

PCGenesis

Current Status & Future Plans

GASBO
Augusta, GA
November 7, 2018



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Agenda

- **Introduction**
- PCGenesis Recent History
- Upgrade of PCGenesis Print Queue
- PCGenesis Future



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PCGenesis

Current Status & Future Plans

PCGenesis Development Team

| | |
|-----------------|------------------------------------|
| Steven Roache | Director, Applications Development |
| Diane Ochala | PCGenesis Lead Analyst/Developer |
| Angela Tennyson | PCGenesis Senior Developer |
| Karen McArthur | PCGenesis Developer |



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- Good morning & welcome to the PCGenesis Current Status & Future Plans Session. Steve, Angela & I thank you for coming today. I would also like to introduce our manager, Steven Roache, who is attending GASBO this year as well.
- Please feel free to make comments or ask questions during the presentation. When we get to the future plans portion, we need your input to help us focus on your needs. So all of you, please join in the discussion.

PCGenesis

Sessions/Training at GASBO

- Session 1 – 8:40 *Wed 11/7/2018*
 - **PCGenesis Current Status & Future Plans**
- Session 2 – 10:00 *Wed 11/7/2018*
 - PCGenesis Recent Enhancements and the New VerraDyne Print Queue
- Session 3 – 11:00 *Wed 11/7/2018*
 - PCGenesis Future: Migration to a Relational Database
- Session 4 – 2:10 *Wed 11/7/2018*
 - PCGenesis and the CPI Process
- Session 5 – 3:30 *Wed 11/7/2018*
 - PCGenesis Budget System: Overview and Setup
- Session 6 – 9:00 *Thur 11/8/2018*
 - PCGenesis Budget System: Gross Data Export/Import; Budget flags; Salary Tables
- Session 7– 10:20 *Thur 11/8/2018*
 - PCGenesis Budget System: Sandbox Process
- Session 8 – 11:20 *Thur 11/8/2018*
 - PCGenesis Budget System: Create and Finalize Budget



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- We have a full schedule here at GASBO this year. We have 4 presenters, including myself
- We have our two standard PCG sessions this morning.
- Angela Tennyson will be the presenter for Session 3 and Katie Green will be the presenter for Session 4.
- We also have our good friend Gary Jenkins of Jasper County offering four sessions related to the PCGenesis Budget System.
- We are looking forward to all of these sessions!

PowerPoints Available on Documentation Website

PCGenesis

- Financial Accounting and Reporting System Operations Guide
- Payroll System Operations Guide
- Personnel System Operations Guide
- Certified/Classified Personnel Information (CPI) System Operations Guide
- Budget System Operations Guide
- LUAS Manual
- Technical System Operations Guide
- Release Information**

Release Information

Calendar Year 2018 Release Information

- Release 18.03.00 - Miscellaneous Changes / Installation Instructions
- Release 18.02.00 - 2018 Fiscal Year-End Updates, VerraDyne Print Manager and Miscellaneous Changes / Installation Instructions
- Release 18.S.12 - Windows Server 2008 Software Packet / Installation
- PCGenesis Download Instructions for Release 18.S.12 for Windows Server 2008 Only
- Release 18.S.16 - Windows Server 2012 / 2016 Software Packet / Installation
- PCGenesis Download Instructions for Release 18.S.16 for Windows Server 2012 or 2016 Only
- Release 18.01.00 - Miscellaneous Updates / Installation Instructions

Calendar Year 2017 Release Information

- Release 17.04.00 - Calendar Year 2017 Year-End Closing Procedures / Miscellaneous Updates / Installation Instructions
- Release 17.03.01 - Calendar Year 2018 Georgia Health Insurance (GHI) Premium Updates/Miscellaneous Updates and Installation Instructions
- Release 17.03.00 - Miscellaneous Updates / Installation Instructions
- Release 17.02.00 - Fiscal Year 2017 (FY17) Year-End Updates and Miscellaneous Changes / Installation Instructions
- Release 17.01.00 - Miscellaneous Updates / Installation Instructions

Calendar Year 2017 PowerPoints

- GASBO November 2017 - PCGenesis Current Status & Future Plans
- GASBO November 2017 - PCGenesis Recent Enhancements and Changes
- GASBO November 2017 - New PCGenesis Budget System
- GASBO November 2017 - PCGenesis Payroll Training
- GASBO November 2017 - PCGenesis Year End Training
- GASBO November 2017 - PCGenesis CPI Training

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All of today's PowerPoint presentations will be available on our documentation website under 'Release Information'. We will publish the PowerPoint along with the presenter's notes for future viewing.

PCGenesis Current Status

- The PCGenesis Development Team:
 - Diane Ochala
 - Angela Tennyson
 - Karen McArthur



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PCGenesis Current Status

- The PCGenesis development team reports to:
 - **Steve Roache**, Director, Applications Development
 - Steve Roache reports to **Bob Swiggum**, Chief Information Officer



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The PCG development team reports to two different branches at the DOE.

Angela and I directly report to the IT department. Our direct manager is Steve Roache and Steve reports to the Chief Information Officer, Bob Swiggum.

PCGenesis Current Status

- The PCGenesis development team provides updates to:
 - **Amy Rowell**, Director, Financial Review.
 - Amy Rowell reports to **Ted Beck**, Deputy Superintendent of Finance and Business Operations.



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- The PCGenesis development team also provides updates to the DOE Financial Review Department, specifically Amy Rowell, the Director of Financial Review.
- Amy reports to Ted Beck, Deputy Superintendent of Finance and Business Operations.

PCGenesis Current Status

- In addition to the three developers, we have two help desk personnel.
 - Katie Green
 - Stephanie Smith
- The PCGenesis help desk reports to:
 - **Kathy Aspy**, Data Collections & Reporting Manager
 - Kathy Aspy reports to **Levette Williams**, Chief Privacy Officer and Technology Services Director



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- PCGenesis also has two help desk personnel who report to Kathy Aspy: Katie Green, and Stephanie Smith.
- Kathy Aspy reports to Levette Williams, the Chief Privacy Officer and Technology Services Director.

Agenda

- Introduction
- **PCGenesis Recent History**
- Upgrade of PCGenesis Print Queue
- PCGenesis Future



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PCGenesis Recent History

Upgrade to Micro Focus® Runtime 10.0.1

- Release **16.03.00** delivered a major upgrade of the Micro Focus® runtime for PCGenesis software
- Latest, greatest Micro Focus® AcuCobol runtime software, published in 2015
- The GaDOE purchased for all PCG school districts, RESAs, and charter schools
- The cost? Approximately, **\$75,000**
- A significant investment into the future of PCGenesis



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- Release 16.03.00 sent out on September 30th, 2016, delivered a major upgrade of the Micro Focus runtime system.
- Some background... The PCGenesis software is built using the Micro Focus COBOL compiler and runtime.
- We discovered that PCG would NOT run on Windows Server 2012 or Windows 10 without upgrading this runtime layer of software
- So, the Georgia Department of Education purchased Micro Focus Extend 10 AcuCbl runtime for all PCG school districts, RESAs and charter schools
- This represents an investment of \$75,000 into the future of PCGenesis

PCGenesis Recent History

Upgrade to Micro Focus® Runtime 10.0.1

- Windows Server 2012 and Windows Server 2016 are now supported.
- Workstation Windows 8 and Windows 10 are now supported.
- **Windows Server 2008 will have no more than another 3 to 4 year life span.**



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- Here's the good news....
- All of the latest, greatest Microsoft operating systems are now supported!
- There will be no problem upgrading workstations to Windows 10
- And, there will be no problems upgrading servers to Windows Server 2012 or Windows Server 2016
- We highly recommend that any districts still running Windows Server 2008 should upgrade within the next 3 to 4 years!
- We recommend that any PCGenesis server older than 4 to 5 years should be replaced with a new server.

PCGenesis Recent History

Upgrade to Micro Focus® Runtime 10.0.1

- **Step 1:** Upgrading the Micro Focus runtime
 - Completed with 16.03.00
 - Replaced the directory K:\ACUCBL



The logo for Micro Focus extend Interoperability Suite 10.0.1 is displayed in a blue rectangular box. The text 'MICRO FOCUS' is in white, with 'MICRO' above 'FOCUS'. Below this, 'extend Interoperability Suite 10.0.1' is written in white on a blue background.



The GaDOE logo is on the left, featuring a stylized 'Ga' and 'DOE' with a person icon. To its right is the text 'Richard Woods, Georgia's School Superintendent' and the tagline 'Educating Georgia's Future'.

