

ALAN

VS.

THE BLOB



VUGM
2001

Session
19

MARC RECORD STRUCTURE

OCLC MARC Record in Raw Form:

```
00734cam 22002411 45*000100130000000300060001300500170001900800410003601000170007704000230009404300
1200117050001600129082001300145092001900158049000900177100002500186245009800211260005700309300003900
366350000900405504003000414651004800444*ocm00442080 *OCoLC*19940620065418.0*701012s1968 pauab b
000 0 eng * #a 68021623 * #aDLC#cDLC#dOCL#dIPL*#an-us---*0 #aJK2556#b.E2* #a325.3/73* #a325.373#bEb61f*
#aIPL1*1 #aEblen, Jack Ericson.*14#aThe first and second United States empires;#bgovernors and territorial government,
1784-1912.*#a[Pittsburgh]#bUniversity of Pittsburgh Press#c[1968]* #aviii, 344 p.#billus., map.#c24 cm.* #a8.95*
#aBibliography: p. 321-333.* 0#aUnited States#xTerritories and possessions.**
```

LEADER:

Logical record length: 00734
 Record status/Type of record/Bibliographic level: cam
 Two blanks/Indicator count/Subfield code count: bb22
 Base address of data: 00241
 Encoding level/Descriptive cat. form/Linked record code: 1bb
 Length of length-of-field/Length of starting-character pos: 45
 OCLC transaction type code: *
 Undefined: 0

FIELDS:

Tag	Length	Start	Text
001	0013	00000	ocm00442080 *
003	0006	00013	OCoLC*
005	0017	00019	19940620065418.0*
008	0041	00036	701012s1968 pauab b 000 0 eng *
010	0017	00077	#a 68021623 *
040	0023	00094	#aDLC#cDLC#dOCL#dIPL*
043	0012	00117	#an-us---*
050	0016	00129	0 #aJK2556#b.E2*
082	0013	00145	#a325.3/73*

...

VS.



THE FUNCTIONS AND THEIR PARAMETERS

Version 99:

GetBibBLOB(BIB_ID)

GetMFHDBLOB(MFHD_ID)

GetAuthBLOB(AUTH_ID)

Version 2000+:

BIBBLOB_VW.MARC_Record

MFHDBLOB_VW.MARC_Record

AUTHBLOB_VW.MARC_Record

GetFieldRaw(MARCRec, DTag, Which)

GetField(MARCRec, DTag, Which)

GetFieldAll(MARCRec, DTag)

GetSubField(RawField, SFCCode, Which)

VS.



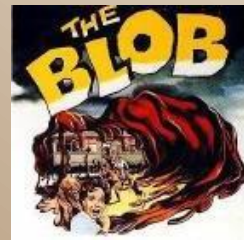
THE BLOB FUNCTIONS AND THEIR RESULTS

GetBibBLOB("1188178") or BIBBLOB_VW.MARC_Record

01503cam 2200337I 4500001000800000005001700008007001400025008004100039035002300080037002200103040002
3001251000041001482450142001892600059003312650078003903000024004685000037004925000039005295000027005
6850000780059551000160067353301360068965000530082565000300087870000300090874000160093874000650095483
0004601019852004101065856005901106118817820010213171755.0hd afv---bacp851016r19701660miu a 00010 eng d
a(OCOLC)ocm1268224 aCL0037000010 bUMI aEAA cEAA dm/c dQPQ10 aPhilanthropus, Irenaus
Philadelphus 0 aEireenikon, or, A treatise of peace between the two visible divided parties ... h[microform] / cby Iren5us
Philadelphus Philanthropus .. 0 aLondon : bPrinted by T.J. for Nath. Brooks ..., c1660 aUniversity Microfilms
International, 300 N. Zeeb Rd., Ann Arbor, MI 48106 a[10], 3-102, [1] p aTitle transliterated from Greek aAttributed
to Robert Gell by Wing aErrata: p. [1] at end aReproduction of original in Union Theological Seminary Library, New
York 4 aWing cG469 aMicrofilm. bAnn Arbor, Mich. : cUniversity Microfilms, d1970. e1 microfilm reel ; 35
mm. f(Early English books, 1641-1700 ; 354:15) 0 aReconciliation xReligious aspects xChristianity 0 aPeace xReligious
aspects 0 aGell, Robert, d1595-1665. 01 aEireenikon 21 aA treatise of peace between the two visible divided parties
0 aEarly English books, 1641-1700 ; v354:15 a bhsse,mic2 h820.82 iEn36 iReel 354:154
uhttp://wwwlib.umi.com/eebo/image/65679 zOnline version



