

Richard Woods, Georgia's School Superintendent
"Educating Georgia's Future"

GEORGIA DEPARTMENT OF EDUCATION
OFFICE OF THE STATE SUPERINTENDENT OF SCHOOLS
TWIN TOWERS EAST
ATLANTA, GA 30034-5001

TELEPHONE: (800) 869 - 1011 FAX: (404) 651-5006

<http://www.gadoe.org/>

MEMORANDUM

TO: PCGenesis System Administrators

FROM: Steven Roache, Senior Information Systems Manager

SUBJECT: **Release 22.03.00 – Miscellaneous Changes / Conversion to PCGenesisDB Database / Installation Instructions**

This document contains the PCGenesis software release overview and installation instructions for *Release 22.03.00*.

PCGenesis supporting documentation is provided at:

<http://www.gadoe.org/Technology-Services/PCGenesis/Pages/default.aspx>

September 2022 Payroll Completion Instructions

Install this release after completing the September 2022 payroll(s). Install this release before executing F4 – Calculate Payroll and Update YTD for the October 2022 payroll.

A PCGenesis E-mail User List Is Available

The Georgia Department of Education has created an e-mail user list for PCGenesis. PCGenesis users can join the list by sending a blank e-mail to:

join-pcgenesis@list.doe.k12.ga.us

After joining the PCGenesis user list, users can take advantage of discussion forums by sending e-mails to:

pcgenesis@list.doe.k12.ga.us

An e-mail sent to pcgenesis@list.doe.k12.ga.us will broadcast the e-mail to all PCGenesis users enrolled in the group. Those PCGenesis districts and RESAs that join the user list will be able to share ideas, discuss problems, and have many more resources available for gaining insight into PCGenesis operations. Join today!

Mark Your Calendars!

PCGenesis Sessions and Training at GASBO 2022

The Georgia Department of Education is pleased to announce that the PCGenesis team will be attending GASBO 2022. PCGenesis will be offering two full days of sessions and training at this year's GASBO conference in November. PCGenesis will have a dedicated room and will be offering eight sessions. So, mark your calendars!

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Section A: Overview of Release

A1. PCGenesis System Enhancements

A1.1. Conversion of HISTORY, DISTRIB, DESC_TBL and CPIFILE to PCGenesisDB SQL Server Database Tables

The GaDOE is happy to announce a major upgrade of PCGenesis. Release 22.03.00 continues the conversion of PCGenesis Vision data into *SQL Server* database tables. The migration of PCGenesis to a *SQL Server* database platform is a major undertaking, but a step that it is imperative to take for the longevity of the product.

Today, the PCGenesis data is stored in VISION files which are indexed, flat files, and are proprietary to *MicroFocus*. Nothing other than *MicroFocus ACUCOBOL* can access the data from VISION files. VISION files represent very old technology. *SQL Server* is a relational database management system (RDBMS). Relational databases are faster, more efficient and more powerful than VISION files. The database name is *PCGenesisDB*.

In release 22.03.00, the following 5 files associated with the payroll, budget, and CPI systems are being converted into the *SQL Server* database tables:

Vision File Name	SQL Database Table Name	Description
PAYDATA\HISTORY	PAY.History_Earnings	Payroll employee earnings history records
PAYDATA\DISTRIB	PAY.History_Distribution	Payroll employee earnings history account distribution records
CPIDATA\CPIFILE	PAY.CPI_Header PAY.CPI_Certifications PAY.CPI_Assignments	CPI data including biographical information, CPI certificates and CPI assignments
CPIDATA\DESC_TBL	PAY.CPI_Code_Table	CPI Description Codes
SANDBOX\CPIFILE	SAND.CPI_Header SAND.CPI_Certifications SAND.CPI_Assignments	Budget System - CPI data including biographical information, CPI certificates and CPI assignments

Converting PCGenesis into a relational database management system (RDBMS) is a very, very big project. We estimate that it may take several years to convert the software. During that timeframe, major enhancements to PCGenesis will be very limited. However, legislative requirements and ongoing maintenance will always be addressed even during the conversion process.

The PCGenesis database is in the following location for *Windows Server 2012, 2016, 2019 or 2022*:

- K:\PCGSQldb\MSSQL13.SQLEXPRESSPCG\MSSQL\DATA\ **PCGenesisDB.mdf**
- K:\PCGSQldb\MSSQL13.SQLEXPRESSPCG\MSSQL\DATA\ **PCGenesisDB_log.ldf**

Why go to all the trouble of converting the old VISION data files? First, updating the data files allows us to implement far better transaction processing. Today, we have problems with data reliability. Today, if a posting process is interrupted because of a power failure, or network hiccup, half of the PCGenesis data files may be updated (for instance the RECEIPT file) and half of the files may not be updated (for instance the AUDIT file). This requires a data repair!!

Second, we can modernize the PCGenesis data structures and allow access to the data from programs other than COBOL programs. This means that as COBOL programmers retire, the data will be accessible to more modern programming languages such as C#, Java, Crystal Reports, etc., and a new generation of programmers will more easily take over maintenance of the product.

The upgrade to *MicroFocus Extend 10* in September of 2016 came with the ability to execute SQL code from within PCGenesis COBOL programs. This feature is called **AcuSQL**. Having **AcuSQL** bundled in with the *MicroFocus Extend 10* runtime allows the Ga DOE to make use of database technology at no extra cost. Industry standard database support is now included in the *MicroFocus Extend 10 ACUCOBOL* runtime product.

A1.2. Improve Performance After Restoring Schema

A problem has been discovered with the process that did a restore of FARDATAQ and/or PAYDATAQ tables. Before, the restore of **FARQ/PAYQ schema** did not recreate the indices on the database tables which caused very, very slow system performance from the point of the restore going forward. Therefore, generally, this issue only affected school districts that executed a restore of FARDATAQ and/or PAYDATAQ at some point in the past. This release corrects the indices on all database tables, which in turn, will also fix the system performance issues. The correction is applied automatically during the installation of 22.03.00 so that all school districts are returned to a “baseline” with the correct database table indices.

The restore schema stored procedure has also been corrected so that database table indices are always created correctly when doing a restore process, ensuring that system performance won't be affected again in the future.

A1.3. Backup of PCGenesis Data

The PCGenesis help desk and development team have been consulting on several ransomware attacks against school districts. From this we have learned that some school districts are not backing up the directory **K:\PCGSQLdb**. Today, the **K:\PCGSQLdb** directory contains MOST PCGenesis financial and payroll data. If your school system is attacked and has not added this directory to your backup process, **MOST OF YOUR FINANCIAL AND PAYROLL DATA IS GONE.**

The backups of your PCGenesis data must be verified. Instructions for verifying your backups are here: [Tech B4 - How To Verify Backup \(gadoe.org\)](#) Please call the help desk if you need assistance with the verification process. Also, please review all documents in **Section B: PCGenesis Backup / Reorganization / Restore** on this web page: [Technical System Operations Guide \(gadoe.org\)](#)

As an additional fallback, the PCGenesis development team has modified the scheduled reorganization task to not only create a backup of the SQL database, but to make a copy of this backup in the **K:\SECOND** directory.

This information must be forwarded to your Technology Representative or you may not have everything you need for a successful restore of your PCGenesis production data.

Going forward, PCGenesis data will be split between files contained in the directory **K:\SECOND** and the new *SQL Server* database table located in **K:\PCGSQldb**. Therefore, it is very important to backup **K:\PCGSQldb** and **K:\SECOND** during the nightly data backup. One directory cannot be backed up without the other directory, and they must be maintained together. To create a complete data backup of the PCGenesis system, the two directories need to be backed up together.

Starting with release 19.04.00, **K:\SECOND** cannot be restored without also restoring the **PCGenesisDB** database. These two entities must be kept in sync, otherwise receipts, receivables, and investments will be lost.

