

Spring 2009 Internet2 Member Meeting
Arlington, VA, USA

Installing Channel Reflector at Your Site

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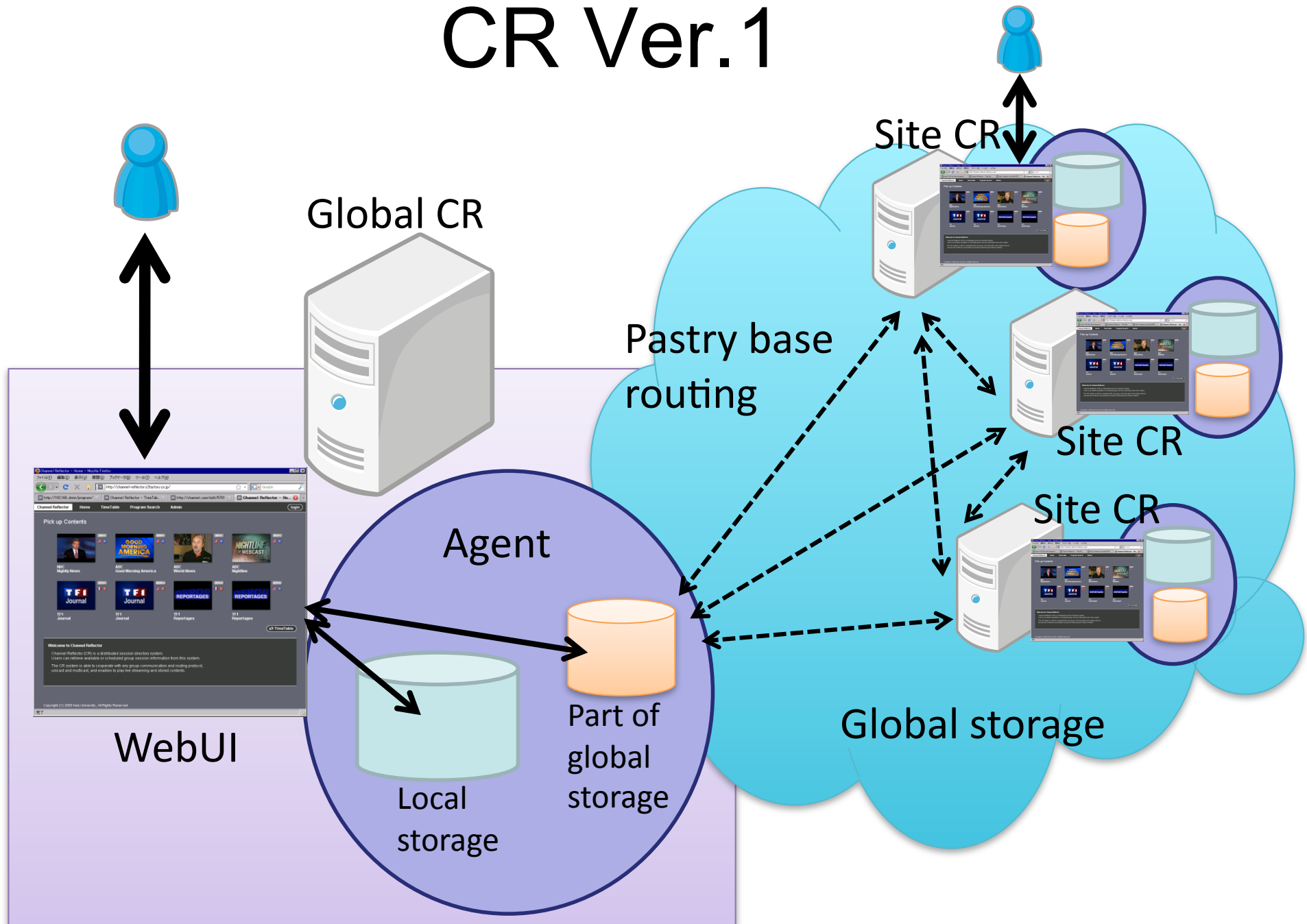


This work is partly supported by National Institute of Information and Communications Technology (NICT), Japan.