VS.



THE BLOB FUNCTIONS AND THEIR RESULTS

GetMFHDBLOB(“834”) or MFHDBLOB_VW.MARC_Record

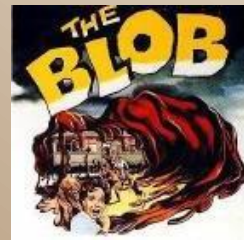
00224nx 2200109z 4500001000400000004000400004005001700008008003300025014001700058014001400075852002
50008983441519980612181839.09806122u u 1001uu 00000001 †aAAA0417PU00I0
†900000083310†bstor†h641.578†iM189i

GetAuthBLOB(“2200”) or AUTHBLOB_VW.MARC_Record

00856cz 2200169n 4500001000500000005001700005008004100022010001700063035001400080040001800094110002
600112410002500138510004100163670004200204670032700246670011300573220019980612191359.0790703n
acannaab a ana □ †an 79055737 □ †aCAA8726PU □ †aDLC †cDLC †dDLC20 †aChina Inland Mission.20 †aChung-
kuo nei ti hui20 †wbna †aOverseas Missionary Fellowship □ †aKuhn, I. †bAscent to the tribes, 1956 □ †aNUCMC data from
Wheaton College, Billy Graham Center Archives, for Overseas Missionary Fellowship. United States Home Council
Records, 1853-1957 †b(China Inland Mission; Protestant mission agency working in China until 1950; later took name
Overseas Missionary Fellowship and redirected work to other Far Eastern countries) □ †aLin, M.M. Chung-kuo nei ti hui chih
yen chiu, 1984: †bt.p. (Chung-kuo nei ti hui) p. 6 (China Inland Mission)



VS.



THE PARSING FUNCTIONS AND THEIR RESULTS

GetFieldRaw(<record 1188178>,"650",1)

650 0‡aReconciliation‡xReligious aspects‡xChristianity.

GetField(<record 1188178>,"650",1)

Reconciliation Religious aspects Christianity.

GetFieldAll(<record 1188178>,"650")

Reconciliation Religious aspects Christianity. äå

Peace Religious aspects.

GetSubField(<the raw field above>,"x",2)

Christianity.

VS.



99.1 FUNCTIONS

vs.

2000.1 VIEWS

IN VERSION 2000.1, THE GET*BLOB FUNCTIONS HAVE BEEN REPLACED WITH DATABASE VIEWS. A VIEW IS A QUERY THAT IS STORED WITHIN THE ORACLE DATABASE.

Version 99:

GetBibBLOB(BIB_ID)



Version 2000+:

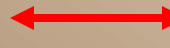
BIBBLOB_VW.MARC_Record

GetMFHDBLOB(MFHD_ID)



MFHDBLOB_VW.MARC_Record

GetAuthBLOB(AUTH_ID)



AUTHBLOB_VW.MARC_Record

THE PROCESSING ON THE SERVER IS FASTER THAN THE PROCESSING ON THE WORKSTATION, BUT MOST OF THE TIME IS IN TRANSFERRING DATA, WHICH WON'T CHANGE.

vs.

