

# RELEASE NOTES FOR CPRS GUI VERSION 21 PATCH# OR\*3.0\*149

## INSTALLATION REQUIREMENTS

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Before you can install OR\*3.0\*149, you must install the following patches:

- GMRC\*3.0\*29
- OR\*3.0\*126 (only for machines using JAWS)
- OR\*3.0\*141
- OR\*3.0\*158
- OR\*3.0\*163
- OR\*3.0\*165
- XU\*8.0\*267

Internet Explorer 4 or later is also required. Internet Explorer 5 is recommended, and the note template import/export functionality requires it.

## NEW FUNCTIONALITY

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### 508 Compliance

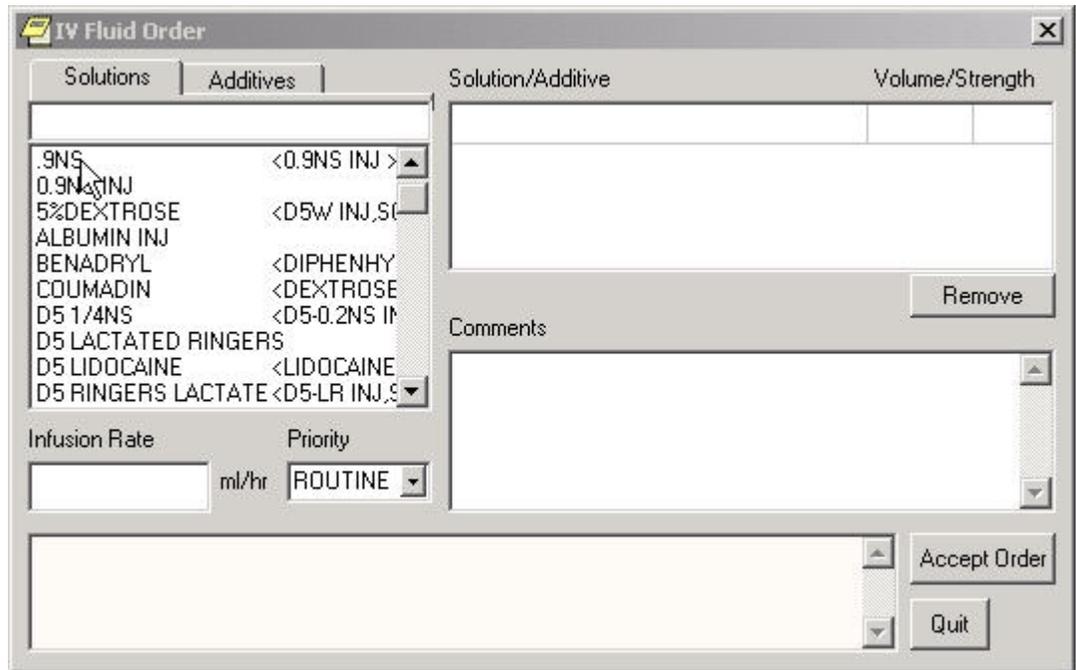
#### General

- You can now adjust the font size used in most CPRS windows and dialog box. If you change the font size, some screen components will be automatically resized. However, you may have to manually resize some components. CPRS will save the dimensions for the resized components so you will only have to resize them once.

The fonts used in CPRS menus and Windows alert boxes are controlled by the Windows display control panel. To change these fonts, select **Start | Settings | Control Panel**.

For more information, refer to *Appendix A – Accessibility* in the [CPRS GUI User Manual](#).

