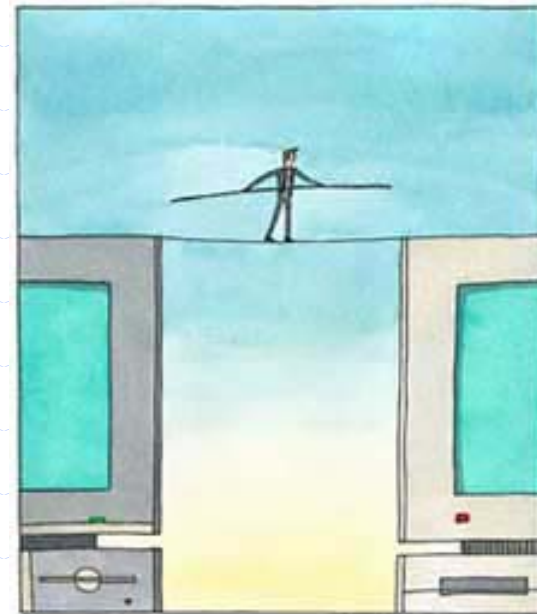


Construir um Web Site

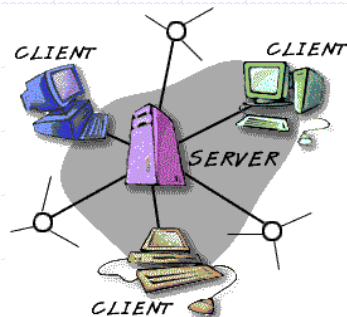
Começar, Planear, Desenhar, Construir e Crescer



(c) Pedro Mateus
pedro.mateus@viriato.net

ISEG, Lisboa, 02 de Dezembro de 2002

Começar... Os "fundamentais"



1. Redes

2. A Rede Internet

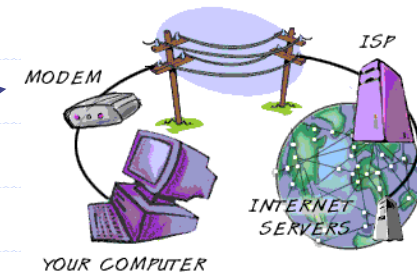
3. A World Wide Web

4. Organizações e Regras

5. Camadas e Cascatas

6. Websites : afinal, o que são?

" Saber conduzir um carro pouco ensina sobre a sua construção "



Organizações "Fundamentais"

Construir um Web Site
Começar, Planear, Desenhar, Construir e Crescer



Standards e Regras

World Wide Web Consortium
<http://www.w3c.org/>

The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential. W3C is a forum for information, commerce, communication, and collective understanding.



Gestão IP

RIPE (Réseaux IP Européens)
<http://www.ripe.net/ripe/about/index.html>

RIPE (Réseaux IP Européens) is an **open** collaborative community of organisations and individuals, operating wide area IP networks in Europe and beyond. The objective of the RIPE community is to ensure the administrative and technical coordination necessary to enable operation of a pan-European IP network.



Endereços: Nomes e IP

Internet Corporation for Assigned Names and Numbers
<http://www.icann.org/>

The Internet Corporation for Assigned Names and Numbers (ICANN) is the non-profit corporation that was formed to assume responsibility for the IP address space allocation, protocol parameter assignment, domain name system management, and root server system management functions previously performed under U.S. Government contract by IANA and other entities.

