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| WORLD METEOROLOGICAL ORGANIZATION  COMMISSION FOR BASIC SYSTEMS  -----------------------------  SECOND MEETING OF  INTER-PROGRAMME EXPERT TEAM ON CODES MAINTENANCE  OFFENBACH, GERMANY, 28 MAY - 1 JUNE 2018 |  | IPET-CM-II / Doc. 7.3(2)  25.05.2018  -------------------------  ITEM 7.3  ENGLISH ONLY |

MIGRATION TO TABLE-DRIVEN CODE FORMS

DWD’s online BUFR Viewer

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**Summary and Purpose of Document**

This document demonstrates DWD’s online BUFR Viewer. Furthermore it introduces a machine interface to the BUFR Viewer which can be easily used for automated testing of BUFR encoders/decoders.

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**ACTION PROPOSED**

None

**ANNEXES:**

1.

**DISCUSSIONS**

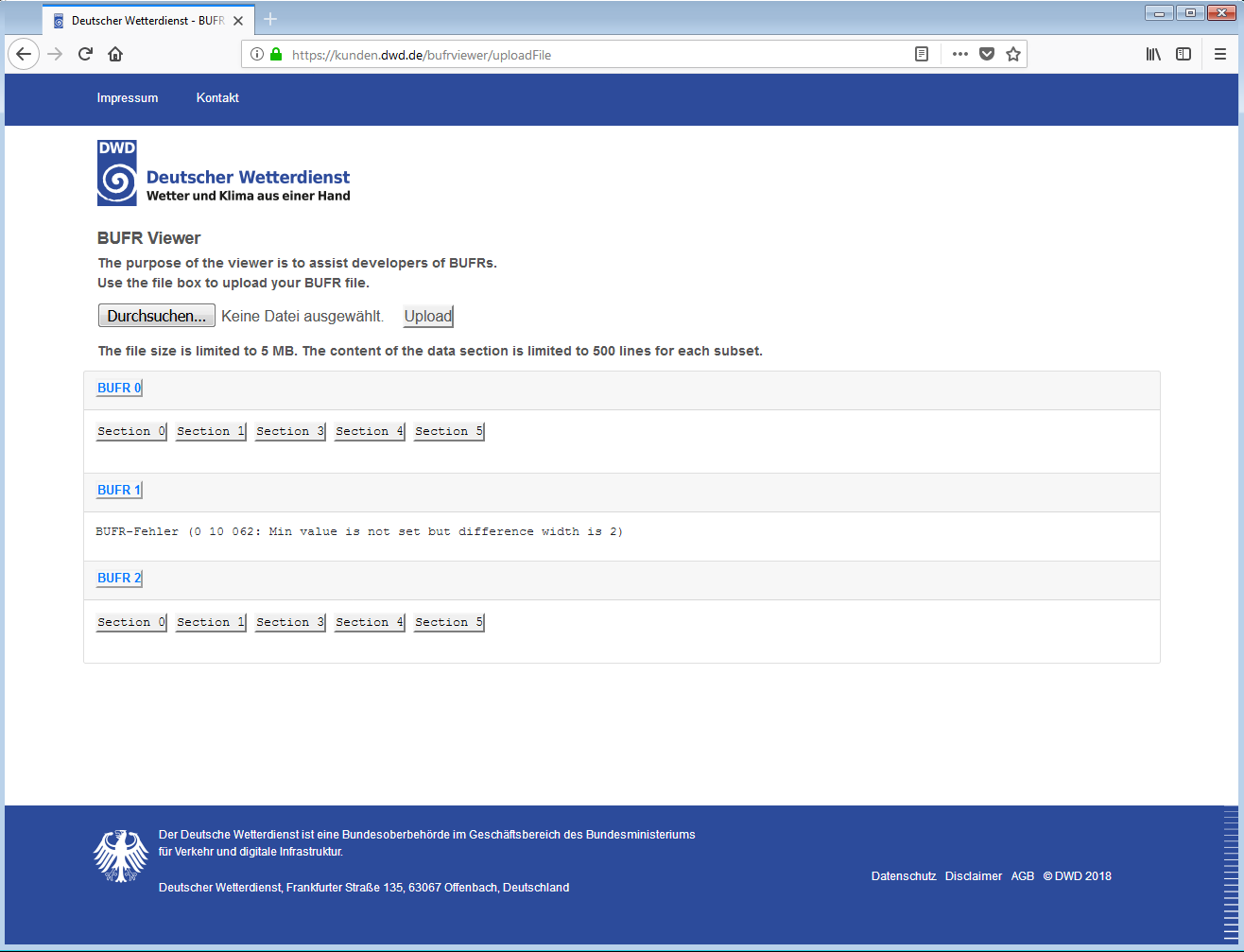
Recently DWD released an online BUFR Viewer <https://kunden.dwd.de/bufrviewer>

The purpose of the BUFR Viewer is to provide users with an online tool to examine BUFR with the tools which DWD uses internally to decode BUFR.

