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Web portal to CMS documents and other information: Findings of the user survey and proposed actions

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Executive Summary

The new CMS web portal (<http://cern.ch/cms>) went into full production on 1st January 2012. It supersedes the previous public site (cmsinfo), the static pages of the internal site (iCMS), and many pages of CMS sub-groups scattered over numerous other websites. The iCMS database and web services (e.g. CADI) remain unchanged.

Although the new web portal has been very well received so far, we know it can always be improved. Therefore, in the Feb 2012 CMS Week, we sent a short web survey (see section 1) to all CMS members asking how we could improve the internal website further, starting with the homepage. We received 306 responses (10% of CMS), so the findings constitute a reasonable consensus.

Section 1 includes the survey questions and the answers to the multiple-choice questions. Sections 2–7 describe in turn the topics addressed (access to documents, meeting information, news, etc.), and present the survey findings and associated action items. These are based on 306 sets of answers to the multiple-choice questions as well as detailed comments from 62 people. The unexpurgated comments are included as endnotes.

The main findings and the corresponding actions are, in approximate order of priority:

1. **Users want better ways to find and work with CMS papers and notes** implying that clear links and instructions need to be available via the CMS homepage. Web interfaces to underlying systems (CADI, CDS, DocDB, iCMS, etc.) will, in some cases, need to be improved.
2. **Users want to see information about the CMS calendar, coming meetings, and conferences** implying the need for a multi-platform calendar system and information feeds from Indico.
3. **Users want a more intuitive navigation scheme for the new website** (menus, sidebars, etc.) implying that we need to review and improve the user interfaces of the web portal and, in some cases, the underlying document management systems.
4. **Users want to see CMS operations displays** implying the need for the homepage to display data and/or links to information such as LHC page 1, CMS page 1, and CMS luminosity.
5. **User want to see the most important internal news items** on the homepage. While this is already possible technically we need to establish how people should use the system.
6. **Users want to see (only) a few recent public news items from/about CMS** implying these need to appear on the internal homepage, with links to more news on the public website.

1. Numerical Summary of Responses

Survey Questions

I want to see CMS internal news
(e.g. a feed from Hypernews)

1 2 3 4 5

Not much A lot

I want to see CMS public news
(i.e. as you can see below)

1 2 3 4 5

Not much A lot

I want to see latest CMS papers and notes
(e.g. what's new in CADI and CDS)

1 2 3 4 5

Not much A lot

I want to see meeting information
(e.g. "what's on today" from Indico)

1 2 3 4 5

Not much A lot

I want to see CMS operations displays
(e.g. LHC page 1, CMS page 1, etc.)

1 2 3 4 5

Not much A lot

I would describe myself as mostly

Physicist (analysis)

Physicist (detector)

Physicist (management)