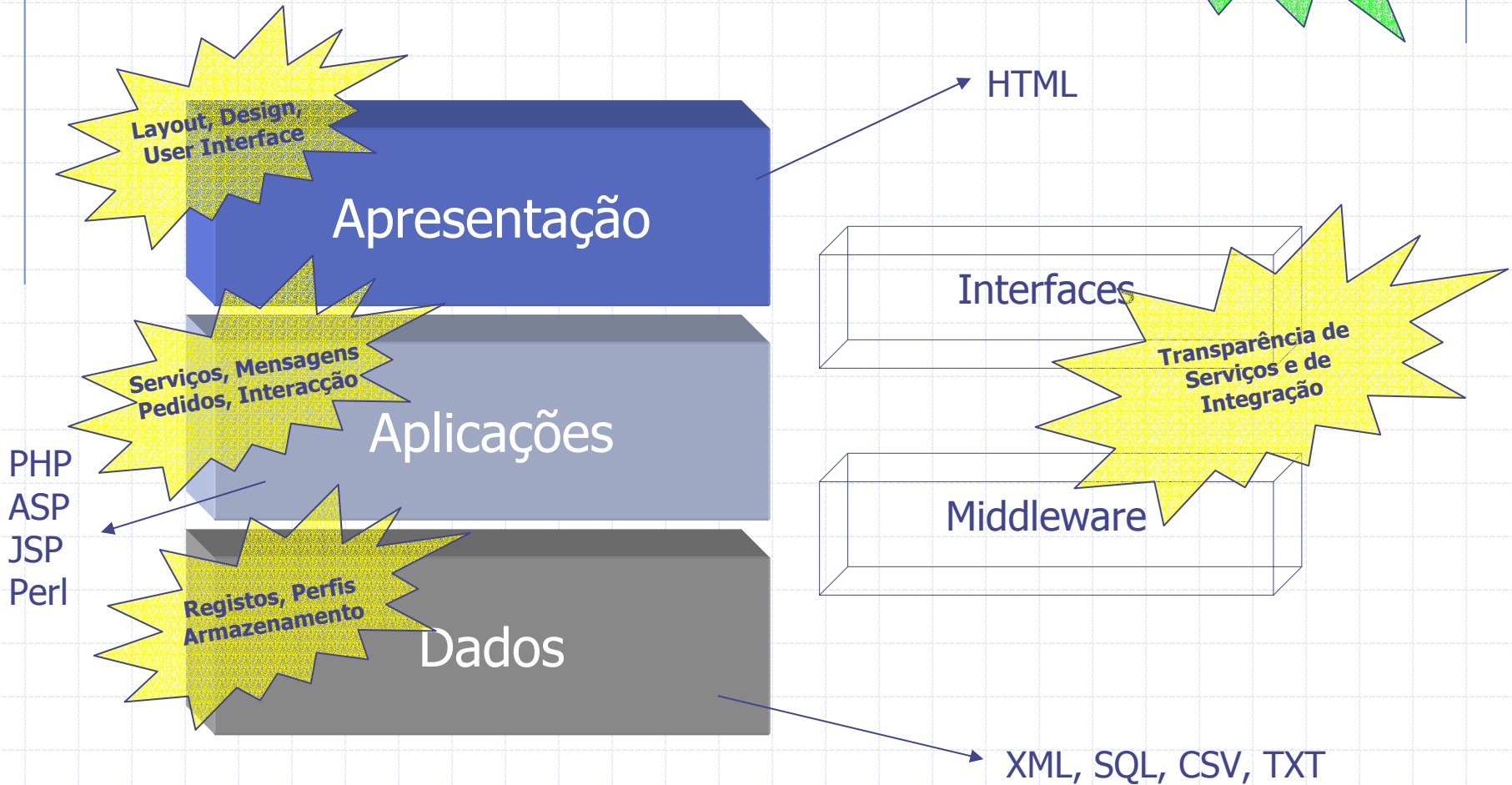


Construir um Web Site

Começar, Planear, Desenhar, Construir e Crescer

Entender o CONCEITO da tecnologia "aquilo que nos suporta o negócio"

