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Integrated Outpatient Code Editor Software

Installation Manual for z/OS Batch

v.22.3R1

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About this document

This manual contains the information needed to install version 22.3R1 of the Integrated Outpatient Code Editor Software - IOCE developed and run under the z/OS® operating system on a mainframe. The software edits hospital outpatient medical records for possible errors in coding and assigns APCs for Medicare's outpatient prospective payment system (OPPS).

The manual assumes that the person installing the software has experience working with Basic Assembly Language (BAL) and is comfortable working with Job Control Language (JCL) in the z/OS operating system.

Appendix A summarizes the changes in this release.

Chapter 1: Introduction

The Integrated Outpatient Code Editor (IOCE) program edits patient data to help identify possible errors in coding. Edits are generated by the program when a possible problem area is detected.

The software also assigns Ambulatory Payment Classification numbers based on Healthcare Common Procedure Coding System (HCPCS) codes for payment under the mandated outpatient prospective payment system (OPPS). The Integrated OCE program also edits claims for hospitals not subject to OPPS.

This chapter contains information on the versions of the software installed in the current release. For a list of edits performed by the program, see "[Edits in the software](#)" on page 9. The IOCE Software User's Manual (PBL-020) contains more information on the features and functionality of the program.

The current version of the software was developed and tested in the following environment:

- z/OS version 2.3
- IBM Enterprise COBOL for z/OS 6.2.0
- High-Level Assembler
- LE run-time environment

Note: IBM Enterprise COBOL for z/OS has been upgraded from version 4.2 to version 6.2 for the April 2021 release and will remain backward-compatible to version 4.2.

Versions of the program

The following table lists the versions and date ranges of the program contained in the current release of IOCE software for OPPS processing. The third level in the version number (represented by an 'x' in the table) denotes the number of revisions created since the original OPPS release. For example, 7.1.7 would be the seventh revision of the released version 7.1 product.

Note: Separately installed versions of the non-OPPS OCE must be maintained for as long as necessary to process claims for all hospital outpatient services provided prior to August 1, 2000 when OPSS was implemented; and non-OPPS hospital outpatient services prior to July 1, 2007 when the non-OPPS program was integrated into the OPSS program.

Table 1. Program versions

Version	Effective date range
22.3.R1	10/01/2021–10/01/2031 ^a
22.2.x	07/01/2021–09/30/2021
22.1.x	04/01/2021–06/30/2021
22.0.x	01/01/2021–03/31/2021
21.3.x	10/01/2020–12/31/2020
21.2.x	07/01/2020–09/30/2020
21.1.x	04/01/2020–06/30/2020
21.0.x	01/01/2020–03/31/2020
20.3.x	10/01/2019–12/31/2019
20.2.x	07/01/2019–09/30/2019
20.1.x	04/01/2019–06/30/2019
20.0.x	01/01/2019–03/31/2019
19.3.x	10/01/2018–12/31/2018
19.2.x	07/01/2018–09/30/2018
19.1.x	04/01/2018–06/30/2018
19.0.x	01/01/2018–03/31/2018
18.3.x	10/01/2017–12/31/2017
18.2.x	07/01/2017–09/30/2017
18.1.x	04/01/2017–06/30/2017
18.0.x	01/01/2017–03/31/2017
17.3.x	10/01/2016–12/31/2016
17.2.x	07/01/2016–09/30/2016
17.1.x	04/01/2016–06/30/2016
17.0.x	01/01/2016–03/31/2016
16.3.x	10/01/2015–12/31/2015

Version	Effective date range
16.2.x	07/01/2015–09/30/2015
16.1.x	04/01/2015–06/30/2015
16.0.x	01/01/2015–03/31/2015

a. The ending date of the current version will be modified to the actual ending date with the next release.

Included versions

To maintain a reasonable size for the program and data files, the IOCE will include only seven years of programs and files in each update. The earliest supported version in the current release is 16.0.x (effective 01/01/15); subsequent updates will drop the version corresponding to the earliest quarter as each new quarter is added. The program version table (page [7](#)) will be updated to reflect the versions of the program contained in the current release.

Edits in the software

The following table describes the OPPS edits in the IOCE software. Program edits are described in detail in the Integrated OCE Software User's Manual.

OPPS edits

Table 2. List of OPPS program edits

Edit number	Edit description
1	Invalid diagnosis code
2	Diagnosis and age conflict
3	Diagnosis and sex conflict
4	Medicare secondary payer alert (v1.0 and v1.1 only) ^a
5	External cause of morbidity code cannot be used as principal diagnosis
6	Invalid procedure code
7	Procedure and age conflict (inactive)
8	Procedure and sex conflict

Edit number	Edit description
9	Non-covered under any Medicare outpatient benefit, for reasons other than statutory exclusion
10	Service submitted for denial (condition code 21)
11	Service submitted for MAC review (condition code 20)
12	Questionable covered service
13	Separate payment for services is not provided by Medicare (v1.0–v6.3 and v.18.0-)
14	Code indicates a site of service not included in OPPS (v1.0–v6.3 only) ^a
15	Service unit out of range for procedure (Inactive)
16	Multiple bilateral procedures without modifier 50 (v1.0–v6.2 only) ^a
17	Inappropriate specification of bilateral procedure
18	Inpatient procedure
19	Mutually exclusive procedure that is not allowed by NCCI even if appropriate modifier is present (deleted, combined with edit 20 retroactive to earliest included version) ^a
20	Code2 of a code pair that is not allowed by NCCI even if appropriate modifier is present
21	Medical visit on same day as a type T or S procedure without modifier 25
22	Invalid modifier
23	Invalid date
24	Date out of OCE range
25	Invalid age
26	Invalid sex
27	Only incidental services reported
28	Code not recognized by Medicare for outpatient claims; alternate code for same service may be available
29	Partial hospitalization service for non-mental health diagnosis
30	Insufficient services on day of partial hospitalization
31	Partial hospitalization on same day as ECT or type T procedure (v1.0–v6.3 only) ^a
32	Partial hospitalization claim spans 3 or less days with insufficient services on at least one of the days (v1.0–v9.3) ^a

Edit number	Edit description
33	Partial hospitalization claim spans more than 3 days with insufficient number of days having mental health services (v1.0–v9.3) ^a
34	Partial hospitalization claim spans more than 3 days with insufficient number of days meeting partial hospitalization criteria (v1.0–v9.3) ^a
35	Only Mental Health education and training services provided
36	Extensive mental health services provided on day of ECT or type T procedure (v1.0–v6.3 only) ^a
37	Terminated bilateral procedure or terminated procedure with units greater than one
38	Inconsistency between implanted device or administered substance and implantation or associated procedure
39	Mutually exclusive procedure that would be allowed by NCCI if appropriate modifier were present (deleted, combined with edit 40 retroactive to earliest included version) ^a
40	Code2 of a code pair that would be allowed by NCCI if appropriate modifier were present
41	Invalid revenue code
42	Multiple medical visits on same day with same revenue code without condition code G0
43	Transfusion or blood product exchange without specification of blood product
44	Observation revenue code on line item with non-observation HCPCS code
45	Inpatient separate procedures not paid
46	Partial hospitalization condition code 41 not approved for type of bill
47	Service is not separately payable
48	Revenue center requires HCPCS
49	Service on same day as inpatient procedure
50	Non-covered under any Medicare outpatient benefit, based on statutory exclusion
51	Observation code G0378 not allowed to be reported more than once per claim
52	Observation does not meet minimum hours, qualifying diagnoses, and/or 'T' procedure conditions (v3.0–v6.3 only) ^a
53	Codes G0378 and G0379 only allowed with bill type 13x or 85x

Edit number	Edit description
54	Multiple codes for the same service ^a
55	Non-reportable for site of service
56	E/M condition not met and line item date for obs code G0244 is not 12/31 or 1/1 (v4.0–v6.3 only) ^a
57	E/M condition not met for observation and line item date for code G0378 is 1/1
58	G0379 only allowed with G0378
59	Clinical trial requires diagnosis code V707 as other than primary diagnosis (deleted, retroactive to the earliest included version) ^a
60	Use of modifier CA with more than one procedure not allowed
61	Service can only be billed to the DMERC
62	Code not recognized by OPPS; alternate code for same service may be available
63	This OT code only billed on partial hospitalization claims (v1.0–v13.3 only) ^a
64	AT service not payable outside the partial hospitalization program (v1.0–v13.3 only) ^a
65	Revenue code not recognized by Medicare
66	Code requires manual pricing
67	Service provided prior to FDA approval
68	Service provided prior to date of National Coverage Determination approval
69	Service provided outside approval period
70	CA modifier requires patient discharge status indicating expired or transferred
71	Claim lacks required device code (v6.1–v15.3 only) ^a
72	Service not billable to the Medicare Administrative Contractor
73	Incorrect billing of blood and blood products
74	Units greater than one for bilateral procedure billed with modifier 50
75	Incorrect billing of modifier FB or FC (v8.0–v15.3 only) ^a
76	Trauma response critical care code without revenue code 068x and CPT 99291
77	Claim lacks allowed procedure code (v6.1–v15.3 only) ^a
78	Claim lacks required radiolabeled product (v9.0–v14.3 only) ^a

Edit number	Edit description
79	Incorrect billing of revenue code with HCPCS code
80	Mental health code not approved for partial hospitalization program
81	Mental health service not payable outside the partial hospitalization program
82	Charge exceeds token charge (\$1.01)
83	Service provided on or after effective date of NCD non-coverage
84	Claim lacks required primary code
85	Claim lacks required device code or required procedure code (v13.0–v14.3 only) ^a
86	Manifestation code not allowed as principal diagnosis.
87	Skin substitute application procedure without appropriate skin substitute product code
88	FQHC payment code not reported for FQHC claim
89	FQHC claim lacks required qualifying visit code
90	Incorrect revenue code reported for FQHC payment code
91	Item or service not covered under FQHC PPS or for RHC
92	Device-intensive procedure reported without device code
93	Corneal tissue processing reported without cornea transplant procedure
94	Biosimilar HCPCS reported without biosimilar modifier (v17.0–v19.0 only)
95	Weekly partial hospitalization services require a minimum of 20 hours of service as evidenced in PHP plan of care (v17.2 only-RTP, v18.3-present, LIR)
96	Partial hospitalization interim claim From and Through dates must span more than 4 days (deactivated to implementation date)
97	Partial hospitalization services are required to be billed weekly (deactivated to implementation date)
98	Claim with pass-through device lacks required procedure
99	Claim with pass-through or non-pass-through drug or biological lacks OPPS payable procedure
100	Claim for HSCT allogeneic transplantation lacks required revenue code line for donor acquisition services
101	Item or service with modifier PN not allowed under PFS
102	Modifier pairing not allowed on the same line

Edit number	Edit description
103	Modifier reported prior to FDA approval date (v19.0 only)
104	Service not eligible for all-inclusive rate
105	Claim reported with pass-through device prior to FDA approval for procedure
106	Add-on code reported without required primary procedure code
108	Add-on code reported without required primary procedure or without required contractor-defined primary procedure code
109	Code first diagnosis present without mental health diagnosis as the first secondary diagnosis
110	Service provided prior to initial marketing date
111	Service cost is duplicative; included in cost of associated biological
112	Information only service(s)
113	Supplementary or additional code not allowed as principal diagnosis
114	Item or service not allowed with modifier CS
115	COVID-19 lab add-on code reported without required primary procedure
116	Opioid treatment program service not payable outside the opioid treatment program
117	Token charge less than \$1.01 billed by provider
118	Invalid bill type
119	Invalid claim processing receipt date

a. Edits are active only on claims that are more than 7 years old that are processed with previously archived software.

