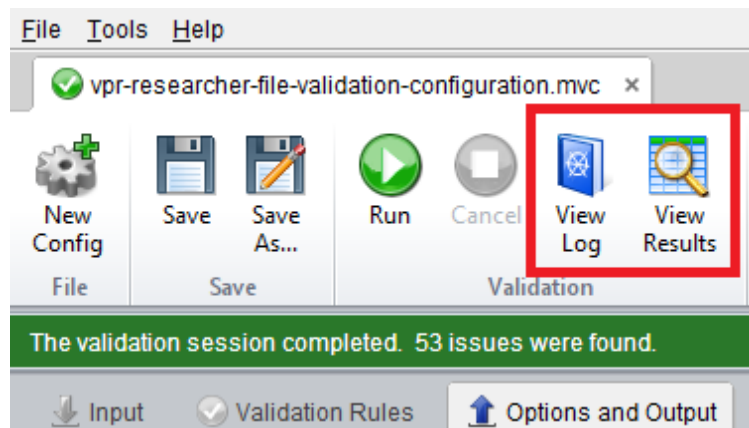

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21. Press the **Run** button at the top of the screen to begin validating the VPR researcher file.

22. The status bar will turn green and display the number of validation issues that were detected, and the **View Log** and **View Results** buttons will be enabled when the file has finished processing.
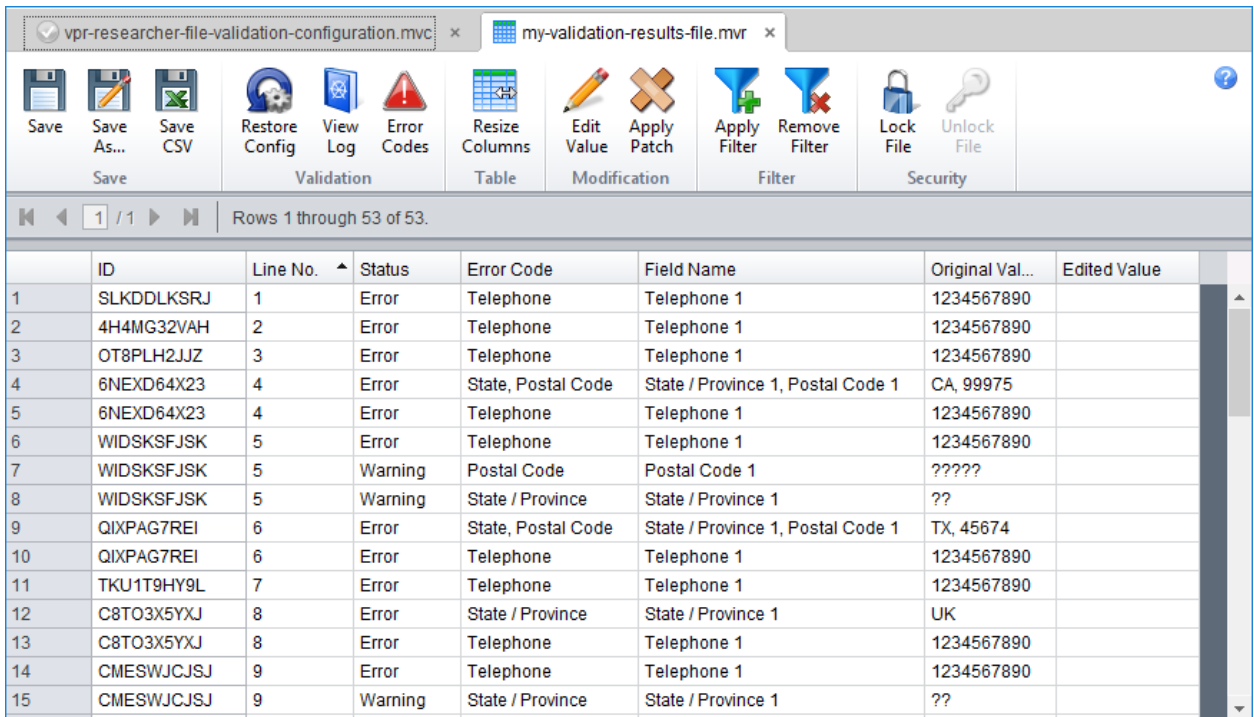

