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## Who should read this document?

This document is intended for system administrators and clinic managers. It summarizes new features and describes the latest technical requirements for installing / upgrading to Centricity Practice Solution v12.0.10.

 Download your complete documentation library from [engage.gehealthcare.com/community/en/cps/documentation](http://engage.gehealthcare.com/community/en/cps/documentation). Unzip to a folder on your system. When you open a document from the Centricity Document Library, you can click links to other guides to open them. Links do not work if you copy a document to a location outside the library folder.

 **Important!** The installation process for this release has changed from previous service packs. This release is a full upgrade, allowing you to upgrade directly from Centricity Practice Solution v7.1.2, v10.1.3, v11.x, or v12.x.

Read the entire release note document before proceeding.

 **Important!** The installation process for JBoss and Service Layer have changed. The new Server Configurator utility automates the installation and configuration of your servers. See "ICD-10 planning and preparation resources on the Service Portal" on page 9.

## If you are the clinic manager or practice administrator...

Carefully review and consider how changes in this release affect your practice setup and workflows. For questions about how these changes affect your practice, contact Centricity Services at 888.436.8491 option 1, or your Value Added Reseller (VAR).

## If you are the system administrator...

Before installing or upgrading to this release, review the requirements documented in this release note and the system software/hardware requirements and installation/upgrade instructions in your Centricity Practice Solution documentation library:

- *Configuring Environments for Centricity Practice Solution*
- *Installing Centricity Practice Solution*
- *Upgrading to Centricity Practice Solution*

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**!!! Important! 3rd-party integration requirements.** Some 3rd Party applications may need to be reinstalled following this upgrade. Contact your providers to confirm support for integrations and any new configuration requirements.

**EDI Plug-ins.** Uninstall, reinstall, and reconfigure your EDI plug-ins after upgrading to Centricity Practice Solution v12.0.10. Refer to the documentation included with your EDI plug-ins for information on installation and configuration.

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## What's new in this release?

### New features and enhancements

#### **Problem search - enhanced usability with ICD-10 specificity support**

This release provides enhanced problem content and search capability / usability. It includes enhanced synonym support for Smart List searching, more accurate and complete mappings, simplified search workflows, and the ability to identify and quickly select the most specific (billable) codes.



A **billable** code contains enough specificity to be considered a valid diagnosis for billing. Factors such as clinical documentation, associated procedures, and individual payer requirements all affect the actual reimbursement of a specific diagnosis.

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These changes address a variety of reported issues related to incorrect mappings and descriptions returned in search for ICD-9 and ICD10 codes. SPR 53769, SPR 53822, SPR 53823, SPR 54143, SPR 54975, SPR 59334, SPR 56429, SPR 59456, SPR 59579, SPR 59615, SPR 59796, SPR 59796, SPR 60121, SPR 60123, SPR 60125, SPR 61405, SPR 62002, SPR 62053, SPR 62142, SPR 62336, SPR 62238, SPR 62247, SPR 62259, SPR 62260, SPR 62336, SPR 62338, SPR 62415, SPR 62509, SPR 62510, SPR 62805, SPR 62930, SPR 63082, SPR 63173, SPR 62247, SPR 62930, SPR 63082, SPR 63173, SPR 63347.

- **Problem descriptions increased** from 27k to 97k in the database for richer code set.
- **Search algorithm enhanced** to increase precision and accuracy of the search.

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- **Quick Search Problem Search only displays codes that are specific enough for billing.** Specific codes are defined as Active and with appropriate specificity (no child codes).

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 Once a provider selects a diagnosis three times, it's added to their Smart List to speed up searching. Smart Lists are used in the Quick Search and Full Reference Problem Search features.

Some codes added to a provider's Smart List might be invalid, incorrectly mapped, or lacking specificity. Now, however, only codes that are specific enough for billing are returned in Smart List search.

Quick Search, Full Search, and Smart Search for Problems will not filter out codes that are outside the bounds of an Effective and Expiration date range specified in Administration > Edit Diagnosis.

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- **Problem Custom Lists** - Codes that are not specific enough for billing purposes do not display in problem lists.

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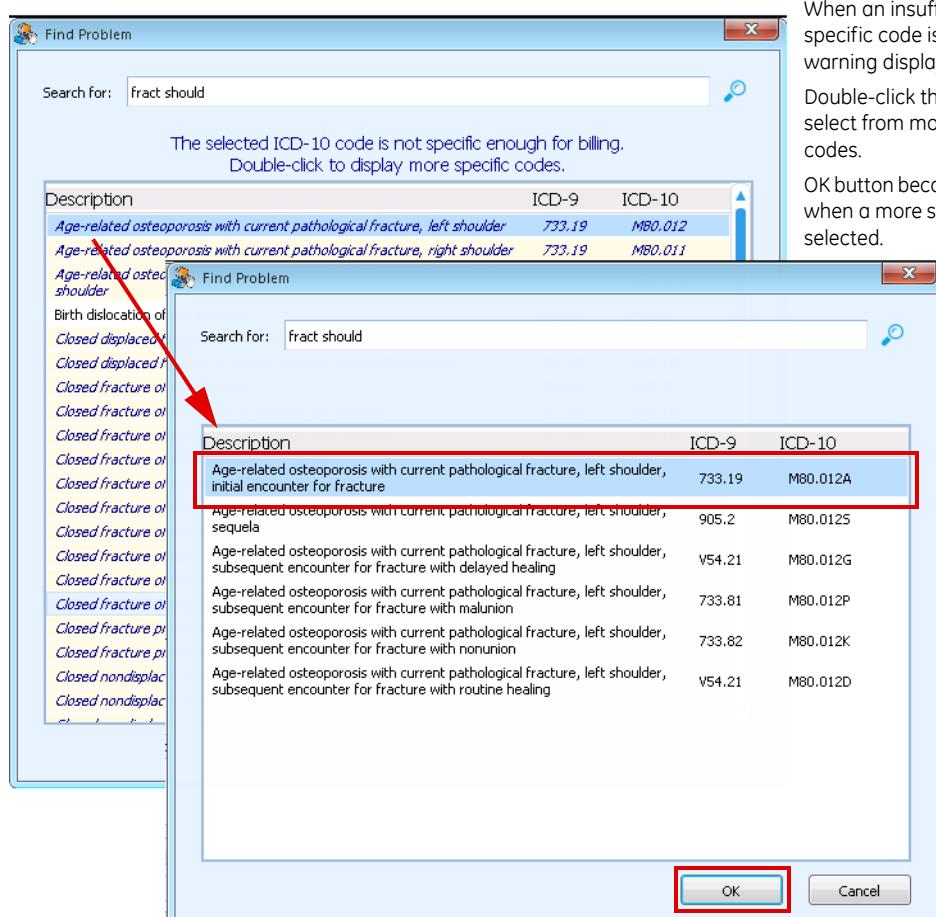
 You should review custom lists to remove/replace invalid codes with more specific codes and to assure accuracy in the mapped ICD-10 codes. See ["Problem list cleanup" on page 5](#), for help identifying problem codes that should be updated.

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- **Full Reference Search no longer displays the ICD-9 folder "drill down" hierarchy.** Instead, the search displays group level codes and more specific codes depending on the search. Show Inactive Codes check box is also removed from the search window.
- **Full Reference Search always searches both ICD-9 and ICD-10 codes** and retrieves codes based on clinical concept, so it is no longer necessary to choose a code type before searching. SPR 54777
- **Group codes or other codes not specific enough for billing display in *italic* in the results window and cannot be used.** Double-click these codes to drill down to related codes with greater specificity that can be used.

- **Insufficiently specific codes cannot be added to the patient's problem list.**

When you select a code that is not specific enough for billing, the OK button is disabled and a warning displays.

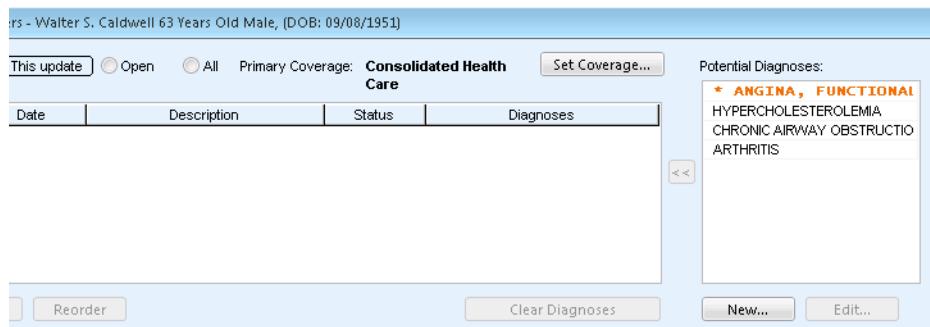


### Orders module - enhanced usability and ICD-10 specificity support

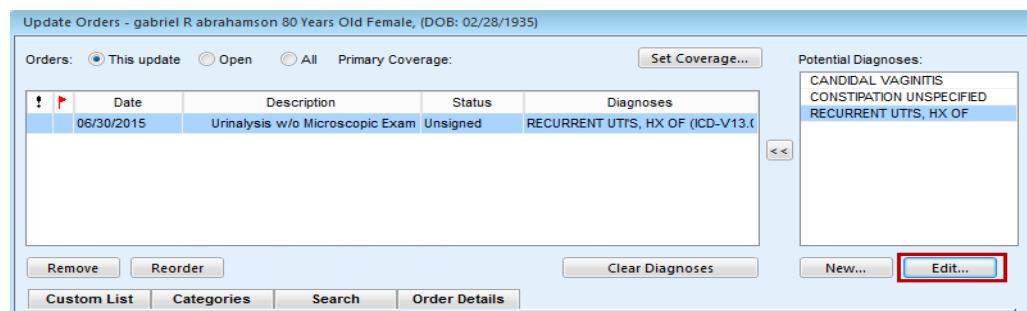
- **Orders module - ICD-10 specificity indicator.** When you select a diagnosis from the Orders **Potential Diagnoses** list, a code that is not sufficiently specific for ICD-10 displays in orange with an asterisk like this example: **\* BRONCHITIS** and should not be associated with the order. The system will display a warning but will not prevent you from associating the code with an order.

To see more information associated with the code description, hover over the code to see the ICD-9 and mapped ICD-10 code. You must select another diagnosis code from the list for the order, or click **Edit** and search for a more

specific code (see below). This workflow preserves the history with the previous code.