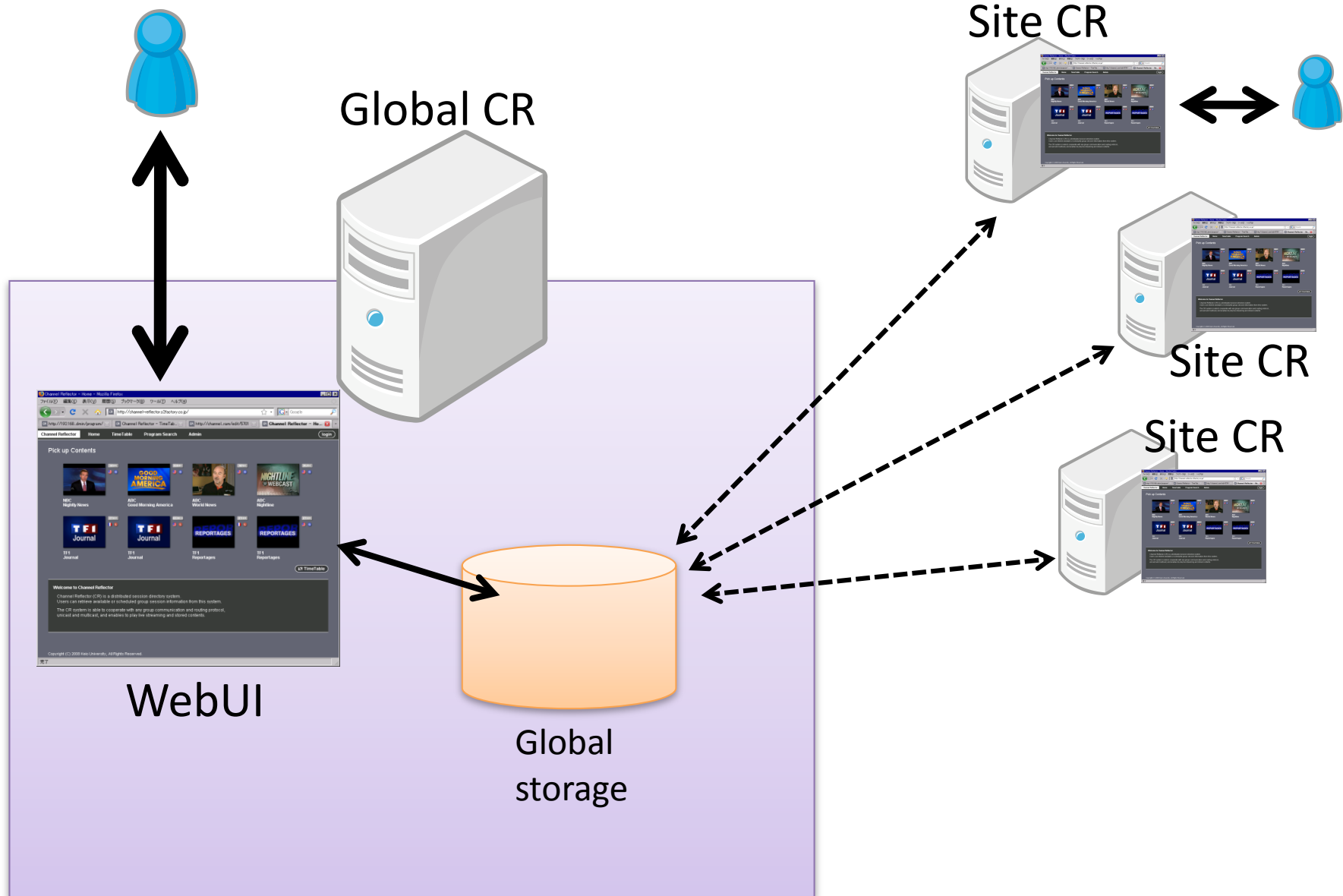
Channel Reflector

- Agent-based multicast session (or media content) information announcement system
 - Pointing streaming contents and launching application, but not storing contents
- Components
 - Agent
 - Site-local session information is stored in the local storage (MySQL)
 - Global session information is shared among agents (i.e. global storage)
 - But NOT copied/synchronized among agents
 - Web interface
 - Apache + Perl + Catalyst
- Session description
 - SDP-based syntax
 - Metadata support
- Access policy
 - Content management
 - User management

