**MCCF EDI TAS US579**

System Design Document



Department of Veterans Affairs

**May 2017**

Version 1.01

**User Story Number:** USRX-24

**User Story Name:** Auto-Reverse Parameter Improvements

**Product Backlog ID:** 24

**Backlog Priority:** Low

**Initial Sizing Estimate:**

**Rational ID:** tbd

**Rally ID:** US579

# Design – Summary

Update functionality of the Auto-Reversal Parameter. Auto-Reversal Parameter is field .09 of the BPS Pharmacies File (#9002313.56). With this update, the field will be required. The range of allowable values will change from 0-30 to 3-10. The default value will be 5 and the associated Help Text will be updated.

A Post Install Routine will be created. This routine will loop through existing Pharmacy entries and will set the value to 5, if no value is currently defined. If a currently defined value is outside of the 3-10 range, the value will be updated to 5. A Mailman message will be sent out for all entries that are set or updated during the post install routine.

List of Components:

* File: BPS PHARMACIES (#9002313.56)
* Routine: BPSPHAR
* Routine: BPS21PST

# Design – Detail

Modify File Attributes in BPS PHARMACIES File (#9002313.56) as indicated below:

|  |  |
| --- | --- |
| **Fields** | **Values** |
| **FILE** | BPS PHARMACIES |
| **FIELD** | AUTO-REVERSE PARAMETER |
| **DESCRIPTION (Current)** | ECME shall use the following AUTO-REVERSE site parameter when determining whether non-released prescription claims (that have a PAYABLE payer returned response) are to be automatically REVERSED.  The AUTO-REVERSE site parameter is set for the number of days that ECME will wait before the claim is automatically REVERSED. The user is allowed to enter a number as follows:  0 - ECME Auto-Reverse is turned off, 1 to 30 - ECME will wait the entered number of days before REVERSING the non-released Rx with a PAYABLE payer returned response. |
| **DESCRIPTION (Modified)** | ECME shall use the following AUTO-REVERSE site parameter when  determining whether non-released prescription claims (that have returned  a PAYABLE response) are to be automatically REVERSED.  The AUTO-REVERSE site parameter is set for the number of days that  ECME will wait before the claim is automatically REVERSED. The user  is allowed to enter a number from 3 to 10.  5 is the suggested setting.  ECME will wait the entered number of days before REVERSING the  non-released Rx with a PAYABLE response. |
| **INCLUSIVE LOWER BOUND (Current)** | 0 |
| **INCLUSIVE LOWER BOUND (Modified)** | 3 |
| **INCLUSIVE UPPER BOUND (Current)** | 30 |
| **INCLUSIVE UPPER BOUND (Modified)** | 10 |
| **IS AUTO-REVERSE PARAMETER ENTRY MANDATORY (Y/N) (Current)** | NO |
| **IS AUTO-REVERSE PARAMETER ENTRY MANDATORY (Y/N) (Modified)** | YES |
| **‘HELP’-PROMPT (Current)** | You have to enter a number between 0 and 30. |
| **‘HELP’-PROMPT (Modified)** | Enter a number from 3 to 10. 5 is the suggested setting. |

If new BPS Pharmacy, default Auto-Reversal Parameter to 5.