Camadas e Cascatas

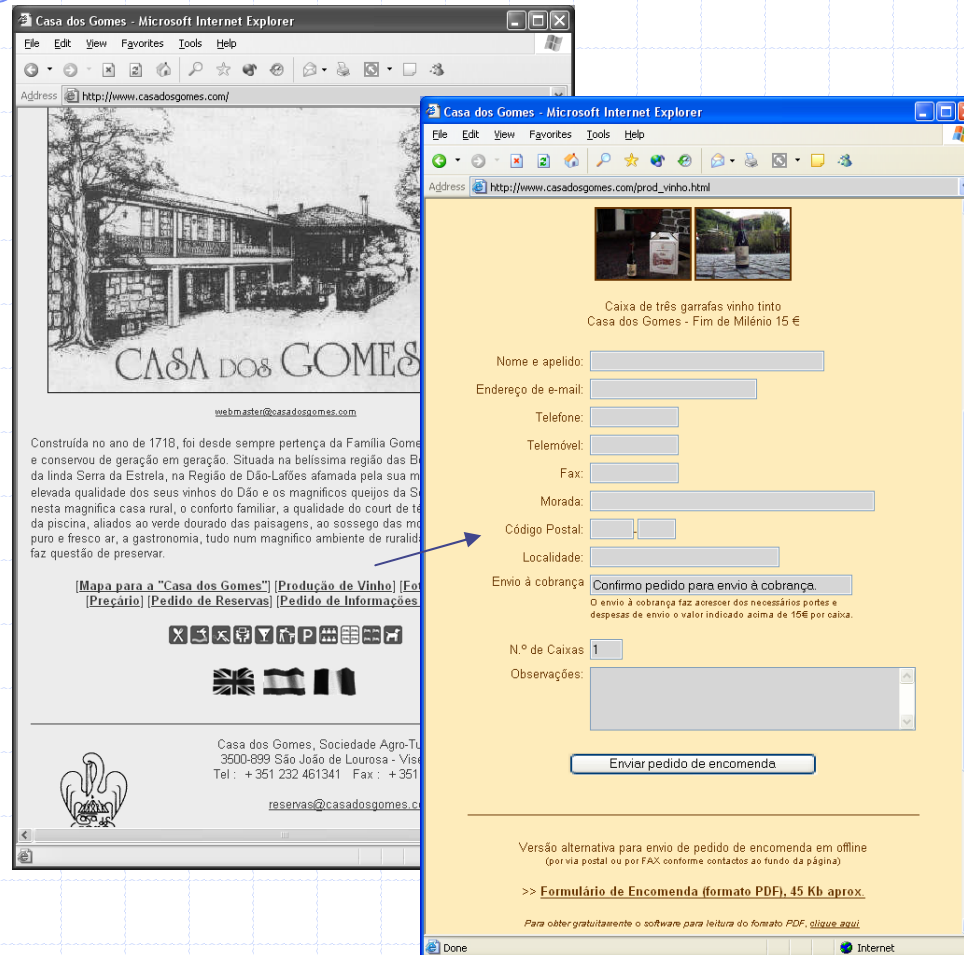


Construir um Web Site

Começar, Planear, Desenhar, Construir e Crescer

Camadas

Exemplo prático – Site com Formulário de Compra



Apresentação

Fotos
Textos
Instruções
Action Buttons

Aplicações

Validar campos
Processar registos
Enviar mails
Enviar pedidos

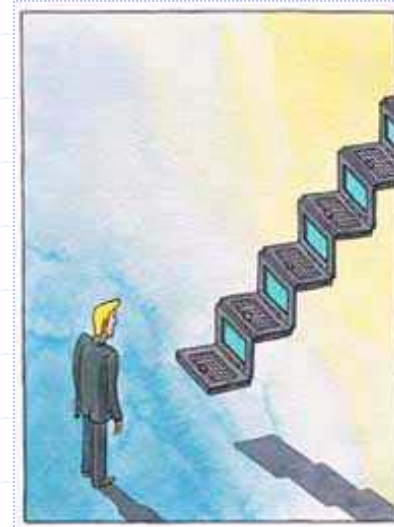
Dados

Guardar registos
Manter históricos
Armazenar perfis

Planear

Os primeiros passos
Focus, método e interacção

1. Organização
 - O que vai o utilizador "sentir"?
 - A (única) página e o (mega) site
 - Secções
 - Navegação
2. Conteúdos
3. Artigos
4. Links
5. Design e Layout



**É o website da
sua empresa!**

**Não é o website
dos fornecedores!**

**É a sua empresa
que lidera, que
decide, que actua!**

Desenhar... ... Arquitectar

1. Qual é (afinal) o seu objectivo?
2. Ideias
3. Rever e focar
4. Compromissos e Concessões
5. Conteúdos
6. A equipa

1. Marketing

The marketing team focuses on the intended purposes and audiences for the web site. They must understand what will bring the right people to the web site and what will bring them back again.

2. Information Architecture

The information architects focus on the design of organization, indexing, labeling, and navigation systems to support browsing and searching throughout the web site.

3. Graphic Design

The designers are responsible for the graphic design and page layout that defines the graphic identity or look of the web site. They strive to create and implement a design philosophy that balances form and function.

4. Editorial

Editors focus on the use of language throughout the web site. Their tasks may involve proofreading and editing copy, massaging content to ensure a common voice for the site, and creating new copy.

