MUG Status Update
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2025 McIDAS Users' Group Meeting
21 May 2025

https://www.ssec.wisc.edu/mcidas

MUG Status Update

- **MUG Personnel**
- **What's New in 2025**
- **Who uses McIDAS-X and McIDAS-V?**
- **McIDAS User Support**
- **How long will McIDAS-X be supported?**

MUG Personnel
Current MUG Staff

Kevin Baggett: -XCD programming

Jon Beavers: -V & pyADDE programming

Bob Carp: Help Desk & testing

   -V documentation & programming

Jay Heinzelman: Help Desk & testing

   -X documentation & programming

Dave Parker: Systems programming

MUG Personnel
Programmers

McIDAS-X

SSEC:

Tommy Jasmin

Rick Kohrs

Tim Olander

Dave Santek

Dave Stettner

McIDAS-V

SSEC:

Ansh Aggarwal

Tommy Jasmin

Tom Rink

Unidata:

Julien Chastang

Yuan Ho

MUG Personnel
Unidata Collaboration

Working Together on VisAD, IDV, McIDAS-V and McIDAS-X

- **Monthly –V / IDV Teleconferences**

- **MUG Testers helping to test new functionality in IDV**

- **Code exchanges between McIDAS-V and IDV**

- **McIDAS-X programming**

MUG Personnel
Unidata Collaboration

Unidata currently provides McIDAS-X & XCD free of charge to educational institutions

Why that's important:

- Future meteorologists learning McIDAS-X before entering the "real" world is important for the future of McIDAS

- Current websites like College of DuPage and Embry-Riddle are important online sources of satellite imagery and they use McIDAS-X for the majority of their imagery

What's New in 2025?
McIDAS-X OS Support

Vendor	Operating System	
Apple	macOS 13 (2024.1 only)	gcc / gfortran 13.1 compilers
	macOS 14 & 15	**Podman container with Rocky Linux 9 - new in 2024.1**
	** will support Podman containers on macOS 16 when fully supported at SSEC	

What's New in 2025?
McIDAS-X OS Support

Reasons for transition from native OS (Darwin) to a containerized Linux kernel (Rocky Linux 9).

- **Xcode does not use GNU compilers**

- **gfortran is not available in Xcode**

- **Reliance on "homebrew" for compilers and support libraries**

- **macOS Gatekeeper is becoming more restrictive about running non-signed binaries. Difficult to manage signing because:**

  - **McIDAS-X is composed of many small standalone binaries that communicate via shared memory**

  - **User-generated binaries must also be signed**

What's New in 2025?
McIDAS-X OS Support

Vendor	Operating System	Compilers Supported
Microsoft	Windows 11 with WSL (Windows Subsystem for Linux)	gcc / gfortran 11.4
	Ubuntu 22.04.5 LTS	
	** Windows 10 will reach EOL support from Microsoft October 14, 2025, and no longer be supported by MUG in the next release.	

What's New in 2025?
McIDAS-X OS Support

Vendor	Operating System	Compilers Supported
Red Hat	Red Hat Enterprise Linux (RHEL)	gcc / gfortran
	RHEL 9.5 - new in 2023.1	11.5
	RHEL 8.1	8.5

Who uses McIDAS-X?
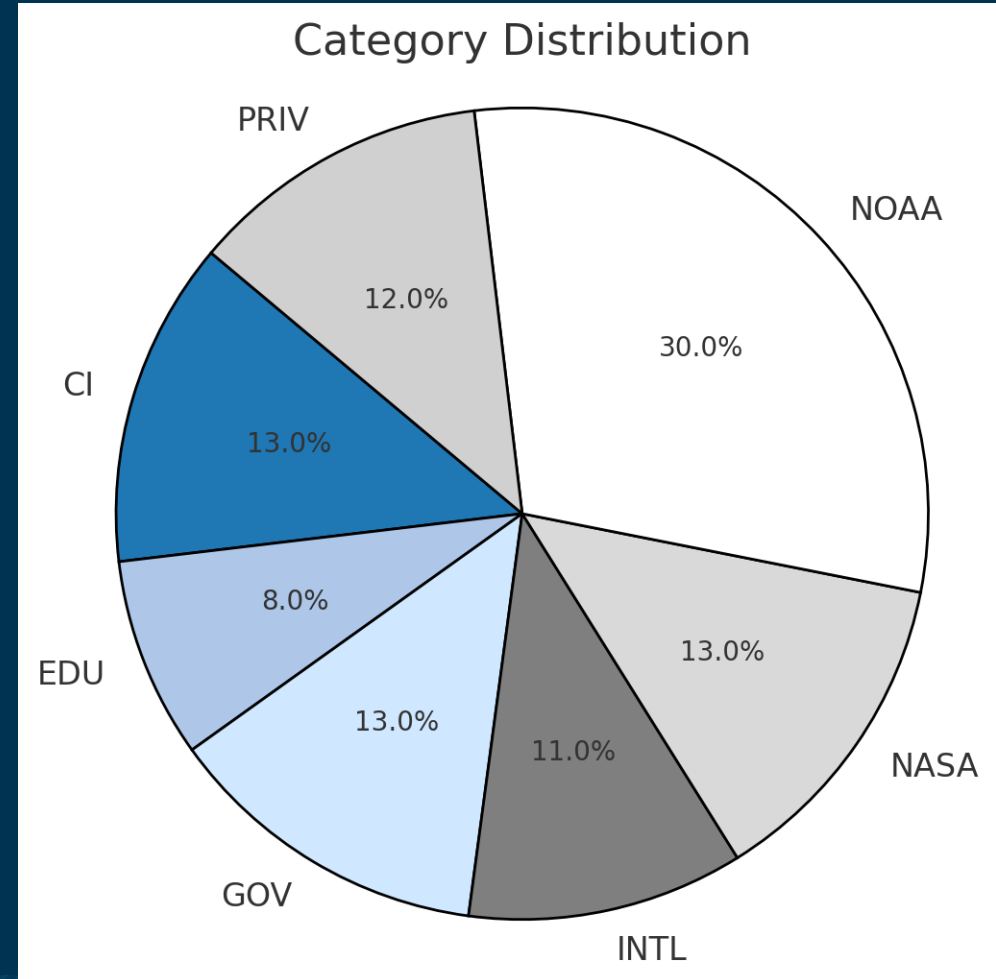## Current MUG Members