CR Ver.1



CR Ver.0.1



Code Release

- License
 - LGPL
- Site
 - Global CR: <http://www.channel-reflector.net>
 - Project page: <http://www.channel-reflector.org>
- Alpha version (v0.1-1) is now released
 - Experimental test with CR WebUI
 - No agent, no access control, only for global session announcement
 - Your site CR accesses our global database
- Version 1
 - Web UI + Agent (with pastry base routing engine)
 - Access control incl. content and user management (with login function)

Content Management

- Global contents without access control
 - Global content information on the global www.channel-reflector.net or your site CR
- [From ver.1] Site-local contents with “*network level access control*”
 - Only site-local users who can access their site-local CR from “*configured*” network addresses
 - Site-local administrators can configure site-local scope contents on their CR
- [From ver.1] Group member contents with “*user level access control*”
 - Only for approved users who can share group/organization/team contents or pay for registered contents

User Management

- Registrant
 - Data sender, owner, or administrator who wants to announce session information
 - Registrant MUST login CR (otherwise no “Announcement” menu appeared on CR)
- Listener
 - End-user who wants to browse available or scheduled session information
 - Listener can browse available or scheduled “global” session information without login
 - [From ver.1] Listener can browse “all” available or scheduled session information if he/she logins CR
 - Sessions are selected by listener’s membership states and site-local scope policy

Installation

- Required OS / Kernel
 - CentOS5 (other OSes supported by later version)
- Required Component
 - Apache
 - Perl + Catalyst runtime
 - [From ver.1] MySQL
- CR package and instruction are available at;
 - <http://www.channel-reflector.org/>

Setup

- We appreciate you to serve site-local CR
 - [Ver.0.1] Experimentation
 - CR v0.1 incl. only WebUI
 - [From ver.1] Distributed agents
 - CR v1 incl. Agent and Web UI
 - Site-local contents can be managed at your site
 - A large number of participations will make good data replication and increase the robustness
- You also can access the global CR without CR package installation
 - If you can serve the global CR (mirroring sites), please contact me !

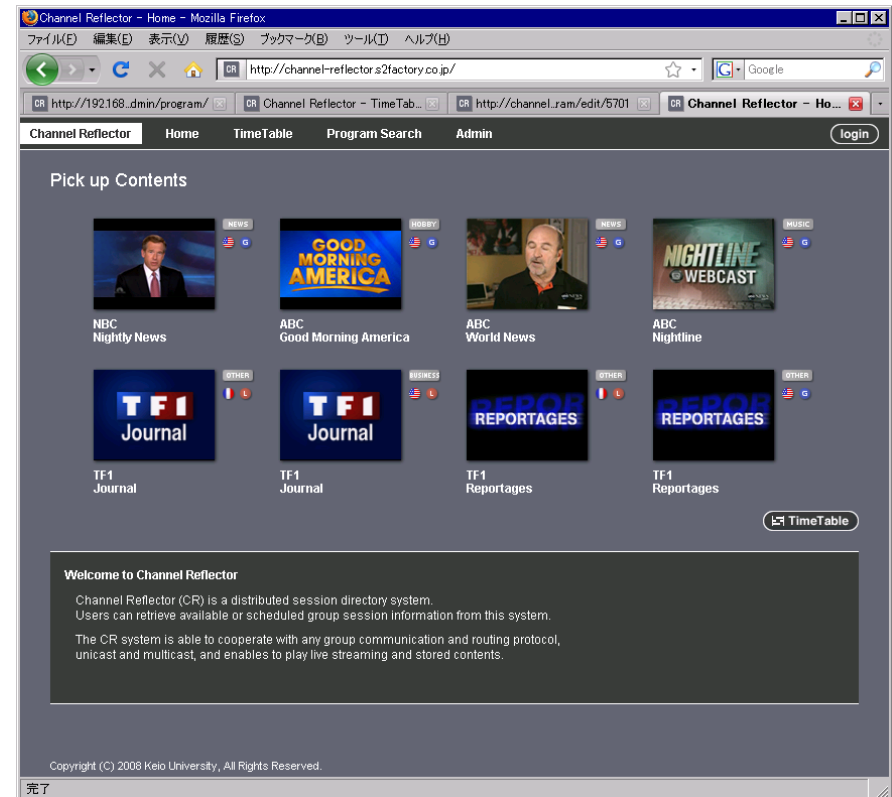
How End-Users Use It?

