

## 856 ELECTRONIC LOCATION AND ACCESS

### Field Definition

This field contains the information required to locate the electronic item described by the record and/or reference files related to the described resource such as thumbnails and content pages. The information identifies the electronic location containing the item or from which it is available. It also contains information to retrieve the item by the access method identified in the first indicator position. The information contained in this field is sufficient to allow for the electronic transfer of a file, subscription to an electronic journal, or logon to an electronic resource. In some cases, only unique data elements are recorded which allow the user to access a locator table on a remote host containing the remaining information needed to access the item.

It can be used to generate the ISBD(ER) Notes relating to mode of access.

### Occurrence

Optional. Repeatable

For electronic resources: if 337 is not used, then 856 must be present.

~~For electronic resources: if 337 is not used, then 856 must be present. Repeatable when the location data elements vary (subfields \$a, \$b, \$d), when the electronic format file varies (\$q) and when more than one access method may be used. It is also repeatable whenever the electronic filename varies (subfield \$f), except when a single intellectual item is divided into different parts for online storage or retrieval.~~

### Indicators

Indicator 1: Access Method

#	No information provided
0	Email
1	FTP
2	Remote login (Telnet)
3	Dial-up
4	HTTP
7	Method specified in subfield \$y

Indicator 2: Completeness of the accessible item

#	No information provided
0	The field provides details to access the described resource
1	The field provides details to access a thumbnail of the described resource
2	The field provides details to access the title page, table of contents, and/or other front matter of the described resource.

### Subfields

\$a Host name. Repeatable.

\$b Access number

The access number associated with a host. It can contain the Internet Protocol (IP) numeric address if the item is an Internet resource, or a telephone number if dial-up access is provided through a telephone line. This data may change frequently and may be generated by the system, rather than statically stored. Subfield \$b may be repeated if all the other information in the field applies. A telephone number is recorded as follows: [country code]-[area code]-[telephone number]. Example: 49-69-15251140 (a number in Frankfurt, Germany); 1-202-7076237 (a number in the U.S., Washington, D.C.). If an extension is applicable, include it after the telephone number preceded by 'x'. Example: 1-703-3589800x515 (telephone number with extension). Repeatable.

- \$c Compression information. Repeatable.
- \$d Path. Repeatable.
- \$e Date and Hour of Consultation and Access  
The time, in the form YYYYMMDDHHMM, at which the electronic item was last accessed. Not repeatable.
- \$f Electronic name  
The electronic name of a file as it exists in the directory/subdirectory indicated in subfield \$d on the host identified in subfield \$a. Subfield \$f may be repeated if a single logical file has been divided into parts and stored under different names. In this case, the separate parts should constitute a single bibliographic item. In all other cases, a file that may be retrieved under different filenames contains multiple occurrences of field 856, each with its corresponding electronic name in subfield \$f. A filename may include wildcard characters (e.g., '\*' or '?') if applicable, with a note in subfield \$z explaining how files are named. NOTE: Filenames may be case sensitive for some systems. This subfield may also contain the name of the electronic publication or conference. Repeatable.
- \$h Processor of request  
The username, or processor of the request; generally the data which precedes the at sign ('@') in the host address. Not repeatable.
- \$i Instruction  
An instruction or command needed for the remote host to process a request. Repeatable.
- \$j Bits per second  
The lowest and highest number of bits (binary units) of data that can be transmitted per second when connected to a host. The syntax for recording the number of bits per second (BPS) should be: [Lowest BPS]-[Highest BPS]. If only lowest given: [Lowest BPS]-. If only highest given: -[Highest BPS]. Not repeatable.
- \$k Password  
Used to record general-use passwords, and should not contain passwords requiring security. Not repeatable.
- \$l Logon/login  
General-use logon/login strings which do not require special security. Not repeatable.
- \$m Contact for access assistance. Repeatable.
- \$n Name of location of host in subfield \$a. Not repeatable.
- \$o Operating system  
For information, the operating system used by the host specified in subfield \$a is indicated in this subfield. Not repeatable.
- \$p Port  
The portion of the address that identifies a process or service in the host. Not repeatable.
- \$q Electronic Format Type  
Contains an identification of the electronic format type, which determines how data are transferred through a network. Usually, a text file can be transferred as character data which generally restricts the text to characters in the ASCII (American National Standard Code for Information Interchange) character set (i.e., the basic Latin alphabet, digits 0-9, a few special characters, and most punctuation marks). Text files with characters outside of the ASCII set, or non-textual data (e.g., computer programs, image data) must be transferred using another file transfer mode, usually binary mode. Electronic format type may be taken from lists such as registered Internet Media types (MIME types). Not repeatable. If the electronic resource is available in more than one format, then field 856 may be repeated.
- \$r Settings  
The settings used for transferring data. Included in settings are:  
1) Number Data Bits (the number of bits per character);

