



**PhaserCopy User Guide**  
**Version 2**  
**March 29, 2022**

**VA**



U.S. Department  
of Veterans Affairs

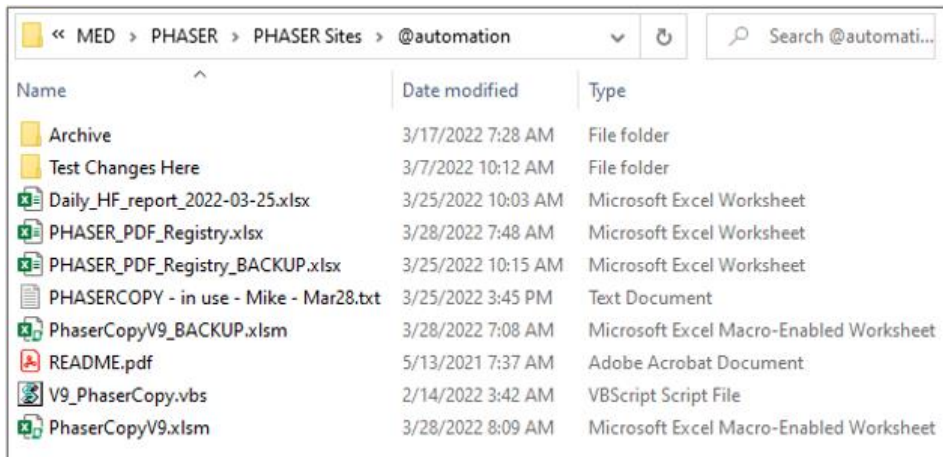


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## Introduction

**PhaserCopy** refers to collection of files and directories stored in <S:\MED\PHASER\PHASER Sites\@automation>. They are shown below in Figure 1. The contents are discussed in more detail in following sections.



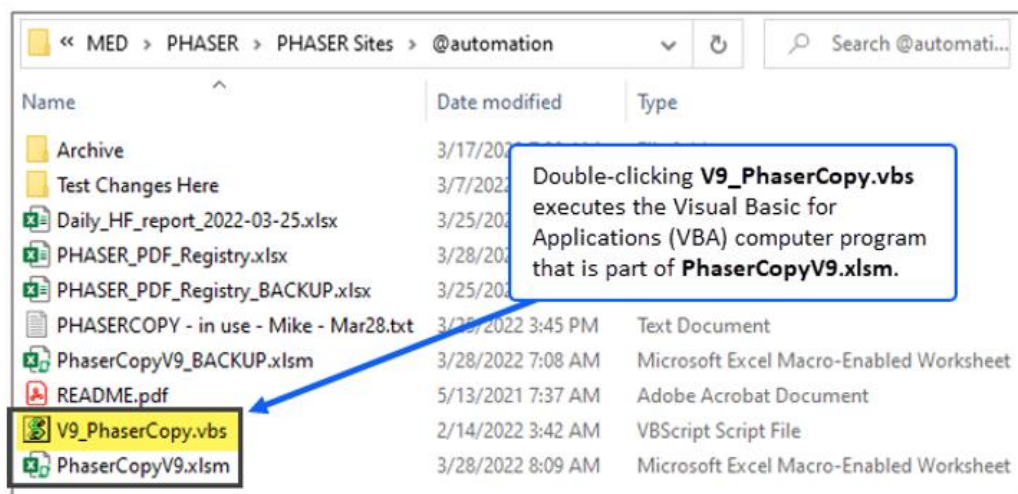
Name	Date modified	Type
Archive	3/17/2022 7:28 AM	File folder
Test Changes Here	3/7/2022 10:12 AM	File folder
Daily_HF_report_2022-03-25.xlsx	3/25/2022 10:03 AM	Microsoft Excel Worksheet
PHASER_PDF_Registry.xlsx	3/28/2022 7:48 AM	Microsoft Excel Worksheet
PHASER_PDF_Registry_BACKUP.xlsx	3/25/2022 10:15 AM	Microsoft Excel Worksheet
PHASERCOPY - in use - Mike - Mar28.txt	3/25/2022 3:45 PM	Text Document
PhaserCopyV9_BACKUP.xlsm	3/28/2022 7:08 AM	Microsoft Excel Macro-Enabled Worksheet
README.pdf	5/13/2021 7:37 AM	Adobe Acrobat Document
V9_PhaserCopy.vbs	2/14/2022 3:42 AM	VBScript Script File
PhaserCopyV9.xlsm	3/28/2022 8:09 AM	Microsoft Excel Macro-Enabled Worksheet

Figure 1 - Contents of the @automation directory.

PhaserCopy is an executable computer program developed for the PHASER project to perform 3 functions for the project office:

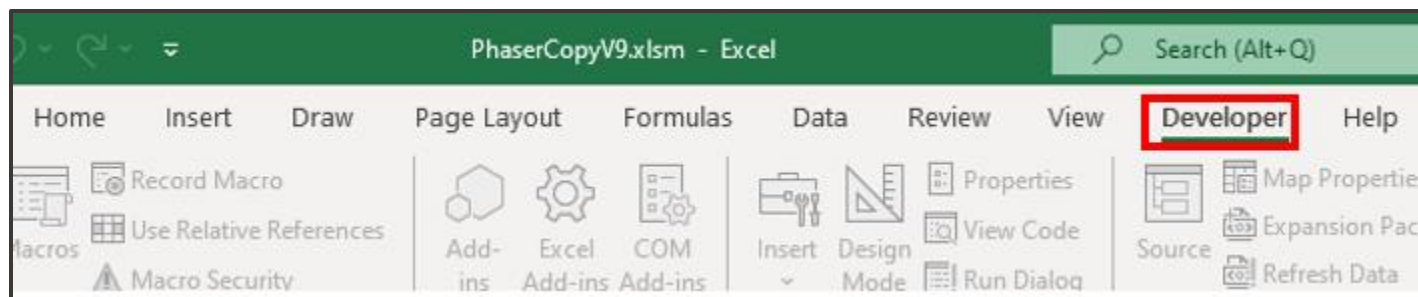
1. **Distribute PHASER PDF test result files** obtained from Sanford Health to the appropriate VA PHASER site.
2. **Audit PHASER results in VistA** by comparing the Health Factors entered manually by Site Coordinators with the genes and phenotypes documented in the related PDF test report. Discrepancies found are flagged for correction.
3. Produce an **Incidental Finding Report (IFR)** that examines a patient's active VA medications with the results of their PHASER tests and identifies any medications that may be affected. At the time of this writing the IFR has not been fully implemented and is not approved for use in the field.

The 2 files highlighted below together make up the core computer program that you will execute to perform tasks with PhaserCopy. **V9\_PhaserCopy.vbs** is a small VB Script (VBS) computer program whose sole function is starting the main computer program contained in Excel file **PhaserCopy.xlsm**. No special access is required to execute PhaserCopy. Anybody with access to <S:\MED\PHASER\PHASER Sites\@automation> can run the program.



Name	Date modified	Type
Archive	3/17/2022 7:28 AM	File folder
Test Changes Here	3/7/2022 10:12 AM	File folder
Daily_HF_report_2022-03-25.xlsx	3/25/2022 10:03 AM	Microsoft Excel Worksheet
PHASER_PDF_Registry.xlsx	3/28/2022 7:48 AM	Microsoft Excel Worksheet
PHASER_PDF_Registry_BACKUP.xlsx	3/25/2022 10:15 AM	Microsoft Excel Worksheet
PHASERCOPY - in use - Mike - Mar28.txt	3/25/2022 3:45 PM	Text Document
PhaserCopyV9_BACKUP.xlsm	3/28/2022 7:08 AM	Microsoft Excel Macro-Enabled Worksheet
README.pdf	5/13/2021 7:37 AM	Adobe Acrobat Document
V9_PhaserCopy.vbs	2/14/2022 3:42 AM	VBScript Script File
PhaserCopyV9.xlsm	3/28/2022 8:09 AM	Microsoft Excel Macro-Enabled Worksheet

**PhaserCopy.xlsm** is a macro-enabled MS Excel workbook that contains embedded Visual Basic for Applications (VBA) code. For details see <https://docs.microsoft.com/en-us/office/vba/library-reference/concepts/getting-started-with-vba-in-office>. The file extension **xlsm**, instead of the more common file extension **xlsx**, indicates an Excel workbook contains executable computer programs called **macros**. *Macros* are small computer programs written in the VBA programming language. VBA is a standard feature of most PC-based versions of MS Office applications such as Excel, Word, and PowerPoint. For more information about security considerations for allowing macro-enabled Excel workbooks to execute on your computer see [Enable or disable macros in Office files \(microsoft.com\)](https://support.microsoft.com/en-us/topic/enable-or-disable-macros-in-office-files-microsoft-com). To access the VBA code in PhaserCopy.xlsm you need to enable the **Developer** option in MS Excel as shown below.