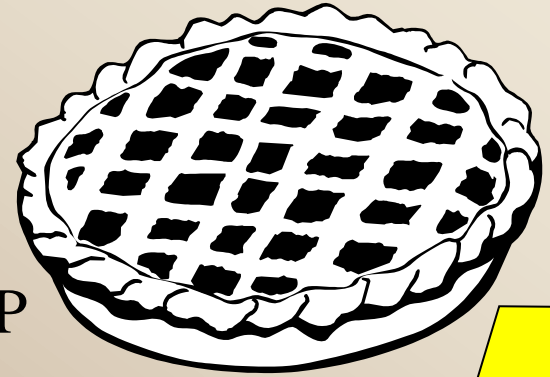


FUNCTIONS

TO END UP WITH
QUICHE, YOU NEED
TO START WITH A
GROCERY LIST AND
TRANSFORM IT STEP
BY STEP



GROCERY
LIST

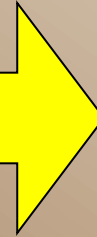


QUICHE



GROCERIES

UNPACKING



EGGS



VS.



FUZZY MATH

GROCERIES = SHOP(GROCERY LIST)



EGGS = UNPACK(GROCERIES, "EGGS")

QUICHE = COOK(EGGS, 4)



SHORTHAND METHOD:

QUICHE = COOK(UNPACK(SHOP(GROCERY LIST), "EGGS"), 4)



VS.



APPLY THIS TO THE BLOB FUNCTIONS

[MFHD Record] = GetMFHDBLOB (MFHD_ID)

[Raw 852 Field] = GetFieldRaw ([MFHD Record], "852", 1)

CLASSIFICATION = GetSubField ([Raw 852 Field], "h", 1)

SHORTHAND VERSION:

CLASSIFICATION =

GetSubField(GetFieldRaw(GetMFHDBLOB(MFHD_ID),"852",1),"h",1)

COMPARE:

QUICHE = COOK(UNPACK(SHOP(GROCERY LIST),"EGGS"),4)



VS.



USES FOR THE FUNCTIONS

ADD FIELDS TO A REPORT

Examples: Add Subject Headings to a Bibliography
Add holdings to a serials list

CHECK FOR PRESENCE OF FIELDS

Examples: Find serials records that contain multiple ISSN's
Find MFHDs with 899 fields

SCREEN RECORDS BASED ON FIELD CONTENT

Examples: Select records based on cataloguer initials in a
local notes 9XX field
Find theses from a specific department by
examining the 502 field

VS.



ADDING BLOB FIELDS TO A REPORT

SERIALS IN A GIVEN LOCATION WITH THEIR HOLDINGS

Serials with holdings : Select Query

BIB_TEXT
*
BIB_ID
AUTHOR
TITLE
TITLE_BRIEF

BIB_MFHD
*
BIB_ID
MFHD_ID

MFHD_MASTER
*
MFHD_ID
LOCATION_ID
CALL_NO_TYPE
NORMALIZED_CALL_NO

LOCATION
*
LOCATION_ID
LOCATION_CC
LOCATION_NAME
LOCATION_DISPLAY

Field:	TITLE	DISPLAY_CALL_NO	HLDGS: GetFieldAll(GetMFHDBLOB([MFHD_MASTER].[MFHD_ID]),"866")	LOCATION_CODE	BIB_FORMAT
Table:	BIB_TEXT	MFHD_MASTER		LOCATION	BIB_TEXT
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:				[Location code?]	Like "*s"
or:					

HLDGS: GetFieldAll(GetMFHDBLOB([MFHD_MASTER].[MFHD_ID]),"866")

VS.



GetField/GetFieldAll/GetFieldRaw

650	0	‡a Wildlife watching ‡z Australia ‡z Wallaby Creek (N.S.W.) ‡x Juvenile literature.
650	0	‡a Zoology ‡z Australia ‡z Wallaby Creek (N.S.W.) ‡x Juvenile literature.
651	0	‡a Wallaby Creek (N.S.W.) ‡x Juvenile literature.
650	1	‡a Zoology ‡z Australia ‡z Wallaby Creek (N.S.W.)
651	1	‡a Australia.
651	1	‡a Wallaby Creek (N.S.W.)
650	1	‡a Wildlife watching.