- **Orders module - Edit a diagnosis for an order in the Orders module** - To change a diagnosis in the **Potential Diagnoses** list, select it and then click **Edit**. Then search for and change the diagnosis on the **Edit Problem** window.



### Problem list cleanup

With the transition from ICD-9 to ICD-10, it is necessary to review existing active problem lists for patients because they were originally coded with ICD-9 concepts and more specificity might be required. Custom problem lists should also be reviewed for accuracy in mapped ICD-10 codes or redesigned altogether to accommodate new coding concepts.

Existing problems in a patient chart may have codes that are not sufficiently specific for billing, so you can run **Non-Billable Diagnosis in Patient Records** (Crystal) report

to identify such problem codes for patients with past or future appointments and gradually update charts with more specific codes.

Non-Billable Codes in Patient Records

This report includes only Non-Billable Diagnosis ICD codes in Patient Records for specific Providers in a given Date Range.

Appointment Start Date: 07/01/2015 End Date: 08/01/2015

Non-Billable codes in Patient Records byProvider

Patient Name	Provider Name	ICD9	ICD10	Description

- Additional ICD-10 planning and preparation and problem list clean up resources are available on the Services Portal ICD-10 Web page. For details, see ["ICD-10 planning and preparation resources on the Service Portal" on page 9](#).

### *Cloud-based advanced specificity problem search with clinical attributes options*

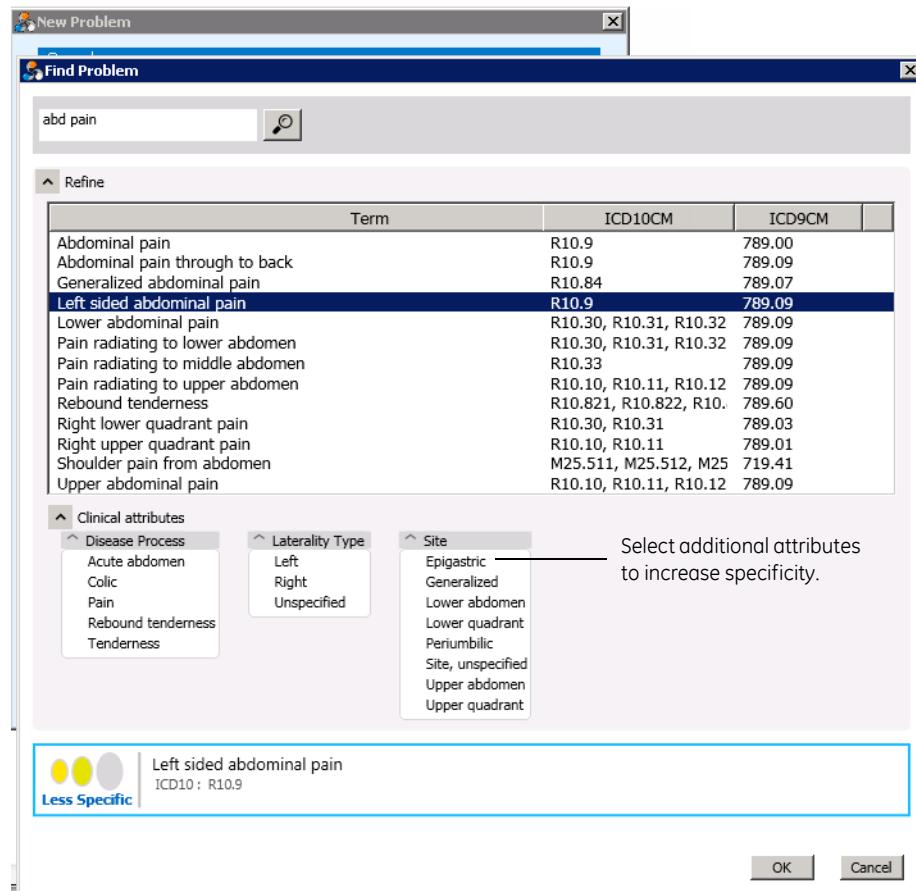
Cloud-based **Advanced Specificity Problem Search** is available in limited release to select customers based on number of users. If this feature is enabled for your organization, when you use the **Full Reference Search in Chart** or in **Billing and Case Management**, you'll access the latest HLI ICD-9 and ICD-10 code database where you can quickly find and select the most specific diagnosis code for billing. This feature must be enabled by GE Support.

- **Enable cloud-based problem search** - If enabled for your organization, in Administration, go to **Advanced Features** and check **Enable Advanced Specificity Problem Search**.

 Confirm your firewall permits workstation access to this URL:  
<https://ge1.healthlanguage.com/le-services-342/soap/query>

- If your site loses Internet access, return to setup and uncheck this option to switch to the on-premise version of problem search.
- **Search for and select the most specific code using Clinical Attributes** - From search results, select a term to review its level of specificity for ICD-10 billing. Where relevant, select additional Clinical Attributes for a more specific code, such

as disease process, anatomical site, causative agent, episode of care, laterality, stage, healing, time course, fracture type, and so on.



As you select attributes, icons indicate the level of specificity.

If you see this...	Do this...
<b>Not Specific</b>	This code is not sufficiently specific to be billable. Select another code or select additional clinical attributes.
<b>Less Specific</b>	This code is billable, but additional clinical attributes will make it more specific.
<b>Most Specific</b>	This code meets all specificity requirements.

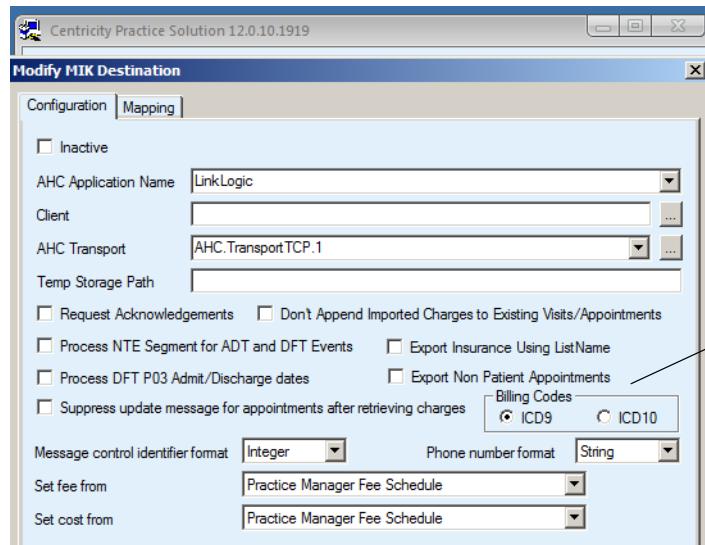
### Build and manage Task queues with Diagnoses as a criteria

In **Task Management > Queue Administration > Build Queues**, the **Queue Criteria** pane allows users to search for and add one or more diagnoses to associate with the visit using the Find Diagnosis window. The application also alerts you when you have entered an invalid code.

## Interoperability - MIK

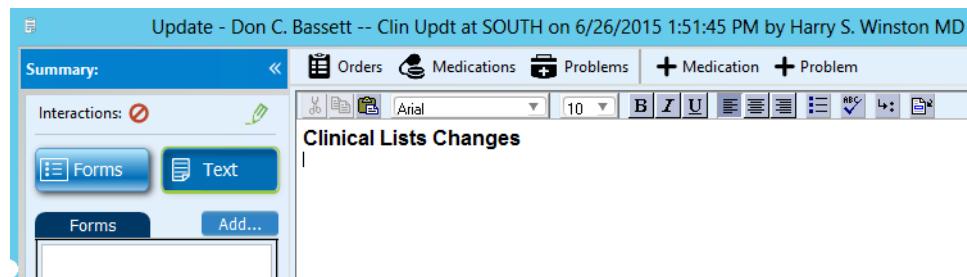
**MIK can determine the correct ICD code when duplicate code names exist in ICD 9 and ICD 10.** When problem codes are received from an external system without a coding system name value, sometimes a unique match cannot be found based on the code value alone if the code value exists in both ICD9 and ICD10 code databases. When this happens, MIK sends “???” for the code to the Notes tab and notes that “MIK import found multiple codes matching the diagnosis ....”. To prevent these unmatched codes, MIK now matches using both the code value and the code system name. The coding system database to search is set to ICD9 by default in MIK Destination setup.

**Important.** When your organization implements ICD10, change this setting to ICD10. SPR 63443



## Other usability enhancements

**Launch Update Medications, Problems, and Orders windows from Chart Update viewer.** Buttons have been added to the Update Chart window to open Update Medications, Update Problems, and Update Orders. SPR 63076



## New forms added to CCC Basic v1.2

- **Patient Education Form:** Added new demo form which recommends handouts based on the patients problems, medication and age. The user edit file CCCQE-User-Edit-Patient-Education.txt located in the CCC folder of the package contains information on how to customize and use this form.
- **Patient Education-WCC:** New form helps provide appropriate handouts based on the patient's age. Designed for pediatric specialty. The user edit file CCCQE-User-

Edit-Patient-Education.txt located in the CCC folder of the package contains information on how to customize and use this form.

- **Referral Loop-CCC:** Can be used to review consultation reports. The form generates orders for the visit with appropriate SNOMED codes. Click "About" while in the form for full instructions.

### ***ICD-10 planning and preparation resources on the Service Portal***

- **ICD-10 portal community** - Go to this area on the Service Portal for ICD-10 planning and preparation tools, active discussion forum, Webinars, and other external resources. Go to the main portal page for your product and then under **Communities** select the **ICD-10** link.  
<https://engage.gehealthcare.com/community/en/cps>
- **ICD-10 Webinar series** - numerous webinars presented over the past year provide detailed start-to-finish guidance for every aspect of your ICD-10 implementation. Find slides in PDF format and webinar Webex recordings on the ICD-10 community site under **View Past Webinars**.
- **Referral sources to outside vendors** offering coding training, auditing at: [https://engage.gehealthcare.com/community/en/cps/cps-icd-10/content?filterID=contentstatus\[published\]~category\[referral-services\]](https://engage.gehealthcare.com/community/en/cps/cps-icd-10/content?filterID=contentstatus[published]~category[referral-services]).
- **ICD-10 tools** - see Webinar and Site Roadmap for details. Resources include:
  - **ICD-10 Readiness Assessment** - step through requirements for ICD-10
  - **ICD-10 Project Plan** - spreadsheet project planning tool
  - **ICD-10 Preload EMR Clinical Kit** - Review active problem lists in prep for the transition & flag reviewed charts as ready
  - **Crystal Reports for PM ICD-10 Prep** - Top carriers by charges & visits, Top procedures by charges & visits, and top 100 diagnosis codes
  - **PM-Only Setup & Workflow Guide** - A companion to the PM setup and workflow webinars
  - **Problems CCC Editor** - Use this tool to assist in revamping your problems list
  - **Provider Audit Guide** - Audit documentation through claims payment to identify areas of improvement
  - **Specialty Specific Coding** - learn more about how to plan by specialty

### ***ICD-10 Preparedness Custom Reports (Service Portal)***

The following new Crystal Reports are available in a package on the Service Portal ICD-10 Web page. Additional report details and instructions for installing and using the reports is included with the package.

