

Oracle® Essbase

MCP Server User's Guide



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Introduction

Introducing Essbase MCP Server

Oracle Essbase includes a built-in Model Context Protocol (MCP) server. It lets AI assistants and other MCP clients query, calculate, load data, inspect outlines, and administer Essbase through standard tools.

The MCP server is built on top of the Essbase [REST API](#) and uses the same authentication.

To start integrating AI into your Essbase application workflows, use the following guidelines:

1. Choose the right access profile. See [Choose an Access Profile](#)
2. Collect the connection and OAuth details. See [Obtain Required Connection Details](#)
3. Verify the MCP endpoint. See [Verify the MCP Endpoint](#)
4. Understand how the MCP connection works. [Understand how MCP Connection Works](#)
5. Connect and test using an AI client. See [Connect an AI Client](#)
6. Follow security and operational best practices. See [Follow Security and Connection Best Practices](#)
7. Find the right Essbase tool. See [Tool Catalog Reference](#)

Choose an Access Profile

An **access profile** controls which Essbase MCP tools a client can see and use. It helps limit the available actions to the level of access that a user or AI client actually needs.

Essbase provides the following access profiles:

- viewer, which exposes read-only tools for working with Essbase.
- analyst, which exposes the viewer tools, plus additional query and execution capabilities.
- admin, which exposes all available Essbase tools (35), including those for management and configuration. Management tools take a generic *payload* (a JSON object/string forwarded to the underlying Essbase REST operation).

Access profile can be selected by adding a profile query parameter to the MCP endpoint. For example:

```
<base_url>/essbase/rest/v1/ess-mcp?profile=viewer
```

You can also apply the profile when listing tools:

```
<base_url>/essbase/rest/v1/ess-mcp/tools?profile=viewer
```

For a first connection, start with the viewer profile. This lets you confirm that authentication, connection, and tool discovery are working, without exposing tools that can change Essbase data or configuration.

The access profile limits which tools the MCP server presents to your AI client. It does not replace Essbase security. Every tool call is still checked against the permissions of the authenticated user. A client may be aware of a tool in its profile, but be unable to use it, if the signed-in user does not have the required Essbase privileges.

See Also: [Tool Catalog Reference](#)

Obtain Required Connection Details

Before configuring a client, register a confidential application in your Oracle identity domain, or reuse an existing one that is approved for Essbase access. Refer to [Create a Confidential Identity Application](#) for more information.

Before trying to connect to Essbase MCP server, you must gather the MCP endpoint, identity-domain URLs, client ID, client secret, scopes, and redirect URI.

You will need to collect the following information:

1. **MCP endpoint** – The web address of the Essbase MCP Server.

`https://<essbase-server>/essbase/rest/v1/ess-mcp`

Example:

`https://myserver.example.com:9001/essbase/rest/v1/ess-mcp`

Example with an access profile specified:

`https://myserver.example.com:9001/essbase/rest/v1/ess-mcp?profile=viewer`

When you are ready to verify the MCP endpoint, refer to [Verify the MCP Endpoint](#).

2. **Identity domain base URL** – Find this from the OCI Console, under your identity domain details.

`https://<identity-domain>`

Example:

`https://idcs-1234567890abcdef.identity.oraclecloud.com`

3. **Authorization URL** – The web address where a user signs in and approves access. Find this from the Oracle identity domain's OAuth configuration, or derive it from the identity domain base URL.

`https://<identity-domain>/oauth2/v1/authorize`

Example:

`https://idcs-1234567890abcdef.identity.oraclecloud.com/oauth2/v1/authorize`

4. **Token URL** – The web address where the client requests an OAuth access token.

`https://<identity-domain>/oauth2/v1/token`

Example:

`https://idcs-1234567890abcdef.identity.oraclecloud.com/oauth2/v1/token`

5. **Token endpoint authentication method** – The method the client uses to prove its identity when requesting a token.
May be `client_secret_post` or `client_secret_basic`.
6. **Client ID and client secret** – Find these from the integrated application in the identity domain, in its OAuth configuration > General Information section.

Choose the Correct OAuth Scope

An OAuth **scope** tells the identity service what resource the client wants permission to access. Use the scope that matches the client's authentication method:

- For ChatGPT and Claude Code, use the IDCS meta-scope:

`urn:opc:idm:__myscopes__`

- For Codex tokens created with the password grant, use the Essbase resource scope configured for your application.

`https://<identity-domain>:443/essbase`

Using the correct scope ensures that the issued token is valid for Essbase.

Register a Redirect URI

ChatGPT and Claude Code return the user to the client after sign-in. That return address is called a **redirect URI** or **callback URI**.