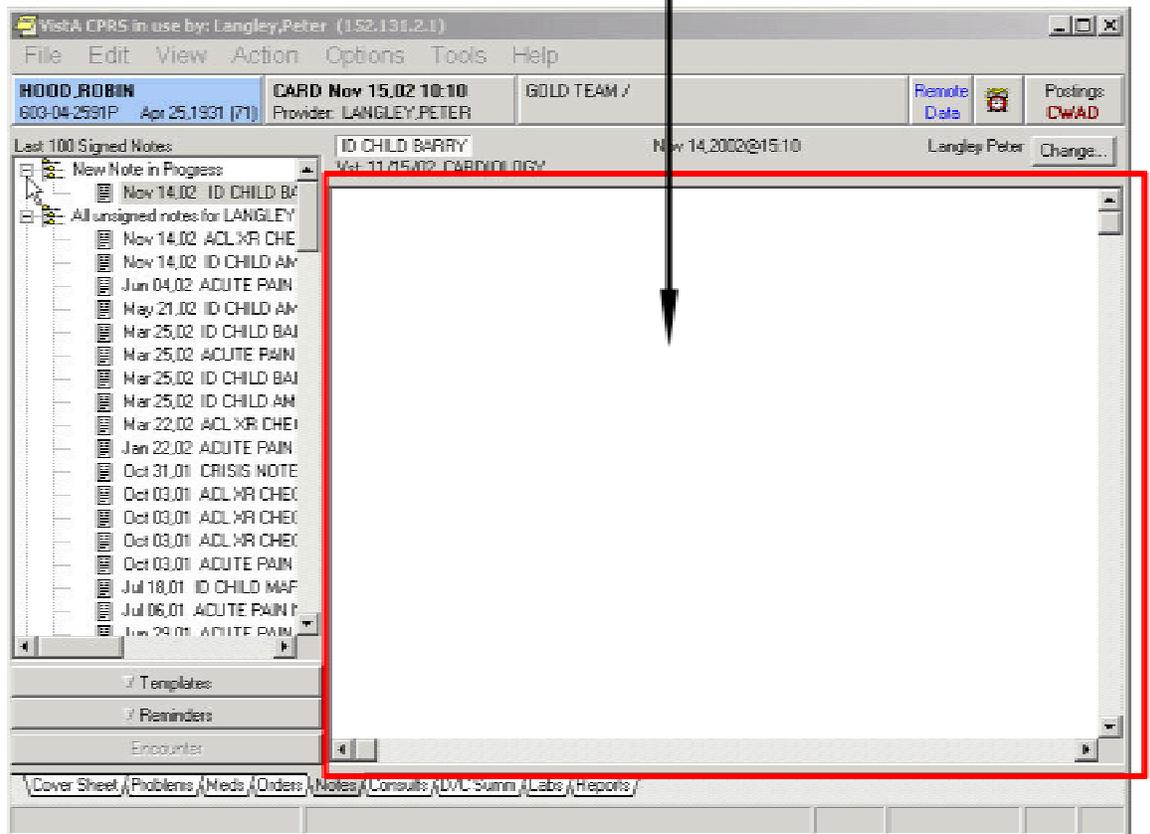
- If a dialog box contains tabbed pages, press **Control + Tab** to move between the pages (left-right). Press **Shift + Control + Tab** to move backward between the pages (right-left).



an example of a dialog box with tabbed pages. Press **Control + Tab** to move from left to right (from the Solutions tab to the Additives tab). Press **Shift + Control + Tab** to move from right to left (from the Additives tab to the Solutions tab).