Non-OPPS edits

The following table describes the subset of IOCE edits currently applied to claims from non-OPPS hospitals. Program edits are described in detail in the Integrated OCE Software User's Manual.

Table 3. List of non-OPPS program edits

Edit number	Edit description
1	Invalid diagnosis code
2	Diagnosis and age conflict
3	Diagnosis and sex conflict
5	External cause of morbidity code cannot be used as principal diagnosis
6	Invalid procedure code
8	Procedure and sex conflict
9	Non-covered under any Medicare outpatient benefit, for reasons other than statutory exclusion
10	Service submitted for denial (condition code 21)
11	Service submitted for MAC review (condition code 20)
12	Questionable covered service
13	Separate payment for services is not provided by Medicare
15	Service unit out of range for procedure (Inactive)
17	Inappropriate specification of bilateral procedure
20	Code2 of a code pair that is not allowed by NCCI even if appropriate modifier is present
22	Invalid modifier
23	Invalid date
24	Date out of OCE range
25	Invalid age
26	Invalid sex
28	Code not recognized by Medicare for outpatient claims; alternate code for same service may be available
40	Code2 of a code pair that would be allowed by NCCI if appropriate modifier were present
41	Invalid revenue code

Edit number	Edit description
44	Observation revenue code on line item with non-observation HCPCS code
46	Partial hospitalization condition code 41 not approved for type of bill
48	Revenue center requires HCPCS
50	Non-covered under any Medicare outpatient benefit, based on statutory exclusion
51	Observation code G0378 not allowed to be reported more than once per claim
53	Codes G0378 and G0379 only allowed with bill type 13x or 85x
54	Multiple codes for the same service ^a
55	Non-reportable for site of service
61	Service can only be billed to the DMERC
62	Code not recognized by OPPI; alternate code for same service may be available
65	Revenue code not recognized by Medicare
67	Service provided prior to FDA approval
68	Service provided prior to date of National Coverage Determination (NCD) approval
69	Service provided outside approval period
72	Service not billable to the Medicare Administrative Contractor
74	Units greater than one for bilateral procedure billed with modifier 50
83	Service provided on or after effective date of NCD non-coverage
84	Claim lacks required primary code
86	Manifestation code not allowed as principal diagnosis
88	FQHC payment code not reported for FQHC claim
89	FQHC claim lacks required qualifying visit code
90	Incorrect revenue code reported for FQHC payment code
91	Item or service not covered under FQHC PPS or for RHC
93	Biosimilar HCPCS reported without biosimilar modifier (v17.0–v19.0 only)
94	Biosimilar HCPCS reported without biosimilar modifier (v17.0–v19.0 only)
100	Claim for HSCT allogeneic transplantation lacks required revenue code line for donor acquisition services
102	Modifier pairing not allowed on the same line

Edit number	Edit description
103	Modifier reported prior to FDA approval date (v19.0 only)
104	Service not eligible for all-inclusive rate
106	Add-on code reported without required primary procedure code
107	Add-on code reported without required contractor-defined primary procedure code
108	Add-on code reported without required primary procedure or without required contractor-defined primary procedure code
110	Service provided prior to initial marketing date
111	Service cost is duplicative; included in cost of associated biological
112	Information only service(s)
113	Supplementary or additional code not allowed as principal diagnosis
114	Item or service not allowed with modifier CS
115	COVID-19 lab add-on code reported without required primary procedure
116	Opioid treatment program service not payable outside the opioid treatment program
118	Invalid bill type
119	Invalid claim processing receipt date

Chapter 2: Installing the software

This chapter describes the installation of the Integrated Outpatient Code Editor (IOCE) software. The installation download contains the compiled object code for the program, written in IBM® Assembler language. It also contains a test database, ancillary description files, and a library of the source programs and load library modules. The following table lists the files contained in the E-download.

Table 4. Installation files

File	Name	Description
1	MISCELLANEOUS	Sample JCL, test database, and description files.
2	OBJLIB	Library of object modules
3	SRCLIB	Library of source programs
4	LOADLIB	Library of load programs

There are three basic parts to the installation procedure:

1. Downloading all files shown in the preceding table.
2. Running the COBOL test program.
3. Selecting and using the files required for your facility.

Downloading the files

The following table lists physical characteristics of the files, their comparable disk representations, and their space allocations on 3390 disk packs.

Table 5. Installation file characteristics

File	Description	LRECL	BLKSIZE	DSORG Tape	DSORG Disk	Space
1	Sample JCL for program download	80	3120	PS	PO	1 track
2	Library of object modules	80	27920	PS	PO	38 cylinders
3	Installation test database	300	27900	PS	PS	15 cylinders
4	DXDSC English description file	80	27920	PS	PS	10 cylinders
5	HCPCS English description file	55	11000	PS	PS	2 cylinders
6	APC English description file	130	27950	PS	PS	10 tracks

File	Description	LRECL	BLKSIZE	DSORG Tape	DSORG Disk	Space
7	Library of source programs	80	27920	PS	PO	88 cylinders
8	Library of load programs	0	6233	PS	PO	28 cylinders

1. Click the link to download the software.

We recommend that you save the zipped product file on your computer and then unzip and install the files from that location.

2. Unzip the downloaded product file.

The program MVS files shown in the preceding table are now in the directory you chose to save the zipped product file. The compiled load modules and the object code for the IOCE Software are written in IBM High Level Assembler (using MVS data management macros) and Enterprise COBOL for z/OS 6.2.0. Tables are also an integral part of the IOCE Software.

All required software for executing the IOCE Software programs is contained in the folders in this directory. The directory contains the following folders:

IMPORTANT! Load module files and object module files must be FTP'd in BINARY mode.

- Miscellaneous library - Sample JCL, test database, and description files.
 - Load library - IOCE load modules
 - Object library - IOCE object modules
 - Source library - IOCE source programs
3. FTP the files to the mainframe

or

Copy the files to a CD for alternate delivery.

Install the downloaded files

This section assumes you have already downloaded the zipped IOCE product file to your computer and have unzipped that file producing the folders of program files shown in the installation files table (page [19](#)).

Note: Where there is a generic reference v###, the ### represents the program version number. You should replace 223R1 with the appropriate program version number.

FTP the files

Certain rules must be followed when working with the unzipped program files. JCL in the Miscellaneous folder, LOADLIB, OBJLIB, SRCLIB must be copied to partitioned datasets.

The procedure is explained in detail in the following sections.

Sample JCL

The JCL file library contains sample JCL to run the sample COBOL interface program. The following table lists the files in the JCL library.

Table 6. Files contained in JCL library

Member	Function
BLDPDSE	Sample JCL used for electronic download
COBOLJCL	Run sample COBOL program
COBTSTGO	Run test database executing LOADLIB members
INSTLCNT	Readme for install test database record counts

The following steps transfer the IOCE JCL library.

1. Allocate a PDSE on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.JCL]
 - RECFM = FB
 - LRECL = 80
 - BLKSIZE = 3120
 - SPACE = (TRK,(1,1,5),RLSE)
2. FTP in ASCII mode all of the files in the JCL library folder into the allocated PDSE defined in step 1 above.

IOCE description files

Use the following steps to download the DXDSC (contains ICD-10-CM and ICD-9-CM), HCPCS, and APC English descriptions. Files are written as sequential data sets. Description files are included for convenience purposes only and downloading them to disk is optional.

HCPCS file consists of a 5-byte code, 3-byte low version number, 3-byte high version number, and description.

APCDSC consists of a 5-byte APC number, 3-byte low version number, 3-byte high version number, and description.

DXDSC consists of a code type indicator (0 for ICD-10-CM, 9 for ICD-9-CM), 7-byte code, 3-byte low version number, 3-byte high version number, and description.

APC description file

The following steps transfer the APC description file.

1. Allocate a sequential file on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.APCDSC]
 - RECFM = FB
 - LRECL = 130
 - BLKSIZE = 27950
 - SPACE = (TRK,(10),RLSE)
2. FTP in ASCII mode the description file into the sequential file allocated in step 1 above.
3. Modify the DSN to conform to the naming conventions at your site.

DXDSC description file

The following steps transfer the DXDSC (contains ICD-10-CM and ICD-9-CM description file).

1. Allocate a sequential file on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.OCEAPC.v###.DXDSC]
 - RECFM = FB
 - LRECL = 80
 - BLKSIZE = 27920
 - SPACE = (CYL,(10),RLSE)
2. FTP in ASCII mode the description file into the sequential file allocated in step 1.
3. Modify the DSN to conform to the naming conventions at your site.

HCPCS description file

The following steps transfer the HCPCS description file.

1. Allocate a sequential file on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.HCPCSDSC]
 - RECFM = FB
 - LRECL = 55

- BLKSIZE = 11000
 - SPACE = (CYL,(2),RLSE)
2. FTP in ASCII mode the description file into the sequential file allocated in step 1 above.
 3. Modify the DSN to conform to the naming conventions at your site.

Object library

The OBJLIB folder contains the IOCE library of all programs. The following table lists the files in the object library.

Table 7. System object library members

Number	Name	Description
1	COBTEST	Sample COBOL program
2	OCECLAIM	Claim processing module
3	GAPCROT	Read only table
4	GAPCROT1	Read only table
5	GAPCROT2	Read only table

The following steps transfer the IOCE object library.

1. Allocate a PDSE on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.OBJLIB]
 - RECFM = FB
 - LRECL = 80
 - BLKSIZE = 27920
 - SPACE = (CYL,(38,1,5),RLSE)
2. FTP in BINARY mode all of the files in the object library folder into the PDSE allocated in step 1 above.

Load library

The LOADLIB has been saved as a sequential file, FTPload. Members are listed in the following table. LOADLIB is an optional file.

Table 8. Load library members

Number	Name	Description
1	COBTEST	Sample COBOL program
2	OCECLAIM	Claim processing module that includes the GAPCROT file

The following steps transfer the IOCE load library.