GetFieldAll(GetBibBLOB("276246"),"650")

Wildlife watching Australia Wallaby Creek (N.S.W.) Juvenile literature.

Zoology Australia Wallaby Creek (N.S.W.) Juvenile literature.

Zoology Australia Wallaby Creek (N.S.W.)

Wildlife watching.

GetField(GetBibBLOB("276246"),"650",1)

Wildlife watching Australia Wallaby Creek (N.S.W.) Juvenile literature.

GetFieldRaw(GetBibBLOB("276246"),"650",1)

650 0‡aWildlife watching‡zAustralia‡zWallaby Creek (N.S.W.)‡xJuvenile literature.

PROS AND CONS

PROS

CONS

GetFieldAll

Get all matching fields in one call.

Get all subfields.
Subfields separated by spaces.

GetField

Control over which fields you get.

Same as GetFieldAll
Get only one field.

GetFieldRaw

Can use GetSubField to get exactly the subfields you want.
Can distinguish subfields.

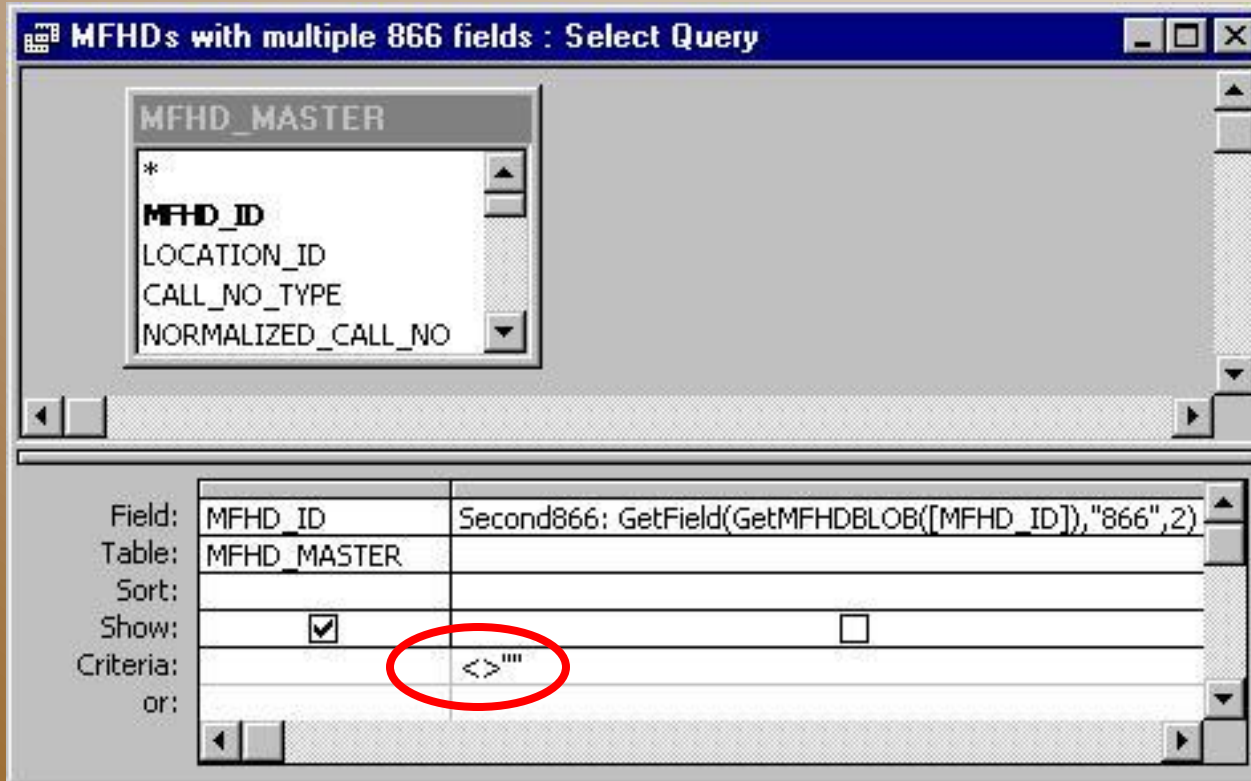
Not printable as is.

