

# APS API Error Codes Reference

Complete troubleshooting guide for Autodesk Platform Services

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## 1 APS API Error Codes Reference

- Complete troubleshooting guide for Autodesk Platform Services with RAPS solutions\*\*
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### 1.1 Authentication Errors (401/403)

#### 1.1.1 401 Unauthorized

Context	Cause	RAPS Solution
All APIs	Token missing/invalid	raps auth status
All APIs	Token expired	raps auth refresh
All APIs	Malformed token	raps auth login

- Example Error:\*\*

```
{
  "developerMessage": "The request requires user authentication",
  "errorCode": "AUTH-001"
}
```

- Quick Fix:\*\*

```
raps auth status      # Check current status
raps auth refresh    # Refresh if expired
raps auth login       # Re-authenticate if needed
```

### 1.1.2 403 Forbidden

Context	Cause	RAPS Solution
Data Mgmt	Insufficient scopes	raps auth status --scopes
BIM360/ACC	No project access	raps acc projects
OSS	Wrong bucket permissions	raps bucket list
Model Deriv	Source access denied	raps translate status <urn>

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## 1.2 Request Format Errors (400)

### 1.2.1 400 Bad Request

API Context	Common Causes	RAPS Prevention
All APIs	Invalid JSON syntax	Built-in validation
Model Deriv	URN not base64-encoded	raps urn encode <input>
Model Deriv	Invalid output format	raps translate --formats
Data Mgmt	Invalid hierarchy	raps dm folders <project>
OSS	Invalid bucket name	raps bucket create validates

- URN Encoding Fix:\*\*

```
# Manual (error-prone):
echo -n "urn:..." | base64 | tr '+/' '-_'

# With RAPS:
raps urn encode "urn:adsk.objects:os.object:bucket/file.dwg"
```

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## 1.3 Resource Not Found (404)

### 1.3.1 404 Not Found

API Context	Likely Cause	RAPS Debugging
Model Deriv	URN doesn't exist	raps oss list <bucket>
Data Mgmt	Project/folder deleted	raps dm projects
OSS	Bucket/object deleted	raps bucket list
Design Auto	Activity not found	raps da activities

- Debugging Workflow:\*\*

```
# 1. Check file exists
raps oss list mybucket

# 2. Verify URN encoding
raps urn encode "urn:adsk.objects:os.object:mybucket/model.rvt"

# 3. Check translation
raps translate status <encoded_urn>
```

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## 1.4 Conflict Errors (409)

### 1.4.1 409 Conflict

API Context	Issue	RAPS Resolution
OSS	Bucket exists	raps bucket list first
Data Mgmt	Version conflict	raps dm versions <item-id>
Design Auto	Name conflict	raps da create --increment-version

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## 1.5 Rate Limiting (429)

### 1.5.1 429 Too Many Requests

API	Limit	RAPS Handling
Authentication	500/min	Built-in rate limiting
Data Management	100/min	Automatic queuing
Model Derivative	20 concurrent	Queue locally
OSS	500/min	Smart batching
Design Automation	50 concurrent	WorkItem management

- Rate Limit Headers:\*\*

```
X-RateLimit-Limit: 100
X-RateLimit-Remaining: 45
X-RateLimit-Reset: 1640995200
```

- RAPS Configuration:\*\*

```
raps config set rate-limit.enabled true
raps config set rate-limit.requests-per-minute 80
raps auth status --rate-limits
```

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## 1.6 Server Errors (500/503)

### 1.6.1 500 Internal Server Error

When	Cause	RAPS Response
Translation	Service overload	Automatic retry with backoff
File uploads	Network interruption	Resumable upload support
Any API	Infrastructure issue	Configurable retry policies

### 1.6.2 503 Service Unavailable

Usually indicates maintenance or service disruption.