Register the callback URI provided by each client in the confidential application. Each client may use a different callback URI, so add them separately.

Verify the MCP Endpoint

You can reach the Essbase MCP Server at `<base_URL>/essbase/rest/v1/ess-mcp`.

Verifying the MCP endpoint checks whether:

- the Essbase MCP URL is correct
- the MCP server is reachable over the network
- authentication is successful
- the MCP server returns its discovery information

If you run a GET on that URL, it should return a discovery document with the server info, sub-endpoints, and capabilities:

```
{
  "server": {
    "name": "Essbase MCP",
    "version": "0.2.3"
  },
  "endpoints": {
    "tools": "https://<essbase-server>/essbase/rest/v1/ess-mcp/tools",
    "call": "https://<essbase-server>/essbase/rest/v1/ess-mcp/call"
  },
  "capabilities": {
    "tools": {
      "listChanged": false
    }
  }
}
```

You can also list the tool catalog directly using GET <base_URL>/essbase/rest/v1/ess-mcp/tools.

You can invoke Essbase tools using POST <base>/essbase/rest/v1/ess-mcp/call.

Optional: List the available Tools

After initialization, the AI client can use the tools/list method to discover which Essbase tools are available.

The visible tools depend on the access profile used in the endpoint, such as viewer, analyst, or admin.

Optional: Call an Essbase Tool

After discovering the available tools, the AI client can invoke one with the tools/call method.

The following example runs an Essbase calculation:

```
{
  "jsonrpc": "2.0",
  "id": 2,
  "method": "tools/call",
  "params": {
    "name": "essbase_run_calculation",
    "arguments": {
      "app_name": "Sample",
      "db_name": "Basic",
      "calc_script": "CALC ALL;",
      "wait_for_completion": true
    }
  }
}
```

The above example is optional, for testing. In normal use, the AI client creates and sends this request for you. You request the task in natural language, and the client selects and calls the appropriate Essbase MCP tool.

Understand how MCP Connection Works

The Essbase MCP server communicates with clients by using **JSON-RPC 2.0**.

JSON-RPC is a standard way for one application to send a request to another application in JSON format and receive a structured response. In this case, the AI client sends requests to the Essbase MCP server over HTTPS.

AI clients, such as ChatGPT, OpenAI Codex, and Claude Code, connect to the Essbase MCP server over HTTPS. Before the client can use Essbase tools, it must prove who the user is. Essbase does this with **OAuth**.

Connect an AI Client

You can connect AI clients such as ChatGPT, OpenAI Codex, and Claude Code to the Essbase MCP server.

The client connects to the Essbase MCP endpoint over HTTPS and authenticates with an OAuth access token issued by your Oracle Identity Domain. OAuth lets the client access Essbase without storing or repeatedly sending an Essbase user name and password.

Note

Before connecting a client, ensure you have collected the connection and OAuth details, as described in [Obtain Required Connection Details](#).

Each client obtains the OAuth token differently:

- ChatGPT uses a browser-based OAuth sign-in flow.
- OpenAI Codex uses a bearer token that you generate before starting Codex.
- Claude Code uses OAuth with a registered client ID, client secret, and callback URI.

Complete only the procedure for the client that you want to connect.

For a first connection, use the viewer access profile:

`https://<essbase-server>/essbase/rest/v1/ess-mcp?profile=viewer`

The viewer profile exposes read-only tools, thus is the best profile for validating the connection.

Connect ChatGPT

Before you begin, ensure that you have:

- The Essbase MCP endpoint
- The authorization URL and token URL for your Oracle Identity Domain
- The OAuth client ID and client secret
- Permission to add a redirect URL to the confidential application in Oracle Identity Domain

To connect ChatGPT,

1. In ChatGPT, go to **Settings**, then **Apps**, then **Advanced settings**.
2. Select **Create app**.
3. Enter a name and description for the connection.
4. For **Connection**, select **Server URL**.
5. Enter the Essbase MCP endpoint. For example:

```
https://<essbase-server>/essbase/rest/v1/ess-mcp?profile=viewer
```

6. For **Authentication**, select **OAuth**.
7. Acknowledge the custom-server risk notice.
8. Under **Advanced OAuth settings**, select **User-Defined OAuth Client**.
Dynamic Client Registration and Client-Initiated Metadata Discovery may appear unavailable. This is expected because the Essbase MCP endpoint does not advertise a registration URL.
9. Copy the callback URL that ChatGPT displays. It has this form:

```
https://chatgpt.com/connector/oauth/<id>
```

10. In the Oracle Identity Domain confidential application, add the complete callback URL as a redirect URL.
Use the full https:// value. Relative URLs are not accepted.
11. In ChatGPT, enter the OAuth client ID and client secret.
12. Set the token endpoint authentication method to `client_secret_post`.
13. Set the default scope to `urn:opc:idm:__myscopes__`.
14. Leave the base scopes blank.
15. Confirm the discovered authorization URL and token URL.
16. Leave the registration URL and resource fields blank.
17. Select **Create**.
18. Open the new connection and select **Sign in**.
19. Complete the Oracle Cloud sign-in flow for your identity domain. Use the federated sign-in option, such as Microsoft Active Directory, when required by your organization.