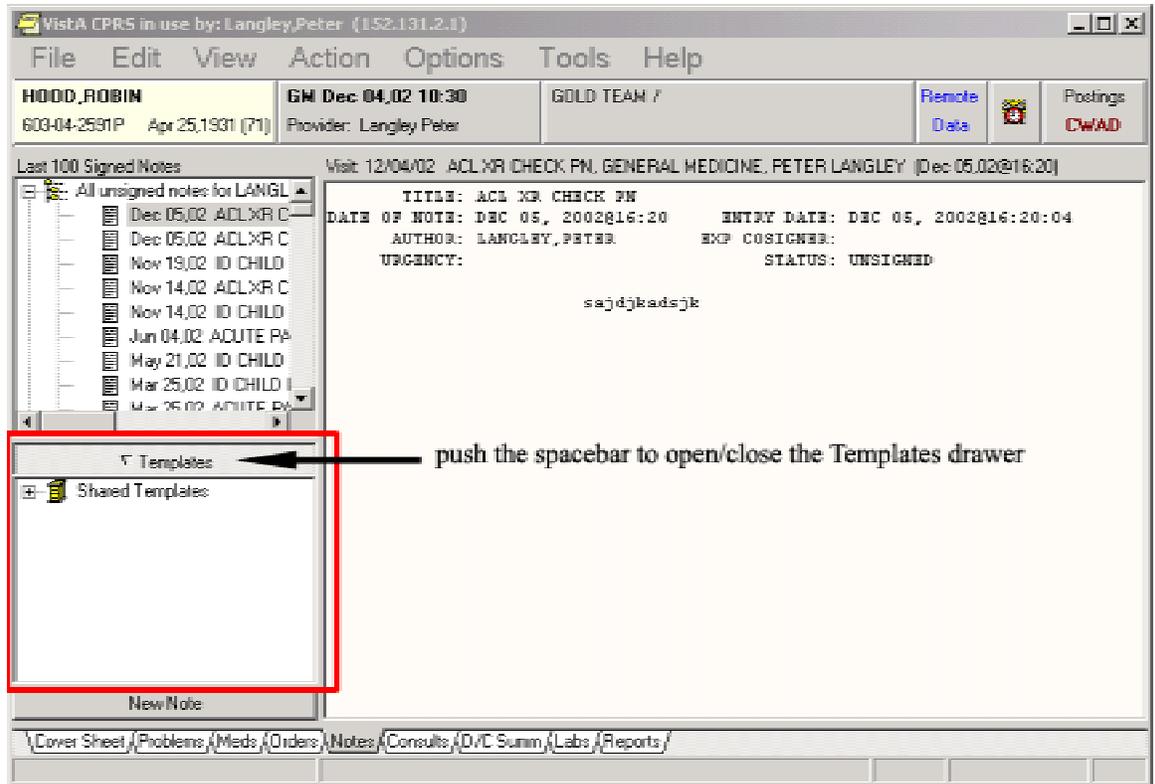
- CPRS now uses the active Windows color scheme. You can change the color scheme using windows conventions. For more information, refer to *Appendix A – Accessibility* in the [CPRS GUI User Manual](#).
- The tab order of CPRS windows and dialog boxes has been improved. When you press the tab key, the cursor will generally move from control to control in a left to right direction or in a top to bottom direction.
- Speed buttons and open or closed drawers are now included in the tab sequence. However, hidden controls are not included in the tab sequence.
- You can exit an editing field that accepts tabs (such as the new note field) by pressing **Control + Tab** to move the focus to the next item in the tab sequence. **Shift + Control + Tab** will move the focus to the previous item.

Press **Ctrl + Tab** to move the cursor out of the note pane.



Press **Ctrl + Tab** to move from the note pane to the next item in the tab sequence.

- If you use the tab key to navigate through fields, the active page will remain visible.
- A user can now open the templates and reminders drawers by pushing the spacebar.



The spacebar allows you to open or close the templates and reminders drawer

- The compatibility between CPRS and common screen readers and voice-to-text software has been improved.

### **Consults Tab**

- The following shortcuts were added to the Action menu:

Command	Shortcut Key
Complete/Update Results	<b>Shift+Ctrl+U</b>

### **Cover Sheet**

- Panel dimensions are now saved between sessions.

## Notes Tab

- The following shortcuts have been added to the Action menu:

<b>Command</b>	<b>Shortcut Keys</b>
New Progress Note	<b>Shift + Ctrl + N</b>
Make Addendum	<b>Shift + Ctrl + M</b>
Change Title	<b>Shift + Ctrl + C</b>
Delete Progress Note	<b>Shift + Ctrl + D</b>
Edit Progress Note	<b>Shift + Ctrl + E</b>
Save without Signature	<b>Shift + Ctrl + A</b>
Sign Note Now	<b>Shift + Ctrl + G</b>

**Note:** To remove conflicting shortcuts, the "Reformat" shortcut has been changed from CTRL + R to Shift + CTRL+ R. Similarly, the "Save and Continue" shortcut was changed from CTRL + S to SHIFT + CTRL + S.

- The following shortcut keys were added to the right-click menu on the note detail screen.

<b>Command</b>	<b>Shortcut Keys</b>
Preview/Print Current Template	<b>Ctrl + W</b>
Insert Current Template	<b>Ctrl + Insert</b>
Edit Encounter Information	<b>Ctrl + E</b>

- The following shortcut keys were added to the template drawer right-click menu on the Notes tab.

<b>Command</b>	<b>Keystroke</b>
Copy Template Text	<b>Ctrl + C</b>
Insert Template	<b>Ctrl + Insert</b>
Preview/Print Template	<b>Ctrl + W</b>
Goto Default	<b>Ctrl + G</b>
Mark as Default	<b>Ctrl + Spacebar</b>
View Template Notes	<b>Ctrl + V</b>
Find Templates	<b>Ctrl + F</b>

- The note tree view has been improved to allow easier navigation for individuals who use text-to-voice software. Text-to-voice software now reads text that differs from the previous entry first and includes text that is common to the previous entry in parenthesis. For example, if a screen reader encountered this entry:

```
Oct 01,02 ID CHILD BARRY, 1A(1&2), GARY EGLI
Oct 01,02 ID CHILD AMY, 1A(1&2), GARY EGLI
```

It would be read as:

AMY, 1A(1&2), GARY EGLI (Oct 01,02 ID CHILD).