1. Allocate a sequential dataset on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.FTPLOAD]
 - RECFM = FB
 - LRECL = 80
 - BLKSIZE = 3120
 - SPACE = (CYL,(25,5),RLSE)
2. FTP in BINARY mode the file FTPLOAD into the sequential dataset allocated in step 1 above.
3. Allocate a load library (a PDSE) on your mainframe with the following characteristics.
 - DSN = [e.g. YOURID.IOCE.v###.LOADLIB]
 - RECFM = U
 - BLKSIZE = 6233
 - SPACE = (CYL,(28,3,5),RLSE)
 - DSNTYPE = (LIBRARY)

Note: To accommodate the increased size of the software module, the LOADLIB installation procedure has been modified effective with the January 2017 (IOCE v18.0) release. You are required to define the LOADLIB as a LIBRARY (PDSE) instead of a PDS.

4. Create BLDPDSE JCL (shown below).

```

//JOB CARD FOR YOUR INSTALLATION
//* *****
//* *** RECEIVE FTP'D SEQUENTIAL FILES TO CREATE LOAD
//* *** LIBRARY PDSE.
//* *****
//BLDLOAD EXEC PGM=IKJEFT01
//SYSTSPRT DD SYSOUT=*
//SYSTSIN DD *
    RECEIVE INDATASET('YOURID.IOCE.v###.FTPLOAD')
    DATASET('YOURID.IOCE.v###.LOADLIB')
/*

```

Note: BLDPDSE was FTP'd to the mainframe from the JCL library. This JCL will execute the utility, IKJEFT01, a terminal monitor program that will execute TSO commands via batch processing. This will populate the LOAD LIBRARY from the FTP'd load sequential dataset.

- Add your JOBCARD
 - Modify dataset names as necessary
 - ◆ INDATASET = sequential dataset that was FTP'd to the mainframe in step 1 above.
 - ◆ DATASET = allocated load library PDSE created in step 3 above.
5. Execute the JCL modified in step 4 above.

Source library

The SRCLIB folder contains the source library with the members shown in the following table.

Table 9. System source library members

Number	Name	Description
1	COBTEST	Sample COBOL program
2	OCECLAIM	Claim processing module
3	GAPCROT	Read only table
4	GAPCROT1	Read only table
5	GAPCROT2	Read only table

The following steps transfer the IOCE source library.

1. Allocate a PDSE on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.SRCLIB]
 - RECFM =FB
 - LRECL = 80

- BLKSIZE = 27920
 - SPACE = (CYL,(88,2,5),RLSE)
2. FTP in ASCII mode all of the files in the source library folder into the PDSE allocated in step 1 above.

Test database

The TESTDB file contains a test database to test successful execution of the IOCE Software once it has been installed. The test database consists of a series of fixed-format, sequential, 300-byte records.

The following steps transfer the test database.

1. Allocate a sequential file on your mainframe with the following characteristics:
 - DSN = [e.g. YOURID.IOCE.v###.TESTDB]
 - RECFM =FB
 - LRECL = 300
 - BLKSIZE = 27900
 - SPACE = (CYL,(15,1),RLSE)
2. FTP in ASCII mode the test database file into the sequential file allocated in step 1 above.
3. Modify the DSN to conform to the naming conventions at your site.

Note: To test that the installation was successful, see "[Running the test program](#)" on page [26](#).

Running the test program

Note: We strongly recommend running the test program to ensure that the software is correctly installed.

This section describes the COBTEST program provided with the software to allow you to test the results of the installation procedure. COBTEST is a testing and demonstration program that reads a test database and calls the IOCE for each claim. On return from the call, it compares the results to expected results, which are included in the database. If differences are found, error information, including the number of claims with mismatches, is sent to Sysprint to aid in finding the source of the problem.

The test database consists of a series of fixed-format, sequential, 300-byte records. If the test is successful, the output results will match the expected results record in the test database.

The sample JCL to compile, link, and execute the COBOL test program is member COBOLJCL (page [21](#)).

Expected test run results

The expected number of claims and records processed in a successful test run of the installation is given in member INSTLCNT in the JCL library folder (page [21](#)). A message describing the status of the installation will be the final line reported. Errors will also be reported. The reported errors will include the test database claim number and the actual and expected results.

Record types and layouts

Each record in the test database begins with a letter to indicate its type. The remaining characters of each record depend on the record type.

Basically, there are two types of records: those associated with claims data, and those associated with the processing results (i.e., expected results).

The following two tables list the record types contained in the test database, the source of the kind of information contained in the record, a description of the type of information in the record, and the contents of the record.

Table 10. Claims record types

Type	Description	Contents
C	Header information	Demographic (age, sex, patient status) data, From and Through dates for the claim, OPPS/non-OPPS flag, and a patient ID number
D	Diagnosis codes	Diagnosis codes 1–28, left-justified; the first three codes are the reason for visit diagnoses (RVDX); the fourth code is the principal diagnosis (PDX); the remaining diagnoses are secondary; input must be contiguous; the program interprets the first blank non-RVDX field as the end of the listing. DX code is listed in first 7 bytes, left-justified, blank-filled. The eighth byte in each dx input space is reserved for POA Indicator (future use).
E	Value codes - part 1	Value codes 1-24
F	Value codes - part 2	Value codes 25-36
L	Line item information	Data for each service applicable to the claim

Processing results types

Table 11. Processing results types

Type	Description	Contents
M	Claim return buffer - part 1	Claim information from OCECLAIM return buffer
N	Claim return buffer - part 2	Claim information from OCECLAIM return buffer
O	Diagnosis edit buffer - part 1	Diagnoses 1–9 edit information
P	Diagnosis edit buffer - part 2	Diagnoses 10–18 edit information
Q	Diagnosis edit buffer - part 3	Diagnoses 19–28 edit information
R	Line item buffer - part 1	Line item information from APC return buffer and procedure edit buffer
S	Line item buffer - part 2	Line item information from modifier edit buffer, date edit buffer, and revenue edit buffer

Claims records

Each claim in the input file must contain at least 5 input records (C, D, E, F and L, in that order), and may contain as many as 454 input records (1 C record, 1 D record, 1 E record, 1 F record and 450 L records). The end of each claim is detected when the next C record is read, or when the end of the file is reached. Note that pass-through fields, such as provider number, are not included as they have no relevance for testing the software.

The following five tables contain the layouts for the claims record types (C,D,E,F,L) named in "Record types and layouts" (page [27](#)). The tables give the positions on the record for specific field information, the length of the field, and the field description.

Table 12. C record layout

Position	Length	Description
1	1	Uppercase C
2	17	Claim identification number unique to each claim in the input file
19	3	Age (max age = 124); right-justified, blank-filled
22	1	Sex (0=unknown, 1=male, 2=female)

Position	Length	Description
23	8	From date; opening date of claim in yyyymmdd format
31	8	Through date; closing date of claim in yyyymmdd format
39	22	Filler
61	3	Bill type
64	13	National Provider Identifier (NPI)
77	6	CMS Certification Number (CCN); formerly known as OSCAR number
83	2	Patient status code
85	1	OPPS/non-OPPS flag (1=OPPS, 2=non-OPPS; default value=1)
86	60	List of up to 30 two-byte occurrence codes, left-justified, blank-filled; input must be contiguous; the program interprets the first blank field as the end of the listing.
146	60	List of Condition Codes (Max. 30, 2-byte fields) Note: Each entry must be contiguous: the first blank condition code is assumed to signify the end of the condition code list.
206	8	Claims Processing Receipt Date (format: YYYYMMDD)
214	87	Optional User Data. Passed directly to output, will not impact OCE logic.

Table 13. D record layout

Position	Length	Description
1	1	Uppercase D
2	17	Claim identification number
19	24 (3x8)	List of Reason for Visit (RVDX) Codes Diagnosis codes in positions 1–3 identify the reason for visit diagnoses and may be blank. The RVDX code is listed in the first 7 bytes, left-justified, blank filled. The 8th byte of each diagnosis input space is reserved for POA indicator (future use).
43	8	Principal (PDX) Code Diagnosis code in position 4 identifies the principal diagnosis code and cannot be blank. The PDX code is listed in the first 7 bytes, left-justified, blank filled. The 8th byte of each diagnosis input space is reserved for POA indicator (future use).
51	192 (24x8)	List of Secondary (SDX) Codes Diagnosis codes listed in position 5–28 are secondary diagnosis codes and must be in contiguous locations. The first blank SDX diagnosis code is assumed to signify the end of the diagnosis code list. The SDX code is listed in the first 7 bytes, left-justified, blank filled. The 8th byte of each diagnosis input space is reserved for POA indicator (future use).
243	58	Unused; blank-filled

*E record layout***Table 14. E record layout**

Position	Length	Description
1	1	Uppercase E
2	17	Claim identification number
19	264 (11x24)	Value codes and amounts The Value code is listed in the first 2 bytes The Value code amount is listed in the last 9 bytes
283	18	Unused; blank-filled

*F record layout***Table 15. F record layout**

Position	Length	Description
1	1	Uppercase F
2	17	Claim identification number
19	132 (11x12)	Value codes and amounts The Value code is listed in the first 2 bytes The Value code amount is listed in the last 9 bytes
151	150	Unused; blank-filled

*L record layout***Table 16. L record layout**

Position	Length	Description
1	1	Uppercase L
2	17	Claim identification number
19	3	Line item ID number unique to each line item within the claim
22	5	HCPCS procedure code
27	10 (5x2)	HCPCS modifiers. May be blank; up to 5, 2-character modifiers allowed per single line item; validated in the order received.
37	8	Service date in yyymmdd format, required for all line items as of 10/01/2003
45	4	Revenue code; right-justified, zero or blank-filled
49	9	Service units; right-justified, zero-filled, a blank or zero value defaults to 1
58	10	Charge; right-justified, zero-filled; used by pricer; pic 9(8)v99 format
68	1	Line item action flag
69	12	Contractor bypass edits; 4, 3-byte alpha-numeric characters allowed per single line item; right-justified, zero-filled, default: 000
81	5	Contractor bypass APC; Numeric; right-justified, zero-filled, default: 00000
86	2	Contractor bypass status indicator; Alphanumeric; right-justified, zero-filled, default: 00 Note: If the SI value is one character, it must be reported with a leading blank value instead of 0 (example, " bA" "A")
88	2	Contractor bypass payment indicator; Alphanumeric; blank-filled, default: b0
90	1	Contractor bypass discounting formula; Numeric; zero-filled, default: 0
91	1	Contractor bypass line item denial or rejection flag; Numeric; zero-filled, default: 0

Position	Length	Description
92	1	Contractor bypass packaging flag; Numeric; zero-filled, default: 0
93	2	Contractor bypass payment adjustment flag 1. Note: Accepts numeric values only.
95	1	Contractor bypass payment method flag
96	2	Contractor bypass payment adjustment flag 2. Note: Accepts numeric values only.
98	203	Unused

Processed records

The following tables contain the layouts for the processing results record types (M,N,O,P,Q,R,S) named in "Record types and layouts" (page [27](#)). The tables give the positions on the record for specific field information, the length of the field, and the field description. The data in these records is compared against the actual results.