After sign-in completes, ChatGPT can discover the Essbase MCP tools allowed by the selected profile and by the signed-in user's Essbase permissions.

Connect OpenAI Codex

Codex connects to Essbase by using a bearer token stored in an environment variable. The token must be issued for the Essbase resource scope. Do not use the IDCS meta-scope that is used for browser-based OAuth flows.

Generate an Essbase Access Token

Run the following command from a shell that can reach the Oracle Identity Domain token endpoint. Replace the placeholders with values from your environment.

```
export ACCESS_TOKEN=$(curl -s \ -H "Authorization: Basic <base64(client-id:client-secret)>" \ -H "Content-Type: application/x-www-form-
```

```
urlencoded; charset=UTF-8" \ --request POST "https://<identity-domain>/
oauth2/v1/token" \ -d "grant_type=password&username=<oci-
username>&password=<url-encoded-password>&scope=https://<identity-domain>:443/
essbase" \ | sed -rn 's/.*"access_token":("[^"]+").*/\1/p')
```

```
export ESSBASE_MCP_TOKEN="$ACCESS_TOKEN"
```

The scope must identify Essbase as the resource. It typically has this form:

```
https://<identity-domain>:443/essbase
```

Register the Essbase MCP Server

Run the following:

```
codex mcp add essbase \ --url "https://<essbase-server>/essbase/rest/v1/ess-
mcp?profile=viewer" \ --bearer-token-env-var ESSBASE_MCP_TOKEN
```

You can also add the server manually to:

```
~/codex/config.toml
```

Use the following configuration:

```
[mcp_servers.essbase] url = "https://<essbase-server>/essbase/rest/v1/ess-mcp?
profile=viewer" bearer_token_env_var = "ESSBASE_MCP_TOKEN"
```

The section name must be `mcp_servers`, with an underscore. Codex may ignore the configuration if the section name is incorrect.

Some Codex versions may also require the following:

```
experimental_use_rmcp_client = true
```

To verify the connection,

1. Start Codex.
2. Enter the following:

```
/mcp
```

3. Confirm that the Essbase Server appears and that tools are available.

OAuth tokens expire according to the Oracle Identity Domain token lifetime. The default lifetime is often 3600 seconds. Generate a new token after the current token expires unless your confidential application is configured to support refresh tokens.

Connect Claude Code

Claude Code connects to Essbase by using OAuth with pre-registered client credentials. It uses a local callback URL during sign-in. The callback port in the command must match the redirect URL registered in Oracle Identity Domain.

Register the Callback URL

In the Oracle Identity Domain confidential application, add this redirect URL:

`http://localhost:8080/callback`

Add the Essbase MCP Server

Run the following:

```
claude mcp add --transport http \ --client-id "<your-client-id>" \ --client-secret \ --callback-port 8080 \ essbase "https://<essbase-server>/essbase/rest/v1/ess-mcp?profile=viewer"
```

You can also add the server by using JSON:

```
claude mcp add-json essbase \
  '{"type":"http","url":"https://<essbase-server>/essbase/rest/v1/ess-mcp?profile=viewer","oauth":{"clientId":"<your-client-id>","callbackPort":8080,"scopes":"urn:opc:idm:__myscopes__"}}' \
  --client-secret
```

The `--client-secret` option prompts you for the client secret with masked input. Claude Code stores the secret in the operating system keychain instead of writing it to the configuration file.

For unattended setup, you can place the secret in the `MCP_CLIENT_SECRET` environment variable.

Ensure that:

- The callback port is 8080.
- The registered redirect URL is `http://localhost:8080/callback`.
- The scope is `urn:opc:idm:__myscopes__`.

To complete the Claude Code connection,

1. Start Claude Code.
2. Enter the following:

```
/mcp
```

3. Select the Essbase connection.
4. Complete the browser-based OAuth sign-in flow.

Claude Code stores the OAuth credentials securely and refreshes the token automatically when the identity-domain configuration permits it.

