# ACR/Summary® and ACR/Detail®

# Release Notes | Infogix ACR® 9.0

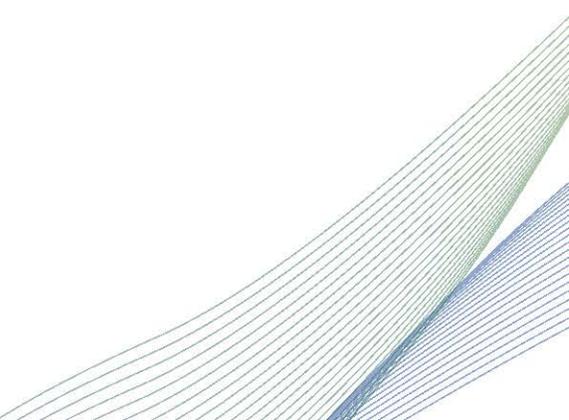Infogix, the Infogix checkmark logo, Infogix Assure, Infogix Insight, ACR, ACR/Detail, ACR/Summary, ACR/Workbench, ACR/Connector, ACR/Instream, ACR/File, Infogix ER, Infogix DTM, Infogix Perceive, Infogix Nexix, Information Integrity, and Information With Confidence are registered trademarks of Infogix, Inc.

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## OVERVIEW

This document provides an overview of enhancements and modifications for users of ACR/Summary® and ACR/Detail® who are upgrading to Release 9.0.

## ACR/SUMMARY ENHANCEMENTS

The following section describes the major enhancements for ACR/Summary.

### Invoke Program Interface (UAC1000) using a JAVA Program

Users can perform balancing using the Program Interface mode by passing accumulated data values to UAC1000, a COBOL program, on the mainframe. In this release, the Program Interface is enhanced to handle the return of 999 history items and also allow input of date fields

Currently, there is no easy method to call UAC1000 from external programs, such as Java, running on non-z/OS environments. A new program residing on the OMVS side of the mainframe has been developed to invoke Program Interface (UAC1000) directly from a Java program running on Windows. This feature provides greater flexibility in the options to invoke the Program Interface. This program is available as a separate licensable feature. Licensing costs may apply. Please contact Infogix Customer Support for additional information.

This enhancement is applicable to z/OS.

### Provide ability to create up to 999 Calculated Items

A calculated item is used for mathematical manipulation of values that include internal items, history items, other calculated items, or literals (numeric constants or text literals). Users could define only 100 Calculated Items in prior releases. In this release, the functionality has been extended to provide ability to define up to 999 Calculated Items.

### Increase User Report Detail Specification from 100 to 999 lines

In the User Report, users were able to define only 100 detailed lines in prior releases. In this release, the functionality has been extended to provide ability to define up to 999 lines.

### Access Mode 5 (Total/Tally/Hash) Support for VSAM files

In prior releases, Access Mode 5 support was available only for Physical Sequential files. Starting this release the functionality has been extended and users can use Access Mode 5 to perform Total, Tally, and Hash, on VSAM files.

## ACR/DETAIL ENHANCEMENTS

The following section describes the enhancements for ACR/Detail.

## Read and Match Two Input Sources Simultaneously for Improved Performance

A new Access Mode, 8 (Use matched file processing), can now be used to read and match the keys and/or the values of Internal or Extended Internal items from two input sources concurrently for improved performance.

The records in the input files must contain unique keys and be in an ascending order. This functionality is applicable for Physical Sequential and VSAM Key Sequenced files only.

For each input source, matched records or unmatched records will be extracted and reported based on the specified Matching Options. The matching criteria can be applied at two levels:
- Key Level
- Item Level (when there is a match at the Key level)

## Perform an Action Based on Highest Key Return Code

Users can define a Rule (Conditional Rule) that can evaluate the status of up to ten Standard Rules to determine if the condition is met. Users now have the ability to check for the highest Key Return Code for a particular value or range of values.

Users can define an action to be initiated when the condition is met providing greater flexibility to define actions. Both active and inactive Conditional Rules support return code comparison.

Additionally, a new action, 'Reset key return code to zeros', is now available to reset the highest Key Return Code to zero if desired. If users select the action to reset the highest Key return code to zero, and if this Conditional Rule is met, all subsequent Rules will compare against a return code of zero.

