

# **TIBCO Foresight® Products**

## **NCPDP in TIBCO Foresight Products**

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Two-Second Advantage®



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## Document Purpose

This document describes how to use NCPDP transactions in TIBCO Foresight products.

## Audience

This document is for users of TIBCO Foresight HIPAA products who want to use NCPDP standards and already know at least one of these TIBCO Foresight products: TIBCO Foresight® HIPAA Validator® Desktop, TIBCO Foresight® EDISIM®, or Windows versions of TIBCO Foresight® Instream®.

## NCPDP Standards

The National Council for Prescription Drug Programs (NCPDP) has data interchange standards for pharmacy services. NCPDP's Telecommunication Standard Version 5.1 and D.0 are supported by TIBCO Foresight validation products (EDISIM®, HIPAA Validator® Desktop, and Instream®). The batch transaction standard for enveloping is Version 1.1 for HIPAA.

## NCPDP in TIBCO Foresight Products

The NCPDP5 and NCPDPD0 guidelines are HIPAA-specific and so are distributed with the following TIBCO Foresight products:

- HIPAA Validator Desktop version 4.1 or later
- Instream version 4.1 or later – validation (including Trading Partner Automation) only.

You can use it with these modules of EDISIM 5.13 or later (copy **NCPDP5.STD** and **NCPDPD0.STD** from Instream's or HIPAA Validator Desktop's **Database** folder to EDISIM's **User Files\Public Guidelines** directory:

- Standards Editor – including the ability to create rules
- Document Builder – creates X12-format output
- Comparator
- Standards Reference

NCPDP does not work with EDISIM's TDG and Analyzer modules.

## Sample Data and Instream Scripts

| Instream | HIPAA Validator Desktop | Filename                 | Directory | Notes  |
|----------|-------------------------|--------------------------|-----------|--|
| ✓        | ✓                       | NCPDP_BillRequest_51.txt | DemoData  | A Billing (Request) containing three G1 segments, each with one claim.   |
| ✓        | ✓                       | NCPDP_Response_51.txt    | DemoData  | A B2 Billing Reversal (Response) containing five G1 segments, each containing segment 21, a Response Status Segment. |
| ✓        |                         | V_NCPDP_51_BillRequest   | Scripts   | Validates NCPDP_BillRequest_51.txt.  |

## ***Terminology***

| <b>X12</b>                          | <b>NCPDP</b> |
|-------------------------------------|--------------|
| Interchange                         | Batch        |
| Functional Group                    | none         |
| Transaction Set                     | Transmission |
| Loop                                | none         |
| Claim or other application document | Transaction  |
| Segment                             | Segment      |
| Composite                           | none         |
| Element                             | Element      |
| Code Set                            | none         |

## ***Big Picture***

### **Transaction Sets**

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#### **Billing**

- B1 – Billing
- B2 – Billing Reversal
- B3 – Billing Rebill

#### **Controlled Substance Reporting**

- C1 – Controlled Substance Reporting
- C2 – Controlled Substance Reversal
- C3 – Controlled Substance Rebill

#### **Eligibility**

- E1 – Eligibility Verification

#### **Information Reporting**

- N1 – Information Reporting
- N2 – Information Reversal
- N3 – Information Rebill

#### **Prior Authorization**

- P1 – Prior Authorization Request and Billing
- P2 – Prior Authorization Reversal
- P3 – Prior Authorization Inquiry
- P4 – Prior Authorization Request Only

### **Request or Response**

---

Each transaction can be either a:

**Transaction**    The originating request.

**Response**      Acknowledgement of a request. Responses are prefaced with the letter R in EDISIM.  
For example, the response to a B1 is an RB1.

### **Parts of a Batch**

---

A batch contains these parts:

- One **00** Transmission header segment with ISA-type information.
- One or more **G1** detail records, each containing one to four “transactions” such as claims.
- One 99 trailer containing a control number and segment count.

Please see page [10](#) for an annotated example.

## Codes

NCPDP doesn't have actual code sets but the standard specifies allowed values. These are implemented as code sets in TIBCO Foresight products.

## Elements

- The first value in a segment is AM followed by the segment tag.
- Other elements can be in any order, except mandatory elements come before optional elements.
- Each element in the transaction sections of the batch (in the claim itself, for example) starts with the Field Separator character (x1C). Elements in header segments have no delimiters.
- Leading zeroes and leading or trailing spaces are tolerated.
- Elements in transaction segments have maximum lengths but no minimum lengths. Elements in header segments are fixed length.
- Values have two parts: a two-character element tag, and then data.

Example data for element **101-7R**

*element tag* → **7R** **SMITH** *data*

## Element IDs

NCPDP element IDs can be in these formats.