5. Technical

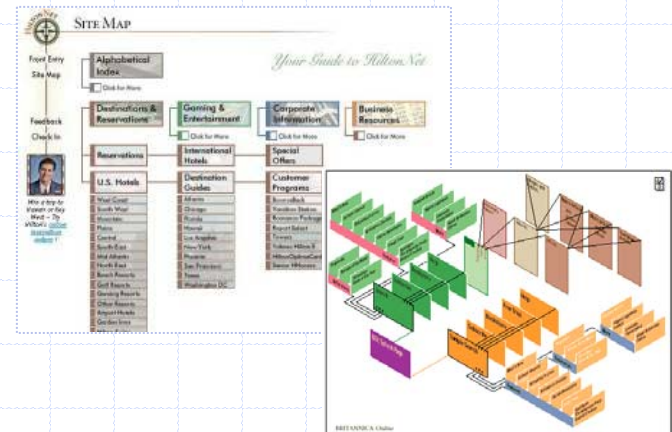
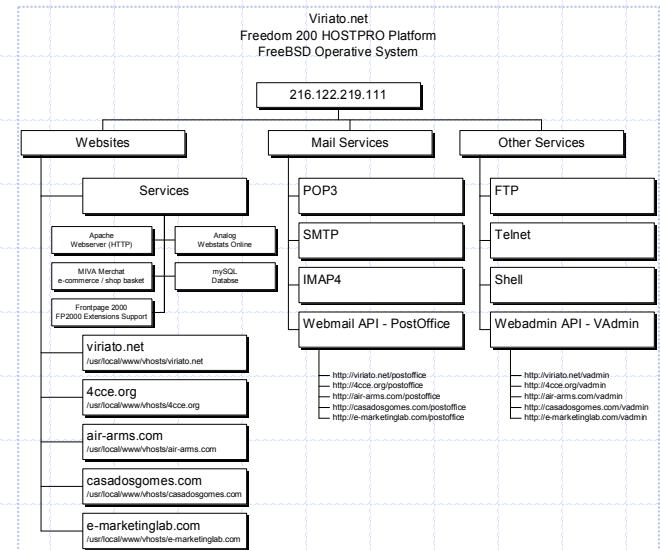
The technical designers and programmers are responsible for server administration and the development or integration of site production tools and web site applications. They advise the other teams regarding technology-related opportunities and limitations.

6. Project Management

The project manager keeps the project on schedule and within budget. He or she facilitates communication between the other teams and the clients or internal stakeholders.

Desenhar... Mapas e Plantas

1. Hierarquias
2. Fluxos
3. Contactos
4. Standards & Regras
Conseguir Manter e Mudar
5. Conteúdos e Aplicações
6. Requisitos & Funcionalidades



Construir

1. Modelo de Dados Requisitos e Funcionalidades

1. Organizar
2. Consultar
3. Pesquisar
4. Optimizar

2. Centralizar para melhor distribuir

1. De uma linha ao Data Warehouse

3. Desenvolver dentro ou fora de portas?

1. Recursos, Focus, Cadeia de Valor
2. Web Design e Web Development
3. Engenharia vs. Engenho de Bate Chapá

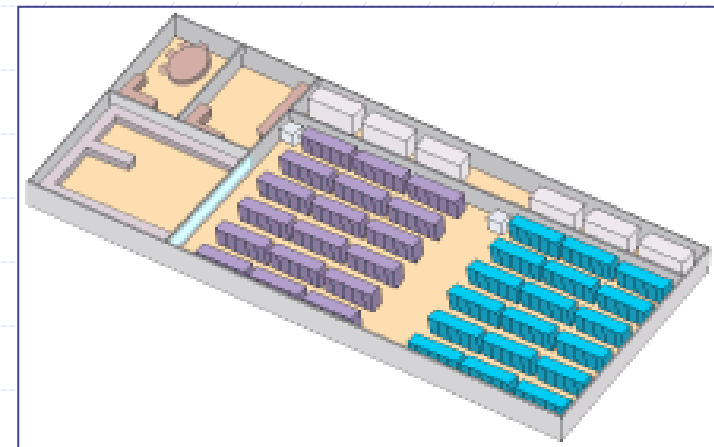
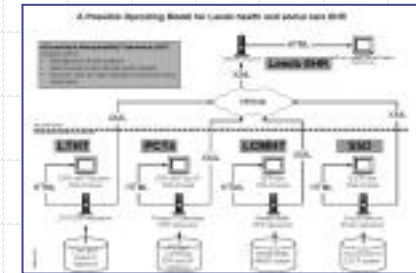
4. Alojjar (ISP)

1. Oferta Nacional e Internacional
2. Garantias (SLA)

5. Manter, operar, gerir e antecipar

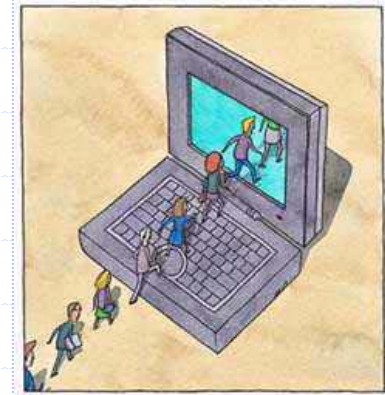


```
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  Telemovel</font></td>
  <td width="297" <font color="#663300" face="Arial" size="2"><input
  type="text" name="telmovel" size="12"></font></td>
</tr>
<tr>
  <td width="171" align="right"><font color="#663300" face="Arial" size="2">
  </font></td>
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  type="text" name="fax" size="12"></font></td>
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  <input name="cobranca" size="45" value="Confirma pedido para envio à
  Franca." <font color="#663300" size="1" <span style="font-family:
  a" </span>
  </td>
</tr>
</pre>
```



Crescer

1. Indicadores e "Palpites"
2. Qual a verdadeira medida de sucesso?
 1. Vendas?
 2. Capital de Marca?
 3. Reduzir custos?
 4. Acelerar processos?
3. A tecnologia e o negócio – manter o rumo
 1. Por ser novo não implica que inove (paradigmas) – e.g., XML (atitude, pensamento)
4. Crescer ou engordar?
 1. Maior e mais complexo
 2. Menos e mais ágil
 3. Focar, focar, focar!



