

PRT特征识别API服务 2.1.0 OAS 3.1

/openapi.json

提供PRT文件机械特征识别和提取的RESTful API接口（支持多并发）

default

GET / Root			
根端点			
Parameters			Try it out
No parameters			
Responses			
Code	Description	Links	
200	Successful Response	No links	

Code	Description	Links
	Media type application/json Controls Accept header. Example Value Schema "string"	

GET /health Health Check



健康检查

Parameters

Try it out

No parameters

Responses

Code	Description	Links
200	Successful Response	No links

Code

Description

Links

Media type

application/json

Controls Accept header.

Example Value Schema

"string"

POST

/api/v1/convert/prt-to-ccm Convert Prt To Ccm



将PRT文件转换为CCM格式（使用与main.py相同的方法）

- **file:** 上传的PRT文件
- **max_wait_time:** 最大等待时间（默认120秒）

Returns: 包含转换后CCM文件名的响应

Parameters

Try it out

Name

Description

max_wait_time 最大等待时间(秒)

integer

(query)

Default value: 120

NameDescription

120

Request body required

multipart/form-data

file * required

上传的PRT文件
string(\$binary)

Responses

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value Schema "string"	No links

Code	Description	Links
422	Validation Error	No links
Media type		
application/json		
Example Value Schema		
<pre>{ "detail": [{ "loc": ["string", 0], "msg": "string", "type": "string" }] }</pre>		

POST /api/v1/extract Extract Features



提取单个文件的特征

- **file:** 上传的CCM或PRT文件
- **topology_relations:** 是否启用拓扑关系分析
- **process_planning:** 是否启用工艺规划
- **material:** 材料类型

Parameters

Try it out

Name	Description
topology_relations boolean (query)	是否启用特征间拓扑关系分析 <i>Default value: true</i> true
process_planning boolean (query)	是否启用工艺路线规划分析 <i>Default value: false</i> false
material string (query)	材料类型 <i>Default value: steel</i> steel
max_wait_time integer (query)	最大等待时间(秒) <i>Default value: 120</i> 120

Request body **required**

multipart/form-data

file * **required** 上传的CCM或PRT文件

string(\$binary)

Responses

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value Schema <pre>{ "success": true, "message": "string", "task_id": "string", "features": {}, "output_file": "string", "processing_time": 0 }</pre>	No links
422	Validation Error Media type application/json	No links

Code	Description	Links
	Example Value Schema	
<pre>{ "detail": [{ "loc": ["string", 0], "msg": "string", "type": "string" }] }</pre>		

POST /api/v1/extract/batch Extract Features Batch



批量提取多个文件的特征

- **files:** 上传的多个CCM或PRT文件
- **topology_relations:** 是否启用拓扑关系分析
- **process_planning:** 是否启用工艺规划
- **material:** 材料类型

Parameters

Try it out

Name	Description
topology_relations	是否启用特征间拓扑关系分析
boolean (query)	Default value: true
true	

Name	Description
process_planning	是否启用工艺路线规划分析
boolean (query)	Default value: false
	false
material	材料类型
string (query)	Default value: steel
	steel

Request body required

multipart/form-data

files * required 上传的多个CCM或PRT文件

array<string>

Responses

Code	Description	Links
200	Successful Response	No links

Code

Description

Links

Media type

application/json

Controls Accept header.

Example Value Schema

"string"

422

Validation Error

No links

Media type

application/json

Example Value Schema

```
{
  "detail": [
    {
      "loc": [
        "string",
        0
      ],
      "msg": "string",
      "type": "string"
    }
  ]
}
```

GET /api/v1/download/{filename} Download Result



下载处理结果文件

- filename: 文件名

Parameters

Try it out

Name	Description
filename * required string (path)	filename

Responses

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value Schema "string"	No links
422	Validation Error Media type	No links

application/json

Example Value

Schema

```
{  "detail": [    {      "loc": [        "string",        0      ],      "msg": "string",      "type": "string"    }  ]}
```

GET

/api/v1/download/ccm/{filename}

Download Step File

^

下载转换后的CCM文件

- **filename:** CCM文件名

Parameters

Try it out

Name	Description
filename * required string (path)	filename

Responses

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value Schema "string"	No links
422	Validation Error Media type application/json Example Value Schema { "detail": [{ "loc": ["string", 0], "msg": "string", "type": "string" }] }	No links

Code	Description	Links
	<pre>] }</pre>	

GET /api/v1/list-outputs List Outputs



列出所有输出文件

Parameters

Try it out

No parameters

Responses

Code	Description	Links
200	Successful Response Media type application/json Controls Accept header. Example Value Schema "string"	No links

Code	Description	Links
DELETE	/api/v1/cleanup Cleanup Files	^
清理旧文件		
days: 清理多少天前的文件（默认7天）		
Parameters		Try it out
Name	Description	
days	清理多少天前的文件	
integer (query)	Default value: 7	
7		
Responses		
Code	Description	Links
200	Successful Response	No links

Code

Description

Links

Media type

application/json

Controls Accept header.