The following directories are needed for disaster recovery:

- **K:\SECOND** – PCG payroll & financial data
- **K:\PCGSQldb** – The *PCGenesisDB* database for the PCGenesis production data, and the *VQueueDB* database for the *VerraDyne* print queue data
- **K:\UCTARCHIVE** – Archived PCGenesis reports in pdf format
- **K:\UCTPRINT** – PCGenesis report files currently in the print queue

Prior to running a backup of the **K:\PCGSQldb** directory

- School districts must stop the *VerraDyne Queue Service* and the *SQL Express* services for the backup to successfully run to completion.
- The following commands should be entered in the command prompt for *Windows* or added to the backup bat file to stop the services:

```
NET STOP VQueueService
NET STOP MSSQL$SQLEXPRESSPCG
```

After the **K:\PCGSQldb** directory backup has completed – Start Services

- The following commands should be entered in the command prompt for *Windows* or added to the backup bat file to start the services:

```
NET START MSSQL$SQLEXPRESSPCG
– (Make sure to wait at least 2 minutes for SQLEXPRESSPCG to start before
trying to start VQueueService)
NET START VQueueService
```

A2. Payroll System

A2.1. Improve I/O performance for Employee Gross Data and Deductions

The PCGenesis database team has made improvements to the performance of accessing PCGenesis payroll database tables. Now, school districts should see an improvement in the amount of time it takes to calculate payroll and the time it takes to create the payroll budget and run the budget reports. Release 22.03.00 allows programs to process I/O requests more efficiently for the employee gross data records and for the employee deduction records.

A2.2. Decimals Dropped on Check Amounts in the Payroll Check Master File

An issue was reported against the prior release 22.02.00. The checks saved on the payroll check master dropped the decimal digits on the check amounts. This problem has been corrected.

A2.3. HISTORY File Converted to Database Table

The VISION indexed file *K:\SECOND\PAYDATA\HISTORY* is converted into the *SQL Server* database table *PAY.History_Earnings*. This table stores the earnings history records associated with payroll employees.

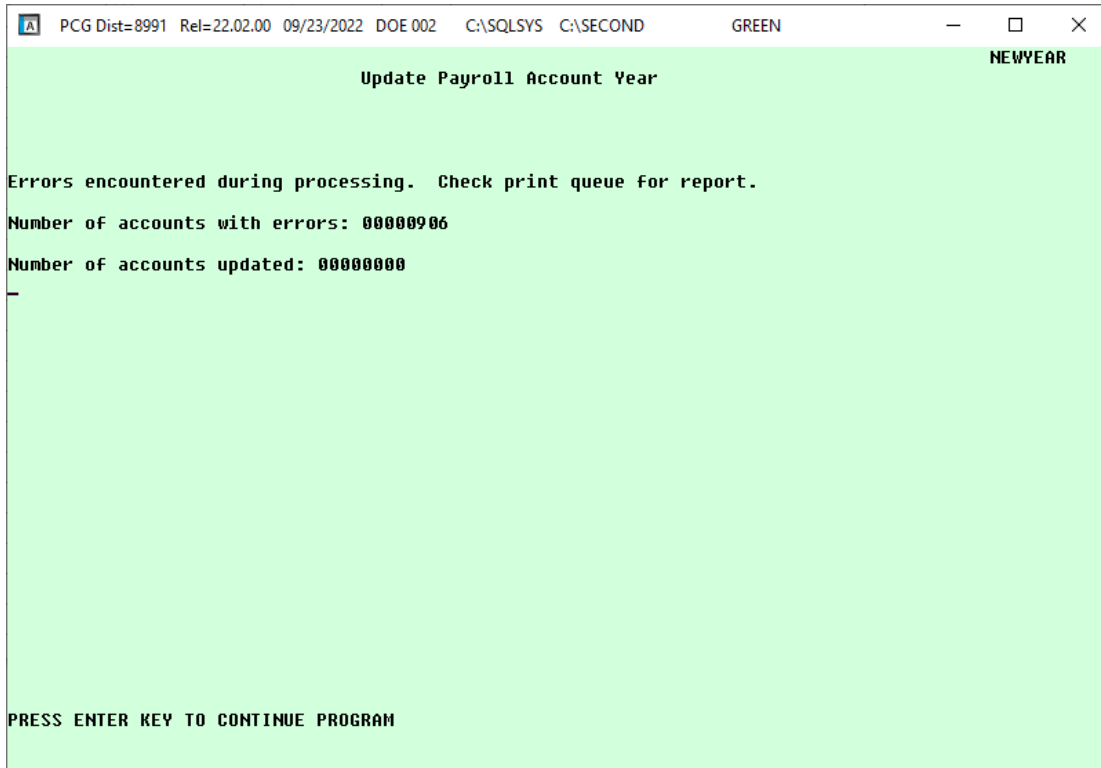
With release 22.03.00, *K:\SECOND* must be restored with the **PCGenesisDB** database. These two entities must be kept in sync, otherwise employee data will be lost. Call the help desk when any data needs to be restored.

A2.4. DISTRIB File Converted to Database Table

The VISION indexed file *K:\SECOND\PAYDATA\DISTRIB* is converted into the *SQL Server* database table *PAY.History_Distribution*. This table stores the earnings history account distribution records associated with the payroll employees.

A2.5. Mass Change Fiscal Year in Payroll Accounts

The mass update process, *Change Year in Payroll Account Numbers* (F2, F13, F6, F1) has been updated to produce a report of accounts that are not updated to the new fiscal year instead of displaying messages for every error on the screen. Before, error messages displayed on the screen which the user had to ENTER to acknowledge. This caused processing to take a long time. Now, the program creates a report with the errors and notifies the user that the errors must be corrected before a payroll can be completed, as shown on the screen below.



Change Year in Payroll Account Numbers

REPORT DATE:	09/23/2022		NEW ACCOUNT ERROR LIST	PAGE	1
PROGRAM:	NEWYEAR				
EMPNO	ACCOUNT NUMBER	ERROR MESSAGE			
085835	01 24-598-0-1895-2100-17700-8014-4-000000	NEW ACCOUNT IS NOT DEFINED IN THE BUDGET CHART OF ACCOUNTS			
085838	01 24-100-0-3011-1000-11000-0101-0-000000	NEW ACCOUNT IS NOT DEFINED IN THE BUDGET CHART OF ACCOUNTS			
085838	02 24-100-0-3013-1000-11000-0101-0-000000	NEW ACCOUNT IS NOT DEFINED IN THE BUDGET CHART OF ACCOUNTS			
085838	03 24-100-0-3554-1000-11500-0101-0-000000	NEW ACCOUNT IS NOT DEFINED IN THE BUDGET CHART OF ACCOUNTS			
085844	01 24-100-0-2031-1000-11000-0110-0-000000	NEW ACCOUNT IS NOT DEFINED IN THE BUDGET CHART OF ACCOUNTS			

New Account Error List Report

A2.6. Import New Employees – Batch Mode

A problem has been corrected with the *Import New Employees – Batch Mode* (F2, F13, F8, F9) option on the *Payroll Export/Import Menu*. Before, the new hire import was not creating the payroll leave and education records for new employees correctly. Now, when new employees are created using the import, all database table records are created correctly. Also, when the user enters the *Update/Display Personnel Data* screen, if these records don't exist, the system will create the missing records automatically for the employee.

Payroll administrators should be sure to download the most up-to-date new hire import templates from the website before using the *Import New Employees* option. The updated templates are the *PCGenesis New Single Employee Template* and the *PCGenesis New Multiple Employees Template* and are located at the website below:

<http://www.gadoe.org/Technology-Services/PCGenesis/Pages/Payroll-System-Operations-Guide.aspx>


When the user enters the *Import New Employees – Batch Mode* process, a screen is presented with the following two options:

Import File Type?

Multiple Files, One Employee Per File

One File, Multiple Employees

The new hire import process will facilitate gathering employee information from multiple departments and/or schools into Microsoft® Excel Spreadsheets/Workbooks which can then be loaded into the PCGenesis system either individually, or in batch mode. Three methods are now offered for importing new employee data:

1. Users will be able to use the *PCG_New_One_Employee.xlsx* template in the creation of new employees through the *Add New Employee* (F2, F2, F1) on-line screen. Users may select  **F17** (Import new employee data) to import the data from a comma-delimited file. If the import is successful, the import data will be displayed on the *New Employee* screen, and the payroll administrator will be able to finish editing and adding the employee data.
2. A batch process has been provided which loads multiple employee import files at the same time. This process will read a directory which contains multiple single-employee import files and import all of the individual files at once. The *Import New Employees – Batch Mode* (F2, F13, F8, F9) option will be available from the *Special Functions Menu*, and the *Payroll Export/Import Menu*. The user will be able to run this process in trial mode or final mode. The process will create new employees for everything that passes edits and will bypass any files which contain errors. Three reports are produced from the batch process: one report listing the valid employees, one report listing the employee files with errors, and a summary report which displays the results for each file.
3. A new batch process has been added which loads multiple employees from one file. The new *Import New Employees – Batch Mode* (F2, F13, F8, F9) option will be available from the *Special Functions Menu*, and the *Payroll Export/Import Menu*. The user will be able to run this process in trial mode or final mode. The process creates new employees when all data passes the edits, and no errors exist.

