RESOURCE AND PATIENT MANAGEMENT SYSTEM

PCC+ Encounter Form and Health Summary Well-Child Module

(VEN)

Installation Guide and Release Notes

Version 2.6
April 2008

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Table of Contents

Document Revision History

Date of Change	Location of Revision	Revision
April 2008	Entire Document	Added information for the Well-Child module (WCM)

Preface

This manual provides release notes and installation instructions for the Well-Child Module (WCM) of the PCC+ Encounter Form and Health Summary Package (VEN) version 2.6.

1.0   Release Notes

PCC+ version 2.6 is essentially an add-on module for PCC+ version 2.5. It is intended for use at those sites that want to improve data quality for Well-Child Care dramatically. If you are unfamiliar with PCC+, please read the documentation for PCC version 2.5 before proceeding with the installation of version 2.6. This manual covers only the new material in version 2.6. Basic foundation instructions for PCC+ are located in the documentation for version 2.5. Also, note that PCC+ version 2.6 can be installed at sites that do not normally use PCC+ because the package is compatible with traditional PCC systems.

1.1   Introduction

The PCC+ Encounter Form and Health Summary Package (VEN) enables IHS health professionals to design and generate highly customized Encounter forms and Health Summaries. These documents are generated locally on a laser printer before each clinic visit. The new Encounter form combines features of the traditional Patient Care Component (PCC) Encounter form, as well as the Super Bill and Health Summary forms. Customized elements of the form come from the locations shown in the following table.

Location	Information
PCC Database	Demographic information, eligibility data, problems, purpose of visit, allergies, health maintenance reminders, test results, measurements and prescriptions
Site Preference Files	Oderables and associated CPT codes
User Preference File	Diagnoses and associated ICD9 codes
PCC+ Knowledgebase	Customized clinical guidelines and Managed Care Reminders

1.2   Background

Since PCC+ version 2.5 was released in late 2005, three important changes have taken place:

- The rate of PCC+ adoption has increased. This happened despite the introduction of the IHS EHR. There are hundreds of new users writing on hundreds of new PCC+ forms in an ever widening circle of clinical environments. There has been a corresponding increase in the demand for new PCC+ features.

- Nationally recognized domain experts have identified a set of standards, guidelines, and templates for well-child care in Indian country.

- PCC+ developers have adapted the PCC+ data management infrastructure for use within the EHR or the desktop of clinical workstations. This means that certain features of PCC+ that were previously only available on paper templates are now also available via Graphic User Interface (GUI) components on "client" PCs.

These three factors led to the development of PCC+ version 2.6. For the first time, a PCC+ release is dedicated to a single clinical area: well-child care. Even though this release is limited in clinical scope, it offers broad, standardized support to other RPMS modalities: traditional PCC (via new health summary components) and the EHR (via new desktop components).

1.3   New Features in Version 2.6: The Well-Child Module

The new features included in PCC+ version 2.6 are described in detail in the Users Guide. Here are some highlights:

- An improved knowledgebase system including a comprehensive set of national guidelines, GUI-based tools to manage the knowledgebase content (i.e., thousands of age-specific reminders related to exams and patient education with a scope from birth to age 21).

- Dozens of new data elements and mail merge fields to improve the documentation of well-child care.

- Improved installation and configuration tools.

- A new well-child form.

- A GUI component to generate ASQ forms and record scores.

- An "intelligent" data-entry mnemonic for efficiently capturing the new well-child data set.

- A third-generation well-child form.

- Improved immunization data via integration with the latest release of the immunization package.

- A new version of the PCC+ print service that does a better job of protecting available memory for reliable document processing.

- Miscellaneous medication list fixes: If an adverse reaction was cancelled, it would still appear on the Rx remarks. If there was not enough room to print all medications on the PCC+ form, a warning message might not appear. Both of these issues were resolved in v2.6.

2.0 Installation Notes

Prefix: VEN

Current Version: 2.6

2.1 Pre-Installation Notes

Read entire notes file prior to attempting any installation.

2.2 General Information

The PCC+ package is unique in a variety of ways. From a technical perspective, most computing takes place outside of the M/PCC environment. The installation itself takes place on two platforms: the traditional RPMS server and one or two Windows print servers. In addition, the PCC+ application involves extensive customization by local users.

Please follow the instructions carefully.

First, make a copy of this distribution for off-line storage.

- Capture terminal output during installation using an auxport printer attached to the terminal at which the software installation is being performed. This provides a printed audit trail if any problems should arise.

- Read this manual entirely before installing this version.

Note: Before installing PCC+ version 2.6, version 2.5 should already be in place and operating properly. If you have never installed PCC+ before, contact the OIT User Support for assistance in building a PCC+ foundation before installing version 2.6.

2.3 Contents of Distribution

The following table shows the contents of the PCC+ version 2.6 distribution.