The Progress Note Title field in the Progress Note Properties dialog box also would be read in the same manner.

### **Orders Tab**

- Blue and red highlighting is disabled when running CPRS under incompatible Windows color schemes.
- Flagged orders now have a tag reading “\*Flagged\*” at the end of the order field.
- Unsigned orders now have a tag reading “\*Unsigned\*” at the end of the order field.
- The simple/complex tabs have been added to the tab sequence.
- Items that have been visited on the custom order menu are now underlined rather than color-coded.
- The following shortcuts were added to the Complex tab of the Medication Order dialog box:

<b>Command</b>	<b>Keystroke</b>
insert a row	<b>insert</b>
delete a row	<b>delete</b>
drop-down the then/and list	<b>spacebar</b>

### **Patient Selection Screen**

- Pressing **Control + D** while in the patient list toggles the display of patient demographics from the current display to a display inside a memo field where text is highlighted. This feature lets text-to-voice software quickly read patient demographic information when needed.

### **Provider/User Selection**

The following E3R's and NOIS relate to Provider/User display and selection when duplicate names exist:

E3R's - 14259  
- 15178  
- 15847  
- 16389  
- 17043  
- 17069  
- 17555  
- 17743

NOIS - ATG-0701-32085  
- HAM-1100-20360  
- LEX-0302-40449  
- PRE-0402-60689  
- PUG-1001-52064  
- PUG-1199-52458  
- UNY-1101-12259

The above reported various versions of a desire to eliminate RDV (Remote Data Views) users from provider/user selection lists, and difficulty with identifying the correct provider or user when selecting same for an Encounter, as signer/co-signer of a Note, and similar situations in the GUI. As a result the GUI has been updated so that the following occurs:

1. The GUI determines whether the user is located at a multi-divisional site or not (based on a call to \$\$ALL^VASITE), thus preparing for the following actions whenever a user/provider is selected throughout the GUI.
2. When names are displayed, the Title and Service/Section are added to the display in the listboxes.
3. If the site is multi-divisional:
  - a.) If no division is listed, nothing is displayed.
  - b.) If only one division is listed, it is displayed.
  - c.) If more than one division is listed and one is marked as "Default" it is displayed.
  - d.) If more than one division is listed and none is marked "Default" no Division is displayed.
4. Users who are "VISITORS" in the NEW PERSON file as a result of entries created there in connection with RDB (Remote Data Views) are screened from the selection lists.

### **Location Selection**

- NOIS - LEX-0300-43110  
- LEX-0902-41608

Location selection in the GUI was not consistent with LM location selection. “Other” type hospital locations were not included. This has been changed to improve the GUI selection functionality and to make it consistent with LM practices.

### **Reports Tab**

- You can now view a selected report by pressing the spacebar.
- When the "imaging (local only)" branch is selected, a new treeview containing parent and child procedure nodes is displayed in the lower left corner.

### **Encounter Form**

- On the Procedures tab, you are now required to enter the provider responsible for each procedure.

### **Labs Tab**

- Added a right-click menu to the lab order message box to allow users to view complex lab messages in a report box.

### **Orders Tab**

- The message box that appears in the order screens now acts a little differently. It does not disappear as quickly, so that it is accessible to text-to-voice utilities. Clicking on text does not make it disappear, but clicking on the info glyph does. Additionally, code has been added to let the user drag the message box to a different position on the forms.
- Right-clicking on an unselected order will now select the order and display the right-click menu.
- A *None Selected* radio button was added to the *Meals* group on the Diet dialog box

### **Reports Tab**

- Added an *exam status* column to the Imaging (local only) report.