VS.



CHECKING FOR FIELD PRESENCE

MFHDS WITH MULTIPLE 866 FIELDS:



WE DON'T CARE WHAT THE SECOND 866 FIELD CONTAINS, WE JUST CARE ABOUT WHETHER IT IS THERE



VS.



SCREENING ON FIELD CONTENT

SMALL BOOKS: SIZE UNDER 21 CENTIMETRES

Small books : Select Query

BIB_TEXT

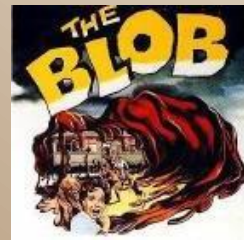
*
BIB_ID
AUTHOR
TITLE
TITLE_BRIEF

Field:	BIB_ID	SIZE: Val(getsubfield(getfielddraw(getbibblob([BIB_ID]),"300",1),"c",1))
Table:	BIB_TEXT	
Sort:		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		
or:		

<>0 And <21

SIZE: Val(getsubfield(getfielddraw(getbibblob([BIB_ID]),"300",1),"c",1))

VS.



CAVEAT ACCESSOR!

THE BLOB FUNCTIONS RUN ON THE WORKSTATION, NOT ON THE SERVER. BEFORE THEY CAN RUN, THE ENTIRE MARC RECORD MUST BE TRANSFERRED TO THE WORKSTATION ACROSS THE NETWORK.

1,200,000	BIB RECORDS
<u>X</u>	<u>907</u> BYTES AVERAGE MARC RECORD
1,088,400,000	BYTES TRANSFERRED

REDUCE THE SIZE OF YOUR SAMPLE
AS MUCH AS POSSIBLE BEFORE YOU
USE THE BLOB FUNCTIONS

VS.



GENERIC MATCHING

THE GETSUBFIELD FUNCTION AND ALL OF THE
GETFIELD FUNCTIONS DO GENERIC MATCHING:

FIND THE FIRST SUBFIELD IN THE FIRST ISBN FIELD

`GetSubField(GetFieldRaw(GetBibBLOB(BIB_ID),"020",1),"",1)`

GET THE MAIN ENTRY, NO MATTER WHAT ITS TYPE

`GetField(GetBibBLOB(BIB_ID),"1",1)`

GET AN "a" SUBFIELD FROM THE FIRST LOCAL CALL NUMBER

`GetSubField(GetFieldRaw(GetBibBLOB(BIB_ID),"09",1),"a",1)`

GET ALL OF THE SUBJECT FIELDS

`GetFieldAll(GetBibBLOB(BIB_ID),"6")`

VS.



EXTENDING THE FUNCTIONS

WOULDN'T IT BE NICE...

SPECIFY THE DESIRED SUBFIELDS

GetFieldAll(MFHDBLOB_VW.MARC_Record,"866","az")

1966-1973, 1975/1976-1992

instead of

0 1966-1973, 1975/1976-1992

0 ca:6-29-91

SPECIFY THE DESIRED SUBFIELDS AND SEPARATOR

GetField(BIBBLOB_VW.MARC_Record, "650",1,"axyz","--")

Reconciliation--Religious aspects--Christianity.

instead of

Reconciliation Religious aspects Christianity.

VS.