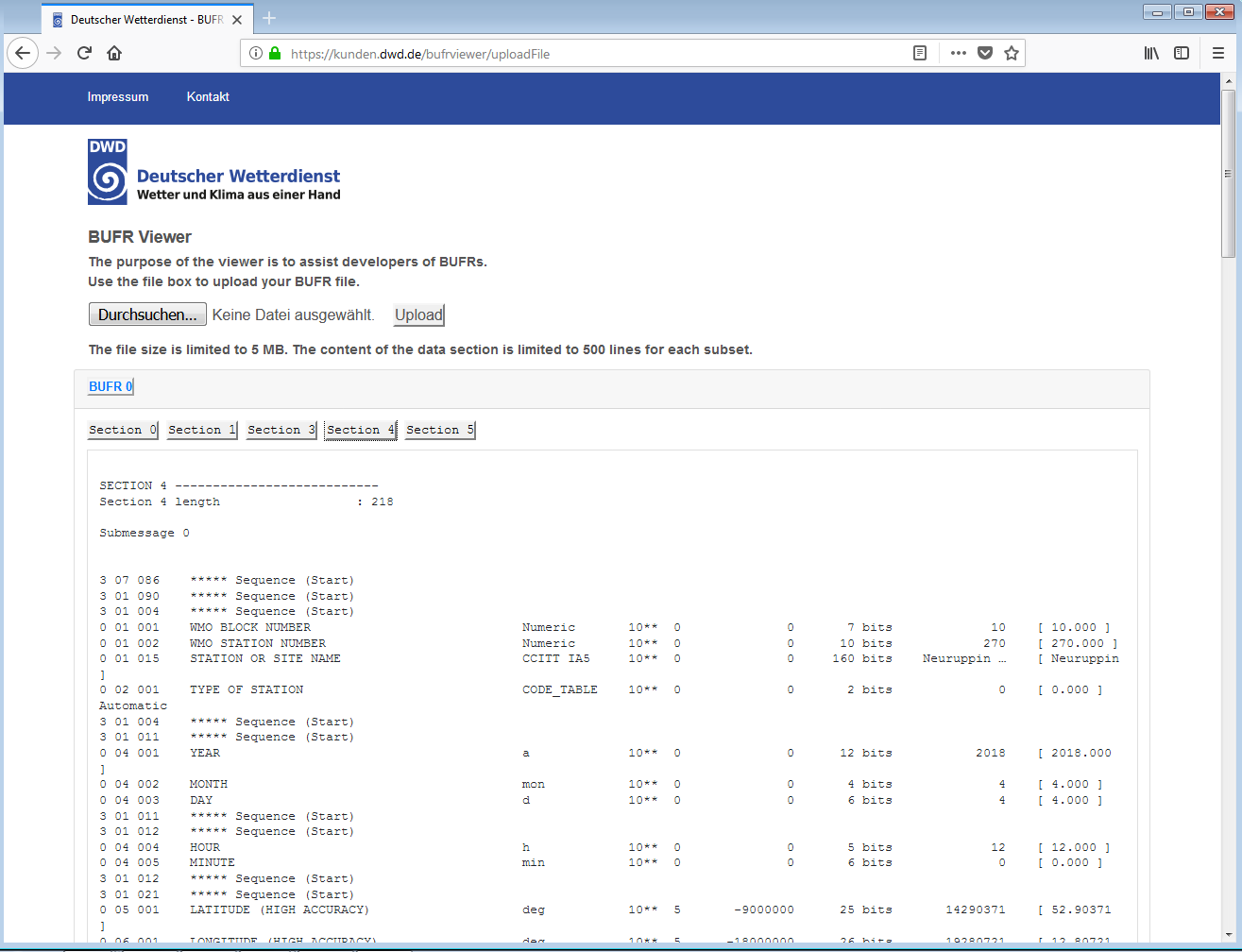


You can upload a file by clicking “Durchsuchen” (it should be localized to your language setting of the browser). After you selected a file press the “Upload” button.

Please note that the maximum file size for an upload is limited to 5 MB and that the viewer truncates the output after 500 lines for each subset.



In the example above the BUFR files contains 3 messages while message no. 1 contains an error. By clicking on the section buttons you can unfold the contents of the section.



Note: We do not store your uploaded files.

Your feedback is highly welcomed in particular if you find unexpected decoding results. Please send your feedback to [t2b.chk@dwd.de](mailto:t2b.chk@dwd.de) if possible with your file attached.

**Machine Interface**

While the latter example is intended for interactive usage the following example is intended more for a machine to machine communication. A typical use-case could be the integration of the machine interface into a test case of a BUFR decoder/encoder.

HTTP-endpoint of the service: <https://kunden.dwd.de/bufrviewer/validatorFile>

You can upload your BUFR file with an HTTP-POST request to the service. The services response is in JSON.

**Example:**

curl -X POST https://kunden.dwd.de/bufrviewer/validatorFile --form "fileupload=@6bufr.bin"

**Response:**

{

"bufrviewerVersion": "1.0",

"fileName": "6bufr.bin",

"fileSizeInBytes": 2892,

"md5CheckSum": "d4e27e455a61ba873fb3856d67beacfb",

"messageCounter": 6,

"errors": true,

"decodingTimeInMilliSeconds": 39,

"encounteredErrorsInMessagesArray": [

{

"messageID": 1,

"errorText": "BUFR-Fehler (0 10 062: Min value is not set but difference width is 2)"

},

{

"messageID": 4,

"errorText": "BUFR-Fehler (0 10 062: Min value is not set but difference width is 2)"

}

]

}

The output should be self-explanatory.

**Notes:** The machine-interface is currently still under development and not yet released on our production system. Furthermore the same upload limit of 5 MB for each file applies to this service.

In case you have suggestions (e.g. improvement of the JSON response to better fit your needs) your feedback is highly welcomed.

**PROPOSAL**

The meeting noted the document.