Verify the Connection

After connecting a client,

1. Confirm that the Essbase MCP server appears in the client.
2. Confirm that the client can discover tools.
3. Verify that the tools match the selected access profile.

4. Run a read-only request, such as:

List the Essbase applications available to me.

If the connection succeeds, but a tool call is denied, check the signed-in user's Essbase permissions. The access profile controls which tools are exposed, but Essbase security still controls which operations the user can perform.

Follow Security and Connection Best Practices

Use the following practices when you connect an AI client to the Essbase MCP server.

Use HTTPS

Always use an HTTPS URL for the MCP endpoint. Example:

```
https://<essbase-server>/essbase/rest/v1/ess-mcp
```

Do not connect a remote client to the Essbase MCP server over plain HTTP. HTTPS protects tokens and other connection data while they are in transit.

Register a Redirect URI for Each Client

Each OAuth client uses its own callback URL.

Register the redirect URI required by each client in the Oracle Identity Domain confidential application. ChatGPT, Claude Code, and Codex may use different callback URLs, so do not assume that one redirect URI works for every client.

Protect Client Secrets and Tokens

Do not place client secrets or bearer tokens in shared configuration files, source control, screenshots, or documentation. Use the secure storage method supported by each client:

- ChatGPT stores the client secret in the connector configuration.
- Claude Code stores the client secret in the operating system keychain.
- Codex should read the bearer token from an environment variable by using `bearer_token_env_var`.

Do not place a client secret directly in `config.toml`.

Plan for Token Expiration

Bearer tokens expire. The default Oracle Identity Domain token lifetime is often 3600 seconds, although your environment may use a different value. Regenerate or refresh the token after it expires.

Use the Correct Authentication Method

The token endpoint authentication method must match the OAuth client type and the confidential application configuration.

- Use `client_secret_post` or `client_secret_basic` for a confidential client that has a client secret.
- Use `none` only for a public client that uses PKCE and does not have a client secret.

Start with Read-Only Access

For a first connection, use the viewer profile:

```
?profile=viewer
```

Confirm that authentication and tool discovery work before changing to the analyst or admin profile.

Apply Least Privilege

Choose the narrowest access profile that supports the required task.

The access profile controls which MCP tools the client can see. Essbase security still controls which applications, databases, members, and operations the authenticated user can access.

Refresh the Client After MCP Changes

Reconnect or refresh the client after the MCP server configuration or tool catalog changes. This allows the client to retrieve the current list of available tools and capabilities.

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Tool Catalog Reference

The Essbase MCP Server includes 35 Essbase tools. Each tool entry lists the minimum access profile, purpose, and tool-specific parameters.

- viewer access profile includes access to read-only tools (12). Refer to [Tools for Viewers](#).
- analyst access profile includes access to the viewer tools, plus additional run/load tools (4). Refer to [Tools for Analysts](#).
- admin access profile includes access to all of the tools (35). Refer to: [Tools for Admins](#).
- [Tools for Viewers](#)
The following Essbase MCP tools available to viewer access profiles are read-only.
- [Tools for Analysts](#)
The following Essbase MCP tools, available to analyst access profiles, include query and execution capabilities.
- [Tools for Admins](#)
All Essbase MCP tools are available to admin access profiles. These include read-only operations, query and execution, and management / configuration tools.

Tools for Viewers

The following Essbase MCP tools available to viewer access profiles are read-only.

Refer also to [Choose an Access Profile](#).

- [essbase_browse_outline](#)
This Essbase MCP Server tool enables you to browse dimensions of the cube outline.
- [essbase_database_insights](#)
This Essbase MCP Server tool enables you to read database settings and statistics.
- [essbase_describe_database](#)
This Essbase MCP Server tool enables you to get a compact profile for the specified Essbase database. The profile includes database metadata, dimensions, application settings, and statistics. Use this before query/load/outline work when you need to retrieve cube shape.
- [essbase_explore](#)
This Essbase MCP Server tool enables you to get the overview of Essbase server with applications and application tree. You can use this tool to discover available applications and cubes before choosing a more specific tool.
- [essbase_get_logs](#)
This Essbase MCP Server tool enables you to get application log links or the latest application log.
- [essbase_get_script](#)
This Essbase MCP Server tool enables you to get Calc or MDX script metadata and content.
- [essbase_grid](#)
This Essbase MCP Server tool enables you to run grid-oriented read operations.