OKAY, HERE'S GETFIELD

```
Function GetField(marcrec As String, DTag As String, which As Long, Optional SubFlds As String = "", Optional Sep As String = " ") As String
Dim sRawField As String
    Dim iStart As Integer
    Dim iEnd As Integer
    Dim iLength As Integer

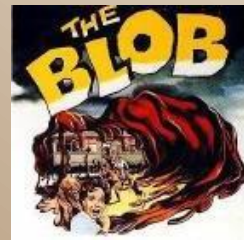
    GetField = ""
    sRawField = GetFieldRaw(marcrec, DTag, which)
    iLength = Len(sRawField)
    iStart = InStr(1, sRawField, Chr(31)) + 1

    While iStart < iLength
        iEnd = InStr(iStart, sRawField, Chr(31))
        If iEnd = 0 Then
            iEnd = iLength + 1
        End If
        If ((SubFlds = "") Or (InStr(SubFlds, Mid(sRawField, iStart, 1)) <> 0)) Then
            If (GetField <> "") Then
                GetField = GetField & Sep & Mid(sRawField, iStart + 1, (iEnd - iStart - 1))
            Else
                GetField = Mid(sRawField, iStart + 1, (iEnd - iStart - 1))
            End If
        End If
        iStart = iEnd + 1
    Wend
End Function
```

DON'T EVEN TRY TO READ THIS. JUST GRAB THE POWERPOINT FILE FROM SUPPORTWEB AND COPY AND PASTE FROM IT TO YOUR MODULE.



VS.



AND HERE'S GETFIELDALL

```
Function GetFieldAll(marcrec As String, DTag As String, Optional SubFlds As String = "", Optional Sep As String = " ") As String
    Dim sField As String
    Dim iWhich As Long

    iWhich = 1
    sField = Trim(GetField(marcrec, DTag, iWhich, SubFlds, Sep))

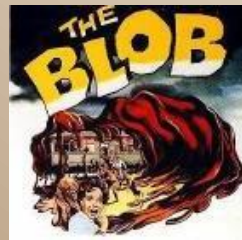
    While Len(sField) > 0
        GetFieldAll = GetFieldAll & sField & vbCrLf
        iWhich = iWhich + 1
        sField = Trim(GetField(marcrec, DTag, iWhich, SubFlds, Sep))
    Wend

    Dim iLength As Integer
    iLength = Len(GetFieldAll)
    If iLength > 2 Then
        GetFieldAll = Left(GetFieldAll, (iLength - 2))
    End If
End Function
```

JUST COPY AND PASTE!



VS.



REALLY USING THE FUNCTIONS

Function GetRecsToPrt()

Do

RecNum = bibnums![BIB_ID]

marcrec = getmarcrec(RecNum) ' Get the MARC record and the call number

Set callnoqdf = imcdb.CreateQueryDef("", "select display_call_no from mfhd_master...)

Set callnorst = callnoqdf.OpenRecordset(dbOpenForwardOnly)

Title = ""

currfld = GetFld(marcrec, "245", 1)

If (currfld <> "") Then

strval = GetSubFld(currfld, "a", 1)

If (Mid(currfld, 5, 1) <> "0") Then

skipbytes = Val(Mid(currfld, 5, 1))

sort_title = UCase(Mid(strval, skipbytes + 2)) 'Strip off non-filing chars

Else

sort_title = UCase(Mid(strval, 2))

End If

Title = Mid(strval, 2) ' Add the 245 as is

End If

strval = ""

Do

strval = strval & " " & callnorst![DISPLAY_CALL_NO] 'Concatenate call numbers

callnorst.MoveNext

Loop While Not callnorst.EOF

call_number = strval

Loop While Not bibnums.EOF

End Function

VS.

*THIS CODE IS
MISSING VITAL
PIECES!*



USING THE
FUNCTIONS TO
THEIR FULLEST
POTENTIAL
REQUIRES
SOME
PROGRAMMING

THE HARD FACTS

- GETTING DATA FROM THE BLOBS IS IMPORTANT
- GETTING DATA FROM THE BLOBS IS DIFFICULT
- THE BLOB FUNCTIONS MAKE GETTING DATA FROM THE BLOBS EASIER
- NOTHING WILL MAKE GETTING DATA FROM THE BLOBS REALLY EASY

VS.

