
Question

[Yone Moreno](#) · Feb 14, 2020

Remove delimiters which hold not present values in a HL7 message, using a Data Transformation?

Hello,

We need to convert [this structure](#), where we observe empty component separators "^":

```
MSH|^&|sistemaExterno|anonymized^anonymized|anonymized|anonymized|anonymized||RSP^K22^RSPK21|a  
nonymized|P|2.5^&^&|1||AL|AL||ASCII  
MSA|AA||AA  
QAK||OK  
QPD|Q22^^Find Candidates||anonymized  
PID|1|anonymized^1^|35018^^anonymized^PI^^anonymized^1^^TISR^HC^^292213^2^12^JHN^  
^^6339140^^MPI^CIP^^MI^PPN^^MI^NNESESP|292213^^|ApellidoUno35018^No  
mbre35018^^&^&^&|ApellidoDos35018^^&^&^&|19541111000000|M|||^&AVDA EL PUENTE 64  
PLB4B&""^380374^38^38700^034^|922417062^922417062|922415760^  
^|034^Y|^|N|38||12|^|034^ESPA A^N|N|N||5^A||^N^  
PD1||12024310^120243^^PTN^1^1202430113A^||anonymized|TSI 002|01||N
```

to [this one](#), where there are not empty component separators "^" nor empty subcomponents separators at component's end like "&":

```
MSH|^&|sistemaExterno|anonymized^anonymized|anonymized|anonymized|anonymized||RSP^K22^RSPK21|a  
nonymized|P|2.5|1||AL|AL||ASCII  
MSA|AA||AA  
QAK||OK  
QPD|Q22^^Find Candidates||anonymized  
PID|1|anonymized^1|35018^^anonymized^PIanonymized^1^^TISR^HC292213^2^12^JHN6339140^^MPI^C  
IP^^MI^PPN^^MI^NNESESP|292213|ApellidoUno35018^Nombre35018|ApellidoDos35018|19541111000000|  
M|||^&AVDA EL PUENTE 64PLB4B&""^380374^38^38700^034^|922417062^922417062|9224  
15760^|034^Y|^|N|38||12|^|034^ESPAÑ A^N|N|N||5^A||^N^  
PD1||12024310^120243^^PTN^1^1202430113A^||anonymized|TSI 002|01||N
```

Is there any default setting included in Data Transformation's setting to handle this use case?

We are currently using the following code to handle trailing field and component separators. It is being extracted from the following topic created by Randy Pallotta:

<https://community.intersystems.com/post/removing-all-trailing-delimiters...>

```
/// This function removes trailing pipes "|" and/or up-carats "^" from the given HL7 message.
///
/// Per the HL7 standard, empty fields at the end of a segment need not be sent at all.
/// This also applies to empty sub-components at the end of a field.
/// For example, PID|1|12345||DOE^JOHN^^^||||||| is equivalent to PID|1|12345||DOE^JOHN.
///
/// We created this function to help with our file compares, so that Ensemble mimics the
/// behavior of Cerner Open Engine which removes trailing pipes automatically. By calling
/// this function, we ensure that Ensemble produces the same output as Cerner Open Engine.
ClassMethod ConversionScrub(pHL7 As EnsLib.HL7.Message) As EnsLib.HL7.Message
{
    set tSegCount = pHL7.SegCount
    set tCount = pHL7.SegCount
    while tCount > 0 {
        set tSegment = pHL7.GetValueAt(tCount)

        ; Remove trailing up carats
        while ..StartsWith(($REVERSE(tSegment)), "^") {
            set tLength = ..Length(tSegment)
            set tSegment = ..SubString(tSegment, 1, (tLength-1))
            do pHL7.SetValueAt(tSegment, tCount)
        } ; Remove trailing up carats within a field
        set tIndex = 0
        while $FIND(tSegment, "^|", tIndex) > 0 {
            set tSegment = $Replace(tSegment, "^|", "|")
            do pHL7.SetValueAt(tSegment, tCount)
        }

        ; Remove subcomponent & separator?
        set tIndex = 0
        while $FIND(tSegment, "&&", tIndex) > 0 {
            set tSegment = $Replace(tSegment, "&&", "")
            do pHL7.SetValueAt(tSegment, tCount)
        }

        ; Remove trailing pipes
        while ..StartsWith(($REVERSE(tSegment)), "|") {
            set tLength = ..Length(tSegment)
            set tSegment = ..SubString(tSegment, 1, (tLength-1))
            do pHL7.SetValueAt(tSegment, tCount)
        }

        ; Remove empty segment
        if ..Length(tSegment) = 3 {
            do pHL7.SetValueAt("", tCount, "remove")
        }
        set tCount = tCount-1
    }
    quit pHL7
}
```

We have read:

<https://docs.intersystems.com/irislatest/csp/docbook/DocBook.UI.Page.cls...>

<https://docs.intersystems.com/irislatest/csp/docbook/DocBook.UI.Page.cls...>

<https://cedocs.intersystems.com/latest/csp/docbook/DocBook.UI.Page.cls?K...>

<https://docs.intersystems.com/irislatest/csp/docbook/DocBook.UI.Page.cls...>

[#DTL](#) [#Ensemble](#) [#InterSystems](#) [IRIS](#)

Source

URL: <https://community.intersystems.com/post/remove-delimiters-which-hold-not-present-values-hl7-message-using-data-transformation>