## Templates

- E3R# 16642 - The scroll bar now automatically moves down in response to processing items in a dialog template.
- The *Template Generate Source* radio group now defaults to Boilerplated Note Title
- When a COM object is assigned to a TIU title via a template, and that COM object is executed by selection of that title, the TIU document IEN in file 8925 is now passed in the COM object's "Data2" parameter in XML format, as follows, where 'nnnnn' is the document IEN. Author information is also passed in Data2, as shown, where AUTHOR\_IEN contains a pointer to the author's entry in the NEW PERSON file.

```
<TIU_DOC>
  <DOC_IEN>nnnnn</DOC_IEN>
<AUTHOR_IEN>nnnnn</AUTHOR_IEN>
<AUTHOR_NAME>last , first</AUTHOR_NAME>
</TIU_DOC>
```

If that same COM object returns a change of author, in the same format shown, the CPRS Notes tab will validate that author, determine any cosignature requirements, and if possible, update the current note with the new author information. The other TIU tabs (Consults, Surgery, Discharge Summary) do not yet support this change of author functionality, because of other complicating factors related to who may be the author of a document on those tabs.

## BUG FIXES

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### CONSULTS

- Corrected a problem that caused a "Cannot focus a disabled or invisible window" error. This error occurred when an alert was processed that led to the Consults tab.
- Corrected a problem that caused notes to disappear if a user was editing a note from the Consults tab and changed to a different tab while editing the note.
- Corrected a forwarding issue related to procedures only. Not all available services that could receive that type of procedure were selectable.
- **NOIS PUG-0403-51270** - The "Services Rendered As" entry of Inpatient or Outpatient was sometimes not being passed correctly to the order, even though correctly checked on the form. This has been corrected.

## Cover Sheet

- The provider name is now displayed in mixed-case format.

## Encounter Form

- When two patients were booked for the same date/time and location via an overbook or a group visit, the information from the first patient could incorrectly appear on the second patients encounter form. This error only occurred on the client machine, but could result in incorrect encounter information being recorded. This has been corrected.
- The list of providers selectable on the Procedures tab was not derived by the same method as the list of providers on the Visit Type tab. Now, instead of the procedure provider screening on the PROVIDER key, a valid person class in file 200 as of the encounter date is required, as has been the case on the Visit Type tab. The exception on both tabs is for event historical visits, where the entire NEW PERSON file remains selectable as before.
- There will now be a default entry for the provider on the Procedures tab for each procedure/CPT code entered. In order of precedence/availability, this default will be one of the following:
  - o The currently selected encounter provider as shown on the toolbar
  - o The current user
  - o The currently designated primary encounter provider.

If none of these can be selected as the provider, then no default will be preset.

## Notes/Consults/Discharge Summary/Surgery

- Prior to OR\*3.0\*149, a fixed access violation could occur when you created a new note while using JAWS text-to-voice software. This problem has been fixed.
- When creating a new TIU document, the *New Visit* tab of the *Visit Selection* form now uses the user's TIU personal preference for the default location.
- The auto-save timer is now disabled when another save is currently in progress.
- Hover hints have been added to the consults title and discharge summary title.
- Rapid clicking on an unfocused check box no longer causes the focused check box to change.
- Note titles were incorrectly formatted while a user was editing a discharge summary. This has been fixed.

## Orders Tab

- In previous versions of CPRS, if you maximized the *Medication Orders* dialog box and selected a non-formulary drug an alert dialog box would appear, but could not be accessed. This has been fixed.
- You can no longer enter a new dosage into a row unless the previous row has a dosage.
- Prior to OR\*3.0\*149, if a user maximized the Medication Orders screen and selected a non-formulary drug, an alert box could appear that the user could not access. This has been fixed.
- Prior to OR\*3.0\*149, if you used the tab key to navigate the complex outpatient medication order dialog box, the quantity was not calculated correctly. This has been fixed.
- Corrected a reported issue where the provisional diagnosis value and prompting requirements were carrying over not only between quick orders, but also between successive patients.
- 
- The quantity field was being incorrectly calculated if you used the tab key for navigating the Complex tab of the *Medication Order* dialog box. This has been fixed.
- Corrected “List Index Out of Bounds” error that occurred when an inactive orderable item was included in a procedure quick order. The generic procedures order dialog box will now be displayed in that situation.
- Users placing an event-delayed medication quick order would sometimes receive a “this drug may not be ordered for an outpatient” error. This has been fixed.
- If a user navigating with the keyboard selected an invalid release event, further keyboard navigation was hampered. This has been fixed.
- A server error occurred when a personal quick order containing an item that is not in the S.LAB xref in 101.43 was selected from the order dialog box. This has been corrected.
- Fixed a problem with the consults tree view that caused a “Cannot focus a disabled or invisible window.”
- **Changed Orders Not Being Verified**  
NOIS - PRE-0201-61808  
- BAC-0501-41554

When verifying changed orders, the replaced orders were not being auto-verified as intended; in GUI the replaced orders were not auto-verified at all, and in List Manager only the first replaced order (if there were more than one) would be auto-verified. If the verification was done via Pharmacy package options for

med orders, the order was not being updated if the replaced order had already been verified. Items fixed.