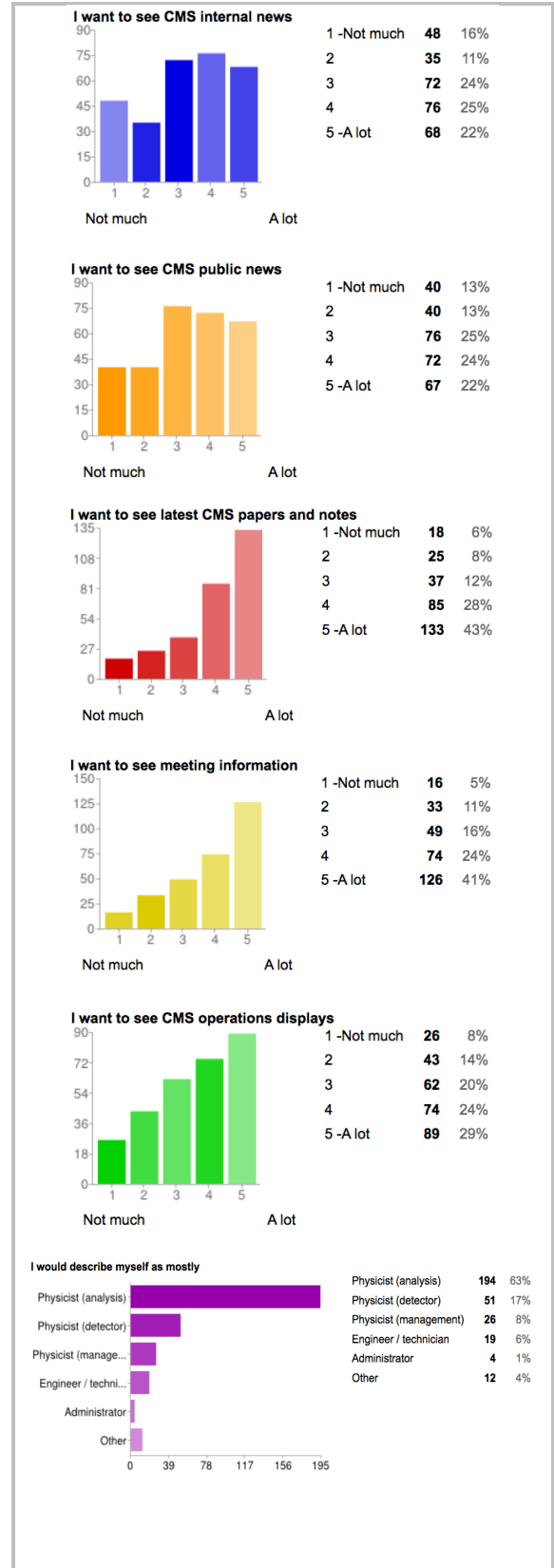
Engineer / technician

Administrator

Other:

I want to see the following on the CMS home page
(type in any additional remarks here)

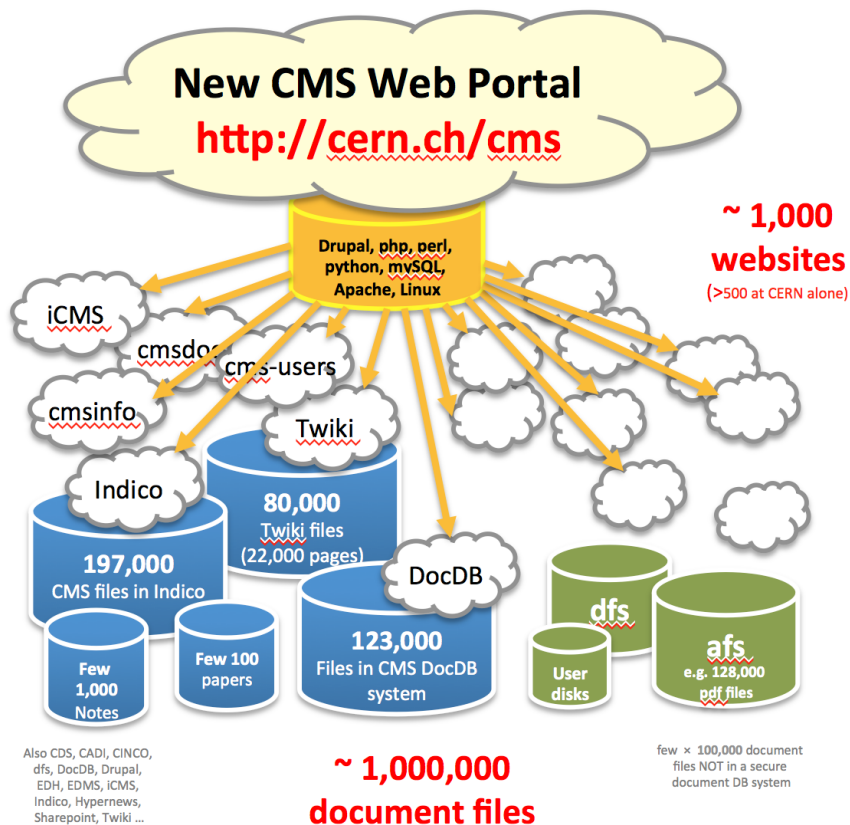
Numerical Summary of Responses



2. Access to CMS Papers and Notes

The numerical survey results and the many commentsⁱ clearly indicate that users want the website to provide better access to all CMS documents, during the production process and after completion.

The CMS document preparation and storage “ecosystem” is, however, extremely complex (see figure below). There are about 1 million document files; 1,000 websites; dozens of CMS document types (formal and informal); about 60 main CMS sub-groups and projects producing documents; and many document management systems (CADI, CDS, CINCO, DocDB, EDMS, iCMS, Indico, Twiki, etc.).



The architecture of the new website starts to address this complexity in two ways.

Firstly, each CMS group or project (“organisational unit”) is registered in the website database, together with up to almost 100 items of associated metadata, such as: persons in charge and links to documents, news, e-mail lists, calendars, meetings, minutes and so on. The links are maintained in a unique central place so navigational elements (e.g. menus or sidebars) are guaranteed to be correct and coherent across the whole website.

