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Time-space continuity of daily maps of fractional snow cover and albedo from MODIS

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Abstract

Using reflectance values from the seven MODIS "land" bands with 250 or 500 m resolution, along with a corresponding cloud product, we estimate the fraction of each 500 m pixel that snow covers, along with the albedo of that snow. The daily products have data gaps and errors because of cloud cover and sensor viewing geometry. Rather than make users interpolate and filter these patchy daily maps without completely understanding the retrieval algorithm and instrument properties, we use the daily time series to improve the estimate of the measured snow properties for a particular day. We use a combination of

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Identity Management

- Cite specific version of granule
- Cite most recent version of granule
- Cite granule sans version
- Detect that granule version no longer exists
 - appropriate metadata
 - newer version

Archival Resource Key (ARK)

- [http://NMAH/]ark:/NAAN/Name[Qualifier]
- Immutable:
 - **ark**: ARK label:
 - **NAAN**: Name Assigning Authority Number
 - **Name**: resource name assigned by NAAN
- Mutable:
 - **NMAH**: Name Mapping Authority Hostport
 - **Qualifier**: services on ARK, supported by NMA
 - [/component[/...]] [.variant[...]]

Archival Resource Key (ARK)

- `[http://NMAH/]ark:/NAAN/Name[Qualifier]`

- Immutable:

- `ark`: ARK label:

<https://wiki.ucop.edu/display/Curation/ARK>

- Mutable:

- `NMAH`: Name Mapping Authority Hostport

- `Qualifier`: services on ARK, supported by NMA

- `[/component[/...]][.variant[...]]`

ARK example

Name Mapping Authority
Hostport (NMAH)

Name Assigning Authority
Number (NAAN)

`http://ark.cdlib.org/ark:/13030/ft4w10060w`

ARK label

Name

ARKs for science data

- Push persistent identity to highest level
 - ARK for **product**
 - e.g. GSM ocean color
- Allow local variability at lower level
 - Qualifier component for **granule**
 - e.g., ocean color map for 2010-06-15
 - Qualifier variant for **version**
 - e.g., ocean color product version 3

ARK advantages

- Persistent specification for
 - dataset
 - description
 - `ark:...?`
 - persistence commitment
 - `ark:...??`
- Interoperate with (but don't require) URLs
- NMA passes along appended qualifiers



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Highlights



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EZID (easy-eye-dee) is a service that makes it simple for digital object producers (researchers and others) to obtain and manage long-term identifiers for their digital content. [More ...](#)

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EZID (easy-eye-dee) makes it easy to create and manage unique, persistent identifiers.

- You can create identifiers for any kind of entity — physical, digital, abstract, etc. For identifiers of objects on the web, you can use EZID to maintain their current locations so that people who click on the identifiers are correctly forwarded.
- You can also store citation metadata with identifiers to aid in interpreting and maintaining them. Several citation formats are possible.
- EZID supports a number of persistent identifier technologies, including [ARKs](#) (Archival Resource Keys) and [DOIs](#) (Digital Object Identifiers).
- Visit our [website](#) for more information about EZID identifiers, features, and benefits.

To operate EZID use the tabs above or the [programming interface](#). You will need a login account to create identifiers, but anyone can view identifier metadata. Please [contact us](#) if you are interested in setting up an account.

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