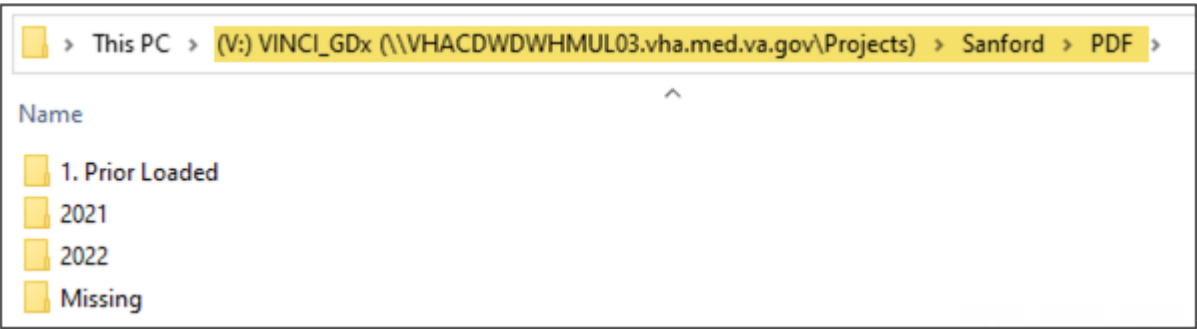
## Related Files and Directories

Files used by PhaserCopy are grouped in the following folders.

**Note:** Backup copies of key files highlighted below have a name ending with **BACKUP**. That is just a convention and has no other special significance. These backup files can be critically important if you need to recover from a PhaserCopy execution error. Making these backup copies should be a standard practice when using PhaserCopy.

Directory Name	Description																														
@automation	<div><div><div>&lt;&lt; (S:) DUR Service &gt; MED &gt; PHASER &gt; PHASER Sites &gt; @automation</div><table><thead><tr><th>Name</th><th>Date modified</th><th>Type</th></tr></thead><tbody><tr><td>1 Archive</td><td>3/17/2022 7:28 AM</td><td>File folder</td></tr><tr><td>2 Test Changes Here</td><td>3/7/2022 10:12 AM</td><td>File folder</td></tr><tr><td>3 PHASER_PDF_Registry.xlsx</td><td>3/28/2022 11:18 AM</td><td>Microsoft Excel Worksheet</td></tr><tr><td>PHASER_PDF_Registry_BACKUP.xlsx</td><td>3/28/2022 11:19 AM</td><td>Microsoft Excel Worksheet</td></tr><tr><td>4 PHASERCOPY - in use - Mike - Mar28.txt</td><td>3/25/2022 3:45 PM</td><td>Text Document</td></tr><tr><td>5 PhaserCopyV9.xlsm</td><td>3/28/2022 12:48 PM</td><td>Microsoft Excel Macro-Enabled Worksheet</td></tr><tr><td>PhaserCopyV9_BACKUP.xlsm</td><td>3/28/2022 12:49 PM</td><td>Microsoft Excel Macro-Enabled Worksheet</td></tr><tr><td>4 README.pdf</td><td>5/13/2021 7:37 AM</td><td>Adobe Acrobat Document</td></tr><tr><td>6 V9_PhaserCopy.vbs</td><td>2/14/2022 3:42 AM</td><td>VBScript Script File</td></tr></tbody></table></div><div><div>1. The <b>Archive</b> directory has copies of old or modified files in vase you want to refer back to them.</div><div>2. The Test Changes Here directory has a number of files and subdirectories used for testing, especially testing related to the Incidental Finding Report.</div><div>3. PDF Registry and a backup copy. The PDF Registry is used to record information about each PDF received from Sanford Health. It is also used during the audit process to verify Health Factors entered in VistA match results from the associated PDF.</div></div></div>	Name	Date modified	Type	1 Archive	3/17/2022 7:28 AM	File folder	2 Test Changes Here	3/7/2022 10:12 AM	File folder	3 PHASER_PDF_Registry.xlsx	3/28/2022 11:18 AM	Microsoft Excel Worksheet	PHASER_PDF_Registry_BACKUP.xlsx	3/28/2022 11:19 AM	Microsoft Excel Worksheet	4 PHASERCOPY - in use - Mike - Mar28.txt	3/25/2022 3:45 PM	Text Document	5 PhaserCopyV9.xlsm	3/28/2022 12:48 PM	Microsoft Excel Macro-Enabled Worksheet	PhaserCopyV9_BACKUP.xlsm	3/28/2022 12:49 PM	Microsoft Excel Macro-Enabled Worksheet	4 README.pdf	5/13/2021 7:37 AM	Adobe Acrobat Document	6 V9_PhaserCopy.vbs	2/14/2022 3:42 AM	VBScript Script File
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1 Archive	3/17/2022 7:28 AM	File folder																													
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5 PhaserCopyV9.xlsm	3/28/2022 12:48 PM	Microsoft Excel Macro-Enabled Worksheet																													
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4 README.pdf	5/13/2021 7:37 AM	Adobe Acrobat Document																													
6 V9_PhaserCopy.vbs	2/14/2022 3:42 AM	VBScript Script File																													



Directory Name	Description
GDX PHASER PDF Repository	 <p>The VA GDX retrieves new PHASER results from Sanford Health each day and stores them in a subdirectory of this shared network folder (currently using the 2022 subdirectory). PDF are copied from here to the <b>@PGx Results From Sanford</b> folder and distributed using PhaserCopy.</p>

## Parameter Worksheets

PhaserCopy operations are controlled by parameter statements in the **Production** worksheet. As a precaution, always make a copy of the Production worksheet named **Production Backup** before making changes. That provides a way to recover from any problems related to the changes you're making. Parameter statements are divided as follows.

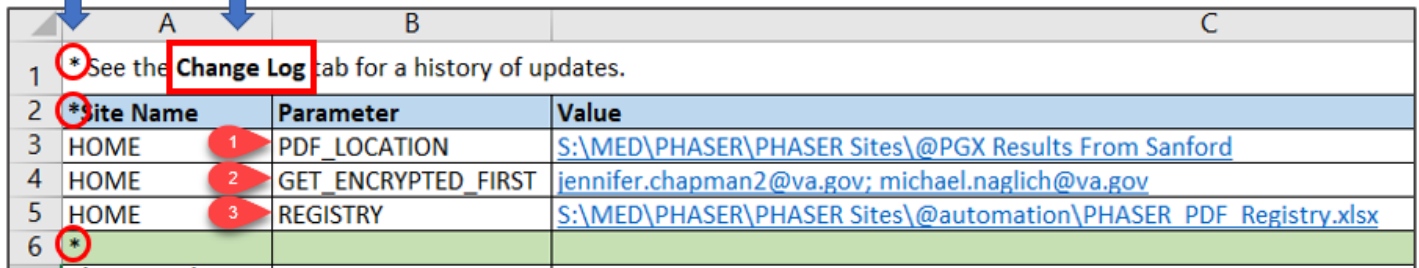
1. **HOME statements.** There is one set of HOME statements that define basic information that applies to all active PHASER sites.
2. **Individual PHASER site definitions.** These statements are customized for each individual PHASER site. They are added to the PRODUCTION worksheet as part of activating a new PHASER site and updated as needed after that. Individual site definitions are of two types:
  - a. Sites with a shared network drive for storing their PHASER PDF test reports.
  - b. Sites that do not have a shared network drive. Results are sent to these locations by attaching the PDFs to an email.