- Just access your site-local CR from your Web browser
 - Site CR address must be notified from site administrators to end-users
 - E.g., cr.doit.wisc.edu, cr.global-mix.com
 - [From v.1] Need network level access control
- Or, just access the global CR if no site CR
 - Only global sessions are retrieved

CR WebUI

- Global CR:
<http://www.channel-reflector.net/>

- WebUI
 - Home
 - Timetable
 - Search
 - Program Launch
 - Admin

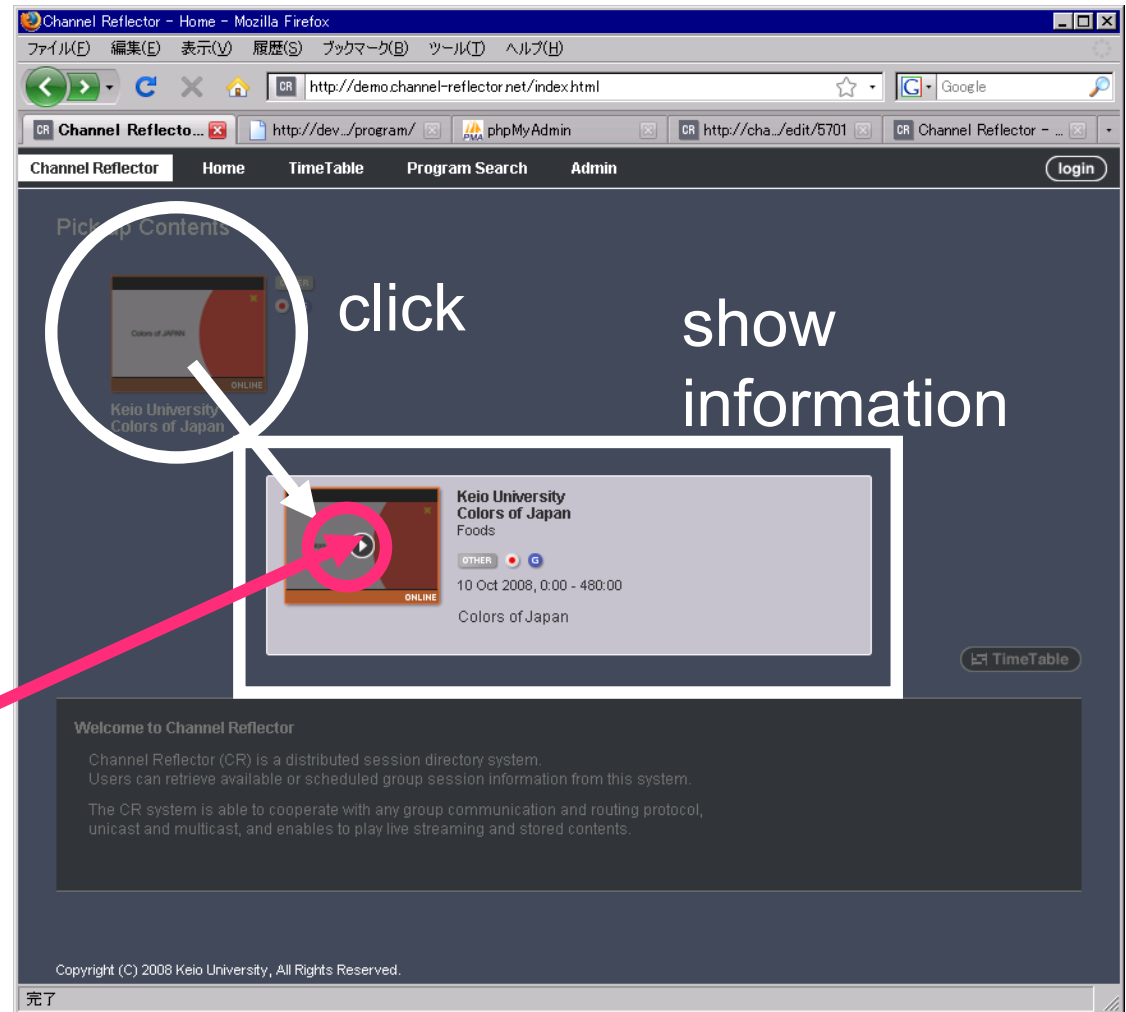


Home (INDEX)

- Picked up contents are shown

- Orange frame
 - Streaming
- Green frame
 - Stored content
- No frame
 - Scheduled

click thumbnail,
and launch player



Timetable

