

# Dataset Interoperability Working Group (DIWG) Recommendation Compliance Checking

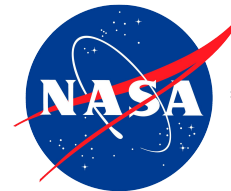


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## Acknowledgements:

P. J. T. Leonard (GSFC), A. Jelenak (THG),  
DIWG Members 2013–present.



# DIWG Rec's: Useful Yet Obscure...

- DIWG promulgated ~30 recs
- Hard to find
- Tedious to check by hand
- 2023 ESDSWG: Write Checker!
- Similar to CF-Checker(s)



ESDS-RFC-XXXv1.0

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Suggested Practice

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## Dataset Interoperability Recommendations for Earth Science: Part 3

### Status of this RFC

This RFC provides information to the NASA Earth Science community. This RFC does not specify an Earth Science Data Systems (ESDS) standard. Distribution of this memo is unlimited.

### Change Explanation

Version 1.0 February 2024 Original document.

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### Abstract

This document contains thirteen new recommendations officially adopted by the NASA Earth Science Data System (ESDS) Dataset Interoperability Working Group (DIWG). They are the continuation of the DIWG recommendations published as ESDS-RFC-028 and ESDS-RFC-036 with the same goal of improving the interoperability of Earth Science dataset files. The DIWG recommendations here represent best practice instructions covering a diverse range of issues related to the content of dataset files and how some of the data's properties are conveyed in their file names. Some of the recommendations capture already prevailing community practices while others clarify or simplify among several possible options.

# Check DIWG Recommendation Compliance

```
$ conda install nco
```

```
$ diwg_chk in1.nc in2.h5 in3.he5
```

```
Test 2.3: Check that coordinates have bounds attributes
```

```
Test 3.1: Check characters in group, var., attrib. names
```

```
Test 3.7: Check floating-point variables for NaN values
```

```
Test 3.8: Check filename extension in recommended list
```

```
Test 4.2: Check for "missing_value" attribute
```

```
Test 4.11: Check that time variables are double precision
```

```
...
```

```
Completed DIWG Compliance Checker at Wed Dec 13 06:24:45
```

```
$
```



*That's all Folks!*

# Resources

- Zender, C.S., P.J.T. Leonard, and the NASA Dataset Interoperability Working Group (DIWG) (2016),  
ESDS-RFC-028: Dataset Interoperability Recommendations for Earth Science, National Aeronautics and Space Administration (NASA) Earth Science Data Systems (ESDS) Standards Office (ESO), Washington, DC. ([PDF](#))
- Jelenak, A., P.J.T. Leonard, C.S. Zender and the NASA Dataset Interoperability Working Group (DIWG),  
ESDS-RFC-fxm: Dataset Interoperability Recommendations for Earth Science: Part 3, National Aeronautics and Space Administration (NASA) Earth Science Data Systems (ESDS) Standards Office (ESO), Washington, DC. ([PDF](#))