The first two reports listed below can be used if you are running the joint (EMR and PM) version of Centricity Practice Solution. The remaining reports can be used by PM-only or joint customers,

- **Billed ICD-9 Problems linked to Orders with Mappings** - This report runs against orders within the Chart module and lists problem descriptions previously associated to orders, the associated ICD-9 and ICD-10 codes linked to the patient problem, and the GEMS Mapped ICD-9 Related Diagnosis that would pull from the claim if the ICD-10 code were to be sent into billing after the IDC-10 Enterprise Date. If your practice is on the joint product and flipping the switch prior to October 1, 2015, this report will help you understand whether current problems will map from the ICD-10 code to the originally selected ICD-9 for billing purposes.

To identify any variations, use *Billed ICD-9 Prob Orders with Mapping Variations* report described below.

<u>Responsible Provider:</u>	<u>Problem Description</u>	<u>ProblemICD9</u>	<u>ProblemICD10</u>	<u>Diagnosis</u>	<u>Diagnosis</u>
				<u>Related1</u>	<u>Related2</u>
Abdomen, acute		789.00	R10.9	789.00	
	<b>Total Orders:</b>	22			
Acid reflux disease		530.81	K21.9	530.81	
	<b>Total Orders:</b>	13			

- **Billed ICD-9 Prob Orders with Mapping Variations** - Like the previous report, this report runs against orders within the Chart module and returns the same types of information only for problems where the ICD-9 code does not match the GEMS mapped ICD-9 code linked to the diagnosis. If your practice is on the joint product and is flipping the switch prior to October 1, 2015, it will help you understand which current patient problems if used as ICD-10 codes do not map back to the originally selected ICD-9 for billing purposes.

#### Sample variation

CLOSED FRACTURE OF UNSPECIFIED PART OF FIBULA	823.81	S82.401A	823.21
<b>Total Orders:</b>	1		

#### Sample patient drill down

CLOSED FRACTURE OF UNSPECIFIED PART OF FIBULA	823.81	S82.401A	823.21
<u>ServiceOrdered</u>	<u>Order Description</u>		
<u>PatientId</u>	<u>PatientName</u>	<u>Patient DOB</u>	
10/6/2008 12:00:00AM	CPT-99215	Ofc Vst, Est Level V	
1337	walkington W raymundo	8/16/1926 12:00:00AM	
<b>Total Orders:</b>	1		

- **GEMS Diagnosis Mapping Variations Report** - This report returns results only if a user has edited preloaded GEMS mapped Diagnosis codes from the original GEMS mappings.

#### GEMS Mapped ICD-9 Diagnosis Variations

<u>DxCode</u>	<u>description</u>	<u>DxCode1</u>	<u>GEMS Code1</u>	<u>GEMS Code2</u>	<u>DxCode2</u>	<u>GEMS Code3</u>	<u>DxCode3</u>	<u>GEMS Code4</u>	<u>DxCodde4</u>	<u>LastModifiedBy</u>	<u>LastModified</u>
F06.32	Mood disorder due to known physiological condition with major depressive-like episode	293.83	293.83		293					hwinston	07/15/2015

- **Reset GEMS Diagnosis Mapping Variations Active Report** - This report contains the same information as the GEMS Mapping Variation report. It only returns

results when the ICD-10 Diagnosis mappings have been edited. As with any active report, this will update data within the database and should only be used if you are confident your mappings should be reset to CMS GEMS mappings.

## GEMS Mapped ICD-9 Diagnosis Variations

### WARNING

**This report can make data changes in your system. Please read these instructions carefully.**

This report gives you the opportunity reset your ICD-10 related codes back to the CMS GEMS Mapped codes if they have been edited. If you select yes to update the database after printing or previewing this report the diagnosis related codes will be reset to the GEMS mapped codes from CMS.

<u>DxCode</u>	<u>description</u>								
<u>DxCode1</u>	<u>GEMS Code1</u>	<u>GEMS Code2</u>	<u>DxCode2</u>	<u>GEMS Code3</u>	<u>DxCode3</u>	<u>GEMS Code4</u>	<u>DxCode4</u>	<u>LastModifiedBy</u>	<u>LastModified</u>

F06.32	Mood disorder due to known physiological condition with major depressive-like episode	293.83	293.83	293	hwinston	07/15/2015
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- **Insurance Carrier List by Payer Date Report** - This report identifies your insurance carrier ICD-10 Payer Readiness dates and any carriers that may not be set to an appropriate ICD-10 Ready date. You can filter by ICD-10 Payer Readiness Date, Insurance Carrier, Insurance Group, and the ability to Include inactive carriers.

### Insurance Carrier List by PayerDate

<u>Name</u>	<u>dotid</u>	<u>Active</u>	<u>Address</u>	<u>City/State</u>
<b>ICD-10 Payer Readiness Date: 10/1/2014</b>				
Americhoice of NJ Personal Care Plus	62	Y	62 Americhoice of Street	sterling heights, AZ
Amerihealth HMO - NJ & DE	75	Y	75 Amerihealth HMO Street	port st. lucie, PA
Health Network America	354	Y	354 Health Network Street	KY

- **Appointments with Balance & BillCode Report** - This report allows staff to prepare to ask patients for copay amounts and prior balances for the days appointments. It contains appointments for specified criteria such as resource, facility, appointment from, and appointment to dates. It displays patients

appointment times, patient name, billcode, budget amount, allocation set, patient balance, guarantor balance, and guarantor deposits.

<b>Appointments with Balance BillCode</b>									
<b>Winston MD, Harry</b> <b>FMC</b> <b>8/6/2015 12:00:00AM</b>									
<u>Time</u>	<u>Patient Name</u>	<u>Patient ID</u>	<u>Appt_Type</u>	<u>Phone</u>	<u>Type</u>	<u>DOB</u>	<u>Guarantor Name</u>	<u>Billcode</u>	<u>AllocationSet</u>
9:00 AM	galli, my A	2435	<u>budget</u>	(434) 600-0537	Cell	07/31/1941			
**galli, my A	Financial Class: Medicare		\$0.00 35 Copay	(\$45.00)	(\$45.00)	\$45.00			
10:00 AM	Zygler SR, Harrold P	5455	Status:	(864) 700-0139	Home	Age: 74 yrs			
**Zygler SR, Harrold P	Financial Class: Commercial		\$0.00 Insurance 100 %	(972) 349-3993 [999@Home		01/01/1983			
3:00 PM	Petrov, Ivan	5466	Status:	\$0.00					
**Petrov, Ivan	Financial Class:		\$0.00	\$0.00	\$0.00	\$0.00			
Total Number of Patient Appointments:		3							

- **Appointments with Balance BillCode and Same Day Payment Report** - Like the previous report, this report contains appointments for specified criteria. It provides a way to monitor how much of your patient share is being collected the same day as the appointment, so you can track when payments are not collected on the same day.

### Automated server configuration utility

The **Server Configurator** calculates, installs and deploys the recommended JBoss and Service Layer configuration for your site. You can add/remove servers to meet the recommended configuration, validate, and then automatically install JBoss to support the selected configuration.

The **Apply Updates**, **Install JBoss**, **Install Service Layer**, **Install Website**, and **Change App Logon** buttons have been removed from Server Setup. You must use Server Configurator for these tasks.

Server Configurator is launched after you have installed or updated your database with Server Setup. The Server Configurator button is located on the main Server Setup menu.

Press **F1** after launching Server Configurator to access the online help.

### Prerequisites

- Run this utility logged in with a domain account within the administrator group on all the servers. The servers should be on the same domain.
- Confirm or create an inbound rule on the database server for the firewall to allow the appropriate port to communicate with the database:  
Centricity Practice Solution on SQL Server: Port **1433**
- Confirm all servers have static IP addresses.
- Confirm the **Windows Firewall** service is running. The firewall can be turned off or on, but the service must be running (status=**Started**) for **netsh** commands to run.

- Run this utility from your Centricity staging folder on a Windows based server. Do not run this utility remotely from a mapped drive.
- Verify target servers are running **Windows Server 2012** or **Windows Server 2008 R2 Service Pack 1**.
- Verify servers have at least **10 GB** free disk space.
- Check the memory on your JBoss server. For servers with more than 64GB:
  - a RDP to the JBoss target deployment Server.
  - b Launch (right click) **PowerShell ISE** (Integrated Scripting Environment) and select **Run ISE as Administrator**.
  - c Run this script in the PowerShell window

```
winrm set winrm/config/winrs '@{MaxMemoryPerShellMB="5120"}'
Get-Item WSMan:\localhost\Shell\MaxMemoryPerShellMB
Set-Item WSMan:\localhost\Plugin\Microsoft.PowerShell\Quotas\MaxMemoryPerShellMB 3072
Get-Item WSMan:\localhost\Plugin\Microsoft.PowerShell\Quotas\MaxMemoryPerShellMB
Restart-Service winrm
```

- d Verify there are no errors in the output window. If you see the following warning, restart the service.

WARNING: The updated configuration is effective only if it is less than or equal to the value of global quota WSMan:\localhost\Shell\MaxMemoryPerShellMB. Verify the value for the global quota using the PowerShell cmdlet "Get-Item WSMan:\localhost\Shell\MaxMemoryPerShellMB". WARNING: The configuration changes you made will only be effective after the WinRM service is restarted. To restart the WinRM service, run the following command: 'Restart-Service winrm'

- Open a Command Prompt as administrator, and run the **WinRM quickconfig** command on all JBoss servers without generating any errors. For example:  
**winrm qc**  
Refer to the Troubleshooting tab of the Server Configurator online help for other useful WinRM commands and possible errors.
- Install **Microsoft .NET Framework 4.5. (dotNetFx45\_Full\_setup.exe)**.  
**Available here:** <http://go.microsoft.com/fwlink/?LinkId=242919>
- Install **PowerShell 3.0**. PowerShell is part of the Windows Management Framework. PowerShell is included in your Centricity Staging folder. Navigate to your staging folder and double click **Windows6.1-KB2506143-x64.msu**
- Ensure **Windows Management Instrumentation Service (WMI)** is running on the servers. For more information, see <https://msdn.microsoft.com/en-us/library/aa394582%28v=vs.85%29.aspx>
- Enable **Network Discovery and File and Printer Sharing for Windows Server 2012** systems.
- Ensure **Network Admin Shares** are enabled for Windows Server 2008 R2 SP1. Enabled is the default. To verify network shares are enabled:
  - 1 Log in as local administrator on the JBoss server (for example *JBoss\_ServerName*).
  - 2 Verify you can browse to the deployment drive (for example *DeployDrive*):  
**\JBoss\_ServerName\DeployDrive**

If you are unable to browse to the network share, perform the Enable Network Admin Shares procedure.