Secondly, we have implemented a *single* function to search the Web, the CMS website, CDS, DocDB, EDMS, Indico, phonebook, Twiki, and other systems, accounting for the user’s specific access in each case. Currently it depends on the search capabilities of the underlying system, so there is still room for improvement (see action item below).

While link management and cross-system search represents good progress, much more remains to be done. Users indicated that finding documents was still too painful. Many asked for better browsing and searching by document type, author, etc.ⁱⁱ as well as improved access to the systems for creating, uploading and reviewing documentsⁱⁱⁱ. Having analyzed the concerns in details, we therefore propose the following actions.

Actions:

- a) **Provide a coherent interface to browse and search all document systems**, to support common queries such as “find all Higgs PAS notes from the last 3 months” or “find all CMS documents about Tracker cooling”). In some cases this functionality is already provided by the underlying system (e.g. CADI, CDS, CINCO, DocDB, EDMS, etc.), so the website can expose it via a coherent and user-friendly interface. In other cases we will need to work with the developers of the corresponding systems to add the functionality needed.
- b) **Consolidate our use of CERN’s CDS as the main default document storage system**. We are working closely with CERN/IT to migrate the 110,000 CMS documents from DocDB to CDS and to benefit more from other CERN/IT developments, such as INSPIRE and CERN Search..
- c) **Provide a coherent interface to the CMS document preparation systems**. While the underlying systems for creating, reviewing, approving and storing documents are quite functional (CADI, CDS, CINCO, iCMS, svn, tdr...) the CMS website needs to present them in a more coherent fashion, initially by re-organizing the existing documentation, in collaboration with the Publications Committee and others.

3. Access to CMS Meeting Information

The survey shows that users need quick access to meeting information; only 5% of people say they don’t much need this. The comments contained numerous details on the sort of meeting information that was required.

There were many requests for calendar information^{iv}. This, in fact, already exists under the “Meetings” top menu item. We have also created new Google calendars for CMS events, Upgrades, Publications Committee, Run Coordination, etc., which can be accessed from the Web, Google calendar, iCal, and other calendar clients. There were several requests for links to conferences^v. As for the calendar, links already exist in the top menu (Meetings → Conferences and Tools → CINCO). Given the number of requests for these items which already exist, we need to improve the website interface design to make them more obvious.

There were many requests for better access to CMS meetings in Indico^{vi}, including “Meetings Today”, “CMS Weeks”, and “Minutes of Meetings”. Much of this functionality is already under development, although the user interface design needs more work.

Actions:

- d) **Make clear links to Calendar, Meeting and Conference information in the user interface** (e.g. homepage, menu items, sidebars, etc.) so that users do not need to search around for them.
- e) **Add Google Calendars for more CMS projects and groups, as required**.
- f) **Add feeds from Indico to the CMS homepage for “Meetings Today”, “CMS Weeks”, “Minutes” and other prominent meeting-related items**. These need to be made more performant than the current rather slow Indico feed and must respect the agreed-upon CMS access restrictions:
 - nobody from outside CMS (i.e. not logged in as a CMS member) can see any CMS meeting information at all;
 - authenticated CMS users can see the "Meetings Today" list with only the basic metadata (meeting title, time...) but not the agenda or materials;
 - If you click on a particular meeting to see the agenda, slides, etc. you will only get access if you are in the correct e-group (e.g. the physics e-group to see physics meetings).

4. CMS Operations Displays

There was good consensus that operations displays (LHC page 1, CMS page 1, integrated luminosity etc.) should feature on the internal home page ^{vii}.

Actions:

- g) **Add a section on the CMS internal home page CMS operational information** (e.g. LHC page 1, CMS page, integrated luminosity, webcams, etc.). This should include links to relevant external services and possibly embedded live images, within constraints of space and performance.

5. CMS Internal News

Anecdotally many people have said they find the deluge of CMS Hypernews hard to follow, meaning they sometimes miss important news. In the survey some users asked for “hot” news items and “highlights” to be shown prominently on the website ^{viii}.

The current website news system, which is still evolving, is already designed to show prominently just a few selected news items on the CMS homepage or, if tagged as of interest, also on sub-group homepages. For example, important Higgs news could appear on the CMS homepage, the Physics homepage and the Higgs homepage.

The numerical results of the survey, however, found that the interest in seeing internal news items on the CMS home page was rather ambivalent. Our proposal was probably misunderstood because several people thought that we intended to feed all the Hypernews postings to the home page ^{ix}, which would clearly be completely mad.