## HOME Statements

Parameter statements that apply to all individual PHASER sites defined in a given parameter worksheet are grouped under a special Site Name called **HOME** as shown below.

Blank rows and rows starting with an asterisk in column A are ignored.

Document changes you make in the **Change Log** worksheet.



	A	B	C
1	* See the <b>Change Log</b> tab for a history of updates.		
2	* <b>Site Name</b>	<b>Parameter</b>	<b>Value</b>
3	HOME 1	PDF_LOCATION	<a href="#">S:\MED\PHASER\PHASER Sites\@PGX Results From Sanford</a>
4	HOME 2	GET_ENCRYPTED_FIRST	<a href="#">jennifer.chapman2@va.gov; michael.naglich@va.gov</a>
5	HOME 3	REGISTRY	<a href="#">S:\MED\PHASER\PHASER Sites\@automation\PHASER PDF Registry.xlsx</a>
6	*		

**Note:** The Site Name 'HOME' is reserved and cannot be changed or used elsewhere.

1. **PDF\_LOCATION** specifies the path to the directory containing PHASER PDF test results for distribution to individual PHASER sites.
2. **GET\_ENCRYPTED\_FIRST** applies only to those sites that do not have a shared network folder for receiving their PDF's and require they be sent as attachments to an encrypted email. It lists one or more email addresses separated by commas of the individuals who will receive the emails first.
3. **REGISTRY** specifies the path and name of PDF Registry.



## PHASER Sites With Shared Network Folders

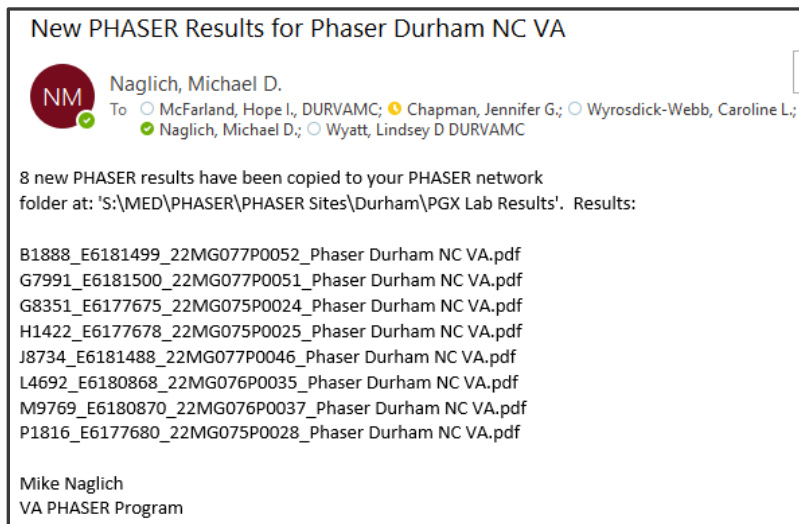
Required parameter statements for a PHASER site that receives their results in a network folder are shown below.

The **Site Name** must match the corresponding site name that is part of the test results PDF filename → S0918\_E5741842\_20MG118P0003\_Phaser Durham NC VA.pdf

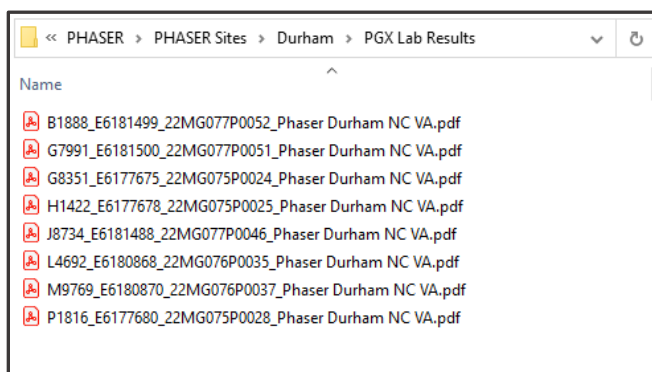
1	*Site Name	Parameter	Value
2	Phaser Durham NC VA	EMAIL_ONLY 1	Hope.Mcfarland@va.gov; jennifer.chapman2@va.gov; Caroline.Wyrosdick-Webb@va.gov; michael.naglich@va.gov;
3	Phaser Durham NC VA	EMAIL_ONLY 1	Lindsey.Wyatt@va.gov
4	Phaser Durham NC VA	PDF_LOCATION 2	S:\MED\PHASER\PHASER Sites\Durham\PGX Lab Results
5	Phaser Durham NC VA	INCIDENTAL_FINDINGS	S:\MED\PHASER\PHASER Sites\@automation\Test Changes Here\TEST IFR NOTES - Destination
6	Phaser Durham NC VA	SITE_ID	558
7	*		

The **INCIDENTAL\_FINDINGS** and **SITE\_ID** parameters aren't currently being used but are required to exist. The parameter values can be anything since the Incidental Finding Report is not in use.

1. **EMAIL\_ONLY** has one or more email addresses of people notified when new PHASER test results are available. If there are multiple email addresses for one **EMAIL\_ONLY** statement they must be separated by a semicolon. If there are multiple **EMAIL\_ONLY** statements, all the email addresses are combined. Here is an example notification email that would be sent based on the parameters shown above.



2. **PDF\_LOCATION** is the path to the destination directory where PHASER PDF results are stored. An example is shown below.



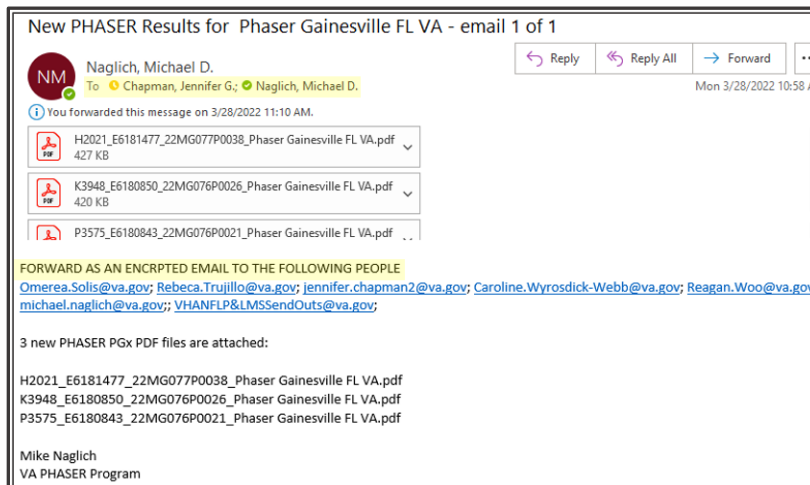


## PHASER Sites Without a Shared Network Folder

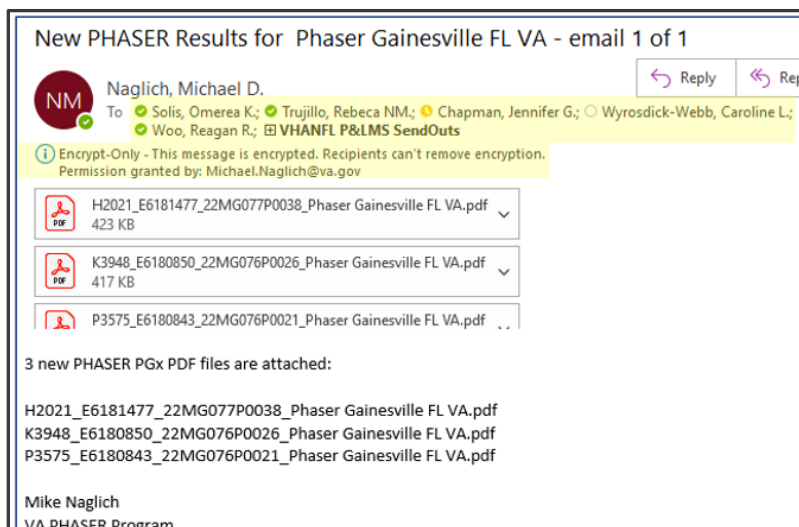
Some locations have not established shared network folders for their PHASER results. These locations receive results as email attachments. Everything is the same as for **PHASER Sites With Shared Network Folders** described above except for the **EMAIL\_ATTACHMENTS** and **PDF\_LOCATION** parameters.

