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| WORLD METEOROLOGICAL ORGANIZATION  COMMISSION FOR BASIC SYSTEMS  -----------------------------  FIRST MEETING OF  INTER-PROGRAMME EXPERT TEAM ON CODES MAINTENANCE  GENEVA, SWITZERLAND, 24 - 28 JULY 2017 |  | IPET-CM-I / Doc. 2.6 (6)  (10. 7. 2017)  -------------------------  ITEM 2.6  ENGLISH ONLY |

GRIB edition 3

**Horizontal domain URL**

*Submitted by Enrico Fucile*

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**Summary and Purpose of Document**

Horizontal domain template and template component to refer to an externally defined horizontal domain are proposed.

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**ACTION PROPOSED**

The Team is asked to review the proposal and accept it for validation.

**DISCUSSIONS**

Some of the horizontal domain templates defined can have a size comparable to the data section. We propose a mechanism to refer to externally defined templates to be able to omit the grid description in the GRIB message by providing a Uniform Resource Locator (URL). This is a special URI (Uniform Resource Identifier) which in addition to being a unique identifier is also providing location and retrieval mechanism for the sample GRIB providing the missing template. The URL section will replace any of the horizontal domain sections and the decoding software has to be able to locate a GRIB pointed by the URL and to get the horizontal domain section from it to replace the URL template which is only a place holder and a pointer.

Data producers must guarantee that the URL is valid and points to a valid GRIB with the expected information.

**PROPOSAL**

***Horizontal Domain Template Component 4.14 – URL***

|  |  |
| --- | --- |
| Byte No. | Contents |
| 1-2 | scheme (code table) |
| 3 | Nhost - number of bytes used by host |
| 4 - 4+Nhost | host |
| 5+Nhost - 6+Nhost | port (unsigned integer) |
| 7+Nhost - 9+Nhost | Npath -number of bytes used by path |
| 10+Nhost - 10+Nhost+Npath | path |
| 11+Nhost+Npath - 13+Nhost+Npath | Nquery -number of bytes used by query |
| 14+Nhost+Npath - 15+Nhost+Npath+Nquery | query |

Note:

(1) A URL is a Uniform Resource Locator that is identifying a web resource and is used in this context to locate and retrieve a GRIB message providing the template to be used.

The syntax of the URL is:

**scheme://**[**host**[**:port**]]**/path**[?**query**]

where port and query are optional and can be missing.

**Code table 4.x** – *URL scheme*

Code figure Meaning

0 http

1 https

2 ftp

3 file

65535 Missing

***Horizontal Domain Template 4.9 – URL***

|  |  |
| --- | --- |
| Component Code | Component Name |
| 4.14 | URL |