File	Description
v2.6: PRIMARY FILES	
ven_0260.k	Primary KIDS build for v2.6
ven_0260_client_setup.exe	Setup executable for client PC desktop components (v1.1.8)
ven_0230_printservice_setup.exe	Setup executable for print service (v2.5.1.7)

File	Description
wcm_template.doc	The new National Well-Child PCC+ form for v2.6
v2.6: CURRENT DOCUMENTATION	
ven_026i.pdf	Install Manual
ven_026u.pdf	User Manual
ven_026t.pdf	Technical Manual
ven_026u.pdf	User manual in Word format. Enables users to cut and paste sample mail merge components
ven_0260_headers.doc	List of headers used in v2.6
ven_0260_peddemo.doc	A sample well-child form

2.4   Required Resources

This version requires the following applications, components, and resources:

- Kernel v8 patch 4 or later (Kernel Part III can be installed)

- FileMan v21 or later

- RPMS Packages

    - Mandatory

        - PCC+ (VEN) v2.5 patch 5

        - Health Summary (APCH) v2.0 patch 15

        - PCC Data Entry (APCD) v2.0 patch 09

        - IHS Utilities (XB) v3.0 patch 09

        - BMX Broker version 2.0 or later

        - ASQ CD-ROM (not included in the distribution! See section 4.2)

    - Optional (but recommended)

        - Women's Health (BW) v2.0 patch 09

        - Immunization (BI) v7.0 or 8.0

        - PIMS - scheduling v5.3 (Scheduling is part of PIMS)

- System Requirements for the Print Servers

–   Windows OS: This operating system (OS) is used on print servers. PCC+ version 2.5 can run under Windows 2000 or Windows XP. In either case, you must download the latest service packs for your OS from Microsoft (http://www.microsoft.com). If you are using Windows 2000, you must install the .NET framework by running dotnetfx.exe included in this distribution. Then check for any .NET service releases on the Microsoft website. Finally, regardless of OS, install the Microsoft Data Access Components (version 2.6) by running mdac_typ2.6.exe included in this distribution.

–   Microsoft (MS) Office: PCC+ version 2.6 is certified to work with MS Office 2000/SR1 or the 2003/SR3 version of MS Office XP. Do not use the 2002 version of MS Office XP. The MS Office software must be loaded on both print servers and separate licenses are required for each instance. With either version of MS Office, you should download and install the latest service pack releases from Microsoft.

> **Note:**   Microsoft no longer supports Office 2000. This means no more service packs or security updates for MS Word 2000. You may want to upgrade to Office XP for security reasons, but this is not mandatory. PCC+ is safe and stable with MS Office 2000 if the print servers are used as directed.

–   Network: PCC+ has been developed and certified to use the MS local area network (LAN).

–   LAN connectivity: 10 MB LAN, minimum.

> **Note:**   A 100 MB LAN is preferred—particularly if your site has many users, open access to internet web pages, or both.

–   WAN connectivity: Must be able to provide FTP and Telnet access to the local RPMS server and print server within the IHS firewall. If multiple sites are connected to a single print server over the WAN, the minimum recommended throughput speed is 640 KB, bi-directional. Faster speeds are recommended if available.

> If your RPMS server or print server (or both) is not accessible within the IHS Firewall, OIT can guarantee neither timely nor comprehensive support for PCC+!

- Print Server Hardware: We recommend installing two print servers with the following specifications:

  –   Desktop Configuration (minimum requirements)

    - Intel P4 2.4 GHz Processor

    - AGP VGA 8M Video Adapter

    - 10/100 Smart NIC (Intel or 3 COM)

- 1GB -100MHZ SDRAM

- 80 GB Hard Drive

- 17" VGA Monitor, .28 Digital Display

- 45X CDROM

- USB Mouse and Keyboard ports

- Port switch and cables for keyboard, mouse, and VGA monitor (To reduce space and cost, both print servers can share a single keyboard, mouse, and monitor).

> **Note:** Legacy PCC+ users: If your system does not meet these requirements, but everything seems to be running well, upgrading to meet these requirements is probably not necessary. However, if you intend to buy new hardware in the near future, follow the requirements listed above.

− Printer(s): Hewlett-Packard (HP) 1100 - 5000 series with at least 5 MB of on-board RAM. Duplex printing capability is supported and recommended, but not required. 1200 DPI resolution is preferred, but 600 dpi is usually adequate. Ink jet printers should not be used in live, clinical environments. Version 2.6 is designed for monochrome pages, but future versions may support color printing.

> **Note:** You can use other laser printers capable of 600 dots per inch (dpi) and 12+ pages per minute (ppm). However, experience with non-HP printers has been less than satisfactory in that their base page format may be different and existing forms borrowed from HP sites may need modification to work properly. Also, the printer error reporting standards used by HP are compatible with PCC+.

No. of Patients/hours per Clinic or Printer Group	Printer Type	Minimum Memory
<5 / hour	Any laser	
5 – 15 per hour	HP 1000 series	8ppm =Or > 2 MB memory (4 MB is better) 600x 600 dpi
16 – 60 per hour	HP 4000 series	17 ppm = Or > 8 MB memory 1200 x 1200 dpi

No. of Patients/hours per Clinic or Printer Group	Printer Type	Minimum Memory
>60 per hour	Multiple HP 4000 series	17 ppm = Or > 8 MB memory 1200 x 1200 dpi
*size of paper tray and paper handling are also considerations		

All PCC+ printers should be capable of duplex printing. It is rare to find a site that does not use two-sided forms.

3.0   RPMS Installation Issues

Before beginning, make sure PCC+ version 2.5 is running properly on your system. On the RPMS server, create a new folder called PCCPLUS26. Copy the KIDS build, ven_0260.k, to this folder. On the print servers, create a new folder called PCCPLUS26 and copy the file ven_0260_printservice_setup.exe to this folder. If you are going to use WCM desktop components, copy the file ven_0260_client_setup.exe to:

- Selected workstations in clinic areas where well-child care is provided.