Table 17. M record layout

Position	Length	Description
1	1	Uppercase M
2	17	Claim identification number (copied from C record)
19	1	Claim processed flag
20	1	Overall claim disposition
21	1	Claim rejection disposition
22	1	Claim denial disposition
23	1	Claim returned to provider disposition
24	1	Claim suspension disposition
25	1	Line item rejection disposition
26	1	Line item denial disposition
27	12	Claim rejection reasons (4 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.

Position	Length	Description
39	24	Claim denial reasons (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
63	90	Claim return to provider reasons (30 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
153	110	<p>Payer Value Code and Payer Value Code Amount. 10 eleven-character fields (2-character value code (QN-QW) followed by 9-character amount (nnnnnnn.nn*)).</p> <p>Assigned by IOCE based on criteria for APC payment offset.</p> <p>QN—First APC device offset QO—Second APC device offset QP—Placeholder reserved for future use QQ - Terminated procedure with pass-through device OR condition for device credit present QR—First APC pass-through drug or biological offset QS—Second APC pass-through drug or biological offset QT—Third APC pass-through drug or biological offset</p>

Position	Length	Description
		<p>QU—Condition for device credit present QV—Reserved for future use Assigned by IOCE based on PHP weekly processing criteria QW—Partial week present on interim PHP claim</p> <p>Note: The value code amount following Payer Value Code QW, zero-fill the first 4 values, the next 5 values represent an IOCE calculated amount for total days and hours of PHP services. One byte for days and 4 bytes to record full and partial hours. For example, 2 days and 8 and ½ hours converts to the following value code amount 000020850. QA is a copy of QW to be supplied on input to the IOCE.</p> <p>Note: If offset conditions do not exist, the value code label (QN-QW) is blank; the amount is zero-filled.</p>
263	38	Unused; blank-filled

Table 18. N record layout

Position	Length	Description
1	1	Uppercase N
2	17	Claim identification number (copied from C record)
19	48	Claim suspension reasons (16 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
67	36	Line item rejection reasons (12 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
103	18	Line item denial reasons (6 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
121	1	APC return buffer flag

Position	Length	Description
122	13	NPI (National Provider Identifier -- from input)
135	6	CMS Certification Number (from input)
141	3	Number of line items (from input)
144	8	ID of the software version used to process the claim in yy.vv.rr format; left-justified and blank-filled
152	2	Patient status code, transferred from input
154	1	OPPS/non-OPPS flag, transferred from input
155	1	Non-OPPS Bill Type Flag 0 = N/A 1 = Bill type should be 83x (v8.2–v8.3 only) 2 = Bill type should not be 83x
156	20	Condition codes (10 codes, 2-byte fields, used for output)
176	2	Claim return code. Two digit code that describes how the claim processed successfully, or if errors occurred, which prevented further processing.
178	123	Unused; blank-filled

Table 19. O record layout

Position	Length	Description
1	1	Uppercase O
2	17	Claim identification number (copied from C record)
19	24	Diagnosis 1 (RVDX1) edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
43	24	Diagnosis 2 (RVDX2) edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
67	24	Diagnosis 3 (RVDX3) edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.

Position	Length	Description
91	24	Diagnosis 4 (PDX) edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
115	24	Diagnosis 5 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
139	24	Diagnosis 6 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
163	24	Diagnosis 7 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
187	24	Diagnosis 8 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
211	24	Diagnosis 9 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
235	66	Unused; blank-filled

Table 20. P record layout

Position	Length	Description
1	1	Uppercase P
2	17	Claim identification number (copied from C record)
19	24	Diagnosis 10 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
43	24	Diagnosis 11 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
67	24	Diagnosis 12 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
91	24	Diagnosis 13 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.

Position	Length	Description
115	24	Diagnosis 14 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
139	24	Diagnosis 15 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
163	24	Diagnosis 16 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
187	24	Diagnosis 17 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
211	24	Diagnosis 18 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
235	66	Unused; blank-filled

Table 21. Q record layout

Position	Length	Description
1	1	Uppercase Q
2	17	Claim identification number (copied from C record)
19	24	Diagnosis 19 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
43	24	Diagnosis 20 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
67	24	Diagnosis 21 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
91	24	Diagnosis 22 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
115	24	Diagnosis 23 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.

Position	Length	Description
139	24	Diagnosis 24 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
163	24	Diagnosis 25 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
187	24	Diagnosis 26 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
211	24	Diagnosis 27 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
235	24	Diagnosis 28 edits (8 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
259	42	Unused; blank-filled

Table 22. R record layout

Position	Length	Description
1	1	Uppercase R
2	17	Claim identification number (copied from C record)
19	3	Line item number (copied from the L record associated with these edits)
22	5	Payment APC Note: Zero is returned on non-OPPS claims.
27	5	HCPCS APC
32	2	Status indicator ^a ; right-justified, blank-filled
34	2	Payment indicator ^a ; right-justified, blank-filled
36	1	Discounting formula ^a
37	1	Line item denial or rejection flag ^a
38	1	Packaging flag ^a
39	2	Payment adjustment flag 1 ^a ; right-justified, blank-filled

Position	Length	Description
41	1	Payment method flag ^a
42	9	Service units (from input)
51	90	Procedure edits (30 three-byte fields). Edit lists are left justified, blank filled. Edits are right justified, zero filled.
141	5	HCPCS procedure code (from input)
146	1	Line item action flag ^a (from input)
147	2	Composite Adjustment Flag
149	4	HCPCS-Modifier (2x2) (future use)
153	2	Payment Adjustment Flag 2 ^a ; right-justified, blank-filled (future use)
155	146	Unused

a. Not activated for claims with OPPS flag = 2 (blanks are returned in the APC return buffer), unless the contractor edit bypass logic is applied and Payment Method Flag of Y or Z is output to identify that the line(s) payment is determined by the contractor.

S record layout

Table 23. S record layout

Position	Length	Description
1	1	Uppercase S
2	17	Claim identification number (copied from C record)
19	3	Line item number (copied from the L record associated with these edits)
22	12	Modifier 1 edits (4 three-byte fields). Edit lists are left-justified, blank filled. Edits are right justified, zero filled.
34	12	Modifier 2 edits (4 three-byte fields). Edit lists are left-justified, blank filled. Edits are right justified, zero filled.
46	12	Modifier 3 edits (4 three-byte fields). Edit lists are left-justified, blank filled. Edits are right justified, zero filled.

Position	Length	Description
58	12	Modifier 4 edits (4 three-byte fields). Edit lists are left justified, blank filled. Edits are right-justified, zero filled.
70	12	Modifier 5 edits (4 three-byte fields). Edit lists are left justified, blank filled. Edits are right-justified, zero filled.
82	12	Date edits (4 three-byte fields). Edit lists are left-justified, blank filled. Edits are right justified, zero filled.
94	15	Revenue edits (5 three-byte fields). Edit lists are left-justified, blank filled. Edits are right justified, zero filled.
109	10	Charge (from input)
119	182	Unused; blank-filled

Chapter 3: Interfacing with the software

Information is passed to the Integrated Outpatient Code Editor (IOCE) program by means of pointers in a control block that functions as the main point of reference for locating input data and determining where to place output information.

Interface functions

To execute the IOCE program, you must write an interface program that will perform the following functions:

- Format the input as required
- Call the OCECLAIM main program
- Act on the output information returned

When OCECLAIM is called for the first time, it will perform initialization tasks to set up the environment. If for any reason it cannot do this, the program will terminate with a fatal error message. For a list of possible problems that would cause a fatal error, see "[Return codes](#)" on page [71](#).

Interface test and template

A COBOL test interface program, called COBTEST, is included with the software. The main purpose of COBTEST is to ensure that the installation was performed correctly, but it also serves as a template for users. For a description of COBTEST, see "[Running the test program](#)" on page [26](#). For a description of the source code included in the source library, see "[Source library](#)" on page [25](#).

The control block

The following table contains the structure of the control block and is followed by the requirements for each of the control block elements.

When the program is called, register 1 must be pointing to the control block. For COBOL programs, a "call using" builds the control block structure and points register 1 to it. Each call is assumed to include all information for a single claim. The program does not do multi-claim processing.

Table 24. Control block input pointers

Element number	Input pointer name
1	DXPTR
2	SGPTR
3	FLAGPTR
4	AGEPTR
5	SEXPTR
6	DATEPTR
7	CCPTR
8	BILLPTR
9	NPIPTR
10	CCNPTR
11	PSTATPTR
12	OPPSPTR
13	OCCPTR
14	VCAMTPTR
15	CPRDateptr

Table 25. Control block output pointers

Element number	Output pointer name
16	DXEDITPTR
17	PROCEDITPTR
18	MDEDITPTR
19	DTEDITPTR
20	RCEDIPTTR
21	APCPTR
22	CLAIMPTR

Control block work area pointers

Table 26. Control block work area pointers

Element number	Work area pointer name
23	WKPTR
24	WKLENPTR

Input pointers

Descriptions of the input pointers are given below.

DXPTR

Address of the area containing contiguous ICD-10-CM diagnosis codes (ICD-9-CM diagnosis codes for claims with From dates prior to 10/1/2015). Each code field is eight bytes (7 for code, 1 for POA flag). Diagnosis codes apply to the whole claim and are not specific to a line item. Codes are left-justified and blank-filled.

The first three listed diagnoses are assumed to be the patient's reasons for visit diagnoses (RVDX) and may be left blank. The fourth listed diagnosis is assumed to be the principal diagnosis and cannot be blank. Additional diagnoses are secondary and must be in contiguous locations. The first blank non-RVDX diagnosis signifies the end of the list.

SGPTR

Address of the area containing contiguous line item entries. The first complete blank line item entry signifies the end of the list. Verify that all fields in the line item input are blank and that there are no numeric values in any of the fields following the last valid line item. The line input for each entry must have this structure and contain the information shown in the following table.