2) Number Stop Bits (the number of bits to signal the end of a byte); and

3) Parity (the parity checking technique used). The syntax of these elements is: [Parity]-[Number of Data Bits]-[Number of Stop Bits]. If only the parity is given, the other elements of settings and their related hyphens are omitted (i.e., [Parity]). If one of the other two elements is given, the hyphen for the missing element is recorded in its proper position (i.e., [Parity]-[Number of Stop Bits] or [Parity]-[Number of Data Bits]-). The values for parity are: O (Odd), E (Even), N (None), S (Space), and M (Mark). Not repeatable.

\$s File size

The size of the file as stored under the filename indicated in subfield \$f. It is generally expressed in terms of 8-bit bytes (octets). It may be repeated in cases where the filename is repeated and directly follows the subfield \$f to which it applies. This information is not given for journals, since field 856 relates to the entire title, not to particular issues. Repeatable.

\$t Terminal emulation. Repeatable.

\$u Uniform Resource Identifier

The URI, which provides standard syntax for locating an object using existing Internet protocols. Field 856 is structured to allow for the creation of a URL from the concatenation of other separate 856 subfields. Subfield \$u may be used instead of those separate subfields or in addition to them. The field is repeated if more than one URL needs to be recorded. Not repeatable

\$v Hours access method available

The hours that access to an electronic resource is available at the location indicated in this field. Repeatable

\$w Record control number. Repeatable.

\$x Non-public note. Repeatable.

\$y Access method

The access method when the first indicator position contains value 7 (Method specified in subfield \$y). This subfield may include access methods other than the main TCP/IP protocols specified in the first indicator. The data in this subfield corresponds with the access schemes specified in Uniform Resource Locators (URL) (RFC 1738), a product of the Uniform Resource Identifiers Working Group of the IETF. The Internet Assigned Numbers Authority (IANA) maintains a registry of URL schemes and defines the syntax and use of new schemes. Not repeatable.

\$z Public note

Repeatable.

\$2 Link text

Used for display in place of the URL in subfield \$u (Uniform Resource Identifier). When subfield \$2 is present, applications should use the contents of it as the link instead of subfield \$u linking to the destination in subfield \$u. Repeatable

#### Examples

EX 1: 856 1#\$awuarchive.wustl.edu\$cdecompress with PKUNZIP.exe \$d/mirrors2/win3/games\$fatmoids.zip\$xcannot verify because of transfer difficulty

EX 2: 856 1#\$uftp://path.net/pub/docs/urn2urc.ps  
856 4#\$uhttp://lweb.loc.gov/catdir/semidgdocs/seminar.html

EX 3: 856 2#\$apac.carl.org\$b192.54.81.128\$mCARL Situation Room\$mhelp@CARL.org\$nCARL Systems Inc., Denver, CO\$v24 hours

EX 4: 856 3#\$alocis.loc.gov\$b140.147.254.33\$miconline@loc.gov\$t3270\$tline mode (e.g., vt100)\$vM-F 6:00 a.m.-21:30 p.m. USA EST, Sat. 8:30-17:00 USA EST, Sun. 13:00-17:00 USA EST

EX 5: 856 4#\$uhttp://lweb.loc.gov/catdir/toc/93-3471.html

EX 6: 856 4#\$uhttp://www.gpntb.ru/win/inter-events/crimea94/report/prog\_01r.html\$s14519 bytes\$v24