# ACR/SUMMARY AND ACR/DETAIL ENHANCEMENTS

The following section describes the enhancements that pertain to both ACR/Summary and ACR/Detail.

## Allow Workbench to Communicate with the ACR on the mainframe

Users can use ACR/Workbench to test out their rules directly on the Mainframe. This enhancement will either eliminate or minimize the need to export/import rules, especially during rules development reducing the time and effort required.

This enhancement is applicable to Workbench and z/OS.

## Internal Translation Table Enhancements

Internal Translation functionality has been extended to support data translation in additional data formats. Users will now have the added capability to translate values for two additional data types – Date, and Time.

To make Internal Translation table processing consistent with External Translation Tables and products such as Infogix Assure, the format of the input data and its translated value is now defined during the definition of the Internal Translation table itself. In prior releases, the definition of input data format and its translated value was specified during the entry of actual data.

### Upgrade Consideration

For tables created in Releases 4.7, 4.8, or 4.9, the data format is entered for each entry. When these tables are opened and/or processed in ACR Release 9.0, the formats entered for the first row are used as the table column formats.

If the formats of the second and/or the subsequent rows are different from the first row, users have to change the data manually to make it consistent with the table column format.

In case the table column formats are not relevant for some rows of data, the table is required to be split into separate tables.

To identify if the Internal Translation tables created in Releases 4.7, 4.8, or 4.9 have mixed formats (the second and/or the subsequent rows have data formats different from the first row), a program has been developed to scan the Definition database to produce a list of tables that have mixed formats.

The name of the program is UNIVTBL (z/OS, Unix/Linux and IBM i), SUMVERTBL (ACR/Summary on Windows), and DETVERTBL (ACR/Detail on Windows)

**Note: You must run the scan program before your Internal Translation tables have been processed and updated in ACR 9.0 format.**

## Two New Functions (@MINIMUM and @MAXIMUM) in Calculated Item Rule Definition

Two new functions, @MINIMUM and @MAXIMUM, have been added to the Calculated Item rule definition.  The function @MINIMUM returns the minimum value in a list, or from a range of specified items. The function @MAXIMUM returns the maximum value in a list, or from a range of specified items.

# ACR/SUMMARY AND ACR/DETAIL SYSTEM REQUIREMENTS

## Requirements for z/OS®

| Category | Requirement |
|---|---|
| Operating System | IBM z/OS® 2.2 or higher |
| ISPF Profile | ISPF profiles are not compatible with releases of ACR/Summary and ACR/Detail older than 3.0. |
| TSO Region Size | *6144 (7168 suggested) , plus space required by LE runtime libraries. |
| COBOL | Enterprise COBOL 4.2 or any compatible COBOL is required if you wish to compile user exits. |
| JAVA® | Version 6.0.1 SR1 or higher |

*Additional region size is necessary to install Infogix Visibility API, retrieve history from Infogix Assure or process large files in the extract window, particularly for delimited data in ACR/Summary access modes 1-4. To avoid additional tuning, set the region size to 0M.

## Requirements for Windows®

### ACR/Summary and ACR/Detail Server

| Category | Requirement |
|---|---|
| Hardware and Operating System | IBM® or compatible machine with Microsoft® Windows 7, Windows Server® 2008, or Windows Server 2012 |
| Memory | At least 100 MB of Random Access Memory (RAM) |
| Disk Space | A hard drive with at least 50 MB of free space |
| Drive | CD-ROM |
| Network Communication | TCP/IP protocol |

**ACR/Workbench and Clients**

| Category | Requirement |
| --- | --- |
| Hardware and Operating System | IBM or compatible machine with Windows 7, or Windows 2008 |
| Memory | At least 100 MB of Random Access Memory (RAM) |
| Disk Space | For ACR/Workbench: A hard drive with at least 30 MB of free space (more if data files are stored locally)<br><br>For Clients: A hard drive with at least 10 MB of free space |
| Drive | CD-ROM |
| Network Communications | Access to a network using TCP/IP protocol |

## Requirements for UNIX® and Linux®

| Vendor | Operating System | Approximate Installation Size |
| --- | --- | --- |
| IBM | AIX 6.1 or higher | 229 MB |
| Oracle® | Solaris® 9 or higher | 113 MB |
| Red Hat | Linux® 6.5<br>64 bit or higher | 272 MB |