A2.7. Employee Selection on the PAYFIND Screen

A problem has been corrected with the *Select Employee* on the *PAYFIND* screen in payroll. Before, when searching for an employee by social security number, if the social security number happened to be the very last record in the payroll file and there was only one matching record with that number, an incorrect employee was displayed. This problem has been corrected.

A3. Financial Accounting and Reporting (FAR) System

A3.1. Add support for new SFS Program Codes 1462, 1974, 1977, and 4261 in the DE-106 Report

Support has been added for a new School Food Service **Program Codes 1462, 1974, 1977, and 4261** in the DE-106 Report (F1, F9, F1, F9). **Codes 1462, 1974, 1977, and 4261** are used to identify state/local/federal expenditures associated with the operation of the school food service program. Federal guidelines indicate all program income and other generated sources of revenue are treated as federal revenue in the operation of the Child Nutrition Cluster program. This program encompasses the National School Lunch Program, the School Breakfast Program, and the Food Distribution Program. All expenditures coded to these program codes will be considered Federal expenditures for ESSA report card reporting. Any other grants associated with the School Food Service Operations that require separate tracking of expenditures will use the appropriate program code associated with that grant.

A3.2. Asset Balance Accounts 0303, 0304, 0313, 0315, and 0317

A problem has been corrected with the *Monthly Financial Reports: General ledger* (F1, F9, F17, MRPTJ010). Before, the PCGenesis General Ledger was not handling the Long Term Debt balance sheet accounts 0303, 0304, 0313, 0314 and 0317 correctly, and these balance sheet accounts were appearing on the General Ledger as liabilities when in reality they were assets. The PCGenesis system has been updated to treat all balance sheet accounts greater than 0302 and less than 0399 as assets.

A4. Certified/Classified Personnel Information (CPI) System

A4.1. CPIFILE File Converted to Database Table

Release 22.03.00 converts the VISION indexed file *K:\SECOND\CPIDATA\CPIFILE* into the following PCGenesis database tables:

- *PAY.CPI_Header*
- *PAY.CPI_Certifications*
- *PAY.CPI_Assignments*

These tables store the employee records for the PCGenesis system as shown in the table below.

Vision File Name	SQL Database Table Name	Description
CPIDATA\CPIFILE	PAY.CPI_Header	This table stores the CPI biographical information associated with employees.
CPIDATA\CPIFILE	PAY.CPI_Certifications	This table stores the CPI certificate data associated with employees.
CPIDATA\CPIFILE	PAY.CPI_Assignments	This table stores the CPI assignment data associated with employees.

With release 22.03.00, **K:\SECOND** must be restored with the **PCGenesisDB** database. These two entities must be kept in sync, otherwise employee data will be lost. Call the help desk when any data needs to be restored.

A4.2. DESCTBL File Converted to Database Table

The VISION indexed file *K:\SECOND\CPIDATA\DESCTBL* is converted into the *SQL Server* database table *PAY.CPI_Code_Table*. This table stores the CPI description codes for certificate type codes, job codes, certificate field codes, secondary fund codes, subject matter codes, and certificate level codes.

A4.3. Create Original Leave of Absence File

A problem has been corrected with the *Create Original Leave of Absence File* procedure (F4, F9, F6) when a school district is not using the *Enhanced Substitute Pay and Employee Leave System*. When trying to create the original leave of absence file for CPI reporting, the program would abort with a critical SQL error, "unknown cursor". This problem has been corrected.

A5. Budget System

A5.1. CPIFILE File Converted to Database Table

Release 22.03.00 converts the VISION indexed file *K:\SECOND\SANDBOX\CPIFILE* into the following PCGenesis database tables:

- *SAND.CPI_Header*
- *SAND.CPI_Certifications*
- *SAND.CPI_Assignments*

These tables store the employee records for the PCGenesis system as shown in the table below.

Vision File Name	SQL Database Table Name	Description
CPIDATA\CPIFILE	SAND.CPI_Header	This table stores the CPI biographical information associated with employees for the Budget System.
CPIDATA\CPIFILE	SAND.CPI_Certifications	This table stores the CPI certificate data associated with employees for the Budget System.
CPIDATA\CPIFILE	SAND.CPI_Assignments	This table stores the CPI assignment data associated with employees for the Budget System.

With release 22.03.00, **K:\SECOND** must be restored with the **PCGenesisDB** database. These two entities must be kept in sync, otherwise employee data will be lost. Call the help desk when any data needs to be restored.

Section B: Installation Instructions for Release 22.03.00 Software

B1. Perform a PCGenesis Full Backup

Proceed to section B2. *Verify Windows Security Group GENUSERS* in this document if these two conditions are met:

1. The prior evening’s full system backup of the entire **K:** drive was successful.
 - In addition to its current labeling, also label the prior evening’s backup media as “**Data Backup Prior to Release 22.03.00**”.
 - Continue to use the backup in the normal backup rotation.
2. No work has been done in PCGenesis since the prior backup.

Otherwise, continue with the instructions in section B1. *Perform a PCGenesis Full Backup* if these two conditions are not met.

Step	Action
1	Verify all users are logged out of PCGenesis.
2	Stop the VerraDyne Queue Service (VQueueService) and the SQL Express Service (SQLEXPRESSPCG) prior to running a full backup of the entire K: PCGenesis disk drive or else the backup will not run to completion.
3	Perform a PCG Full Backup to CD or DVD or USB.
4	When the PCGenesis backup completes, label the backup CD or DVD or USB “ Full System Backup Prior to Release 22.03.00 ”.
5	<p>Start the SQL Express Service: SQLEXPRESSPCG must be running before starting the release installation. If <i>SQL Server</i> is not running, the PCGenesisDB cannot be updated during the release installation. If you run a full backup prior to installing the release and <i>SQL Server</i> has been stopped, the following commands can be executed to restart SQLEXPRESSPCG.</p> <ul style="list-style-type: none"> • The following commands should be entered in the command prompt for <i>Windows</i> or added to the backup bat file to start the services. • NET START MSSQL\$SQLEXPRESSPCG
6	Proceed to B2. <i>Verify Windows Security Group GENUSERS</i> .

B2. Verify Windows Security Group GENUSERS

The DOE is continuing the conversion of PCGenesis data tables into a *SQL Server* database in the 22.03.00 release.

Operating System Requirements for the PCGenesis Database

1. Prior to release 19.01.00, the PCGenesis document *New Server Installation Checklist* recommended setting up **GENUSERS** as the Windows Server security group for all PCGenesis users, but this requirement was not enforced. Please refer to *Page 2, Step 4* in the following document:

http://www.gadoe.org/Technology-Services/PCGenesis/Documents/Tech_A1_New_Server_Install.pdf

Starting with release 19.01.00, the security user group GENUSERS is now required.

2. Please forward this notice to your IT support team and ask them to verify the setup of **GENUSERS** on your PCGenesis Windows Server. If **GENUSERS** is not the current security group for PCGenesis users, please have the IT staff set up **GENUSERS** as directed in the document referenced above.

If you have any questions or need further assistance, please contact the Technology Management Customer Support Team by logging into the MyGaDOE Portal and clicking on the Help Desk Portal link and entering your request there.

