



IM Login 1.0 Requirements Specification

1. Scope

1.1 Overview

The IM Login component provides login support for client, manager and administrator roles in the IM application. The application will be deployed under the Struts framework, so Struts actions are required.

1.2 Logic Requirements

1.2.1 Dependencies

This component has dependencies on other components to perform the login action. They are described as follows:

- Security Manager is used to authenticate the user in using EJB.
- Authorization performs the check against roles and permissions.
- Chat User Profile creates and retrieves chat user profiles.

1.2.2 Client Login

This Struts action expects either one of the following combinations of parameters:

- cat, type (= "unreg"), fname, lname, company, title, email
- cat, type (= "reg"), user, pwd

All fields are single-valued. Company and title are optional.

The action will then check if the specified discussion category is chattable, based on the `chattable_flag` in the category table. If not, it will be forwarded to a page notifying the user about that.

1.2.2.1 Unregistered Client

If the type is unregistered, the action will:

- Create a new chat user profile whose type is "Unregistered", and whose properties correspond to the input parameters. The names of the properties should be configurable.
- Store the user profile in session under a configurable attribute.
- Save the selected discussion category and client role in the profile.

1.2.2.2 Registered Client

If the type is registered, the action will:

- Authenticate the user with username and password.
- Retrieve the chat user profile using the username and "Registered" type.
- Store the user profile in session under a configurable attribute.
- Save the selected discussion category and client role in the profile.

1.2.3 Manager Login

This Struts action expects the following parameters:

- user, pwd

All fields must be present. The action will:

- Authenticate the user with username and password.
- Make sure that the user has permission for manager login.
- Retrieve the chat user profile using the username and "Registered" type.
- Store the user profile in session under a configurable attribute.
- Save manager role in the profile.

1.2.4 Admin Login

This Struts action expects the following parameters:

- user, pwd

All fields must be present. The action will:

- Authenticate the user with username and password.
- Make sure that the user has permission for admin login.
- Store the authorization principal in session under a configurable attribute.

1.2.5 Logging

Logging should be performed for each operation using the Logging Wrapper. Logging must comprise user ID, timestamp, action taken, and entity IDs effected.

1.3 Required Algorithms

None

1.4 Example of the Software Usage

The IM application will use this component to perform various kinds of login actions for the user. After logging in, the action will be forwarded to other action mappings.

1.5 Future Component Direction

None

2. Interface Requirements

2.1.1 Graphical User Interface Requirements

None

2.1.2 External Interfaces

None

2.1.3 Environment Requirements

- Development language: Java 1.4
- Compile target: Java 1.4

2.1.4 Package Structure

- com.cronos.im.login

3. Software Requirements

3.1 Administration Requirements

3.1.1 What elements of the application need to be configurable?

- Names of session attributes and properties
- Not required but recommended to make the hard-coded strings configurable

3.2 Technical Constraints

3.2.1 Are there particular frameworks or standards that are required?

- Struts



- EJB

3.2.2 *TopCoder Software Component Dependencies:*

- Security Manager 1.1
- Authorization 2.1
- Chat User Profile 2.0
- Logging Wrapper 2.0

**Please review the [TopCoder Software component catalog](#) for existing components that can be used in the design.

3.2.3 *Third Party Component, Library, or Product Dependencies:*

None

3.2.4 *QA Environment:*

- Solaris 7
- RedHat Linux 7.1
- Windows 2000
- Windows 2003

3.3 **Design Constraints**

The component design and development solutions must adhere to the guidelines as outlined in the TopCoder Software Component Guidelines. Modifications to these guidelines for this component should be detailed below.

3.4 **Required Documentation**

3.4.1 *Design Documentation*

- Use-Case Diagram
- Class Diagram
- Sequence Diagram
- Component Specification

3.4.2 *Help / User Documentation*

- Design documents must clearly define intended component usage in the 'Documentation' tab of Poseidon.