15	*		
16	Phaser Gainesville FL VA	EMAIL_ATTACHMENTS	Omerea.Solis@va.gov; Rebeca.Trujillo@va.gov; jennifer.chapman2@va.gov; Caroline.Wyrosdick-Webb@va.gov; Reagan.Woo@va.gov; michael.naglich@va.gov;
17	Phaser Gainesville FL VA	EMAIL_ATTACHMENTS	VHANFLP&LMSendOuts@va.gov
18	Phaser Gainesville FL VA	PDF_LOCATION	S:\MED\PHASER\PHASER Sites\Gainesville
19	Phaser Gainesville FL VA	INCIDENTAL_FINDINGS	S:\MED\PHASER\PHASER Sites\@automation\Test Changes Here\TEST IFR NOTES - Destination
20	Phaser Gainesville FL VA	SITE_ID	573
21	*		

- **PDF\_LOCATION** specifies a local work area that is used by PhaserCopy as part of building the email with attachments.
- **EMAIL\_ATTACHMENTS** indicates this PHASER site received results as email attachments. In this case the notification email is first sent to the person or people listed in the **GET\_ENCRYPTED\_FIRST** parameter described in HOME Statements on page 7. They receive an email that looks like this:



They must edit the email and add encryption. The edited email that is forwarded to the PHASER site looks like this:



## PhaserCopy Worksheets

Like any Excel workbook, this one is composed of individual worksheets that are described below. Information in these worksheets control what PhaserCopy does during execution. If a worksheet isn't in this list it is treated as a parameter worksheet. All worksheets are processed dynamically at run time so changes are effective immediately.

**Note:** Worksheet names should not be changed.

Worksheet Name	Hidden?	Description
<b>Audit</b>	<b>No</b>	Used during the audit process to record additional information about errors reported in the <b>LOG</b> worksheet.
<b>Change Log</b>	<b>No</b>	A list of changes made over time.
<b>Copy of Production</b>	<b>No</b>	A backup copy of the Production worksheet.
<b>GDX PDFs</b>	<b>No</b>	Used to track which PDFs have been downloaded from the GDX shared network folder and distributed
HF Audit Map	Yes	A cross-reference of which CDW field names match a given PDF field name.
IFR Template	Yes	Used with the Incidental Finding Report.
IFR Work	Yes	Used with the Incidental Finding Report.
Pre-CROC trigger info	Yes	Used with the Incidental Finding Report.
<b>Production</b>	<b>No</b>	Main parameter worksheet with definitions for all active PHASER sites.
Result XREF	Yes	Contains a cross-reference by gene of CDW values that are acceptable matches for results reported in a PDF from Sanford Health.
RunTestCases	Yes	Used with the Incidental Finding Report.
Test-AllSites	Yes	Used with the Incidental Finding Report.

## PDF Distribution

This is a summary of the steps involved in using this method to distribute PDF files.

### One-Time Setup Tasks

1. Enable Excel macro-enabled workbook execution on your PC. See [Enable or disable macros in Office files \(microsoft.com\)](#) for details.
2. Obtain access to PHASER site shared network folders. This is usually done as part of the implementation process for new PHASER sites.
3. Obtain access to the GDX project directory where new PHASER PDF test reports are downloaded each day.

### Add a New PHASER Site

1. Add the appropriate definitions for the new location to the Production parameter worksheet. See **Parameter Worksheets** on page 6 for details. The list of people at the new PHASER site who should receive results are listed on the site's [PHASER RLN VA-Sanford Health Lab Information.docx](#) form.
2. For sites with a shared network folder for results (which every site should have), be sure you are on the list of people who have access.
3. Find out when the site's dry run is scheduled. Testing PhaserCopy distribution is part of the dry run process. Details are on the SharePoint site: [PHASER-RLN Dry Run Instructions.pdf](#).

### Distribution Checklist

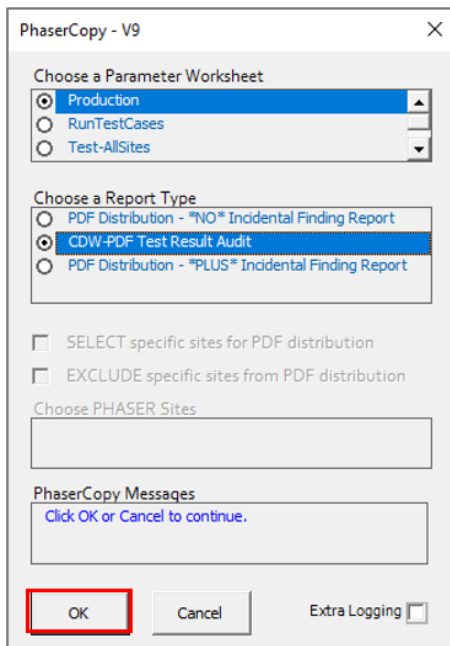
Your PC must be dedicated to executing PhaserCopy, which may take one or more hours, depending on the number of results. All unnecessary programs, such as Outlook and MS Teams, must be terminated before starting PhaserCopy. If you have more than 10 PDF's to distribute use the fastPhaser Method.

1. Rename the PHASER lock file **PHASERCOPY AVAILABLE.txt** as described in **README.pdf**.
2. Download new PHASER PDF test reports from the GDX folder to **@PGx Results From Sanford**.
3. Record information about the PDF's you've downloaded in the **GDX PDFs** worksheet. If there are no results to download that day, note that fact in the worksheet and perform the daily audit. See

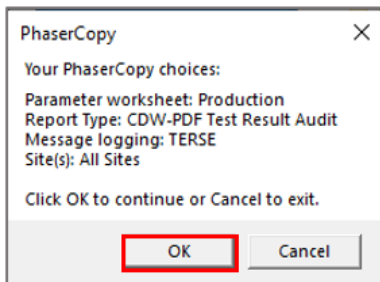
4. **Health** Factor Audit on page 14 for more information.
5. In the **@automation** directory, copy and replace of **PhaserCopyV9.xlsm** to create a new **PhaserCopyV9\_BACKUP.xlsm** file.
6. In the **@automation** directory, copy and replace **PHASER\_PDF\_Registry.xlsx** to create a new **PHASER\_PDF\_Registry\_BACKUP.xlsx** file.
7. Review the list of PDF filenames in **@PGx Results From Sanford** to ensure they conform to the agreed VA-Sanford naming convention. If a filename includes the string 'corrected', rename as described below in **Resolving Duplicate Name Conflicts** on page 17.
8. Exit any open Excel and Word windows. PhaserCopy uses both those applications. If you use them while running PhaserCopy results are unpredictable.

**Warning:** Do not use MS Excel or MS Word at the same time as you are running PhaserCopy.

9. Double-click file **PhaserCopy.vbs**. The PhaserCopy user interface should be displayed.
10. Select the **Production** parameter worksheet.
11. Select **PDF Distribution - \*NO\* Incidental Finding Report**.
12. Click **OK**.



13. A message box appears with the options you selected. Click **OK** to continue.



14. The message '*Running, please wait...*' appears in the PhaserCopy message area.
15. Wait. When PhaserCopy is finished it will automatically display contents of the LOG worksheet.

If you running PhaserCopy on a PC connected to the VA network, be prepared to wait at least 2 minutes for each file being processed. For example, if there are 128 PDFs to distribute it may take in excess of 3 hours to complete the distribution. This is due to network delay associated with VPN connections. **If possible, run PhaserCopy from a PC located in a VA office or other location that does not require use of a VPN connection**

16. Examine the LOG file to ensure there were no problems.
17. Save **PhaserCopy9.xlsm** and create a new **PhaserCopy9\_BACKUP.xlsm**.
18. Create a new backup copy of **PHASER\_PDF\_Registry.xlsx**.
19. Rename the PHASER lock file as described in **README.pdf**.
20. If PDF's were sent to one or more sites as attachments, check your Outlook inbox and for emails that need to be forwarded. **Be sure to encrypt them.**
21. Update the most recent PhaserCopy distribution and audit recap email and send it to the usual suspects.