## Enable Network Admin Shares

These steps are only required on Windows Server 2008 R2 SP1 if Network Admin Shares are been disabled.

- 1 Click **Start** and then click **Run**.
- 2 In the **Open** box, type **regedit** and click **OK**.
- 3 Locate, and then click the following registry subkey:

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters\AutoShareServer



The registry subkey **AutoShareServer** must be set as type **REG\_DWORD**. When this value is set to **0** (zero), Windows does not automatically create administrative shares. Be aware that this does not apply to the **IPC\$** share or shares that you create manually.

- 4 On the **Edit** menu, click **Modify**.
- 5 Enter **1** for **Value data** and click **OK**.
- 6 Exit Registry Editor.
- 7 Stop and then start **Server** service:
  - a Click **Start**, and then **Run**.
  - b In the **Open** box, type **cmd** and click **OK**.
  - c At the command prompt, type the following lines. Press Enter after each line:  
**net stop server**  
**net start server**
  - d Type **exit** to close the Command Prompt window.

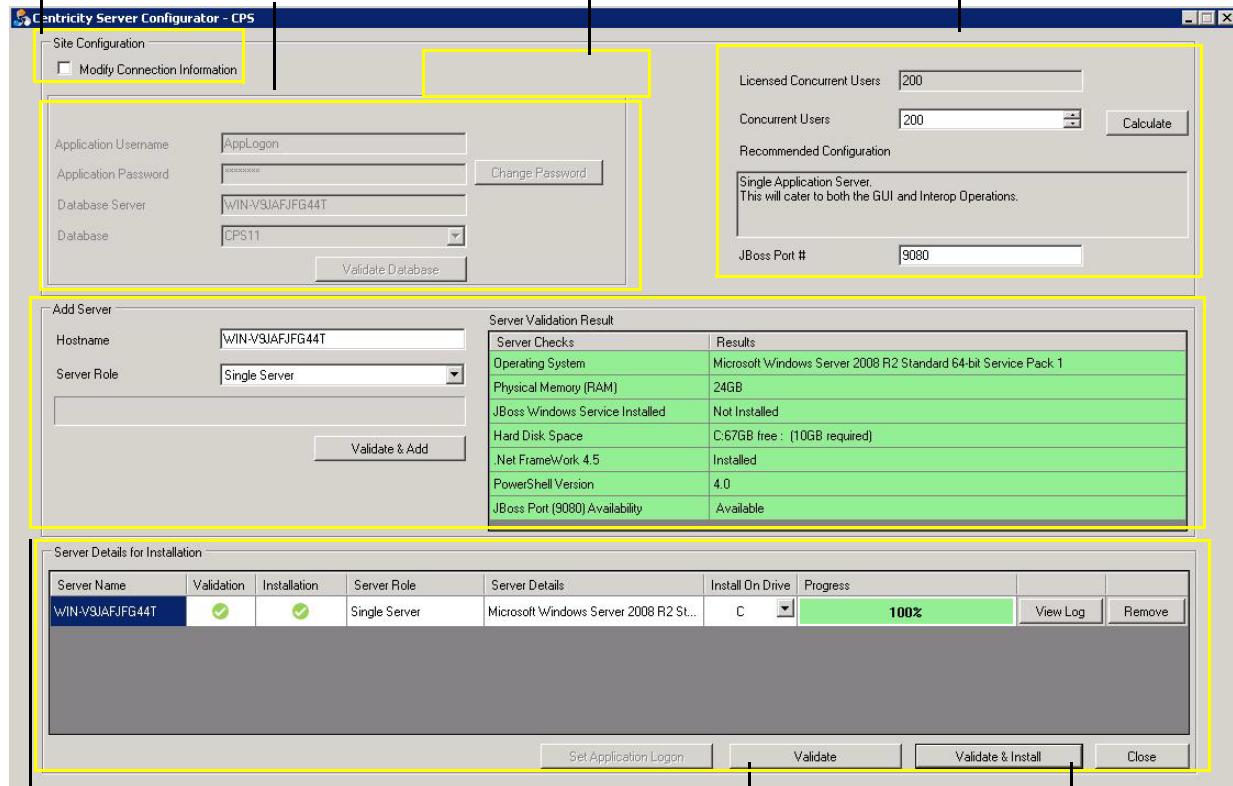
## Basic workflow for Server Configurator

Here is the basic workflow for the Server Configurator.

1. Select Modify Connection Information      2. Check if you are deploying multiple web sites. Select range from list.

3. Enter site information and Validate Database.

4. Calculate server configuration based on Concurrent Users.



5. Validate & Add servers and roles. When successful, server is added to Server Details.

6. Validate entire configuration.

7. Ensure all users are logged off and start final Validate & Install.

### Change password

The change password functionality has moved into the new Server Configurator tool. The button appears in the middle of the dialog.

The password is set during installation. It is not necessary to change the password as part of an upgrade. This procedure is only needed if you want to change the existing password.

Click **Change Password** and enter the following information:

- **Database Server** - enter the server name or SQL instance.
- **Sys Admin User** - enter the user to log into the database.
- **Sys Admin Password** - enter the password to log into the database.
- **Database** - select from the list of available databases.
- **Application User** - enter the application user name for the Service Layer.

- **New Application Password** - enter the application password for the Service Layer.
- **Confirm Application Password** - reenter the application password for the Service Layer.



### *Centricity Immunization Migration Wizard v1.51 available*

This release includes the latest version of the Immunization Migration Wizard released earlier this year. The updated tool is located here:

`<install path_staging_directory>DMImmunization\DMImmunization.exe.`

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 **Important.** DO NOT run this tool without first reviewing the release notes and associated user guide *Migrating and Managing Immunization Data*.

Download release notes and guide at

<https://engage.gehealthcare.com/community/en/cps/downloads>

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### **GE recommends re-running migration with the latest tool version**

If you migrated data using an earlier version of the tool, GE recommends you re-run the migration to find and include partially recorded immunizations that were missed, clean up duplicates and Undetermined vaccines, and increase the accuracy of your records. Migrating again does not overwrite any previously migrated data or create duplicates. See *Migrating and Managing Immunization Data* for details.

For information about how GE can help with your immunization migration process, contact [inside.sales@med.ge.com](mailto:inside.sales@med.ge.com).

### **Important Product Notifications**

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 Administrators and Risk Managers should review these Important Product Notifications for details concerning resolved critical product functionality issues.

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The following issues were resolved in this release:

## Multiple users in a chart note at the same time results in data loss

When two users are entering data into the same chart note, as the lock is transferred from one user to the other user, the data in the note does not refresh. For example, if one user puts the document on hold and the other user signs the document and saves their changes, the other user's changes are lost.

**Resolution:** When the lock is cleared the chart note for the active user is refreshed with the data entered by the previous user. SPR 63336

## Fixed issues

The following issues have been addressed in this release:

- Performance and stability enhancements. SPR 61049, SPR 61385, SPR 61797, SPR 61923, SPR 63166, SPR 63333, SPR 63349, SPR 63374, SPR 63412, SPR 63434, SPR 63438, SPR 63441, SPR 63466, SPR 63470, SPR 63474, SPR 63572, SPR 63655, SPR 63816, SPR 63696
- Addresses various login issues. SPR 60959, SPR 60996, SPR 61011, SPR 61026, SPR 61027, SPR 61028, SPR 61044
- Stability improvements during CCDA generation. SPR 56521
- Addresses an issue where the application would crash if the user tabbed out of the Prescribing Method field in the Refill Medication window. SPR 56999
- Addresses an issue where clicking to go to another form component from the CCC Basic encounter type opened a different component. SPR 58736
- Entering historical medications where the pharmacy's prescribing method is electronic and the user does not change the prescribing method to Historical no longer prompts the user that a quantity is needed. SPR 59543
- Addresses an issue where users received a message about incomplete orders on every visit that had a test order that is not in a status of "Complete". SPR 61402
- Updates to the Immunization Management HTML form to associate an allergy with an immunization adverse reaction. Users can now add, update, or remove an allergy (including criticality) to an immunization. The text translation has also been enhanced to translate criticality from an associated allergy and displays it in the chart note:
  - New data symbols:
    - MEL\_ADD\_ALLERGY\_GET\_GROUPID – Adds a new allergy or adverse reaction to the patient's allergy list and returns the reference (allergyGroupId) for an added allergy.
    - MEL\_GET\_ACTIVE\_ALLERGY – Returns the latest active allergy detail associated with a given allergyGroupId for a patient.
    - MEL\_GET\_SDID() – Returns the current active document's SDID.
  - Updated data symbols:
    - IMMUN\_ADD, IMMUN\_UPDATE, IMMUN\_GETLIST – AllergyGroupId added to values returned for an immunization
- SPR 61975
- Addresses an issue where the client crashed when putting an update on hold with a required field not filled in. SPR 62092
- Addresses an issue where entering two medications on the Medication Administration HTML form resulted in only the first text translation. SPR 62516

- Addresses an issue where bulk retrieving charges procedure codes were randomly duplicated multiple times for each charge on the visit. SPR 62595
- Addresses an issue where the scrollbar suddenly jumps to the top of the window during a refresh. SPR 62933
- Diagnosis codes are now saved correctly to the visit. SPR 62977
- Addresses various issues with formatting options in updates and letters not working correctly. SPR 57724, SPR 63069, SPR 63087
- Addresses an issue where the application crashed if the user clicked the close window (X) button multiple times. SPR 63164
- Addresses an issue where the application froze when adding problems from the orders window. SPR 63169
- Addresses an issue where CCDA generation caused an error in the Allergy section. SPR 63179
- Addresses an issue where, if LinkLogic is configured to create an on-hold document when appointments arrive, if an arrived appointment is then modified, a second on-hold document is created through DTS. SPR 63239
- Addresses an issue where the Transition of Care box was not staying checked if there were on hold documents. SPR 63262
- Corrects the data symbol ADD\_ATTACHMENT() to restore the ability to specify a UNC moniker path for an image attachment starting with \\. Now a moniker can either be a relative path name or a UNC (absolute) path name, beginning with \\ or a URL, or something like "E://...". Backslash in the path names followed by special characters such as \t, \n, \r are also supported and properly interpreted. For example, "C:\radiology\tumor images\normal\_mam.bmp". See data symbols help for ADD\_ATTACHMENT() for details and examples. SPR 63281
- Addresses an issue where the message "Error Occurred in Class, Method Window:: event - WMMsg = 273" appeared and the application crashed when users opened various CCC Basic and Orthopedic forms. SPR 63372
- Only adjudicated procedures are considered to be included in the residual column once an ERA payment has been posted. SPR 63383



**Important.** This changes goes into effect when the July 2015 Centricity, Availability, and RelayHealth plug-ins are released and implemented.