Actions:

- h) **Evaluate, with CMS management, how best to disseminate selected, important news items** for CMS as a whole e.g. via the CMS home page and on the homepages of individual CMS groups. This would be complementary to the very high traffic Hypernews system.

6. CMS Public News

The current internal home page was partially derived from the home page of the public site, which is, by design, dominated by the CMS news articles. We know this format is not optimal for CMS internal needs, hence our launch of this user survey.

The level of interest in seeing public news items on the CMS home page is much less pronounced than the other items discussed above, having a broad, slowly rising spread of responses from “not much interest” to “a lot of interest” ^x.

Actions:

- i) **Reduce the amount and prominence of public news items on the internal website homepage.** Add a link to more public news items elsewhere on the site.

7. Other Comments

There were many other comments on various aspects of: the website navigation^{xii}; general design and browser issues^{xiii}; access to information on people and institutes^{xiv}; outreach material^{xv}; requests for miscellaneous small fixes^{xvi}; as well as some praise and complaints of a general nature^{xvii}.

Various requests for support on certain browsers or hardware are covered by our aim of making the website function for all mainstream operating systems (Windows, Mac, Linux and Android) and on all hardware (desktops, laptops, tablets, and smartphones). In general this is already the case, although a few selected pages still have problems and performance has not yet been fully optimized.

Actions:

- j) **Improve the navigation components of the new website's user interface.** In particular, we need to work on simplifying and disambiguating the numerous links and also try to consolidate related items (e.g. on the "Documents" and "Tools" menus and sidebars). It could be useful to review the website design with an external website consultancy, such as the one helping CERN with their new CERN site.
- k) **Improve access to information about people and institutes** from CMS and CERN databases, including searching for individual people, summaries of "Who's Who in CMS?", access to author lists, Experiment Service Credit applications, etc.
- l) **Steadily work through and resolve the list of miscellaneous comments.**

Endnotes: categorized list of all the user feedback

i What do users want in terms of document access:

- I want to find the analysis notes as quickly as possible, its all I ever visit this site for
- To be honest, I've ever visited this site at all only in order to look for internal publications.
- 9 out of 10 times I come for Indico or PAS/AN/CADI
- links to cms papers/notes in preparation, not yet public
- direct links to technical documents and documentation
- Documents
- When I want to see CMS papers and notes, I go to CDS/CADI. I therefore wouldn't find it useful to have those things on the CMS home page.
- I really want to see the search for internal publications improved! There is no way to emphasize this enough! There have been times when I quit looking for a note because I simply couldn't find it after the first couple of times (even worse, I can't tell if notes on a specific subject exist or not whenever I can't find any).
- In the current iCMS page, I have troubles to understand the difference between nearby links: CMS Documents, CMS Publications, Other docs (DocDB), CERN Document Server, EDMS Server. If I need an AN note, I would like to click at "AN notes".
- Easy links to documents (PAS, AN, etc.)
- List of ongoing papers in CWR and this week's pre/approvals, to facilitate review
- [...] information about papers including the latest...the front page should not be overloaded, it should just have conveniently organized references

ii What users asked for in terms of browsing and searching for documents:

- Easier and faster access to CADI entries (now slow and counter-intuitive in some features)
- A `_working_` version of search window for analysis notes, internal notes and internal notes - since it is not working I still have to use the old iCMS page.
- I want to be able to select AN according to submitter, as on old webpage.
- In the list above multiple choices should be available, like detector AND analysis
- I would like to have a tool to access cms internal notes and paper with more choices as in older version. The newer version does not have much options
- detailed search for AN like in icms.
- How do I find things like ECAL TDR which, unfortunately, does NOT appear under Documents/TDRs...

iii What users asked for in terms of uploading notes:

- To access AN you have to login in iCMS first. This seems a bug. Login to the collaboration site should be enough?
- Me I'm always struggling to find the link to iCMS to upload new analysis notes. To submit analysis notes (AN type - CMS internal) and conference reports (CR type) we use iCMS publications site (<http://cms.cern.ch/iCMS/jsp/iCMS.jsp?&mode=single &part=publications>) it seems this is not reachable from this new CMS internal home page. I mean the analysis note list in iCMS is linked, under Documents -> AN-Analysis Notes, but the submission page, available from the above link, seems to be missing. It would be nice to have it linked from the CMS internal home page, as long as iCMS publications page is still used to submit AN's and CR's.

iv User requests for calendar information:

- I would like to see from the CMS home page: Direct link to the calendar of annual events for the full year (for example CMS weeks and other important activities). Normally, one has to spend a lot of time looking for such information.
- CMS calendar kept up to date for the upcoming and passed CMS events
- CMS calendar of upcoming CMS weeks.
- yearly calendar
- It would be very useful to have a link to upcoming and past collaboration meeting agendas...these can often be hard to find.

