

APS Developer Cheat Sheet

Single-page reference for Autodesk Platform Services with RAPS CLI

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AUTHENTICATION

OAuth Flows

2-Legged

Server-to-server
App identity only
Limited BIM360
client_credentials
raps auth login

3-Legged

User-facing apps
User + app context
Full BIM360 access
authorization_code
raps auth login --3legged

Essential OAuth Scopes

Scope	Purpose
data:read	Read files/projects
data:write	Modify metadata
data:create	Upload files
bucket:read	List buckets
bucket:create	Create buckets
viewables:read	View models
code:all	Design Automation
account:read	BIM360/ACC info

DATA MANAGEMENT API

Operation	RAPS Command
List Hubs	raps dm hubs
List Projects	raps dm projects
List Folders	raps dm folders <id>
Upload File	raps dm upload <file>
Download	raps dm download <id>

URN Encoding

```
# Manual (error-prone)
echo -n "urn:..." | base64
```

```
# With RAPS (automatic)
raps urn encode "urn:adsk..."
```

OBJECT STORAGE SERVICE

Bucket Operations

Action	Command
List	raps bucket list
Create	raps bucket create <name>
Delete	raps bucket delete <name>

Object Operations

Action	Command
Upload	raps oss upload <file>
List	raps oss list <bucket>
Download	raps oss download <urn>

Bucket Naming Rules

- 3-128 chars, lowercase
- Start/end with letter or number
- No spaces, underscores, IPs

MODEL DERIVATIVE API

Translation Workflow



Translation Operations

Operation	RAPS Command
Start	raps translate <urn>
Status	raps translate status <urn>
Wait	raps translate <urn> --wait
Properties	raps translate props <urn>

Output Formats

Format	Code	Use Case
SVF2	svf2	Web viewer (modern)
SVF	svf	Web viewer (legacy)
OBJ	obj	3D meshes
STL	stl	3D printing
PDF	pdf	2D drawings
DWG	dwg	AutoCAD format

DESIGN AUTOMATION API

Supported Engines

Engine	Files	RAPS Filter
AutoCAD	DWG, DXF	--filter autocad
Revit	RVT, RFA	--filter revit
Inventor	IPT, IAM	--filter inventor
3ds Max	MAX	--filter max

DA Components



COMMON ERROR CODES

Code	Cause	RAPS Solution
400	Invalid request	Built-in validation
401	Expired token	<code>raps auth refresh</code>
403	No permissions	<code>raps auth status</code>
404	URN not found	<code>raps urn encode</code>
409	Name conflict	<code>raps bucket list</code>
429	Rate limit	Auto rate limiting

QUICK COMMANDS

First-Time Setup

```
# Install
brew install raps # macOS
scoop install raps # Windows
```

```
# Authenticate
raps auth login

# Verify
raps auth status
```

Common Workflow

```
# Upload -> Translate -> View
raps oss upload model.rvt bucket
raps translate $(raps urn encode \
  "urn:...") --wait
raps view <urn>
```

Batch Operations

```
# Process multiple files
raps oss upload-batch *.dwg \
  --bucket mybucket
raps translate-batch --bucket \
  mybucket --formats svf2
```

PRO TIPS

- Use profiles: `--profile prod`
- Enable verbose: `--verbose`
- Health check: `raps health`
- View examples: `raps examples`

Resources

- ▢ [rapscli.xyz](#) | ▢ support@rapscli.xyz
- ▢ Discord: [discord.gg/raps](#)
- ▢ Docs: [aps.autodesk.com](#)