Crescer

Indicadores e Logs

Standard do Ficheiro **ACCESS_LOG** (NCSA compliant)

IP Address, **Date and Time**, **Action**, **File**,
Protocol, **Status**, **Bytes**, **URL**, **Browser**



```
200.212.144.178 - - [20/Jul/2001:17:01:22 +0100] "GET /bullets_black.gif HTTP/1.0" 200  
114 "http://www.air-arms.com/bushnell.html" "Mozilla/4.0 (compatible; MSIE 5.01; Windows NT 5.0)"
```

```
200.212.144.178 - - [20/Jul/2001:17:01:23 +0100] "GET /bushnell/bushnell-logo.gif HTTP/1.0" 200 4417 "http://www.air-arms.com/bushnell.html" "Mozilla/4.0 (compatible; MSIE 5.01; Windows NT 5.0)"  
200.212.144.178 - - [20/Jul/2001:17:01:23 +0100] "GET /bushnell/sp-3-9-40.jpg HTTP/1.0" 200 4158 "http://www.air-arms.com/bushnell.html" "Mozilla/4.0 (compatible; MSIE 5.01; Windows NT 5.0)"  
200.212.144.178 - - [20/Jul/2001:17:01:24 +0100] "GET /hakko/hakko-logo.gif HTTP/1.0" 200 1261
```

O ficheiro de access_log (no standard multi-plataforma NCSA) é a “matéria prima” de **qualquer** ferramenta de processamento de logs **e não possui qualquer valor de “visitantes”**. Apenas é registado o endereço IP (único per se) da **máquina** a partir do qual **um número indeterminado e absolutamente desconhecido de** utilizadores procedem a **um número determinado e registado de visitas a páginas – “page views”**. As estimativas possíveis passam pelo fixar de uma constante multiplicativa ou divisória em função do número de IPs únicos registados. Esta é uma matéria factual e científica, demonstrada e (re)conhecida. Interpretações e extrapolações destes valores dependem de **hipóteses** e de **análises** baseadas em **variáveis exógenas aos dados presentes** no ficheiro de access_log.

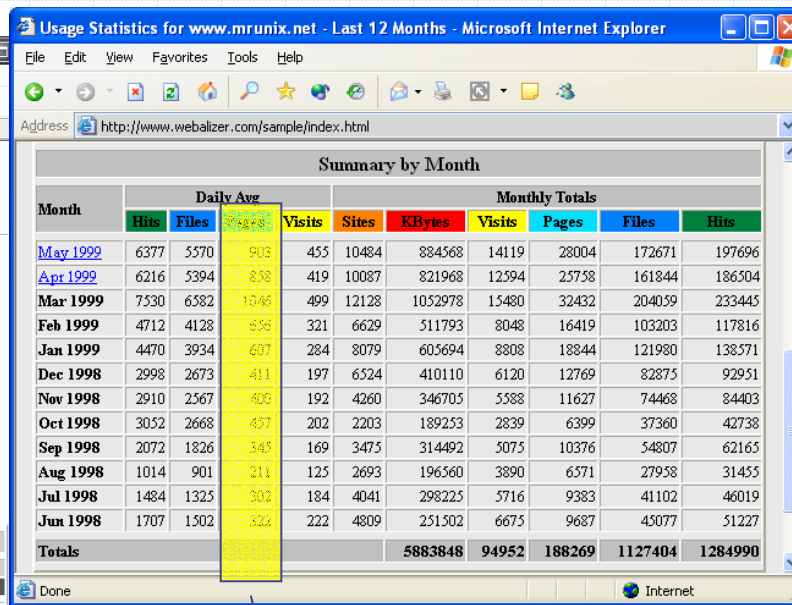
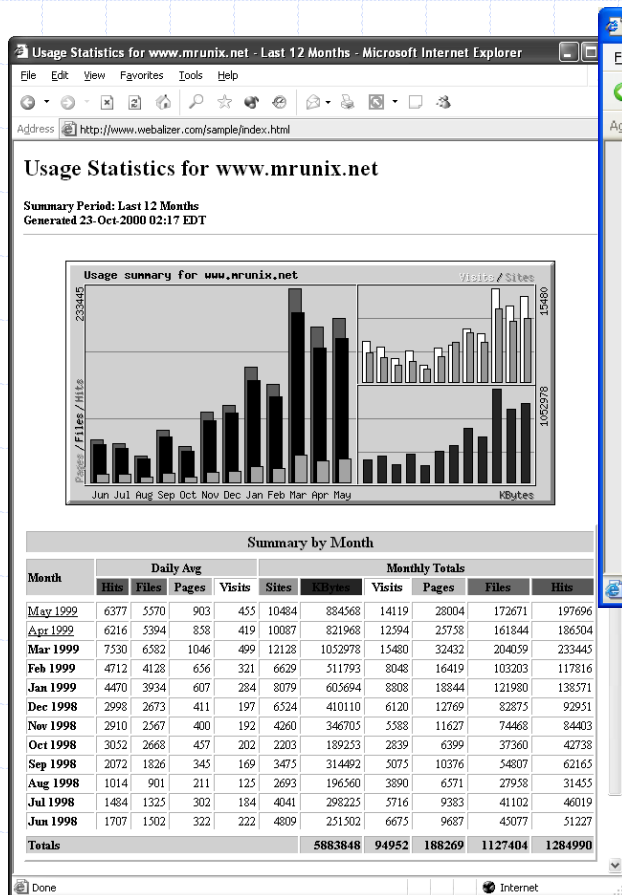
Caso Prático: Webalizer