## Requirements for IBM i

| Category | Requirement | Approximate Installation Size |
| --- | --- | --- |
| ACR/Summary | | 99 MB |
| ACR/Detail | | 193 MB |
| Operating System | V6R1 | |
| COBOL | ILE Cobol V6R1 | |
| JAVA | Version 6.0 SR9<br>FP1 or higher | |

# UPGRADING ACR/SUMMARY AND ACR/DETAIL FROM A PREVIOUS RELEASE

## Instructions for Upgrades

1. Review Internal Translation Table Enhancements - For internal translation tables, the format of the input data and its translated value is now defined during the definition of the Internal Translation table itself. The formats entered at the table level are used for all the table entries. In prior releases, the definition of input data format and its translated value was specified during the entry of actual data.

   For tables created prior to Release 4.7, data formats are not available and translation entries (both input and output) are processed as text. When these tables are opened/processed in Release 9.0, the data formats of the input column and the output column at the table level are set to text automatically.

   For tables created in Release 4.7 - 4.9, data format is entered for each entry. When these tables are opened/processed in Release 9.0, the formats entered for the first row are used as the table column formats. If the formats of the second and the subsequent rows are different from the first row, users have to change the data manually to make it consistent with the table column formats. In case the table column formats are not relevant for some rows, the table is required to split into separate tables.

   To see if the tables created in Release 4.7 – 4.9 have mixed formats (that is the second and subsequent rows have different formats from the first row), a program (UNIVTBL) has been developed to scan the Definition database and produce a list of tables that have mixed formats. Users should review the content of the tables and make modification as required. Refer to Installation Guide on instructions to run the scan program.

   For any change manually made to the internal translation tables, review the extraction rules and make modification as required.

2. Review Maintenance Fixes – Jira 5160 – ACR/Detail User Report - Rule return code and rule variance are printed properly on the report. This change may affect the content and layout of the reports. Review and make modification as required.

3. Review Maintenance Fixes – Jira 5320 - User Report XML Message - XML tag <pg> is generated for each page and the value in <totpg> is passed correctly. This fix works in conjunction with Infogix Insight. Verify the correct version of Infogix Insight is used.

4. Do not reinstall patches. This release includes all patches from previous releases. If you have installed patches in the past, install this release, but do not reinstall the patches.

## MAINTENANCE FIXES

The following maintenance fixes have been completed for this release.

| ACR/S | ACR/D | JIRA | Corrections | z/OS | Windows | UNIX | IBM i |
|-------|-------|------|-------------|------|---------|------|-------|
| *X* | | 4160 | File Control Processing – Jobs created prior to Release 4.5 using history items are processed properly. | X | | | |
| *X* | | 4726 | Detail Field (Access Mode 6/7) – 'Extract First' is processed properly when using numeric extraction variable. | | | | X |
| | X | 4765 | Definition List - Cycle format is printed for cycle key. | X | X | X | X |
| *X* | X | 4766 | Definition List – For detail field (Access Mode 6/7) picking up date/time, translation table name is printed if it is used. | X | X | X | X |
| | X | 4767 | Import – Hardcopy DD in F0/001 card is skipped. | | X | | |
| *X* | X | 4781 | User Options File Panel – Help panel is displayed properly for 'Print negative sign symbol'. | X | | | |
| | X | 4782 | Selection Field Panel – When the value entered for the selection type is out of range, error message is displayed properly. | X | | | |
| *X* | | 4786 | List Definitions by Function Utility Screen – Option to print Infogix Assure history items is added. | | | | X |
| *X* | X | 4790 | List Definitions by Function Utility Screen – Product name is taken out. | | | | X |
| *X* | | 4798 | User Report – Return code is printed properly for the page header and detail line. | X | X | X | X |
| *X* | X | 4807 | Selection Field (Access Mode 6/7) – 'BEGIN =' is processed the same way as in Release 4.7. | X | X | X | X |
| *X* | X | 4808 | Internal Translation – Translated value with 8 digits is processed properly and warning is no longer issued. | X | X | X | X |
| *X* | | 4817 | User Report – Leading spaces are retained when literal is entered for the field. | X | X | X | X |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *X* | | 4819 | Automatic Rerun - When the user-id to run the job with insufficient permissions/privileges, instead of running into an endless loop, RC 4039 is issued and processing terminates. | X | | | |
| | X | 4823 | User Program – A job using two user programs can now run properly. | X | X | X | X |
| | X | 4825 | Step/Full Extraction – 'BEGIN ='is processed the same way as in batch reconciliation. | X | | | |
| *X* | X | 4829 | Freeform Report/View Definition Panel (RPT4010P) - F4 (Action) and F6 (And/Or) are taken out from the key list. | X | | | |
| *X* | X | 4831 | Update from Batch – Sequence 3 card of the conditional rule is displayed in the 'Transaction Processing' section on the UNITR report. | **X** | **X** | **X** | **X** |
| *X* | | 4836 | Update from Batch – For User Report detail line, all the batch cards are displayed in the 'Transaction Processing' section on the UNITR report. | X | X | X | X |
| | X | 4840 | Update from Batch – Freeform reconciliation output file is not rejected with #UPD523E (OUTPUT LENGTH MUST BE 0 OR 8) when the time separator is not used for outputting the job start run time. | X | X | X | X |
| *X* | | 4842 | Update from Batch - Freeform report basic information (J1/000/1) is not rejected with #UPD587E (LENGTH MUST BE NUMERIC, 0 – 1000). | X | X | X | X |
| | X | 4843 | Update from batch – Validation is added for RLQ Restart Report Indicator in position 32 of J1/000/1 card. | X | X | X | X |
| *X* | | 4875 | Reformat Screen – 'Extraction Variable' is no longer an option. | | | | X |
| *X* | | 4887 | Control Report - Customized column headings are displayed properly when using 22-character format. | X | X | X | X |
| *X* | X | 4888 | Definition List – For extended internal Item, 'Calculated item to assign' is displayed on the report. | X | X | X | X |

