

EASTERN COLLEGIATE
ECCC
CYCLING CONFERENCE

2010 Website Overhaul
— Requirements —

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Introduction

This document stipulates requirements for an overhaul of the website for the Eastern Collegiate Cycling Conference (ECCC). At the time of this writing the completely volunteer run ECCC serves over a thousand collegiate bicycle racers in the region from Delaware to Maine. It endorses, sanctions, and/or supports roughly forty days of collegiate racing every year, spread across the four disciplines of Road, Mountain, Cyclocross, and Track, as well as conducting two annual conference meetings. In addition, as the largest and most innovative conference, the ECCC also serves as a model for the ten other collegiate regional conferences, with many ideas and products developed within the ECCC and then transitioned nationally.

To continue fostering growth in both sophistication and participation, a major project identified for 2010 is redevelopment of the conference website. This currently serves as a vital central repository for the conference calendar, event flyers, race results, meeting notes, contact information, and miscellaneous other information. Overarching goals of this redevelopment include:

- Improving attraction, retention, and engagement with riders, volunteers, and supporters—coaches, fans, regular officials, etc.
- Developing a better informed and more smoothly operating member base, including riders, club officers, officials, and other associated parties.

To meet these goals, the overhaul aims to:

- Improve the aesthetics of the website.
- Archive a much richer and more comprehensive body of knowledge.
- Render that information more readily navigable and available.
- Add more dynamic features to the website.
- Simplify website operations and maintenance, particularly for more dynamic components.
- Adequately track visit statistics and enable usage analysis.

The remainder of this document specifies requirements for content, presentation, and operation of the improved ECCC website toward those ends.

- tjkopena
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1 Audience

As a moderate size organization hosting a large number of events, the ECCC includes many distinct types of members that must be considered as the audience for the website; in no particular order:

- *Racers.* Ultimately, collegiate racers are the core constituency of the ECCC. The website should be their primary source for official, reliable, up to date reference information, most notably for the conference calendar, race flyers, results, rules and policies, and individual license information. It should also point to other resources of use, e.g., for beginning racers.
- *Club Officers.* In addition to the information required by every racer, the website must also support the needs of club officers. This includes information on topics such as starting new clubs, licensing, race promotion, team clothing, and best practices.
- *Women.* In order to address standing gender imbalances in sports and general culture, the ECCC must provide additional support to prospective and current women racers. The website should be a central hub for them to engage in the conference-wide women's cycling community, encourage them to overcome any entry hesitation, and improve the quality of their total cycling experience.
- *Coaches.* In addition to information needed by club officers, the site should support and help grow the ECCC's pool of volunteer and professional coaches. This includes establishing better ties among that community, providing resources and information to improve their experiences and effectiveness, and guiding clubs in finding and selecting coaches.
- *Officials.* Collegiate cycling includes many events not common in general competitive cycling, as well as a number of special rules. The ECCC also has a wide array of rules and policies that it has developed over the years. The website should provide simple, quick guidance and other resources to officials working Eastern Conference events such that they may be easily kept up to date and brought up to speed. In addition, the site should include materials aimed at growing the pool of officials, encouraging and guiding racers, coaches, and others in becoming officials themselves.
- *Alumni, Friends, Family.* To grow the ECCC's general impact, visibility, and support structure, member participation must be retained long after graduation, and grown beyond the student racers. These groups represent significant resources for clubs, ranging from being simply race-day support group, to providing a larger pool of clothing buyers, to acting as club and race promotion advisors providing a significant stabilizing influence.
- *School Administrators.* The ECCC website should also provide school administrators the ability to monitor the activities of clubs, research general conference and USAC Collegiate matters such as insurance and varsity programs, and receive guidance on what's involved in helping a club form, as well as the benefits to the school in doing so.
- *Sponsors and Vendors.* As a well trafficked resource continually visited by riders and teams, the website must highlight the contributions of the ECCC's sponsors. In addition, although not proper sponsors, many corporations and organizations offer discounts specifically to ECCC and collegiate racers. The website should provide information and pointers to both classes of supporters.
- *Conference Directors, Coordinators, and Other Volunteers.* Finally, the website must serve the information retrieval and dissemination needs of its substantial and growing volunteer structure. This

includes both providing the raw information needed, such as attendance data and policy statements, as well as the ability to easily point others to that information, and to easily update all of the website's many resources without undue hassle or requirements.