- The workstation in the office of the clinician who is in charge of well-child care.

Next, make a list of all providers who will use WCM desktop components, as well as each provider's primary menu option. In general, this includes all clinicians (nurses, doctors, FNPs, PAs, etc.) who provide routine well-child care and the lead pediatric provider. You will need to refer to this list in the post-init dialog (Section 3.2).

3.1   Install the KIDS Package

RPMS installation is accomplished using a standard KIDS distribution process.

To install PCC+ version 2.6:

1. Select Kernel Installation & Distribution System > Installation > Load a distribution from the Menu. The name of the distribution file is ven_0260.k (include the path as well; for example: c:\pccplus\pccplus26\ven_0260.k).

2. Select option 2 on the KIDS installation menu after loading the distribution.

3. Verify Checksums in Transport Global. This insures that the transport global was not corrupted prior to installation.

4. Select the "Install" option to install a package called "PCC+ 2.6". This installs all necessary components (routines, globals, options, and so on.) on the RPMS server. Figure 3-1 shows the prompts, responses, and messages for the installation process.

   At the end of the kids install, you will be engaged in a comprehensive dialog that assures that the module is properly installed.

5. Scroll through the post-init dialog by pressing Enter whenever you see the "wait" marker <> at the bottom of the screen. Otherwise there will be no roll and no scroll, and your screen will remain unchanged.

```
     Edits and Distribution ...
     Utilities ...
     Installation ...
```

```
Select Kernel Installation & Distribution System Option: INSTALLATION

   1        Load a Distribution
   2        Verify Checksums in Transport Global
   3        Print Transport Global
   4        Compare Transport Global to Current System
   5        Backup a Transport Global
   6        Install Package(s)
            Restart Install of Package(s)
            Unload a Distribution

Select Installation Option: 1  Load a Distribution
Enter a Host File: c:\pccplus26\ven_0260.k

KIDS Distribution saved on Aug 26, 2006
Comment: PCC+, Ver. 2.6, build #1
This Distribution contains Transport Globals for the following Package(s):
PCC+A 2.6
PCC+B 2.6
PCC+C 2.6
PCC+P 2.6

Distribution OK!
Want to Continue with Load? YES// Y
Loading Distribution...

   PCC+A 2.6
   PCC+B 2.6
   PCC+C 2.6
   PCC+P 2.6

Use INSTALL NAME: PCC+A 2.6 to install this Distribution.

<After loading the distribution, select the install option…>

Select Installation Option: 6  Install Package(s)

Select INSTALL NAME: PCC+A 2.6        Loaded from Distribution      Loaded from
Distribution  8/27/06@18:47:11
     => PCC+, VER. 2.6, BUILD 1;Created on Feb 28, 2007@13:44:12

This Distribution was loaded on Feb 28, 2007@18:47:11 with header of
   PCC+, VER. 2.6, BUILD 1;Created on Aug 26, Aug 26,
2006@18:47:11mailto:2006@18:47:11

   It consisted of the following Install(s):
    PCC+A 2.6     PCC+B 2.6     PCC+C 2.6      PCC+P


<From here on take the usual defaults until you get to the post-init dialog (see
next section)…>
```

Figure 3-1: Installation prompts, responses, and messages

3.2   Configure PCC+ Version 2.6 on the RPMS server

At the conclusion of the KIDS installation, you will be required to participate in the post-init dialog to verify installation and configuration of the application. The post-init process:

- confirms that all components have been successfully loaded

- helps the user assign the VEN RPC Broker option to the appropriate user menus

- updates the EDUCATION TOPICS file with all topics required by the WCM

- performs some minor fine tuning on the WCM database automatically

This process is critical. You must complete it correctly. Review the sample process shown in Figure 3-2 before beginning.

```
Checking all the components of the Well Child Module...
After each section, press the <RETURN> key when you see the '<>' symbol

CHECKING WCM ROUTINES:
          VENPCCQ    <- OK
          VENPCCQ1   <- OK
          VENPCCQB   <- OK
          VENPCCQC   <- OK
          VENPCCQD   <- OK
          VENPCCQY   <- OK
          VENPCCQZ   <- OK
          VENPCCK    <- OK
          VENPCCK1   <- OK
          VENPCCKB   <- OK
          VENPCCKX   <- OK
          VENPCC1M   <- OK
          VENKINIT   <- OK

     All required routines have been successfully installed

CHECKING REQUIRED ROUTINES OUTSIDE OF THE WCM PACKAGE...
     ^APCHS6B   <- OK
     ^APCDTWC   <- OK
     ^APCDTWC1  <- OK
     ^APCDTWC2  <- OK
     The Broker routines (BMX*) are loaded

UPDATING KNOWLEDGEBASE
<Note: The following section only appears when your Knowledgebase needs
refreshing>
     Looks like your knowledgebase needs refreshing...
This version (#1.1) of 'VENKINIT' was created on 13-FEB-2006
         (at TUSCON ISD, by VA FileMan V.23.0G)
I AM GOING TO SET UP THE FOLLOWING FILES:

   19707.12  VEN EHP KB ITEM  (including data)

Note:  You already have the 'VEN EHP KB ITEM' File.
I will MERGE your data with mine.

SHALL I WRITE OVER FILE SECURITY CODES? Yes// Y
```

```
ARE YOU SURE EVERYTHING'S OK? Yes// Y   [Note: Take the defaults "YES"
here.]

...EXCUSE ME, LET ME THINK ABOUT THAT A
MOMENT................................
OK, I'M DONE.
NOTE THAT FILE SECURITY-CODE PROTECTION HAS BEEN MADE

          Knowledgebase domain definitions have been verified

CHECKING FILES:
          File: V PATIENT ED, Subfile: SUB-TOPICS  <-OK
          File: V WELL CHILD  <- OK
          File: BMX ADO SCHEMA  <- OK
          File: VEN EHP KB CATEGORY  <- OK
          File: VEN EHP KB ITEM  <- OK
          File: VEN EHP KB CLINICAL DOMAIN  <- OK
          File: VEN EHP ASQ QUESTIONNAIRE  <- OK

     All required files have been successfully installed

CHECKING PAITENT EDUCATION CODES:
     All required patient education codes have been successfully installed

CHECKING MEASUREMNT TYPES:
          Measurement: ASQ - LANGUAGE  <- OK
          Measurement: ASQ - GROSS MOTOR  <- OK
          Measurement: ASQ - FINE MOTOR  <- OK
          Measurement: ASQ - PROBLEM SOLVING  <- OK
          Measurement: ASQ - SOCIAL  <- OK
          Measurement: ASQ QUESTIONNAIRE (MOS)  <- OK
     All required measurement types have been successfully installed

CHECKING INPUT TEMPLATES:
          Input template: APCD WC (ADD)  <- OK
          Input template: APCD WC (MOD)  <- OK
     All required input templates have been successfully installed

CHECKING DATA ENTRY MNEMONICS:
          Data entry mnemonic: WCE  <- OK
     All required data entry mnemonics have been successfully installed

CHECKING REMOTE PROCEDURE CALLS:
          RPC: VEN ASQ GET PATIENT ID  <- OK
          RPC: VEN ASQ GET DATA  <- OK
          RPC: VEN ASQ GET VISITS  <- OK
          RPC: VEN ASQ START TX  <- OK
          RPC: VEN ASQ FLUSH  <- OK
          RPC: BMX ADO SS  <- OK
          RPC: VEN KB EDIT PTED  <- OK
          RPC: VEN KB EDIT DEV  <- OK
          RPC: VEN KB EDIT AUT  <- OK
          RPC: VEN KB EDIT EXAM  <- OK
     All required RPCs have been successfully installed

CHECKING OPTIONS:
          Option : BMXRPC  <- OK
          Option : VEN RPC  <- OK
          Option : VEN WCM ACTIVATE DOMAIN  <- OK
          Option : VEN WCM PLACE BROKER OPTION  <- OK
          Option : VEN WCM_MENU  <- OK
```

```
            Option : VEN WCM START OR STOP BROKER  <- OK
      All required options have been successfully installed

CHECKING SECURITY KEYS FOR THE KNOWLEDGEBASE EDITOR:
          Key : VENZKBEDIT  <- OK
                Holders:
                        ELLER,JIM D
                        SMILEY,CLARENCE
                        SHORR,GREG
                        WILDCATT,LISA A
<Note: This key should only be assigned to the lead pediatric provider and
site managers>
                   Want to assign VENZKBEDIT to any other users? No//
      All required security keys have been successfully assigned

CHECKING HEALTH SUMMARY MEASUREMENT PANEL:
          Measurement panel: ASQ DEVELOPMENT SCORES  <- OK
      All required measurement panels have been successfully installed

CHECKING HEALTH SUMMARY WELL CHILD EXAM COMPONENT:
          Health summary component: WELL CHILD EXAM  <- OK
      The required components have been successfully installed

CHECKING WELL CHILD HEALTH SUMARY TYPE:
          Health summary type: WELL CHILD EXAM  <- OK
      The required health summary types have been successfully installed
      All required components are present
      The correct measurement panels have been assigned to this component

CHECKING BROKER OPTION CONTENT
All required RPCs have been assigned to broker option VEN RPC

CHECKING BROKER OPTION LINKS (One moment please...)
<This section allows you to grant user access to the desktop tools.>
The broker option 'VEN RPC' is assigned to the following menu(s):
        NONE!
Want to assign VEN RPC to a menu? No// YES
Enter the name of a host menu: AKMOEVE
VEN RPC is now associated with this option
Want to make any changes to the 'VEN RPC' assignments? No//   (No)
<Note:  Most users will autamitally gain access to the ASQ component if
they have a primary menu that is listed above.  For other potential users,
you will need to add them one-at-a-time as requested below.>
Broker options can also be assigned to specific users who do not use
any of the primary menus listed above.
Want to allow these special users to access WCM desktop components? No//

CHECKING KNOWLEDGEBASE DOMAINS OF THE WELL CHILD MODULE:
<Note:  In the list that follows, item 1 uses the old well-child guidelines
from PCC+Ver.2.5. Items 2-6 are based on the new national standards. We
strongly suggest using the new standards.>

      1. WELL CHILD CARE <-INACTIVE
      2. WELL CHILD NATL AG STDS 2006 <-ACTIVE
      3. WELL CHILD NATL NUTR STDS 2006 <-ACTIVE
      4. WELL CHILD NATL EXAM STDS 2006 <-ACTIVE
      5. WELL CHILD NATL DEV STDS 2006 <-ACTIVE
      6. WELL CHILD NATL AUT SCRN 2006 <-ACTIVE

Want to change the status of any of these elements? No//   (No)
```

```
All required components are present and accounted for!
Enjoy the Well Child Module...
Press the <ENTER> key to continue:
```

Figure 3-2: Configuration prompts and responses

You may review this process at any time by selecting the CKUP option on the WCM Manager's Menu. The WCM Manager's Menu is on the PCC+ Manager's Menu.

