API Documentation

Crystalbrands Enterprise Management API allows you to manage companies, branches, divisions, and departments through RESTful endpoints.

Base URL

http://localhost:3000/api

Important: All processing has been removed. The API now only handles CRUD operations.

Authentication

Include session cookie in all requests. Login via `/auth/login` to obtain session cookie.

```
X-API-Key: YOUR_API_KEY
```

Response Format

All responses are returned in JSON format with the following structure:

Success Response

```
{
  "success": true,
  "data": {...},
  "message": "Optional message"
}
```

Error Response

```
{
  "success": false,
  "error": {
    "code": "ERROR_CODE",
    "message": "Error description",
    "field": "field_name" // Optional
  }
}
```

Endpoints

Companies

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/companies	Get all companies with pagination	read
GET	/companies/{code}	Get company by code	read
POST	/companies	Create new company	write
PUT	/companies/{code}	Update company	write
PATCH	/companies/{code}/status	Toggle company status	write
DELETE	/companies/{code}	Delete company	write

Branches

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/branches	Get all branches with pagination	read
GET	/branches/{code}	Get branch by code	read
GET	/companies/{code}/branches	Get branches by company	read
POST	/branches	Create new branch	write
PUT	/branches/{code}	Update branch	write
PATCH	/branches/{code}/status	Toggle branch status	write
DELETE	/branches/{code}	Delete branch	write

Divisions

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/divisions	Get all divisions with pagination	read
GET	/divisions/{code}	Get division by code	read
GET	/companies/{code}/divisions	Get divisions by company	read
GET	/branches/{code}/divisions	Get divisions by branch	read
POST	/divisions	Create new division	write
PUT	/divisions/{code}	Update division	write
PATCH	/divisions/{code}/status	Toggle division status	write
PATCH	/divisions/{code}/move	Move division to another branch	write
DELETE	/divisions/{code}	Delete division	write

Departments

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/departments	Get all departments with pagination	read
GET	/departments/{code}	Get department by code	read
GET	/divisions/{code}/departments	Get departments by division	read
POST	/departments	Create new department	write
PUT	/departments/{code}	Update department	write
PATCH	/departments/{code}/status	Toggle department status	write
PATCH	/departments/{code}/move	Move department to another division	write
DELETE	/departments/{code}	Delete department	write

API Keys Management

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/api-keys	Get all API keys (admin only)	admin
POST	/api-keys	Create new API key	admin
PATCH	/api-keys/{id}/status	Toggle API key status	admin
GET	/api-keys/usage/logs	Get API usage logs	admin

Flexible Endpoints (Recommended) ⭐

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/flexible/company-departments	Get all departments by company code (supporting hierarchy)	read
GET	/flexible/company-full	Get company with complete hierarchy (branches, divisions, departments)	read
GET	/flexible/custom	Customizable data retrieval with include/exclude parameters	read

Special Endpoints

METHOD	ENDPOINT	DESCRIPTION	PERMISSION
GET	/organization-tree	Get complete organization tree hierarchy	read
GET	/organization-tree/{company_code}	Get organization tree for specific company	read
GET	/search	Search across all entities (companies, branches, divisions, departments)	read
GET	/hierarchy/{type}/{code}	Get hierarchy for specific entity (type: company/branch/division/department)	read
GET	/stats/{entity}	Get organization statistics (counts, active rates, etc.)	read

Query Parameters

The API supports comprehensive query parameters for filtering, pagination, sorting, and custom data selection. Below are all available parameters organized by category:

📄 Pagination Parameters

- `page` - Page number (default: 1, min: 1)
- `limit` - Items per page (default: 20, max: 100, min: 1)

🔍 Filter Parameters

- `is_active` - Active status filter (true/false)
- `company_code` - Filter by company code
- `company_name` - Filter by company name
- `branch_code` - Filter by branch code
- `division_code` - Filter by division code

📊 Sort Parameters

- `sort` - Sort by field (entity_name, entity_id, created_date)
- `order` - Sort direction (asc/desc, default: asc)

⚙️ Advanced Parameters

- `include` - Include related data (branches,divisions,departments)
- `exclude` - Exclude specific fields (comma-separated)
- `with_hierarchy` - Include full hierarchy path (true/false)
- `flat` - Return flat structure instead of nested (true/false)