## Health Factor Audit

This is a summary of the steps involved in using this method to audit PHASER results from the VA CDW against the contents of the PDF files sent by Sanford.

### One-Time Setup Tasks

1. Enable Excel macro-enabled workbook execution on your PC. See [Enable or disable macros in Office files \(microsoft.com\)](https://support.microsoft.com/en-us/topic/enable-or-disable-macros-in-office-files) for details.
2. Access to PHASER Operations Data Portal.

### Audit Checklist

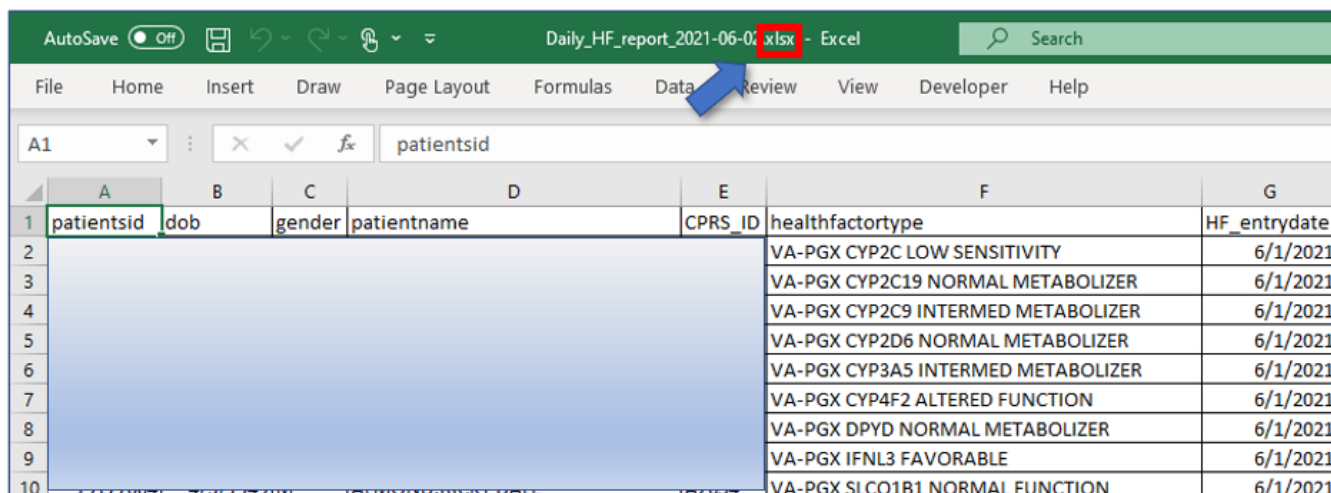
Your PC must be dedicated to executing PhaserCopy. All unnecessary programs, such as Outlook and MS Teams, must be stopped before starting PhaserCopy.

1. Rename the PHASER lock file **PHASERCOPY AVAILABLE.txt** as described in **README.pdf**.
2. Create a backup copy of **PhaserCopyV9.xlsm**.
3. Create a backup copy of **PHASER\_PDF\_Registry.xlsx**.
4. Navigate to [https://vaww.pbi.cdw.va.gov/PBI\\_RS/report/VINCI/VINCI\\_PHASER/Daily%20Audits/Daily\\_HF\\_report](https://vaww.pbi.cdw.va.gov/PBI_RS/report/VINCI/VINCI_PHASER/Daily%20Audits/Daily_HF_report).
5. Choose **(Select All)** for the HF entry date and click **View Report**.

6. Download a copy of the data as a CSV file. Save the file in the [S:\MED\PHASER\VINCI\\_incl Reports\Daily HF audit](S:\MED\PHASER\VINCI_incl Reports\Daily HF audit) folder.

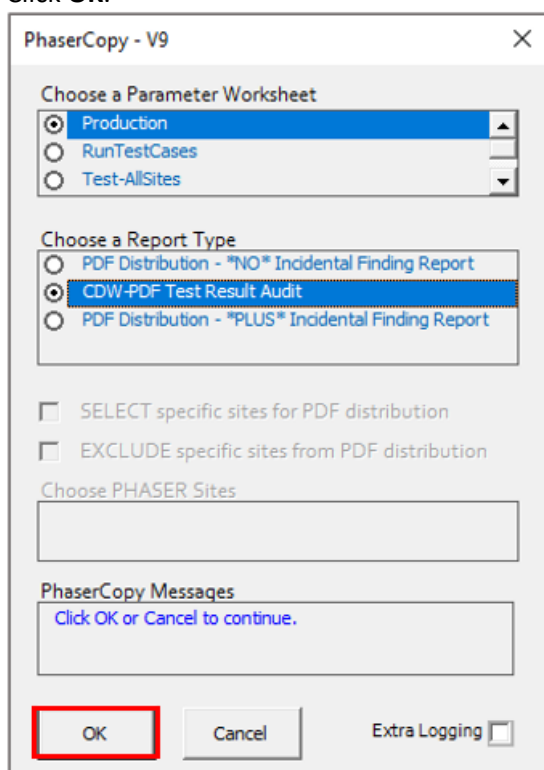


- Open the CSV file you just downloaded, delete the everything above the column headers, and save it with a file extension of **xlsx**. The file should look like this.



	A	B	C	D	E	F	G
1	patientsid	dob	gender	patientname	CPRS_ID	healthfactortype	HF_entrydate
2						VA-PGX CYP2C LOW SENSITIVITY	6/1/2021
3						VA-PGX CYP2C19 NORMAL METABOLIZER	6/1/2021
4						VA-PGX CYP2C9 INTERMED METABOLIZER	6/1/2021
5						VA-PGX CYP2D6 NORMAL METABOLIZER	6/1/2021
6						VA-PGX CYP3A5 INTERMED METABOLIZER	6/1/2021
7						VA-PGX CYP4F2 ALTERED FUNCTION	6/1/2021
8						VA-PGX DPYD NORMAL METABOLIZER	6/1/2021
9						VA-PGX IFNL3 FAVORABLE	6/1/2021
10						VA-PGX SLCO1B1 NORMAL FUNCTION	6/1/2021

- Double-click file **PhaserCopy.vbs**. The PhaserCopy user interface should be displayed.
- Select the **Production** parameter worksheet.
- Select the **PGx Test Result Audit** report.
- Click **OK**.



PhaserCopy - V9

Choose a Parameter Worksheet

- ☒ Production
- ☐ RunTestCases
- ☐ Test-AllSites

Choose a Report Type

- ☐ PDF Distribution - \*NO\* Incidental Finding Report
- ☒ CDW-PDF Test Result Audit
- ☐ PDF Distribution - \*PLUS\* Incidental Finding Report

☐ SELECT specific sites for PDF distribution

☐ EXCLUDE specific sites from PDF distribution

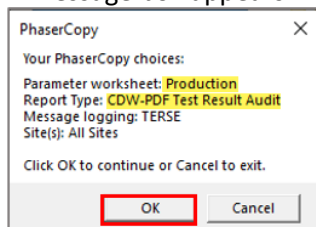
Choose PHASER Sites

PhaserCopy Messages

Click OK or Cancel to continue.

**OK** Cancel Extra Logging ☐

- A message box appears with the options you selected. Click **OK** to continue.



PhaserCopy

Your PhaserCopy choices:

Parameter worksheet: **Production**

Report Type: **CDW-PDF Test Result Audit**

Message logging: TERSE

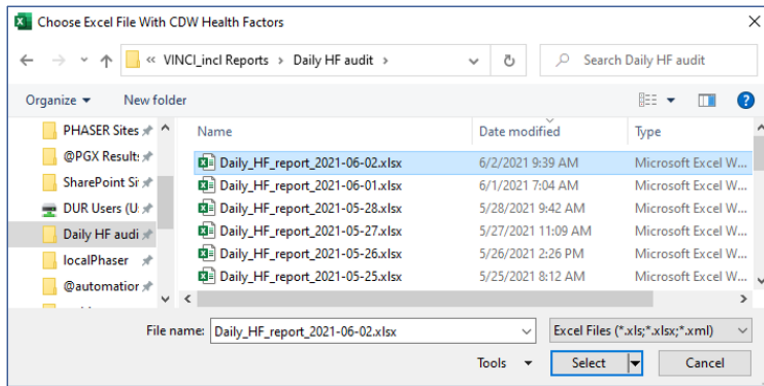
Site(s): All Sites

Click OK to continue or Cancel to exit.