Line item input

Table 27. Line item input

Field	Size (bytes)	Number	Comments
HCPCS procedure code	5	1	Left-justified, blank-filled; may be blank
HCPCS modifier	2	5	The first blank modifier field is assumed to signify the end of the modifier list
Service date	8	1	yyyymmdd format, required for all lines
Revenue code	4	1	Required for all lines
Service units	9	1	A blank or zero value defaults to 1
Charge	10	1	Right-justified, zero-filled. Used by pricer; pic 9(8)v99 format.
Contractor bypass edit	12	4	4 occurrences of 3-byte alphanumeric characters allowed per single line item (12 bytes total); right-justified, zero-filled, default value per occurrence is 000.
Contractor bypass APC	5	1	Numeric; right-justified, zero-filled, default: 00000
Contractor bypass status indicator	2	1	Alphanumeric; right-justified, zero-filled, default: 00 Note: If the SI reported has only one character, it must be provided with a leading blank value. Examples: bA _A
Contractor bypass payment indicator	2	1	Alphanumeric; blank-filled, default: b0

Field	Size (bytes)	Number	Comments
Contractor bypass discounting formula	1	1	Numeric; zero-filled, default: 0
Contractor bypass line item denial or rejection flag	1	1	Numeric; zero-filled, default: 0
Contractor bypass packaging flag	1	1	Numeric; zero-filled, default: 0
Contractor bypass payment adjustment flag 1	2	1	Numeric; right-justified, zero-filled, default: 00
Contractor bypass payment method flag	1	1	Alphanumeric; zero-filled, default: 0
Contractor bypass payment adjustment flag 2	2	1	Numeric; right-justified, zero-filled, default: 00

FLAGPTR

Address of an area containing contiguous one-byte line item action flags, one for each line item. The maximum number allowed is 450. This flag is a variable set by the Medicare Administrative Contractor (MAC). It is used in the determination of the discount formula, and is also passed by the system to the pricer. Values are shown in the following table.

*Line item action flag values***Table 28. Line item action flag values**

Value	Description
0	OCE line item denial or rejection is not ignored.
1	OCE line item denial or rejection is ignored.
2	External line item denial. Line item is denied even if no OCE edits.
3	External line item rejection. Line item is rejected even if no OCE edits.
4	External line item adjustment. Technical charge rules apply.
5	Non-covered service excluded from payment under FQHC PPS.

AGEPTR

Address of the three-byte area containing the numeric age of the patient in years. Values range from 0 through 124.

SEXPTR

Address of the one-byte area containing the code representing the sex of the patient. Values are 0 = unknown, 1 = male, 2 = female.

DATEPTR

Address of two contiguous eight-byte areas containing the From and Through dates in yyyyymmdd format. The From date is used to determine which version of the program to run. If

the From date is not within the date range for any of the versions, the claim will not be processed (edit 24).

CCPTR

Address of the area containing up to 30 contiguous two-byte condition codes. The first blank code signifies the end of the list.

BILLPTR

Address of the area containing the three-byte type of bill used to identify CMHC and claims pending under OPPS. It is presumed that the bill type has been edited for validity by the standard system before the claim is sent to OCE.

NPIPTR

Address of the area containing the 13-byte National Provider Identifier (NPI) value. The NPI is passed to the pricer. Blank-fill if not applicable.

CCNPTR

Address of the area containing the six-byte CMS Certification Number (CCN). The CCN is passed to the pricer. Blank-fill if not applicable.

PSTATPTR

Address of the area containing the two-byte patient status value. This field identifies patient status on discharge from the hospital outpatient department (HOPD).

OPPSPTR

Address of the area containing the one-byte OPPS/non-OPPS flag (1=OPPS; 2=non-OPPS). Default value is 1.

OCCPTR

Address of the area containing up to 30 contiguous two-byte occurrence codes. The first blank code signifies the end of the list.

VCAMTPTR

Address of the area containing up to 36 contiguous value codes and value code amounts. 2-character Value Code followed by amount (nnnnnnn.nn*). The first blank code signifies the end of the list.

CPRDateptr

Address of contiguous eight-byte area containing the Claims Processing Receipt Date in yyymmdd format.

Output pointers

Descriptions of the output pointers are given below.

Data in each return buffer is positionally representative of the source it contains information for, in the order in which that source was passed to the program. For example, the seventh diagnosis return buffer contains information on the seventh diagnosis, and the fourth modifier edit buffer contains information on the modifiers in the fourth line item.

DXEDITPTR

Address of the diagnosis edit return buffer. There is one 8 x 3 diagnosis edit return buffer for each of up to 28 diagnoses. Each three-digit code specifies an edit that applied to the diagnosis. Edits 1-5, 29, 86, 109, and 113 apply to diagnoses.

PROCEDITPTR

Address of the procedure edit return buffer. There is one 30 x 3 procedure edit return buffer for each of up to 450 line items. Each three-digit code specifies an edit that applied to the procedure. Edits 6, 8, 9, 11-13, 17-18, 20-21, 28, 30, 35, 37-38, 40, 42-45, 47, 49-51, 53, 55-58, 60-64, 66-74, 76-85, 87-89, 91-102, 104-108, 110, 112, 114-117 apply to procedures.

MEDITPTR

Address of the modifier edit return buffer. There is one 4 x 3 modifier edit return buffer for each of the five modifiers for each of up to 450 line items. Each three-digit code specifies an edit that applied to the modifier. Edits 22, 75, and 103 apply to modifiers.

DTEDITPTR

Address of the line item date edit return buffer. There is one 4 x 3 date edit return buffer for each of up to 450 line items. Each three-digit code specifies an edit that applied to line item dates. Edit 23 applies to line item dates.

RCEDITPTR

Address of the revenue center code edit return buffer. There is one 5 x 3 revenue center code edit return buffer for each of up to 450 line items. Each three-digit code specifies an edit that applied to the revenue center. Edits 9, 41, 48, 50, 65, 90, and 111 apply to revenue centers.

APCPTR

Address of the APC return buffer, one for each of up to 450 line items. For a description of the APC return buffer layout (page [59](#)).

CLAIMPTR

Address of the claim return buffer. For a description of the claim return buffer see "[Claim return buffer layout](#)" on page [67](#).

Work area pointers

Descriptions of the work area pointers are given below.

WKPTR

Address of a working storage section allocated by your interface that is used by the program for intermediate buffers, counters, etc. This area must be 1.25 MB (1280000 bytes).

WKLENPTR

Address of a fullword containing the actual length of the area pointed to by WKPTR.

Edits by bill type

Edits by bill type for OPSS

The bill type is a reference to the UB-04 form locator field 4, which provides information about the type of facility that is reported for claim submission to Medicare. Each Bill Type in the following table is programmed to apply the specified edits if the OPSS flag is set to 1 indicating OPSS processing. If the APC Return Buffer is “Yes,” this indicates the Type of Bill if reported has APC payment applied. If the APC Return Buffer is “No,” this indicates this Type of Bill does not have APC payment applied.

Table 29. Edits by bill type for OPSS

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPSS Flag (1)	APC Return Buffer Completed
12x	Hospital Inpatient (Medicare Part B Only)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 53, 57, 58, 60, 61, 62, 65, 66, 67, 68, 69, 70, 72, 73, 74, 76, 79, 81, 82, 83, 87, 92, 93, 94, 98, 99, 100, 102, 103, 105, 110, 111, 113, 114, 115, 116, 117, 119	Yes
12x with condition code 41	Hospital Inpatient with Partial Hospitalization (Medicare Part B Only)	10, 23, 24, 46, 119	No
13x	Hospital Outpatient	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 57, 58, 60, 61, 62, 65, 66, 67, 68, 69, 70, 72, 73, 74, 76, 79, 81, 82, 83, 87, 92, 93, 94, 98, 99, 100, 101, 102, 103, 105, 110, 111, 112, 113, 114, 115, 116, 117, 119	Yes

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (1)	APC Return Buffer Completed
13x with condition code 41	Hospital Outpatient with Partial Hospitalization	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 57, 58, 60, 61, 62, 65, 66, 67, 68, 69, 70, 72, 73, 74, 76, 79, 80, 82, 83, 84, 87, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 109, 110, 111, 112, 113, 114, 115, 116, 117, 119	Yes
13x with condition code 89	Hospital Outpatient with Opioid Treatment Program	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 65, 67, 68, 69, 83, 98, 110, 113, 114, 115, 117, 119	Yes
14x	Hospital – Laboratory services Provided to Non-Patients	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 17, 18, 20-21, 22, 23, 24, 25, 26, 27, 28, 35, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 53, 55, 57, 58, 60, 61, 62, 65, 66, 67, 68, 69, 70, 72, 73, 74, 76, 79, 81, 82, 83, 87, 92, 93, 94, 98, 99, 100, 102, 103, 105, 110, 111, 113, 114, 115, 116, 117, 119	Yes
14x with condition code 41	Hospital – Laboratory services Provided to Non-Patients with Partial Hospitalization	10, 23, 24, 46, 119	No
22x 23x	Skilled Nursing Inpatient (Medicare Part B Only) Skilled Nursing – Outpatient	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 23, 24, 25, 26, 28, 40, 41, 44, 50, 53, 55, 61, 65, 69, 72, 94, 106, 108, 110, 111, 113, 114, 115, 119	No
32x	Home Health Services under a plan of treatment	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 86, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (1)	APC Return Buffer Completed
34x	Home Health Services not under a plan of treatment with APC covered services on claim (i.e., Vaccine Administration, Antigens, Splints, Casts, or v18.0 NPWT)	1, 2, 3, 5, 8, 9, 10, 11, 12, 18, 20, 23, 24, 25, 26, 28, 38, 40, 41, 43, 44, 45, 47, 49, 50, 53, 55, 62, 65, 69, 73, 79, 82, 87, 92, 93, 94, 98, 99, 100, 105, 110, 111, 113, 114, 115, 117, 119	Yes
34x	Home Health Services not under a plan of treatment with no APC covered services on claim	1, 2, 3, 5, 8, 9, 10, 11, 12, 20, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 94, 110, 111, 113, 114, 115, 119	No
43x	Religious Non-Medical Health Care Institutions – Outpatient Services	10, 23, 24, 25, 26, 41, 44, 46, 55, 65, 119	No
71x	Clinic – Rural Health (RHC)	1, 2, 3, 5, 6, 10, 23, 24, 25, 26, 41, 61, 65, 72, 91, 94, 104, 110, 111, 113, 114, 115, 116, 119	No
72x	Clinic – Hospital or Independent Renal Dialysis Center (ESRD)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
74x	Clinic – Outpatient Rehabilitation Facility (ORF)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 48, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
75x	Clinic – Comprehensive Outpatient Rehabilitation Facility (CORF)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 48, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
76x	Clinic- Community Mental Health Center (CMHC)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 18, 20, 22, 23, 24, 25, 26, 29, 30, 38, 40, 41, 43, 44, 45, 47, 48, 49, 50, 53, 55, 61, 65, 69, 72, 73, 79, 80, 82, 84, 87, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 105, 109, 110, 111, 113, 114, 115, 116, 117, 119	Yes

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (1)	APC Return Buffer Completed
77x	Clinic – Federally Qualified Health Center (FQHC) (v15.3 – Current FQHC-PPS)	1, 2, 3, 5, 6, 8, 10, 23, 24, 25, 26, 41, 65, 72, 84, 88, 89, 90, 91, 94, 110, 111, 113, 114, 115, 116, 119	No
77x	Clinic – Federally Qualified Health Center (FQHC) (Logic prior to v15.3 or CC 65 reported for payment not under the FQHC-PPS, Discontinued 10/1/2020)	1, 2, 3, 5, 6, 10, 23, 24, 25, 26, 41, 61, 65, 72, 94	No
81x 82x	Hospice (Non-Hospital Based) Hospice (Hospital Based)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 86, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
87x	Freestanding Non-Residential Opioid Treatment Program	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 67, 68, 69, 110, 113, 114, 115, 119	No
22x, 23x, 32x, 72x, 74x, 75x, 81x, 82x, with condition code 7, and Antigen, Splint, or Cast	Treatment of non-terminal condition for Hospice patient with APC covered services on claim (i.e., Antigens, Splits, or Casts)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 18, 20, 23, 24, 25, 26, 28, 38, 40, 41, 43, 44, 45, 47, 49, 50, 53, 55, 62, 65, 69, 73, 79, 82, 87, 92, 93, 94, 98, 100, 105, 106, 108, 110, 111, 113, 114, 115, 117, 119	Yes

Edits by bill type for non-OPPS

The bill type is a reference to the UB-04 form locator field 4, which provides information about the type of facility that is reported for claim submission to Medicare. Each Bill Type in the following table is programmed to apply the specified edits if the OPPS flag is set to 2 indicating Non-OPPS processing. If the APC Return Buffer is “Yes,” this indicates the Type of Bill if reported has APC payment applied. If the APC Return Buffer is “No,” this indicates this Type of Bill does not have APC payment applied.