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- So, what was involved with the Micro Focus Runtime upgrade to Extend 10?
- Most of the updates took place “behind the scenes” and users were probably not aware of the changes
- Even though you might not be aware of any benefits, these changes are BIG!
- **Step 1**, upgrading the runtime software was completed with Release 16.03.00 which was sent out on September 30th, 2016
- This step required replacing the directory **K:\ACUCBL**

PCGenesis Recent History

Upgrade to Micro Focus® Runtime 10.0.1

- **Step 2:** Recompile all PCGenesis programs
 - Completed with **17.02.00**
 - Now, PCG programs are taking advantage of the Micro Focus runtime 10.0.1
 - ALL programs were recompiled using the 10.0.1 software
 - This required a major effort to build the PCG program libraries from scratch



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- Most of the updates took place “behind the scenes” and users might not be aware of the changes
- **Step 2** required that we **recompile ALL PCG programs** using the Micro Focus Extend 10 software
- This step was completed with release **17.02.00** in **June 2017**
- This required a major effort to build the PCG program libraries from scratch

PCGenesis Recent History

Upgrade to Micro Focus® Runtime 10.0.1

- **Step 2:** Recompile all PCGenesis programs
 - Completed with **17.02.00**
 - Replaced **K:\SYSTEM**
 - Replaced **K:\UNIACU\SHELL**
 - Replaced **K:\UTILITY**
 - Required extensive testing to make sure all PCGenesis processes continued to work
 - Test on old and new Windows Server versions (2008, 2012, 2016)



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- Most of the updates took place “behind the scenes” and users might not be aware of the changes
- Delivery of this step was **June of 2017**, in release **17.02.00**
- The recompile meant that all modules in **K:\SYSTEM** and **K:\UNIACU\SHELL** and **K:\UTILITY** were replaced
- Replacing these directories required extensive QA testing to make sure all PCG processes continued to work
- We tested on all old and new Windows Server operating system versions

Agenda

- Introduction
- PCGenesis Recent History
- **Upgrade of PCGenesis Print Queue**
- PCGenesis Future



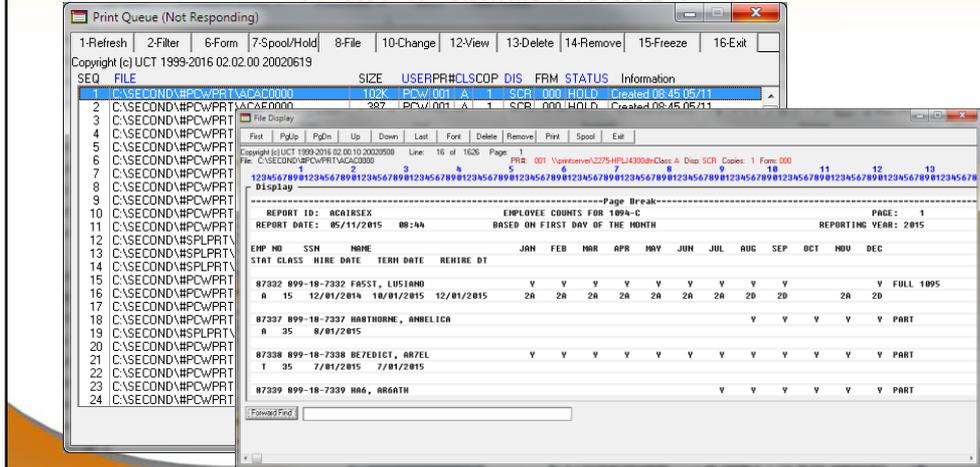
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PCGenesis Recent History Upgrade of PCG Print Queue

- **Step 3:** Upgrade of PCG Print Queue processes
- **Completed with 18.02.00**



- **Step 3** was the upgrade of the PCGenesis print queue to the VerraDyne print queue
- This step was completed with release **18.02.00** in **June 2018**
- Recently, school districts upgrading to Windows Server 2012 and Windows Server 2016 have experienced problems using the old version of the print queue in printing their reports.
- Specifically, quite a few sites have problems with the reports printing in portrait and with a large font instead of landscape.
- Since the DOE didn't own the source code for the existing print queue, we couldn't correct the issues.

PCGenesis Recent History

Upgrade of PCG Print Queue

- The DOE has purchased the VerraDyne Print Manager for a cost of **\$25,000** to replace the existing PCGenesis print queue
- The new VerraDyne Print Manager has much in common with the existing PCGenesis print queue because the same company created both systems



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- The DOE purchased the VerraDyne Print Manager for a cost of \$25,000 to replace the existing PCGenesis print queue
- The new VerraDyne Print Manager has much in common with the existing PCGenesis print queue because the same company created both systems

PCGenesis Recent History Upgrade of PCG Print Queue

- A BIG THANK YOU to the beta sites of the VerraDyne Print Queue software:
 - **Berrien County**, the first school district to install VerraDyne
 - **Seminole County**
 - **Wilcox County**



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I want to give a BIG THANK YOU to the beta sites of the VerraDyne Print Queue Manager software. Berrien County was the first school district to install VerraDyne, followed closely by Seminole County and Wilcox County.

PCGenesis Recent History Upgrade of PCG Print Queue

- Also, a BIG THANK YOU to the early adopters of the VerraDyne Print Queue software:
 - Buford City Schools
 - Vidalia City Schools
 - Jefferson City Schools
 - Long County
 - Pulaski County
 - Sumter County
 - Early County
 - NE GA RESA



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- I also want to give a BIG THANK YOU to the early adopters of the VerraDyne Print Queue software:
- These counties represent our pioneers and they assisted us in figuring out the pitfalls of configuring the VerraDyne software.

PCGenesis Recent History

Upgrade of PCG Print Queue

- The VerraDyne Print Manager stores data in the FREE version of **Microsoft SQL Server**.
- PCGenesis connects to **SQL Server Database** using windows security.



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- Unlike our existing PCGenesis print queue, the VerraDyne Print Manager stores its data in **SQL Server Tables** to which it connects using **windows authentication**
- The VerraDyne Print Manager uses the FREE version of **Microsoft SQL Server** called **SQL Server Express**

PCGenesis Recent History Upgrade of PCG Print Queue

- The beta sites and early adopters helped the PCG development team uncover all the possible ways a PCGenesis server could be configured
- This is what we learned...



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The beta sites and early adopters helped the PCG development team uncover all the possible ways a PCGenesis server could be configured.
And we learned a lot!

PCGenesis Recent History Upgrade of PCG Print Queue

- This is what we learned...
 - 18.02.00 had issues with the QWORD interface to VerraDyne
 - QWORD did not delete entries correctly from the VQueue database
 - QWORD did not sort the report list correctly, making finding reports difficult
 - These problems were fixed with 18.03.00



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We did have issues with the QWORD interface to the VerraDyne print queue

- QWORD did not delete entries correctly from the VQueue database
 - This caused problems with print file names being duplicated in the WORD queue
- QWORD did not sort the report list correctly, making finding reports difficult
- These problems were fixed with **18.03.00**

PCGenesis Recent History Upgrade of PCG Print Queue

- This is what we learned...
 - Verradyne print software uses new database technology that requires better security than old PCGenesis.
 - Districts that have very open and vulnerable security setups had their security issues flushed out by the print software.



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- The VerraDyne Print Manager stores its data in **SQL Server Tables** to which it connects using **windows authentication**
- The VerraDyne Print Manager has better security than the old print manager
- Districts that had very open and vulnerable security setups had their security issues flushed out by the new VerraDyne software

PCGenesis Recent History Upgrade of PCG Print Queue

- This is what we learned...
 - Most issues were related to user security access to the VQueue database
 - Many districts did not have a K:\ drive configured the way we expected K: to be configured
 - **The PCGenesis support team walked any school district with this issue through the process of reconfiguring the K: drive**



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In rolling out the VerraDyne software we found that

- Most issues were related to user **security access** to the Vqueue database
- Many districts did not have a **K:** drive configured the way we expected **K:** to be configured
- If **K:** was not configured as expected, the PCGenesis support team walked our users through the process of reconfiguration – this was a painful process, but necessary

PCGenesis Recent History Upgrade of PCG Print Queue

- The **K:** mapping must be defined as a **stand-alone partition** of at least 100 GB
- The PCGenesis server **must be kept up to date** with all Windows operating system service packs applied.
- 16 GB Memory
- 500 GB Hard Drive
- **C:** 100 GB Minimum
- **K:** 100 GB Minimum



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We learned that...

- The **K:** mapping must be defined as a **stand-alone partition** of at least 100 GB
- The PCGenesis server **must be kept up to date** with all Windows operating system service packs applied.
- 16 GB Memory
- 500 GB Hard Drive
- **C:** 100 GB Minimum
- **K:** 100 GB Minimum

PCGenesis Recent History

Upgrade of PCG Print Queue

- The PCGenesis server must be...
 - A **stand-alone** server. No other applications can be on the PCGenesis server.
 - Must not be the Domain Controller.
 - But, must be a part of the network domain.
 - In a Windows network, a domain is a group of server computers that share a common user account database, allowing user credentials to be synchronized automatically.
 - This is required for seamless database access on the server.



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We learned that the PCGenesis server must be...

- A **stand-alone** server. No other applications can be on the PCGenesis server.
- It must not be the Domain Controller.
- But, the PCGenesis server must be **a part of the network domain.**
 - In a Windows network, a domain is a group of server computers that share a **common user account database**, allowing user credentials to be synchronized automatically.
 - This is required for **seamless database access** on the server.

PCGenesis Recent History Upgrade of PCG Print Queue

- PCGenesis does not support Microsoft account or MSA (previously known as Microsoft Passport, .NET Passport, Microsoft Passport Network, and **Windows Live ID**)
 - This single sign-on Microsoft web service allows users to log into websites (like Outlook.com), devices, and applications using one account.
- Instead, PCG must have a district **domain user account** for logging into workstations.



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We learned that ...

- PCGenesis does not support Microsoft account or Windows Live ID
- Instead, PCGenesis must have a **district domain user account** for logging into workstations

PCGenesis Recent History Upgrade of PCG Print Queue

- Create **GENUSERS** user security group with full access (Read/Write)
- Include all PCG users in this security group
- Map K = **\\NewServer\PCGenesis\$**



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We learned that ...