**OK** Cancel

- The message *'Running, please wait...'* appears in the PhaserCopy message area.

14. You are prompted to select the CDW extract for the audit. Select the Excel xlsx file you created above and click **Select to continue.**



15. Wait. When PhaserCopy is finished it will automatically display contents of the LOG worksheet. Examine both the LOG and AUDIT worksheets for findings. The audit detects a variety of discrepancies. What you do next depends on the type of discrepancy found. Email message templates for common errors are stored in the [S:\MED\PHASER\VINCL\\_incl Reports\Daily HF audit](S:\MED\PHASER\VINCL_incl Reports\Daily HF audit) folder. See **Troubleshooting** on page 17 below for more information about errors.

	A	B	C
1	Date	Time	Message
	03/28/22	14:44:36	<p>Finish PGx Health Factor audit.</p> <p>Total eligible PDF's found in the PDF Registry: 258</p> <p>Total passed: 22</p> <p>Total failed: 2</p> <p>Total not found in the CDW extract: 234</p> <p>Sum of passed, failed, and not found: 258</p> <p>***</p> <p>Total discrepancies found is reverse check of CDW against the PDF Registry: 0</p> <p>***</p> <p>Details for any errors that occurred are logged in the AUDIT worksheet.</p>
2			
3	03/28/22	14:44:29	Reverse check of CDW against the PDF Registry check finished.
4	03/28/22	14:43:58	Start Reverse check of CDW against the PDF Registry
5	03/28/22	14:43:29	Error, audit failed for: P7449_E6177014_22MG074P0024_PHASER PHOENIX AZ VA.PDF. See the AUDIT worksheet for details.
6	03/28/22	14:43:20	Error, audit failed for: M2519_E6175542_22MG070P0052_PHASER BOSTON MA VA.PDF. See the AUDIT worksheet for details.
7	03/28/22	14:43:04	ODP data check finished. No errors found.
8	03/28/22	14:42:55	Start ODP data check.
9	03/28/22	14:41:29	Start PGx Health Factor audit.
10	03/28/22	14:41:21	***
11	03/28/22	14:40:47	Using parameter worksheet: Production, Report: CDW-PDF Test Result Audit, Sites: All Sites, Message Level: TERSE
12	03/28/22	14:40:38	Start PhaserCopy v9 - User: VHADURNagiIM, Computername: DUR-LT108794
13	03/28/22	14:40:31	1 Date Site Message
14	03/28/22	10:59:16	2 03/28/22 PGx Health Factor audit and reverse check of CDW data finished.
15	03/28/22	10:59:15	3 03/28/22 Reverse check of CDW against the PDF Registry check finished.
			4 03/28/22 Start Reverse check of CDW against the PDF Registry
	03/28/22	PHOENIX AZ VA.PDF	Error, discrepancy between CDW and PDF results for PDF file P7449_E6177014_22MG074P0024_PHASER PHOENIX AZ VA.PDF CDW Field TPMT = INTERMED METABOLIZER and PDF Field TPMT = Normal Metabolizer
	03/28/22	BOSTON MA VA.PDF	Error, discrepancy between CDW and PDF results for PDF file M2519_E6175542_22MG070P0052_PHASER BOSTON MA VA.PDF CDW Field gender = M and PDF Field PDF Sex = F
	03/28/22		7 03/28/22 Start PGx Health Factor audit.
	03/28/22		8 ***

16. Create a new backup copy of **PhaserCopyV8b.xlsm**.
17. Create a new backup copy of **PHASER\_PDF\_Registry.xlsx**.
18. If necessary, email sites that either need to correct a Health Factor error in Vista or request a new PDF from Sanford Health to fix a mistake with patient demographics such as their DOB or name spelling.
  - a. Email templates are here: <S:\MED\PHASER\PHASER Sites\@PGX Results From Sanford\Blurbs>
  - b. Save a copy of emails sent to sites here: <S:\MED\PHASER\PHASER Sites\@PGX Results From Sanford\PhaserCopy Audit Error Emails>
19. Rename the PHASER lock file as described in **README.pdf**.
20. End of audit process.

## Troubleshooting

### Managing Duplicate Files

Beginning on 5/19/21, before each new file received from Sanford Health is sent to a destination PHASER site, a check is made automatically in the PHASER PDF Registry (S:\MED\PHASER\PHASER Sites\@automation\PHASER\_PDF\_Registry.xlsx) to determine if this result has been received before (i.e. it is a duplicate).

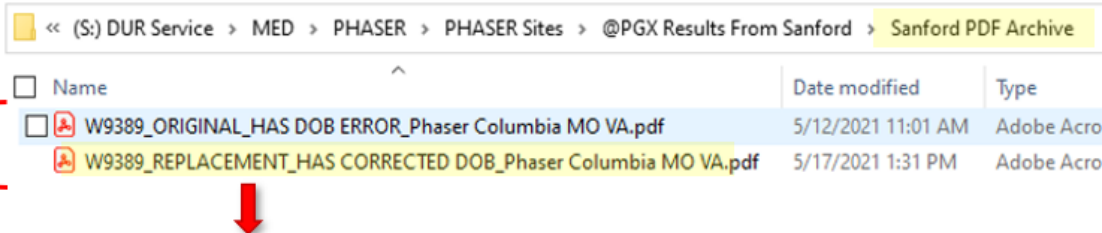
A new PDF is flagged as a **duplicate** if the filename *exactly* matches that of a PDF received previously, and for which an entry already exists in the PDF Registry. Sanford Health sends corrected PHASER PDF's with the exact same name as the original, usually to correct a patient identifier error, such as an incorrect DOB in the original PDF. Flagging these corrected duplicate PDF's allows us to alert the destination PHASER site and keep track of what happened for analysis and problem determination.

**Note:** This document assumes the usual Health Factor audit, which compares CDW results obtained through the Operations Data Portal (ODP) with the corresponding results from the PDF sent by Sanford. Needing an updated PDF to fix a patient identifier problem should not delay entering PHASER Health Factors into Vista/CPRS, nor should it prevent the Health Factor audit.

### Resolving Duplicate Name Conflicts

PhaserCopy will not distribute PDF files until every name conflict has been resolved. You will need to manually rename the new PDF to something else before attempting to send it. This may mean you need to unzip the files sent by Sanford Health, delete Sanford's zip files (after saving a copy in the in the Sanford PDF Archive folder at S:\MED\PHASER\PHASER Sites\@PGX Results From Sanford\Sanford PDF Archive.

This how the two files appear in the PDF Archive.



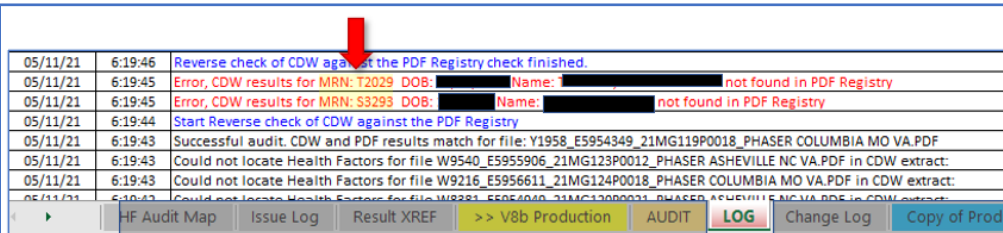
**Important:** Rename the new PDF in the folder pointed to by the HOME PDF\_LOCATION parameter statement before running PhaserCopy again.