*nnn* Only in batch control segments. Example: **303**

*nnn-aa* The usual NCPDP element ID. The last two characters are called the element tag.

Example: **101-7R**

*element tag* → **7R**

Since EDISIM and Library only allow up to four digits for element IDs, they are abbreviated by taking out the third digit and the hyphen. Example: 101-7R becomes 107R in EDISIM. The description will include the full ID:

|           |                               |
|-----------|-------------------------------|
| 0030 : 01 |                               |
| 01 : 33CX | Patient ID Qualifier (331-CX) |
| 02 : 33CY | Patient ID (332-CY)           |



## Element Types

| Type         | As shown in EDISIM | Notes   |
|--------------|--------------------|---|
| Code Lists   | ID                 | These re values specified in the sta, not code lists managed by outside organizations, as in X12.   |
| Alphanumeric | AN                 | Data is left justified with spaces padded on the right. All letters are uppercase.  |
| Numeric      | N or Nn            | <p><i>n</i> is the number of implied decimal places. Do not include explicit decimals in data. The sign is overpunched in the last digit (see chart below).</p> <p>Data is right justified and zero filled.</p> |

## Signed Values

To avoid expanding the size of a field, plus or minus characters are combined with the last digit of data. The *overpunch* character replaces the right-most character.

### Positive Example

To determine the EDI data for \$19.95, look up the last digit (5) in the Value column of the chart below. Now move to the right one column to find the value that would represent 5 and signed positive is **E**. Therefore, the positive value \$19.95 appears as **199E** in the data, assuming the data type is N2.

### Negative Example

To calculate the EDI data for minus \$19.95, look up the last digit (5) in the Value column of the chart below. Now move to the right until you find the column for signed negative graphic. The value that represents 5 and signed negative is **N**. Negative \$19.95 appears as **199N** in the data.

| Value | Signed Positive Graphic | Signed Negative Graphic |
|-------|-------------------------|-------------------------|
| 0     | {                       | }                       |
| 1     | A                       | J                       |
| 2     | B                       | K                       |
| 3     | C                       | L                       |
| 4     | D                       | M                       |
| 5     | E                       | N                       |
| 6     | F                       | O                       |
| 7     | G                       | P                       |
| 8     | H                       | Q                       |
| 9     | I                       | R                       |

## Repeating Elements

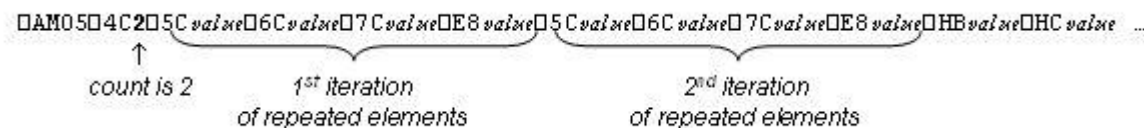
Elements that can repeat are preceded by a count element containing the number of repeating elements to follow.

|           |   |   |    |  |
|-----------|---|---|----|--|
| 0080 : 05 |   | C | 1  |  |
| 01 : 334C | Coordination of Benefits/Other Payments Count (3... | M | 1  |  |
| 02 : 335C | Other Payer Coverage Type (338-5C)                  | M | 9  |  |
| 03 : 336C | Other Payer ID Qualifier (339-6C)                   | C | 9  |  |
| 04 : 347C | Other Payer ID (340-7C)                             | C | 9  |  |
| 05 : 44E8 | Other Payer Date (443-E8)                           | C | 9  |  |
| 06 : 34HB | Other Payer Amount Paid Count (341-HB)              | C | 1  |  |
| 07 : 34HC | Other Payer Amount Paid Qualifier (342-HC)          | C | 9  |  |
| 08 : 43DV | Other Payer Amount Paid (431-DV)                    | C | 9  |  |
| 09 : 475E | Other Payer Reject Count (471-5E)                   | C | 1  |  |
| 10 : 476E | Other Payer Reject Code (472-6E)                    | C | 20 |  |

The value in this element's data shows how many times the following segments repeat.