3.2.1   Initial Knowledgebase Configuration

Guidelines are organized into functional groups called domains. Each domain is associated with a mnemonic:

- WCAG   Well-child anticipatory guidance
- WCDA   Well-child developmental assessment
- WCEX   Well-child special exams
- WCN   Well-child nutrition education

Within these groups, there are 28 categories:

- WCAG BEHAVIORAL HEALTH
- WCAG COMMUNITY INTERACTION
- WCAG CONSIDERING PARENTHOOD
- WCAG FAMILY RELATIONSHIPS
- WCAG FOR THE PARENTS
- WCAG HEALTHY HABITS
- WCAG INFANT CARE
- WCAG INJURY/ILLNESS PREVENTION
- WCAG ORAL HEALTH
- WCAG PARENT-INFANT INTERACTION
- WCAG PREVENT INJURY & VIOLENCE
- WCAG PRIMARY TOOTH CARE
- WCAG RESPONSIBILITY
- WCAG SCHOOL & VOCATION GOALS
- WCAG SEXUALITY EDUCATION
- WCAG SOCIAL COMPETENCE
- WCAG SUBSTANCE USE & ABUSE

- WCEX BEHAVIORAL HEALTH SCREEN

- WCEX EXAMS

- WCEX GENERAL HEALTH SCREEN

- WCEX SPECIAL RISK SCREEN

- WCDA DEVEL AUTISM SCREEN

- WCDA DEVEL FINE MOTOR

- WCDA DEVEL GROSS MOTOR

- WCDA DEVEL LANGUAGE

- WCDA DEVEL SOCIAL

- WCDA DEVEL PROBLEM SOLVING

- WCDA DEVEL AUTISM SCREEN

- WCN NUTRITION

Each category contains multiple items. Each item has explicit screening properties and, optionally, modifier text. For well-child care, the screening properties are based on age in months and (occasionally) gender. For example, within the category WCDA DEVEL GROSS MOTOR, there is an item called "Walks backwards." The item has a START AGE of 12.5 months and a STOP AGE of 13 months. The modifier text is "25," namely 25% of the children in the age range can accomplish the specified task.
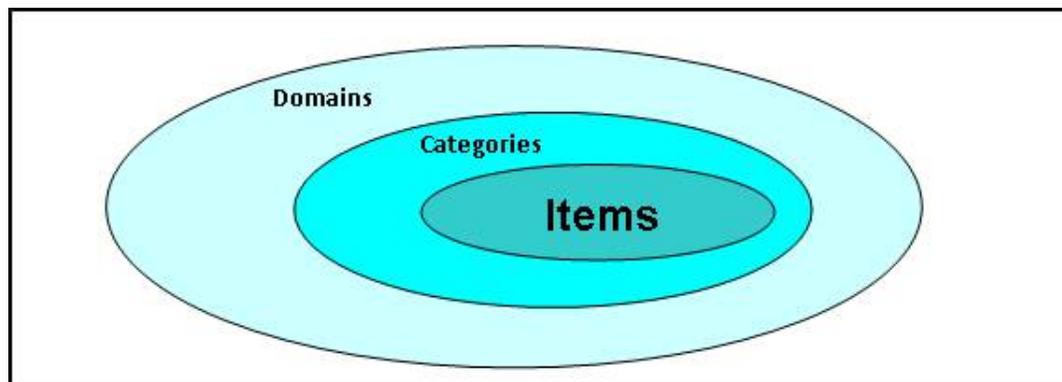

Figure 3-3: Knowledgebase hierarchy

During initial configuration, the installer must select the domains that are active in the WCM. If a domain is inactive, none of its categories or items appears on a PCC+ form, health summary component, or desktop component. For example, if a site chose not to display any development milestones because the ASQ was used on every visit, WCDA (the well-child developmental assessment domain) would be set to inactive. If a domain is active, the categories and items within the domain may, or may not, be used in the WCM. Inclusion of categories and items is determined by settings in the Knowledgebase Editor. The Knowledgebase Editor, a tool for the senior pediatric staff members at your facility, is described in detail in the PCC+ Version 2.6 User Manual.

3.2.2   Other Configuration Tasks on the RPMS Server

This section provides instructions for adding the new national Well-Child PCC+ form and Well-Child Clinic to the PCC+ configuration files.

3.2.2.1   Edit the Well-Child Template Definition

A default Well-Child template is automatically added to the VEN EHP EF TEMPLATES file during the KIDS installation. You may edit it to meet local needs. If you are unfamiliar with editing PCC+ templates, refer to the PCC+ Version 2.5 User Manual for basic instruction. Otherwise, go to the PCC+ Manager's Menu and select the TCU option (Add/edit a PCC+ template) and follow the prompts.