Construir um Web Site

Começar, Planear, Desenhar, Construir e Crescer

Software gratuito e sem restrições para processamento de logs de acesso – estatística descritiva

Disponível em versões para todos os sistemas operativos: Linux, Solaris, Irix, Cobalt, SCO, OS/2, Open VMS e Windows



Controlar...!

Média Diária de Páginas Visitadas

Procurar...?

Visitantes, Tempos de Visita,
Percursos de Visita, Opções de Navegação

Implementar
LOGIN

Construir um Web Site

Começar, Planear, Desenhar, Construir e Crescer

Caso Prático: Webalizer

Definições e Conceitos Chave

Hits represent the total number of requests made to the server during the given time period (month, day, hour etc..).

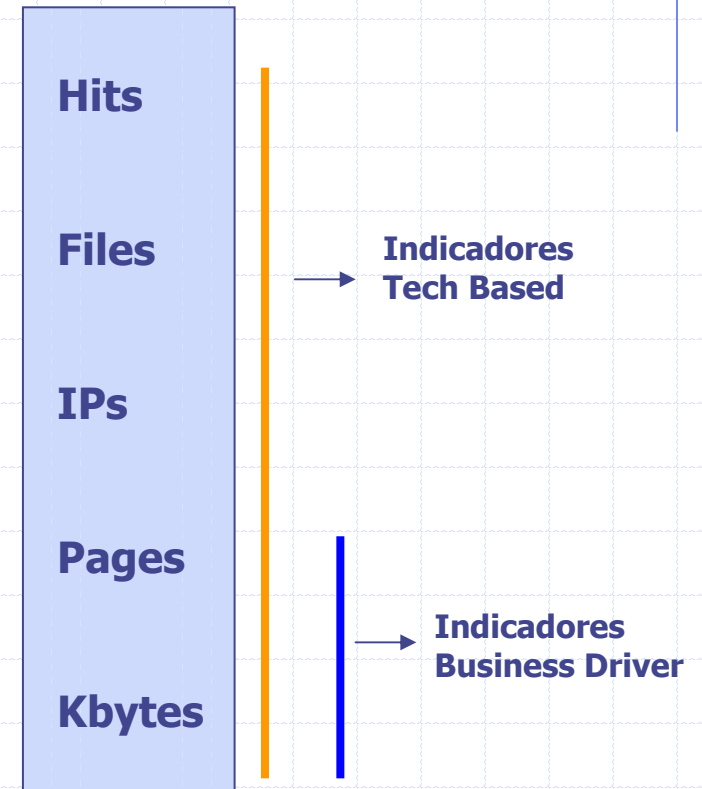
Files represent the total number of hits (requests) that actually resulted in something being sent back to the user. Not all hits will send data, such as 404-Not Found requests and requests for pages that are already in the browsers cache.

Tip: By looking at the difference between hits and files, you can get a rough indication of repeat visitors, as the greater the difference between the two, the more people are requesting pages they already have cached (have viewed already).