- The IT administrator should create a user security group called **GENUSERS**
- The GENUSERS security group should have **full read/write access to the entire K:\ drive**
- All PCGenesis users should be included in this security group
- **K should be mapped from individual workstations as shown above**

PCGenesis Recent History

Upgrade of PCG Print Queue

- **Remote Desktop Connection** is the preferred method for all users accessing PCGenesis.
- PCGenesis processes will continue to run even if the network connection goes down
- Much faster processing
- More reliable data integrity



Our recommendation:

- **Remote Desktop Connection** is the preferred method for all users accessing PCGenesis.
- When using Remote Desktop, PCGenesis processes will continue to run on the server, even if the network connection goes down
- Much **faster** processing
- More reliable data integrity
- **How many districts are now using Remote Desktop Connection to access PCGenesis???**

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- The new directories that have data for the VerraDyne print queue are as follows:
 - **K:\UCTARCHIVE** – Archived PCGenesis reports in pdf format
 - **K:\UCTPRINT** – PCGenesis report files currently in the print queue
 - **K:\PCGSQLdb** – The database data for the new print queue



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Backup considerations:

The new directories that have data for the VerraDyne print queue are as follows:

K:\UCTARCHIVE – Archived PCGenesis reports in pdf format

K:\UCTPRINT – PCGenesis report files currently in the print queue

K:\PCGSQLdb – The database data for the new print queue

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- These 3 directories contain data and should be backed up either...
 - During your weekly full system backup of **K:*.***
 - Or, at the same time as the daily backup of **K:\SECOND** data (especially if you are using the **archive** feature of VerraDyne)



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- We recommend that the 3 directories should be backed up at least weekly
- Or daily, especially if you are using **the archive feature** of the VerraDyne Print Manager

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- **Prior** to running a full backup of the K:\ PCGenesis disk drive...
 - School districts must stop the **VerraDyne Queue Service** and the **SQL Express** services
 - Otherwise, the backup will not run to completion.



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Prior to running a full backup of the K:\ PCGenesis disk drive...

- School districts must **stop** the **VerraDyne Queue Service** and the **SQL Express** services
- Otherwise, the backup will not run to completion.

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- **Prior** to running a full backup of the K:*.* PCGenesis disk drive...
 - **NET STOP VQueueService**
 - **NET STOP MSSQL\$SQLEXPRESSPCG**



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- These are the commands required to stop **VQueueServer** and **SQLEXPRESS**
- School districts must **stop** the **VerraDyne Queue Service** and the **SQL Express** services prior to running a full backup of K:*.*

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- **After** the backup has completed, the following commands can be executed...
 - **NET START MSSQL\$SQLEXPRESSPCG**
 - (Make sure to wait at least **2 minutes** for **SQLEXPRESSPCG** to start before trying to start **VQueueService**)
 - **NET START VQueueService**



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- After the backup is complete, the services must be restarted using these commands.
- **NOTE:** Make sure to wait at least **2 minutes** for **SQLEXPRESSPCG** to start before trying to start the **VQueueService**

PCGenesis Recent History Upgrade of PCG Print Queue

- **Backup considerations:**
- The *VerraDyne Queue Manager* automatically runs a clean-up process every night at **midnight** which should take approximately 15 minutes to run.
- Since this process runs at midnight, make sure that the PCGenesis backups and reorganizations are not scheduled to overlap this timeframe.
- Overlapping processes may cause problems with the clean-up and backups.



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Backup considerations:

- The *VerraDyne Queue Manager* automatically runs a clean-up process every night at **midnight** which should take approximately 15 minutes to run.
- Since this process runs at midnight, make sure that the PCGenesis backups and reorganizations are not scheduled to overlap this timeframe.
- Overlapping processes may cause problems with the clean-up and backups.

PCGenesis Recent History Upgrade of PCG Print Queue

- **What you need for a disaster recovery:**
 - **K:\SECOND** – PCG payroll & financial data
 - **K:\UCTARCHIVE** – Archived PCGenesis reports in pdf format
 - **K:\UCTPRINT** – PCGenesis report files currently in the print queue
 - **K:\PCGSQLdb** – The database data for the new print queue



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What you need for a disaster recovery:

- K:\SECOND** – PCG payroll & financial data
- K:\UCTARCHIVE** – Archived PCGenesis reports in pdf format
- K:\UCTPRINT** – PCGenesis report files currently in the print queue
- K:\PCGSQLdb** – The database data for the new print queue

PCGenesis Recent History Upgrade of PCG Print Queue

- **What you need for a disaster recovery:**
 - The Ga DOE is working with a security consultation company to see how PCGenesis security can be improved today



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What you need for a disaster recovery:

The Ga DOE has set up a consultation with a **security consultation firm** to see how PCGenesis security can be improved today

PCGenesis Recent History

Upgrade of PCG Print Queue

- The VerraDyne Print Manager system is designed to provide users with an easy to use print/e-mail manager for use in the windows environment
- It is designed to utilize the Windows print queues and printer functions
- It allows the user to interact with other applications in the foreground, while a print/e-mail job is running in the background
- Once a print file has been released it is passed to the Windows print queue, ready for printing



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- The VerraDyne Print Manager system is designed to provide users with an easy to use print/e-mail manager for use in the windows environment
- Just like our existing PCGenesis print queue, it is designed to utilize the Windows print queues and printer functions
- Just like our existing PCGenesis print queue, it allows the user to interact with other applications in the foreground, while a print/e-mail job is running in the background
- Once a print file has been released it is passed to the Windows print queue, ready for printing

PCGenesis Recent History Upgrade of PCG Print Queue

- View and e-mail the documents in **PDF format**
- E-mail reports to specific user, or group of users
- Print reports to specific printer
- ReQueue reports after printing or emailing



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Some of the features of the new VerraDyne Print Manager system:

- You will be able to view and e-mail the documents in **PDF format**
- You will be able to e-mail reports to specific user, or group of users
- You will be able to print reports to specific printer
- Just like our existing PCGenesis print queue, you will be able to re-queue reports after printing or emailing

PCGenesis Recent History Upgrade of PCG Print Queue

- Archive reports to specific archive directories, based on individual users or file type
- View or requeue the archived files
- Full audit tracking of reports viewed and deleted by users
- Search archived reports



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Some of the features of the new VerraDyne Print Manager system:

- You will be able to archive reports to specific archive directories, based on individual users or file type
- You will be able to view or requeue the archived files
- Full audit tracking of reports viewed and deleted by users will be available
- You will be able to search archived reports using specific parameters

PCGenesis Recent History Upgrade of PCG Print Queue

- Attend **Session 2** for a live demo of the VerraDyne Print Queue
 - *PC Genesis Recent Enhancements and the New VerraDyne Print Queue*



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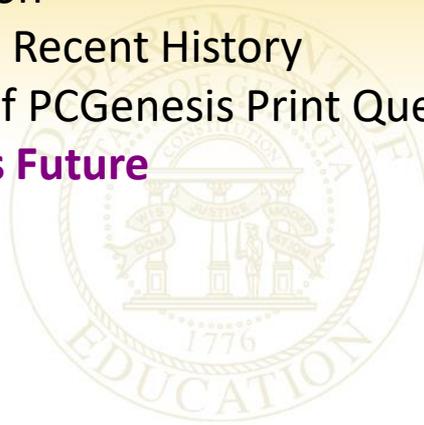
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In my next session I will attempt to give a live demo of the VerraDyne Print Queue

Agenda

- Introduction
- PCGenesis Recent History
- Upgrade of PCGenesis Print Queue
- **PCGenesis Future**



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PCGENESIS FUTURE

Migration to Database Technology

- Step 4...
- Migration of all PCGenesis data to **SQL Server Database**



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Which brings us to the future of PCGenesis – Migration of all PCGenesis data to a SQL Server Database.

PCGenesis Recent History Migration to Database Technology

- Technology doesn't stand still !!!!!



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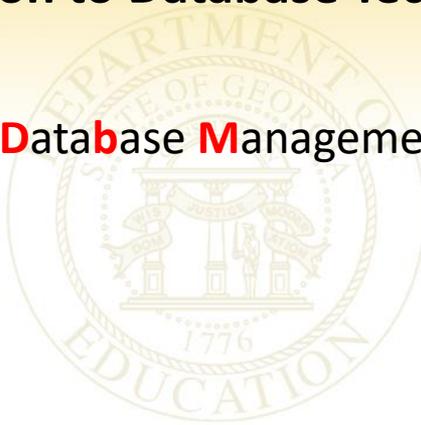
Unfortunately (or fortunately, depending on how you look at it), technology is constantly moving forward, which makes it a challenge for all of us to keep up, especially the software developers. Change is never easy, but it is necessary.

PCGENESIS FUTURE

Migration to Database Technology

RDBMS =

Relational **D**atabase **M**anagement **S**ystem



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- **Relational Database Management System (RDBMS)**

PCGENESIS FUTURE

Migration to Database Technology

- Upgrade to **MicroFocus Extend 10** came with the ability to execute **SQL code** from within PCGenesis COBOL programs



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The good news....