- [essbase_inspect_outline](#)
This Essbase MCP Server tool enables you to read outline/member metadata.
- [essbase_outline_metadata](#)
This Essbase MCP Server tool enables you to get outline generation and level metadata for a dimension.
- [essbase_query](#)
This Essbase MCP Server tool enables you to execute an ad hoc MDX query and get the result. Use this tool for read-only data questions when you already know the application, database, and MDX query.
- [essbase_search_members](#)
This Essbase MCP Server tool enables you to search for outline members in an Essbase database.
- [essbase_server_health](#)
This Essbase MCP Server tool enables you to get information about version, active sessions, job statistics, and optional database locks.

essbase_browse_outline

This Essbase MCP Server tool enables you to browse dimensions of the cube outline.

Parameters

- app_name (string) — required — Essbase application name.
- db_name (string) — required — Essbase database/cube name.

Minimum Profile

viewer

essbase_database_insights

This Essbase MCP Server tool enables you to read database settings and statistics.

This tool supports following actions:

- app_settings
- app_statistics
- db_settings
- aso_compression
- buffers
- cache
- calculation
- compression
- db_statistics
- runtime_statistics
- size_statistics
- startup
- storage

- transaction

Use manage_db_settings only for updates/imports.

Parameters

- action (string) — required — Operation to perform on the database/cube.
- app_name (string) — required — Essbase application name.
- db_name (string) — Essbase database/cube name.

Minimum Profile

viewer

essbase_describe_database

This Essbase MCP Server tool enables you to get a compact profile for the specified Essbase database. The profile includes database metadata, dimensions, application settings, and statistics. Use this before query/load/outline work when you need to retrieve cube shape.

Parameters

- app_name (string) — required — Essbase application name.
- db_name (string) — required — Essbase database/cube name.

Minimum Profile

viewer

essbase_explore

This Essbase MCP Server tool enables you to get the overview of Essbase server with applications and application tree. You can use this tool to discover available applications and cubes before choosing a more specific tool.

Parameters

None.

Minimum Profile

viewer

essbase_get_logs

This Essbase MCP Server tool enables you to get application log links or the latest application log.

Parameters

- app_name (string) — required — Essbase application name.
- latest (boolean) — When true, return the latest log content instead of log links.

Minimum Profile

viewer

essbase_get_script

This Essbase MCP Server tool enables you to get Calc or MDX script metadata and content.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `script_name` (string) — required — Calc or MDX script name.
- `type` (string)

Minimum Profile

viewer

essbase_grid

This Essbase MCP Server tool enables you to run grid-oriented read operations.

This tool supports following actions:

- `default`
- `execute_grid`
- `execute_layout`
- `layout_grid`
- `mdx_report`

Use `essbase_query` action to run simple ad hoc MDX query. Use this tool when the client has grid/layout payloads or saved MDX reports.

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `payload` (string) — JSON object/string or XML string required by the selected action.
- `layout` (string) — Saved grid layout name.
- `report_name` (string) — Report name, such as an MDX or drill-through report.

Minimum Profile

viewer

essbase_inspect_outline

This Essbase MCP Server tool enables you to read outline/member metadata.

This tool supports following actions:

- `dimensions`

- outline
- children
- member
- ancestors
- descendants_count
- generations
- generation
- levels
- level
- attribute_settings
- outline_settings
- pivot_dimension
- smart_lists
- date_formats

Use `essbase_edit_outline` or `essbase_manage_outline` action only for mutations.

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — Essbase database name.
- `cube_name` (string) — Essbase cube name.
- `dimension_name` (string) — Outline dimension name.
- `member_unique_name` (string) — Member unique name. For example `[Product].[100-10]`.
- `parent` (string) — Optional parent member name for outline child browsing.
- `fields` (string) — Optional comma-separated response fields requested from the REST endpoint.
- `limit` (integer) — Maximum number of items to return.
- `offset` (integer) — Zero-based pagination offset.
- `generation_number` (integer) — Generation number within the dimension.
- `level_number` (integer) — Level number within the dimension.

Minimum Profile

viewer

essbase_outline_metadata

This Essbase MCP Server tool enables you to get outline generation and level metadata for a dimension.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `dimension_name` (string) — required — Outline dimension name.

Minimum Profile

viewer

essbase_query

This Essbase MCP Server tool enables you to execute an ad hoc MDX query and get the result. Use this tool for read-only data questions when you already know the application, database, and MDX query.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `mdx_query` (string) — required — MDX query text.

Minimum Profile

viewer

essbase_search_members

This Essbase MCP Server tool enables you to search for outline members in an Essbase database.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `search_text` (string) — required — Search text.
- `dimension_name` (string) — Outline dimension name.

Minimum Profile

viewer

essbase_server_health

This Essbase MCP Server tool enables you to get information about version, active sessions, job statistics, and optional database locks.