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|---|---|---|---|---|---|---|---|
| *X* | X | 4889 | Standard Rule Panel - If text literals are entered for both LHS and RHS, #SWBPJ213 (Both LHS and RHS cannot be a constant) is displayed instead of #SWBPJ404. | X | | | |
| *X* | | 4892 | User Report Window (Enhanced Format) – For SWB7711P (User Report Detail Lines), leading spaces are saved properly when literal is entered. | X | | | |
| *X* | | 4940 | User Report Screen (Original Format) – User Report lines can be copied properly. | | | | X |
| *X* | | 4949 | Internal Item Screen (JINT) – The list of calculated items is displayed properly when using the <F4> selection feature for 'Calculated item to assign'. | | | | X |
| *X* | | 4950 | Internal Item Screen (JINT) – Online help is added. | | | | X |
| *X* | | 4951 | User Report Screen – Report line is deleted and processed properly. | | | | X |
| *X* | | 4963 | User Report (Original and Enhanced Format) – The overall return code and the rule return code are printed properly for the page header when using left justification. | X | X | X | X |
| *X* | | 4966 | User Report Dialog - The 'copy and paste' operation is now working correctly for report page headers. | | X | | |
| *X* | | 4970 | Update from Batch – Calculated item with extended internal item on RHS is not rejected. | X | X | X | X |
| *X* | X | 4974 | Calculated Item Dialog - The LHS or RHS 'Add' button is disabled when the total number of items has reached the maximum limit allowed. 15 for ACR/Summary and 10 for ACR/Detail. | | X | | |
| *X* | X | 4979 | Definition List - Access Mode is printed properly for VSAM input source. | X | X | X | X |
| *X* | | 4980 | Extract Window - Step/Full Extraction is disabled for Access Mode 3,4, and 5 | X | | | |
| *X* | | 4982 | VSAM File Information Panel (SWB8040P) - 'Use delimited data fields?' is taken out. | X | | | |