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- Adds diagnostic code to analyze the occurrence of "CurrentDomainOnUnhandledException" errors. SPR 63387
- Addresses certain situations that would cause the error "Error occurred in class , method CMLRouteDocumentDlg::OnSign". SPR 63391
- Addresses an issue where clicking the New Document button caused the application to crash. SPR 63419
- Addresses an issue where, if a user uses the refill button and the NDC Number has changed due to a Knowledgebase update, the new prescription failed due to an NDC number mismatch. SPR 63515
- Addresses an issue where users were asked to override interactions that were already overwritten. SPR 63520
- The document type is now included in the CCDA. SPR 63524
- Addresses an issue where one DTS appeared to be processing another DTS' messages when there were multiple DTS instances. SPR 63530

- The prescription report for New Jersey now prints one medication per page. An additional report (prescnj\_4up.rpt) is available if the requirement changes to allow multiple medications on a page. To use this report, rename the original prescnj.rpt file to any other name (for example, prescnj\_1up.rpt) and rename prescnj\_4up.rpt to prescnj.rpt. SPR 63560
- Addresses an issue where a patient's date of birth falls in the current year, on initial load of CQR Subscription, the CCDA is not generated for that patient. SPR 63598
- Addresses an issue where Functional Measure subscriptions were timing out while creating CCDAs, resulting in inaccurate CQR reports. SPR 63602
- Addresses an issue where DDIDs rolled over and were out of order, causing the application to crash. SPR 63629
- Addresses an issue where refilling a prescription from the chart caused the error "Refill is either 0 or the prescribing method is fax or electronic". SPR 63211/SPR 63670
- Addresses an issue where forms were not opening correctly when double-clicked in the navigation pane. SPR 63779
- Addresses an issue where the application crashed when appending a document with an embedded image. SPR 63884
- Addresses an issue where client crashed when a user closed a form and then logged out and logged in again as same user. SPR 63895
- Corrected issue on the Inquiries windows, where tabbing from the Find section caused client to crash. SPR 59262, SPR 56999
- CCDA now sends authorized by provider instead of signing provider for encounters and procedures so the patient is included for Clinical Quality Measures reporting. This corrects a problem where patient was not included in the CQM results even though a SNOMED code was appended to a qualifying office visit during the reporting period. SPR 63326
- Addresses an issue where an encounter form is hidden behind the chart module when a user logs out of the client during a chart update, and then logs back in as different user with "return to Chart". SPR 63904
- Title bar for Confidential Encounter type now displays all relevant information instead of being blank. SPR 58142
- Addresses application error that occurs when attempting to approve a visit from the Visit window. SPR 63924
- Fixes an issue where the application crashes while a prescription printing is in progress, when the user selects a different form from the form list pane. SPR 63851

Issues addressed for GA release:

- Quick and full problem search results that are an exact match for text entered now appear at the top of the list of returned results. SPR 63967
- Corrected some keywords data content for problem search with incorrect associations. SPR 63808
- CPOE for Lab & Rad now calculating correctly in CQR if non-licensed staff enters the first in a series of orders for the patient. SPR 63686
- In the Advanced Specificity Problem Search if a user selects a valid but less specific code with multiple refinement options, the search now returns the parent code. Previously, it returned the more specific first code from the refinement list,

- which could result in an incorrect problem being added to the patient's chart. SPR 63999
- Advanced Specificity Problem Search attribute filtering now functioning properly and returning all appropriate codes. Previously, clinical concepts that require a circumstance code in addition to a primary diagnosis could not be refined to select the circumstance code. SPR 64002
- Addresses performance and stability issues occurring at sites running more than 3 website/JBoss deployments. Now on Server Configurator you can choose configuration settings options for 2-4 or 5-8 web site deployments. See "[ICD-10 planning and preparation resources on the Service Portal](#)" on page 9. SPR 63974
- Now when opening Chart from Schedule for the very first time, the Chart module is in front of the schedule and not minimized. SPR 63969
- Now when adding a form in a Full Append Update, the form is no longer occasionally hidden behind the chart window. SPR 63918
- The width of the desktop summary column now remains after it is adjusted. SPR 53561/SPR 58368
- Fixes an issue where documents co-signed after the nightly JSON extract were not associated with the EP unless they were appended. SPR 63961

CCC Basic v1.2 includes the following fixes:

- You can now preload PCV7 in Immunization Administration. Vaccine Pneumococcal PCV13 is renamed to PneumoPCV in the Imm\_vaccinegroupname table. **SPR 64039**
- The CPOE A&P-CCC Form now pulls in medications for all diagnosis codes. SPR 61951
- The Entry Form editor now opens the correct library file when "Open text file to edit" is clicked. SPR 63034
- Deleting a series in the middle of an immunization custom list no longer causes an error while loading the Immunization Management form. SPR 63444
- Fixed an issue where adding a problem in the CPOE A&P form resulted in an error during order generation. SPR 63315
- Fixed an issue in the Immunization Management form where, if the Amount Given field contained both a numeric value and a unit dose, the vaccination record would not save. SPR 62141
- The Problem- CCC form now correctly returns the mapped Problem Custom List. SPR 62202
- Fixed label in the Risk Factors-CCC form to read "Felt guilty about drinking:". SPR 62400
- ICD-10 codes now show in the CPOE A&P-CCC form in the Order Information message. SPR 62750
- The Entry-CCC form no longer adds MEL in the chart update. SPR 62866
- In the Urgent Care Management form, the drop-down values can now be cleared under the Reasons Not Performed tab. Data no longer shows in the chart note after the values are irrelevant. SPR 62751
- The Add/Update dialog now allows users to edit the details if there was a validation error in the data entered. SPR 62845
- NDC and CVX are now added to the immunization translation to chart note. SPR 63544

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- Lot management fields are now cleared after deleting the lots. SPR 62836
- The correct Test Management form and editor are now included in the package. SPR 64033

## Known issues

### *Unable to use ICD-10 problem custom lists immediately after importing clinical kit*

After importing a custom Problem list that includes both ICD-9 and ICD-10 codes, the list name can be seen but is not accessible in Problem Quick Search because it takes time for re-indexing search-related resources in the database. Wait at least 15-20 minutes after import before attempting to search in the custom list. Otherwise the system may crash, you'll have to remove the list, and in some cases a JBoss restart is required. SPR 62949

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 Re-indexing also happens after upgrade to this service pack. Wait at least 15-20 minutes after upgrade before testing problem search features.

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### *Scrolling in Administration | Orders > Service Providers list limited to top 25 providers retrieved*

In Administration, under Codes > Charts > Service Providers, for performance reasons, only the top 25 providers from retrieved results are now viewable in the list.

**Workaround:** Search for the service provider name you need. SPR 63880.

### *No onset date in Preload Problem Form results in wrong onset date in Edit Problem dialog*

When adding problems using the Preload Problem form, if you do not enter an onset date for a selected problem, the date displays as <blank> in the Problem list after saving. If you edit the problem, the default onset date is "1/1/1960" instead of the current (today's) date. This is caused by a problem with MEL\_ADD\_PROBLEM symbol that will be corrected in the GA release of this service pack.

**Workaround:** If you forget to enter an onset date, when you edit the problem correct the default date. SPR 59615

### *Intermittent errors when upgrading on Windows Server 2012*

Occasionally, users on Windows Server 2012 may see the error : "Windows server 2008 R2 is required and SQL server instance is NOT hosted on Windows server 2008 R2. You must select a different SQL server instance." There is no known workaround. SPR 60257

### *Medication Allergy calculations look at all Allergies not just medication allergies*

Currently the application looks at both non allergy and NKA OBS. It should only count Medication Allergy and NKDA or NKA observations for the numerator.

As a result, when a patient has a food or environmental allergy and a signed NKA observation with a value of F, they will also need the NKDA observation with a value of T to get proper credit for the medication allergy measure. SPR 61253

### ***Unable to discard a document after adding an MU Activity Log record with the ADD\_MUACTIVITY\_LOG data symbol***

When the ADD\_MUACTIVITY\_LOG data symbol is used to add an MU Activity Log to a document, the document cannot be discarded.

**Workaround:** Sign the document and File in error. SPR 59418/SPR 60898

## **Before you install this release...**

Before installing this release, please review the following checklist of system requirements, important pre-installation considerations, and steps to watch out for during the install to ensure a successful upgrade.

### ***Supported upgrade paths***

You can upgrade to this version from the following versions:

- Centricity Practice Solution v7.1.2, v8.10, v9.x, v10.1.x, v11.x and v12.0.x.

### ***Compatible client versions***

- **Terminal services/Citrix server:** Centricity Practice Solution v12.0.10 and Centricity EMR 9.8 client applications can be installed on the same server.
- **Standalone client workstation:** Centricity Practice Solution v12.0.10 and Centricity EMR 9.8 clients can be installed on the same workstation.

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**!!!** Install the Centricity EMR 9.8 client FIRST, then install the Centricity Practice Solution 12 (PM-only) client.

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### ***Supported platforms/software***

See *Configuring Environments for Centricity Practice Solution* for recommended software and hardware configurations to support Centricity Practice Solution v12.0.10 in a variety of computing environments.