23. **[Optional]** You can press the **View Log** button to display a summary of the field errors and warnings that were found.
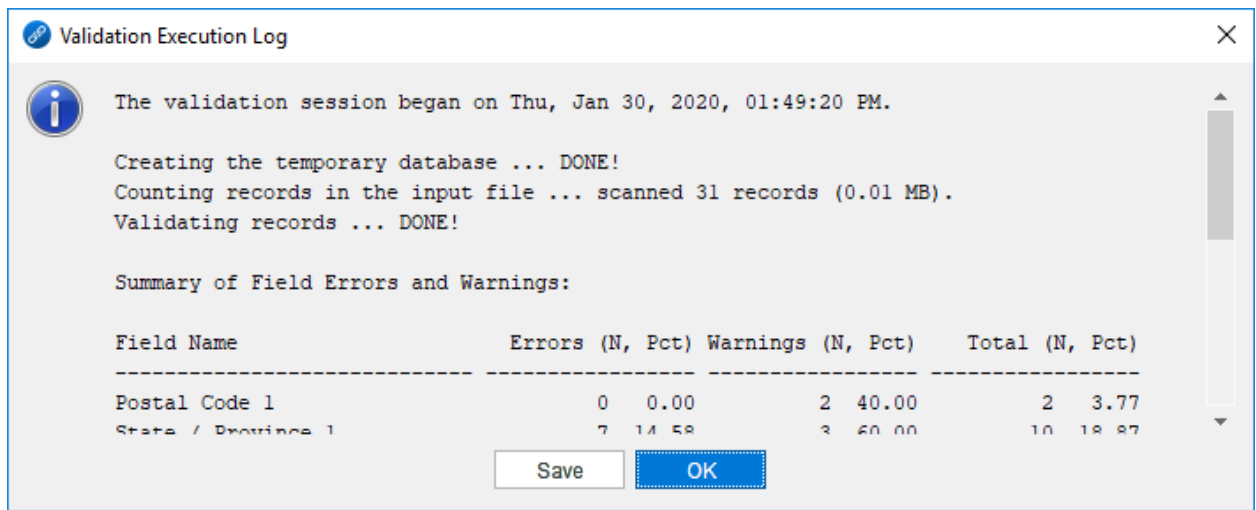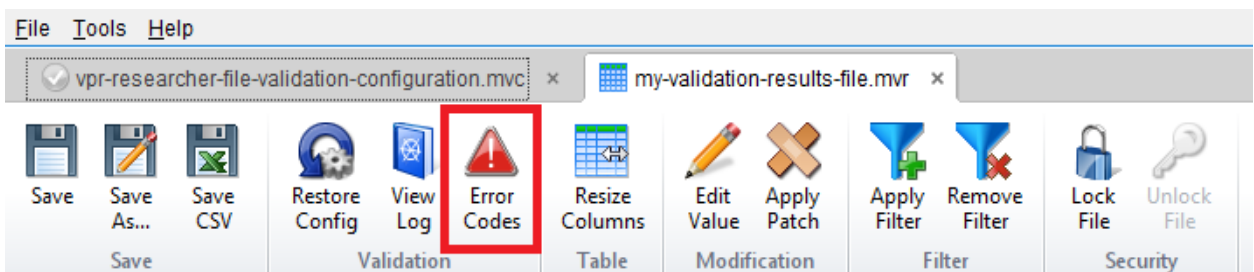
VIEWING VALIDATION RESULTS

24. Press the **View Results** button to open the validation results file. The file will be opened in a new tab.


25. If the results file is empty, **CONGRATULATIONS**, you have a perfectly clean file. You can stop now and upload the file to the VPR website. If your results file lists errors and warnings you'll need to continue onward.

26. Press the **Error Codes** button at the top of the screen.

27. A dialog box will appear. The dialog box will explain to you what each of the error codes mean and describe what the data *should* look like.
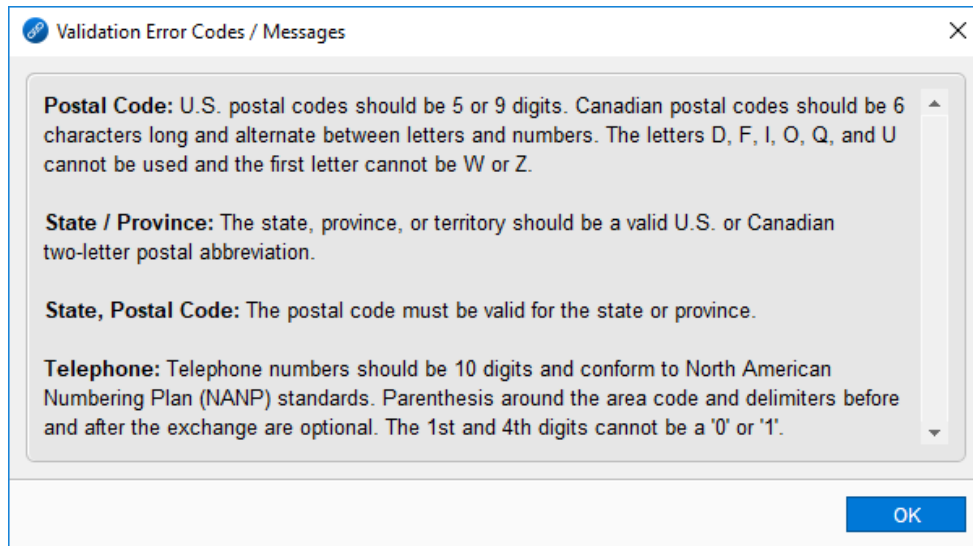
28. **[Recommended]** Press the **Help (?)** button in the upper-right-hand corner of the screen to view the **Help System** and learn more about the functions that are available to you on the validation results screen.
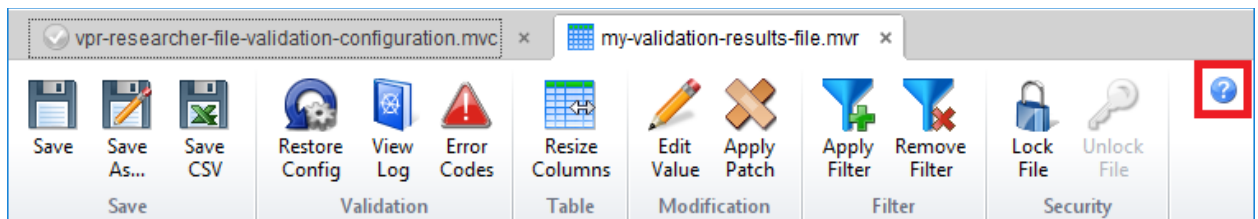
29. At this point you should know which records have issues and how to fix them. How you go about correcting those issues is entirely up to you. Some people prefer going back to their databases, correcting the values there, creating a new VPR researcher file, and then repeating the validation process using the new file. You are welcome to go this route if this workflow appeals to you. If, on the other hand, you would like to directly edit the file you are working with from within Match*Pro and you are not particularly interested in updating your database at this time please continue onward.