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- Direct link to the agenda of the CMS week as soon as it is available and not to go to INDICO only or wait for a secretary for a mail one or two days before the CMS week.
 - CMS internal meetings in a google-calendar format. Not just the main events (CMS week, etc.) but also group meetings

v User requests for links to conferences and seminars:

- Links to key seminars and conferences, along with public documentation/slides.
- Direct link to the conferences. I know, one can recommend: go to iCMS etc, but it takes time to get the right information again.
- links to conferences

vi Requests relating to the Indico meeting system:

- 9 out of 10 times I come for Indico or PAS/AN/CAD!
- I want to find easily meetings for today, access to information from physics groups and detector subsystems, calendar for the year (but also for future year if available), conference information, [...]
- Links to Indico etc.
- Announcements of (future) webcasts, especially a link to General Meeting (Indico and webcast).
- Meetings for the day
- The Indico links for meetings used to be on iCMS. That was awesome. The Indico webpage is nearly impossible to navigate.
- the today's INDICO page link is very useful, It should remain in the present page as it was in the old iCMS page.
- I think it would be great to have a meaningful display of the day's meetings (and a way to browse/search future meetings) on the home page.

vii Comments on CMS operations displays:

- I really liked the lumi display on the old home page
- CMS luminosity when machine is running.
- I really like having the year-to-date luminosity info/plot available on the home page.
- Link to WBM pages
- When I want to see operations displays, I go directly to those pages. I therefore wouldn't find it useful to have those things on the CMS home page.

viii Comments about internal news on the home page:

- It would be great to see the current 'hot topics.' The things that one should be aware of, like the availability of a new ReReco, new lumi calibration, etc., but that one might miss if one does not follow `_all_` meetings.
- I would like to see highlights from various POGs, DPGs and PPD when I open CMS home page for internal consumption. I personally would like myself to be most updated with the recent developments from POGs and adapt those to analysis as soon as possible. However, with the group members scattered all over the globe, we practically get only a few hours in common for any kind of meeting. My suggestion is to make it compulsory to circulate the minutes for all central CMS meetings (DPG/POG/PAG) - I thank all those conveners who already take care of this. It will be useful.

ix Comments about internal (Hyper)news on the home page:

- "I didn't understand what means: "I want to see CMS internal news (e.g. a feed from Hypernews)". Do you want to dump all content of hypernews discussion to the web page?"
- the feed from hypernews proposal I find a completely useless idea as there are just too many hyper news fora to do this in an interesting way.
- When I want to read hypernews, I check my email or go to the HN page. I therefore wouldn't find it useful to have those things on the CMS home page.

x What users asked for in terms of public news:

- International newspaper articles about CMS"

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- I usually don't think about looking at CMS public news, but I guess the CMS home page would be a good place to provide access for that."Links to world scientific news
 - Public news are on the public website isn't ?

xi What users want from the new website navigation:

- Otherwise I suppose the home page should provide a way for collaborators to find a link to whatever they need: POGs, PAGs, documents, datasets, trigger, help with analysis,... there should be more direct links to some obvious pages or services, like it was the case on the old page. Examples : if I want to find someone in the CMS Secretariat, on the old page I click once on the left bar menu, while on the new page it's much less direct. Same if I want to search for a CMS collaborator and more of that kind... I guess I can summarize by saying that it was very nice to have a permanent menu bar on the left of the old page, with most important links handy, while with the new page, one needs to go via various roll down menus..."
- a portal with prominent links to all the other key web pages: CINCO, CADI, INDICO, CDS, the CMS calendar, key twiki entry points
- As already mentioned before, I think the label "coordination tasks" is confusing. I would suggest something along the lines of "activities".
- As little as possible, with, potentially, the top 30 links that people use organized in some fashion. Why do we have to have this annoying iPad format, where every link takes forever to open in some internal window? iPad users should have to click to get something sensible if they choose to look at this web site, not the other way around. Or, can't it auto-sense the device?
- Efficient way to navigate to Detector System, Computing, Physics Analysis and CMS publications
- Good meta-search engine
- I would like to find a clear link to the POG and PAG web pages, with the right and new links in there to follow clearly the recent developments
- Less stuff please and more links. Clean and neat
- I use iCMS as a links page so would prefer a sober links page that contains links to all the services I use a lot, which are: Notes, CADI, Indico, physics POGS/PAGS pages, shift tools, MOA tools
- I want to see organized set of links of all the internal pages and twikis of various PAGs, POGs and other groups (trigger, validation...)
- This is obviously not mutually exclusive with an outreach-friendly front page, I just think there should be a iCMS 'at work' page that actually provide us with everything we need to do our work in one page.