Parameter Usage Examples

```
1. Pagination
GET /api/departments?page=2&limit=10

2. Filtering
GET /api/departments?company_code=ACME&is_active=true

3. Searching
GET /api/search?q=IT&type=department

4. Sorting
GET /api/departments?sort=company_name,-division_name

5. Flexible endpoints
GET /api/flexible/company-departments?company_code=ACME&include=branches,divisions

6. Advanced combination
GET /api/departments?company_code=ACME&is_active=true&page=1&limit=50&sort=department_name&order=asc
```

Example Requests

⭐ Featured: Company Departments Endpoint

Primary use-case: Retrieve all departments for a specific company, bypassing the hierarchical structure (branches and divisions).
Benefits: Faster queries, simplified data structure, perfect for department-selection interfaces.
Perfect for: Dropdown lists, department filters, quick selections.

Company Departments Endpoint

```
GET http://localhost:3000/api/flexible/company-departments?company=MYCOMPANY
Header:
X-API-Key: YOUR_API_KEY
```

Response (200 OK)

```
{
  "success": true,
  "data": {
    "company": {
      "company_code": "MYCOMPANY",
      "company_name": "ACME Wholesale Group",
      "company_name_en": "Mercedes Cold Storage Co., Ltd.",
      "tax_id": "0105601015104",
      "is_active": true
    },
    "departments": [
      {
        "department_code": "MYCOMPANY-IT-MGMT",
        "department_name": "Information Management",
        "department_name_en": "Information Management",
        "is_active": true
      },
      {
        "department_code": "MYCOMPANY-HR-MGMT",
        "department_name": "Human Resources",
        "department_name_en": "Human Resources",
        "is_active": true
      },
      {
        "department_code": "MYCOMPANY-FIN-MGMT",
        "department_name": "Finance",
        "department_name_en": "Finance",
        "is_active": true
      }
    ],
    "total": 3
  }
}

Optional Fields (if requested): "company", "departments"?,
"total_departments"? }
```

Advanced Usage - Custom Selection

```
GET http://localhost:3000/api/flexible/custom?company=MYCOMPANY&exclude=branches,divisions&sort=department_name&order=asc
Header:
X-API-Key: YOUR_API_KEY
```

Response (200 OK)

```
{
  "success": true,
  "data": {
    "company": {
      "company_code": "MYCOMPANY",
      "company_name": "ACME Wholesale Group",
      "company_name_en": "Mercedes Cold Storage Co., Ltd.",
      "tax_id": "0105601015104",
      "is_active": true
    },
    "departments": [
      {
        "department_code": "MYCOMPANY-IT-MGMT",
        "department_name": "Information Management",
        "division_code": "MYCOMPANY-IT",
        "is_active": true
      },
      {
        "department_code": "MYCOMPANY-HR-MGMT",
        "department_name": "Human Resources",
        "division_code": "MYCOMPANY-HR",
        "is_active": true
      }
    ],
    "total": 3
  }
}

Optional Fields (if requested): "company", "departments"?,
"total_departments"? }
```

Complete Company Data

```
GET http://localhost:3000/api/flexible/company-full?company=MYCOMPANY
Header:
X-API-Key: YOUR_API_KEY
```

Response (200 OK)

```
{
  "success": true,
  "data": {
    "company": {
      "company_code": "MYCOMPANY",
      "company_name": "ACME Wholesale Group",
      "company_name_en": "Mercedes Cold Storage Co., Ltd.",
      "tax_id": "0105601015104",
      "is_active": true,
      "created_date": "2024-01-15T08:30:00.000Z",
      "updated_date": null,
      "department_count": null,
      "branch_count": null,
      "is_active": true
    },
    "departments": [
      {
        "branch_code": "MYCOMPANY-BRANCH-01",
        "branch_name": "Warehouse",
        "company_code": "MYCOMPANY",
        "division_code": "MYCOMPANY-WH-DIVISION",
        "division_name": "Warehouse",
        "branch_code": "MYCOMPANY-BRANCH-01",
        "is_active": true
      }
    ],
    "divisions": [
      {
        "department_code": "MYCOMPANY-IT-MGMT",
        "department_name": "Information Management",
        "division_code": "MYCOMPANY-IT",
        "is_active": true
      }
    ],
    "departments": [
      {
        "department_code": "MYCOMPANY-IT-MGMT",
        "department_name": "Information Management",
        "division_code": "MYCOMPANY-IT",
        "is_active": true
      }
    ],
    "total": 3
  }
}

Optional Fields (if requested): "branches", "divisions", "departments"?,
"total_branches"?,
"total_divisions"?,
"total_departments"? }
```