## Patient Selection Screen

- The name column has been expanded when “Wards” is selected on the *Patient Selection* dialog box. Also a bug has been fixed that prevented the display of Room/Bed when “Wards” was the default view.
- If you selected a patient from a ward, the short list would disappear. This has been fixed.
- When all patients are displayed, the short list is only shown on startup.
- Fixed a bug that caused buttons on the demographics form to be inaccessible.
- Earlier test releases of GUI 21 were not displaying the last patient selected from a previous session. This has been fixed.

## Problems Tab

- Added *<unknown>* selection to *Immediacy* option group. This is now the default selection for new problems.

## Reports Tab

- Fixed a problem created in v20 of the GUI that kept medicine procedures from printing to a DHCP printer.
- If remote data is disabled, the remote data panel is no longer accessible with the tab key.
- **Disable Checks to Improve Remote Data Views Performance**
  - NOIS - SHE-0203-51549
  - MAD-0103-42062
  - POR-0103-51518
  - HAM-0103-22079
  - CPH-0802-41376

Sites have reported long delays when selecting remote sites after clicking on the blue Remote Data Views button, while CPRS tries to do a direct connect with the selected remote sites to check for connectivity, remote procedure compatibility, and sensitive patient information. These checks have been disabled in this version, which will speed up the process of getting remote data. Any failed remote queries will continue to show in the list of remote sites when clicking on the blue Remote Data button.

## Spelling and Grammar Checking

- Auto-save will no longer begin while a spell or grammar check is in progress.
- Corrected a problem noted at some sites where text returned to the note by the spell-checker was being wrapped inappropriately.
- Spelling and grammar check was disabled in CPRS v19.16 because the text of the document being checked could disappear. Portions of notes were lost in this manner. Spell check has been reenabled in patch OR\*3.0\*149. In addition, a new parameter, [ORWOR SPELL CHECK ENABLED?](#) has been added that can be set at the package, system, and user levels. The exported package value with this patch is enabled.
- See [CPRS GUI Spell-Check Issues Summary and Status](#) for more information

\*\*\*\*\* TEST SITES \*\*\*\*\*

PLEASE TEST THE SPELLING AND GRAMMAR CHECKING FUNCTIONALITY THOROUGHLY AS EARLY IN THE TESTING CYCLE AS POSSIBLE. This will help determine whether the problems have been addressed adequately enough to safely re-enable this functionality in the national release of this version.

## Startup

- If there was a bad entry in the OR CPRS GUI CHART menu option, you could run CPRS, but it may have functioned improperly. This bug has been fixed..
- CPRS now supports a “SPLASH-OFF” command-line parameter that will disable the startup splash screen.
- The patient chart was appearing after the patient selection screen. This was causing CPRS to have no visible windows open at some point in the startup sequence. This has been fixed to behave like it did in version 20.

## Tools Menu

- When a user clicked the Notifications or Order Check tab, a "List Index Out of Bounds(1)" error appeared and the tab would not be accessible. This has been corrected.

## Visit Selection Screen

- An intermittent access violation related to the display of a hover hint has been fixed.

## **CPRS GUI Spell-Check Issues Summary and Status**

### **Summary:**

The spell-checker in the CPRS GUI was nationally disabled by patch OR\*3.0\*155, CPRS GUI version 19.16, in August 2002. Instances of lost text in progress notes following the spell-checking of that text led to patient safety concerns. Since that time, numerous approaches to stabilizing the spell-check functionality have been tried, and Microsoft Technical Support has been consulted on an ongoing basis. Potential solutions have been iteratively tested internally, and appear to have resulted in a more stable suite of spell-checking functionality.

### **Status:**

A modified v19.16 executable has been created, and significant changes have been made to the mechanism of spell-checking a TIU document. The user should not see any of these changes from a functional perspective, but they should result in a more stable application and address the reported patient safety issues. This executable will require significant testing, preferably at sites that were initially reporting the problems that led to the spell-checker being nationally disabled in OR\*3.0\*155. In developing this fix, the following issues have hopefully been addressed.