30. If the value for a field fails validation then either an error or a warning will be issued.

31. Warnings are given if a value fails validation but Match*Pro's internal standardizer is able to resolve the issue.

    For example, names shouldn't contain accents, diacritics, or excess white-space, but when the input value: "**Cardona   Núñez**" is submitted for validation a warning will be issued.

    This is because, among other things, the standardization procedure for names will remove accents, diacritics, and excess white-space from the input.

    "**Cardona   Núñez**" becomes "**CARDONA NUNEZ**" once it has been standardized and this value passes the validation.

32. On the flip side, errors are given if a value fails validation but Match*Pro's internal standardizer is unable to resolve the issue.

    For example, names shouldn't contain numbers, but when the input value "**St3v3n**" is submitted for validation an error will still be issued.

    This is because the standardization procedure for names will not remove the numbers from the input string.
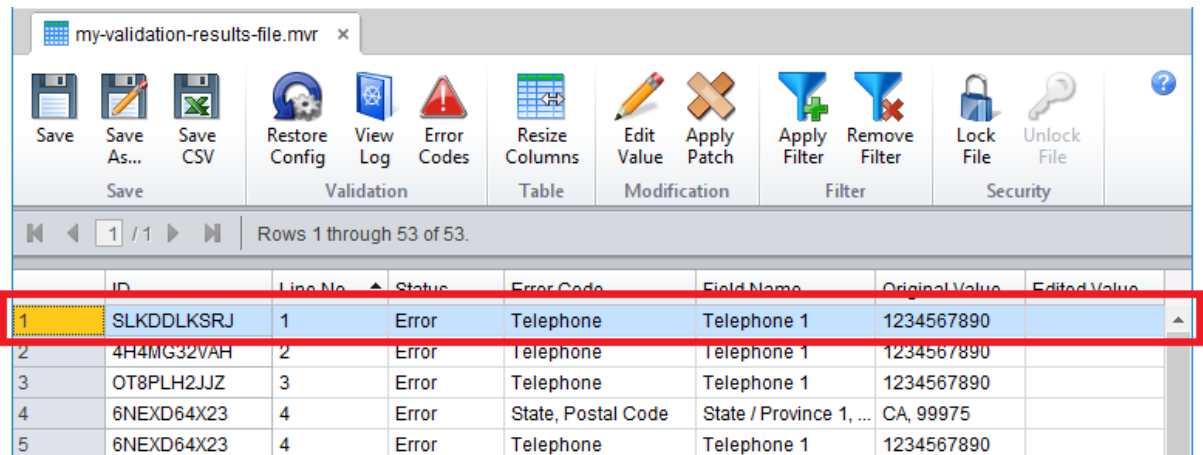
    "**St3v3n**" becomes "**ST3V3N**" once it's been standardized and this value fails the validation.