Example Value Schema

"string"

422

Validation Error

No links

Media type

application/json

Example Value Schema

```
{
  "detail": [
    {
      "loc": [
        "string",
        0
      ],
      "msg": "string",
      "type": "string"
    }
  ]
}
```

POST /api/v1/generate-report Generate Report



生成两个模型的对比分析报告（支持多并发）

- **file1**: 第一个模型文件 (CCM或PRT格式)
- **file2**: 第二个模型文件 (CCM或PRT格式)
- **llm_base_url**: LLM API基础URL
- **llm_api_key**: LLM API密钥
- **llm_model**: LLM模型名称
- **llm_temperature**: 温度参数
- **llm_max_tokens**: 最大token数
- **llm_timeout**: 超时时间(秒)
- **topology_relations**: 是否启用拓扑关系分析
- **max_wait_time**: PRT转换最大等待时间(秒)

Returns: 包含模型对比报告的响应

Parameters

Try it out

No parameters

Request body required

multipart/form-data

file1 ★ required

第一个模型文件 (CCM/PRT)

string(\$binary)

file2 ★ required

第二个模型文件 (CCM/PRT)

string(\$binary)

llm_base_url

LLM API基础URL

string

llm_api_key ★ required

LLM API密钥

string

llm_model	LLM模型名称
string	
llm_temperature	温度参数
number	
llm_max_tokens	最大token数
integer	
llm_timeout	超时时间(秒)
integer	
topology_relations	是否启用拓扑关系分析
boolean	
max_wait_time	PRT转换最大等待时间(秒)
integer	

Responses

Code	Description	Links
200	Successful Response	No links
	Media type	
	application/json	

Code

Description

Links

Controls Accept header.

Example Value Schema

```
{
  "success": true,
  "message": "string",
  "report_content": "string",
  "features1": {},
  "features2": {},
  "processing_time": 0
}
```

422

Validation Error

No links

Media type

application/json

Example Value Schema

```
{
  "detail": [
    {
      "loc": [
        "string",
        0
      ],
      "msg": "string",
      "type": "string"
    }
  ]
}
```

Schemas



Body_convert_prt_to_ccm_api_v1_convert_prt_to_ccm_post ^ Collapse all object

file* ^ Collapse all string binary

上传的PRT文件

Body_extract_features_api_v1_extract_post ^ Collapse all object

file* ^ Collapse all string binary

上传的CCM或PRT文件

Body_extract_features_batch_api_v1_extract_batch_post ^ Collapse all object

files* ^ Collapse all array<string>

上传的多个CCM或PRT文件

Items string binary

Body_generate_report_api_v1_generate_report_post ^ Collapse all object

file1* ^ Collapse all string binary

第一个模型文件 (CCM/PRT)

file2* ^ Collapse all string binary

第二个模型文件 (CCM/PRT)

llm_base_url ^ Collapse all string

LLM API基础URL

Default="https://api.deepseek.com"

llm_api_key* ^ Collapse all string

LLM API密钥

llm_model ^ Collapse all string

LLM模型名称

Default="deepseek-chat"

llm_temperature ^ Collapse all number

温度参数

Default=0.7

llm_max_tokens ^ Collapse all integer

最大token数

Default=16000

llm_timeout ^ Collapse all integer

超时时间(秒)

Default=300

topology_relations ^ Collapse all boolean

是否启用拓扑关系分析

Default=true

max_wait_time ^ Collapse all integer

PRT转换最大等待时间(秒)

Default=120

FeatureExtractionResponse ^ Collapse all object

特征提取响应模型

success* boolean

message* string

task_id ^ Collapse all (string | null)

Any of ^ Collapse all (string | null)

```
#0 string

#1 null

features ^ Collapse all (object | null)

  Any of ^ Collapse all (object | null)

    #0 object

    #1 null

output_file ^ Collapse all (string | null)

  Any of ^ Collapse all (string | null)

    #0 string

    #1 null

processing_time ^ Collapse all (number | null)

  Any of ^ Collapse all (number | null)

    #0 number

    #1 null
```

HTTPValidationError ^ Collapse all object

```
detail ^ Collapse all array<object>

  Items ^ Collapse all object

    loc* ^ Collapse all array<(string | integer)>

      Items ^ Collapse all (string | integer)

        Any of ^ Collapse all (string | integer)

          #0 string

          #1 integer
```

```
msg* string

type* string
```

ReportGenerationResponse ^ Collapse all object

报告生成响应模型

```
success* boolean

message* string

report_content ^ Collapse all (string | null)
  Any of ^ Collapse all (string | null)
    #0 string
    #1 null

features1 ^ Collapse all (object | null)
  Any of ^ Collapse all (object | null)
    #0 object
    #1 null

features2 ^ Collapse all (object | null)
  Any of ^ Collapse all (object | null)
    #0 object
    #1 null

processing_time ^ Collapse all (number | null)
  Any of ^ Collapse all (number | null)
    #0 number
    #1 null
```

ValidationError ^ Collapse all object

loc* ^ Collapse all array<(string | integer)>

Items ^ Collapse all (string | integer)

Any of ^ Collapse all (string | integer)

#0 string

#1 integer

msg* string

type* string