### **Issue #1: All or part of text of note being lost on return from spell-checking.**

This is the most critical issue, and the one that led to the patient safety concerns. The following changes have been made:

- Before invoking the spell-check, the Microsoft Word control created in code is configured to be a "plain-text" document, with revision tracking and auto-formatting turned off. This should eliminate the possibility of any extraneous ASCII formatting characters being included in the spell-checker results and possibly resulting in corruption of the original document in Vista.
- A check was added to the code executing the spell-checker, so that if the MS Word control terminates abnormally in any way, CPRS is aware of that termination, and does not replace the text of the note with the text returned by the spell-checker. The user is notified that there was a problem and that the spell-check changes will not be applied to the document.

### **Issue #2: Disappearance of spell-check window behind CPRS application window.**

This one is still a problem, but not one that's easy, or even possible, to solve. If the spell-checker is started, and another application is started or restored to the front of the desktop, CPRS remains open in the background. If the second application is then minimized or closed, CPRS will reappear correctly with the spell-check window on top as the active window. But if, instead of minimizing or closing the other application, the user selects the CPRS icon from the taskbar, CPRS reappears with the modal spell-check window in the background. The user cannot see the spell-check window, and cannot click any item in the CPRS window, because the spell-check window is still the active

window, and is displayed modally, requiring a user action. It appears the system is hung. The most common solution is to kill CPRS using Task Manager or to reboot.

- The second change noted above appears to prevent the loss of text if the user terminates CPRS via a forced exit or a reboot. Attempts to correct the behavior of the windows as described have been futile to date. It should be noted that the spell-checker in ESS Remedy uses the same MS Word spell-check mechanism as CPRS, and that the same shortcoming noted here also appears in that application. This behavior is most likely a limitation or bug in the Microsoft Word control involved, and appears to be beyond the scope of our ability to correct.
- An extremely complicated potential solution involving coding of a COM event sink in CPRS to intercept messages from the Word object was briefly explored, but rejected. That method would appear to require the existence of MS Word on the workstation before CPRS could even be executed, as is currently the case with Internet Explorer. Additionally, the coding would be very complex and time-consuming, and, with the few available MS Word events to monitor, has a very low assurance of success.
- **RECOMMENDATION:** We need to make very clear that, in the case of the scenario described above, if the user uses ALT-TAB instead of rebooting, the MS Word icon will appear in the dialog box showing the icons of running applications, and if selected, will correctly redisplay CPRS with the spell-check window as the active top-most window. The user can then continue normally as before. This will most likely need to be addressed as a training issue.

**Issue #3: CPRS screen does not repaint correctly while spell-check is in progress.**

Like #2 above, this one cannot be easily fixed, if at all. When the spell-checker is invoked, the MS Word control becomes the active window. If another application is opened or restored and then subsequently closed or minimized, the active spell-check window repaints correctly, but the background CPRS window does not. The only way to fix this appears to be the complex COM event sink solution noted above, with no assurance of success. CPRS would need to listen for MS Word's refresh event, and cause itself to be refreshed as well. Meanwhile, it is completely "normal" for the CPRS window to appear blank while the spell-check is in progress, and it should refresh correctly when the spell-check is closed.

To minimize the confusion of this behavior, CPRS has been corrected so that, upon return from the spell-check, the cursor is now reliably positioned at the very beginning of the note. Previously, the cursor would sometimes position beyond the bottom of the note, showing an empty screen and giving the false impression that the note contained no text.

**Plan:** The next step would appear to be distribution of the modified v19.16 executable to a limited group of test sites. Whether we should do this via a formal test version of a new patch or informally for some preliminary testing is open to discussion. Test sites should include Huntington and any others who initially reported the problem (Minneapolis, Detroit, Hines) and who are willing to test the modified version.

### **COM OBJECT REGISTRATION DURING INSTALLATION**

- Section 508 changes required the inclusion of some COM objects in CPRS. During installation, registration of these objects was restricted due to a bug in Delphi's COM object registration code. This was corrected and registration should proceed without problems now. However, a Poweruser or Administrator user will still need to run the application one time following installation on any workstation where a disabled user will wish to utilize applications that access the COM objects while using CPRS GUI.