2 Variables

The following are configurable and to-be-determined parameters and variables used in this specification.

- LoginTimeout: Number of hours after logging in to edit a page before reauthentication is required.
- QuickEditTimeout: Number of days after logging in to edit a page for Quick Edit Link to be displayed.
- ArchivalInterval: Number of days between archival backups.
- DifferentialInterval: Number of days between differential backups.
- MonitoringInterval: Number of hours between availability checks.
- MonitoringPages: Set of pages to check in verifying availability.
- MonitoringContacts: Users to contact about availability failures.
- BannerGraphicList: List of images to use in the banner graphic.
- BannerGraphicInterval: Number of minutes between banner graphic switches.
- SidePhotoList: List of images to use in the sidebar.

3 Core Requirements

The following are general, high-level requirements for the website.

- The website and software must be portable between Linux and Windows host environments.
- The website should function and look reasonably identical across expected client platforms (Linux, Windows, Mac OS-X), browsers (Firefox, IE, Safari), and hardware (e.g., 1024x768 displays).
- Content must be editable from Web enabled machines without special tools such as SCP or FTP.
- In addition to editing pages, users must be able to upload attached files such as PDFs without the use of special tools such as SCP or FTP.
- Content pages must be able to be collected into identifiable groups. A page need only belong to one group.
- An access control mechanism must be present such that actions on individual pages and groups may be restricted to particular groups of users.
- Access to those actions must be differentiable by at least editing and upload abilities; it should be possible to have users that may edit a page or group but not upload material, and vice versa.

4 Backup and Monitoring Requirements

A periodic backup service must be included in the ECCC website, archiving and replicating content and software. The following are requirements:

- Every ArchivalInterval days, a master archive of a full copy of the live website must be captured.
 - These archives must be stored on both the website host and an additional machine.
 - These copies are each to be stored, not overwriting each other.
- Every DifferentialInterval days, a differential archive of new uploads and content changes since the previous differential archive must be captured.
 - These archives must be stored on both the website host and an additional machine.
 - These copies are each to be stored, not overwriting each other.

In addition, a simple monitoring service must oversee the website:

- The monitoring service must be hosted on a separate machine with reliable Internet access at the appropriate checkpoint times.
- Every MonitoringInterval hours, the service must fetch the content listed in MonitoringPages.
- If any of those pages cannot be retrieved, the service must alert the MonitoringContacts administrators.

5 Statistics Requirements

In order to examine patterns of use and guide future website developments, the site must be instrumented for utilization and analysis:

- Counts must be kept of the number of visits and unique visitors to the site.
- Visits must be dated and counts tracked within daily and monthly intervals, to gauge usage patterns.
- Individual pages must be tracked, in addition to the entire site, in order to gauge which content areas are underutilized and which are most useful.
 - Downloads must be tracked in addition to content pages.

6 Template Requirements

Requirements on behavior of the website's user interface and backend functionality are as follows.

6.1 Template Objects

The following stipulate core objects of the general page presentation template. Although arguably an encroachment on design considerations, the emphasis placed on aesthetic, navigation, and usability requirements in website design implies a shift in documentation approach. Further, identifying these objects is necessary in defining desired behavior and information delivery.

Although specific appearance and arrangement is not mandated, Figure 1 is given as a guide. Selected objects and draft arrangement given here are based on general experience of the requirements team, the existing ECCC website and its format, and an informal survey of websites for exemplar organizations. Targeted design elements include:

- *Banner Graphic*. Although clearly mostly a design element, the Banner Graphic has been identified in order to specify behavior, such as updating to match the current race season.
- *Banner Logo*. To support rapid interchange of the Banner Graphic, the Banner Logo needs to be a distinct component of the overall banner with the ECCC logo.
- *Navigation Bar*. The Navigation Bar contains links to major pages within the website; many of these may be internal portals grouping related content.
- *Content Box*. Primary page content resides in the Content Box container.
- *Content Title*. Visible title for the page contents.
- *Group Link*. A link to the group the page belongs to, its primary content cluster. This is used to quickly navigate back to related material.
- *Print Link*. Opens a new page with a basic template more amenable to printing the page contents.
- *Timestamp*. Most recent modification time for the page content.
- *Copyright Statement*. Blanket notice for page and contents.
- *Quick Edit Link*. Shown to users with editing permissions, giving quick access to the edit the page.
- *Sidebar Photo*. A design element, specified here to prescribe dynamic behavior.
- *Global Information Box*. Provides site managers the ability to post information to all pages, for short notice alerts and other time sensitive and globally relevant information.
- *Group Information Box*. Presents information for the page's group, or default site-wide content.
- *USAC Collegiate Logo*. Links back to national site(s).
- *Action Links*. Access to page edit, upload, history, and other functionality.

Presence of these elements is considered a requirement.

6.2 Template Functional Use Cases

The following capture in a use case fashion significant functionality that the template and backend processes must together enable.