- The upgrade to **MicroFocus Extend 10** came with the ability to execute **SQL code** from within PCGenesis COBOL programs.
- One of the perks of moving our code to the new MicroFocus runtime was the promise of using the new features available with the product.
- And, now we can do just that...

PCGENESIS FUTURE

Migration to Database Technology

- **AcuSQL**
- ACUCOBOL applications can now make use of RDBMS technology at **no extra cost**
- Industry standard database support is now included as standard in **Extend 10 ACUCOBOL** runtime product that the Ga DOE purchased



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The upgrade to **MicroFocus Extend 10** 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 us to make use of database technology **at no extra cost**.
- Industry standard database support is now included as standard in **Extend 10 ACUCOBOL** runtime product that the Ga DOE purchased

PCGENESIS FUTURE

Migration to Database Technology

- In spite of the difficulties in implementing the VerraDyne database, it set up PCGenesis to be converted to a relational database.
- We worked through the issues of setting up a database with VerraDyne.
- We learned our lessons and can now move forward with the conversion of PCG data into a relational database.



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For all the pain and suffering in going to VerraDyne Print Queue Manager...

- It set up PCGenesis to be converted to a relational database.
- We worked through the issues of setting up a database with VerraDyne.
- We learned our lessons and can now move forward with the conversion of PCG data into a relational database.

PCGENESIS FUTURE

Migration to Database Technology

- TODAY: PCGenesis data is stored in **VISION** files
 - Old technology
 - Indexed, flat files
 - Proprietary to Micro Focus runtime
 - Nothing other than Micro Focus ACUCBL can access the data



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TODAY: PCGenesis data is stored in **VISION** files
Old technology
Indexed, flat files
Proprietary to Micro Focus runtime
Nothing other than Micro Focus ACUCBL can
access the data

PCGENESIS FUTURE

Migration to Database Technology

- In 2019, we will start the conversion of PCGenesis Vision files to **SQL Server** Database.
- The Ga DOE has Angela Tennyson, a database manager / expert, to design the PCGenesis database.
- Angela will be giving a separate session today with all the details about converting to a database.



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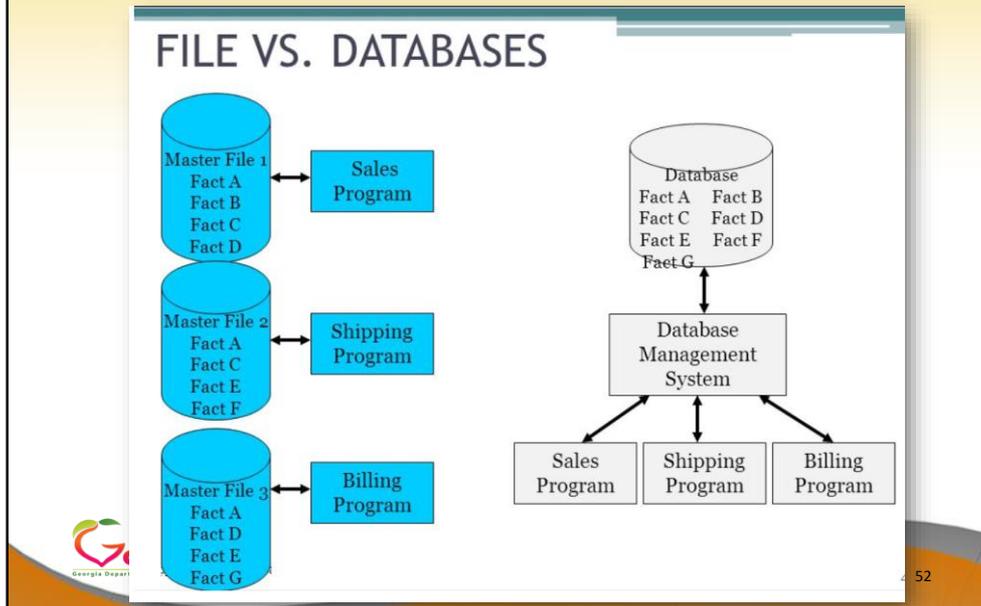
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- In 2019, we will start the conversion of PCGenesis Vision files to **SQL Server** Database.
- The Ga DOE has Angela Tennyson, a database manager / expert, to design the PCGenesis database.
- Angela will be giving a separate session today with all the details about converting to a database.

PCGENESIS FUTURE

Migration to Database Technology



- This is a graphical representation of the difference between our old Vision **File** technology and **RDBMS** technology.
- As you can see from the picture, the old file structure has lots and lots of individual files. Think about all the separate, individual files contained in your **SECOND** data directory:

K:\SECOND\FARDATA\AUDIT

K:\SECOND\PAYDATA\PAYROLL...

In a database, we essentially have one location/file where all the data is stored. We don't need to keep track of 100 + individual files.

PCGENESIS FUTURE

Migration to Database Technology

- Flat File: Data are stored in files, but there is no connection between the files.

Flat-File Database Model



The flat-file database model has different data in separate files.



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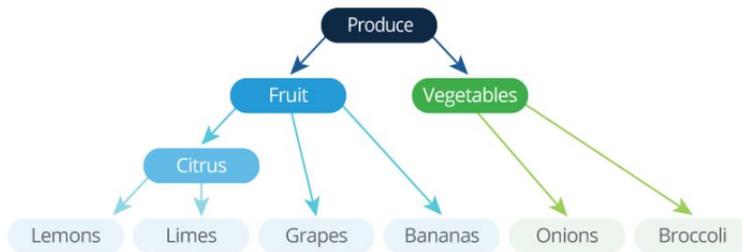
In this example of the old file technology, we have separate, individual files for Fruits and Vegetables

PCGENESIS FUTURE

Migration to Database Technology

- **Hierarchical:** This model is similar to a corporate org chart. Each element has a single parent record, but may have multiple child records. An item can only have a relationship with its parent or child record(s).

Hierarchical Database Model



The hierarchical database model has parent-child relationships that are one-to-one or one-to-many.



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- With database technology, you can think of something like a corporate org chart.
- All the data stored in the database has relationships defined between the pieces of data.
- For example, in PCGenesis, a GL account is made up of the following pieces of data:
Fiscal Year, Fund, Program, Function, Object, Facility, Building, Additional

PCGENESIS FUTURE

Migration to Database Technology

- This will be a slow conversion over many years.
- We will convert the most **static** VISION files first:
 - K:\SECOND\PAYDATA**GACOUNTY** (Ga Counties)
 - K:\SECOND\FARDATA**NAME** (Account Description File)
 - K:\SECOND\FARDATA**BANK** (Bank Codes)
 - K:\SECOND\CPIDATA**DESCTBL** (Code tables for CPI)
 - K:\SECOND\PAYDATA**DESC** (Code tables for Payroll)
 - K:\SECOND\PAYDATA**DESCA** (Alpha Code tables for Payroll)



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- The migration of PCGenesis to a relational database will be done in a phased, step-by-step approach.
- This will be a slow conversion over many years
- We will start with the conversion of the most static VISION files first.
- You will notice that most of the data in these tables does not change very frequently.

K:\SECOND\PAYDATA**GACOUNTY** (Ga Counties)

K:\SECOND\FARDATA**NAME** (Account Description File)

K:\SECOND\FARDATA**BANK** (Bank Codes)

K:\SECOND\CPIDATA**DESCTBL** (Code tables for CPI)

K:\SECOND\PAYDATA**DESC** (Code tables for Payroll)

K:\SECOND\PAYDATA**DESCA** (Alpha Code tables for Payroll)

PCGENESIS FUTURE

Migration to Database Technology

- Once the “building blocks” are in a SQL Server database, subsequent tables can be built.
- For example, the next tier tables would be:
 - K:\SECOND\FARDATA\ACCOUNT (Budget accts)
 - K:\SECOND\FARDATA\ACOUNTR (Revenue accts)
 - K:\SECOND\FARDATA\ACCOUNTG (GL accts)



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- Once the “building blocks” are in a SQL Server database, we will build the next tier of tables that are built with components of the first phase.
- The subsequent tables can be built.
- For example, the **GL accounts** are built based upon the contents of **the Account Description File**
- In PCGenesis a GL account is made up of the pieces:
 - Fiscal Year, Fund, Program, Function, Object, Facility, Building, Additional

The next tier tables would be:

K:\SECOND\FARDATA\ACCOUNT (Budget accts)

K:\SECOND\FARDATA\ACOUNTR (Revenue accts)

K:\SECOND\FARDATA\ACCOUNTG (GL accts)

PCGENESIS FUTURE

Migration to Database Technology

- Once the “building blocks” are in a SQL Server database, subsequent tables can be built.
- For example, the next tier tables would be:
 - K:\SECOND\FARDATA\PO (Purchase Order File)
 - K:\SECOND\FARDATA\EXPENSE (Invoice File)
 - K:\SECOND\FARDATA\RECEIVE (Receivable File)
 - K:\SECOND\FARDATA\RECEIPT (Receipt File)



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- And the next tier of tables that are built with components of the first and second set of tables.
- Once the “building blocks” are in a SQL Server database, subsequent tables can be built.
- For example, the **Purchase Orders** are built based upon the contents of **GL Account File, Vendor File, Facility File, etc.**

Questions?