Figure 3-4 shows the default Well-Child template definition.

```
TEMPLATE: WELL CHILD EXAM (NATL)        HEADER MNEMONIC: 25
  TEMPLATE MNEMONIC: ven0260             HIDE RX REMINDER NOTE: DISPLAY
REMARKS
  DISPLAY RX PROVIDER: NO                UNITS: FEET AND LBS
  MAX PROBLEMS: 20                       MAX POVS: 50
  MAX RXS: 15                            MAX ACTIVE DRUG PERIOD: 75
  DISPLAY CHRONIC MEDS ONLY: NO          DISPLAY ACTIVE MEDS ONLY: NO
  HIDE REDUNDANT MEDS: NO                DISPLAY RX ISSUE DATE: SHOW RX DATE
ONLY
  DISPLAY PROBLEM ONSET DATE: NO         DIAPLAY ONLY PROBLEMS: NO
  USE NEW SURVEILLANCE LIST: YES         EXCLUDE LAST SURV VALUE: NO
  EXCLUDE FORECAST: NO                   OMIT FOREIGN POV ICD CODES: NO
  MAX NARR DX LENGTH: 27                 DISPLAY VCN IN POV LIST: NO
  MAX RX FIELD LENGTH: 30                MAX RX NAME LENGTH: 30
  MAX RX SIG LENGTH: 40                  SORT RX LIST: NO
  DISPLAY CHECKIN MEASUREMENTS: NO       MAX TIME FOR REFUSALS (MOS): 60
  INCLUDE REFUSAL OF PT ED: NO
KB DOMAIN: WELL CHILD NATL AG STDS 2006 ORDER: 20
KB DOMAIN: WELL CHILD NATL DEV STDS 2006
  ORDER: 10
KB DOMAIN: WELL CHILD NATL EXAM STDS 2006
  ORDER: 40
KB DOMAIN: WELL CHILD NATL NUTR STDS 2006
  ORDER: 30
```

Figure 3-4: Default well-child template definition

The TEMPLATE, HEADER, and TEMPLATE MNEMONIC are mandatory fields. The default template distributed with the system is ven0260_template.doc. Thus the default TEMPLATE MNEMONIC = "ven0260."

3.2.2.2   Add the Well-Child Clinic

Unlike the Well-Child template, there is no default Well-Child Clinic automatically added to the PCC+ configuration files. To add a new clinic, select the TCC option on the PCC+ Manager's Menu and follow the prompts.

New user's note: Detailed instructions for creating a new clinic can be found in the Installation Guide & Release Notes for PCC+, version 2.5.

3.2.2.3   WCM Management Menu

Additional configuration tools are available on the WCM Management Menu. Go to the PCC+ Manager's Menu and select the WCM option to display the menu shown in Figure 3-5.

```
ILC ENC FORM/HLTH SUMMARY V2.6:  Well Child Module Management
LOCATION:  CIHA HOSPITAL                          USER:  SHORR,GREG
-----------------------------------------------------------------------------
---



   AD     Activate a WCM domain
   CT     Convert templates to new KB format
   PB     Place broker option on a menu
   SSB    Start or stop WCM broker
   CKUP   (Re)Configure the Well Child Module



You have PENDING ALERTS
         Enter  "VA to jump to VIEW ALERTS option

Select Well Child Module Management Option:
```

Figure 3-5: WCM management menu

The following list describes each option on this menu:

- AD Activate a WCM domain: In section 3.2.1, we learned about active and inactive knowledgebase domains. Use this option to activate or inactivate a domain.

- CT Convert templates to new KB format: Use this option to convert legacy Well-Child template definition to one that incorporates the new knowledgebase feature. It is probably best to use this option only under the supervision of qualified help desk personnel.

- PB Place broker option on a menu: To use the GUI components of the WCM, the BROKER OPTION called VEN RPC must be placed on one of the user primary or secondary menus. This is an esoteric, but absolutely necessary, requirement imposed by the VA Kernel software. Use the PB option to place VEN RPC on the appropriate menus.

- SSB   Start or stop WCM broker: The broker application connects the RPMS database to GUI components in the Windows environment. The Broker must be running before any PCC+ GUI components become operational. Use this option to start and stop the Broker on the RPMS server. This utility always defaults to port number 9200 to mediate broker activity.

- CKUP (Re)Configure the Well-Child Module: This option enables the user to rerun the KIDS install post-init routine. This routine checks all WCM components and prompts the user for a few key configuration parameters (see section 3.2).

4.0   Setting up WCM Client Software

Setting up the WCM client software includes setting up your print servers and Well-Child clients

4.1   Setting Up the Print Servers

PCC+ Version 2.6 comes with an updated version of the PCC+ print service (v2.5.1.7). We strongly recommend that you install the new print service on both print servers. This upgrade will not cause an interruption of PCC+ service, but we recommend doing the install during a slow time for PCC+ check-ins.

1. Locate the setup file ven_0260_printservice.exe in the distribution and copy it somewhere on both print servers. The desktop is a perfectly good temporary location.

2. Open the PCC+ Manager's Menu and shut down print server #1 with the SHUT option.

3. Go to the deactivated print server and close the print service. It is not enough to "stop" it – you must close it completely. The PCC+ printer icon should disappear from the desktop.

4. Run the setup accepting all the defaults.

5. Click the PCC+ gear icon to re-start the print service.

6. Go back to the SHUT option on the PCC+ Manager's Menu and reactivate both print servers and then shutdown the other print server. Run some test patients to make sure that the new PCC+ print service is running well.

7. Repeat steps 3-6 on the print server #2. Then when you are satisfied that all testing is successful, reactivate both print servers using the SHUT option. Remove the setup files from the desktop and store a copy in a convenient location in case re-installation becomes necessary.