Sites is the number of unique IP addresses/hostnames that made requests to the server. Care should be taken when using this metric for anything other than that. Many users can appear to come from a single site, and they can also appear to come from many ip addresses so it should be used simply as a rough guage as to the number of visitors to your server. **Visits** occur when some remote site makes a request for a *page* on your server for the first time. As long as the same site keeps making requests within a given timeout period, they will all be considered part of the same Visit. If the site makes a request to your server, and the length of time since the last request is greater than the specified timeout period (*default is 30 minutes*), a new Visit is started and counted, and the sequence repeats. Since only *pages* will trigger a visit, remotes sites that link to graphic and other non- page URLs will not be counted in the visit totals, reducing the number of *false* visits.

Pages are those URLs that would be considered the actual page being requested, and not all of the individual items that make it up (such as graphics and audio clips). Some people call this metric *page views* or *page impressions*, and defaults to any URL that has an extension of .htm, .html or .cgi.

A **KByte** (KB) is 1024 bytes (1 Kilobyte). Used to show the amount of data that was transferred between the server and the remote machine, based on the data found in the server log.



Caso Prático: Webalizer Variantes - Analyser

Web Server Statistics for the Statistical Laboratory

Program started at Sun-01-Dec-2002 00:10.
Analysed requests from Thu-28-Jul-1994 20:31 to Sat-30-Nov-2002 23:59
(3047.14 days).

General Summary

(Go To: [Top](#): [General Summary](#): [Monthly Report](#): [Daily Summary](#): [Hourly Summary](#): [Domain Report](#): [Organisation Report](#): [Search Word Report](#): [Operating System Report](#): [Status Code Report](#): [File Size Report](#): [File Type Report](#): [Directory Report](#): [Request Report](#))

This report contains overall statistics.

(Figures in parentheses refer to the 7-day period ending 30-Nov-2002 23:59).
Successful requests: 50,006,832 (121,791)
Average successful requests per day: 16,411 (17,398)
Successful requests for pages: 19,318,509 (51,482)
Average successful requests for pages per day: 6,339 (7,354)
Failed requests: 3,393,485 (11,587)
Redirected requests: 1,030,950 (12,535)
Distinct files requested: 43,974 (3,345)
Corrupt logfile lines: 12,484
Unwanted logfile entries: 75
Data transferred: 738.63 gigabytes (2.91 gigabytes)
Average data transferred per day: 248.22 megabytes (426.30 megabytes)

Monthly Report

(Go To: [Top](#): [General Summary](#): [Monthly Report](#): [Daily Summary](#): [Hourly Summary](#): [Domain Report](#): [Organisation Report](#): [Search Word Report](#): [Operating System Report](#): [Status Code Report](#): [File Size Report](#): [File Type Report](#): [Directory Report](#): [Request Report](#))

Web Server Statistics for the Statistical Laboratory

Month	Requests	Pages	Average
Oct 2001:	947,300:	327,827:	17.03:
Nov 2001:	946,415:	320,852:	16.45:
Dec 2001:	664,038:	252,572:	10.84:
Jan 2002:	585,889:	261,501:	9.58:
Feb 2002:	573,889:	243,841:	10.17:
Mar 2002:	574,680:	239,083:	10.97:
Apr 2002:	563,383:	228,492:	11.49:
May 2002:	604,163:	245,231:	13.16:
Jun 2002:	510,743:	219,046:	10.54:
Jul 2002:	540,320:	234,382:	10.57:
Aug 2002:	544,073:	240,147:	10.42:
Sep 2002:	525,343:	219,083:	11.14:
Oct 2002:	589,117:	243,108:	13.37:
Nov 2002:	577,686:	244,029:	13.63:

Busiest month: Apr 2001 (583,246 requests for pages).

Daily Summary

(Go To: [Top](#): [General Summary](#): [Monthly Report](#): [Daily Summary](#): [Hourly Summary](#): [Domain Report](#): [Organisation Report](#): [Search Word Report](#): [Operating System Report](#): [Status Code Report](#): [File Size Report](#): [File Type Report](#): [Directory Report](#): [Request Report](#))

This report lists the total activity for each day of the week, summed over all the weeks in the report.