To Login to the MyGaDOE portal please follow this link: <https://portal.doe.k12.ga.us/Login.aspx>

B3. Install PCGenesis Release 22.03.00

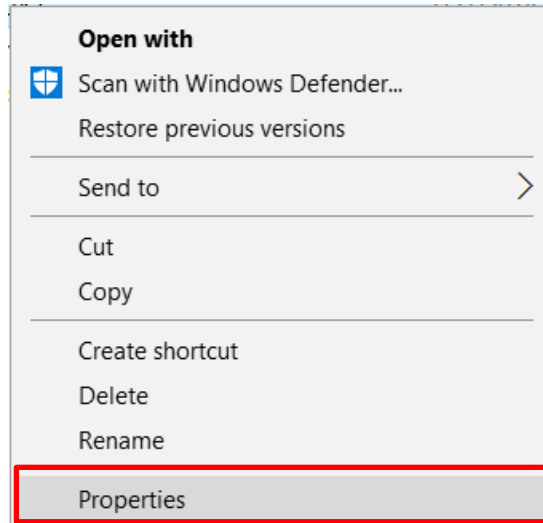
FROM THE PCGENESIS SERVER

Important Note

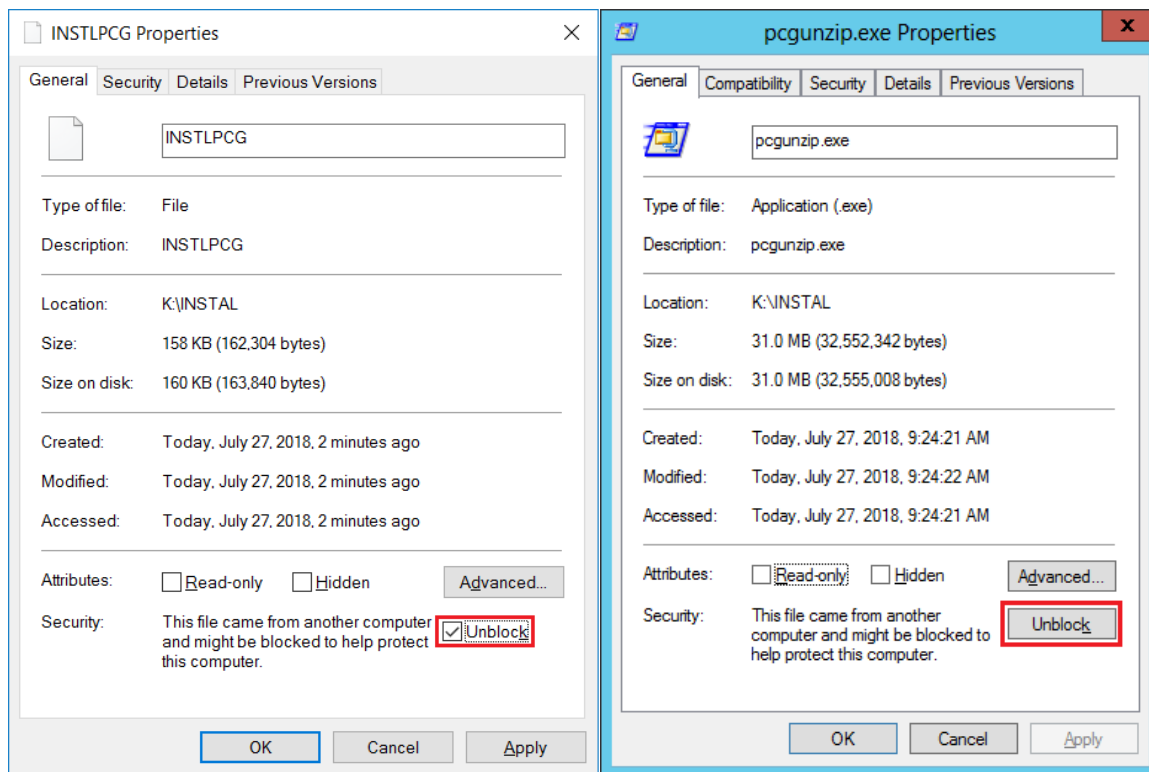
The person installing the PCGenesis release must be a member of the system administrator security group on the PCGENESIS server!


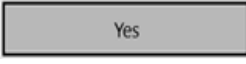
Step	Action
1	NOTE: The person installing the PCGenesis release must be a member of the system administrator security group on the PCGenesis server. This is required to properly install the <i>PCGenesisDB</i> database components contained in this release.
2	Start the SQL Express Service: SQLEXPRESSPCG must be running before starting the release installation. If <i>SQL Server</i> is not running, the <i>PCGenesisDB</i> cannot be updated during the release installation.
3	Verify all users are logged out of PCGenesis.
4	Open Windows® Explorer .
5	Navigate to the K:\INSTAL directory.
6	Verify PCGUNZIP.EXE , RELINSTL.BAT , and INSTLPCG display. <i>If PCGUNZIP.EXE and RELINSTL.BAT and INSTLPCG do not display, return to the MyGaDOE Web portal, and detach the files from the Web portal again.</i>
7	<p style="text-align: center;">*** ALERT ***</p> <p>After downloading the files we need to make sure they are not blocked, otherwise when we unzip, ALL the files will all be blocked. This is a new security feature of the Windows Server 2012 / 2016 / 2019 / 2022 operating system.</p> <p>To check whether the files have been blocked, right-click on each of the downloaded files and select Properties. If you see a security message at the bottom, as shown below, you will need to click the 'Unblock' button. This is a very important step!</p> <p>For each of the downloaded files in K:\INSTAL, right-click on the filename and select 'Properties'.</p>

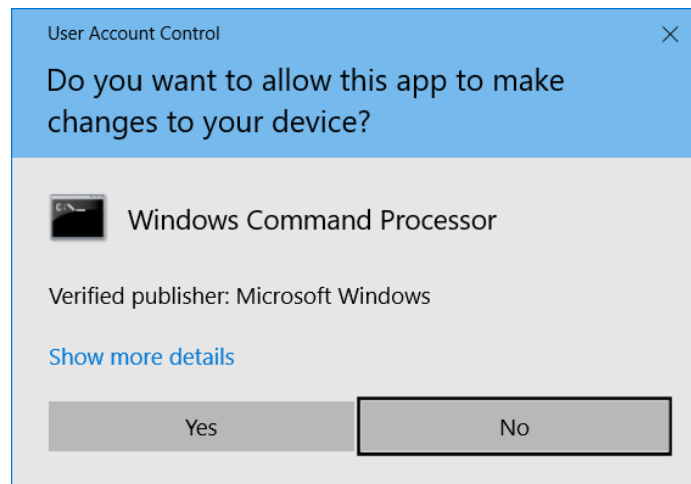
After right-clicking on each file, select the ‘Properties’ option:



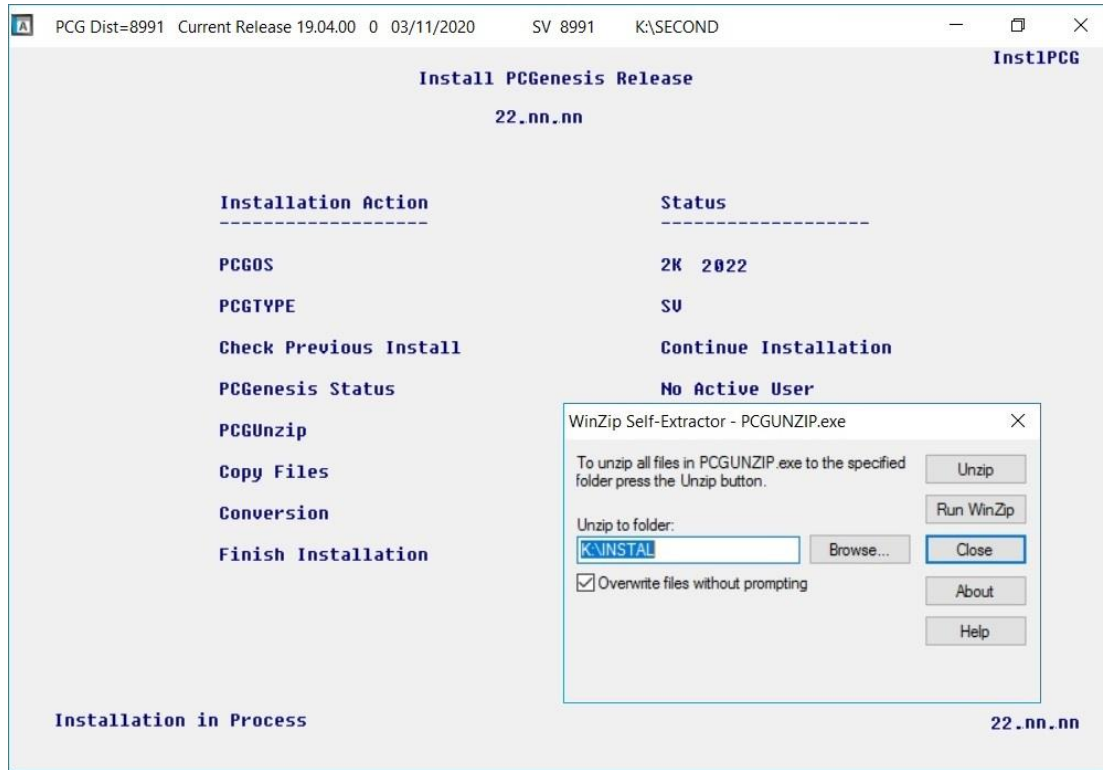
Depending on the version of the Windows operating system, the following screen displays:



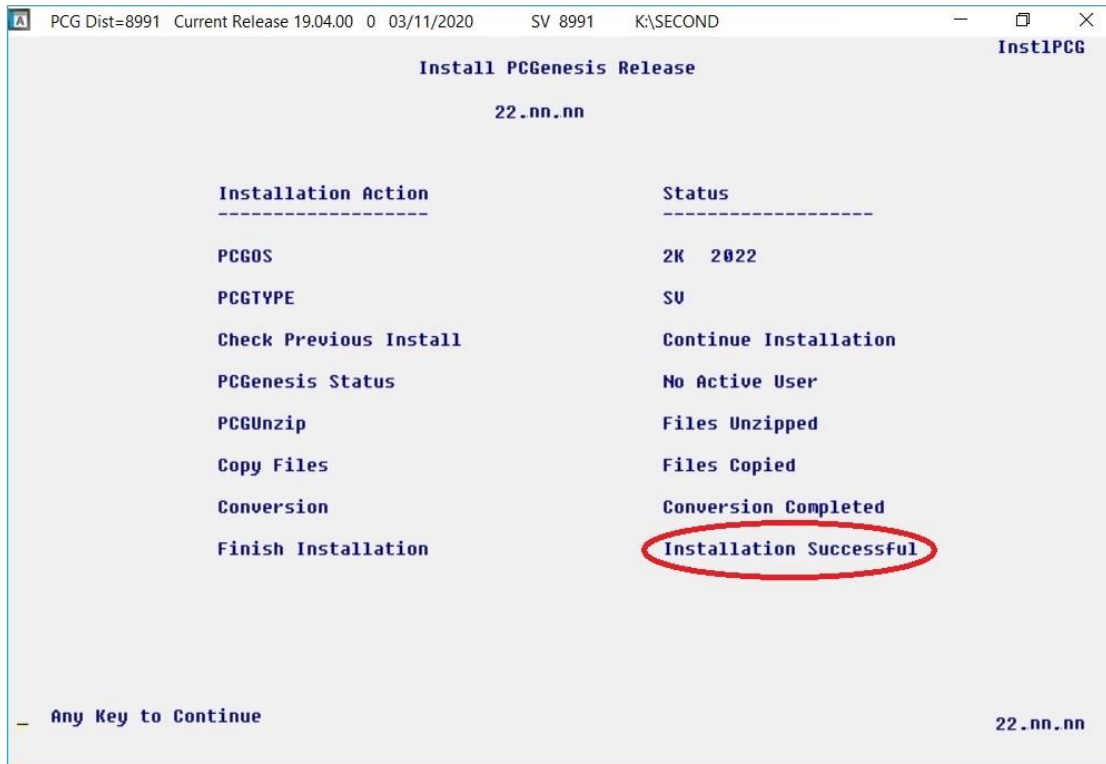
Step	Action
8	<p>Check the bottom of the ‘<i>Properties</i>’ dialog box to see if the following security warning is displayed:</p> <p><i>“This file came from another computer and might be blocked to help protect this computer.”</i></p> <p>If the option is presented, select  (Unblock) or check <input checked="" type="checkbox"/> the box to the left of Unblock.</p> <p>Do this for each of the files in the K:\INSTAL directory.</p>
9	<p>Right-click RELINSTL.BAT and select Run as administrator to perform the installation.</p>
10	<p>If the message “<i>Do you want to allow this app to make changes to your device?</i>” is displayed, select  (Yes) to continue.</p> <p><i>Next, a release installation status screen will display showing the release steps as they are completed.</i></p>



A screen will display showing the progress of the installation:

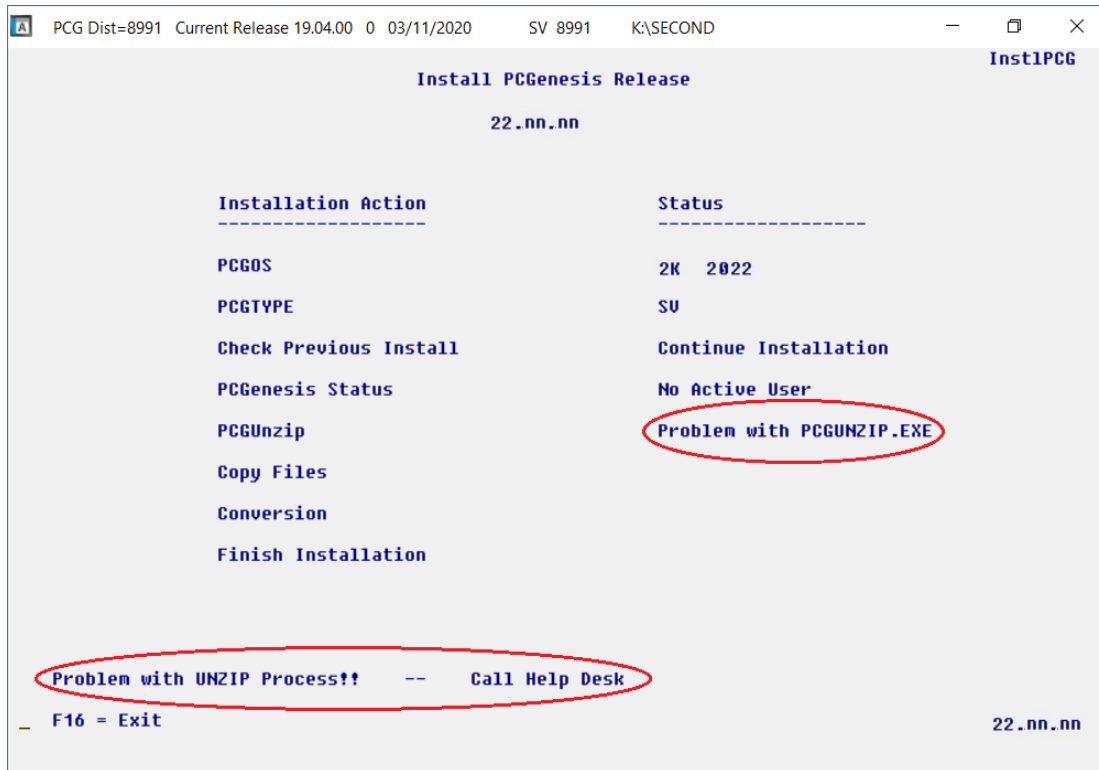


For PCGenesis Release 22.03.00 successful installations, the following message displays:



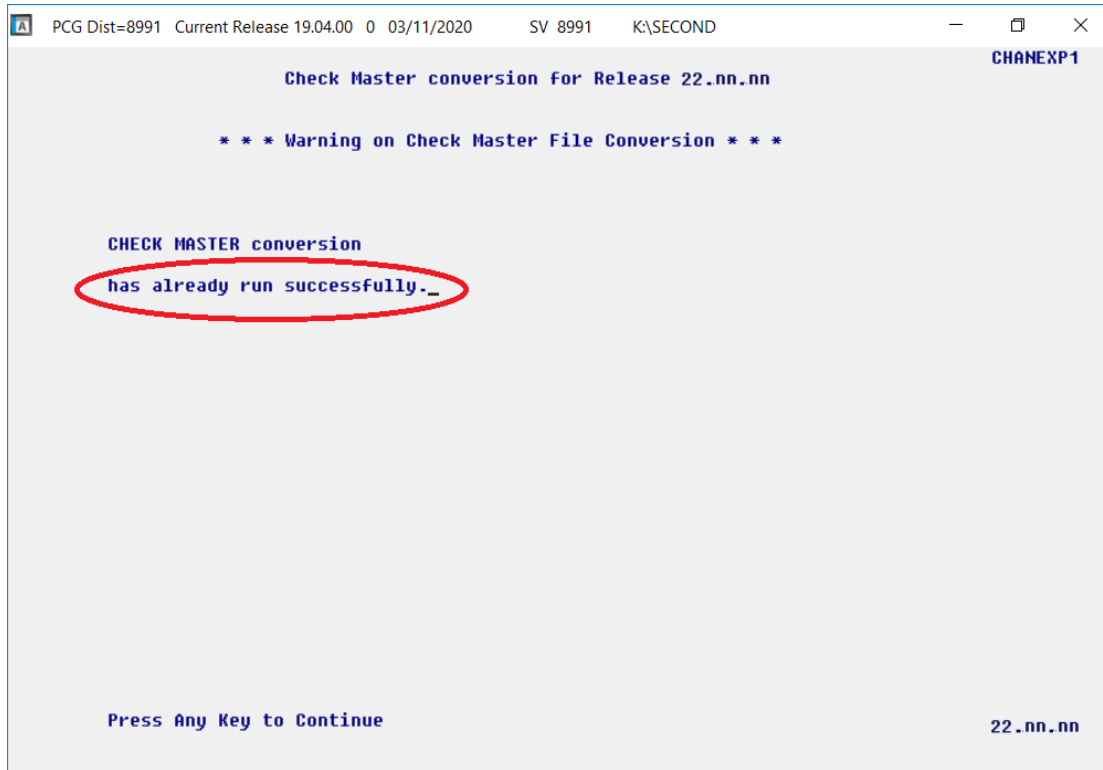
Step	Action
11	Select Enter to close the window.
12	<p>If the installation was successful: Proceed to B4. <i>Verify Release 22.03.00 Was Successfully Installed.</i></p> <p>If the installtion was unsuccessful: Proceed to <i>Step 13.</i></p>

A problem message displays if an error occurred:

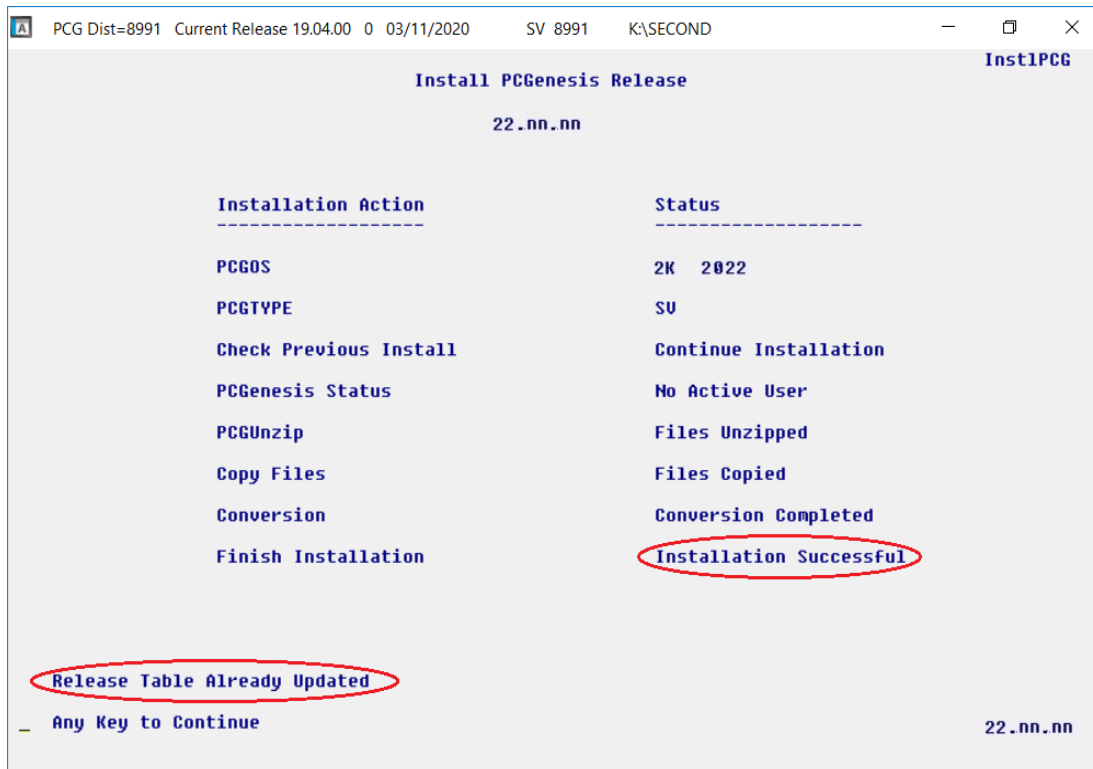


Step	Action
13	Select F16 to close the window.
14	Return to the <i>MyGaDOE</i> Web portal, and detach the files again.
15	<i>Contact the Technology Management Customer Support Team for additional assistance if needed. A description of the error will display with instructions to call the Help Desk.</i>

A warning message will display if the release installation is repeated:



A warning message will display if the release installation is repeated, but in this case, the installation is considered successful. In this instance, select any key to continue:



Step	Action
16	Proceed to <i>B4. Verify Release 22.03.00 Was Successfully Installed.</i>

B4. Verify Release 22.03.00 Was Successfully Installed

Step	Action
1	Log into PCGenesis.
2	From the <i>Business Applications Master Menu</i> , select 30 (F30 - System Utilities).
3	From the <i>System Utilities Menu</i> , select 17 (F17 - Display Current Release Number).

The following screen displays:

```

PCG Dist=8991 Rel=22.03.00 09/19/2022 DOD 000 SV K:\SYSTEM K:\SECOND WHITE
DEFNRELM


The Following D.O.E. Releases Have Been Successfully Loaded:

DOE 20.01.00 03/11/2020
DOE 20.02.00 06/23/2020
DOE 20.03.00 09/30/2020
DOE 20.04.00 07/09/2021
DOE 21.01.00 07/09/2021
DOE 21.02.00 07/09/2021
DOE 21.03.00 09/28/2021
DOE 21.04.00 01/04/2022
DOE 22.01.00 03/20/2022
DOE 22.02.00 07/05/2022
DOE 22.03.00 09/12/2022


.NET Framework 3.5: N   SQL SERVER EXPRESS 2012: N
.NET Framework 4.5: Y   SQL SERVER EXPRESS 2016: Y   SQL MANAGEMENT STUDIO 2016: Y

Press <ENTER> or F16 to Exit

ENTER ✓
F16 ←
21.03.00
    
```

Step	Action
4	Verify Release 22.03.00 displays. <i>The number of releases and the release installation date displayed may not correspond with the preceding screenshot example. This is acceptable as long as DOE 22.03.00 displays. If Release 22.03.00 does not display, contact the Technology Management Customer Support Center for assistance.</i>
5	Select  (Enter).
6	Log off the PCGenesis server.
7	Verify users remain logged out of PCGenesis.

B5. Perform a PCGenesis Full Backup After Release 22.03.00 is Installed

Step	Action
1	Verify all users are logged out of PCGenesis.
2	Stop the VerraDyne Queue Service (VQueueService) and the SQL Express Service (SQLEXPRESSPCG) prior to running a full backup of the entire K: \ PCGenesis disk drive or else the backup will not run to completion.
3	Perform a PCG Full Backup to CD or DVD or USB.
4	When the PCGenesis backup completes, label the backup CD or DVD or USB “ Full System Backup After Release 22.03.00 ”.
5	Restart the SQL Express Service (SQLEXPRESSPCG). After waiting <u>at least two minutes</u> , restart the VQueueService in  View local services (View local services).