NOAA
CLASS
ESPC
NCEP CENTRAL
   OPERATIONS
NWS - PACIFIC REGION
STAR

NOAA – CI
CIMSS/SSEC
CIRA

EDUCATION
UNIDATA

NASA
COLUMBIA SCIENTIFIC
   BALLOON FACILITY
JOHNSON SPACE
   CENTER
LANGLEY RESEARCH
   CENTER

GOVERNMENT / MILITARY
CAPE CANAVERAL SFS
NTSB
PATRICK AFB CDD

PRIVATE
ACCUWEATHER
BOEING
ENSCO
REDTOWN SERVICES
   – KWAJALEIN ATOLL

INTERNATIONAL
AUSTRALIA – BoM
MEXICO – AIR FORCE
MEXICO – HIDROMET
SPAIN – AEMet

Who funds McIDAS-X? Current MUG Members

McIDAS support and maintenance is funded 100% by MUG Membership Fees

Additional funding pays for special projects:
- **SSEC Funds – ABI python servers & database work**
- **NOAA / AMRDC – MTG & MetOp-SG python servers**
- **CIRA – VIIRS development**

Category Distribution

PRIV 12.0%
NOAA 30.0%
CI 13.0%
NASA 13.0%
EDU 8.0%
INTL 11.0%
GOV 13.0%

McIDAS-V is now used in…

- research projects & publications
- satellite blogs
- satellite meteorology classes
- visualization of EUMETCast and GEONETCast
- international training courses: EUMETSAT, CIRA
- private industry

  Funded mostly by MUG with special projects funded by CIRA & EUMETSAT

Who uses McIDAS-V? From the Usage Statistics

1.2 MILLION Uses in 2024 !

18 MILLION Total Uses !
   - each time a script is run or McIDAS-V is started

1450 Members of the McIDAS-V Forums !

Users of McIDAS-V are encouraged to answer forum questions of other users and share their knowledge & expertise.

McIDAS Support
User Support Requests

With so many new non-paying users, how do we prioritize our support?

1. **McIDAS-X, –XCD and SDI questions from MUG members to the *McIDAS Help Desk***

2. **McIDAS-V questions from MUG members to the *Help Desk and Support Forums***

3. **McIDAS-V questions from non-MUG users to the *Support Forums***

ALL bug reports are put into the McIDAS Inquiry System

	2024
McIDAS-X Inquiries	106
McIDAS-V Inquiries	59
McIDAS-V Forum Posts	38

McIDAS Support
How long will -X be supported?

- **SSEC plans to support McIDAS-X through the current GOES-R Satellite Series, which is currently listed as 2039
  NO END DATE IN SIGHT!!!**

- **MUG members will continue to receive priority support for –X and –V**

- **Continue to release –X as needed for bugs, updates, improvements, and new OS & data/satellite changes (1-2 times per year)**

- **No plans for support fee structure changes**

McIDAS Support
How long will -X be supported?

Important Programming & User Issues
- **ADDE written in Fortran and C – Python!**
- **Larger datasets mean larger images, maps, and grids – improvements have been made**
- **-X tcl / tk GUI more fragile with each OS upgrade**
- **Display Quality Issues with fonts and labels**

Always looking for new funding sources for special projects
- **NOAA / AMRDC – MetOp-SG python servers**
- **??? – GEOXO python servers**

McIDAS Support
Looking for more user input!

Especially with the availability of free GOES ABI viewers ...

We've had 3 large sites tell us that they've done studies to look for options other than McIDAS

- Their findings: McIDAS is the best!
- Gave us a punch list on things to improve, sometimes with funding, sometimes with no funding
- If you're looking for options, let us know. We can help!

McIDAS Support
Looking for more user input!

1. **Use McIDAS-V Support Forums or contact the McIDAS Help Desk**

2. **Fill out the MUG Meeting Survey to be sent later this week**
   - **Suggestions for improving McIDAS or the MUG Meeting?**
   - **What data types do you need to read/write with McIDAS?**
   - **On what platform(s) do you currently run McIDAS?**
   - **Do you use the McIDAS-X GUI?**
   - **Add your comments at the end of the survey!**

3. **If you have specific development needs, contact me or the Help Desk about helping to fund site-specific development.**

In Summary...

McIDAS Users' Group is still going strong!

- **MUG Membership staying steady for large sites using -X, -XCD and SDI -- still our #1 Priority**

- **McIDAS-X will be fully supported, updated & maintained at least through the GOES-R Series (2039)**

- **McIDAS-V usage still growing and user forums have been a success**

- **We're always looking for new funding sources, large or small**

In Summary...

We need input from you
to make all of McIDAS better
for everyone!

THANK YOU!!!