Summary requirements include:

- **Database and general server operating system:** Microsoft® Windows Server 2012 SP1 Enterprise or Standard or Windows Server 2008 R2 64-bit SP1
- **Application Server (JBoss):** JBoss v5.1 with 64-bit JVM
- **Data Exchange Server:** Microsoft Windows Server 2012 64-bit or Microsoft Windows Server 2008 R2 64-bit and supported Windows Client platforms for MIK, Data Transfer Station, and Qvera Interface Engine (QIE).
- **Hyper-V:** Microsoft Hyper-V Server 2012 or Microsoft Hyper-V Server 2008 R2 or Windows Server 2008 R2 64-bit
- **VMware:** VMWare ESX 5.1, VMWare VMKernel (Linux)
- **Browser and Mobile Access:** Internet Explorer 9 or 10
- **Browser and Mobile Access device operating system:** iPhone iOS 6.x

- **Client operating systems:** Microsoft Windows 8 Professional (32-bit or 64-bit) or Microsoft Windows 7 Professional (32-bit and 64-bit SP1)

 Microsoft Windows XP and Vista are no longer supported for the client. Internet Explorer v9 requires Microsoft Windows v7 or later.

- **Enterprise applications:** Microsoft Office 2010 or 2013

 Centricity Analytics is not supported with Office 2013 or SQL 2012.

- **Citrix® XenApp™ server:** XenApp 6.5 64-bit
- **Citrix XenApp client:** Online Client 12.1.44
- **Microsoft® Windows Remote Desktop Services (OS):** Windows Server 2012 with RDP 8.0 or Windows 2008 Server R2 with RDP 7.1 or higher
- **Web browser:** Internet Explorer (IE) 9 or 10

### **Back up customized clinical content**

Before upgrading or installing Centricity Practice Solution v12.0.10, verify that any clinical content you have customized (text files used by CCC and customized rpt files, located in the crwprt folder on the client) have been exported and backed up. Factory forms and reports and other clinical content will be overwritten. You can redeploy custom content to workstations after the update.

### **Confirm system hardware and software requirements**

Review all hardware and software requirements for your system and confirm that your system meets minimum requirements.

See the *System Planning and Requirements for Centricity Practice Solution* guide (Part 1: Software and Hardware Requirements) available on the GE Services Support site, [www.gehealthcare.com/serviceportal/centricity\\_practice\\_solution](http://www.gehealthcare.com/serviceportal/centricity_practice_solution).

### **Configure SQL Server to run the client on the server**

If you are running the client on the database server, you must also select (local) named pipes and TCP/IP protocol for remote connection when setting up SQL Server, otherwise you may see a named pipes error when you launch the application.

### **Read the instructions in this release note document**

Even if you have applied previous Centricity Practice Solution releases, you should read and follow the step-by-step instructions in this document to ensure all critical installation steps are addressed.

## **Install the release**

Centricity Practice Solution v12.0.10 is being released in different versions. Follow the appropriate instructions for installing the application:

- [Install the full build](#) - If you are upgrading from a supported older version of CPS.
- [Install the service pack build](#) - If you are upgrading from CPS 12.x.

## Install the full build

Detailed instructions for upgrading to Centricity Practice Solution v12.0.10 from supported earlier versions are provided in *Upgrading to Centricity Practice Solution* in your documentation library.

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 Download the complete documentation from [engage.gehealthcare.com/community/en/cps/documentation](http://engage.gehealthcare.com/community/en/cps/documentation).

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 After installing the CPS v12.0.10 update, be sure to apply the latest ICD and CPT codes package. SPR 60480

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### *Upgrade instructions for FilesAnywhere downloads*

For releases available via FilesAnywhere, the download and installation instructions are slightly different than usual:

- 1 Download the zip file and save it to your server's desktop.
- 2 Right-click on the zip file and make sure it is not blocked. Click **Unblock** if necessary.
- 3 Extract the zipped contents to the root of your staging directory (such as C:\CentricityStage) on the server.  
**Important.** Never extract files across the network.
- 4 Run **serversetup.exe** and jump to "Install the service pack on a server" within the Upgrade Guide for step-by-step directions to complete the installation

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 If an upgrade from a version of CPS older than v12.x fails, upgrade to CPS v12.0 and then apply the latest service pack.

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## Install the service pack build

### *Back up the Centricity Practice Solution database*

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 As a precaution, **always** back up the Centricity Practice Solution database before you download and apply a release.

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- 1 From the Windows **Start** menu, select **Programs | Microsoft SQL Server 2008 | SQL Server Management Studio**. Click **Connect**.

The Object Explorer window opens.

- 2 Expand **SQL Server Agent**.



To expand **SQL Server Agent**, click the plus sign (+) next to it.

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- 3 Under **SQL Server Agent**, click **Jobs**.

A list of jobs displays in the right pane.

- 4 Right-click on the backup job for your Centricity Practice Solution database.

Example: Backup Database - CPS.

- 5 Select **Start Job at Step**.

The Start Job window opens.

- 6 Click **Start**.

You will receive confirmation of success or failure of the backup within this window.

- 7 Click **Close**.

- 8 Exit **SQL Server Management Studio**.

## Download the release

- 1 Close the Centricity Practice Solution client on all computers.

- 2 On the server where Server Setup application is located, log in to Microsoft® Windows as the Administrator.

- 3 Launch **Server Setup**.

- 4 Select **Download Available Updates** and then click **Next**.

The Web site installation window displays the Centricity Practice Solution Web sites you have installed.

- 5 Select the Web site you want to update, then click **Next**.

The Download Available Updates window displays links to updates available for the selected web site.

- 6 Do one of the following:

- To begin downloading the release, click the service pack link.
- To return to the previous window, click **Back**.

The Downloading Update window displays the product version number, download location, total file size, and download progress.

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The time to download varies depending on available network bandwidth. Slow progress does not mean that the program is not downloading. The installer window will reappear once the download is complete.

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- 7 Do one of the following:

- When the download is successful, the Downloading Update window displays "Completed" as the status. Go to step 9.
- If the download was unsuccessful, the Downloading Update window displays "Download Failed. Operation Aborted" as the status. Go to step 12.

- 8 When the download is successful, click **OK** and then click **Exit**, then **Finish**.

Server Setup closes and re-opens.

- 9 Click **Exit** to close Server Setup.

Server Setup closes and you can restart it when you are ready to apply the update.

- 10 Proceed to the next section.
- 11 If the download was unsuccessful, click **OK**, and then click **Cancel** to close the Downloading Update window. Do one of the following:
  - Click **Back** to return to the previous Server Setup window.
  - Click **Exit** to stop the download process.

---

 If multiple attempts to download fail, contact Centricity Practice Services at 888.436.8491 option 1 or your Value Added Reseller (VAR).

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## Before installing the release on a server

Before applying the release, perform the following steps:

### *Stop the MIK service*

If you are running Millbrook Integration Kit (MIK), complete these steps before you install the release on your server(s):

- 1 Start **Server Setup**.
- 2 Select **Advanced Options**, then click **Next**.
- 3 Select **Millbrook Integration Kit Configuration**, then click **Next**.
- 4 Select the server where MIK is installed.
- 5 Click **Stop**.

### *Back up MIK configurations*

If you are running Millbrook Integration Kit (MIK), complete these steps before you install on your server(s):

- 1 Click **Start** and choose **Run**.
- 2 Type **regedit** and press **Enter**.

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**!!!** Do not do this step on your own if you are unfamiliar with *regedit*. Get help from a qualified network/IT engineer.

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- 3 Export the following keys to the Desktop as backup:

HKEY\_LOCAL\_MACHINE\SOFTWARE\wow6432Node\AHC  
HKEY\_LOCAL\_MACHINE\SOFTWARE\wow6432Node\GE  
HKEY\_LOCAL\_MACHINE\SOFTWARE\wow6432Node\GE Healthcare

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 If you are installing MIK on a 32-bit system, the keys are located in the folder HKEY\_LOCAL\_MACHINE\SOFTWARE\

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- 4 Close regedit.

## Install the release on a server

- 1 On the server Desktop, double-click the **CPS 12 Launch** icon.
- 2 On the launcher Welcome screen, select **Install/Update Server**, and then click **Server Setup**.

Server Setup opens.
- 3 In Server Setup, select **Advanced Setup Options**, and then click **Next**.
- 4 Select **Upgrade**, and then click **Next**.

The System Configuration Completed window appears.
- 5 Click **Next**.

The Setup Directory Path and Log File Path window opens.
- 6 Click **Next**.

The Server Logon window opens.
- 7 Enter your SQL Server administrative user name and password if necessary and click **Next**.

Make sure the current server version is correct and the version to upgrade is correct.
- 8 Click **Next**.

Please wait for while Setup checks for data integrity.  
Once complete, the window displays, "Data validation completed successfully."
- 9 Click **Next**.

The End User License Agreement window displays.
- 10 Accept the license agreement and click **Next**.

The License Code window displays.
- 11 Click **Next** on the License Code window.

If you've licensed Crystal Reports Designer, the Crystal Reports window displays.
- 12 Click **OK**.

If a database message window displays about users not found locally, please read the message and click **OK**.
- 13 Click **Next** to begin the installation.

A window displays update progress. If a window displays this message, "You must apply latest ICD/CPT codes package before using the CPS Application.", click **OK**.  
When the update is complete, the **Return** and **Exit** buttons display along with the message, "**Your database upgrade has been completed. Press Return to return to the main menu.**"
- 14 Click **Return**.

The Choose Setup Option to Perform window displays.
- 15 Select the **Server Configurator** radio button to apply updates, install JBoss, Service Layer, and website. Refer to the Server Configurator help for complete details. Here are the basic steps:

- a   **Modify Connection Information** must be selected to enable the controls.
- b   Enter your site information.
- c   Click **Validate Database**. If validation is successful, the number of Licensed Concurrent Users is displayed. If not successful, fix the displayed errors before continuing.
- d   Enter the number of Concurrent Users for your site. You can enter up to 9999 users to calculate recommended configurations and hardware requirements. Click **Calculate**. This step can be repeated.
- e   Change the JBoss Port # if needed.
- f   Once you know your configuration, click **Add Server** to add one or more servers. Specify the **hostname** (do not use localhost), and select the **server role**. Refer to the help for more information.
- g   Click **Validate & Add**. Correct any errors. When successful, the server is added to the grid.
- h   When all servers are present and validated in the grid, click **Validate** to check the entire configuration. Correct any errors and **Validate** again until all servers show successful validation status.
- i   Ensure all users are logged off for the duration of the installation.
- j   Click **Validate & Install**.
- k   When complete, restore the JBoss.txt file from:  
*JBoss installation Drive:\GEDDeployment\Backup\Date-Time\JBoss*

16   Setup security by going to **Advanced Setup > Utilities > Security**. Click **Next** on the Security window. If you are using AD security model, you must validate the security.

