

Command Console Module

User Manual - Console Interface

SONARWORKS WORKFLOW SYSTEM

Version 1.1

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1. Introduction

The Command Console is an advanced administrative tool that provides direct command-line access to system functions. It allows super administrators to execute system commands, perform maintenance tasks, and troubleshoot issues efficiently.

Key Capabilities:

- Execute system maintenance commands
- Query system data directly
- Perform bulk operations
- Clear caches and reset states
- Debug and troubleshoot issues

WARNING: The Command Console is a powerful tool intended for super administrators only. Improper use can affect system stability.

[Screenshot: Command Console Interface]

Figure: Command Console Interface

2. Accessing Command Console

2.1 Prerequisites

- Super Administrator role assignment
- Command Console privilege enabled
- Valid session with elevated permissions

2.2 Opening the Console

Steps:

Step 1: Log in as Super Administrator

Step 2: Click your profile icon in the top-right

Step 3: Select 'Command Console' from dropdown

Step 4: Or use keyboard shortcut: Ctrl + Shift + C

Step 5: The Command Console opens as a dialog/panel

NOTE: The Command Console option only appears for users with super administrator privileges.

[Screenshot: Accessing Command Console]

Figure: Accessing Command Console

3. Command Console Interface

3.1 Interface Components

| Component | Description |
|---------------|--------------------------------------|
| Command Input | Text field where you type commands |
| Output Panel | Display area showing command results |
| History | List of previously executed commands |
| Status Bar | Shows execution status and time |
| Clear Button | Clears the output panel |
| Close Button | Closes the console |

[Screenshot: Command Console Components]

Figure: Command Console Components

3.2 Entering Commands

Steps:

Step 1: Click in the command input field

Step 2: Type your command

Step 3: Press Enter to execute

Step 4: Results appear in the output panel

3.3 Command History

- Press Up Arrow to recall previous command
- Press Down Arrow to move forward in history
- Click on a command in history panel to reuse
- History is cleared when console closes

4. Available Commands

4.1 Command Categories

| Category | Description | Examples |
|----------|-----------------------------|-----------------------|
| System | System-level operations | status, cache, health |
| Data | Data queries and operations | count, find, update |
| User | User management commands | lock, unlock, reset |
| Workflow | Workflow operations | reprocess, cancel |

| | | |
|---------|-----------------|-------------------|
| Utility | Helper commands | help, clear, echo |
|---------|-----------------|-------------------|

4.2 Getting Help

Use the help command to see available commands:

```
[Console]
help                      # List all commands
help <command>            # Get help for specific command
help system                # List commands in category
```

5. Command Syntax

5.1 Basic Syntax

[Syntax]
 command [subcommand] [--option value] [arguments]

Examples:

```
status                      # Simple command
cache clear                 # Command with subcommand
user lock john.doe          # Command with argument
count workflows --status PENDING # Command with option
```

5.2 Options and Arguments

| Element | Format | Example |
|------------|---------------------|--------------------|
| Command | lowercase word | status |
| Subcommand | follows command | cache clear |
| Argument | value after command | user lock john.doe |
| Option | --name value | --status PENDING |
| Flag | --flag (no value) | --force |

5.3 String Values

Use quotes for values with spaces:

```
[Console]
update user john.doe --name "John Doe"
find workflows --description "Purchase Request"
```

6. System Commands

6.1 Status Commands

| Command | Description |
|--------------|---------------------------------|
| status | Show overall system status |
| status db | Show database connection status |
| status email | Show email service status |
| status cache | Show cache statistics |
| health | Run system health check |

Example: Status Command Output

```
>> status
System Status: HEALTHY
Uptime: 5 days, 3 hours
Database: Connected
Email: Configured
Cache: Active (1,245 entries)
Active Sessions: 23
```

6.2 Cache Commands

| Command | Description |
|-----------------------|------------------------------|
| cache status | Show cache statistics |
| cache clear | Clear all cache entries |
| cache clear users | Clear user-related cache |
| cache clear workflows | Clear workflow-related cache |

NOTE: Clearing cache may temporarily impact performance as cache rebuilds.