Table 30. Edits by bill type for non-OPPS

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (2)	APC Return Buffer Completed
12x	Hospital Inpatient (Medicare Part B only)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 17, 20, 22, 23, 24, 25, 26, 28, 40, 41, 50, 53, 61, 65, 67, 68, 69, 72, 83, 93, 94, 100, 102, 103, 106, 108, 110, 111, 113, 114, 115, 116, 119	No
12x with condition code 41	Hospital Inpatient with Partial Hospitalization (Medicare Part B only)	10, 23, 24, 46, 119	No
13x	Hospital Outpatient	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 17, 20, 22, 23, 24, 25, 26, 28, 40, 41, 50, 61, 65, 67, 68, 69, 72, 83, 93, 94, 100, 102, 103, 106, 108, 110, 111, 112, 113, 114, 115, 116, 119	No
13x with condition code 41	Hospital Outpatient with Partial Hospitalization	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 17, 20, 22, 23, 24, 25, 26, 28, 40, 41, 50, 61, 65, 67, 68, 69, 72, 83, 94, 102, 103, 106, 108, 110, 111, 112, 113, 114, 115, 116, 119	No
13x with condition code 89	Hospital Outpatient with Opioid Treatment Program	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 65, 67, 68, 69, 83, 110, 113, 114, 115, 119	No
14x	Hospital – Laboratory services Provided to Non-Patients	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 17, 20, 22, 23, 24, 25, 26, 28, 40, 41, 50, 53, 55, 61, 65, 67, 68, 69, 72, 83, 94, 102, 103, 106, 108, 110, 111, 113, 114, 115, 116, 119	No
14x with condition code 41	Hospital – Laboratory services Provided to Non-Patients with Partial Hospitalization	10, 23, 24, 46, 119	No

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (2)	APC Return Buffer Completed
22x 23x	Skilled Nursing Inpatient (Medicare Part B Only) Skilled Nursing – Outpatient	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 23, 24, 25, 26, 28, 40, 41, 44, 50, 53, 55, 61, 65, 69, 72, 94, 106, 108, 110, 111, 113, 114, 115, 119	No
32x	Home Health Services under a plan of treatment	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 86, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
34x	Home Health Services not under a plan of treatment with no APC covered services on claim	1, 2, 3, 5, 8, 9, 10, 11, 12, 20, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 94, 110, 111, 113, 114, 115, 119	No
43x	Religious Non-Medical Health Care Institutions – Outpatient Services	10, 23, 24, 25, 26, 41, 44, 46, 55, 65, 119	No
71x	Clinic – Rural Health (RHC)	1, 2, 3, 5, 6, 10, 23, 24, 25, 26, 41, 61, 65, 72, 91, 94, 104, 110, 111, 113, 114, 115, 116, 119	No
72x	Clinic – Hospital or Independent Renal Dialysis Center (ESRD)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
73x	Clinic – Freestanding	1, 2, 3, 5, 6, 8, 10, 20, 22, 23, 24, 40, 41, 106, 108, 113, 114, 115, 116, 119	No
74x	Clinic – Outpatient Rehabilitation Facility (ORF)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 48, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
75x	Clinic – Comprehensive Outpatient Rehabilitation Facility (CORF)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 48, 50, 53, 55, 61, 65, 69, 72, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
77x	Clinic – Federally Qualified Health Center (FQHC) (v15.3 – Current, FQHC-PPS)	1, 2, 3, 5, 6, 8, 10, 23, 24, 25, 26, 41, 65, 72, 84, 88, 89, 90, 91, 94, 110, 111, 113, 114, 115, 116, 119	No

Bill Type	Provider Type or Logic Condition	Edit(s) Applicable to Bill Type and OPPS Flag (2)	APC Return Buffer Completed
77x	Clinic – Federally Qualified Health Center (FQHC) (Logic prior to v15.3 or CC 65 reported for payment not under the FQHC-PPS, Discontinued 10/1/2020)	1, 2, 3, 5, 6, 10, 23, 24, 25, 26, 41, 61, 65, 72, 94	No
78x	Licensed Freestanding Emergency Medical Facility	1, 2, 3, 5, 6, 8, 10, 20, 22, 23, 24, 40, 41, 106, 108, 113, 114, 115, 116, 119	No
81x 82x	Hospice (Non-Hospital Based) Hospice (Hospital Based)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 44, 50, 53, 55, 65, 69, 86, 94, 102, 106, 108, 110, 111, 113, 114, 115, 119	No
83x	Ambulatory Surgery Center (ASC)	1, 2, 3, 5, 6, 8, 10, 20, 22, 23, 24, 40, 41, 106, 108, 113, 114, 119	No
84x	Freestanding Birthing Center (FBC)	1, 2, 3, 5, 6, 8, 10, 20, 22, 23, 24, 40, 41, 106, 108, 113, 114, 115, 119	No
85x	Critical Access Hospital (CAH)	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 28, 40, 41, 50, 51, 61, 65, 67, 68, 69, 72, 74, 83, 93, 94, 100, 102, 106, 107, 108, 110, 111, 112, 113, 114, 115, 116, 119	No
85x with condition code 89	Critical Access Hospital (CAH) with Opioid Treatment Program	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 67, 68, 69, 110, 113, 114, 115, 119	No
87x	Freestanding Non-Residential Opioid Treatment Program	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 20, 22, 23, 24, 25, 26, 40, 41, 67, 68, 69, 93, 100, 110, 113, 114, 115, 119	No
89x	Special Facility - Other	1, 2, 3, 5, 6, 8, 10, 20, 22, 23, 24, 40, 41, 106, 108, 113, 114, 115, 116, 119	No

Return buffer layouts

There are two return buffers: the APC return buffer and the claim return buffer.

APC return buffer layout

The following table contains the layout of the APC return buffer.

Table 31. APC return buffer layout

Name	Size (bytes)	Description
HCPCS procedure code	5	Transferred from input
Payment APC	5	APC used to determine payment. If no APC assigned to line item, the value 00000 is assigned. For partial hospitalization and some inpatient-only, and other procedure claims, the payment APC may be different than the APC assigned to the HCPCS code.
HCPCS APC	5	Alphanumeric value. APC assigned to the HCPCS code.
Status indicator ^a	2	Right-justified, blank-filled. Values are: A - Services not paid under OPPS; paid under fee schedule or other payment system B - Non-allowed item or service for OPPS C - Inpatient procedure E - Non-allowed item or service ^s E1 - Non-allowed item or service E2 - Items and services for which pricing information and claims data are not available F - Corneal tissue acquisition; certain CRNA services and hepatitis B vaccines G - Drug/biological pass-through H - Pass-through device categories

Name	Size (bytes)	Description
		<p>J1 - Outpatient department services paid through a comprehensive APC</p> <p>J2 - Hospital Part B services that may be paid through a comprehensive APC</p> <p>K - Non pass-through drugs and non-implantable biologicals, including therapeutic radiopharmaceuticals</p> <p>L - Flu/PPV vaccines</p> <p>M - Service not billable to the MAC</p> <p>N - Items and Services packaged into APC rates</p> <p>P - Partial hospitalization service</p> <p>Q1 - STV-packaged codes</p> <p>Q2 - T-packaged codes</p> <p>Q3 - Codes that may be paid through a composite APC</p> <p>Q4 - Conditionally packaged laboratory service</p> <p>R - Blood and blood products</p> <p>S - Procedure or service, not discounted when multiple</p> <p>T - Procedure or service, multiple reduction applies</p> <p>U - Brachytherapy sources</p> <p>V - Clinic or emergency department visit</p> <p>W - Invalid HCPCS or Invalid revenue code with blank HCPCS</p> <p>Y - Non-implantable DME</p> <p>Z - Valid revenue code with blank HCPCS and no other SI assigned</p>

Name	Size (bytes)	Description
Payment indicator ^{ar}	2	<p>Right-justified, blank-filled. Values are:</p> <p>1 - Paid standard hospital OPPS amount (status indicators J1, J2, R, S, T, U, V)</p> <p>2 - Services not paid by OPPS Pricer; paid under fee schedule or other payment system (status indicator A, G, K)</p> <p>3 - Not paid (status indicators E, M, Q, Q1, Q2, Q3, Q4, W, Y), or not paid under OPPS (status indicators B, C, Z)</p> <p>4 - Paid at reasonable cost (status indicator F, L)</p> <p>5 - Paid standard amount for pass-through drug or biological (status indicator G)^r</p> <p>6 - Payment based on charge adjusted to cost (status indicator H)</p> <p>7 - Additional payment for new drug or new biological[®]</p> <p>8 - Paid partial hospitalization per diem (status indicator P)</p> <p>9 - No additional payment; payment included in line items with APCs (status indicator N; or no HCPCS code and certain revenue codes; or HCPCS codes G0176 - activity therapy, G0129 - occupational therapy, or G0177 - patient education and training services)</p> <p>10 – Paid FQHC encounter payment</p> <p>11 – Not paid or not included under FQHC encounter payment</p> <p>12 – No additional payment, included in payment for FQHC encounter</p> <p>13 - Paid FQHC encounter payment for New patient or IPPE/AWV</p> <p>14 - Grandfathered tribal FQHC encounter payment</p>