These four elements can cycle up to nine times

If the **Coordination of Benefits/Other Payments Count** has a value of 2, the next four elements cycle twice:



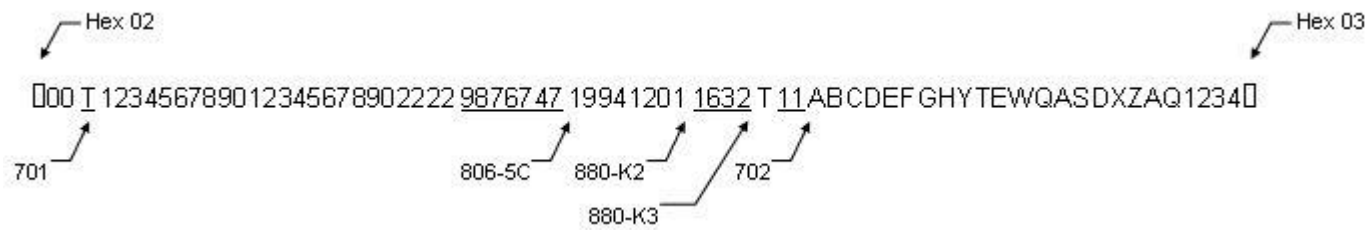
## Segments

- The segment separator is always hex **1E**
- The first segment in a batch is always the 00 Header segment, which is fixed length without delimiters. It serves the same function as X12's ISA.
- The GIT segment that you see in TIBCO Foresight products is for requests. It contains the reference number from the G1 segment, plus the elements from the Request Header Segment QT. GIT is a TIBCO Foresight structure and is not part of the standard.
- The GIR segment that you see in TIBCO Foresight products is for responses. It contains the reference number from the G1 segment, plus the elements from the Response Header Segment RT. GIR is a TIBCO Foresight structure and is not part of the standard.

## Enveloping

The first segment in a batch is always the Transmission Header Segment, which serves the same purpose as the X12 ISA. It starts with hex **02** followed by the **00** segment identifier. It has fixed-length, required fields with no delimiters, and ends with hex **03**.

**Example** (element IDs shown below):



### Detail Segments

The G1 record starts with hex 02 followed by the segment ID **G1** and then fixed-length, undelimited fields in the Request Header Segment or Response Header Segment. It ends with a hex 03.

The G1 record contains the application segments. These always start with the Segment Separator character hex 1E, followed by **AM** and then the segment ID.

Within a G1, segments after the 07 segment are in any order. Likewise, within a segment, elements can be in any order as long as mandatory elements come before optional elements.

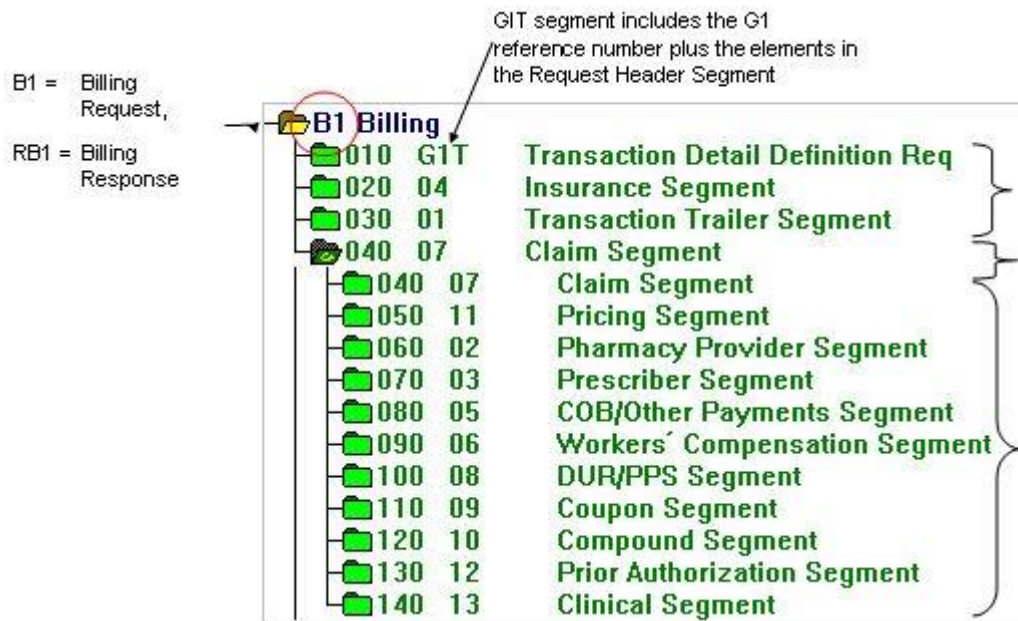
One G1 record can contain up to four claims.

### Trailer Segment

The trailer record starts with a hex 02 and ends with a hex 03. All elements are fixed length with no delimiters. It contains a batch number that should match the one in the 00 record, and a count of all 00, G1, and 99 records in the batch.

## Example Batch

The following example is a request batch with three G1 segments, each with one claim.