Section C: After PCGenesis Release 22.03.00 Has Been Installed

C1. Verify Contents of the End-of-August Backup

This step is very, very important! The PCGenesis development team wants to ensure that all school districts are creating a backup of the PCGenesis data, including the contents of the **PCGSQldb** database directories as well as the **SECOND** data. Our concern is that school districts do not have a good backup of the database data, in which case you may not realize that you have an incomplete backup and *a critical problem*. School districts are under increasing pressure from hackers and malware attacks and therefore, it is nothing short of imperative that you can recover your PCGenesis data in case of an attack, or other data center catastrophe. To that end, please follow the steps below.

Step	Action
1	<p>Verify you have a weekly full backup of K: that you retain for at least 4 weeks.</p> <p>Include a full backup of K:*.* in the site’s standard server backup process</p> <ul style="list-style-type: none"> ▶ Recommend full backup of K:*.* <u>every night</u> if possible <ul style="list-style-type: none"> • Minimum of one full backup of K:*.* every week (Required) • Retain at least 4 weeks of K:*.* (Required)
2	<p>Verify you have a daily data backup of K:\SECOND*.*, and K:\PCGSQldb*.*, that you retain for at least 4 weeks</p> <p>Daily data backup of K:\SECOND*.* <u>and</u> K:\PCGSQldb*.* (Required)</p> <ul style="list-style-type: none"> • Use of CD, DVD, or USB is recommended • Nightly backup following each work day • Nightly media may remain under control of PCG administrator • Proper security and offsite storage measures (Required) • Retain daily backups of K:\SECOND*.* <u>and</u> K:\PCGSQldb*.* for 4 weeks (Required) • Retain one daily backup each month of K:\SECOND*.* <u>and</u> K:\PCGSQldb*.* for at least one year (Required)
3	<p>Request your IT representative obtain the August 31st backup of PCGenesis data. Obtain either the weekly full backup of K: or the daily data backup of K:\SECOND*.*, and K:\PCGSQldb*.*, but make sure it is the end-of-<u>August 2022</u> backup.</p>

Step	Action
4	<p>Verify that this file exists on the August 31st, 2022 backup: For Windows Server 2012, 2016, 2019, or 2022: K:\PCGSQLdb\MSSQL13.SQLEXPRESSPCG\MSSQL\DATA\PCGenesisDB.mdf</p> <p>If this file does not exist on your backup media, you will <u>not</u> be able to recover all your PCGenesis data!!!</p>
5	<p>Verify that this directory exists on the August 31st, 2022 backup, including all subdirectories and files within this directory: K:\SECOND</p>
6	<p>If you do not have both PCGenesisDB.mdf and K:\SECOND, you will <u>not</u> be able to recover from a data center catastrophe! Make sure your IT team immediately corrects this situation. Follow this link to the <i>PCGenesis Technical System Operations Guide</i>: https://www.gadoe.org/Technology-Services/PCGenesis/Pages/Technical-System-Operations-Guide.aspx</p> <p>Review the information in <i>Section B: PCGenesis Backup / Reorganization / Restore</i>.</p>
7	<p>If your district's backup procedures needed to be remediated, create a new backup by following the instructions in <i>Step 6</i> and then start this procedure over again at <i>Step 1</i> to verify the backup.</p>

Appendix A. Summary of PCGenesis Database Components

SQL Server Databases and Tables for PCGenesis System		
1	PCGenesisDB - PCGenesis financial and payroll production data.	
	Table Name	Purpose
1.1	Conversion_LOG	Conversion Log shows successful or unsuccessful conversion of a VISION file to a SQL Server table.
1.2	Conversion_LOG_Detail	Conversion Log Detail shows the total number of rows imported for each database table.
1.3	Conversion_LOG_Error	Conversion Error Log shows any errors encountered during the conversion of a VISION file to a SQL Server table.
1.4	Transaction_EmpNo_Gatekeeper_Log	Stores a log of payroll and budget system transactions which includes the user id, transaction description, employee id number, start and end times, and the transaction's final disposition.
1.5	Transaction_Gatekeeper	Stores a single record which controls the financial system transaction postings, enforcing single-threaded processing for a multi-user system.
1.6	Transaction_Gatekeeper_Log	Stores a log of financial system transactions which includes the user id, transaction description, start and end times, and the transaction's final disposition.
1.7	FAR.Account	Stores the <u>budget</u> general ledger account codes.
1.8	FAR.AccountR	Stores the <u>revenue</u> general ledger account codes.
1.9	FAR.AccountG	Stores the general ledger <u>balance account</u> codes.
1.10	FAR.Audit_File	Stores a record of all financial transactions including audit information of the person who created the transaction and the date/time the transaction was created.
1.11	FAR.Bank_File	Stores the bank codes.
1.12	FAR.Chart_Of_Accounts	Stores all general ledger account codes, including budget, revenue, and balance account codes on one table.
1.13	FAR.Control_95_Budget	Stores the <i>Create Budget Sandbox Control Screen</i> parameters.
1.14	FAR.Control_96_Annuity	Stores the <i>Annuity Deduction Control</i> parameters.

SQL Server Databases and Tables for PCGenesis System - <i>continued</i>		
PCGenesisDB - PCGenesis financial and payroll production data, continued.		
	Table Name	Purpose
1.15	FAR.Control_97_Message	Stores the PCGenesis System Message Administration control parameters for system broadcast messages.
1.16	FAR.Control_98_Phrase	Stores the PCGenesis <i>System Password Administration</i> parameters.
1.17	FAR.Control_99_System	Stores the PCGenesis <i>System Control</i> screen parameters and the <i>1099 System Control</i> data.
1.18	FAR.Expense	Stores the claim/invoice master records.
1.19	FAR.Expense_Distribution	Stores the claim GL account detail records associated with the claim/invoice master record. A maximum of 20 GL account records are allowed per claim.
1.20	FAR.Facility	Stores the facility and building records for purchase order processing.
1.21	FAR.Invest	Stores investment records.
1.22	FAR.Journal_Entry	Stores the general ledger journal master records.
1.23	FAR.Journal_Entry_Detail	Stores the general ledger journal detail records associated with the journal master record. A maximum of 999 account detail lines are allowed per journal.
1.24	FAR.Name_01_Fiscal_Year	Stores the two-digit year description of the account number.
1.25	FAR.Name_02_Fund	Stores the 3-digit fund description of the account number.
1.26	FAR.Name_03_FY_flag	Stores the 1-digit fiscal year description of the account number. (Not used.)
1.27	FAR.Name_04_Program	Stores the 4-digit program code description of the account number.
1.28	FAR.Name_05_Function	Stores the 4-digit function code of the account number, for expense accounts.
1.29	FAR.Name_06_Object	Stores the 5-digit object code description of the account number.
1.30	FAR.Name_07_Fac_Bldg	Stores the 5-digit facility/building code description of the account number.

SQL Server Databases and Tables for PCGenesis System - continued		
PCGenesisDB - PCGenesis financial and payroll production data, continued.		
	Table Name	Purpose
1.31	FAR.Name_08_Additional	Stores the 6-digit additional code description of the account number.
1.32	FAR.Name_09_Rev_Srce	Stores the 4-digit source code description of the account number, for revenue accounts.
1.33	FAR.Name_10_BLNC_SHEET	Stores the 4-digit balance sheet code description of the account number, for GL accounts.
1.34	FAR.Purchase_Order	Stores the purchase order master records.
1.35	FAR.Purchase_Order_Distribution	Stores the purchase order GL account detail records associated with the purchase order master record. A maximum of 20 GL account records are allowed per purchase order.
1.36	FAR.Purchase_Order_Expense	Stores the purchase order claim detail records associated with the purchase order master record. A maximum of 24 claim/invoice records are allowed per purchase order.
1.37	FAR.Purchase_Order_Print	Stores the purchase order inventory detail records associated with the purchase order master record.
1.38	FAR.Receipt	Stores the receipt master records.
1.39	FAR.Receipt_Detail	Stores the receipt GL account detail records associated with the receipt master record. A maximum of 40 GL account records are allowed per receipt.
1.40	FAR.Receivable	Stores the receivable master records.
1.41	FAR.Receivable_Distribution	Stores the receivable GL account detail records associated with the receivable master record. A maximum of 40 GL account records are allowed per receivable.
1.42	FAR.Receivable_Receipt	Stores the receivable receipt detail records associated with the receivable master record. A maximum of 12 receipt records are allowed per receivable.
1.43	FAR.Revenue_Source	Stores the Revenue Source records for the financial system revenue subsystem.
1.44	FAR.Vendor	Stores the vendor records for the financial system expense subsystem.