	*Site Name	Parameter	Value
2	HOME	PDF_LOCATION	S:\MED\PHASER\PHASER Sites\@PGX Results From Sanford
4	HOME	GET_ENCRYPTED_FIRST	jennifer.chapman2@va.gov; Caroline.Wyrosdick-Webb@va.gov; michael.naglich@va.gov
5	HOME	REGISTRY	S:\MED\PHASER\PHASER Sites\@automation\PHASER_PDF_Registry.xlsx

## Patient Demographic Audit Errors

This occurs when an entry in one of the daily Health Factor downloads from the ODP ([https://vaww.pbi.cdw.va.gov/PBI\\_RS/report/VINCI/VINCI\\_PHASER/Daily%20Audits/Daily\\_HF\\_report](https://vaww.pbi.cdw.va.gov/PBI_RS/report/VINCI/VINCI_PHASER/Daily%20Audits/Daily_HF_report)) cannot be matched to a PDF from Sanford Health. This problem is revealed when the daily PhaserCopy audit report is run as shown below.

This is how the problem reveals itself during the Health Factor (HF) audit process.



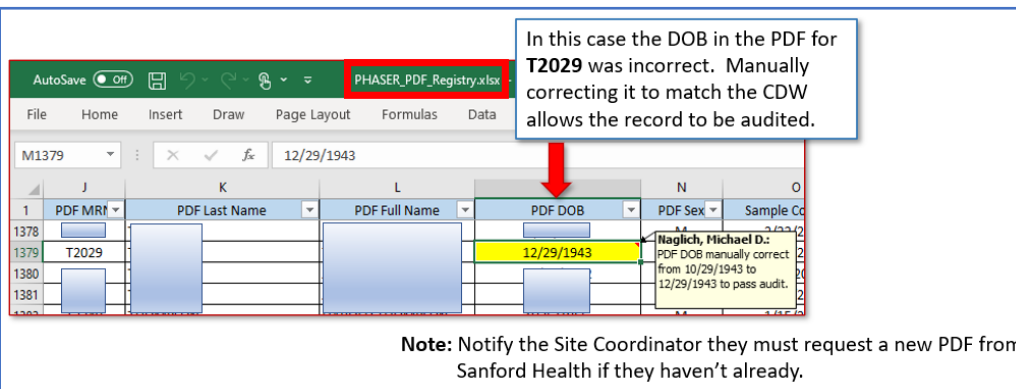
05/11/21	6:19:46	Reverse check of CDW against the PDF Registry check finished.
05/11/21	6:19:45	Error, CDW results for MRN: T2029 DOB: [REDACTED] Name: [REDACTED] not found in PDF Registry
05/11/21	6:19:45	Error, CDW results for MRN: S3293 DOB: [REDACTED] Name: [REDACTED] not found in PDF Registry
05/11/21	6:19:44	Start Reverse check of CDW against the PDF Registry
05/11/21	6:19:43	Successful audit. CDW and PDF results match for file: Y1958_E5954349_21MG119P0018_PHASER COLUMBIA MO VA.PDF
05/11/21	6:19:43	Could not locate Health Factors for file W9540_E5955906_21MG123P0012_PHASER ASHEVILLE NC VA.PDF in CDW extract:
05/11/21	6:19:43	Could not locate Health Factors for file W9216_E5956611_21MG124P0018_PHASER COLUMBIA MO VA.PDF in CDW extract:
05/11/21	6:19:43	Could not locate Health Factors for file W8281_E5956040_21MG120P0031_PHASER ASHEVILLE NC VA.PDF in CDW extract:

This clip from the PhaserCopyv8b.xlsm 'LOG' worksheet shows results for T2029 and S3293 were found in the CDW but could not be matched to a PDF file from Sanford Health because the 3 patient identifiers used to link CDW data with a PDF do not match the corresponding 3 patient identifiers of any existing PDF.

The CDW is always correct, so there must be an error in the PDF information

## Fix the PDF Registry and Rerun the Audit

In this example, manually update the entries for T2029 and S3293 in PHASER\_PDF\_Registry.xlsx, save the updated file, and rerun the PhaserCopy audit. The error messages shown previously should disappear since the CDW will now match the PDF and the audit can proceed.



In this case the DOB in the PDF for T2029 was incorrect. Manually correcting it to match the CDW allows the record to be audited.

	J	K	L	N	O
	PDF MRN	PDF Last Name	PDF Full Name	PDF DOB	PDF Sex
1378					
1379	T2029			12/29/1943	
1380					
1381					

**Note:** Notify the Site Coordinator they must request a new PDF from Sanford Health if they haven't already.

## Appendix A – The Daily PhaserCopy Status Note


When PDF distribution and result audits are complete, send a status note using the format explained below using an example of how the note changes from one day to the next.


**Note:** Information in this section is somewhat out of date. For example, we no longer include the **Statistics** section shown below, so you can ignore all that. This will give you some ideas to get started but do whatever works best for you.

### Wednesday Email

Assume you are running PhaserCopy on **Thursday, 6/3**. Here is an example of the type of email you would have received from whoever ran PhaserCopy on **Wednesday, 6/2**.

PhaserCopy distribution and audit recap: Wednesday 6/2

 Naglich, Michael D.  
To: Chapman, Jennifer G.; Caroline L. Wyrosdick-Webb (Caroline.Wyrosdick-Webb@va.gov)

 This is the most recent version, but you made changes to another copy. Click here to see the other versions.  
Encrypt-Only - This message is encrypted. Recipients can't remove encryption.  
Permission granted by: Michael.Naglich@va.gov

Hello - here is the daily recap with updates since my previous recap email in blue and bold text.

Mike  
919-225-3733

General Notes

- Should I continue to track the need for updated PDF's for Durham pt's B8067, D0404, and T2029? Errors in those PDF's were found back in April.

Distribution

Audit

Site	MRN	Alias	Pt. Last Name	Pt. DOB	Open	Received Corrected PDF Date	Audit PASS Date	Comment
Durham	B8067		Blue	8/28/1972	4/22		5/11	PDF has wrong DOB (should 8/28/72, not 8/8/72.) <ul style="list-style-type: none"> <li>Notified JB on 4/26.</li> <li>Requested update from JB on 5/3.</li> <li>5/11 updated PDF Registry to enable audit.</li> <li>6/2 have not received corrected PDF.</li> </ul>
Durham	D0404		Disoway	12/22/1950	4/22		5/11	PDF has wrong last name "Disoway" (should be Discoway) <ul style="list-style-type: none"> <li>Notified JB on 4/29.</li> <li>Requested update from JB on 5/3.</li> <li>5/11 updated PDF Registry to enable audit.</li> <li>6/2 have not received corrected PDF.</li> </ul>
Durham	T2029		Thomas	11/29/1943	5/11		5/11	PDF DOB must be corrected. <ul style="list-style-type: none"> <li>5/11 - manually updated registry for audit</li> <li>5/11 - notified Site Coordinator</li> <li>6/2 have not received corrected PDF.</li> </ul>
Boston	59838	19838	Smith	8/23/1925	5/24			Change PDF filename and report MRN field to 59838. <ul style="list-style-type: none"> <li>5/24 notified Boston.</li> <li>6/2 have not received PDF for 59838 (the correct MRN)</li> </ul>
Boston	M2564		McDermott	2/23/1948	6/1		Fail	HF for CYP2D6 requires correction. <ul style="list-style-type: none"> <li>6/3 notified Boston.</li> </ul>
Salisbury	F3902				6/2			Require PDF with corrected DOB (8/18/1943) <ul style="list-style-type: none"> <li>6/2 Ashly at Salisbury found the error as notified us.</li> </ul>

Statistics

Category	May	June	YTD
Requisition error - new PDF requested	15	1	16
CPRS data entry errors	4	1	5
Miscellaneous errors not captured elsewhere.	9	3	12
CROC-related	0	0	0
Total errors	28	5	33
Total monthly results processed	377		
CPRS HF data entry error percentage	1.06		
Requisition (new PDF required) error percentage	3.98		
Total error percentage (all categories)	7.42		

## Prepare to Send the Thursday Email

Now assume you just finished the distribution and audit functions and it's time to send your Thursday, 6/3, status note. Start by completing the following tasks.

1. Open the email in Outlook from Wednesday, 6/2, and click **Forward**. You'll see something like this.

Encrypt-Only - This message is encrypted. Recipients can't remove encryption.