## Sample batch with three G1s

```

① ②
③ 00T000124461Z          0004599200310312220P11111542          □
    0G1000051291201262851B10KA01    105123145880G    20031011    -0AM040C2001129999
    0CCFRED          0CDFLINTSTONE    0C1990655001A    0-0AM070EM10D254262770E1030D702213414123
④ 0E700000140000D3000D50140D610D800DE000101010DI00-0AM110DQ0000158D-0AM030EZ050DB7657980    □
    0G1000064591101262851B10KA01    105123145880G    20031011    -0AM040C2001129999
    0CCFRED          0CDFLINTSTONE    0C1990655001A    0-0AM070EM10D254558410E1030D700551121775
    0E700000150000D3000D50050D610D800DE000101010DI00-0AM110DQ0000133B-0AM030EZ050DB7657980    □
    0G1000083713301262851B10KA01    105123145880G    20031010    -0AM040C2003377512
    0CCTHOMASL      0CDTANKENGINE    0C1990655001A    0-0AM070EM10D279892310E1030D701413080099
⑤ 0E700000300000D3000D50300D610D800DE000101010DI00-0AM110DQ0000278D-0AM030EZ050DB7657980    □
    09900045990000000005          □
  
```

- ① Batches always start with a 00 Transaction Set Header record. The control number is in bold.
- ② The **T** is the transmission type and indicates that the batch contains transactions (requests) rather than responses.
- ③ Start of the first G1 record. Notice the B1, indicating that these will be Billing transactions.
- ④ Start of the next G1 record.
- ⑤ Start of the 99 record, the trailer record. The control number is in bold and matches the one in the 00 record. The last value in the 99 record is a count. It is 5 here: one 00 record, three G1 records, and one 99 record.

## Anatomy of a G1

```

Hex 02 ②
0G1000051291201262851B10KA01    105123145880G    20031011    -0AM040C2001129999
0CCFRED          0CDFLINTSTONE    0C1990655001A    0-0AM070EM10D254262770E1030D702213414123
0E700000140000D3000D50140D610D800DE000101010DI00-0AM110DQ0000158D-0AM030EZ050DB7657980    □
                                     ③ Hex 03
  
```

- ① The G1 tag is immediately followed by the fixed-length elements in the Request Header Segment (QH in TIBCO Foresight products) or the Response Header Segment (RH in TIBCO Foresight products). This is underlined in the example. Each segment ends with a segment terminator hex 1E, which displays as a hyphen in this example.
- ② The mandatory 04 segment is next. Like all detail segments, it is preceded with AM. Trailing spaces are optional and are shown in this example. Each element, including each segment tag, begins with a hex '1C'. These display as boxes in the example above.
- ③ The conditional 01 segment is omitted in this example. The 07 segment is next and begins the claim. This claim includes the 11 and 03 segments.

## Data with no 1.1 “Enveloping”

Validation requires the 1.1 enveloping around the 5.1 data. This includes everything up to and including the 10-digit transaction reference number after **G1**, and the 99 segment at the end. The 1.1 areas are bold in the example below.

```

00T000124461Z          0004599200310312220P11111542          0
G1000051291201262851B1OKA01    105123145880G    20031011    -0AM040C2001129999
CCCFRED    CDNFLINTSTONE    C1990655001A    0-0AM070EM10D254262770E1030D702213414123
E700000140000D3000D50140D610D800DE000101010DI00-0AM110DQ0000158D-0AM030E2050DB7657980
9900045990000000005

```

If your data does not have 1.1 enveloping, you can validate if you add the contents of a header file to the beginning of your data and the contents of the trailer file to the end. You can find these files in the DemoData directory of Instream and HIPAA Validator Desktop:

| File (DemoData directory) | Contents  | Use if your data is ...         |
|---------------------------|---|---------------------------------|
| HeaderTrans.NCPDP         | Beginning of the NCPDP transmission file that has no 1.1 “enveloping” | A transmission                  |
| HeaderResponse.NCPDP      | Beginning of the NCPDP response file that has no 1.1 “enveloping”     | A response                      |
| Trailer.NCPDP             | End of the EDI file that has no 1.1 “enveloping”                      | Either transmission or response |

The data can have only one transmission (or set), and cannot have extraneous characters like end-of-files or padding after the last element.

To determine whether your data is a transmission or response, look at the first few characters:

**Transmission** If the data starts with six characters followed by **51** or **D0** (as in 01262851B1OKA01 ...), then it is a transmission and you can put the contents of HeaderTrans.NCPDP in front of it and Trailer.NCPDP after it.

**Response** If the data starts with **51** or **D0** (as in 51B1OKA01 ...), then it is a response and you can put the contents of HeaderResponse.NCPDP in front of it and Trailer.NCPDP after it.