# CGrep Actor-Based Design

## Team

1. Steven Malmgren
2. James C. De Ricco

## Actors

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| --- | --- | --- | --- |
| **Name:** ScanActor | | | |
| **State information (What does the actor know?):**   * The search pattern (a regular expression) | | | |
| **Responsibilities (What does the actor do?):**   * Scan the file specified by the Configure message. * Sends the Found object with matching lines to the CollectionActor. | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Resulting action or effect** |
| Configure | CGrep | file\_name : String, collection\_actor : ActorRef | Scans the given file, then sends a Found message to the CollectionActor. |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Found | CollectionActor | file\_name : String, matching\_lines : List<String> | Tell the CollectionAction actor to print out the matching lines. |

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| --- | --- | --- | --- |
| **Name:** CollectionActor | | | |
| **State information (What does it know?):**   * Number of files that have yet to be scanned. | | | |
| **Responsibilities (What does it do?):**   * Prints the matched lines from Found messages * Shuts down all the actors once all the files are scanned. | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| FileCount | CGrep | number\_files\_scanned : Integer | Shutdown all the actors when this CollectionActor receives this number of files are scanned (number of Found objects received). |
| Found | ScanActor | file\_name : String, matching\_lines : List<String> | Print the file name and the matching lines from the Found message. |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
|  |  |  |  |

## Actor Collaboration Diagram