33. The standardization procedures vary depending on the type of field (name, phone number, date, etc.).
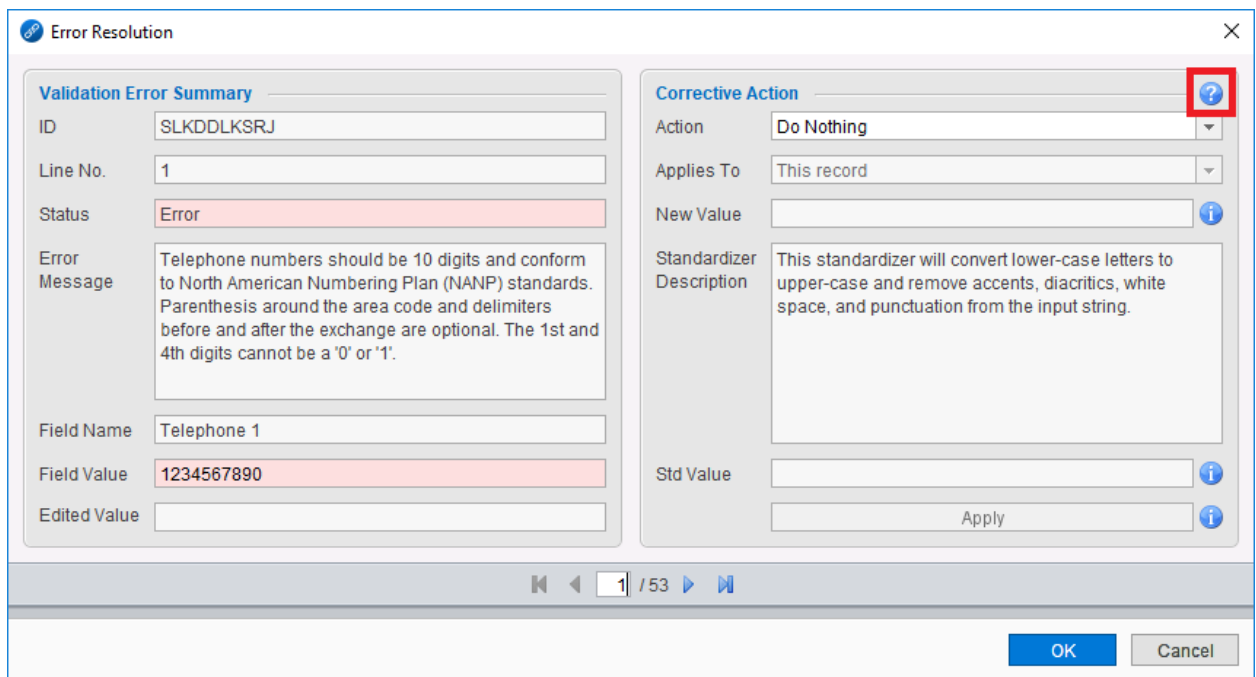
You should read this entire section before proceeding.

34. Double-click on the first row of the table.

35. The **Error Resolution** dialog (shown below) will appear. Press the **Help (?)** button in the upper-right-hand corner of the dialog to learn more about the layout and functionality of the dialog.

[Note: Double-clicking on any row will trigger the dialog to appear but clicking on the first row will load the first record in the sequence when the dialog is shown.]

36. Essentially your goal here is to make a correction on every record (or as many as you want to). The fastest way of doing this is to:

- Select "**Replace the value**" or "**Blank out the value**" from the "**Action**" drop-down menu.
- Select "**Every record with this field's value**" from the "**Applies to**" drop-down menu.
- Enter the new value into the space provided. [Note: If you opted to blank out the value the text box will be disabled and you will skip this step.]
- Press the **Apply** button.
- The **Status**, which is shown on the left side of the dialog, will update. It will turn green when the error or warning has been corrected. It will turn (or remain) yellow when a warning is issued. It will turn (or remain) red if the error remains unresolved.
- Once you are satisfied with the result you can use the navigation button at the bottom of the screen to advance to the next record.
- Repeat steps a-f for every record with an error or warning.