| Subroutine Name | **EN^BPSPHAR** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enhancement Category | New | Modify | | | Delete | | No Change | |
| Story | US579 | | | | | | | |
| Related Menu Options or ListMan Actions | Edit ECME Pharmacy Data [BPS SETUP PHARMACY] | | | | | | | |
| Related Routines | This Subroutine is Called By | | | This Subroutine Calls | | | | |
| Edit ECME Pharmacy Data [BPS SETUP PHARMACY] | | | ^DIC  ^DIE  $$GET1^DIQ | | | | |
| Related Integration Control Registrations (ICRs) | N/A | | | | | | | |
| Data Passing | Parameter Input | | Parameter Output | | | Function Return Value | | Global Modified |
| Input Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Output Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Current Logic | | | | | | | | |
| BPSPHAR ;BHAM ISC/BEE - ECME MGR PHAR OPTION ;14-FEB-05  ;;1.0;E CLAIMS MGMT ENGINE;\*\*1,3,2,5\*\*;JUN 2004;Build 45  ;;Per VHA Directive 2004-038, this routine should not be modified.  …  EN ; Main Entry Point  N D0,DA,DI,DIC,DLAYGO,DIE,DIRUT,DQ,DR,DTOUT,DUOUT,X,Y  ;  ; First select the pharmacy or enter a new one  W !! S DIC(0)="QEALM",(DLAYGO,DIC)=9002313.56,DIC("A")="Select BPS PHARMACIES NAME: "  D ^DIC  ;  ;Check for "^", timeout, or blank entry  I ($G(DUOUT)=1)!($G(DTOUT)=1)!($G(Y)=-1) Q  ;  ;Pull internal entry  S DA=$P($G(Y),U) Q:'$G(Y)  ;  ; If new BPS Pharmacy, default the CMOP Switch and Auto-Reversal Parameter  I $P(Y,U,3)=1 D  . N DIE,DR,DTOUT  . S DIE=9002313.56,DR="1////0;.09////0"  . D ^DIE  ;  ; Display the BPS Pharmacy name, NCPDP #, and NPI  W !!,"NAME: ",$P($G(^BPS(9002313.56,DA,0)),U,1)  W !,"STATUS: ",$$GET1^DIQ(9002313.56,DA,.1,"E")  W !,"NCPDP #: ",$P($G(^BPS(9002313.56,DA,0)),U,2)  W !,"NPI: ",$P($G(^BPS(9002313.56,DA,"NPI")),U,1)  ;  ; Now edit OUTPATIENT SITE, CMOP SWITCH, AUTO-REVERSE PARAMETER,  ; and the DEFAULT DEA #  S DIE=9002313.56  S DR="13800;1;.09;.03"  S DR(2,9002313.5601)=".01"  D ^DIE  ;  Q | | | | | | | | |
| Modified Logic (Changes are highlighted) | | | | | | | | |
| BPSPHAR ;BHAM ISC/BEE - ECME MGR PHAR OPTION ;14-FEB-05  ;;1.0;E CLAIMS MGMT ENGINE;\*\*1,3,2,5,22\*\*;JUN 2004;Build 45  ;; Per VA Directive 6402, this routine should not be modified.  …  EN ; Main Entry Point  N D0,DA,DI,DIC,DLAYGO,DIE,DIRUT,DQ,DR,DTOUT,DUOUT,X,Y  ;  ; First select the pharmacy or enter a new one  W !! S DIC(0)="QEALM",(DLAYGO,DIC)=9002313.56,DIC("A")="Select BPS PHARMACIES NAME: "  D ^DIC  ;  ;Check for "^", timeout, or blank entry  I ($G(DUOUT)=1)!($G(DTOUT)=1)!($G(Y)=-1) Q  ;  ;Pull internal entry  S DA=$P($G(Y),U) Q:'$G(Y)  ;  ; If new BPS Pharmacy, default the CMOP Switch and Auto-Reversal Parameter  I $P(Y,U,3)=1 D  . N DIE,DR,DTOUT  . S DIE=9002313.56,DR="1////0;.09////5"  . D ^DIE  ;  ; Display the BPS Pharmacy name, NCPDP #, and NPI  W !!,"NAME: ",$P($G(^BPS(9002313.56,DA,0)),U,1)  W !,"STATUS: ",$$GET1^DIQ(9002313.56,DA,.1,"E")  W !,"NCPDP #: ",$P($G(^BPS(9002313.56,DA,0)),U,2)  W !,"NPI: ",$P($G(^BPS(9002313.56,DA,"NPI")),U,1)  ;  ; Now edit OUTPATIENT SITE, CMOP SWITCH, AUTO-REVERSE PARAMETER,  ; and the DEFAULT DEA #  S DIE=9002313.56  S DR="13800;1;.09;.03"  S DR(2,9002313.5601)=".01"  D ^DIE  ;  Q | | | | | | | | |

Post Install Routine; Loop through BPS PHARMACIES checking existing values for AUTO-REVERSAL PARAMETER field (# .09). If existing value is nil or if existing value is outside of 3-10 (inclusive) range, update value to be 5.

| Subroutine Name | **POST^BPS21PST** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enhancement Category | New | Modify | | | Delete | | No Change | |
| Story | US579 | | | | | | | |
| Related Menu Options or ListMan Actions | N/A | | | | | | | |
| Related Routines | This Subroutine is Called By | | | This Subroutine Calls | | | | |
| KIDS system; Kernel Installation and Distribution System; called upon patch installation | | | BMES^XPDUTL  AUTOREV^BPS21PST | | | | |
| Related Integration Control Registrations (ICRs) | N/A | | | | | | | |
| Data Passing | Parameter Input | | Parameter Output | | | Function Return Value | | Global Modified |
| Input Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Output Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Current Logic | | | | | | | | |
| N/A | | | | | | | | |
| Modified Logic (Changes are highlighted) | | | | | | | | |
| BPS22PST ;AITC/PD - Post-install for BPS\*1.0\*22 ;5/10/2017  ;;1.0;E CLAIMS MGMT ENGINE;\*\*22\*\*;  ;;Per VA Directive 6402, this routine should not be modified.  ;  Q  ;  POST ;post-install functions are coded here.  D BMES^XPDUTL(" Starting post-install of BPS\*1.0\*tbd")  D AUTOREV  D BMES^XPDUTL(" Finished post-install of BPS\*1.0\*tbd")  Q | | | | | | | | |

