



## Management Information Encoding

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The benefits of "element" encoding for management information are:

- **Fields are self-identifying.** This permits new information fields to be added to management frames without requiring a new protocol version.
  - A new protocol version requires preexisting stations to ignore the new frames.
  - Self-identifying fields permit protocol analyzers to easily decode management information.
- **Unnecessary fields can be omitted from particular instances of a given frame type without creating ambiguity.**
  - Fixed fields must always be present.
  - Variable length fields also require the receiving station to scan the frame body to locate the successor field.

## Control Information Conveyance

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Selective insertion of control information in other frames is a distinct application.

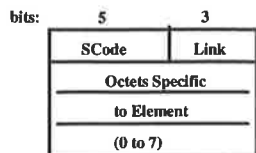
- This may be useful, but must be a very limited amount of information because length extension of CTS and ACK control frames can break the NAV mechanism.
- There are potential uses, such as TX power control, administrative compliance, and selective CRC coverage designation; but no mandatory purposes have yet been identified.

A mechanism to allow for possible use in the future is to add a MIB variable that controls the number of octets (even, 0-8) added to the end of all headers. An abbreviated type representation is then used to identify the inserted information.

**Formats**

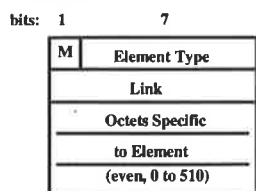
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**Selective Insertion Format**



SCode: Selective Insertion Code (0:31)  
 Link (3 bits): number of subsequent octets

**Element Format**



More bit M =1: More Elements Follow  
 =0: Last Element  
 Element Type: 7 bits (0:127)  
 Link: 8-bit number of subsequent 2-octet groups (0-255 for 0-510 octets)

**Usage Rules**

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- A. Elements shall be used strictly in Management frames, and shall be used for all fields in the payloads of such frames.**
- B. Elements within the payload of any particular Management frame shall be ordered by increasing element type code value.**
- C. Stations encountering an element type they do not understand shall ignore that element.**
- D. Element type codes and selective insertion codes not explicitly defined in the standard are reserved, and shall not appear in any frames.**
- E. Selective insertion shall apply to all frames, with the NAV settings adjusted to protect these longer frames.**

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**MOTIONS**

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1. To adopt the management information encoding mechanism and usage rules proposed in document 94/255.
2. To adopt the selective insertion mechanism and usage rules proposed in document 94/255.