Channel Reflector - TimeTable - 10 Oct 2008 - Mozilla Firefox

ファイル(E) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

CR http://demo.channel-reflector.net/timetable.html?date=1223564400000

CR Channel Reflecto... http://dev.../program/ phpMyAdmin http://cha.../edit/5701 Channel Reflector - ...

Channel Reflector Home TimeTable Program Search Admin login

TimeTable 10 Oct 2008 another date

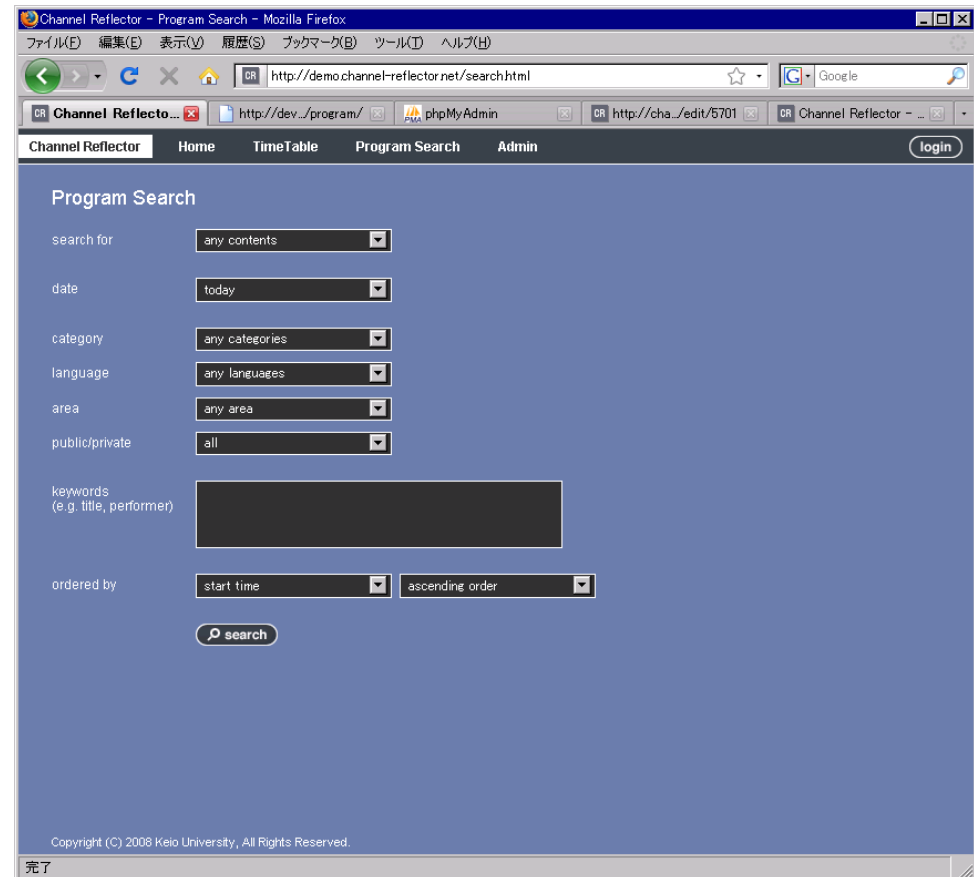
	0:00	1:00	2:00	3:00
Keio University	Colors of Japan			

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完了

Program Search

- [Search]
- Search Form
 - Contents type
 - Date/Time
 - Category
 - Language
 - Keywords ...