| Subroutine Name | **AUTOREV^BPS22PST** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enhancement Category | New | Modify | | | Delete | | No Change | |
| Story | US579 | | | | | | | |
| Related Menu Options or ListMan Actions | N/A | | | | | | | |
| Related Routines | This Subroutine is Called By | | | This Subroutine Calls | | | | |
| POST^BPS21PST | | | BMES^XPDUTL  ^DIE  $$NOW^XLFDT  MAIL^BPS21PST  MES^XPDUTL | | | | |
| Data Dictionary (DD) References | BPS PHARMACIES (90023136.56) Field .09 | | | | | | | |
| Related Integration Control Registrations (ICRs) | N/A | | | | | | | |
| Data Passing | Parameter Input | | Parameter Output | | | Function Return Value | | Global Modified |
| Input Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Output Attribute Name and Definition | Name: BPSAR  Definition: Array of BPS Pharmacy Sites Updated  New  Modify  Delete  No Change | | | | | | | |
| Current Logic | | | | | | | | |
| N/A | | | | | | | | |
| Modified Logic (Changes are highlighted) | | | | | | | | |
| AUTOREV ; Update AUTO-REVERSAL PARAMETER in BPS PHARMACIES  ;  ; If existing value is nil or outside of inclusive range 3-10 set value to 5.  ;  N BPSAR,BPSARP,BPSIEN,CNT,DA,DIE,DR  ;  D BMES^XPDUTL(" Updating AUTO-REVERSAL PARAMETERs")  ;  S CNT=0  S BPSIEN=0 F S BPSIEN=$O(^BPS(9002313.56,BPSIEN)) Q:BPSIEN'?1N.N D  . S BPSARP=$P($G(^BPS(9002313.56,BPSIEN,0)),U,9)  . I (BPSARP="")!(BPSARP<3)!(BPSARP>10) D  .. S DIE=9002313.56,DA=BPSIEN,DR=".09////5"  .. D ^DIE  .. S BPSAR(BPSIEN)=BPSARP\_U\_$$NOW^XLFDT  .. S CNT=CNT+1  ;  I $D(BPSAR) D MAIL(.BPSAR)  ;  D MES^XPDUTL(" - "\_CNT\_" entries updated")  D MES^XPDUTL(" - Done with updating AUTO-REVERSAL PARAMETERs")  ;  Q | | | | | | | | |