Get All Companies

```
GET http://localhost:3000/api/companies?page=1&limit=10&is_active=true
Header:
X-API-Key: YOUR_API_KEY
```

Response (200 OK)

```
{
  "success": true,
  "data": {
    "companies": [
      {
        "company_code": "MYCOMPANY",
        "company_name": "ACME Wholesale Group",
        "company_name_en": "Mercedes Cold Storage Co., Ltd.",
        "tax_id": "0105601015104",
        "is_active": true,
        "created_date": "2024-01-15T08:30:00.000Z",
        "updated_date": null,
        "department_count": null,
        "branch_count": null,
        "is_active": true
      }
    ],
    "pagination": {
      "page": 1,
      "limit": 10,
      "total": 5,
      "pages": 1
    }
  }
,
  "message": "Companies retrieved successfully"
}
```

Create New Company

```
POST http://localhost:3000/api/companies
Header:
X-API-Key: YOUR_API_KEY
Content-Type: application/json

Body:
{
  "company_code": "MYCOMPANY",
  "company_name_th": "ACME Wholesale Group",
  "company_name_en": "Mercedes Cold Storage Co., Ltd.",
  "tax_id": "0105601015104",
  "is_active": true
}
```

Response (201 Created)

```
{
  "success": true,
  "data": {
    "company_code": "MYCOMPANY",
    "company_name": "ACME Wholesale Group",
    "company_name_en": "Mercedes Cold Storage Co., Ltd.",
    "tax_id": "0105601015104",
    "is_active": true,
    "created_date": "2024-01-15T08:30:00.000Z",
    "updated_date": null,
    "department_count": null,
    "branch_count": null,
    "is_active": true
  }
,
  "message": "Company created successfully"
}
```

Create New Branch

```
POST http://localhost:3000/api/branches
Header:
X-API-Key: YOUR_API_KEY
Content-Type: application/json

Body:
{
  "branch_code": "MYCOMPANY-BRANCH-01",
  "branch_name": "Warehouse",
  "company_code": "MYCOMPANY",
  "division_code": "MYCOMPANY-WH-DIVISION",
  "is_headquarters": true,
  "is_active": true
}
```

Response (201 Created)

```
{
  "success": true,
  "data": {
    "branch_code": "MYCOMPANY-BRANCH-01",
    "branch_name": "Warehouse",
    "company_code": "MYCOMPANY",
    "division_code": "MYCOMPANY-WH-DIVISION",
    "is_headquarters": true,
    "is_active": true,
    "created_date": "2024-01-15T08:30:00.000Z",
    "updated_date": null
  }
,
  "message": "Branch created successfully"
}
```

Create New Division

```
POST http://localhost:3000/api/divisions
Header:
X-API-Key: YOUR_API_KEY
Content-Type: application/json

Body:
{
  "division_code": "MYCOMPANY-IT",
  "division_name": "Information Management",
  "company_code": "MYCOMPANY",
  "branch_code": "MYCOMPANY-BRANCH-01",
  "is_active": true
}
```

Response (201 Created)

```
{
  "success": true,
  "data": {
    "division_code": "MYCOMPANY-IT",
    "division_name": "Information Management",
    "company_code": "MYCOMPANY",
    "branch_code": "MYCOMPANY-BRANCH-01",
    "is_active": true,
    "created_date": "2024-01-15T08:30:00.000Z",
    "updated_date": null
  }
,
  "message": "Division created successfully"
}
```

Create New Department

```
POST http://localhost:3000/api/departments
Header:
X-API-Key: YOUR_API_KEY
Content-Type: application/json

Body:
{
  "department_code": "MYCOMPANY-IT-MGMT",
  "department_name": "Information Management",
  "company_code": "MYCOMPANY",
  "division_code": "MYCOMPANY-IT",
  "is_active": true
}
```