xii Comments on design and browser issues:

- Please, get rid of the yellow balloon with hints
- please... make sure to keep everything IE compatible... because currently many of the CMS web tools aren't working with Internet Explorer, while this is the most used browser in the world:
http://en.wikipedia.org/wiki/File:Wikimedia_browser_share_pie_chart.png
- This is the collaboration site but logging into it doesn't grant the privilege to access many CMS pages and documents (e.g. the Analysis Notes): to this purpose one needs to log in into iCMS. Could the credentials be unified or at least could a link to iCMS be added in this collaboration home page?
- Persistence and consistency!
- Whatever, I'd like to have this page as light as possible. Should load very fast both on computer and mobile devices, low memory requirement, just use pure html. It would be just the (fast) entry point where to find links to all needed information (not the information itself).

xiii Comments on people and institutes:

- Link to CMS phone book
- Quickly find contact details etc. of people in CMS
- Information of who is who e.g PAG organizers
- Main CMS roles as a summary, not embedded in big documents, like the constitution
- Links to local CMS web servers, when available, in the institute maps (e.g.: cms.na.infn.it, not just www.na.infn.it)
- an html well structured and logical tree with hyperlinks of CMS tasks and responsibilities including e-mail addresses and contacts
- The main reason I visit the CMS home page is when I need to use the collaboration member/institution search tools.

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- author's list
 - PhD list
 - physicists and institutes search

xiv Requests for links from the internal site to information of a public nature:

- links to outreach
- Pictures of the detector and of relevant event displays
- Links to newest overview talks on CMS results
- Gallery of nice or representative pictures/drawings of CMS, for talks
- Link to newest CMS and ATLAS public results
- and a web page with all the approved analysis and the links to the corresponding web page with the approved material for each
- Quick links to the following wiki: approved plots (both from physics and detector) to be shown in talks
- It would be good to get access to the jobs list.

xv Miscellaneous requests for small fixes:

- Link to CMS thesis organized by topic and country/institute
- CMS Physicist of the day/week/month. Young CMS Physicist of the day/week/month. Highlight Researchers every week for their outstanding research achievements, service work, collaborative contributions, etc... let them know their work is appreciated by the Collaboration as a whole.
- A link to the schedule of the new CMSSW_x_x_x releases updated, the schedule of the cleaning of old releases updated. Remark: It would be good to foresee for the near future a location with the "old" data. At a certain point "old" data (or their upgrade) will be necessary e.g. for comparison between different cm energies and pileup conditions. a link to the latest releases and the changes corresponding to each one.
- Quick links to the following wiki: software guide / workbook
- Links to technical documentation, technical notes, photo galleries, general planning, CMS meetings schedule for the current/next year.
- access rights [presumably meaning how to get physical access to various restricted areas at CERN]
- informations for newcomers: how to register, how to get an account, where to find the latest accessible info on detector, software, analysis, etc ...

xvi Praise and complaints of a general nature:

- Btw the new beta website is GREAT!
- The new page is organized better than the old one.
- Most of this things are already but you have to browse around very much and it is a waste of time
- Fewer boxes that disappear unless you have a really big screen. On the current site some appear in full screen view on my laptop as just scroll bars.
- Please get rid of boxes that jump out at you and obscure the view and please check that everything works sensibly in common browsers (including internet explorer which I know many have almost religious objections to but is still a very common browser)"
- I want to see the web page unchanged. Every time you "improve" the web page I have to spend hours to a) find the new links for the information I am interested in, and b) re-adjust my browser bookmarks to go to the new locations. So, please refrain from changing everything every couple of years (which only means you did not think clearly each time and find the need to revise again and again and again and...)
- Currently I rely entirely on bookmarks to navigate the CMS website, alas. It is not possible to find the things anymore - actually for years now.
- True - the current pages - they look nice! But are useless for everyday use. Can't you make things nicer-looking without sacrificing functionality?