Appendix: Publisher

Overview: The TCP/IP Event Publication Facility permits simplified interfacing between TCP/IP-related events and automation processing.

Events are published by use of the PUBLISH macro. This macro, called from inside or outside the TCP/IP partition, uses the standard SOBLOK method to queue an Event Notification for publication. The target TCP/IP partition processes each of the queued notifications and directs them to other processes.

These processes include:

- IMODs running under CSI-FAQS/ASO
- On- and Off-Platform processes with a socket connection to the Publishing Daemon (feature under development)..

A unique "item number" identifies each published item. The Item Dictionary contains each assigned item number, along with its format.

Item Format: Items consist of an Item Header followed by a string of Elements. Each Element consists of a length field, type field, and data field.

The length field is a half-word containing the offset to the next element, not counting the length field. For example, a length field of x'0000' indicates a null element, with the next element length-field immediately following.

The Element Number is the second field in each element and is a half-word value uniquely identifying the element.

The final field is the element's value. This is entirely dependent upon the Element Number.

Processing
Rules
- All Items are optional.
- Once an element is assigned a value/format, it will not change.
- No Item or Element may be used unless it appears in the dictionary.
- Items and Elements may ONLY be used as they appear in the dictionary.
- Any code that processes "published" data MUST ignore or accept-without-error all Items and Elements, as they are defined.

Item Header: Each published item begins with a fixed-format header block

Field	Format	Description
Length	Unsigned half-word	Length of entire item, not counting the Length field
Version	Unsigned byte	Format version of this item. Current version: X'01'
	1 bytes	Reserved
	1 fullword	Reserved
Time	TOD clock value (DBL-word)	TOD value at time of publication (GMT)
Home IP	IPv6 address (16 bytes)	IP address of stack Publishing the item
Offset	Signed full-word	Local offset from GMT for TOD value
Class	Classification flags (16 bits)	
	2 bytes	Reserved
Item	Unsigned full-word	The Item number

Item Dictionary: In the following list, elements NOT included in brackets are always present. Those shown within brackets are optional. Elements shown within the same set of brackets will either all be present or all be absent. Elements not specified in the table must be parsed and ignored. The "Status" column indicates the item's current status: "D" indicates "draft", "P" indicates "provisional" and "S" indicates "standard".

Item	Name	Elements	Status
1	FTP File Received	1, 2, 4, 6, 7 [,8] [,9 ,10]	D
2	FTP File Sent	1, 2 [,3], 4, 6, 7 [,8] [,9 ,10]	D
3	Batch job completed	4, 7, 9, 10, 11, 12	D

Element Dictionary: The "Status" column indicates the element's current status: "D" indicates "draft", "P" indicates "provisional" and "S" indicates

Num	Name	Description	Status
1	Foreign IP address	Binary, 1 to 16 bytes, lead zeros optional	D
2	Local File Name	EBCDIC, 2 to n bytes. Byte one contains the separator character (\ / .), followed by the name.	D
3	Foreign File Name	EBCDIC, 2 to n bytes (see element 2)	D
4	Completion and reason codes	Binary, 4 bytes (two bytes each)	D
5	Record count	Binary, 1 to 8 bytes	D
6	Byte count	Binary, 1 to 8 bytes	D
7	Duration	Binary, 1 to 8 bytes (lead zeros optional) TOD format	D
8	User name	EBCDIC, 1 to n bytes.	D
9	Job name	EBCDIC, 1 to n bytes	D
10	Job number	EBCDIC, 1 to n bytes	D
11	Phase name	EBCDIC, Values: "FTPBATCH", "CLIENT", others	D
12	User-specified token	EBCDIC, 1 to n bytes	D

Executing IMODs: You can cause selected publishing events to trigger CSI-FAQS/ASO IMODs. The IMOD can then parse the elements and perform appropriate automation tasks.

To activate IMOD triggering, use the following TCP/IP command:

DEFINE PUBLISHER,ID=*id*,IMODLIST=*member*

Where *member* is a library L book of the following format:

```
001   IMOD $FTPFRCV   /*  FTP FILE RECEIVED
002   IMOD $FTPFSNT   /*  FTP FILE SENT
```

The first field is the item number; the second is the keyword "IMOD" which is then followed by the IMOD name. The remainder of the record is treated as a comment. Note that the format of this file is subject to change as other publishing-related facilities become available.

Lines that begin with an asterisk (*) are treated as comments.