Parameters

- `app_name` (string) — Essbase application name.
- `db_name` (string) — Essbase database/cube name.

Minimum Profile

viewer

Tools for Analysts

The following Essbase MCP tools, available to analyst access profiles, include query and execution capabilities.

In addition to the analyst tools linked below, refer to [Tools for Viewers](#), which are also available to analyst access profiles.

Refer also to [Choose an Access Profile](#).

- [essbase_clear_data](#)
This Essbase MCP Server tool enables you to clear data from an Essbase cube and optionally wait for job completion.
- [essbase_deploy_workbook](#)
This Essbase MCP Server tool enables you to import an Excel workbook from the catalog to create or update cube metadata.
- [essbase_load_data](#)
This Essbase MCP Server tool enables you to load a catalog data file into an existing cube optionally with a catalog rule file. Use after `essbase_deploy_workbook` or `essbase_clear_data` tool when you are loading/reloading data without recreating the application.
- [essbase_run_calculation](#)
This Essbase MCP Server tool enables you to Rrun a saved or inline BSO calculation script and optionally wait for job completion. Use `script_name` for a saved script or `calc_script` for inline text.

essbase_clear_data

This Essbase MCP Server tool enables you to clear data from an Essbase cube and optionally wait for job completion.

The common option values are:

- `ALL_DATA`
- `UPPER_LEVEL_BLOCKS`
- `LEVEL_ZERO_BLOCKS`
- `NON_INPUT_BLOCKS`

- ALL_AGGREGATIONS
- PARTIAL_DATA

Parameters

- application (string) — required — Essbase application name.
- db (string) — required — Essbase database/cube name.
- option (string) — Action-specific option value.
- wait_for_completion (boolean) — Whether to wait for the submitted job to finish before returning.

Minimum Profile

analyst

essbase_deploy_workbook

This Essbase MCP Server tool enables you to import an Excel workbook from the catalog to create or update cube metadata.

- Use load_data=false for metadata-only import.
- Use essbase_load_data to import separate data file.
- Use recreate_application=true only for intentional replacement.

Parameters

- catalog_excel_path (string) — required — Essbase catalog path. For example, /shared/MyFolder/file.txt.
- application (string) — required — Essbase application name.
- db (string) — required — Essbase database/cube name.
- load_data (boolean) — Whether workbook import should also load workbook-defined data.
- create_files (boolean) — Whether import should create cube artifact files.
- execute_script (boolean) — Whether import should execute workbook scripts.
- recreate_application (boolean) — Whether to replace an existing application during workbook import.
- build_option (string) — Workbook build option passed to the import job, for example NONE.
- auto_load_companion_data (boolean) — Whether to auto-run a sibling companion data file when workbook load_data is unsupported.

Minimum Profile

analyst

essbase_load_data

This Essbase MCP Server tool enables you to load a catalog data file into an existing cube optionally with a catalog rule file. Use after `essbase_deploy_workbook` or `essbase_clear_data` tool when you are loading/reloading data without recreating the application.

Parameters

- `application` (string) — required — Essbase application name.
- `db` (string) — required — Essbase database/cube name.
- `data_file` (string) — required — Essbase catalog path. For example, `/shared/MyFolder/file.txt`.
- `rule_file` (string) — Essbase catalog path. For example, `/shared/MyFolder/file.txt`.
- `abort_on_error` (boolean) — Whether a data-load job should abort on first error.
- `wait_for_completion` (boolean) — Whether to wait for the submitted job to finish before returning.

Minimum Profile

analyst

essbase_run_calculation

This Essbase MCP Server tool enables you to Rrun a saved or inline BSO calculation script and optionally wait for job completion. Use `script_name` for a saved script or `calc_script` for inline text.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `script_name` (string) — Calc or MDX script name.
- `calc_script` (string) — Inline calculation script text.
- `wait_for_completion` (boolean) — Whether to wait for the submitted job to finish before returning.

Minimum Profile

analyst

Tools for Admins

All Essbase MCP tools are available to admin access profiles. These include read-only operations, query and execution, and management / configuration tools.

In addition to the admin tools linked below, refer to [Tools for Viewers](#) and [Tools for Analysts](#).