Name	Size (bytes)	Description
Discount formula number ^a	1	<p>One of the following nine discount formulas can be applied to a line item:</p> <p>1 - 1.0 2 - $(1.0 + D(U-1))/U$ 3 - T/U 4 - $(1 + D)/U$ 5 - D 6 - TD/U 7 - $D(1 + D)/U$ 8 - 2.0 9 - 2D/U</p> <p>Where D = discounting fraction (currently 0.5), U = number of units, T = terminated procedure discount (currently 0.5) Note: Effective 1/1/08 (v9.0), formula #6 and #7 are discontinued.</p>
Line item denial or rejection flag ^a	1	<p>0 - Line item is not denied or rejected 1 - Line item is denied or rejected (procedure edit return buffer for line item contains a 9, 13, 18, 20, 28, 30, 40, 45, 47, 49, 53, 64-65, 67-69, 76, 83, 91, 93, 103-108, 110-112, 115, 117) 2 - The line is not denied or rejected, but occurs on a day that has been denied or rejected (not used as of 4/01/02 - v.3.0) 3 - Line item not denied or rejected; identified for informational alert only</p>
Packaging flag ^a	1	<p>0 - Not packaged 1 - Packaged service (status indicator N, or no HCPCS code and certain revenue codes) 2 - Packaged as part of partial hospitalization per diem or daily mental health service per diem (v1.0 - v9.3 only)^c 3 - Artificial charges for surgical procedures (submitted charges for surgical HCPCS < \$1.01)^e 4 - Packaged as part of drug administration APC payment (v6.0–v7.3 only) 5 – Packaged as part of FQHC encounter payment 6 – Packaged preventive service as part of FQHC encounter payment not subject to coinsurance payment</p>

Name	Size (bytes)	Description
Payment adjustment flag 1 ^a	2	<p>Right-justified, blank-filled. Values are:</p> <p>0 - No payment adjustment</p> <p>1 - Paid standard amount for pass-through drug or biological (status indicator G)</p> <p>2 - Payment based on charge adjusted to cost (status indicator H)</p> <p>3 - Additional payment for new drug or new biological applies to APC (status indicator J)^g</p> <p>4 - Deductible not applicable (specific list of HCPCS codes) or condition code "MA" is present on the claim or modifier "PT" is reported on an applicable procedure</p> <p>5 - Blood/blood product used in blood deductible calculation</p> <p>6 - Blood processing/storage not subject to blood deductible</p> <p>7 - Item provided without cost to provider^f</p> <p>8 - Item provided with partial credit to provider^f</p> <p>9 - Deductible/coinsurance not applicable or Q3 modifier is reported or CS modifier is reported on applicable visit codes^e</p> <p>10 - Co-insurance not applicable^e</p> <p>11 - Multiple service units reduced to one by IOCE processing; payment based on single payment rate^j</p> <p>12 - Offset for first device pass-through^k</p> <p>13 - Offset for second device pass-through^k</p> <p>14 - PAMA Section 218 reduction on CT scan^l</p> <p>15 - Placeholder reserved for future use</p> <p>16 - Terminated procedure with pass-through device^o</p> <p>17 - Condition for device credit present^p</p> <p>18 - Offset for first pass-through drug or biological^q</p> <p>19 - Offset for second pass-through drug or biological^q</p> <p>20 - Offset for third pass-through drug or biological^q</p> <p>21 - CAA Section 502(b) reduction on film X-ray</p> <p>22 - CAA Section 502(b) reduction on computed radiography technology</p> <p>23 - Co-insurance deductible n/a, as well as subject to a reduction due to film x-ray (CAA Section 502b)</p> <p>24 - Co-insurance deductible n/a, as well as subject to a reduction due to computed radiography technology (CAA Section 502b)</p> <p>25 - Placeholder reserved for future use</p>

Name	Size (bytes)	Description
Payment method flag ^a	1	0 – OPSS pricer determines payment for service 1 – Service not paid based on coverage or billing rules 2 – Service is not subject to OPSS 3 – Service is not subject to OPSS, and has an OCE line item denial or rejection 4 – Line item is denied or rejected by MAC; OCE not applied to line item 5 – Payment for service determined under FQHC PPS 6 – CMHC outlier limitation reached 7 – Section 603 service with no reduction in OPSS Pricer 8 – Section 603 service with PFS reduction applied in OPSS Pricer 9 – CMHC outlier limitation bypassed A – Payment reduction for off-campus clinic visit B – Payer only testing C – Payment made by FQHC PPS and coinsurance is n/a V – Contractor bypass applied to FQHC PPS service and coinsurance is n/a (COVID-19) W – Contractor bypass applied to off-campus clinic visit for payment reduction X – Contractor bypass applied to Section 603 service with no reduction applied in OPSS Pricer Y – Contractor bypass applied to Section 603 service with reduction applied in OPSS Pricer Z – Contractor bypass determines payment for services
Service units	9	Transferred from input, for pricer. For line items assigned to APCs for daily mental health, PHP, composite APC, or comprehensive APC, the service units are always assigned a value of 1 by the IOCE even if the input service units were greater than 1, and payment adjustment flag 11 is provided. Service units are also assigned to one for payable conditionally packaged lines (SI = Q1, Q2) and FQHC payment codes; payment adjustment flag 11 is provided. Input service units also may be reduced for some Drug administration APCs.
Charge	10	Transferred from input, for pricer; format is pic 9(8)v99

Name	Size (bytes)	Description
Line item action flag ^a	1	Used in determination of discount formula, and also passed to pricer. 0 - Line item denial or rejection is not ignored 1 - Line item denial or rejection is ignored (except when edit 30 is present) 2 - External line item denial. Line item is denied even if no edits are present 3 - External line item rejection. Line item is rejected even if no edits are present 4 - External line item adjustment. Technical charge rules apply 5 - Non-covered service excluded from payment under FQHC PPS
Composite Adjustment Flag ^a	2	00 - Not a composite 01–ZZ - First through the nth composite APC present; same composite flag identifies the prime and non-prime codes in each composite APC group. For FQHC PPS claims (bill type 77x) only, the following values are defined for composite adjustment flag ^h : 01 – FQHC medical clinic visit 02 – FQHC mental health clinic visit 03 – Subsequent FQHC clinic visit, medical (modifier 59 reported)
HCPCS Modifier	4 (2x2 bytes)	Assigned by IOCE for final payment determination Note: Up to 2 occurrences of 2 characters each may be returned, currently only one 2-character modifier is returned. V3 – Demonstration modifier 3
Payment adjustment flag 2 ^a	2	Right-justified, blank-filled. Values are: 0 - No payment adjustment Reserved for future use

a. Not activated for claims with OPPS flag = 2 (blanks are returned in the APC return buffer), unless the contractor edit bypass logic is applied and Payment Method Flag of Z is output to identify that the line(s) payment is determined by the contractor.

b. Status indicator Q was replaced by status indicators Q(#) in January 2009 (v10.0).

c. Packaging flag 2 was replaced by the composite adjustment flag starting in January 2009 (v10.0)

d. Payment adjustment flag values 91-99 discontinued 1/1/09, replaced by the composite adjustment flag (v10.0).

e. Two new payment adjustment flags (9,10) added for January 2011.

f. Payment adjustment flag values 7 & 8 deactivated effective January 2014 (v15.0).

g. Discontinued 04/01/2002 and replaced by status indicator G for all drugs/biologicals.

h. Values defined for composite adjustment flag that are used only for FQHC PPS processing are

output on claims with bill type 77x without condition code 65; no composite APCs are assigned (v15.3).

i. Status indicator X is deactivated as of January 1, 2015 (v16.0).

j. Description for payment adjustment flag 11 modified 4/1/2015 (v16.1).

k. Payment adjustment flags 12 and 13 are associated with conditions present for APC pass-through device offset; multiple conditions for the same claim requiring payment offset due to the presence of multiple device/procedure combinations may require the assignment of both payment adjustment flags 12 and 13.

l. Payment adjustment flag 14 is applied to a specific list of CT scan procedure codes; if there is a CT scan code from the specified list reported with modifier CT that is packaged with SI = N as a result of composite APC or comprehensive APC processing, payment adjustment flag 14 is not applied.

m. Status Indicators J2 and Q4 are added effective 1/1/2016 (v17.0).

n. Effective 1/1/2016, laboratory codes with SI = Q4 that result in a final SI = A are assigned PMF = 2

o. Payment adjustment flag 16 is assigned to a terminated device intensive procedure reported with modifier 73.

p. Payment adjustment flag 17 is assigned to a device intensive procedure if condition code 49, 50 or 53 is reported.

q. Payment adjustment flags 18-20 are assigned for conditions that may be present for pass-through drugs or biologicals requiring payment offset.

r. Effective 10/1/2016 (v17.3) payment indicator assignments for pass-through drugs (SI = G) and non-pass-through drugs (SI = K) change to a value of 2; payment indicator 5 is discontinued*.

s. Effective 1/1/2017 (v18.0) SI E is deactivated and replaced with new SI values E1 and E2.

t. Lines that have packaging flag = 3 with line item charges < \$1.01 do not set the payment adjustment flag to 4, 9, or 10, if applicable.

Claim return buffer layout

The following table contains the layout of the claim return buffer which summarizes the edits occurring on the claim.

Table 32. Claim return buffer layout

Name	Size (bytes)	Number	Description
Claim processed flag	1	1	0 - Claim processed 1 - Claim not processed: invalid date (edits 23, 24, 119); inappropriate bill type/condition code combination (edit 46); invalid bill type (118) 2 - Claim not processed: no line items present 3 - Claim not processed: condition code 21 present (Reserved) 4 - Fatal error; claim could not be processed as input values are not valid or are incorrectly formatted; exit immediately. 9 - A fatal error has been detected during initialization. This error must be tested for in your user interface, and processing should be terminated immediately. See "Fatal errors" (page 71) for more information.
Number of line items	3	1	Number of line items, up to 450; right-justified, zero-filled
National Provider Identifier (NPI)	13	1	Transferred from input, for pricer
CMS Certification Number (CCN)	6	1	Transferred from input, for pricer

Name	Size (bytes)	Number	Description
Overall claim disposition	1	1	0 - No edits present on claim 1 - The only edits present are for line item denial or rejection 2 - Multiple-day claim with one or more days denied or rejected 3 - Claim is denied, rejected, suspended or returned to provider, or single day claim with all line items denied or rejected, with only post-payment edits 4 - Claim is denied, rejected, suspended or returned to provider, or single day claim with all line items denied or rejected, with only pre-payment edits 5 - Claim is denied, rejected, suspended or returned to provider, or single day claim with all line items denied or rejected, with both post- and pre-payment edits
Claim rejection disposition	1	1	0 - Claim not rejected 1 - One or more edits are present that cause the claim to be rejected 2 - One or more edits are present that cause one or more days of a multiple-day claim to be rejected
Claim denial disposition	1	1	0 - Claim not denied 1 - One or more edits are present that cause the claim to be denied 2 - One or more edits are present that cause one or more days of a multiple-day claim to be denied, or single day claim with all lines denied (edit 18 only)
Claim returned to provider disposition	1	1	0 - Claim is not returned to provider 1 - One or more edits are present that cause the claim to be returned to provider
Claim suspension disposition	1	1	0 - Claim is not suspended 1 - One or more edits are present that cause the claim to be suspended
Line item rejection disposition	1	1	0 - No line items are rejected 1 - One or more edits are present that cause one or more line items to be rejected
Line item denial disposition	1	1	0 - No line items are denied 1 - One or more edits are present that cause one or more line items to be denied