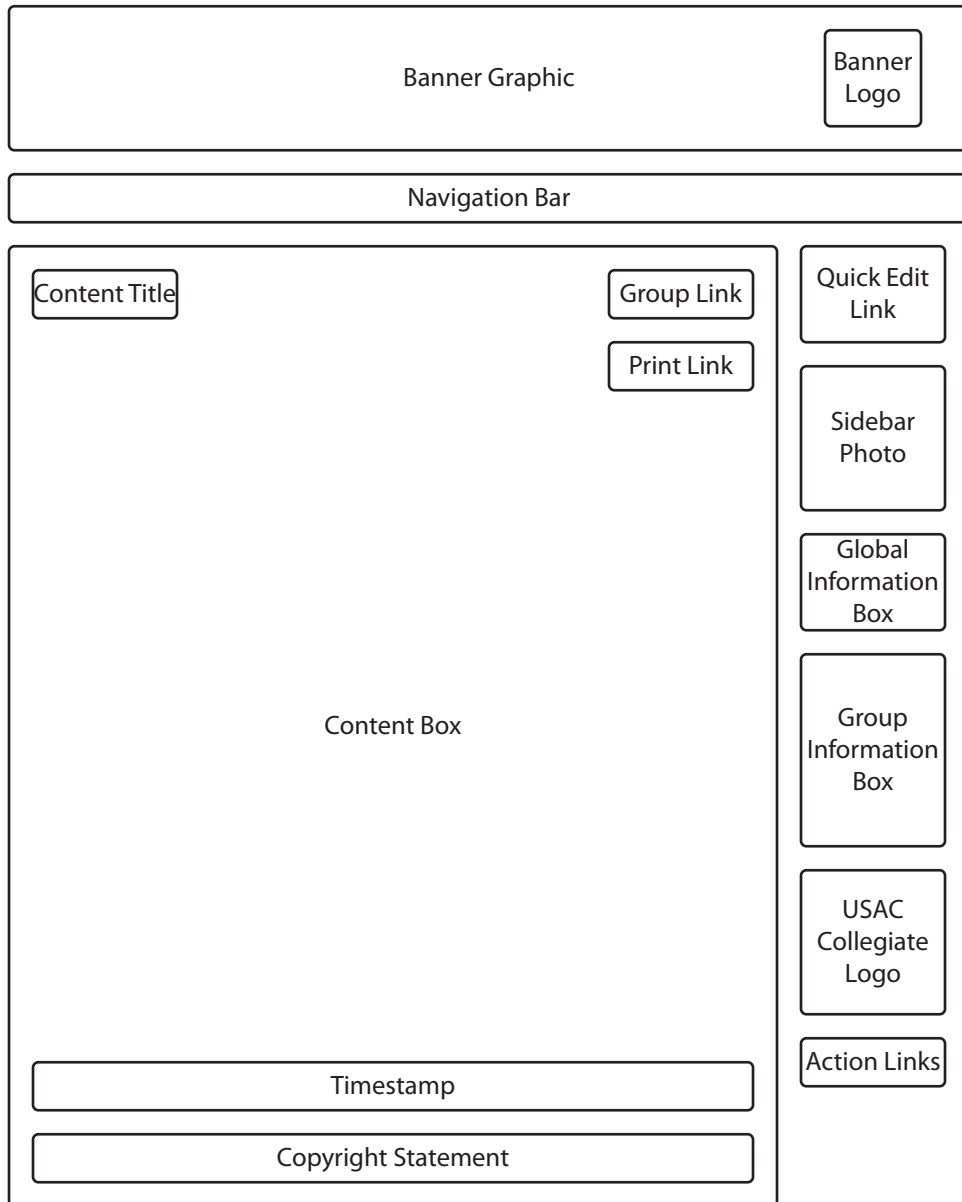


Figure 1: Required elements in ECCC site overhaul template design.

Page Editing

- Label:** edit-access-control
Assume: Visitor has not logged in to edit a page within the past LoginTimeout interval
Visitor does not have credentials to edit page
Script: Visitor arrives at page
Visitor follows Edit Action Link
Variant: Visitor follows Quick Edit Link
Test: *Authorization request is made*
- Label:** edit-invalid-user
Assume: Visitor has not logged in to edit a page within the past LoginTimeout interval
Visitor does not have credentials to edit page
Script: Visitor arrives at page
Visitor follows Edit Action Link
Variant: Visitor follows Quick Edit Link
Visitor enters invalid credentials
Test: *Authorization request is made*
- Label:** edit-valid-user
Assume: Visitor has not logged in to edit a page within the past LoginTimeout interval
Visitor has credentials to edit page
Script: Visitor arrives at page
Visitor follows Edit Action Link
Variant: Visitor follows Quick Edit Link
Visitor enters valid credentials
Test: *Page edit form is displayed*
- Label:** edit-valid-user-cancel
Assume: Visitor has not logged in to edit a page within the past LoginTimeout interval
Visitor has credentials to edit page
Script: Visitor arrives at page
Visitor follows Edit Action Link
Variant: Visitor follows Quick Edit Link
Visitor enters valid credentials
Visitor makes edits
Visitor cancels edit
Test: *Original page is displayed; edits are not saved*
- Label:** edit-valid-user-saved
Assume: Visitor has not logged in to edit a page within the past LoginTimeout interval
Visitor has credentials to edit page
Script: Visitor arrives at page
Visitor follows Edit Action Link
Variant: Visitor follows Quick Edit Link
Visitor enters valid credentials
Visitor makes edits
Visitor saves edit
Test: *Original page is displayed, with edits saved*

Global Information Dissemination

Label: global-alert
Assume: A site wide information alert is available.
Script: Visitor arrives at any page
Test: *The Global Information Box displays the alert.*

Label: no-global-alert
Assume: A site wide information alert is not available.
Script: Visitor arrives at any page
Test: *The Global Information Box is hidden.*

In addition, appropriately authorized users must be able to post and remove global information alerts online via the website, without special skills.

Group Information Dissemination

Label: group-update-1
Assume: Default group information is not available.
Script: Visitor arrives at a page residing in a group for which additional information for that specific page group is available.
Test: *The Group Information Box displays that specific group information.*

Label: group-update-2
Assume: Default group information is available.
Script: Visitor arrives at a page residing in a group for which additional information for that specific page group is available.
Test: *The Group Information Box displays that specific group information.*

Label: no-group-update-1
Assume: Default group information is not available.
Script: Visitor arrives at a page residing in a group for which no additional information for that specific page group is available.
Test: *The Group Information Box is hidden.*

Label: no-group-update-2
Assume: Default group information is available.
Script: Visitor arrives at a page residing in a group for which no additional information for that specific page group is available.
Test: *The Group Information Box displays the default group information.*

In addition, appropriately authorized users must be able to post and remove group information alerts online via the website, without special skills.

6.3 Template Stylistic Use Cases

The following outline less critical functionality that the template must support. For the most part these are design and stylistic concerns, but are considered important enough to elevate into requirements.