- [essbase_edit_outline](#)
This Essbase MCP Server tool enables you to run a batch outline edit operation from XML payload. Use this tool for intentional outline mutations such as adding, renaming, moving, or updating members.
- [essbase_export_data](#)
This Essbase MCP Server tool enables you to export database artifacts.
- [essbase_manage_application](#)
This Essbase MCP Server tool enables you to manage applications.
- [essbase_manage_connections](#)
This Essbase MCP Server tool enables you to manage saved connections.
- [essbase_manage_database](#)
This Essbase MCP Server tool enables you to manager databases.
- [essbase_manage_datasource](#)
This Essbase MCP Server tool enables you to manage datasources.
- [essbase_manage_db_settings](#)
This Essbase MCP Server tool enables you to update database settings or import query tracking.
- [essbase_manage_drill_through](#)
This Essbase MCP Server tool enables you to manage drill-through reports.
- [essbase_manage_files](#)
This Essbase MCP Server tool enables you to manager catalog files.
- [essbase_manage_filters](#)
This Essbase MCP Server tool enables you to manager security filters.
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- [essbase_manage_roles](#)
This Essbase MCP Server tool enables you to manage service and application role assignments.
- [essbase_manage_script](#)
This Essbase MCP Server tool enables you to manage Calc and MDX scripts.
- [essbase_manage_sessions](#)
This Essbase MCP Server tool enables you to manage sessions.
- [essbase_manage_users](#)
This Essbase MCP Server tool enables you to manage users.
- [essbase_manage_variables](#)
This Essbase MCP Server tool enables you to manage substitution variables across server, app, and db scopes.

essbase_edit_outline

This Essbase MCP Server tool enables you to run a batch outline edit operation from XML payload. Use this tool for intentional outline mutations such as adding, renaming, moving, or updating members.

Parameters

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `payload` (string) — required — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_export_data

This Essbase MCP Server tool enables you to export database artifacts.

This tool supports following actions:

- `outline_xml` — Exports outline XML
- `query_tracking` — Exports query tracking data.

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_application

This Essbase MCP Server tool enables you to manage applications.

This tool supports following actions:

- `list`
- `get`
- `settings`
- `statistics`
- `update_settings`
- `create`
- `copy`

- rename
- start
- stop
- delete

It also supports following destructive actions: delete, rename, and recreate-like payloads.

Parameters

- action (string) — required — Operation to perform.
- app_name (string) — required — Essbase application name.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_connections

This Essbase MCP Server tool enables you to manage saved connections.

This tool supports following actions:

- list
- get
- create
- update
- delete
- test
- test_new
- upload_wallet

Parameters

- action (string) — required — Operation to perform.
- connection_name (string) — Saved connection name.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_database

This Essbase MCP Server tool enables you to manager databases.

This tool supports following actions:

- list
- get

- copy
- rename
- start
- stop
- delete

Parameters

- action (string) — required — Operation to perform.
- app_name (string) — required — Essbase application name.
- db_name (string) — Essbase database/cube name.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_datasource

This Essbase MCP Server tool enables you to manage datasources.

This tool supports following actions:

- list
- get
- create
- update
- delete
- stream

Parameters

- action (string) — required — Operation to perform.
- datasource_name (string) — Datasource name.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_db_settings

This Essbase MCP Server tool enables you to update database settings or import query tracking.

This tool supports following actions:

- get
- update

- `import_query_tracking`

Use `database_insights` action for read-only settings/statistics.

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — Essbase database/cube name.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_drill_through

This Essbase MCP Server tool enables you to manage drill-through reports.

This tool supports following actions:

- `list`
- `list_for_cells`
- `get`
- `create`
- `update`
- `delete`
- `execute`

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — Essbase database/cube name.
- `report_name` (string) — Report name, such as an MDX or drill-through report.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_files

This Essbase MCP Server tool enables you to manager catalog files.

This tool supports following actions:

- `list_root`
- `list`
- `home`

- shared
- upload
- download
- create_folder
- copy
- move
- extract_zip
- delete

To upload/download use base64 in data_base64. For large files use product-native file transfer instead of MCP JSON payloads.

Parameters

- action (string) — required — Operation to perform.
- path (string) — Essbase catalog path. For example, /shared/MyFolder/file.txt.
- source (string) — Essbase catalog path. For example, /shared/MyFolder/file.txt.
- target (string) — Essbase catalog path. For example, /shared/MyFolder/file.txt.
- data_base64 (string) — Base64-encoded file bytes for upload.

Minimum Profile

admin

essbase_manage_filters

This Essbase MCP Server tool enables you to manager security filters.

This tool supports following actions:

- list
- get
- rows
- create
- update
- copy
- rename
- delete
- validate
- permissions
- add_permission
- replace_permissions
- delete_permission

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `filter_name` (string) — Security filter name.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_groups

This Essbase MCP Server tool enables you to manage groups and memberships.