37. Once you have finished making all of the corrections within Match*Pro you can apply a patch to update your input file. Press the **Apply Patch** button.
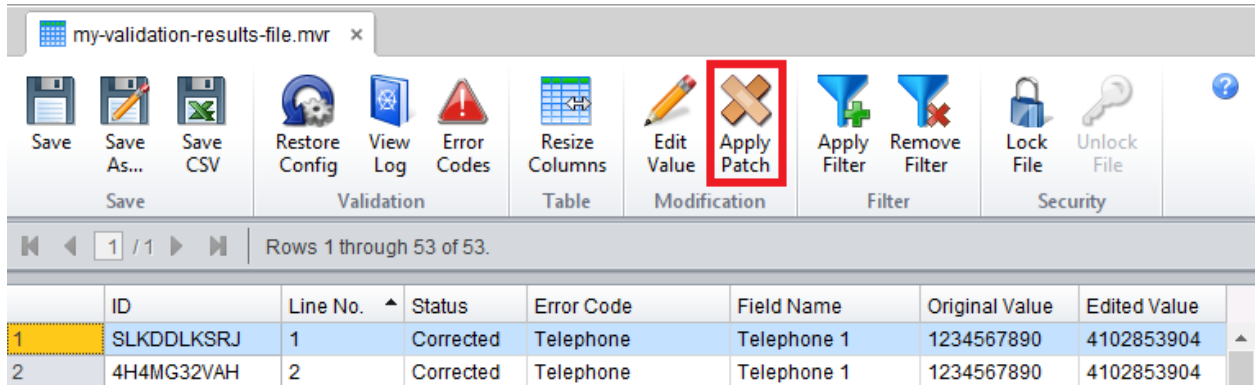
38. The **Apply Patch** dialog will appear. Press the browse button (circled below).
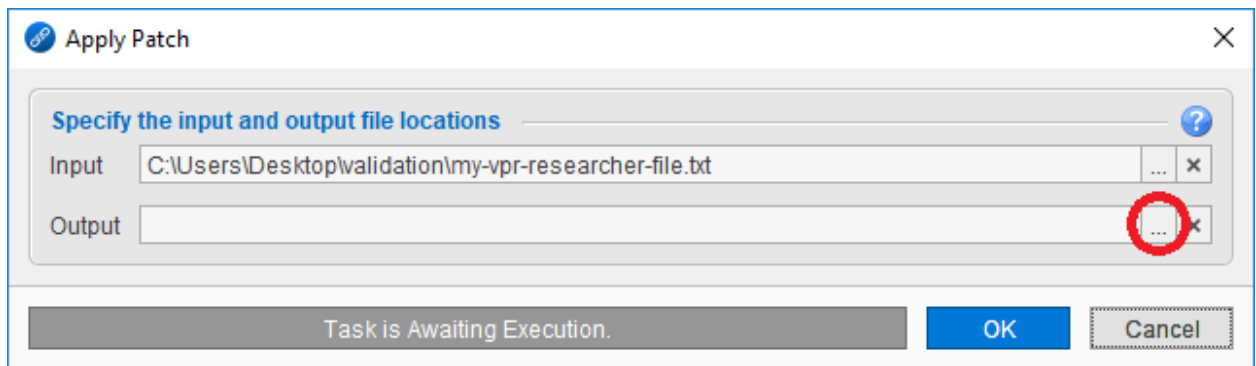
39. A dialog box will appear. Specify where you would like to write the patched version of your VPR researcher file and then press the **Save** button.
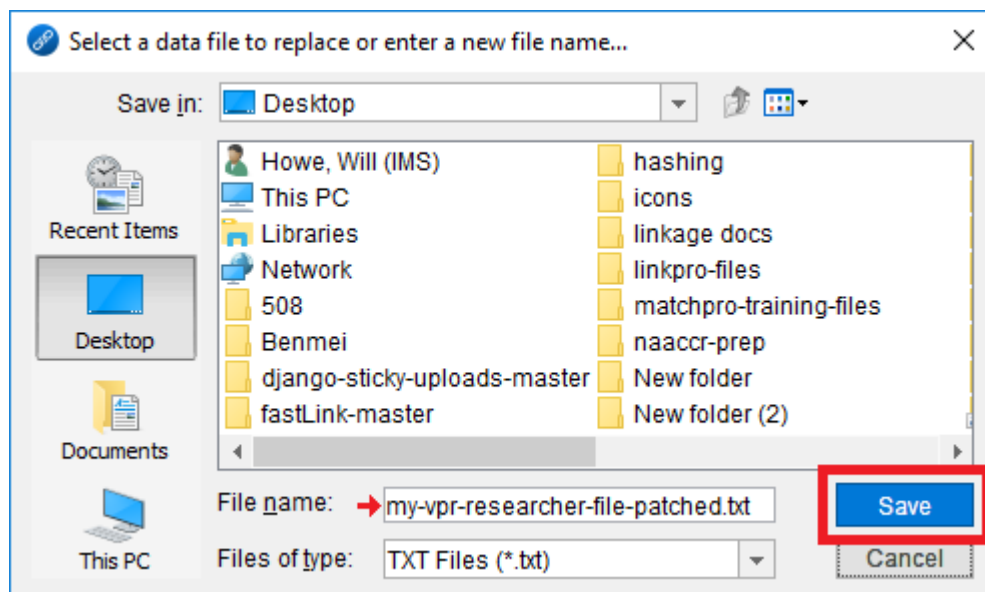
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40. The file path will be updated.