Each unit (█) represents 80,000 requests for pages or part thereof.

day:	pages:
Sun:	2,148,264:
Mon:	2,782,789:
Tue:	3,075,897:
Wed:	3,074,700:
Thu:	3,013,027:
Fri:	2,840,842:
Sat:	2,382,990:

Hourly Summary

<http://www.analog.cx/>

<http://www.statslab.cam.ac.uk/webstats/stats.html>

Construir um Web Site

Começar, Planear, Desenhar, Construir e Crescer

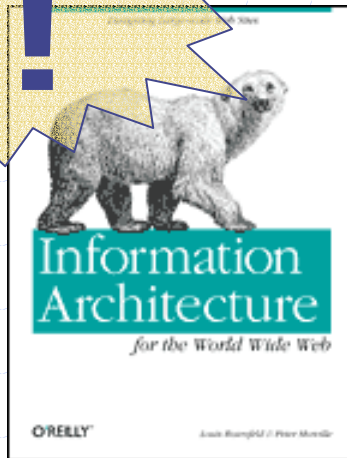
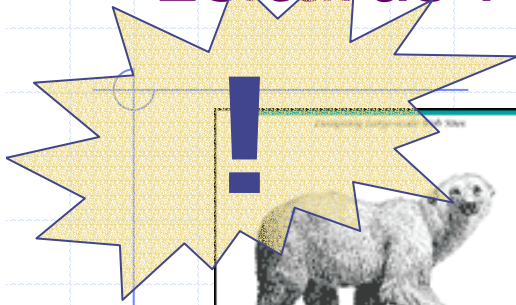
1. Use Cases
2. Camadas
3. Mapas
4. Indicadores

Memo



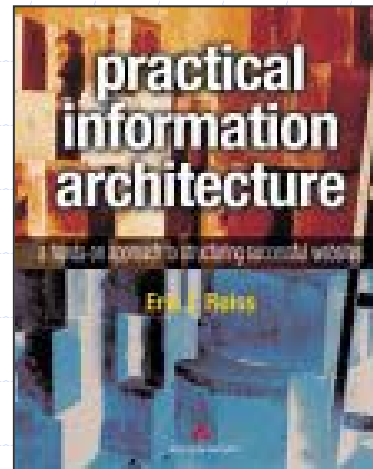
1. Missão, Objectivo, Segmentos, Medir Sucesso
 1. Para que serve o website (**ao utilizador e cliente antes da empresa**)
 2. Que navegação (**seja utilizador e não gestor**)
 3. Que conteúdos (**seja consumidor e não comprador**)
 4. Que aplicações
 5. Intranet, Extranet, Website Corporativo, Eventos, E-Commerce, Porta
 6. Vendas, páginas visitadas, capital de marca
2. Descrever "Use Cases" (UML)
 1. "... Escolhendo pela manhã de 2.a feira as datas de entrada e local de destino o utilizador pode obter os resultados de reservas disponíveis para o avião X e o comboio Y listadas por preço crescente... "
3. O Mapa – Entradas, Saídas e Percursos
 1. Camadas (Layers) – toda a Internet funciona por camadas!
 2. Planear – **esqueçam os Powerpoints e os Visios – papel, lápis e borracha!**
 3. Testar – Focus Groups, **Photoshop antes do HTML!**
 4. Medir e Mudar – **sejam científicos, não emotivos!**
4. Construir e Crescer
 1. Existe IT interno vs. Opção de Outsource
 2. Alojamento (Interno, Externo, Nacional, Internacional, Housing, Hosting)

Leituras recomendadas...



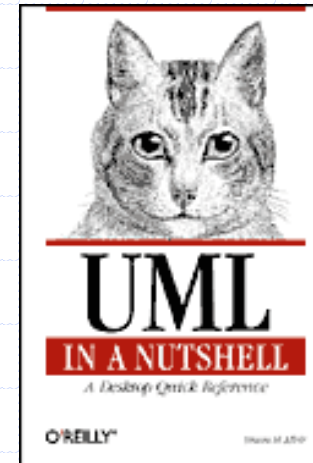
**Information Architecture for the WWW
Designing Large-scale Web Sites**
1st Edition February 1998
1-56592-282-4
Order Number: 2824

Learn how to merge aesthetics and mechanics to design web sites that "work." This book shows how to apply principles of architecture and library science to design cohesive web sites and intranets that are easy to use, manage, and expand. Covers building complex sites, hierarchy design and organization, and techniques to make your site easier to search. For webmasters, designers, and administrators.



Practical Information Architecture
207 pages (October 2000)
Addison Wesley; ISBN: 0201725908
by Eric L. Reiss

A step-by-step guide for readers explaining the process of creating an underlying structure for a web site. Topics covered include: Setting and achieving website goals; translating the site's goals into meaningful content; organizing the content so that visitors can find what they're looking for.



UML in a Nutshell
September 1998
1-56592-448-7
Order Number: 4487

The Unified Modeling Language (UML), for the first time in the history of systems engineering, gives practitioners a common language. This concise quick reference explains how to use each component of the language, including its extension mechanisms and the Object Constraint Language (OCL). A tutorial with realistic examples brings those new to the UML quickly up to speed.