



I'm looking for a way to add thumbnail images in-bulk to digital titles in Alma. Can I use the Alma API to do this, and if so, how?

Yes, but not by “uploading an image file” via API; instead you bulk-load image URLs into Alma metadata or digital inventory, and Primo/Alma use those to show thumbnails.^{[1] [2]}

Main options

1. Use MARC fields + Primo VE thumbnail rules (API-friendly)

Workflow:

1. Host your thumbnail images on a web server (or S3, etc.) so each has a stable URL.
2. Decide on a MARC field/subfields to hold the thumbnail URL:
 - Common patterns:
 - 856 with a label “thumbnail” in subfield 3, y, or z.^[1]
 - A local field (e.g. 956) used only for thumbnails.^[3]
3. Use the Alma Bib API in bulk to add/update that field:
 - GET Bib by MMS ID (retrieve MARCXML).
 - Programmatically insert the chosen field (e.g. 856 or 956) with subfield *u* containing the thumbnail URL and subfield 3/*y/z* set to “thumbnail” (or your local convention).
 - PUT the updated Bib back via the Bib API.
4. In Primo VE:
 - Configure thumbnail templates or mapping so Primo uses that MARC field as the thumbnail source.^{[4] [1]}
 - For local thumbnails, some sites use a pattern like “if field 956 present, use its *u* as the image URL.”^[3]

This approach is fully scriptable: you loop over a list of MMS IDs and corresponding URLs and call the Alma Bib APIs in bulk.

2. Use Alma digital representations (for digital titles)

If these are *digital* titles where Alma manages files:

1. Ingest or upload files with a companion “thumb” image file per object; Alma will use that as the thumbnail.^[5] ^[2]
2. You can also create representations via import profiles / Digital Uploader; the thumbnail travels with the files, not via a separate thumbnail API.^[6] ^[2]

This is bulk-friendly, but it’s oriented to creating/updating digital inventory, not just “add a cover image” for existing non-digital records.

3. Custom “thumbnail” digital representations (more elaborate)

Some institutions create a dedicated “thumbnail” digital representation attached to any bib (even print), then connect it via a local field (e.g. 919) that carries the representation ID; Primo is configured to pull the thumbnail from that representation. That gives fine control but is heavier to automate than the simple MARC-URL approach.^[7]

Practical API pattern

At a high level (pseudo):

- Input: CSV of `mms_id`, `thumbnail_url`
- For each row:
 - GET `/almaws/v1/bibs/{mms_id}` (or MARCXML variant).
 - Insert or update 856 / 956:
 - `u = thumbnail_url`
 - `3 or y/z = thumbnail`
 - PUT `/almaws/v1/bibs/{mms_id}` with the modified record.

Since you’re already deep in Alma and scripting, you’d likely:

- Work with Bibs in MARCXML or JSON.
- Use an API key with write permissions to Bibs.
- Test on a small set, then run against a record set exported from Alma.

If you tell me:

- Whether these are print, electronic, or Alma-D digital titles, and
- Whether you prefer using a local field (e.g. 956) or 856,

I can sketch concrete MARCXML and HTTP request examples tailored to that setup.

✱

These are for Alma-D/Specto digital titles, and I NEVER use MARC. DC only, please.

For Alma-D/Specto you do not set thumbnails via DC metadata fields; thumbnails are tied to digital files and Alma's thumbnail-generation rules, which you can control in bulk via how you ingest or update representations, not by a "DC thumbnail" API field.^{[16] [17] [18]}

How thumbnails work for Alma-D/Specto

- Alma automatically generates a thumbnail from the first file in a digital representation for Primary/Modified Primary/Derivative usage types.^{[19] [16]}
- In digital title search results and the viewer, Alma shows that representation thumbnail, falling back to a generic icon if none is available.^{[20] [18]}
- For local digital collections and Alma-D-based display in Primo VE, Alma-D thumbnails take precedence over other cover-image sources.^[21]

So the levers you have are: which file is first; whether that file has a .thumb companion file; and which representations exist for the title.^{[17] [16]}

Bulk approaches you *can* automate

1. Ingest/update digital content with .thumb files

When you create or update representations in bulk (import profiles, Alma Digital Uploader, or API), you can associate a .thumb image with each content file.^[17]

- A .thumb file stored with the same base name as the master file is recognized as the thumbnail for that file.^[17]
- If you are building or refreshing Alma-D inventory programmatically (e.g., from an external DAMS), your script or pipeline can push both the master content and the matching .thumb image for each object.

This gives you consistent custom thumbnails for a large set, but it is fundamentally part of bulk digital-content creation rather than a post-hoc "edit only the thumbnail" feature.

2. Programmatic control of "first file"

If your thumbnails need to change and you already have representations:

- Alma uses the first file in the representation to derive the thumbnail.^{[16] [19]}
- With Alma Digital APIs (for representations/files), you can:
 - Add a new image file you want to serve as the thumbnail.
 - Reorder files so that your desired thumbnail image is first.
 - Optionally attach a .thumb companion to that image file for better control.

Exact endpoints and payloads differ a bit by environment and Ex Libris documentation version, but conceptually you would loop over representation IDs, adjust their file lists, and PUT the

updated representation back.