41. Press the **OK** button to apply the patch.
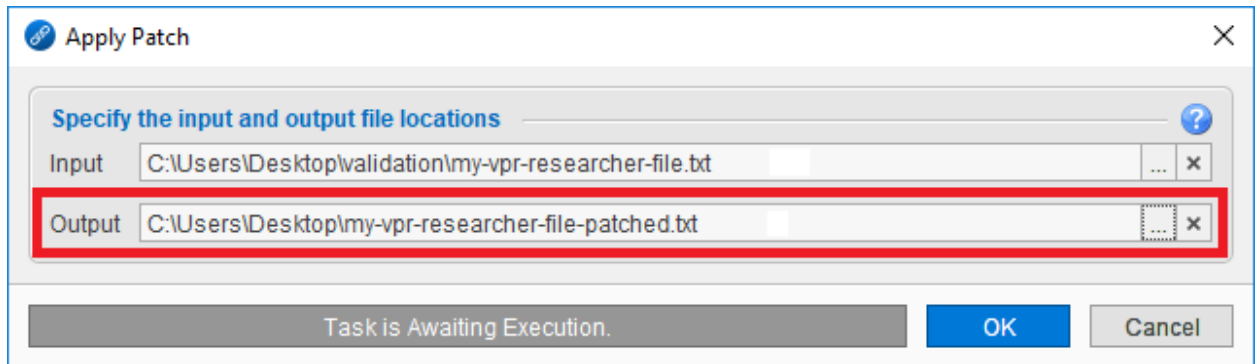
VERY IMPORTANT NOTE – Patches are file-specific! If the checksum of your VPR researcher file at the time of applying the patch doesn't match the checksum of your VPR researcher file at the time when the file was originally validated the patch will fail. The checksum will change whenever you make a change to the file or replace it with a new file that isn't identical. To prevent this from happening you shouldn't make any changes to the file between when it is validated and when the patch is applied.
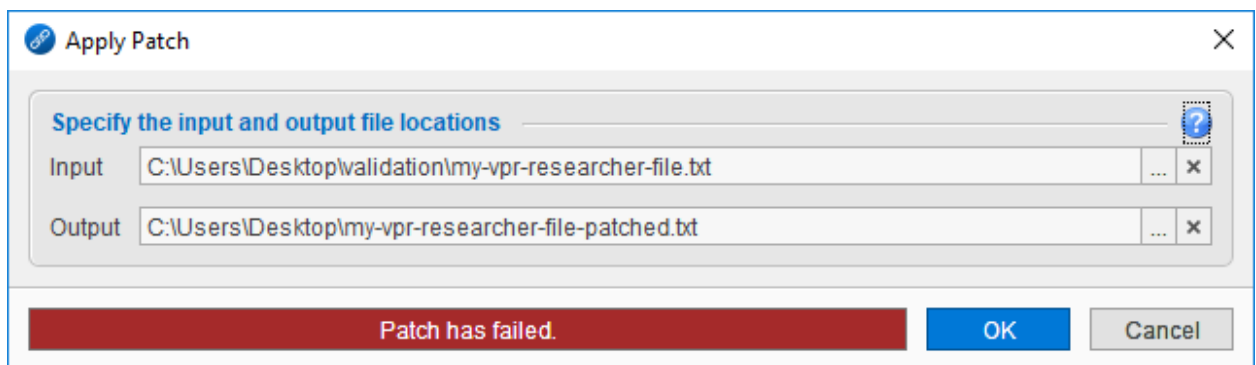
If the input file hasn't been modified since it was originally validated you should receive a message indicating that the patch was successful.
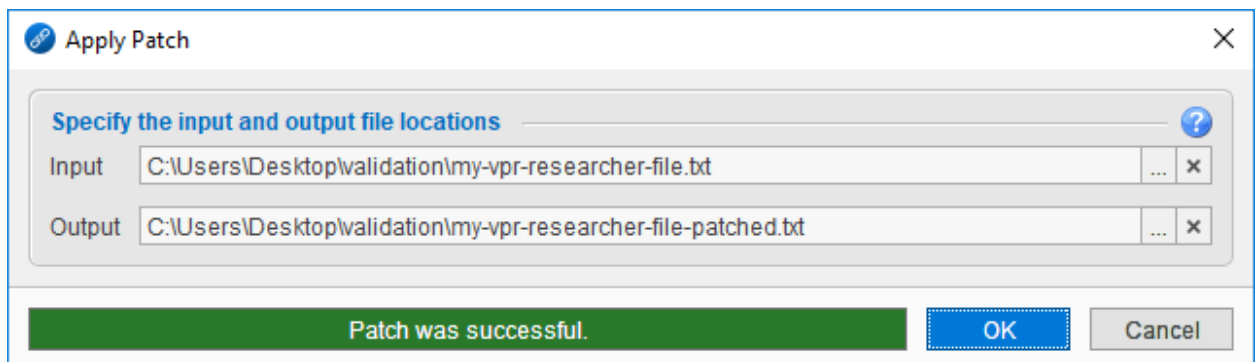
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42. **[Strongly Recommended]** Compare the contents of the original input file against the patched version to ensure the patch modified the data in the manner you would expect.
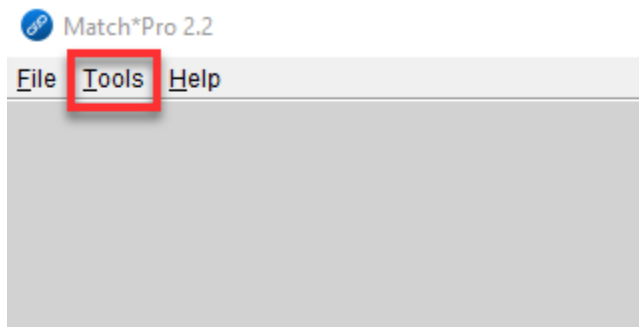
ENCRYPTING THE VPR RESEARCHER FILE

43. Download the IMS VPR Public Key File from the VPR

    The steps to accomplish this are:

    - Log into the VPR.
    - Go to the "About" tab and select "Requestor Documents".
    - Under "Phase I", there will be an entry named "Public Key".
    - To download the public key file, just click on the label "Public Key" (it is a link).
    - Once you have the file downloaded, place it in a directory where you can access it when running Match*Pro.