Quick Edit Link

The following outlines behavior of the Quick Edit Link:

Label: quick-edit-not-displayed

Assume: Visitor has not previously logged in to edit a page within the past QuickEditTimeout interval

Script: Visitor arrives at page

Test: *Quick Edit Link is not displayed*

Label: quick-edit-displayed

Assume: Visitor has previously logged in to edit a page within the past QuickEditTimeout interval

Script: Visitor arrives at page

Test: *Quick Edit Link is displayed*

Banner Graphic

The following outlines behavior of the Banner Graphic:

- If the visitor is new to the site, a Banner Graphic image is randomly selected from BannerGraphicList.
- On their subsequent page views up until the interval BannerGraphicInterval has elapsed, the same image is displayed.
- After BannerGraphicInterval minutes have passed, the next image in the BannerGraphicList is selected for another BannerGraphicInterval minutes.

Side Photo

The following outlines behavior of the Side Photo:

- On each page view, the Side Photo displayed must be randomly selected from the a priori determined list SidePhotoList.
- To prevent gratuitous page hits, simple and discreet provision must be made for curious users to explore the contents of SidePhotoList.
 - When the mouse is over the Side Photo, links must be presented to switch to the previous or successive image in SidePhotoList without triggering a full page refresh.
- The SidePhoto itself must be a link that triggers a display of either the full or a larger resolution version of the photo, along with a descriptive photo caption and attribution. This display must not trigger a page refresh or navigation away from the current page.

7 Content Requirements

The following capture content utilization by different types of ECCC website constituents. In the aggregate these capture core website information requirements. Particular groupings represent content that should be collected and highlighted for specific self-identifying classes of users.

- *Racers.*
 - Get information on obtaining a racing license.
 - Get information on upgrading their racing category.
 - Prepare individual release packets.
 - Check the ECCC race schedule.
 - Get flyers for races they are interested in.
 - Get results for races they have participated in.
 - Get season team and individual standings.
 - Get ECCC National Championship qualifying lists.
 - Look up ECCC and National policy and rules, including:
 - * National Championship eligibility requirements.
 - * Scoring algorithms, rules, and points tables.
 - * Event and discipline specifics, e.g.:
 - Team Time Trial squad sizes and aerodynamic equipment restrictions.
 - Mass start bicycle requirements.
 - Gravity armor requirements.
 - Look up teams for prospective schools, e.g., in high school, transfer, and graduate applications.
 - Connect to other racers throughout the conference.
 - Receive information on becoming an official.
- *Club Officers.*
 - Receive guidance on starting and running a club.
 - Get information on obtaining or renewing a club license.
 - Have a ready pointer to share with racers on obtaining their licenses.
 - Have a ready pointer to share with racers on obtaining upgrades.
 - Obtain the race schedule for conducting long term planning.
 - Get flyers for races their team is participating in.
 - Obtain general information on race costs.
 - Get ECCC and USAC Collegiate logos for use in team clothing.
 - Find information on upcoming conference meetings.
 - Find guidance and policy in promoting a race.
 - Connect to conference leadership and other teams.
- *Women.*
 - Look for non-ECCC races that support women's racing.
 - Receive guidance on what to expect in racing.
 - Receive information on the large number of ECCC women.

- Connect to other ECCC women.
- *Coaches.*
 - Look for teams in their area.
 - Receive notes on best practices, expectations, and approaches in working with collegiate teams.
 - Connect to other coaches in the ECCC.
 - Receive information on becoming an official.
- *Officials.*
 - Receive guidance and pointers to collegiate and ECCC specific rules and policies.
- *Alumni, Friends, Family.*
 - Look for upcoming events in their area.
 - Connect to their teams, other alumni, and racers.
 - Receive information on becoming an official.
- *School Administrators.*
 - Monitor and help coordinate team activities via upcoming events, results, and team standings.
- *Sponsors and Vendors.*
 - Have their affiliation and support of the ECCC and collegiate cycling displayed.
 - Contact teams, promoters, and conference organizers.
- *Conference Directors, Coordinators, and Other Volunteers.*
 - Publish ECCC policy and rules and readily direct racers and teams to those resources.
 - Control and enable dissemination of race flyers.
 - Announce and publicize conference events, such as annual meetings.
 - Connect the community together, enabling all racers, friends, etc., to connect.