This tool supports following actions:

- `list`
- `get`
- `create`
- `update`
- `delete`
- `delete_many`
- `users`
- `groups`
- `members`
- `add_users`
- `remove_users`
- `add_groups`
- `remove_groups`
- `app_roles`
- `provision_report`

Parameters

- `action` (string) — required — Operation to perform.
- `group_id` (string) — Group identifier.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_jobs

This Essbase MCP Server tool enables you to manage Essbase jobs.

This tool supports following actions:

- list
- status
- statistics
- wait
- rerun
- purge

Use wait action after a submitted job returns statusCode 100. Use purge action only when old job history should be removed.

Parameters

- action (string) — required — Operation to perform.
- job_id (string) — Essbase job identifier.
- offset (integer) — Zero-based pagination offset.
- limit (integer) — Maximum number of items to return.
- user_id (string) — User identifier.

Minimum Profile

admin

essbase_manage_locks

This Essbase MCP Server tool enables you to manage Essbase locks.

This tool supports following actions:

- list
- objects
- blocks
- lock_object
- unlock_object
- unlock_block

Parameters

- action (string) — required — Operation to perform
- app_name (string) — Essbase application name.
- db_name (string) — Essbase database/cube name.
- object_name (string)

Minimum Profile

admin

essbase_manage_outline

This Essbase MCP Server tool enables you to mutate outline metadata.

This tool supports the following actions:

- update_generation
- update_level
- update_outline_settings
- edit

First use `essbase_inspect_outline` tool to verify target members and dimensions. The edit action expects batch outline edit XML in payload.

Parameters

- action (string) — required — Operation to perform.
- app_name (string) — required — Essbase application name.
- db_name (string) — required — Essbase database/cube name.
- dimension_name (string) — Outline dimension name.
- generation_number (integer) — Generation number within the dimension.
- level_number (integer) — Level number within the dimension.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_roles

This Essbase MCP Server tool enables you to manage service and application role assignments.

This tool supports following actions:

-
- list_roles
- list_service_roles
- list_app_roles
- get_app_role
- provision_service_role
- deprovision_service_role
- provision_app_role
- deprovision_app_role

- `import_app_roles`

For the `provision_service_role` action, use role IDs such as `user`, `power_user`, or `service_administrator`. For the `provision_app_role` action, use application role enum values such as `DB_ACCESS`, `DB_UPDATE`, `DB_MANAGER`, or `APP_MANAGER`.

Note

Provision/deprovision actions are destructive security changes and require admin profile.

Parameters

- `action` (string) — required — Operation to perform.
- `app_name` (string) — Essbase application name.
- `user_id` (string) — User identifier.
- `principal_id` (string) — User or group id for a role assignment.
- `role` (string) — Role id to grant. Service examples: `user`, `power_user`, `service_administrator`. Application examples: `DB_ACCESS`, `DB_UPDATE`, `DB_MANAGER`, `APP_MANAGER`.
- `name` (string) — Display name or object name, depending on the selected action.
- `group` (boolean) — True when the principal is a group; false or omitted for users.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_script

This Essbase MCP Server tool enables you to manage Calc and MDX scripts.

This tool supports following actions:

- `list`
- `get`
- `content`
- `create`
- `update`
- `copy`
- `rename`
- `delete`
- `validate`

Parameters

- `action` (string) — required — Operation to perform.

- `app_name` (string) — required — Essbase application name.
- `db_name` (string) — required — Essbase database/cube name.
- `script_name` (string) — Calc or MDX script name.
- `payload` (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_sessions

This Essbase MCP Server tool enables you to manage sessions.

This tool supports the following actions:

- `list`
- `current`
- `delete`
- `delete_all`
- `logout`

Parameters

- `action` (string) — required — Operation to perform.
- `session_id` (string) — Session identifier.

Minimum Profile

admin

essbase_manage_users

This Essbase MCP Server tool enables you to manage users.

This tool supports the following actions:

- `list`
- `get`
- `create`
- `update`
- `delete`
- `delete_many`
- `reset_password`
- `service_role`
- `app_roles`
- `provision_report`

Parameters

- action (string) — required — Operation to perform.
- user_id (string) — User identifier.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

essbase_manage_variables

This Essbase MCP Server tool enables you to manage substitution variables across server, app, and db scopes.

This tool supports the following actions:

- list
- get
- create
- update
- delete

The supported scopes are:

- server
- app
- db

Parameters

- action (string) — required — Operation to perform.
- scope (string) — required — Variable scope: server, app, or db.
- app_name (string) — Essbase application name.
- db_name (string) — Essbase database/cube name.
- variable_name (string) — Substitution variable name.
- payload (string) — JSON object/string or XML string required by the selected action.

Minimum Profile

admin

Glossary

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