PCGENESIS FUTURE

Disadvantages of Vision File System

- Data redundancy and inconsistency
- Difficulty in accessing data
- Concurrent access anomalies
- Security problems
- Integrity problems
- Data isolation



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Disadvantages of Vision File System

- Data redundancy and inconsistency – a lot of data is repeated over and over again
- Difficulty in accessing data – we don't have a lot of built-in tools to access VISION file data
- Concurrent access anomalies – the system can hiccup if two users try to access the data at the same time
- Security problems – limited security is available for VISION data files
- Integrity problems – we frequently need data repairs
- Data isolation

PCGENESIS FUTURE

Disadvantages of Vision File System

- Today: Problems with data reliability
- Today: If a posting process is interrupted because of power failure, or network hiccup, etc, half of the PCG data files may be updated and half may not.
- This requires a DATA REPAIR.



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- **Disadvantages of Vision File System**
- **Why go to all the trouble of converting the data files?**
- First, we can **modernize** PCGenesis data structures
- 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, etc, half of the PCG data files may be updated (for instance the Receipt file) and half of the files may not be (for instance the AUDIT file).
- This requires a data repair!!

PCGENESIS FUTURE

Advantages of a Relational Database

1. Simplicity

- The table structure is an intuitive organization familiar to most users

2. Concurrency

- In modern Database Management Systems, we can concurrently access data without fear of data corruption



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PCGENESIS FUTURE

Advantages of a Relational Database

3. Ease of Data Retrieval

- Structured Query Language (**SQL**) is the basis for relational database management systems.
- SQL comes with a rich query set: functions, filters, and 'order by' clauses, 'select' clauses

4. Indexing

- Helps to improve the **speed** of data retrieval operations

5. Transaction Processing (**ACID**)



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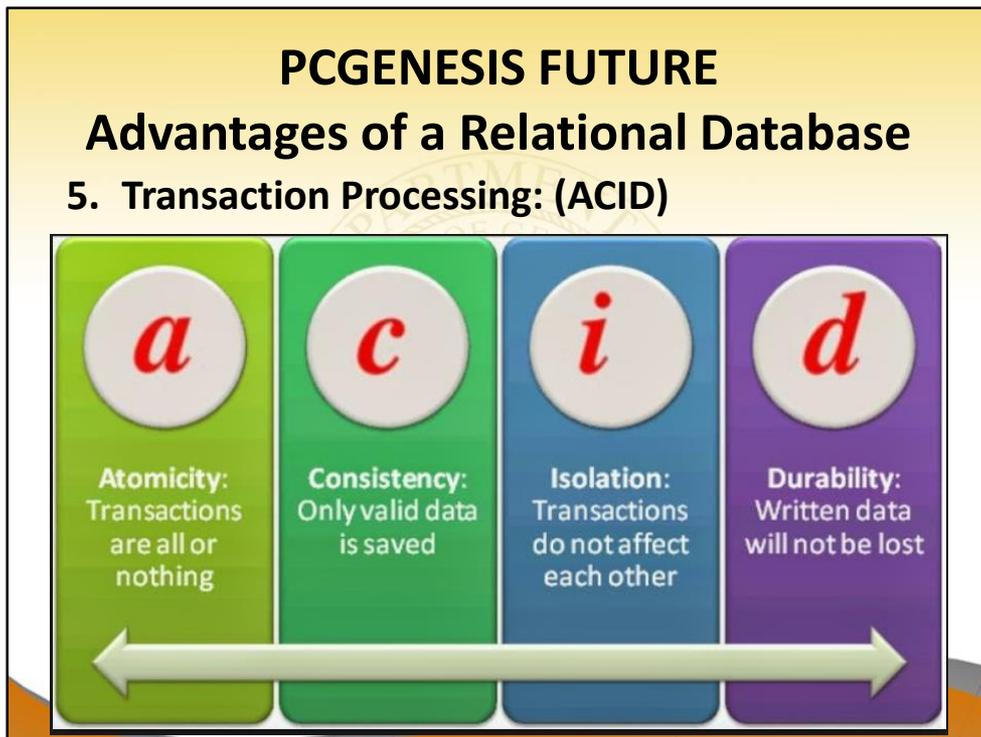
3. Ease of Data Retrieval

- Structured Query Language (**SQL**) is the basis for relational database management systems.
- SQL is an **industry standard method** of accessing database data
- SQL comes with a rich query set: functions, filters, and 'order by' clauses, 'select' clauses

4. Indexing

- Indexing of an RDBMS helps to improve the **speed** of data retrieval operations

5. Transaction Processing (**ACID**)



Transaction Processing (ACID)

Atomicity: Transactions are posted with **ALL** or **NOTHING**. This prevents partial postings from occurring.

Consistency: Only valid data is allowed to be saved to the database. Edits are defined within the database itself to further ensure that bad data is never written to the files.

Isolation: Transactions do not affect each other, so that one user does not step on the work of another user

Durability: Written or saved data will not be lost once it is committed to the database.

PCGENESIS FUTURE

Advantages of a Relational Database

6. Security

- Microsoft SQL Server provides security measures to restrict access when necessary, while having the ability to add multiple users and accounts.



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6. Security

- Microsoft SQL Server provides security measures to restrict access when necessary, while having the ability to add multiple users and accounts.
- Databases come with robust internal security, as we've seen from the VerraDyne installation.

PCGENESIS FUTURE

Advantages of a Relational Database

7. Client Supportive

- Database data becomes available to use with **Crystal Reports** and other report engines.
- We can use any programming language to access a PCGenesis database.
- Example: The VerraDyne software is written in **Visual Basic**, a relatively modern language, but PCGenesis can also update the VerraDyne database using our own **COBOL** code.



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7. Client Supportive

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PCGENESIS FUTURE

Advantages of a Relational Database

8. Database management tools

- Many database management tools are available.
- **Database backup** is important. It ensures availability of stable database in case data gets corrupted.
- **Automatic recovery** features that go into effect, without the need for an administrator to intervene.
- **Database monitoring and security**



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- Many database management tools are available.
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- **Automatic recovery** features that go into effect, without the need for an administrator to intervene.
- **Database monitoring and security** are built in.

PCGENESIS FUTURE

Advantages of a Relational Database

9. Scalability and Flexibility

- The SQL database can continue to grow as your needs grows – up to a massive one terabyte in size.

10. Data Analysis

- On-board reporting tools
- Data can easily transfer into presentation modes or Excel, allowing project managers to quickly compile relevant data points into formats suitable for sharing with clients and partners.



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9. Scalability and Flexibility

- The SQL database can continue to grow as your needs grows – up to a massive one terabyte in size.
- Databases are built so that they can continue to grow with no re-designs required!

10. Data Analysis

- Databases have on-board reporting tools
- Data can easily transfer into presentation modes or Excel, allowing project managers to quickly compile relevant data points into formats suitable for sharing with clients and partners.

PCGENESIS FUTURE

Advantages of a Relational Database

- 1) Simplicity
- 2) Concurrency
- 3) Ease of Data Retrieval
- 4) Indexing
- 5) Transaction Processing (ACID)
- 6) Security
- 7) Client Supportive

SUMMARY



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Advantages of a Relational Database:

- 1) **Simplicity**
- 2) **Concurrency**
- 3) **Ease of Data Retrieval**
- 4) **Indexing**
- 5) **Transaction Processing (ACID)**
- 6) **Security**
- 7) **Client Supportive**

PCGENESIS FUTURE

Advantages of a Relational Database

- 8) Database Management Tools
- 9) Scalability and Flexibility
- 10) Data Analysis

SUMMARY



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Advantages of a Relational Database:

- 8) Database Management Tools
- 9) Scalability and Flexibility
- 10) Data Analysis

Questions?

PCGENESIS FUTURE

Converting PCGenesis to RDBMS

- Converting PCGenesis to a relational database is a very, very big project
- We estimate that it make take several years to convert the software
- During that timeframe, major enhancements to PCGenesis will be very limited
- Legislative requirements will always be addressed even during the conversion process



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Converting PCGenesis to RDBMS

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- We estimate that it make take **several years** to convert the software
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PCGENESIS FUTURE

Converting PCGenesis to RDBMS

- This is all great news for PCGenesis
- As a matter of fact, PCG is adding new school districts...
 - Two new charter school districts have come onboard
 - One school district has come back to PCGenesis from expensive 3rd party accounting systems



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Converting PCGenesis to RDBMS

- This is all great news for PCGenesis
- As a matter of fact, PCG is adding new school districts...
 - Two new charter school districts have come onboard
 - One school district has come back to PCGenesis from expensive 3rd party accounting systems

PCGENESIS FUTURE

- These are very exciting changes for PCGenesis!

Questions?



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- We are very excited about the upgrades for PCGenesis
- Questions?

Site Recommendations

- Upgrade any server > 3 to 5 years old
- Implement **Remote Desktop** access !!!!
- Weekly full system backup of K:*.* (Retain 3 weeks)
- Daily backups of data (K:\SECOND) to CD/DVD/USB (Retain for 1 month)
- Document restore procedures for emergencies



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- Upgrade any server > 3 to 5 years old
- Implement **Remote Desktop** access !!!!
- **Weekly** full system backup of K:*.* (Retain 3 weeks)
- **Daily** backups of data (K:\SECOND) to CD/DVD/USB (Retain for 1 month)
- Document **restore procedures** for emergencies

Agenda

- Introduction
- PCGenesis Recent History
- Upgrade of PCGenesis Print Queue
- PCGenesis Future
- **PCGenesis Broadcast E-mail List**
- Getting Ready for 2019 GHI
- User Input



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PCGenesis User List

- The Ga DOE has created an e-mail user list for PCGenesis
- This is a discussion forum
- Users can broadcast an e-mail to all PCGenesis users enrolled in the group



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- This past year, the PCG team has implemented a new e-mail user list for PCGenesis.
- PCGenesis users can use the e-mail list to broadcast e-mails to all users enrolled in the group. The e-mail list can be used as a discussion forum.

