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Technical Analysis and Unit Test Empty Parser

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Reason of intervention:

In the web service that submit COPARN files from FTP folder to COPAS there is an error that occur: whenever an empty with BGM+108 with an EQD without container but it has 5 as last digit the program goes into a dump. Also, the program doesn't keep a copy of the original file.

Solutions:

- BGM+108 with a Full container:

```
    }else if (s.contains("EQD+")){
        destroySegment = false
        String[] container = s.split( regex: "\\+")
        if(container[container.size()-1] == "5"){
            destroySegment = true
            //LG NEW: if the container is empty but it has a code 5 at the end, cancel from EQD to EQD
        }else if(!container[container.size()-1].equalsIgnoreCase( anotherString: "4")) {
            emptyCoparn = false
        }
    }else if (s.containsIgnoreCase("CNT+" || "UNT+")){
        if (s.containsIgnoreCase( searchString: "UNT+")) {
            rowexploded = Arrays.asList(s.split( regex: '+'))
            rowexploded = rowexploded[1] - rowcount
            coparnAsString[coparnAsString.indexOf(s)] = "UNT+" + rowexploded[1] + "+1'"
        }
        destroySegment = false
    }
    if(destroySegment){
        coparnAsString.remove(s)
        rowcount++
    }
```

In the cycle for has been added a new condition under the EQD line: if an EQD of an BGM+108 has a 5 at the end the program will flag a Boolean (destroysegment) that will start the removal of every line in the array until it finds a CNT, UNT (the end of the file) or another EQD that might be viable. Note that the program keeps count of the destroyed lines and change the value of the UNT line.

- Program don't keep track of the original file

It has been required that the program should keep track of the original file until a 2-month widow, but after approaching the code it has been noticed that the runtime already keep track of these files and store them into a "temp" folder.

```

103
104     try{
105         if (LEAVE_COPY)
106             Files.copy(path, Paths.get(WORKING_TEMP, path.toFile().getName()), StandardCopyOption.REPLACE_EXISTING)
107     }catch(Exception e){
108         logger.error(LOGGER_PREFIX+e.getMessage(),e)
109     }

```

Note that LEAVE_COPY is a static Boolean as true.

- In case LOC POD/SPOD is empty

Now the program keeps track of the LOC segment and changes it when it arrives empty adding "ITGOA" at the end.

```

}else if (s.contains("LOC+")) {
    String[] location = s.split( regex: "\\+")
    if(location[1] == null){
        coparnAsString[coparnAsString.indexOf(s)] = "LOC+ITGOA"
    }
}

```

Unit Test

Unit Test 0, Splitter error:

During the tests it has been noticed that the row splitter doesn't work correctly:

Interchange Detail / 10964853

Sender

Gateway

INBOUND_FTP_LENAPI

Recipient

Format

EDI

Status

✖

Time

16-05-2022 09:52:18

Trace

Message

Metadata

Interchange	Inbound	Outbound	Bundle	Transmission	Time	Sender
10964853					09:52:18	

Events

Date	Message
16-05-2022 09:52:18	Unable to parse message: Message 1 segment count mismatch. Expected: 21 Found: 20

```

1 UNB+UNOC:2+LENAVI-GOA+ITGOAAM+220516:0743+000428967
2 UNH+1+COPARN:D:00B:UN:SMDG20
3 BGM+108+0162772582+5
4 RFF+BN:0162772582
5 TDT+20+MN219A+1++MSC:172:20+++D5GB9:103::MSC CAPUCINE R
6 RFF+VON:3193109
7 LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY
8 DTM+133:202205191300:203
9 NAD+CF+MSC
10 NAD+MS+MSC
11 NAD+CB+MCS:160:ZZZ
12 EQD+CN+MEDU9624525+4532:102:5++2+4
13 EQN+1:2
14 LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY
15 LOC+11+USDGS:139:6
16 LOC+7+USNYC:139:6:NEW YORK+US:162:5:UNITED STATES+NY:84::NEW Y
17 MEA+AAE+G+KGM:10509
18 TMP+2+-25:CEL
19 FTX+AAA+++Bread, pastry, cakes, biscuits and other bakers?
20 w
21 CNT+16:1
22 UNT+21+1
23 UNZ+1+000428967
24

```

Unit test 1, Parsing of a EQD with code 5:

Input

```

UNB+UNOC:2+LENAVI-GOA+ITGOAAM+220516:0848+000429121'
UNH+1+COPARN:D:00B:UN:SMDG20'
BGM+108+459HA0677048+1'
RFF+BN:459HA0677048'
TDT+20+AL220A+1++MSC:172:20+++D5CT3:103::LUEBECK'
RFF+VON:3200479'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
DTM+133:202205210300:203'
NAD+CF+MSC'
NAD+MS+MSC'
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+11+ITGIT:139:6:GIOIA TAURO+IT:162:5:ITALY'
LOC+7+INVTZ:139:6:VISAKHAPATNAM+IN:162:5:INDIA+AP:84::ANDHR'
MEA+AAE+G+KGM:12000'
FTX+AAA+++PARTS AND ACCESSORIES SUITABLE FOR USE SOLELY OR P'
EQD+CN++4510:102:5++2+5
EQN+1:2
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY
LOC+11+ESVLC:139:6
LOC+88+ITARW:139:6:Solaro+IT:162:5:Italy
LOC+7+USORF:139:6:NORFOLK+US:162:5:UNITED STATES+VA:84::VIRGI
MEA+AAE+G+KGM:1760
FTX+AAA+++Dishwashing machines of the ho
FTX+AAA+++Dishwashing machines of the ho
FTX+AAA+++Dishwashing machines of the ho
FTX+AAA+++Dishwashing machines of the ho
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+11+ITGIT:139:6:GIOIA TAURO+IT:162:5:ITALY'
LOC+7+INVTZ:139:6:VISAKHAPATNAM+IN:162:5:INDIA+AP:84::ANDHR'
MEA+AAE+G+KGM:9000'

```

If we look at this file, it's possible to note that it has a "?" in it, the program split onto the "" and for so it creates a new row where there shouldn't be.

For this I added a new script that keep track of this error, but it's not implemented since it needs an approval for this change.

Output

Interchange Detail / 10967049

Sender	LENAVI-GOA	Gateway	INBOUND_FTP_LENAVI
Recipient	ITGOAAM	Format	EDI
Status	✓	Time	16-05-2022 10:56:17

Trace Message Metadata

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```

UNB+UNOC:2+LENAVI-GOA+ITGOAAM+220516:0848+000429121'
UNH+1+COPARN:D:00B:UN:SMDG20'
BGM+108+459HA0677048+1'
RFF+BN:459HA0677048'
TDT+20+AL220A+1++MSC:172:20+++D5CT3:103::LUEBECK'
RFF+VON:3200479'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
DTM+133:202205210300:203'
NAD+CF+MSC'
NAD+MS+MSC'
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+11+ITGIT:139:6:GIOIA TAURO+IT:162:5:ITALY'
LOC+7+INVTZ:139:6:VISAKHAPATNAM+IN:162:5:INDIA+AP:84::ANDHR'
MEA+AAE+G+KGM:12000'
FTX+AAA+++PARTS AND ACCESSORIES SUITABLE FOR USE SOLELY OR P'
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+11+ITGIT:139:6:GIOIA TAURO+IT:162:5:ITALY'
LOC+7+INVTZ:139:6:VISAKHAPATNAM+IN:162:5:INDIA+AP:84::ANDHR'
MEA+AAE+G+KGM:9000'
CNT+16:2'
UNT+24+1'
UNZ+1+000429121'

```

Unit test 2, Parsing a POD/SPOD null:

Input

```
UNB+UNOC:2+LENAVI-GOA+ITGOAAM+220516:0948+000429272'
UNH+1+COPARN:D:00B:UN:SMDG20'
BGM+108+0162770380+9'
RFF+BN:0162770380'
TDT+20+MM220A+1++MSC:172:20+++CQEV6:103::MSC MELINE'
RFF+VON:3178485'
LOC+165+ITGOA:139:6:OTHERMSCTERMINAL'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
DTM+133:202205280000:203'
NAD+CF+MSC'
NAD+MS+MSC'
NAD+CB+SCHENKER ITALIANA SPA:160:ZZZ'
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9++IT:162:5:ITALY'
LOC+11++BR:162:5:BRAZIL'
LOC+7+ARBUE:139:6:BUENOS AIRES+AR:162:5:ARGENTINA+C:84:
MEA+AAE+G+KGM:3000'
MEA+AAE+AAW+MTQ:50'
FTX+AAA+++PLASTIC ARTICLES PO 4502460919 NCM ?: 3926.
CNT+16:1'
UNT+21+1'
UNZ+1+000429272'
```

Output

Sender	LENAVI-GOA	Gateway	INBOUND_FTP_LENAVI
Recipient	ITGOAAM	Format	EDI
Status	✓	Time	16-05-2022 11:51:18

Trace **Message** Metadata

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```
UNB+UNOC:2+LENAVI-GOA+ITGOAAM+220516:0948+000429272'
UNH+1+COPARN:D:00B:UN:SMDG20'
BGM+108+0162770380+9'
RFF+BN:0162770380'
TDT+20+MM220A+1++MSC:172:20+++CQEV6:103::MSC MELINE'
RFF+VON:3178485'
LOC+165+ITGOA:139:6:OTHERMSCTERMINAL'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
DTM+133:202205280000:203'
NAD+CF+MSC'
NAD+MS+MSC'
NAD+CB+SCHENKER ITALIANA SPA:160:ZZZ'
EQD+CN++4510:102:5++2+4'
EQN+1:2'
LOC+9+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+11+ITGOA:139:6:GENOVA+IT:162:5:ITALY'
LOC+7+ARBUE:139:6:BUENOS AIRES+AR:162:5:ARGENTINA+C:84::CIUDA'
MEA+AAE+G+KGM:3000'
MEA+AAE+AAW+MTQ:50'
FTX+AAA+++PLASTIC ARTICLES PO 4502460919 NCM ?: 3926.90.90.'
CNT+16:1'
UNT+21+1'
UNZ+1+000429272'
```