44. Select the Tools menu

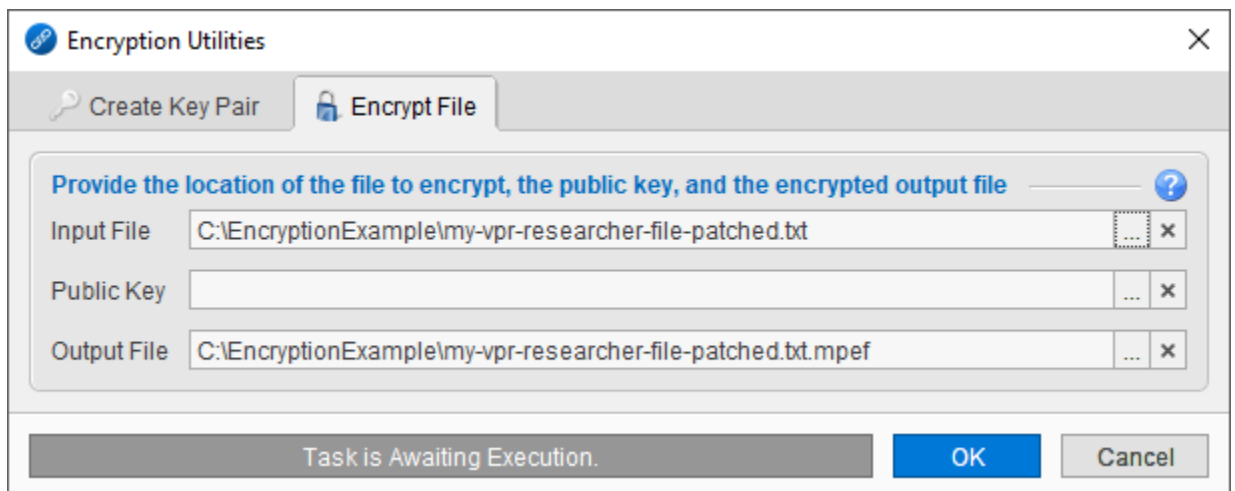45. Select the Encryption Utilities menu option
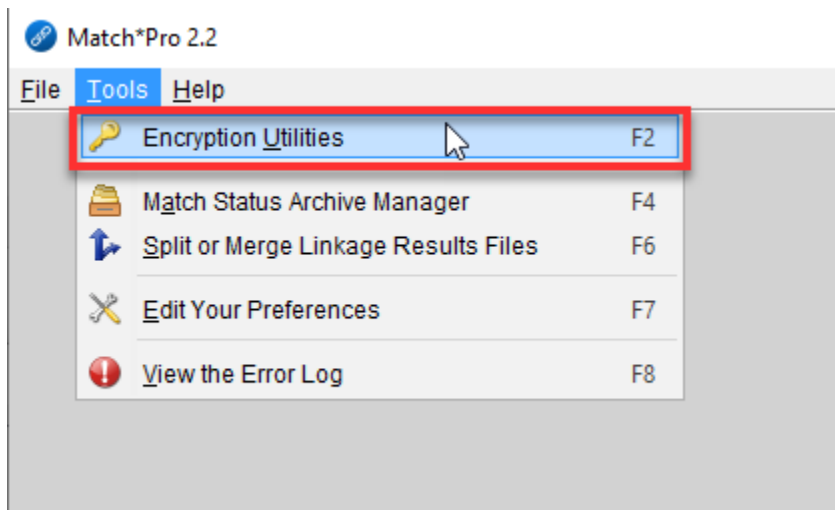
46. Go to the "Encrypt File" tab and browse for your validated/patched VPR Researcher file.