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**!!!** After installing the CPS v12.0.10 update, be sure to apply the latest ICD and CPT codes package. SPR 60480

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## Install MIK

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**!!!** Only perform this procedure if you have the Millbrook Integration Kit (MIK).  
**DO NOT** **uninstall MIK**.

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- 1   On the server where MIK is currently installed, navigate to the location of the MIK installer (default is **C:\CPS\_12\_Staging\CPS\_12\_MIK**) and double-click **setup.exe**.  
The following message appears:  
*This setup will perform an upgrade of CPS\_12\_MIK. Do you want to continue?*
- 2   Click **Yes**.  
InstallShield will open and step you through the upgrade. Select all the defaults until you see **InstallShield Wizard Complete**.
- 3   Click **Finish**.
- 4   Locate the AHC and GE Registry files you backed up earlier. Double-click the files to import to the Registry.

## Install the release on workstations

If you licensed the **PM** module only, skip to “[Install the release on workstations](#)” on [page 31](#).

If you licensed the **Chart** module and are using **LinkLogic**, update client workstations in the following order:

- 1 [“Update Data Transfer Station” on page 29](#).
- 2 [“Update LinkLogic on the server” on page 30](#).
- 3 Update all other client workstations. See “[Install the release on workstations](#)” on [page 31](#).

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**!!!** DO NOT update any client workstations until you have updated the Data Transfer Station (DTS) and updated LinkLogic.

**Before beginning, back up your directories.** If you have customized files in the LinkLogic Config\Standard directory, contact Centricity Practice Services at 888.436.8491 option 1 or your Value Added Reseller (VAR), before completing this section.

---

## Update Data Transfer Station

When you apply this release on a workstation, the files in the Client directory are overwritten, including the **emr.ini** file that contains your DTS configuration.

**!!!** Before you update the client on the DTS, you must back up the **emr.ini** file to preserve the current DTS configuration so you can continue processing data transfers for lab results, transcriptions, and other documents without interruption.

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### *Install the release on a DTS workstation*

- 1 Stop the Data Transfer Station.
- 2 Navigate to the **Centricity Practice Solution/Client directory** and copy the **emr.ini** file to your Desktop.
- 3 Start Centricity Practice Solution on the workstation.
- 4 The Product Installer page displays.
- 5 Verify that your URL points to the correctly updated Web page.
- 6 Click the Update link (in red) for **CPS\_12\_Client**.
- 7 The Installer will detect that an older version of the client application exists and ask you to uninstall it.
- 8 Click **Here** to uninstall.

The removal process uninstalls the application.

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 When you uninstall the client application, you do not see a progress indicator for the uninstall. This does not mean that the program is not responding or terminated, however. DO NOT attempt to end this process.

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9 When the uninstall process is complete, click **Here** to continue to the Client Setup page.

10 Click **Install** to download the installer.

The installer window opens.

---

 The time to download varies depending on available network bandwidth. Slow progress does not mean that the program is not downloading. The installer window will reopen when the download is complete.

---

11 Select the **Install Data Transfer Station** option, and then click **Next**.

12 Click **Next** on all subsequent screens to accept default settings.

13 When the installation is complete, click **Here** to return to the Product Update page and close the window to exit.

14 When the client update on the DTS workstation is complete, copy the **emr.ini** file from the Desktop back to the client directory, overwriting the newly installed file.

15 Update **LinkLogic** (next section) before restarting the workstation.

## Update LinkLogic on the server

If you are using LinkLogic and Data Transfer Station (DTS) to exchange patient demographic and clinical data with external systems such as labs and transcription services, take the following steps on the machine where DTS is running. This will ensure that the update is properly applied to the LinkLogic configuration.

- 1 Exit Data Transfer Station and confirm that it is not running on the workstation.
- 2 Navigate to the LinkLogic **standard** folder (usually **C:\Program Files\Centricity Practice Solution 12\Client\llogic\config\**).
- 3 Right-click on the **standard** directory, and then click **Copy**.
- 4 Navigate to the remote LinkLogic **config** directory on your database/Web server (such as **\\\llogic\<database\_name>\llogic\config**).
- 5 Right-click in the **config** directory, and then click **Paste**.
- 6 When asked if you want to replace the standard folder, click **Yes to All**.
- 7 On the DTS, navigate to the LinkLogic **upgrade** folder (usually **C:\Program Files\Centricity Practice Solution 12\Client\llogic\config\**).
- 8 Right-click on the **upgrade** directory, and then click **Copy**.
- 9 Navigate to the remote LinkLogic **config** directory on your database/Web server (such as **\\\llogic\config**).
- 10 Right-click on the **config** directory, and then click **Paste**.

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- 11 When asked if you want to replace the **upgrade** folder, click **Yes to All**.
- 12 Restart Data Transfer Station.

## Install the release on workstations

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 When upgrading a client on the database/Web server, you may be required to reboot the machine during the upgrade process.

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- 1 Start Centricity Practice Solution on a workstation.  
The Product Installer page displays.

 If you are installing on a Windows 7 or Windows 8 workstation, you must run the Internet Explorer application as an administrator.

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- a Click **Start > All Programs**. The Programs menu displays.
  - b Right-click the Internet Explorer shortcut and click **Run as Administrator**.
  - c Type your user name and password in the User Account Control dialog and click **Submit**. The Internet Explorer application opens.  
If you are an administrator, click **Allow** on the User Account Control dialog.
- 2 Verify that your URL points to the correctly updated Web page.
- 3 Click the Update link (in red) for **CPS\_12\_Client**.  
The Installer will detect that an older version of the client application exists and ask you to uninstall it.
- 4 Click **Here** to uninstall.  
The removal process uninstalls the application.

 When you uninstall the client application, you do not see a progress indicator for the uninstall. This does not mean that the program is not responding or terminated, however. DO NOT attempt to end this process.

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- 5 When the uninstall process is complete, click **Here** to continue to the Client Setup page.
- 6 Click **Install** to download the installer.  
The installer window opens.

 The time to download varies depending on available network bandwidth. Slow progress does not mean that the program is not downloading. The installer window will reopen when the download is complete.

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- 7 On the installer Welcome screen, click **Next**, and then click **Next** on all subsequent screens to accept default settings.

- 8 When the installation is complete, click **Here** to return to the Product Update page and close the window to exit.

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**!!!** If you have not done so already, after updating the client, clear the Internet Explorer browser cache. This prevents old information from a previous version displaying on the main product window. when users launch the client for the first time.

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- 9 Restart Centricity Practice Solution on the workstation.

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 If installing on Citrix, reboot the Citrix server after installation is complete.

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## Install latest Knowledgebase

After upgrading to Centricity Practice Solution v12.0.x, download and install the latest Full Knowledgebase update and any incremental update. The latest ICD and CPT codes should also be downloaded and installed, if you have not already done so.

## Install CCC content

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 We recommend installing the content on a test server to test and customize set-up before final deployment.

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CPS v12.0.10 includes updated CCC Basic encounter forms. How you install them depends on your existing installation:

- [Update existing content](#) — If CCC Basic from an earlier version of CPS 12.0.x was previously installed.
- [New installation](#) — If CCC Basic has not previously been installed.
- [Install CCC Basic over CCC 9.0 or later](#) — If CCC 9.0 has been installed, but you want to use CCC Basic.

### Before you begin

- Backup your clinical content files. If you are updating an existing system, make sure you have a verified backup of your clinical content files before installing this release.
- Sign all chart updates before installation. If you do not sign all of your chart updates, you may encounter the error "This document contains expression language compiler errors. Do you wish to continue signing?" when trying to open the unsigned document after installation. To fix this error you can right-click the form and select "Get latest version of form".
- The HTML contents are compatible only with IE9 or above.
- Open Internet Explorer and go to **Tools > Internet Options**. In the **General** tab, under browser history, click **Setting** and select "**Every time I visit the webpage**".
- CCC Basic v1.2 must be installed prior to installing any additional content, such as the CCC, CCC Cardiology, or CCC Orthopedic packages.

## Update existing content



CCC Basic v1.2 is only compatible with CPS 12.0.X (or higher).

CCC Basic v1.2 is not compatible with CCC 8.3.8. CCC Basic v1.2 is compatible only with CCC Specialties v9.0 or later.

- 1 Unzip the **CCC Basic.zip** delivered with the release into the root level of your hard drive (for example C:\) into the staging folder where the server has been installed.
- 2 Open the directory on your server where the application is installed.
- 3 Make a backup of the **CCC** and **CLINICFOLDERNAME** folders located within the Client folder and make copies of any files that have been customized.
- 4 Copy the contents of **Step 1 - Copy to the Client Folder** from the package into the Client folder. When prompted, click **yes** to overwrite existing files.
- 5 Copy the contents of the **Step 3 - Copy to the HTML Folder** from the package into the jboss server folder (usually C:\Program Files\<Centricity Practice Solution>\jboss\server\default\deploy\<Database Name>.ear\CentricityPracticeWS.war\EncounterForms\). When prompted, click **yes** to overwrite existing files.  
Where *<Centricity Practice Solution>* is the name of your application and *<Database Name>* is your database name.
- 6 Import the Clinical kit:
  - a Log in to the application using a User ID with Admin privileges.
  - b Navigate to **Administration > System > Import Clinical Kits** and click **Import Clinical Kit**.
  - c Navigate to the staging folder and locate folder **Step 2 - Import Content**, select **01-IMPORT\_ALL\_CONTENT.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**.
  - d After import is complete, click **Import Clinical Kit**.
  - e Navigate to the staging folder and locate folder **Step 4 - Import HTML Support Content**, select **IMPORT\_ALL\_HTML\_SUPPORT\_FORMS.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**. Navigate to the staging folder, open the folder **Step 4 - Import HTML Support Content**, then select **IMPORT\_ALL\_HTML\_SUPPORT\_FORMS.ckt** and click **Open**. When prompted to overwrite, click **Yes To All**.

## New installation

If CCC Basic has not been installed previously, do the following:

- 1 Unzip **CCC Basic.zip** delivered with the release into the root level of your hard drive (for example C:\) into the staging folder where the server has been installed.
- 2 Open the directory on your server where the application is installed.
- 3 Copy all of the content from **Step 1 - Copy to the Client Folder** and paste the entire content into the Client folder.
- 4 Copy the contents of the **Step 3 - Copy to the HTML Folder** from the package into the jboss server folder (usually C:\Program Files\<Centricity Practice Solution>\jboss\server\default\deploy\<Database Name>.ear\CentricityPracticeWS.war\EncounterForms\).