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|---|---|---|---|---|---|---|---|
| X | | 5013 | User Report Screen – For report page header, '999' is allowed to indicate the overall return code. | | | | X |
| X | | 5022 | Online Create Batch Card - F0/000 Sequence 2 card is generated for VSAM input source. | X | | | |
| X | | 5024 | Freeform Report Screen – Items are displayed properly in the item list when using the F4 selection feature. | | | | X |
| | X | 5026 | Freeform Reconciliation Output File (UNIDAT2) - 'Insert time separator' indicator is not set to 'yes' during initialization. | | X | | |
| X | X | 5069 | Integrity Check Function – For selection field, integrity check error is displayed properly and the application does not abend. | | X | | |
| | X | 5070 | Update from Batch - Obsolete field (print item order number) generated by GUI in positions 67-69 of J2/J22 sequence 1 record is no longer updated to the Definition Database. | X | X | X | X |
| | X | 5073 | External Translation – Date with MMDDCCYY format is properly translated to Gregorian format. | X | X | X | X |
| X | X | 5078 | Calculated Item – Calculated item referencing itself in the formula is not allowed during balancing/reconciliation. | X | X | X | X |
| X | | 5082 | Control Report (80-Column) - The last byte of the function name is not truncated for the calculation formula. | X | X | X | X |
| X | | 5083 | Balancing Extract File - An extra blank is not generated at the end of the function name. | X | X | X | X |
| X | X | 5084 | Job Window – When a date/time item is deleted, 'Delete' notification message is displayed properly for the calculated item and balancing rule if the item is found in LHS or RHS. | X | | | |
| X | | 5097 | File Control Processing – During rule processing, rule item with number other than 001 is now processed properly. | X | | | |
| X | | 5107 | Calculated Item screen – 15 items are allowed to enter on LHS. | | | | X |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | X | 5120 | Conditional Rule - If the conditional rule is to process another conditional rule, the rule number in #UDS048E is displayed properly. | X | X | X | X |
| | X | 5152 | Online Create Batch Card - For conditional rule, operator OR is generated properly for LHS. | X | | | |
| | X | 5153 | Freeform Report Window - For RPT1051P (Conditional Rule Result and RPT1050P (Standard Rule Values), the content of help panel DWBNOUP (Rule Display) is updated. | X | | | |
| | X | 5154 | Freeform Output File Window – For DWB7A70P (Rule Information), the content of help panel (DWH7A70) is updated. | X | | | |
| | X | 5155 | User Report Window – For DWB8740P (Rule Print Option), the content of help panel DWH8740 (Rule Print Option) and DWH8746 (Page Header Item Type) is updated. | X | | | |
| | X | 5159 | Freeform Report/Detail Report Window (RPT1001P) – 'ACTION TAKEN' is displayed when 'return code' is selected for conditional rule (Evaluate/Execute). | X | | | |
| | X | 5160 | User Report - Rule return code and rule variance are printed properly on the report. For inactive conditional rule, ''***COND MET***' or '***COND NOT MET***' is printed for return code. For standard rule, zero is printed for rule variance if it is in-balance.  For conditional rule to set return code, 'ACTION BYPASSED' is printed if the action is bypassed. | X | X | X | X |
| *X* | | 5169 | Calculated Item Screen - F10 TimeCsec function is allowed when creating a new item. | | | | X |
| *X* | | 5178 | Conditional Rule - If the conditional rule is to process another conditional rule, the rule number in #UBS079E is displayed properly. | X | X | X | X |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | X | 5180 | Conditional Rule – The rule entered in LHS must refer to a previously defined rule. Otherwise #UDS048E (ERROR IN BALANCING RULE) is displayed. | X | X | X | X |
| | X | 5193 | Conditional Rule Panel - The set return code option (default/set completion code/set abend code) is taken out to make it consistent with other platforms. | X | | | |
| *X* | X | 5194 | Inactive Conditional Rule/General Information Dialog – Blank is no longer displayed on the initial display. | | X | | |
| | X | 5203 | Standard Rule Panel – Help panel is updated. | X | | | |
| *X* | X | 5209 | Detail Field (Access Mode 6/7) – If translation is not used, validation between extraction format and cycle format is not loosened up to allow mixed- format translation. | X | X | X | X |
| | X | 5215 | Control Report – If the calculated item is invalid, the calculation formula is not printed on the report. | X | X | X | X |