The screenshot shows a web browser window titled "Channel Reflector - Program Search - Mozilla Firefox". The address bar displays "http://demo.channel-reflector.net/search.html". The page features a navigation menu with "Home", "Time Table", "Program Search", and "Admin", along with a "login" button. The main content area is titled "Program Search" and contains several search filters: "search for" (any contents), "date" (today), "category" (any categories), "language" (any languages), "area" (any area), and "public/private" (all). There is a text input field for "keywords (e.g. title, performer)" and two dropdown menus for "ordered by" (start time) and "ascending order". A "search" button is located at the bottom of the form. The footer includes the copyright notice "Copyright (C) 2008 Keio University, All Rights Reserved." and the Japanese characters "完了" (Completed).

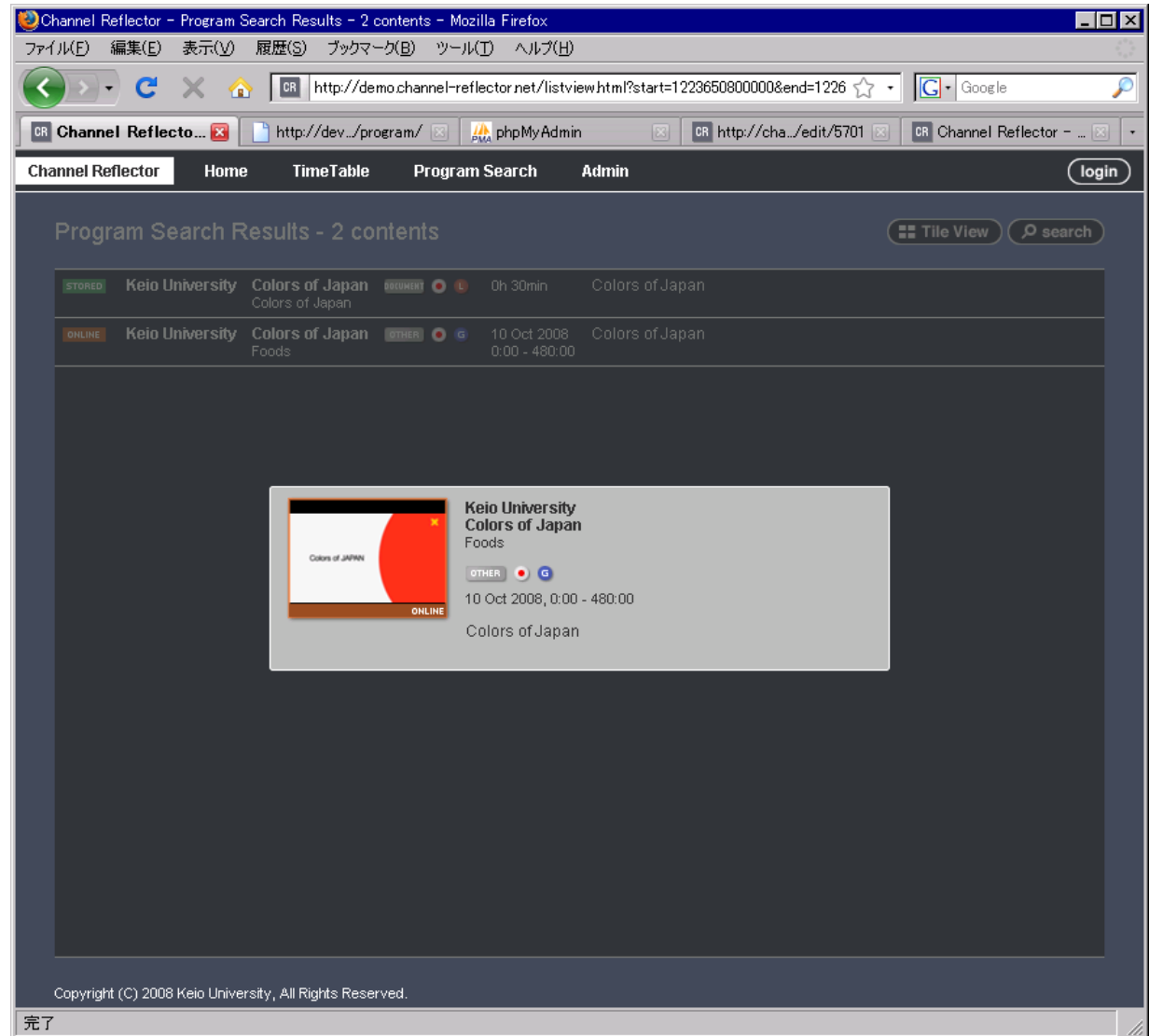
Search Result

- Results
 - Thumbnail
 - List view
 - Launch player from this page



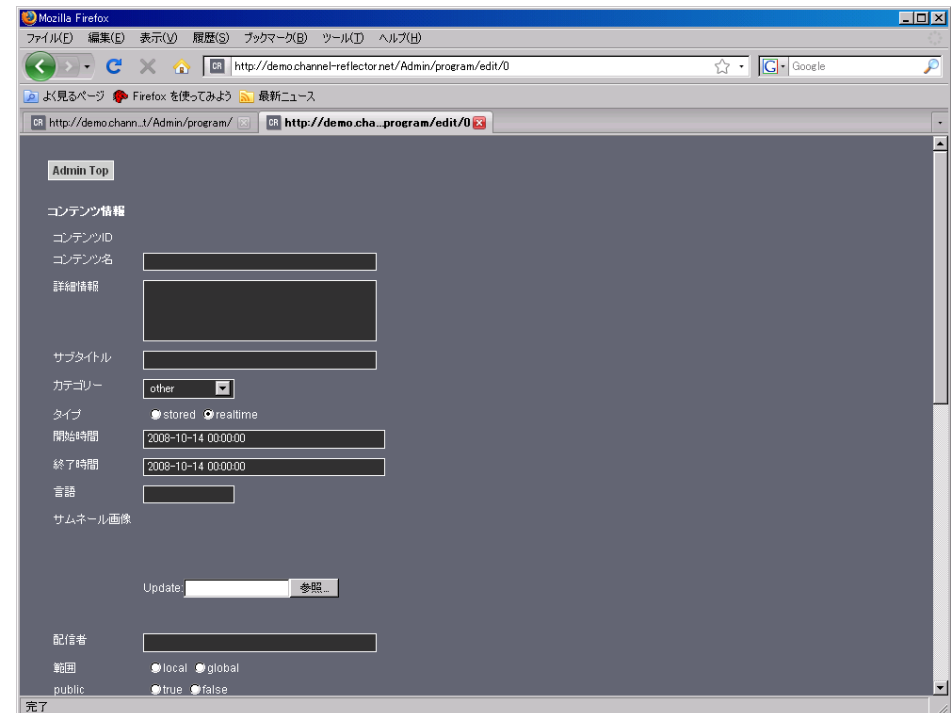
Search Result

- List View



Session Announcement

- For v0.1, login with the test user ID
 - UID: guest@channel-reflector.net, passwd: guest
 - [Announcement] -> [Add New Content]
- Contents Information
 - Title
 - Date-time
 - Thumbnail Image ...
- Location Information
 - URI (metafile)
 - {S,G}
 - MIME type ...



Mailing List

- If you are interested in this project, please subscribe and send mail to;
 - cr-users@sfc.wide.ad.jp
 - (For subscribe)
cr-users-request@sfc.wide.ad.jp
- We appreciate your cooperation !!
 - Serving Site CR, global CR
 - Using as end-users
 - Developing CR with us
etc.

Let's enjoy !!