- RAPS Resilience:\*\*

```
# Configure robust retry
raps config set retry.max-attempts 5
raps config set retry.strategy exponential
raps config set retry.max-delay 300s

# Monitor health
raps health check --aps-services
```

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## 1.7 Model Derivative Specific

### 1.7.1 Translation Failed

Error Message	Cause	Solution
“Unsupported format”	Extension not recognized	Check supported formats
“File corrupted”	Upload incomplete	Re-upload source
“Missing dependencies”	Assembly refs missing	Upload all files
“Invalid password”	Wrong password	Provide correct password
“File too large”	Exceeds limits	Use Design Automation

- Translation Debugging:\*\*

```
# Detailed status check
raps translate status <urn> --verbose

# Get error manifest
raps translate manifest <urn> --errors-only

# Retry with options
raps translate <urn> --formats svf2 --retry
```

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## 1.8 Design Automation Specific

### 1.8.1 WorkItem Failures

Status	Cause	RAPS Investigation
failedLimitDataSize	Output too large	raps da workitem logs <id>
failedLimitProcessingTime	Timeout	raps da workitem details <id>
failedDownload	Input download failed	raps da workitem retry <id>
failedInstructions	Script execution failed	raps da workitem logs <id> --detailed

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## 1.9 BIM360/ACC Specific

### 1.9.1 Project Access Issues

Error Code	Meaning	RAPS Check
FORBIDDEN	User not in project	raps acc projects
NOT_FOUND	Invalid project ID	raps acc hubs
INVALID_SCOPE	Wrong permissions	raps auth status --scopes

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## 1.10 OAuth/Authentication Deep Dive

### 1.10.1 Scope Issues

Action	Minimum Scopes	RAPS Command
Read files	data:read	raps auth login --scopes data:read
Upload files	data:read data:write data:create	raps auth login --scopes data:read,data:write,data:create
Translate	data:read viewables:read	raps auth login --scopes data:read,viewables:read
Design Auto	code:all	raps auth login --scopes code:all
BIM360 admin	account:read account:write	raps auth login --scopes account:read,account:write

### 1.10.2 Token Troubleshooting

```
# View current token
raps auth status --token-details

# Decode JWT manually
raps auth decode-token <jwt-token>

# Test specific endpoint
raps auth test-token --endpoint "/oss/v2/buckets"
```

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## 1.11 Network Issues

### 1.11.1 Timeout Errors

Operation	Default	RAPS Config
File Upload	300s	raps config set timeout.upload 600
Translation	3600s	raps config set timeout.translation 7200
API Calls	30s	raps config set timeout.api 60

### 1.11.2 Regional Issues

Service	US Region	EMEA Region
OSS	us-west	emea-west
Data Mgmt	Global	Global
Model Deriv	Region-aware	Region-aware

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## 1.12 Quick Diagnostics

### 1.12.1 Health Check Commands

```
# Full system diagnostic
raps health check --comprehensive

# APS connectivity test
raps health check --aps-endpoints

# Authentication verification
```

```
raps health check --auth  
# Configuration check  
raps health check --config
```

### 1.12.2 Debug Workflow

```
# 1. Verify auth  
raps auth status  
  
# 2. Test connectivity  
raps oss buckets --limit 1  
  
# 3. Check specific resource  
raps translate status <urn> --verbose  
  
# 4. Review logs  
raps logs --level error --last 24h
```

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## 1.13 Error Prevention

### 1.13.1 Best Practices

```
# Validate inputs  
raps validate urn <urn>  
raps validate bucket-name <name>  
  
# Configure retries  
raps config set retry.enabled true  
raps config set retry.max-attempts 3  
  
# Monitor rate limits  
raps config set rate-limit.monitor true  
  
# Health monitoring  
raps health monitor --interval 60s
```

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## 1.14 Getting Help

### 1.14.1 Support Resources

1. Autodesk Status: [status.autodesk.com](https://status.autodesk.com)
2. APS Forums: [forums.autodesk.com](https://forums.autodesk.com)
3. APS Docs: [aps.autodesk.com](https://aps.autodesk.com)
4. RAPS Discord: [discord.gg/raps-community](https://discord.gg/raps-community)

### 1.14.2 Report Issues

```
# Generate diagnostic report  
raps debug report --include-logs --sanitize-tokens  
  
# Submit support ticket  
raps support create-ticket --attach-diagnostics
```

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- Pro Tip:\*\* Most APS errors can be avoided by using RAPS CLI, which includes built-in validation, retry logic, and error recovery.
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- RAPS v4.2.1 | APS APIs: Auth v2, DM v1, MD v2, OSS v2, DA v3 | January 2026\*