| *X* | X | 5226 | Definition List – For detail field (Access Mode 6/7), date/time format and the translation table name are printed properly on the report. | X | X | X | X |
| | X | 5232 | Internal Item Panel (DWB8101P) - When picking up a time field from the input source, #DWBPJ209 is not displayed if 'Time' or 'Date & Time' is selected for the print format. | X | | | |
| *X* | X | 5235 | Calculated Item Panel – For calculated item using @DAY, @MONTH and @YEAR function, #DWBPJ417 (Invalid LHS value entered for RHS function) is no longer displayed when entering a numeric literal in LHS. | X | | | |
| | X | 5238 | Conditional Rule - "Do not story history" option is working properly. | X | X | X | X |
| | X | 5239 | Internal Translation - Key field (Access Mode 6/7) is no longer translated to low-values when using text-to-numeric translation. | X | X | X | X |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | X | 5241 | Internal Translation – For key Field (Access Mode 6/7) with translated value longer than 8 bytes, #UDX106W/ #UDX107W is displayed. Numeric translated key allows 16 digits and alphanumeric translated key allows 8 characters. | X | X | X | X |
| *X* | | 5243 | Extract Window/View Definition - For field item (Access Mode 1) with field type JSQ, Alternate Rule Set and Cycle, the word 'TRANSLATE' is displayed if translation is used. | X | | | |
| | X | 5245 | Extract Window/View Definition – For cycle key (Access Mode 6/7), the word 'TRANSLATE' is displayed if translation is used. | X | | | |
| | X | 5250 | Detail Field Dialog – When 'Extract From' is literal or tally, 'Use Translation Table' option is disabled. | | X | | |
| *X* | | 5251 | Definition List – For field item (Access Mode 1) picking up a date, all the fields are printed properly on the report. | X | X | X | X |
| *X* | | 5252 | Definition List – For field item (Access Mode 1) using translation, '/' is printed between the table name and the translation option. | X | X | X | X |
| | X | 5256 | Definition List - For cycle key (Access Mode 6/7), cycle format is printed on the report. | X | X | X | X |
| | X | 5258 | Update from Batch – For cycle key (Access Mode 6/7), key number is always updated to zero. | X | X | X | X |
| *X* | X | 5262 | Key Field Dialog/cycle key (ACR/Detail) and Field Item Dialog/Cycle (ACR/Summary) - If using translation, validation between extraction format and cycle format is loosened up to allow mixed-format translation (i.e. text to numeric/numeric to text). | | X | | |
| *X* | X | 5266 | Internal Translation Table - The default settings are cleared out when creating a new table. | | X | | |
| *X* | | 5276 | Field Cycle (Access Mode 1) – When using Internal Translation for cycle format DDMMMYY and MMMDDYY, #UFI013W is no longer displayed and translation is working properly. | X | X | X | X |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *X* | | 5277 | Field Cycle (Access Mode 1) – When using Internal Translation for cycle format MMDDCCYY, MMMDDCCYY, DDMMCCYY and DDMMMCCYY, the century of the translated cycle is no longer changed to 20 if it is 19. | X | X | X | X |
| *X* | X | 5279 | Internal Translation Table – GUI is able to open a table with no entry defined. | | X | | |
| *X* | | 5281 | Field Cycle (Access Mode 1) – Partial cycle extraction for century, year, month MM (i.e. 01-12) and day is handled properly. | X | X | X | X |
| *X* | | 5282 | Field Cycle (Access Mode 1) - Partial cycle extraction for month MMM (i.e. JAN-DEC) is handled properly. | X | X | X | X |
| *X* | X | 5288 | Internal Translation Table - Users must enter the basic information for the table before the table entries. | | X | | |
| *X* | | 5294 | Selection Field (Access Mode 6/7) - GUI can import and show the non-extended selection/comparison values properly. | | X | | |
| *X* | | 5297 | Import – For Field Item (Access Mode 1), GUI can import the date format properly when the target is extraction variable. | | X | | |
| *X* | | 5300 | List Definitions – Field item (Access Mode 1) has DATE format 'YYMMDD is printed properly on the report. | X | X | X | X |
| | X | 5301 | User Report - Data column over 18 bytes are not truncated in the generated XML when using 18-character format. | X | X | X | X |
| | X | 5309 | Freeform Reconciliation Output File (UNIDAT2) – Job creating UNIDAT2 is running properly and MCH1202 error message is no longer displayed. | | | | X |
| X | | 5320 | User Report XML Message – <pg> is generated for each page and the value in <totpg> is passed correctly. | X | X | X | X |

## CONTACTING CUSTOMER SUPPORT

If you need assistance, contact Infogix Customer Support.

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