47. When you select your validated/patched file and click OK from the browse window, Match*Pro will fill in both the Input File name and the Output File name. The Output File name will have the same name as the Input File name but with the added file extension "mpef". The Output File will be the encrypted version of your validated/patched file.
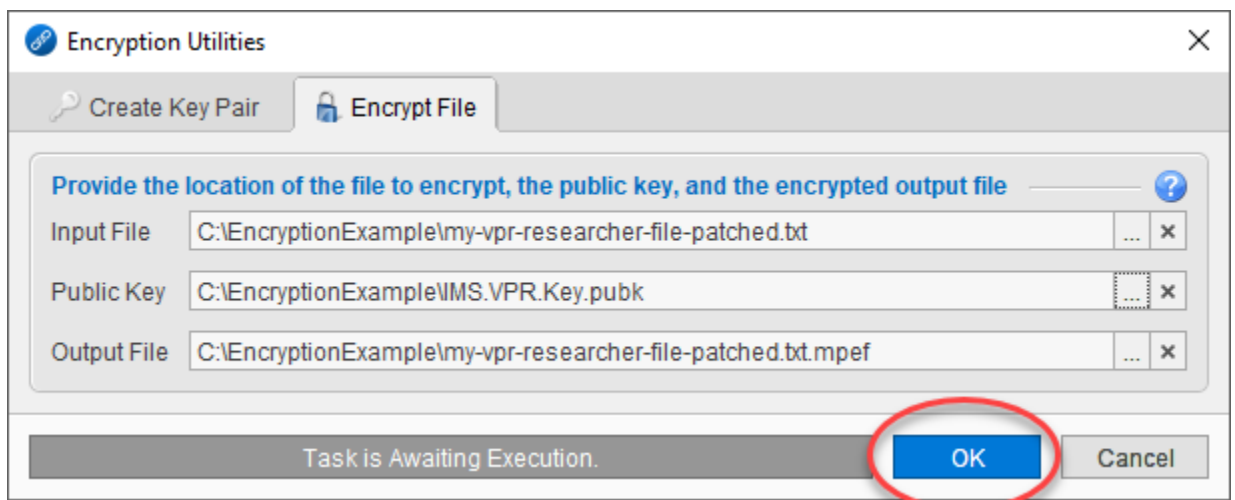
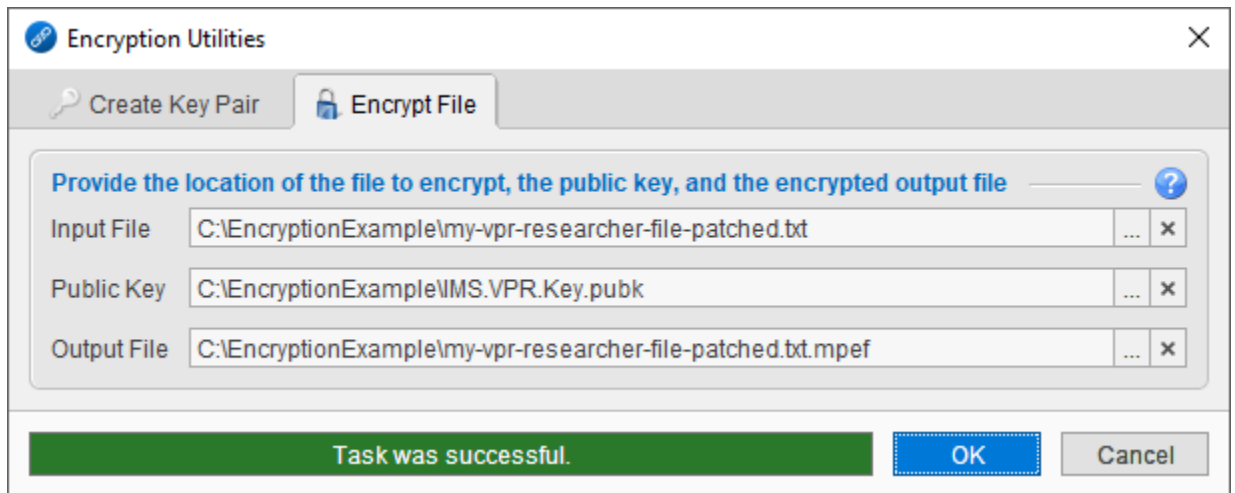48. Next browse and select the IMS VPR Public Key file you downloaded from the VPR.
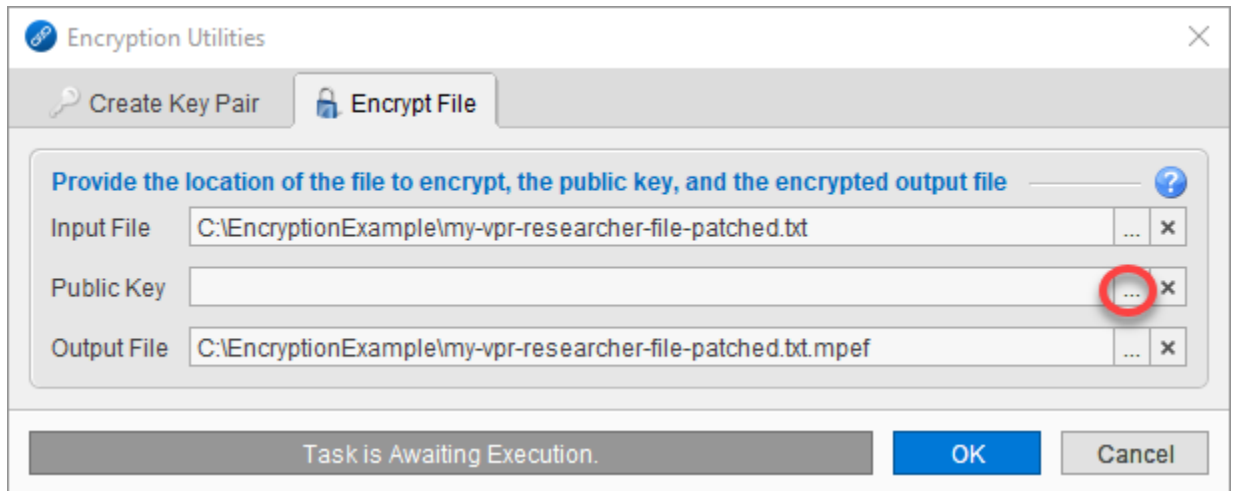
49. When you have selected the public key file, you should be ready to go. At that point, click the OK button.

50. The progress for encrypting your file will be shown in the lower task bar. When your file has been encrypted, you will see the green "Task was successful." message.

51. Once the encryption task is successful, you can upload the encrypted file to the VPR. Below are the steps to do that:
    - Log into the VPR and go to your request.
    - Go to the "Documents" tab.
    - Click the Document Upload button

    - Browse and select your encrypted validated/patched Researcher VPR file.   That is the file in your Output File box (picture above).

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- Once you have browsed and selected the file, then you need to select the appropriate document type. Select "Encrypted Study Data File (prevalidation)"

- Once you have done that, then click the "Attach Documents" button.

- You're done!   You should see your encrypted study data file posted on the Documents tab of your request.

TECHNICAL SUPPORT

52. If you need technical support for issues pertaining to the actual usage of the software, and not the download itself, you should email your questions to matchpro-support@imsweb.com