4.2   Setting up the Well-Child Clients

PCC+ version 2.6 contains three GUI components designed to run on the desktop of any client PC that is connected to the RPMS server on the LAN.

- The first component is the Knowledgebase Editor. Place this component on the office workstation of the senior pediatric staff member. Special security is required to use this component.

- The second component is the ASQ Manager that allows users to print ASQ forms and enter Ages and Stages Questionnaire (ASQ) results. (ASQ is a childhood development screening tool). Place on workstations in the nursing area of all clinics that provide well-child care.

- The third component is the ASQ Content Files available on CD ROM form Brookes Publishing (~$175).

You will not be able to install the ASQ component without this CD ROM due to copyright and licensing restrictions. These files must be purchased separately and are not included in the distribution. To meet licensing requirements, you must purchase one copy of the CD for each facility (separate clinic site/hospital complex) where well-child care is provided. Copy the CD contents to the same workstations as the ASQ Manager component.

Client set-up is a relatively simple process if you adhere to the requirements described in the following sections.

4.2.1   Confirm the BMX Broker is Running on a Known Port

First, make sure that the BMX Broker is running on the RPMS server and note the broker port number. The default port number for WCM is 9200, but any valid port number, including those used by other BMX-related applications will do. You can run multiple instances of BMX on your RPMS server – each with its own port. But it is more efficient to run a single instance with a single port for all applications (GUI scheduling, WCM, and so on).

If you are not sure if BMX is active on your system, open a telnet session in programmer mode. At a MUMPS prompt enter **D ^%SS** and press <return>. This brings up the list of current jobs on the RPMS server. Scroll down until you find a routine called BMXMON. The active port number is shown in the devices column (2nd column on the right) as shown in Figure 4-1.

```
EBCI>D ^%SS

                    Cache System Status: 12:15 pm 01 Mar 2007

Process   Devices      KB Namespace        Routine     CPU,Glob  Pri  UIC
Location
    740                   %SYS                            0,0       7   0,0
CONTROL
   2372                   %SYS                        55724,411715  8   0,0
WRTDMN
   2380                   %SYS                            0,0       7   0,0
GARCOL
   2388                   %SYS                        281219,14093  7   0,0
JRNDMN
   2396                   %SYS                            0,0       7   0,0
EXPDMN
    700   |TCP|9201     70 EBCI            %INET      2021533,262118  7  0,0
  10760   |TCP|9200     82 EBCI            BMXMON      19131,4624   7   0,0
```

```
2552*   |TRM|:|2552 110 EBCI                        17665,9053   7   0,0
```
Figure 4-1: %SS List of processes

The same thing can be accomplished by using the Control Panel of the Cache Cube.

If you find that there are no active BMX processes or ports, you must start one now. The easiest way is to open a telnet session in programmer mode. At the MUMPS prompt, type **D STRT^BMXMON(9200)** and press <return>. This starts the BMX Broker using port 9200. Alternately, you can start the broker by opening the PCC+ Manager's Menu. First select the **WCM** option and then select **STRT**. Follow the prompts to start BMX. If the BMX broker was installed properly, it should be included in the Cache startup process. That way the Broker will automatically be activated whenever the RPMS server re-boots.

4.2.2   Install and Configure the ASQ Component

At this point, the Broker should be active, and you should know the active Broker port. Locate the file ven_0260_client.exe in the distribution folder. Copy this file to the desktop of all client workstations. This includes any workstation used to generate ASQ forms for well-child clinic. Typically, this includes one or more PCs in the clinic area. In all cases the workstations must have LAN access to the RPMS server.

For each clinic workstation, run the setup executable accepting all the defaults. During the installation, you will be asked to insert the ASQ CD ROM into the CD drive. Installation cannot proceed without this step!

> **Note:**   If you are re-installing the ASQ component on a
> workstation, you will not need the ASQ CD. The CD is
> only required the first time you install the component.

The ASQ license allows you to use the same CD on all workstations within a single facility. Additional CDs must be purchased for satellite clinics. When setup concludes, the following new icon will appear on the desktop.

Click this icon to start the ASQ Component.
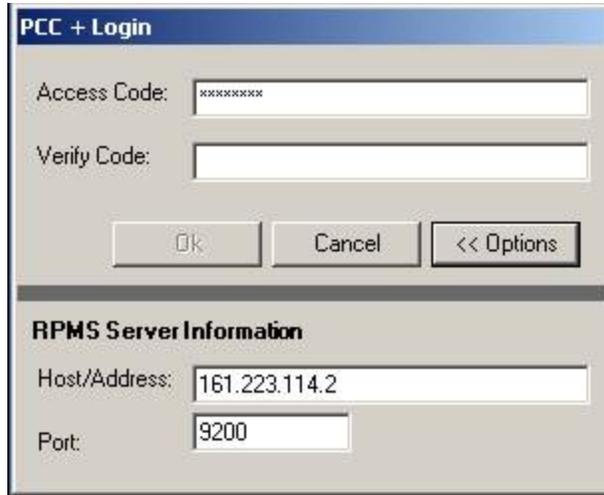
Click the **Options** button and enter the RPMS server information. This includes the server IP address (a national WAN address or internal LAN address—both are acceptable) and the Broker Port number.

First, log in as yourself. If you have ASQ privileges, the ASQ component should appear after a short delay.

> **Note:** If you have programmer privileges, you automatically have access to the ASQ component. If you cannot access the component despite programmer privileges, check the Broker and broker settings.