SQL Server Databases and Tables for PCGenesis System - <i>continued</i>		
PCGenesisDB - PCGenesis financial and payroll production data, continued.		
	Table Name	Purpose
1.45	FAR.Vendor_Check_Control	Stores the vendor check master records associated with the accounts payable subsystem.
1.46	FAR.Vendor_Check_Control_Payable	Stores the claim/invoice records associated with the vendor check master record. A maximum of 13 claim records are allowed per vendor check.
1.47	FAR.Wire_Transfer	Stores the vendor wire transfer master records associated with the accounts payable subsystem.
1.48	FAR.Wire_Transfer_Payable	Stores the claim/invoice records associated with the vendor wire transfer master record. A maximum of 40 claim records are allowed per vendor wire transfer.
1.49	PAY.CPI_Header <i>(New with this release)</i>	Stores the CPI biographical information associated with employees.
1.50	PAY.CPI_Assignments <i>(New with this release)</i>	Stores the CPI assignment data associated with employees
1.51	PAY.CPI_Certifications <i>(New with this release)</i>	Stores the CPI certificate data associated with employees.
1.52	PAY.CPI_Code_Table <i>(New with this release)</i>	Stores the CPI description codes.
1.53	PAY.CHKMSTR_Check_Master	Stores the payroll check master records associated with the payroll subsystem.
1.54	PAY.Employee_Direct_Deposit	Stores the payroll employee direct deposit account information.
1.55	PAY.Employee_Education	Stores the employee education data from the <i>Update/Display Educational Data</i> screen (F3, F1, F6).
1.56	PAY.Employee_Experience	Stores the employee years of teaching experience from the <i>Update/Display Educational Data</i> screen (F3, F1, F6).
1.57	PAY.Employee_Garnishment	Stores the employee payroll garnishment vendor data.
1.58	PAY.Employee_Leave	Stores the employee payroll check leave data (F2, F2, F17).
1.59	PAY.History_Earnings <i>(New with this release)</i>	Stores the payroll employee earnings history records.
1.60	PAY.History_Distribution <i>(New with this release)</i>	Stores the payroll employee earnings history account distribution records

SQL Server Databases and Tables for PCGenesis System - <i>continued</i>		
PCGenesisDB - PCGenesis financial and payroll production data, continued.		
	Table Name	Purpose
1.61	PAY.PAYROLL_Employee	Stores employee payroll data
1.62	PAY.PAYROLL_Employee_Current	Stores employee payroll data.
1.63	PAY.GROSSDAT_Employee_Payroll_Current_Gross	Stores employee payroll gross data account lines.
1.64	PAY.PDEDUCT_Employee_Deduction	Stores employee payroll deductions.
1.65	PAY.MPAYROLL_Employee	Stores employee data for manual payroll checks
1.66	PAY.MPAYROLL_Employee_Current	Stores employee data for manual payroll checks
1.67	PAY.MGROSSDAT_Employee_Payroll_Manual_Gross	Stores employee gross data account lines for manual payroll checks.
1.68	PAY.MDEDUCT_Employee_Deduction	Stores employee deductions for manual payroll checks.
1.69	PAY.PREVVOID_Employee	Stores employee data for voided payroll checks
1.70	PAY.PREVVOID_Employee_Current	Stores employee data for voided payroll checks
1.71	PAY.VGROSSDAT_Employee_Payroll_Void_Prev_Gross	Stores employee gross data account lines for voided payroll checks.
1.72	PAY.VDEDUCT_Employee_Deduction	Stores employee deductions for voided payroll checks.
1.73	SAND.CPI_Header <i>(New with this release)</i>	Stores the CPI biographical information associated with employees for the Budget System.
1.74	SAND.CPI_Assignments <i>(New with this release)</i>	Stores the CPI assignment data associated with employees for the Budget System.
1.75	SAND.CPI_Certifications <i>(New with this release)</i>	Stores the CPI certificate data associated with employees for the Budget System.
1.76	SAND.PAYROLL_Employee	Stores employee payroll data for the Budget System.
1.77	SAND.PAYROLL_Employee_Current	Stores employee payroll data for the Budget System.
1.78	SAND.GROSSDAT_Employee_Payroll_Current_Gross	Stores employee payroll gross data account lines for the Budget System.
1.79	SAND.PDEDUCT_Employee_Deduction	Stores employee payroll deductions for the Budget System.
1.80	T_lookup.GA_County	Stores the County codes for the Georgia counties.

2	PCG_Master - PCGenesis backup and restore logs.	
	Table Name	Purpose
2.1	PCG_Backup_LOG	Backup log shows successful or unsuccessful completion of a PCGenesis backup operation.
2.2	PCG_Backup_LOG_Message	The system messages associated with the backup operation.
2.3	PCG_Information	Stores the location of the SQL Server database backup directory.
2.4	PCG_Restore_LOG	Restore log shows successful or unsuccessful completion of a PCGenesis restore operation.
2.5	PCG_Restore_LOG_Message	The system messages associated with the restore operation.
2.6	PCG_Runtime_Errors	Stores PCGenesis runtime errors that occur during a backup or restore operation.

SQL Server Databases and Tables for PCGenesis System - <i>continued</i>		
3	PCG_Q_DB	
	<p>The PCG_Q_DB database is a backup of PAYDATA that is made just before <i>Calculate Payroll & Update YTD (Final)</i> (F4) or is a backup of FARDATA that is made just before updating budget files with vendor check information (F5) or is a backup of SANDBOX that is made just before creating the budget SANDBOX (F5, F1).</p>	
	Table Name	Purpose
3.1	FAR.tablename	<p>FARDATAQ and PCG_Q_DB database tables: The FARDATAQ directory (inside of the SECOND directory) is a backup of FARDATA that is made just before updating budget files with vendor check information (F5).</p> <ul style="list-style-type: none"> • Restore from FARDATAQ if a problem occurs with posting to budget files. • Also restore from FARDATAQ if a problem occurs in financial data after posting but before the nightly backup is processed. • FARDATAQ should not be restored if any interaction from payroll has occurred (posting payroll or processing an earnings history record gross data transfer). When both financial and payroll records are affected, all of SECOND should be restored.
3.2	PAY.tablename	<p>PAYDATAQ and PCG_Q_DB database tables: The PAYDATAQ directory (inside of the SECOND directory) is a backup of PAYDATA that is made just before <i>Calculate Payroll & Update YTD (Final)</i> (F4).</p> <ul style="list-style-type: none"> • Restore from PAYDATAQ if a problem occurs during check printing.
3.3	SAND.tablename	<p>SANDBOXQ and PCG_Q_DB database tables: The SANDBOXQ directory (inside of the SECOND directory) is a backup of SANDBOX that is made just before <i>Create Budget SANDBOX</i> (F5, F1).</p> <ul style="list-style-type: none"> • Restore from SANDBOXQ if a problem occurs during creation of the budget SANDBOX.

SQL Server Databases and Tables for PCGenesis System - <i>continued</i>		
4	PCG_D_DB	
	The PCG_D_DB database is a backup of PAYDATA that is made after printing payroll checks, but just before printing payroll direct deposits (F2, F3, F5).	
	Table Name	Purpose
4.1	PAY.tablename	<p>PAYDATAD and PCG_D_DB database tables: The PAYDATAD directory (inside of the SECOND directory) is a backup of PAYDATA that is made just after checks print (F5) and before direct deposits print.</p> <ul style="list-style-type: none"> Restore from PAYDATAD if a problem occurs during or after printing direct deposits but before posting to payroll earnings history (F13).
5	PCG_LOG_DB	
	The PCG_LOG_DB database logs changes made to selected tables in the PCGenesisDB database.	
	Table Name	Purpose
5.1	Bank_File_Record_Log	Logs any changes made to the FAR.Bank_File table.
5.2	PAYROLL_Employee_Log	Logs any changes made to the PAY.PAYROLL_Employee table.
6	VQueueDB	
	The VQueueDB database contains the <i>VerraDyne Print Manager</i> associated tables.	