Permission granted by: Michael.Naglich@va.gov

Send

To

Cc

Subject

FW: PhaserCopy distribution and audit recap: Wednesday 6/2

Mike Naglich  
Project Support  
VA PHASER Program  
(m) 919-225-3733

From: Naglich, Michael D.  
Sent: Wednesday, June 2, 2021 7:24 PM  
To: Chapman, Jennifer G. <Jennifer.Chapman2@va.gov>; Caroline L. Wyrosdick-Webb (Caroline.Wyrosdick-Webb@va.gov) <Caroline.Wyrosdick-Webb@va.gov>  
Subject: PhaserCopy distribution and audit recap: Wednesday 6/2

Hello - here is the daily recap with updates since my previous recap email in blue and bold text.

Mike  
919-225-3733

[General Notes](#)

- Should I continue to track the need for updated PDF's for Durham pt's B8067, D0404, and T2029? Errors in those PDF's were found back in April. Not sure h

2. Delete the text at the beginning of the email and enter your name and the date on which you ran PhaserCopy.


The screenshot shows an email interface with several annotations:

- Encryption Status:** A yellow box at the top left contains the text: "Encrypt-Only - This message is encrypted. Recipients can't remove encryption. Permission granted by: Michael.Naglich@va.gov". A red arrow points from this box to a blue callout on the right.
- Callout:** A blue box on the right contains the text: "Since you are forwarding an encrypted email, it will remain encrypted automatically."
- Send Button:** A button labeled "Send" with a right-pointing arrow icon.
- To and Cc Fields:** Two input fields labeled "To" and "Cc" are shown.
- Subject Line:** The subject is "PhaserCopy distribution and audit recap: Thursday, 6/3". The date "Thursday, 6/3" is highlighted in yellow, and a red arrow points from this highlight to a blue callout on the right.
- Callout:** A blue box on the right contains the text: "Date on which you ran PhaserCopy (Thursday, 6/3, in this example)."
- Email Body:** The body text starts with "Hello - here is the daily recap with updates since my previous recap email in blue and bold text." Below this, the text "Your name, etc." is shown in a yellow box, with a red arrow pointing from it to another blue callout on the right.
- Callout:** A blue box on the right contains the text: "Your name, etc."
- General Notes:** A section titled "General Notes" is visible at the bottom.



## Final Version of Thursday Email

1. By convention, the information related to your distribution and audit work on Thursday, 6/3, will be in blue and bold text. Before you make changes remove the blue color and bold highlighting from the previous email. Your email should now look something like this. All the blue and bold text is gone and now you can make changes related to the work you just finished.



To

Cc

Subject PhaserCopy distribution and audit recap: Thursday, 6/3

Hello - here is the daily recap with updates since my previous recap email in blue and bold text.

Your name, etc.

General Notes

- Should I continue to track the need for updated PDF's for Durham pt's B8067, D0404, and T2029? Errors in those PDF's were found back in April. Not

Distribution

- 49 results were sent on 6/2.

Audit

Site	MRN	Alias	Pt. Last Name	Pt. DOB	Open	Received Corrected PDF Date	Audit PASS Date	Comment
Durham	B8067		Blue	8/28/1972	4/22		5/11	PDF has wrong DOB (should 8/28/72, not 8/8/72.) <ul style="list-style-type: none"> <li>Notified JB on 4/26.</li> <li>Requested update from JB on 5/3.</li> <li>5/11 updated PDF Registry to enable audit.</li> <li>6/2 have not received corrected PDF.</li> </ul>
Durham	D0404		Disoway	12/22/1950	4/22		5/11	PDF has wrong last name 'Disoway' (should be Disoway) <ul style="list-style-type: none"> <li>Notified JB on 4/29.</li> <li>Requested update from JB on 5/3.</li> <li>5/11 updated PDF Registry to enable audit.</li> <li>6/2 have not received corrected PDF.</li> </ul>
Durham	T2029		Thomas	12/29/1943	5/11		5/11	PDF DOB must be corrected. <ul style="list-style-type: none"> <li>5/11 - manually updated registry for audit</li> <li>5/11 - notified Site Coordinator</li> <li>6/2 have not received corrected PDF.</li> </ul>
Boston	S9838	L9838	Smith	8/23/1925	5/24			Change PDF filename and report MRN field to S9838. <ul style="list-style-type: none"> <li>5/24 notified Boston.</li> <li>6/2 have not received PDF for S9838 (the correct MRN) yet</li> </ul>
Boston	M2564		McDermott	2/23/1948	6/1		Fail	HF for CYP2D6 requires correction. <ul style="list-style-type: none"> <li>6/1 notified Boston.</li> </ul>
Salisbury	F3902				6/2			Require PDF with corrected DOB (8/18/1945) <ul style="list-style-type: none"> <li>6/2 Ashly at Salisbury found the error an notified us.</li> </ul>

Statistics

Category	May	June	YTD
Requisition error - new PDF requested	15	1	16
CPRS data entry errors	4	1	5
Miscellaneous errors not captured elsewhere.	9	3	12
CROC-related	0	0	0
Total errors	28	5	33
Total monthly results processed	377		
CPRS HF data entry error percentage	1.06		
Requisition (new PDF required) error percentage	3.98		
Total error percentage (all categories)	7.42		

2. Assume you want to make the following updates. Remember to make your changes in **blue and bold text**.
  - a. 10 results were distributed.
  - b. A replacement for Salisbury F3902 was received from Sanford and sent to Salisbury.
  - c. A Health Factor audit error was found in the Durham report for pt. Z1234
3. After making these changes, and just before hitting the **Send** button, your email will look like this.

Encrypt-Only - This message is encrypted. Recipients can't remove encryption.  
Permission granted by: Michael.Naglich@va.gov

**Send**

**To** (to the other 2 people who may run PhaserCopy)

**Cc**

**Subject** PhaserCopy distribution and audit recap: Thursday, 6/3

Hello - here is the daily recap with updates since my previous recap email in blue and bold text.

Your name, etc.

General Notes

- No updates.

Distributions

- 10 results were sent on 6/3.**

Audit

Site	MRN	Alias	Pl. Last Name	Pl. DOB	Open	Received Corrected PDF Date	Audit PASS Date	Comment
Durham	R8067		Blue	8/28/1972	4/22		5/11	PDF has wrong DOB (should 8/28/72, not 8/8/72.) • Notified JB on 4/26. • Requested update from JB on 5/3. • 5/11 updated PDF Registry to enable audit. • 6/2 have not received corrected PDF.
Durham	D0404		Disoway	12/22/1950	4/22		5/11	PDF has wrong last name 'Disoway' (should be Disoway) • Notified JB on 4/29. • Requested update from JB on 5/3. • 5/11 updated PDF Registry to enable audit. • 6/2 have not received corrected PDF.
Durham	T2029		Thomas	12/29/1943	5/11		5/11	PDF DOB must be corrected. • 5/11 - manually updated registry for audit • 5/11 - notified Site Coordinator • 6/2 have not received corrected PDF.
Boston	S9838	L9838	Smith	8/23/1925	5/24			Change PDF filename and report MRN field to S9838. • 5/24 notified Boston. • 6/2 have not received PDF for S9838 (the correct MRN) yet
Boston	M2564		McDermott	2/21/1948	6/1		Fail	PDF for CYP2D6 requires correction. • 6/1 notified Boston.
Salisbury	F3902				6/2	<b>6/4</b>	<b>6/4</b>	Re-prepare PDF with corrected DOB (8/18/1945) • 6/2 Ashly at Salisbury found the error and notified us. • <b>6/3 corrected file from Sanford received and sent to Salisbury. This item will be deleted from the next email.</b>
Durham	Z1234		Smith	9/13/1945	6/4		Fail	HF errors found for CYP2D6 and CYP2C9. • Notified Durham.

**Statistics**

Category	May	June	YTD
Requisition error - new PDF requested	15	1	16
CPRS data entry errors	4	<b>2</b>	<b>6</b>
Miscellaneous errors not captured elsewhere.	9	1	10
CROC-related	0	0	0
Total errors	28	5	33
Total monthly results processed	377		
CPRS HF data entry error percentage	1.06		
Requisition (new PDF required) error percentage	3.98		
Total error percentage (all categories)	7.42		

Updates for Thursday, 6/3, are in blue and bold text.

Update these counts to reflect any new errors you encountered, such as the new HF error.