Enter the chart number of a test child to open up the component. Finally, close the component by clicking **Exit** in the upper left corner.

Next, have each clinician at that location log in using their usual RPMS access and verify codes. If the login fails, it is most likely due to a permissions problem. To establish temporary permissions for a user, open a telnet window and go to the PCC+ Manager's Menu. Select the **WCM** option and then the **CKUP** option. Scroll down to the broker option assignment dialog and enter the name(s) of the user(s). (The details of this procedure are covered in section 3.2). Scroll through the rest of the setup questions, close the telnet window, and return to the ASQ login component. Now the user should be able to log in and the ASQ component will appear. Once a user has successfully logged in, this is an excellent time to teach them how to use the component.

Repeat this procedure for all ASQ workstations and users.

4.2.3   Install and Configure the Knowledgebase Editor

Install the setup executable ven_0260_client.exe on the desktop of the workstation located in the office of the lead pediatric provider. This workstation must be connected to the RPMS server through the site's LAN. Run setup. When you get to the component selection screen, uncheck PCC+ WCM (ASQ) and check PCC+ Knowledgebase Editor. Then proceed as usual accepting all defaults.

If all is well, the following icon appears on the desktop.

When you see this icon, you may delete the setup executable.

Next, click the **editor** icon. As discussed in Section 4.2.2, configure the log in component and login as yourself.

If you have programmer privileges you automatically have access to this component.

> **Note:** If you have programmer privileges, you automatically have access to the ASQ component. If you cannot access the component despite programmer privileges, check the Broker and broker settings.

Select **Patient Education Topics** to open up the guideline manager's spreadsheet. Finally, close the component by clicking **Exit** in the upper left corner.
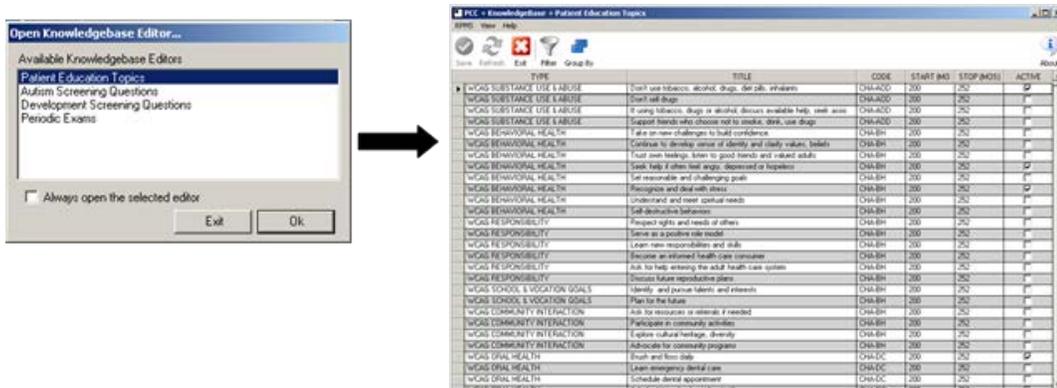
Next, have the lead pediatric provider log in using his/her usual RPMS access and verify codes. If the login fails, it is most likely due to a permissions problem. To establish temporary permissions for a user, open a telnet window and go to the PCC+ Manager's Menu. Select the **WCM** option and then the **CKUP** option. Scroll down to the section called "CHECKING SECURITY KEYS FOR THE KNOWLEDGEBASE EDITOR." If the lead provider's name is not in the list of keyholders, add the name using the configuration dialog.

```
CHECKING SECURITY KEYS FOR THE KNOWLEDGEBASE EDITOR:
        Key : VENZKBEDIT  <- OK
```

```
                 Holders:
                        MASON,BILL
                        SHORR,GREG
                        QUICK,SHAWN

                 Want to assign VENZKBEDIT to any other users? No// Y  (Yes)
Allocate this key to: CAIRNS,ROBERT    <- Allocated

                 Want to assign VENZKBEDIT to any other users? No// Y  (Yes)
Allocate this key to:
     All required security keys have been successfully installed
```

Figure 4-2: Assigning the key to the knowledgebase editor

The same dialog pathway can be used to de-allocate the Knowledgebase Editor key from an current keyholder.

Next, continue scrolling to the broker option assignment dialog and enter the name of the lead provider. Finally, scroll through the remaining setup questions, close the telnet window and return to the KB editor login component. The user should be able to log in and the KB Editor component will appear. Once the user is successfully logged in, this is an excellent time to teach them how to use the component.

5.0   Post Installation Testing

The best approach is to begin slowly. Print a few forms and submit them to data entry. Gradually, over the course of several weeks, shift all well-child documentation to PCC+. Be sure to test the WCM with the Nurse Check-in Module. EHR sites should enter vital signs using the EHR and then print the Well-Child form using the EHR option on the print menu.

Two new options are included to support the testing process. First, use the CKUP option on the PCC+ Manager's Menu to perform a comprehensive check of the WCM. This option also allows you to set user privileges for WCM desktop components. Second, use the VDEL option on the PCC+ ASMU Menu to delete test visits from RPMS.

6.0   Sample Installation

A sample installation is shown in section 3.1.

7.0   Installation Configuration

The configuration process is described in detail in section 3.2.

Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

Phone: (505) 248-4371 or (888) 830-7280 (toll free)

Fax: (505) 248-4363

Web: http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm

Email: support@ihs.gov