Where *<Centricity Practice Solution>* is the name of your application and *<Database Name>* is your database name.

- 5 Import the Clinical kit:
  - a Log in to the application using a User ID with Admin privileges.
  - b Navigate to **Administration > System > Import Clinical Kits** and click **Import Clinical Kit**.
  - c Navigate to the staging folder and locate folder **Step 2 - Import Content**, select **IMPORT\_ALL\_CONTENT.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**.
  - d After import is complete, click **Import Clinical Kit**.
  - e Navigate to the staging folder and locate folder **Step 4 - Import HTML Support Content**, select **IMPORT\_ALL\_HTML\_SUPPORT\_FORMS.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**.

### *Install CCC Basic over CCC 9.0 or later*

The CCC Basic content has been separated from CCC v9.1 or later packages. The updated CCC Basic content can be updated over CCC 9.0 or later, thus updating the CCC Basic content of the CCC package.

- 1 Unzip the **CCC Basic Form 9.x.zip** file into the root level of your hard drive (for example C:\). From the staging folder where the server has been installed.
- 2 Open the directory on your client where the application is installed.
- 3 Make a backup of the **CCC** and **CLINICFOLDERNAME** folders located within the Client folder and make copies of any files that have been customized.
- 4 From the folder **Step 1 - Copy to the Client Folder**, from the package into the Client folder. When prompted, click **yes** to overwrite existing files.
- 5 Copy the contents of the **Step 3 - Copy to the HTML Folder** from the package into the jboss server folder (usually C:\Program Files\<Centricity Practice Solution>\jboss\server\default\deploy\<Database Name>.ear\CentricityPracticeWS.war\EncounterForms\).

Where *<Centricity Practice Solution>* is the name of your application and *<Database Name>* is your database name.

- 6 Import the Clinical kit:
  - a Log in to the application using a User ID with Admin privileges.
  - b Navigate to **Administration > System > Import Clinical Kits** and click **Import Clinical Kit**.
  - c Navigate to the staging folder and locate folder **Step 2 - Import Content**, select **01-IMPORT\_ALL\_CONTENT.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**.
  - d After import is complete, click **Import Clinical Kit**.
  - e Navigate to the staging folder and locate folder **Step 4 - Import HTML Support Content**, select **IMPORT\_ALL\_HTML\_SUPPORT\_FORMS.ckt** and click **Open**. When prompted to overwrite, click **Yes to all**. Navigate to the staging folder, open the folder **Step 4 - Import HTML Support Content**, then select **IMPORT\_ALL\_HTML\_SUPPORT\_FORMS.ckt** and click **Open**. When prompted to overwrite, click **Yes To All**.

## Deploy content to workstations automatically

Files can be distributed to other computers on your network by using a file copying utility called **jobs.txt**, described in the following sections.

 If you are planning to use the migration tool, it is recommended that this deployment is done after you have analyzed the list of files that require an update and then run this process for the files that need to be deployed.

- 1 Copy **DOCUMENTATION\Jobs\_txt\CPS\jobstxt\_Full\_CPS.txt** to the **JBoss** folder on the **CPS** server and rename it **jobs.txt**. For example:  
C:\Program Files\Centricity Practice Solution\jboss\server\default\deploy\unp.war
- 2 Open the **jobs.txt** file and verify the numbers of each line are in ascending order and higher than the last line. Job numbers do not need to be consecutive. Save the file.
- 3 Create a **source** folder within the **worksta** folder, if it does not exist. For example:  
C:\Program Files\Centricity Practice Solution\jboss\server\default\deploy\unp.war\source
- 4 Copy everything under **DOCUMENTATION\Jobs\_txt\CPS\** and **Step 1 - Copy to the Client Folder** to the **source** folder.
- 5 In the Installation section of the **EMR.ini** file remove the **LastJobNumber** entry or set it to **0** or **-1**.
- 6 Launch the **CPS** application. There will be a brief delay as the content is copied to the workstation.

## Centralized CCC Installation

The CCC configuration files and other supporting files can be located in a centralized location. The file can be shared by multiple clients and loaded from this location. The user would be required to use the following two options to achieve this functionality.

### Shared Folder

To enable centralized loading of the CCC files through a shared folder perform the following steps.

- 1 Create a folder on the server to which a client machine is connected. Make sure you are sharing the folder so a client machine can access it.
- 2 Copy all the content from the “Step 1 - Copy to the Client Folder” in the CCC Basic package into the shared folder which was created on the server.
- 3 Copy the below files and folders from the “Step 1 - Copy to the Client Folder” in the CCC Basic package into the application client folder.
  - Bmps (Folder)
  - CCC-TFE (folder)
  - ccc.bat
  - Usrlib.txt
  - usrlibccc.txt
  - vitallib.txt

- 4 Open **usrlib.txt** in Notepad on the client machine. Search for the function "ccc\_net\_path()" and "ccc\_sys\_path()" in this file. Under these functions replace the "DIR\_EMR()" function as below.

Example:

If you have shared a folder named "Clinical" on the server with a machine name "cpsserver", then

```
// Network path
fn ccc_net_path() {"\\\\\\cpsserver\\\\Clinical"}
// Path for system files:
fn ccc_sys_path() {ccc_net_path() + "\\\\"CCC"}
```

The folders mentioned in step 3 should be copied to the "Clinical" folder.

- 5 Save the **usrlib.txt** text file.
- 6 Re-launch the application.

---

 GE Healthcare does not recommend placing the shared folder under the JBoss server folder.

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### Shared Network Drive

Centralized CCC file installation can also be achieved by using a mapped drive.

- 1 Create a folder which you want to share in any of the existing drives on the server. Make sure that you are sharing the folder so a client machine can access it.
- 2 Copy all the content from the "Step 1 - Copy to the Client Folder" in the CCC Basic package into the shared folder which was created in the server.
- 3 Login to your client machine, Copy the below mentioned files and folders present in the "Step 1 - Copy to the Client Folder" in the CCC Basic package into the application client folder.
  - Bmps (Folder)
  - CCC-TFE (Folder)
  - ccc.bat
  - Usrlib.txt
  - usrlibccc.txt
  - vitallib.txt
- 4 Open Windows Explorer and select "Map to drive".
- 5 Select the drive letter (Ex:- Z:) in the "map to Drive" window.
- 6 Select the folder which you had shared in the server machine under the 'folder' section using the browse option.
- 7 Click "Finish" in the "Map to drive" dialog. Make sure that you are seeing the new drive named "Z:" in the explorer window of the client machine.
- 8 Open **usrlib.txt** in a notepad which is placed in the client machine. Search for the function "ccc\_net\_path()" and "ccc\_sys\_path()" in this file.
- 9 Under these functions replace the "DIR\_EMR()" function as mentioned below.

Example:

If you have shared drive named "Z:", then

```
// Network path  
fn ccc_net_path() {"Z:"}  
// Path for system files:  
fn ccc_sys_path() {ccc_net_path() + "\\CCC"}
```

Here the folders mentioned in the step 3 should be copied in to the "Clinical" folder.

10 Save the **usrlib.txt** text file.

11 Re-launch the application.

---

 The above methods will enable sharing the CCC files from one location to different clients, but this will not support customization specific to a client machine. In case a user needs to have customized file specific for a client, they can use the conventional way of loading the CCC package from the client machine.

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## Use JBoss JMX Console

### *Disable or enable contraindications*

Users are seeing too many drug contraindication results, specifically drug-problem, drug-age and drug-gender contraindications. These displays make it more difficult to see truly critical health alerts and causes alert fatigue.

Functionality added in v12.0.4 lets users disable and enable drug-gender, drug-age, and drug-problem contraindication checks. Three flags let customers independently turn off and on drug-gender, drug-age, and drug-problem contraindication checking in the client on the JBoss JMX Console.

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 This is a global configuration change that allows you to turn off any combination of Drug – Problem, Drug – Gender, or Drug – Age contraindications for your site. It does not affect how users see Drug - Drug or Drug - Allergy contraindications.

---

 If the client application is open during flag changes, it must be restarted before the changes are reflected.

1 To access JMX console go to

[https://<your\\_server-name>:9443/jmx-console](https://<your_server-name>:9443/jmx-console)

where **your\_server-name** refers to your JBoss Application Server name.

- 2 Log in as user **admin** with password **cpAdm1n**. This is the default login. Use your own configured credentials if they are different.
- 3 Select the **com.gehcit.cp.<deploy-id>** link under **Object Name Filter** to display available JMX beans in the right pane.

4 Next, select the **DrugInteractionService** node (shown below).

The screenshot shows the JBoss JMX Agent View. On the left, there is an 'Object Name Filter' dropdown with the value 'com.gehcit.cp.Default'. On the right, a list of MBeans is displayed, with 'DrugInteractionService' highlighted by a red box. A red arrow points from the 'Object Name Filter' dropdown to the 'DrugInteractionService' MBean in the list.

You'll see three types of contraindication checking alert that can be excluded (shown below):

**DrugAgeCheckingEnabled**  
**DrugGenderCheckingEnabled**  
**DrugProblemCheckingEnabled**

5 Choose **False** for each type of contraindication checking alert you want to exclude, and then click on **Apply Changes**. (Default setting for all flags is True).

This change is immediate and does not require a JBoss restart. All flag changes are logged to `<DeployId>.CentricityPractice.log`.

The screenshot shows the JBoss JMX MBean View. On the left, there is an 'Object Name Filter' dropdown with the value 'com.gehcit.cp.Default'. On the right, the 'DrugInteractionService' MBean is selected, showing its details and attributes. The 'DrugAgeCheckingEnabled', 'DrugGenderCheckingEnabled', and 'DrugProblemCheckingEnabled' attributes are set to 'False' and are highlighted with red boxes. The 'Apply Changes' button is also highlighted with a red box.

## CPS v12.0.10 version information

Login to the client application and select Help > About to verify the build number.

- Client: 12.0.10.2061
- Server: 12.0.10.2061
- Service Layer: Build 2060
- BMAC: Build 1833

## Access updates and services

To download additional services, Knowledgebase updates, or factory observation terms, go to the Centricity Practice Solution Web site at <https://engage.gehealthcare.com/community/en/cps>. On the Web site, you'll also find release publications, Support contact information, and links to training. To contact Support by phone, contact Centricity Services at 888.436.8491 option 1, or your Value Added Reseller (VAR) Send email to [centricitypmservices@ge.com](mailto:centricitypmservices@ge.com).

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