PCGenesis User List

- We already have 209 registered users
- Any user involved with PCGenesis can join:
 - Financial Directors
 - Payroll Administrators
 - IT Specialists



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The PCGenesis e-mail list already has 209 registered users.

Any user involved with PCGenesis can join:

- Financial Directors
- Payroll Administrators
- IT Specialists

PCGenesis User List

- Those PCGenesis districts and RESAs that join the user list will be able to:
 - Share ideas
 - Discuss problems
 - Have many more resources available for gaining insight into PCGenesis operations



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The e-mail list can be used to:

- Share ideas
- Discuss problems
- The list provides many more resources for gaining insight into PCGenesis operations and everyday issues

PCGenesis User List

- Join by sending a blank e-mail to:
join-pcgenesis@list.doe.k12.ga.us
- After joining, users can take advantage of discussion forums by sending e-mails to:
pcgenesis@list.doe.k12.ga.us



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We include instructions for joining the PCGenesis User List when we send out PCGenesis releases, in the **Release Installation Instructions**.

- Join by sending a blank e-mail to:
join-pcgenesis@list.doe.k12.ga.us
- After joining, users can take advantage of discussion forums by sending e-mails to:
pcgenesis@list.doe.k12.ga.us

Agenda

- Introduction
- PCGenesis Recent History
- Upgrade of PCGenesis Print Queue
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- PCGenesis Broadcast E-mail List
- **Getting Ready for 2019 GHI**
- User Input



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Getting Ready for 2019 GHI

- GHI options B1, B2, B3, B6, H1, H2, and K1 are the same
- GHI tiers 10, 40, 90, 91, 94 – 97 are the same.
- Many GHI premium rates have changed for 2019.



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The GHI options B1, B2, and B3 are still available for BCBS Gold, Silver and Bronze plans.

The GHI option B6 has been added for BCBS HMO.

The GHI option H1 has been added for United HealthCare HMO.

The GHI option H2 has been added for United HealthCare HDHP.

The GHI option K1 has been added for Kaiser HMO.

Almost all GHI premium amounts have changed for 2019.

Getting Ready for 2019 GHI

The screenshot shows a personnel data window with a 'PCG Select GHI Code' dialog box open. The dialog box contains a table of GHI options:

| Opt | Tier | Long Description | Short Desc |
|-----|------|--------------------------------|--------------|
| B8 | | TRICARE SUPPLEMENT | TRISUP |
| B1 | | BCBS GOLD | BCBS GOLD |
| B2 | | BCBS SILVER | BCBS SILVER |
| B3 | | BCBS BRONZE | BCBS BRONZE |
| B6 | | BCBS HMO | BCBS HMO |
| H1 | | UHC HMO | UHC HMO |
| H2 | | UHC HDHP | UHC HDHP |
| K1 | | KAISER HMO | KAISER HMO |
| NC | | NO COVERAGE OR COVERAGE WAIVED | WAIVED |
| NE | | NOT ELIGIBLE FOR COVERAGE | NOT ELIGIBLE |

A callout box points to 'GHI Option B1' in the list, which is 'BCBS GOLD'. The background window shows personnel data for 'ET3AN, AB3EU' with various fields like 'Status', 'Pay Loc', 'Work Loc', 'SSN', 'Address', and 'City/State'.

This is a complete list of the 2019 GHI options.

Blue Cross/Blue Shield, United Healthcare, Kaiser and TriCare Supplement make up the available options for employees.

Getting Ready for 2019 GHI

The screenshot displays a personnel data entry screen for 'PCG Dist=8991' and 'Ref=13.03.00'. The main window shows employee details for 'ET3AN' (First Name) and 'AB3EU' (Last Name). A 'PCG Select GHI Code' dialog box is open, listing various GHI tiers and their descriptions:

| Opt | Tier | Long Description | Short Desc |
|-----|------|---------------------------------------|------------|
| B1 | 10 | SINGLE COVERAGE | SINGLE |
| B1 | 40 | SINGLE COVERAGE TOBACCO SURCHARGE | SINGLE/T |
| B1 | 90 | EMPLOYEE & SPOUSE | EESP |
| B1 | 91 | EMPLOYEE & SPOUSE/TOBACCO SURCHARGE | EESP/T |
| B1 | 94 | EMPLOYEE & CHILD(REN) | EECH |
| B1 | 95 | EMPL & CHILD(REN)/TOBACCO SURCHARGE | EECH/T |
| B1 | 96 | EMPLOYEE & SPOUSE & CHILD(REN) | FAMILY |
| B1 | 97 | EMPL & SPOUSE & CHILD/TOBACCO SURCHAR | FAMILY/T |

In the background, the 'GHI Tier' field is set to '90'. A callout box labeled 'GHI Tier from Benefit File' points to this field. Other visible fields include 'GHI Option B1', 'GHI Ded Cd 8', and 'GHI Tier Cd 8'. The bottom of the screen shows the 'Richard Woods, Georgia's School Superintendent' logo and the date '11/15/2018'.

- GHI tiers 10, 40, 90, 91, 94 – 97 are the same.

Getting Ready for 2019 GHI

How to Install 2019 GHI

- 1) Install PCGenesis Release 18.03.01. This release will automatically upload the new 2019 GHI premium amounts into the Benefit Plan/Option/Tier Maintenance File.
- 2) Download the DCH open enrollment file.
- 3) Import State Health Options & Tiers from DCH File.
- 4) Set State Health Deduction Amount For Active Employees.



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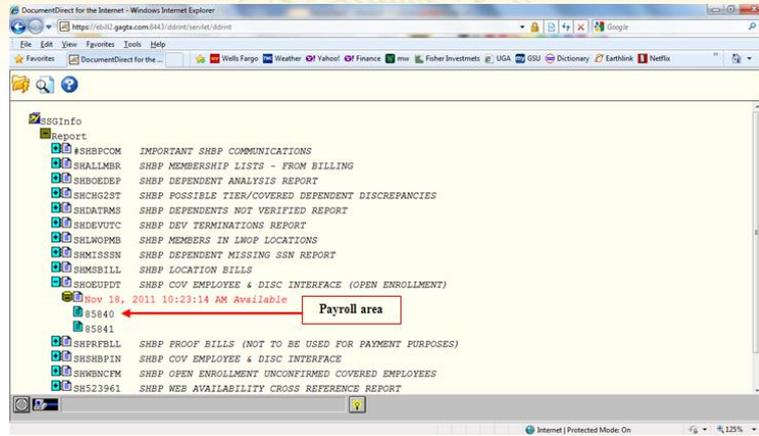
Several steps are necessary to get ready to process GHI in 2019. Before your December payroll, you will be able to install the 18.03.01. This release will contain the 2018 GHI premiums. The new premiums will be uploaded automatically by the release.

After open enrollment is completed, the new employee GHI elections must be downloaded from the DCH website before the enrollment data can be imported into the PCG personnel screen.

Once the GHI elections have been finalized, the last step is to update the employees' deduction screen with the 2019 premium amounts for the GHI deductions based upon the employees' GHI option and tier information on the personnel screen.

Getting Ready for 2019 GHI

- Download the DCH open enrollment file



The most difficult part of this process is downloading the enrollment data from DCH. It seems that every year the DCH website changes and honestly, I don't know what to expect this year with the new ADP interface.

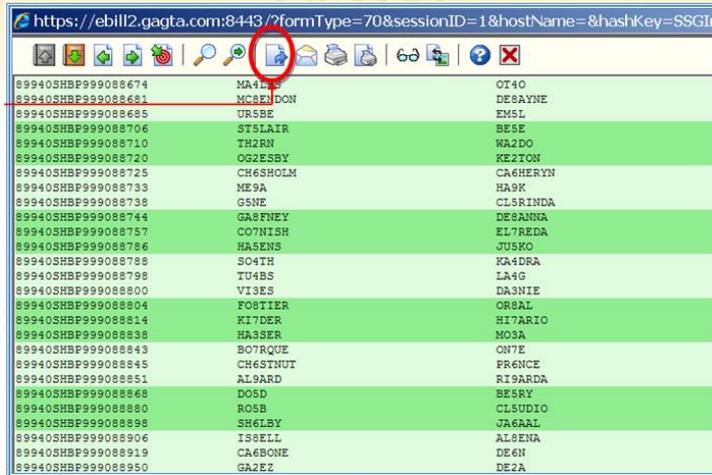
Typically, SHBP will send all districts an e-mail which identifies the correct SHOEUPDT file which contains the open enrollments. You must know the exact name and date of this file from SHBP or you will download an incorrect file!

In this example, the correct file was SHOEUPDT dated November 18, 2011.

Select the correct file.