3. Remote-repository thumbnails

If some Alma-D/Specto titles are “remote digital” (e.g., Digital Commons, Islandora, custom site), you can:

- Define object and thumbnail URL templates in the remote-repository configuration so that Alma/Primo use a thumbnail URL pattern derived from repository metadata.^[22]
- This is still template-based rather than “a DC thumbnail field,” but it lets you bulk-control thumbnails by ensuring the remote system exposes a predictable thumbnail URL per object.^[22]

What you *cannot* do with DC

- There is no documented DC element (e.g., `dcterms:thumbnail` or `dc:identifier` with a special role) that Alma/Specto reads as a thumbnail URL for Alma-D thumbnails.^{[18] [23]}
- The Alma Bib APIs for DC do not expose a dedicated “thumbnail” property that you can PATCH or PUT to change the thumbnail without touching the digital files themselves.^{[23] [17]}

If you want, I can sketch a concrete pseudo-API workflow for case 2 (looping over Alma-D representations, adding a small JPEG, making it file #1) that you could implement in Python, assuming you have representation IDs or can derive them from MMS IDs.

✱

These are all for existing Alma-D digital titles, and I can get the representation IDs, so show me some python for case 2, please.

Yes, here's Python code to implement Case 2: for each representation ID, upload a thumbnail image as a new file, then reorder files to make it first (so Alma generates/uses it as the thumbnail).^{[32] [33]}

Prerequisites

- Alma API key with `digital/digital_files` read/write permissions (via Developer Network).^[34]
- Thumbnail images accessible locally or via URL (code assumes local files).
- Replace placeholders: `YOUR_API_KEY`, `YOUR_INSTITUTION_ID` (e.g., `01GRN_COL`).
- Base URL: `https://YOUR-INSTANCE.alma.exlibrisgroup.com/almaws/v1`

Python script

```
import requests
import json
import os
from typing import Dict, List

API_KEY = "YOUR_API_KEY"
INSTITUTION_ID = "YOUR_INSTITUTION_ID" # e.g., 01GRN_COL
BASE_URL = f"https://{INSTITUTION_ID}.alma.exlibrisgroup.com/almaws/v1"
HEADERS = {
    "Authorization": f"apikey {API_KEY}",
    "Accept": "application/json",
    "Content-Type": "multipart/form-data" # For file uploads
}

def get_representation_files(rep_pid: str) -> List[Dict]:
    """GET list of files for representation."""
    url = f"{BASE_URL}/digital/digital-representations/{rep_pid}/files"
    response = requests.get(url, headers={"Authorization": HEADERS["Authorization"]}, "Ac
    response.raise_for_status()
    data = response.json()
    return data.get("digital_file", [])

def upload_thumbnail(rep_pid: str, thumbnail_path: str, label: str = "Thumbnail") -> str:
    """Upload thumbnail as new file to representation."""
    url = f"{BASE_URL}/digital/digital-representations/{rep_pid}/files"

    with open(thumbnail_path, "rb") as f:
        files = {"file": (os.path.basename(thumbnail_path), f, "image/jpeg")}
        data = {"label": label, "description": "Thumbnail image for representation"}
        response = requests.post(url, headers={"Authorization": HEADERS["Authorization"]}

    response.raise_for_status()
    new_file_pid = response.json().get("pid")
    print(f"Uploaded {thumbnail_path} as file {new_file_pid}")
    return new_file_pid

def reorder_files(rep_pid: str, file_pids_ordered: List[str]):
    """PUT reordered list of file PIDs (thumbnail first)."""
    url = f"{BASE_URL}/digital/digital-representations/{rep_pid}/files/order"
    payload = {"file_pids": file_pids_ordered}
    response = requests.put(url, headers=HEADERS, json=payload)
    response.raise_for_status()
    print(f"Reordered files for {rep_pid}: {file_pids_ordered[:3]}...")

def update_thumbnail(rep_pid: str, thumbnail_path: str):
    """Main function: upload thumbnail, get files, reorder with thumbnail first."""
    # Step 1: Upload new thumbnail
    new_thumb_pid = upload_thumbnail(rep_pid, thumbnail_path)

    # Step 2: Get current files
    files = get_representation_files(rep_pid)
    existing_pids = [f["pid"] for f in files]

    # Step 3: New order: thumbnail first, then originals
```

```

new_order = [new_thumb_pid] + existing_pids

# Step 4: Reorder
reorder_files(rep_pid, new_order)

# Bulk process from CSV: rep_pid,thumbnail_local_path
import pandas as pd
df = pd.read_csv("thumbnails.csv") # Columns: rep_pid, thumbnail_path
for _, row in df.iterrows():
    update_thumbnail(row["rep_pid"], row["thumbnail_path"])

```

How it works

1. **Upload:** POSTs the image to /digital/digital-representations/{rep_pid}/files as a new file (Alma stores it).^{[35] [32]}
2. **List files:** GETs /digital/digital-representations/{rep_pid}/files to retrieve existing file PIDs.
3. **Reorder:** PUTs to /digital/digital-representations/{rep_pid}/files/order with {"file_pids": ["new_thumb_pid", "old1", "old2", ...]} – Alma now uses the first file for thumbnails.^{[36] [32]}

After running, refresh the Alma-D title/representation – the new thumbnail should appear in search results and viewer.^{[37] [38]}

Test on 1-2 reps first! If endpoints vary slightly in your Alma version, check Developer Network API explorer for exact payloads.^{[39] [34]}

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