Name	Size (bytes)	Number	Description
Claim rejection reasons	3	4	Three-digit code specifying the edits that caused the claim to be rejected. The edit that causes a claim to be rejected is 27.
Claim denial reasons	3	8	Three-digit code specifying the edit that caused the claim to be denied. The edit that causes a claim to be denied is 10.
Claim returned to provider reasons	3	30	Three-digit code specifying the edits that could cause the claim to be returned to the provider. Edits that cause a claim to be returned to provider are 1-3, 5, 6, 8, 14-17, 21-23, 25, 26, 29, 35, 37-38, 41-44, 46, 48, 50-52, 54-56, 58, 60-63, 70-75, 77-82, 84-90, 92, 94, 96-102, 109, 113, 114, 116, 118-119.
Claim suspension reasons	3	16	Three-digit code specifying the edits that caused the claim to be suspended. Edits that cause a claim to be suspended are 4, 11, 12, 24, 31-34, 36, 57, 66.
Line item rejection reasons	3	12	Three-digit code specifying the edits that caused the line item to be rejected. Edits that cause a line item to be rejected are 13, 20, 28, 40, 45, 47, 53, 64, 65, 76, 91, 93, 95, 104, 110-112, 117.
Line item denied reasons	3	6	Three-digit code specifying the edits that caused the line item to be denied. Edits that cause a line item denial are 9, 18, 30, 49, 67-69, 83, 103, 105-108, 115.
APC return buffer flag	1	1	0 - APC return buffer filled in with default values; no services paid under OPPS 1 - APC return buffer filled in; one or more services paid under OPPS
Version used	8	1	ID of the program version used to process the claim in yy.vv.rr format (e.g., 4.1.5)
Patient status	2	1	Patient status code, transferred from input.
OPPS flag	1	1	OPPS/non-OPPS flag, transferred from input. A blank, zero, or any other value is defaulted to 1. (1=OPPS; 2=non-OPPS)
Non-OPPS bill type flag	1	1	Denotes whether the type of bill should or should not be 83x. (0=N/A; 1=Bill type should be 83x (v8.2–v8.3 only); 2=Bill type should not be 83x)

Name	Size (bytes)	Number	Description
Payer Value Code and Payer Value Code Amount	11	10	<p>Assigned by IOCE based on criteria for APC payment offset. 2-character Value Code followed by amount (nnnnnnn.nn*) zero-filled right justified</p> <p>QN—First APC device offset QO—Second APC device offset QP—Placeholder reserved for future use QQ—Terminated procedure with pass-through device OR condition for device credit present QR—First APC pass-through drug or biological offset QS—Second APC pass-through drug or biological offset QT—Third APC pass-through drug or biological offset QU—Condition for device credit present QV—Reserved for future use</p> <p>Assigned by IOCE based on PHP weekly processing criteria</p> <p>QW—Partial week present on interim PHP claim</p> <p>Note: The value code amount following Payer Value Code QW, zero-fill the first 4 values, the next 5 values represent an IOCE calculated amount for total days and hours of PHP services. One byte for days and 4 bytes to record full and partial hours. For example, 2 days and 8 and ½ hours converts to the following value code amount 000020850. QA is a copy of QW to be supplied on input to the IOCE.</p> <p>Note: If offset conditions do not exist, the value code label (QN-QW) is blank; the amount is zero-filled.</p>
Payer condition code	2	10	<p>Payer-only Condition Code assigned by IOCE based on PHP weekly processing criteria</p> <p>MP—PHP Claim contains initial admit week MQ—PHP Claim contains final discharge week MV—Second portion of combined PHP week is not 20 hours</p>

Name	Size (bytes)	Number	Description
Return code	2	1	Two-digit code that describes how the claim processed successfully, or if errors occurred, which prevented further processing. Valid values are 00-29. A value other than 0 indicates that a fatal error has occurred. See Fatal errors (page 71) for more information on these codes.

Return codes

Return Codes are integer-based values indicating whether the program ran successfully or not. A return code value of zero indicates the claim was processed successfully. Any non-zero return code indicates that the program failed to process a claim (see the table below for descriptions). Return Codes are returned to the program caller and may also exist in the return code field of the claim return buffer (page [67](#)).

The additional presence of a claim processed flag value of 4 or 9 indicates that a detectable fatal error occurred.

Note: Not all fatal errors are detectable, some fatal errors may cause a program crash before a return code can be generated and returned to the caller or before a return code can be written to the claim return buffer. Any non ZERO return code indicates that claim was not processed successfully.

Value	Meaning
0	Claim processed
1	Memory allocation error
2	Not used
3	Run time environment setup failed, could not initialize run-time environment
4	Could not open Read-Only Table file
5	Could not determine Read-Only Table size
6	No memory for Read-Only Table
7	Could not read Read-Only Table file
8	Read-Only Table file corrupted
9	Read-Only Table version does not match component version

Value	Meaning
10	Could not link Read-Only Tables to base object
11	OCEInit not called before call to OCECLM
12	Invalid number of line items
13	Invalid From date
14	Invalid Through date
15	Invalid date sequence
16	Invalid line date
17	From date outside of OCE version range
18	Invalid bill type
19	Reserved
20	Reserved
21	Reserved
22	Claim processing terminated due to bill type 12x or 14x present with condition code 41
23	Reserved
24	Reserved
25	Reserved
26	Contractor bypass edit is not able to be bypassed
27	Invalid format used for contractor bypass input values
28	Input format is incorrect for value code amount field
29	Invalid claims processing receipt date

Appendix A: Summary of changes

Modifications made to the current release of the Integrated Outpatient Code Editor (IOCE) are summarized in the following sections.

Software

- Basic changes to accommodate table and date range modifications.
- IOCE will maintain only seven years of programs and codes. The earliest supported version in this release is 16.0.x and the earliest version date is 01/01/15.
- Updated the home health logic to apply a bypass of edit 23 if the bill type is 032G and any line items report a service date outside the claim From-Through date.
- Updated the payment adjustment flag assignment logic to ensure that a payment adjustment flag (PAF) value 9 is assigned over values 10 and 4, in instances where more than 1 payment adjustment flag value is applicable. If conditions for both payment adjustment flag values 10 and 4 are present, a value of 10 is assigned.
- Updated diagnosis code editing for validity, age, gender, and external cause of injury based on the FY 2022 ICD-10-CM code revisions to the Medicare Code Editor (MCE).
- Updated the mental health diagnosis list and Code First diagnosis list based on the FY 2022 ICD-10-CM code revisions.
- Updated the Unacceptable principal diagnosis list based on the FY 2022 ICD-10-CM code revision to the Medicare Code Editor (MCE) with any exclusions to that listing based on OPSS coding requirements and guidelines. Any diagnosis code flagged as being an exclusion to the Unacceptable Principal Diagnosis list does not return edit 113.
- Excluded bill type 087x from the OPSS Hospice condition code 07 criteria.
- Added edits 65 and 83 to bill type 013x with condition code 89 for Non-OPSS claims processing (OPSS=2). Refer to the Edits by bill type table OPSS=2 for the documentation update.

Edits

- Added mid-quarter edit 110 (initial marketing date) to the following HCPCS codes:
 - M0247, M0248 – effective 05/26/2021
 - Q0244 – effective 06/03/2021
 - M0201 – effective 06/08/2021
 - Q0249, M0249, M0250 – effective 06/24/2021
 - 0003A, 0013A – effective 08/12/2021

- M0240, M0241, Q0240 – effective 07/30/2021
- Added Revenue Code 0890 to the Valid Revenue Code List (Edit 41)
- There is updated content for NCCI version 27.3 which is included for this R1 release.

Files

The code description file was updated; diagnosis and/or procedure codes have been updated with current additions, revisions, and deletions.

Tables

Updates were made to the following lists (please review the Quarterly Data Table Reports for additional detail). Due to the new table and file structure for Jan 2020, the tables that are updated that reference a list are specified below.

Updates were made to the following tables and lists:

- MAP_ADDON_TYPE1
 - Type I addon procedures (edit 106)
- MAP_OFFSET_CODEPAIR
 - Pass-through Device Offset Code Pairs (retroactive amount adjustments and additions)
- DATA_APC
 - Updated APC description for 09398
- MAP_OFFSET_HCPCS
 - Terminated Device Procedure Offset
- DATA_CAPC
 - C-APC Procedure (new C-APC and re-rank)
- DATA_HCPCS
 - Edit 92 Device Procedure Bypass list (edit 92) (retroactive changes and new HCPCS update for R1)
 - Device list
 - Pass-through device HCPCS
 - CAPC exclusion list
 - Vaccine administration (Home Health)
 - FQHC Non-covered list
 - FQHC Flu PPV

- Deductible Coinsurance N/A
- Conditionally bilateral list
- Inherent bilateral list
- Low-Cost Skin Substitute Product list (edit 87)
- Blood Product list
- Updated HCPCS descriptions for COVID-19 vaccine boosters
- DATA_DX10
 - Pediatric diagnosis list (edit 2)
 - Female only diagnosis list (edit 3)
 - External Cause of Injury diagnosis list (edit 5)
 - Mental Health diagnosis list (edit 29)
 - Code First Mental Health diagnosis list (edit 109)
 - Unacceptable principal diagnosis list (edit 113)
 - Unacceptable principal diagnosis OPPS exclusion list
- DATA_REVENUE
 - Valid Revenue Code list (edit 41)

Documentation

The following changes were made to the IOCE Specifications and Summary of Changes documents:

- Added leading zeroes when APC values (5-characters), Revenue Code values (4-characters), and Bill Types values (4-characters) are referenced.

Note: No other IOCE documentation or reference tables are being updated to include the leading zeros. The Bill Type field on input continues to be a 3-character byte size regardless of documenting the bill types as 4-characters elsewhere in the IOCE Specifications.

- The following edits have also had note updates applied in the Edit Descriptions and Reason for Edit Generation Table:
 - 17
 - 23
 - 48
 - 50
 - 65
 - 72

- 74
- 75
- 77
- 79
- 84
- 86

The following changes were made to the IOCE Software Install, User, and PC Manuals:

- Updated the condition code 07 criteria to specify the bill types that are intended to fall under the OPPS logic condition when billed with condition code 07 and antigen, splint, or cast services. Refer to the Edits by bill type table OPPS=1 or the Hospice Processing logic section.
- Removed edit 99 from the OPPS setting logic for reporting condition code 07 within the Edit by bill type table OPPS =1
- Added edits 65, 83, and 98 for bill type 013x with condition code 89 (OPPS) within the Edits by bill type table OPPS =1.
- Added a note under edit 62 to indicate that the edit is bypassed if the bill type is 022x or 023x with or without condition code 07.

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