Getting Ready for 2019 GHI

- Download the DCH open enrollment file



The screenshot shows a web browser window with the URL <https://ebill2.gagta.com:8443/?formType=70&sessionID=1&hostName=8&hashKey=SSGIn>. The browser toolbar has a red circle around the download icon. Below the toolbar is a table with three columns: a long alphanumeric ID, a name, and a last name. The table contains 20 rows of data.

| | | |
|--------------------|----------|----------|
| 89940SHBP999088674 | MAJLES | OT40 |
| 89940SHBP999088681 | MCSEYDON | DESAYNE |
| 89940SHBP999088685 | URSBE | EMSL |
| 89940SHBP999088706 | SISLAIR | BESSE |
| 89940SHBP999088710 | THORN | WALDO |
| 89940SHBP999088720 | OGZESBY | KEZTON |
| 89940SHBP999088725 | CHESHOLM | CATHERYN |
| 89940SHBP999088733 | MEBA | HASK |
| 89940SHBP999088738 | GSNE | CLSRINDA |
| 89940SHBP999088744 | GARFNEY | DEBANDA |
| 89940SHBP999088757 | COYNISH | EL7REDA |
| 89940SHBP999088786 | HASENS | JUSKO |
| 89940SHBP999088788 | SOATH | KA4DRA |
| 89940SHBP999088798 | TU4BS | LA4G |
| 89940SHBP999088800 | VISES | DASNIE |
| 89940SHBP999088804 | FOSTIER | ORBAL |
| 89940SHBP999088814 | KITDER | H7ARIO |
| 89940SHBP999088838 | HASSER | MOSA |
| 89940SHBP999088843 | BO7RQUE | ON7E |
| 89940SHBP999088845 | CH6STNUT | FR6NCE |
| 89940SHBP999088851 | ALSARD | R19ARDA |
| 89940SHBP999088868 | DO5D | BESRY |
| 89940SHBP999088880 | RO5B | CLSUDIO |
| 89940SHBP999088898 | SH6LBY | JAG6AL |
| 89940SHBP999088906 | IS8ELL | AL8ENA |
| 89940SHBP999088919 | CA6BONE | DE6N |
| 89940SHBP999088950 | GAZEZ | DEZA |



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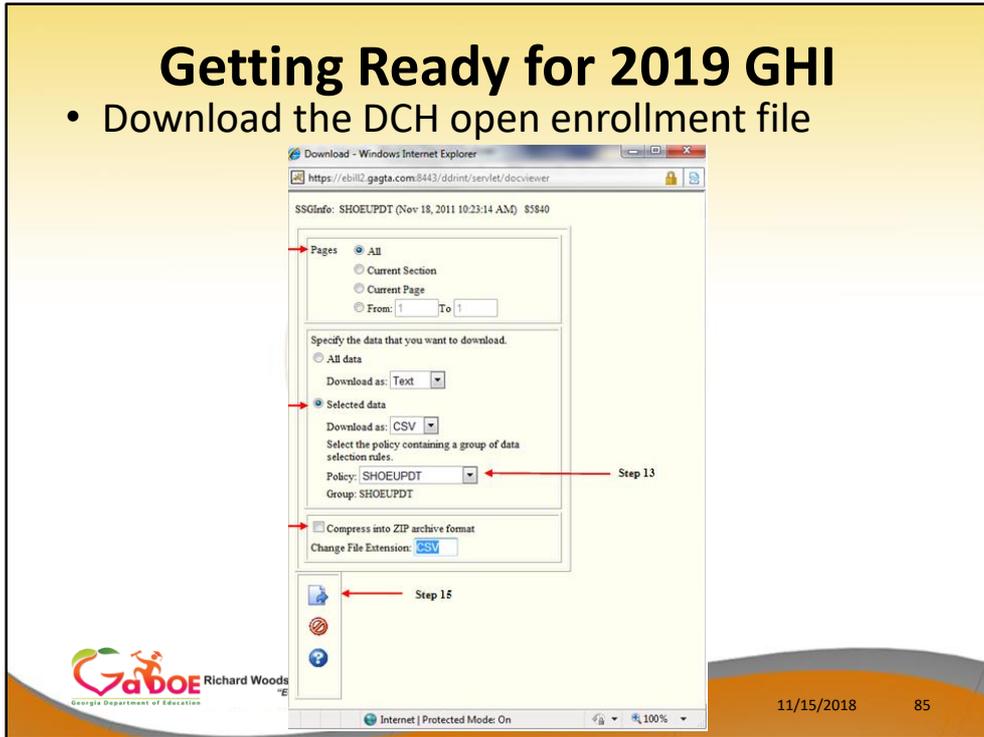
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The open enrollment file is displayed.

Select the download icon.

Getting Ready for 2019 GHI

- Download the DCH open enrollment file



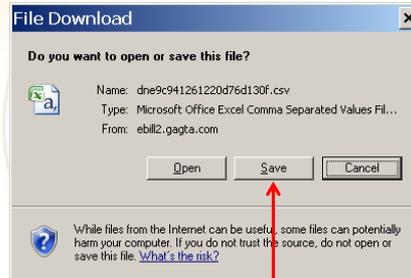
The following dialog box will be displayed. It is important to enter the selections as shown above:

- All pages
- Selected data
 - Download as CSV
 - Policy SHOEUPDT
- Do NOT compress the file

Then select the download icon.

Getting Ready for 2019 GHI

- Download the DCH open enrollment file



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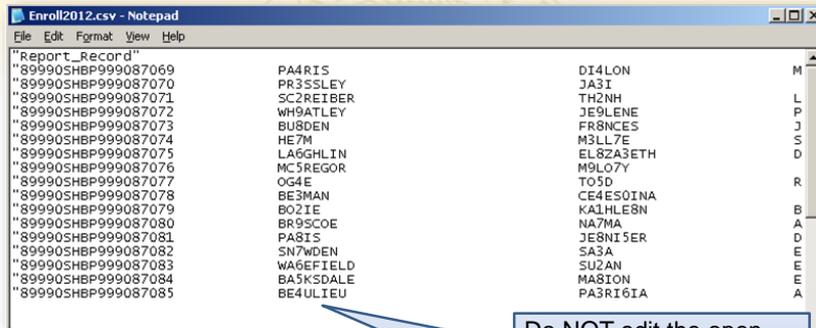
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Select SAVE to save the file to your C drive.

Getting Ready for 2019 GHI

- Download the DCH open enrollment file

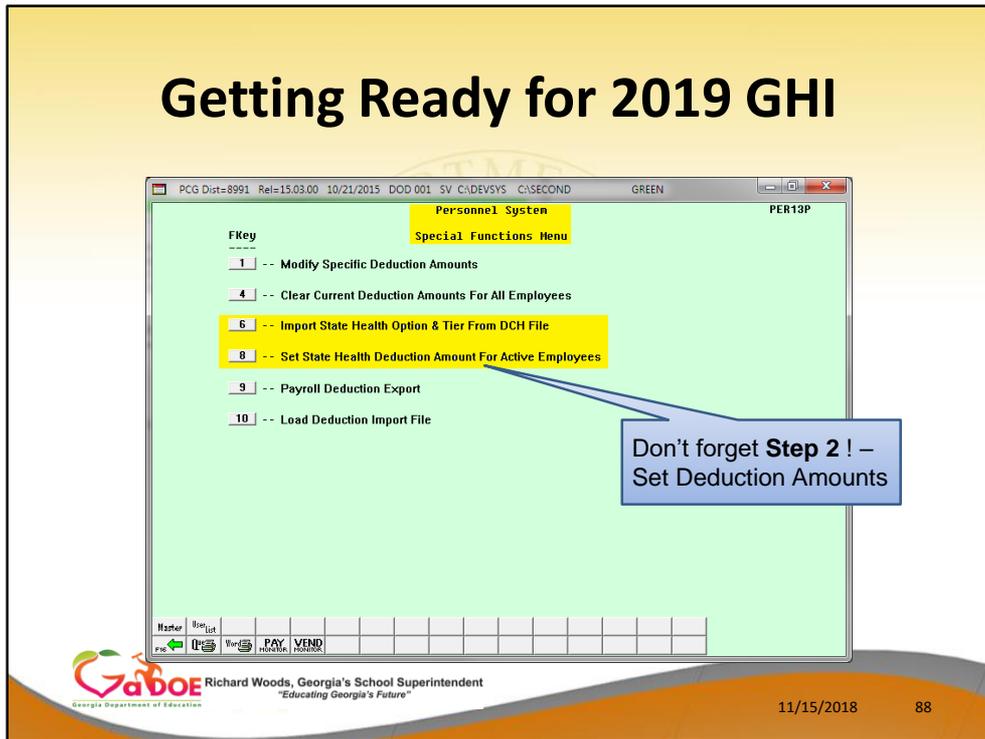


```
Enroll2012.csv - Notepad
File Edit Format View Help
"Report_Record"
"89990SHBP999087069 PA4RIS DI4LON M
"89990SHBP999087070 PR3SSLEY JA3T L
"89990SHBP999087071 SC2REIBER TH2NH J
"89990SHBP999087072 WH9ATLEY JE9LENE P
"89990SHBP999087073 BUSDEN FR8NCES J
"89990SHBP999087074 HE7M M3LL7E S
"89990SHBP999087075 LA6GHLIN EL8ZA3ETH D
"89990SHBP999087076 MC5REGOR M9L07Y
"89990SHBP999087077 OS4E TO5D R
"89990SHBP999087078 BE3MAN CE4ES0INA
"89990SHBP999087079 BO2IE KA1HLE8N B
"89990SHBP999087080 BR9SCOE NA7MA A
"89990SHBP999087081 PASIS JE8NISER A
"89990SHBP999087082 SN7WDEN SA3A D
"89990SHBP999087083 WAGEFIELD SU2AN E
"89990SHBP999087084 BA5KSDALE M810N E
"89990SHBP999087085 BE4ULIEU PA3RI6IA A
```

Do NOT edit the open enrollment file in Microsoft Excel®. Editing the file in Excel causes the formatting of the file to change.