| Subroutine Name | **MAIL^BPS21PST** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enhancement Category | New | Modify | | | Delete | | No Change | |
| Story | US579 | | | | | | | |
| Related Menu Options or ListMan Actions | N/A | | | | | | | |
| Related Routines | This Subroutine is Called By | | | This Subroutine Calls | | | | |
| AUTOREV^BPS21PST | | | $$SITE^VASITE  $$FMTE^XLFDT  ^XMD | | | | |
| Related Integration Control Registrations (ICRs) | IA# 10070 – Call to ^XMD  IA# 10112 - $$SITE^VASITE() | | | | | | | |
| Data Passing | Parameter Input | | Parameter Output | | | Function Return Value | | Global Modified |
| Input Attribute Name and Definition | Name: BPSAR  Definition: Array of BPS Pharmacy Site updated  New  Modify  Delete  No Change | | | | | | | |
| Output Attribute Name and Definition | Name: N/A  Definition:  New  Modify  Delete  No Change | | | | | | | |
| Current Logic | | | | | | | | |
| N/A | | | | | | | | |
| Modified Logic (Changes are highlighted) | | | | | | | | |
| MAIL(BPSAR) ; Generate MailMan E-Mail  ;  N BPSARP,BPSDT,BPSIEN,BPSL,BPSNAME,BPSSITE,BPSX,USR,XMDUZ,XMSUB,XMTEXT,XMY  ;  S BPSSITE=$$SITE^VASITE() ; IA 10112  ;  S BPSL=0  S BPSL=BPSL+1,BPSX(BPSL)="VistA patch BPS\*1.0\*22 was successfully installed at your site."  S BPSL=BPSL+1,BPSX(BPSL)=" "  ;  S BPSIEN=""  F S BPSIEN=$O(BPSAR(BPSIEN)) Q:BPSIEN="" D  . S BPSARP=$P($G(BPSAR(BPSIEN)),U)  . S BPSDT=$P($G(BPSAR(BPSIEN)),U,2)  . S BPSNAME=$P($G(^BPS(9002313.56,BPSIEN,0)),U,1)  . S BPSL=BPSL+1,BPSX(BPSL)=" Name: "\_BPSNAME  . S BPSL=BPSL+1,BPSX(BPSL)=" Station#: "\_$P(BPSSITE,U,3)  . S BPSL=BPSL+1,BPSX(BPSL)=" Date/Time: "\_$$FMTE^XLFDT(BPSDT,"5ZPM")  . S BPSL=BPSL+1,BPSX(BPSL)=" By: "\_$P($G(^VA(200,DUZ,0)),U,1)  . S BPSL=BPSL+1,BPSX(BPSL)=" "  . S BPSL=BPSL+1,BPSX(BPSL)="The ePharmacy Auto-Reversal Parameter has been changed at your site."  . S BPSL=BPSL+1,BPSX(BPSL)=" Previous Value: "\_BPSARP  . S BPSL=BPSL+1,BPSX(BPSL)=" New Value: 5"  . S BPSL=BPSL+1,BPSX(BPSL)=" "  ;  S BPSL=BPSL+1,BPSX(BPSL)="The Auto-Reversal Parameter can be changed using option Edit ECME Pharmacy"  S BPSL=BPSL+1,BPSX(BPSL)="Data."  S BPSL=BPSL+1,BPSX(BPSL)=" "  S BPSL=BPSL+1,BPSX(BPSL)="ECME uses the AUTO-REVERSE site parameter when determining whether non-released"  S BPSL=BPSL+1,BPSX(BPSL)="prescription claims (that have a PAYABLE payer returned response) are to be"  S BPSL=BPSL+1,BPSX(BPSL)="automatically REVERSED."  S BPSL=BPSL+1,BPSX(BPSL)=" "  S BPSL=BPSL+1,BPSX(BPSL)="The AUTO-REVERSE site parameter is set for the number of days that ECME will"  S BPSL=BPSL+1,BPSX(BPSL)="wait before the claim is automatically REVERSED. The user is allowed to enter"  S BPSL=BPSL+1,BPSX(BPSL)="a number from 3 to 10. 5 is the suggested setting. ECME will wait the"  S BPSL=BPSL+1,BPSX(BPSL)="entered number of days before REVERSING the non-released RX with a PAYABLE"  S BPSL=BPSL+1,BPSX(BPSL)="payer returned response."  ;  S XMSUB="ePharmacy Auto-Reversal Parameter Change: BPS\*1.0\*22 "  S XMSUB=XMSUB\_$P(BPSSITE,U,3)\_" #"\_$P(BPSSITE,U,2)  S XMDUZ="BPS Patch\*1.0\*22"  S XMTEXT="BPSX("  ; Define Recipients of Email - Recipients Include:  ; Installer of Patch  ; Holders of PSO EPHARMACY SITE MANAGER Key  ; Gregory Laird (production only)  ; Select team members (production only)  S XMY(DUZ)=""  S USR=0 F S USR=$O(^XUSEC("PSO EPHARMACY SITE MANAGER",USR)) Q:USR="" S XMY(USR)=""  I $$PROD^XUPROD(1) D  . S XMY("DNS")=""  . S XMY("DNS")=""  . S XMY("DNS")=""  . S XMY("DNS")=""  ; When invoking ^XMD in pre/post-init routine of Kernel Installation and  ; Distribution System (KIDS) build, the calling routine must NEW the DIFROM variable  ; Otherwise, your message will not be delivered.  N DIFROM  D ^XMD ; IA# 10070  ;  Q | | | | | | | | |

# Back Out/Rollback Procedure

This story includes modifications to existing routines and files.

To back out this enhancement, all the routines which are a part of this patch should be backed up prior to installation. Reverting to the previous version of these routines would back out this enhancement. Alternatively, the previous version of these routines could be distributed via an emergency patch.

Rolling back the changes to the database would involve the following steps, which could be performed by a developer or IRM at each site or via an emergency patch:

* Using option Edit ECME Pharmacy Data, update the value for Auto-Reversal Parameter to the previously defined value as shown in the MailMan E-mail which was sent as part of the patch update.
* Modify File Attributes to BPS PHARMACIES (9002313.56) to previously defined values via FileMan:

|  |  |
| --- | --- |
| **Fields** | **Values** |
| **FILE** | BPS PHARMACIES |
| **FIELD** | AUTO-REVERSE PARAMETER |
| **DESCRIPTION** | ECME shall use the following AUTO-REVERSE site parameter when determining whether non-released prescription claims (that have a PAYABLE payer returned response) are to be automatically REVERSED.  The AUTO-REVERSE site parameter is set for the number of days that ECME will wait before the claim is automatically REVERSED. The user is allowed to enter a number as follows:  0 - ECME Auto-Reverse is turned off, 1 to 30 - ECME will wait the entered number of days before REVERSING the non-released Rx with a PAYABLE payer returned response. |
| **INCLUSIVE LOWER BOUND** | 0 |
| **INCLUSIVE UPPER BOUND** | 30 |
| **IS AUTO-REVERSE PARAMETER ENTRY MANDATORY (Y/N)** | NO |
| **‘HELP’-PROMPT** | You have to enter a number between 0 and 30. |