EX 7: 856 2#\$amaine.maine.edu\$nUniversity of Maine\$t3270

- EX 8: 856 1#[\\$awuarchive.wustl.edu\\$dmirrors/info-mac/util\\$fcolor-system-icons.hqx](#)\$s16874 bytes  
856 0#[\\$akeptvm.bitnet\\$facadlist file1](#)\$s34,989 bytes\$[facadlist file2](#)\$s32,876 bytes\$[facadlist file3](#)\$s23987 bytes
- EX 9: 856 2#[\\$agopac.berkeley.edu\\$mRoy Tennant](#)
- EX 10: 856 3#[\\$b1-202-7072316\\$j2400-9600](#)\$nLibrary of Congress, Washington, DC\$oUNIX\$rE-7-1  
\$vt100\$zRequires logon and password  
Dial-up numbers with related settings for terminal emulation
- EX 11: 856 1#[\\$aarchive.cis.ohio-state.edu\\$dpub/comp.sources.Unix/volume 10](#)\$fcomobj.lisp.10.Z\$zqbinary
- EX 12: 856 1#[\\$aunmvm.bitnet\\$lanonymous](#)
- EX 13: 856 1#[\\$aseq1.loc.gov\\$d/pub/soviet.archive\\$fk1 famine.bkg](#)\$nLibrary of Congress, Washington, D.C.\$oUNIX
- EX 14: 856 2#[\\$amadlab.sprl.umich.edu](#)\$nUniversity of Michigan Weather Underground \$p3000
- EX 15: 856 2#[\\$apucc.princeton.edu](#)\$nPrinceton University, Princeton, N.J.
- EX 16: 856 0#[\\$auccvma.bitnet\\$fIR-L](#)\$hListserv\$subscribe
- EX 17: 856 3#[\\$b1-202-7072316\\$j2400-9600](#)\$nLibrary of Congress, Washington, DC\$oUNIX \$rE-7-1
- EX 18: 856 1#[\\$aharvarda.harvard.edu](#)\$kguest
- EX 19: 856 0#[\\$auicvm.bitnet\\$fAN2](#)
- EX 20: 856 1#[\\$awuarchive.wustl.edu\\$dmirrors/info-mac/util\\$fcolor-system-icons.hqx](#)
- EX 21: 856 4#[\\$awww.gpntb.ru\\$b193.233.14.7](#)\$dwin/dewey\$fMoscow.Russia.GPNTB,  
Mikhail Goncharov\$oWINDOWS-NT\$s2048 bytes\$qttext/WINI-1251\$v24
- EX 22: 856 2#[\\$aanthrax.micro.umn.edu\\$b128.101.95.23](#)  
Host name and Internet Protocol numeric address
- EX 23: 856 1#[\\$awuarchive.wustl.edu\\$d/aii/admin/CAT.games](#)\$fmac-qubic.22.hqx
- EX 24: 856 4#[\\$uhttp://www.cdc.gov/ncidod/EID/eid.htm](#)\$qttext/html
- EX 25: 856 4#[\\$uhttp://www.nlc-bnc.ca/ifla/VI/3/p1996-1/concise.pdf](#)  
\$uhttp://ifla.inist.fr/VI/3/p1996-1/concise.pdf\$cRequires Adobe Acrobat Reader
- EX 26: 856 4#[\\$uhttp://lcweb.loc.gov/copyright/title/17](#)\$2United States Code, Title 17  
The display can be configured to present the label text in \$2 as a clickable link, rather than the rather meaningless URL in \$u.
- EX 27: 856 4#[\\$uhttp://www.bl.uk/services/bsds/nbs/interface/wface01.html](#)\$2Interface (Web Version)
- EX 28: 200 1#[\\$aISMN\\$bElectronic resource](#)\$eInternational standard music number\$eusers' manual\$f[International ISMN agency]  
856 4#[\\$qhtml\\$uhttp://www.ismn-international.org/manual.html](#)  
856 4#[\\$qpdf\\$uhttp://www.ismn-international.org/manual.pdf](#)  
The *ISMN users' manual* is available in both html and pdf formats: field 856 is repeated within the record
- EX 29: 200 1#[\\$aFado racionalista\\$ebonita coleção de cantigas oferecidas aos livres pensadores...](#)\$fJosé Marques Guerreiro Wan-Dyck  
856 41[\\$uhttp://purl.pt/6571](#)  
856 40#[\\$qpdf\\$uhttp://purl.pt/6571/3/hg-11038-v\\_PDF/hg-11038-v\\_PDF\\_01-B-R0150/hg-11038-v\\_0000\\_rosto-42\\_t01-B-R0150.pdf](#)\$2Cópia pública, 1 ficheiro pdf