Once the open enrollment file has been downloaded, do NOT edit the file in Excel! Editing the file in Excel causes the formatting of the file to change. Instead, make any changes using NOTEPAD.

Getting Ready for 2019 GHI



Now the final two steps of the GHI Open Enrollment process:

- 1) Import State Health Option & Tier from DCH File = F6
- 2) Set State Health Deduction Amount For Active Employees = F8

You must execute BOTH of these steps!!!

Getting Ready for 2019 GHI

Open Enrollment – Import GHI Option and Tier Elections

- Personnel System (F3)
- Special Functions Menu (F13)
- Import State Health Option & Tier from DCH File (F6)



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Personnel and deduction screens must be updated for the December payroll with the new options that the employee selected during open enrollment.

The file downloaded from SHBP can be imported into PCGenesis.

Getting Ready for 2019 GHI Open Enrollment – Import GHI Option and Tier Elections

```
PGC Dist=8991 Rel=12.03.00 10/16/2012 DOD 001 C:\DEVSYS C:\SECOND GREEN PERPI271

Import State Health Option And Tier From DCH File

This process will update the GHI Option and Tier for all employees
included in the open enrollment or monthly change file provided by
the Department of Community Health.

Select Optional Field to Update:
- County of Residence

Enter the import file path and name OR F10 to Browse for file
C:\TEMP\ARCHIVE.CSV

Enter=Continue or F16=Exit 12.03.00
```



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Use F10 to browse for the file.

Importing the County is optional.

Using this process only enters the **option** and **tier** from the imported file to the personnel screen. It does NOT update any amounts on the deduction screen.

Getting Ready for 2019 GHI

Set GHI Deduction Amounts

- Personnel System (F3)
- Special Functions Menu (F13)
- Set State Health Deduction Amount For Active Employees (**F8**)



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After the correct option and tier is entered (or imported) on the personnel screen for each employee, the premium can be updated on the deduction screen using this procedure.

The premium was not updated with the prior import, so this procedure must also be completed.

Getting Ready for 2019 GHI

Set GHI Deduction Amounts

PCG Dist=8991 Rel=17.03.00 11/01/2017 PCW 001 SV CADEVSYS C:ASECOND WHITE PER0150

Set State Health Deduction Amount For Active Employees
(all substitutes are skipped)

Trial mode to verify changes prior to updating? N
 Reduce premium amount by normal employer paid share? Y
 Split premium according to employee's pay schedule? N

Set deductions to rates in effect on: 01/01/2019

The following SHBP system deductions will be modified by this process:

| Ded Code | Ded Desc | Enplr Ind | Enplr Amt |
|----------|--------------------|-----------|-----------|
| 8 | NONCERTIFIED HERIT | N | |
| 9 | CERTIFIED HERIT | N | |
| 42 | SUPER SHBP | Y | 945.00 |

ENTER = Validate PF16 = Exit 17.01.00

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Before running this procedure, the new option and tier choices should be entered on the personnel screen. It is also important to have the correct GHI deduction code entered on the personnel screen.

This procedure should be run in trial mode first. The trial mode will not update the deduction screen, but a report will be produced that contains all of the changes that will be made.

Review the report to make sure it is correct and then run the update again with the **trial mode flag** switched to **N**. **This will update all of the employee premiums on the deduction screen** to match the premiums set in the GHI Plan/Option/Tier maintenance file.

Getting Ready for 2019 GHI

Set GHI Deduction Amounts

REPORT DATE: 10/27/2009 10:17
 Program ID: PER0150

SHBP DEDUCTION UPDATE REPORT
 *** TRIAL MODE - NO UPDATES ***

| Emp Num | Employee Name | Work Loc | Class | Pay Periods | Ded Code | Plan Option | Plan Tier | Old Amount | Old Flg | New Amount | New Flg |
|--|-------------------|----------|-------|-------------|----------|-------------|-----------|------------|---------|------------|---------|
| 087909 | OG4E, B04IS | 0188 | 06 | 12 | 09 | 58 | 10 | 0.00 | Y | 8.60 | Y |
| 089366 | OG4E, EMARSON | 0188 | 03 | 12 | 08 | 31 | 99 | 162.50 | Y | 210.50 | Y |
| 088500 | OL5ARV, PA5ULA | 8012 | 66 | 12 | 08 | 58 | 91 | 207.10 | Y | 252.40 | Y |
| 088740 | OM6LLEY, EF6AIM | 8010 | 55 | 12 | 09 | NE | 00 | 0.00 | | 0.00 | |
| 087836 | OR2ELAS, COZEMAN | 0103 | 78 | 12 | 08 | 58 | 90 | 167.10 | Y | 192.40 | Y |
| 087827 | OR2URKE, DE2A | 8012 | 67 | 12 | 08 | 58 | 90 | 167.10 | Y | 192.40 | Y |
| 089937 | PA2SON, DE2ETRIUS | 0188 | 58 | 12 | 08 | 58 | 96 | 176.70 | Y | 203.00 | Y |
| 088474 | PA2SON, LE2ISHA | 0103 | 06 | 12 | 09 | 03 | 90 | 128.90 | Y | 150.40 | Y |
| 088105 | PA2UETTE, O22E | 0103 | 06 | 12 | 09 | 58 | 10 | 0.00 | Y | 8.60 | Y |
| 089605 | PA3NELL, AD3NA | 0103 | 09 | 12 | 09 | 03 | 94 | 120.80 | Y | 141.50 | Y |
| 089242 | PA3ROTT, JO3AS | 4050 | 62 | 12 | 08 | 58 | 40 | 40.00 | Y | 68.60 | Y |
| 088693 | PA4LSEN, ST4RLING | 0188 | 02 | 12 | 24 | 58 | 96 | 90.60 | Y | 116.90 | Y |
| 089894 | PA4LSON, EL4ON | 0196 | 26 | 12 | 09 | 03 | 90 | 128.90 | Y | 150.40 | Y |
| 087180 | PH3LAN, DD3IA | 2050 | 09 | 12 | 09 | 03 | 96 | 137.00 | Y | 159.30 | Y |
| 088361 | PI2KENS, TI2ANY | 4050 | 02 | 12 | 09 | 07 | 97 | 0.00 | | 0.00 | |
| ** ERROR ** SHBP Option/Tier 07/97 not found in Benefit deduction file | | | | | | | | | | | |
| 087379 | PI4T, CL4SSIE | 2050 | 28 | 12 | 09 | 55 | 10 | 0.00 | Y | 8.60 | Y |
| 087941 | PO2DER, TI2N | 0103 | 56 | 12 | 09 | 05 | 96 | 137.00 | Y | 159.30 | Y |



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Verify the enrollment data and premium data on this report before running the process in FINAL mode.

Agenda

- Introduction
- PCGenesis Recent History
- Upgrade of PCGenesis Print Queue
- PCGenesis Future
- PCGenesis Broadcast E-mail List
- Getting Ready for 2019 GHI
- **User Input**



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Future Plans

Help us focus our efforts

- What major feature/function do you need?
- We welcome your input/requests in writing
- Complete the **'Comments and Requests'** today
- Provide your input during the discussions



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- In order for the PCGenesis development team to focus our efforts, we would greatly appreciate your input.
- We welcome your requests in writing – you can complete the 'Comments and Requests' forms today.
- We also welcome your input during the roundtable discussions which are on the GASO schedule.

PCGenesis Documentation



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



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PCGenesis Documentation

→Technology Services→Technology Services→PCGenesis

PCGenesis

Financial Accounting and Reporting System Operations Guide

Payroll System Operations Guide

Personnel System Operations Guide

Certified/Classified Personnel Information (CPI) System Operations Guide

Budget System Operations Guide

LUAS Manual

Technical System Operations Guide

Release Information

PCGenesis

- [Financial Accounting and Reporting System Operations Guide](#)
- [Payroll System Operations Guide](#)
- [Personnel System Operations Guide](#)
- [Certified/Classified Personnel Information \(CPI\) System Operations Guide](#)
- [Budget System Operations Guide](#)
- [LUAS Manual](#)
- [Technical System Operations Guide](#)
- [Release Information](#)



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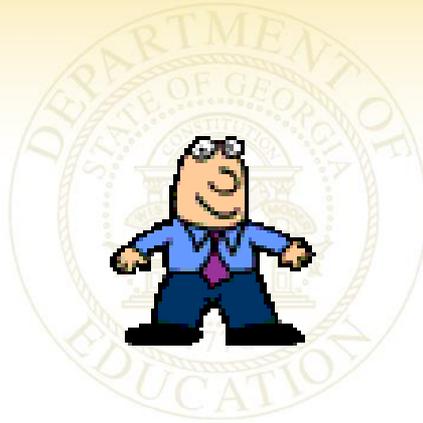
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Questions?



Thank you for attending!



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