6.3 Maintenance Commands

| Command | Description |
|------------------|--------------------------|
| maintenance on | Enable maintenance mode |
| maintenance off | Disable maintenance mode |
| cleanup logs | Archive old log entries |
| cleanup sessions | Clear expired sessions |

7. Data Commands

7.1 Query Commands

| Command | Description |
|----------------------------------|---------------------------|
| count users | Count total users |
| count workflows --status PENDING | Count workflows by status |
| find user john.doe | Find specific user |
| find workflow --code PR | Find workflow by code |

7.2 User Commands

| Command | Description |
|--------------------------|-----------------------------|
| user info <username> | Show user details |
| user lock <username> | Lock user account |
| user unlock <username> | Unlock user account |
| user reset <username> | Reset user password |
| user sessions <username> | Show user's active sessions |

Example: User Info Command

```
>> user info john.doe
Username: john.doe
Name: John Doe
Email: john.doe@company.com
Roles: Staff, Initiator
Status: Active
Last Login: 2024-01-15 09:30:00
Failed Logins: 0
```

7.3 Workflow Commands

| Command | Description |
|---------------------------------------|--------------------------|
| workflow info <code> | Show workflow details |
| workflow instances <code> | List workflow instances |
| workflow stats <code> | Show workflow statistics |
| instance info <ref> | Show instance details |
| instance reprocess <ref> | Reprocess stuck instance |
| instance cancel <ref> --reason <text> | Force cancel instance |

8. Utility Commands

8.1 General Utilities

| Command | Description |
|----------------|-------------------------------|
| help | Show available commands |
| help <command> | Show help for command |
| clear | Clear output panel |
| echo <text> | Echo text to output |
| date | Show current server date/time |
| version | Show system version |

8.2 Debug Commands

| Command | Description |
|-------------------|--|
| log level <level> | Set logging level (DEBUG, INFO, WARN, ERROR) |
| log tail | Show recent log entries |
| config show | Show system configuration |
| config get <key> | Get specific config value |

8.3 Batch Operations

| Command | Description |
|--|---|
| batch unlock --failed-logins 5 | Unlock all accounts with 5+ failed logins |
| batch reset-password --type EXTERNAL | Reset passwords for external users |
| batch cancel --status DRAFT --older-than 30d | Cancel old drafts |

WARNING: Batch commands affect multiple records. Always confirm before executing.

9. Best Practices

9.1 Before Executing Commands

1. Understand what the command does
2. Use help command to verify syntax
3. Test with query commands before modifications
4. Consider impact on active users
5. Have a rollback plan for data changes

9.2 Safe Usage Guidelines

- Start with read-only commands (status, count, info)
- Use --dry-run flag when available to preview changes

- Document commands executed for audit purposes
- Avoid running heavy commands during peak hours
- Close console when not in use

9.3 Command Execution Tips

- Use Tab completion for command names (if supported)
- Copy complex commands to text file before executing
- Review output carefully before proceeding
- Use clear command to organize long sessions

10. Security Considerations

10.1 Access Control

- Console access is restricted to super administrators
- All commands are logged to audit trail
- Session timeout applies to console sessions
- Commands cannot escalate beyond user's privileges

10.2 Audit Logging

All command console activities are logged:

| Logged Item | Description |
|-------------|----------------------------|
| User | Who executed the command |
| Command | Full command string |
| Timestamp | When executed |
| Result | Success/Failure and output |
| IP Address | Client IP address |

10.3 Dangerous Commands

Some commands require additional confirmation:

- Commands that modify data require --confirm flag
- Batch operations require explicit confirmation
- Maintenance mode commands affect all users
- Reset commands are irreversible

Example: Confirmation Prompt

```
>> batch cancel --status DRAFT --older-than 30d
WARNING: This will cancel 47 draft workflows
```

*Type 'yes' to confirm: yes
47 workflows cancelled successfully*

10.4 Incident Response

If you execute a command incorrectly:

6. Note the exact command executed
7. Document the output/error
8. Assess the impact immediately
9. Contact system support if data affected
10. Do not attempt additional commands to 'fix' it