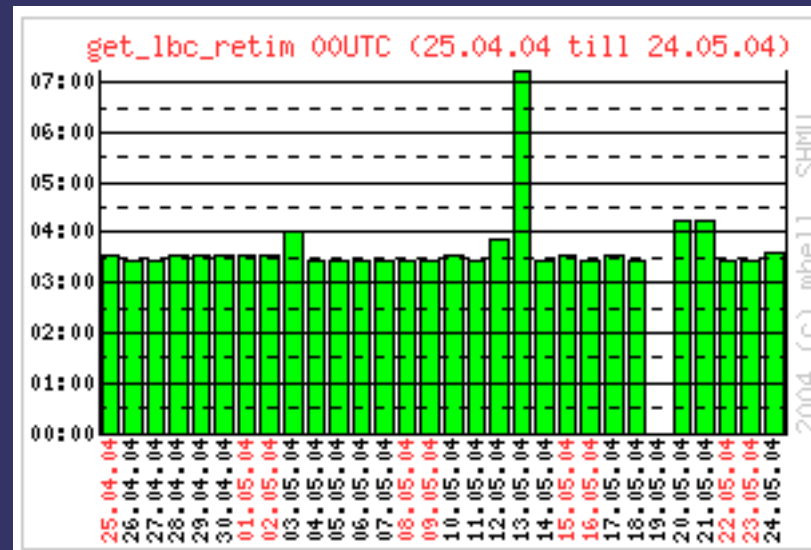


Documentation and monitoring system of operational applications at SHMI

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(email: bellus@shmu.sk)

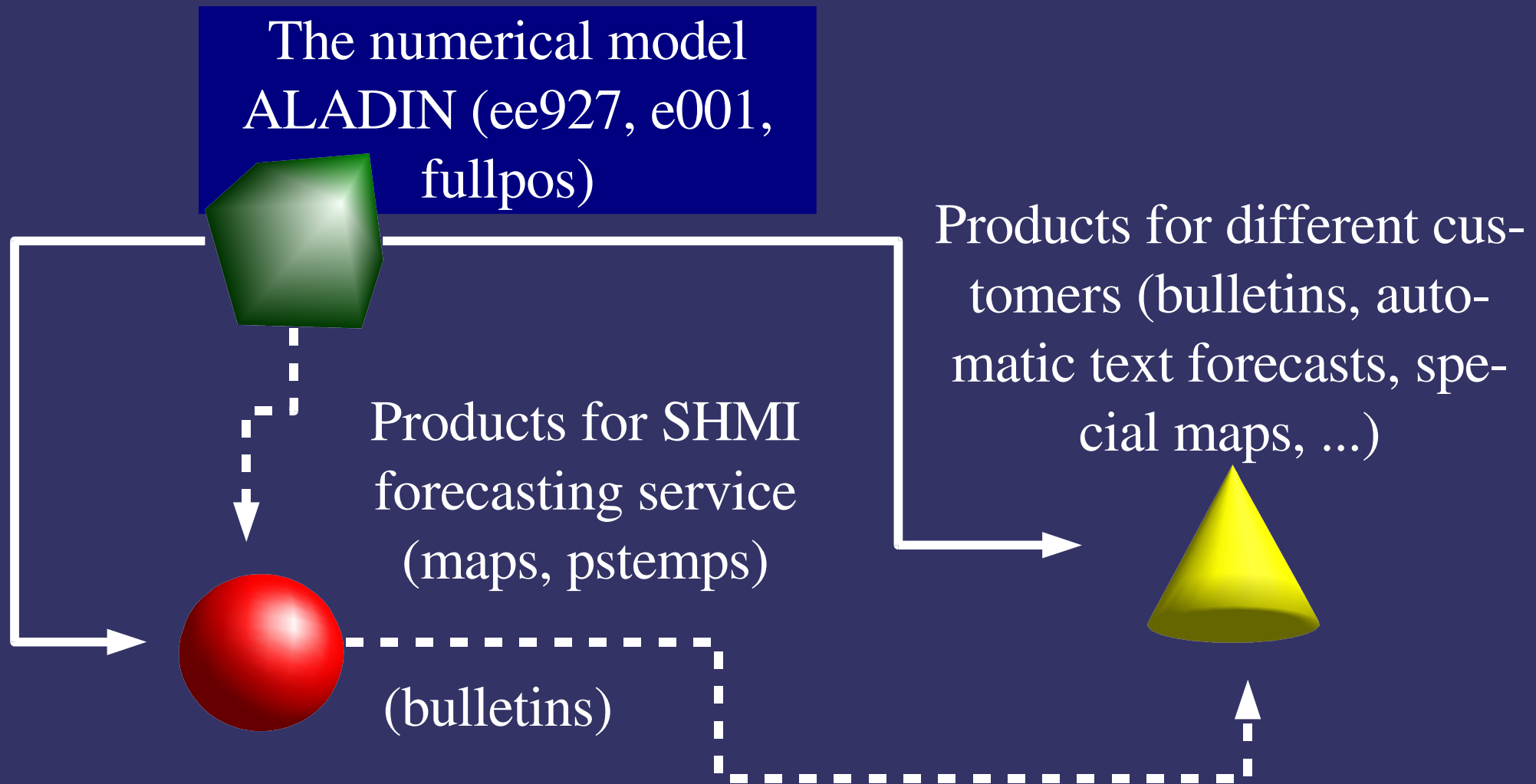


run_app ® 2003-2004 © J.Masek & M.Bellus


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- ✓ Operational suite before and now (time evolution)
- ✓ Perl “run_app” operational system (the main structure)
- ✓ Online documentation and monitoring (the idea)
- ✓ The main features of “run_app” system
- ✓ Offline presentation of D&M system (via web interface)

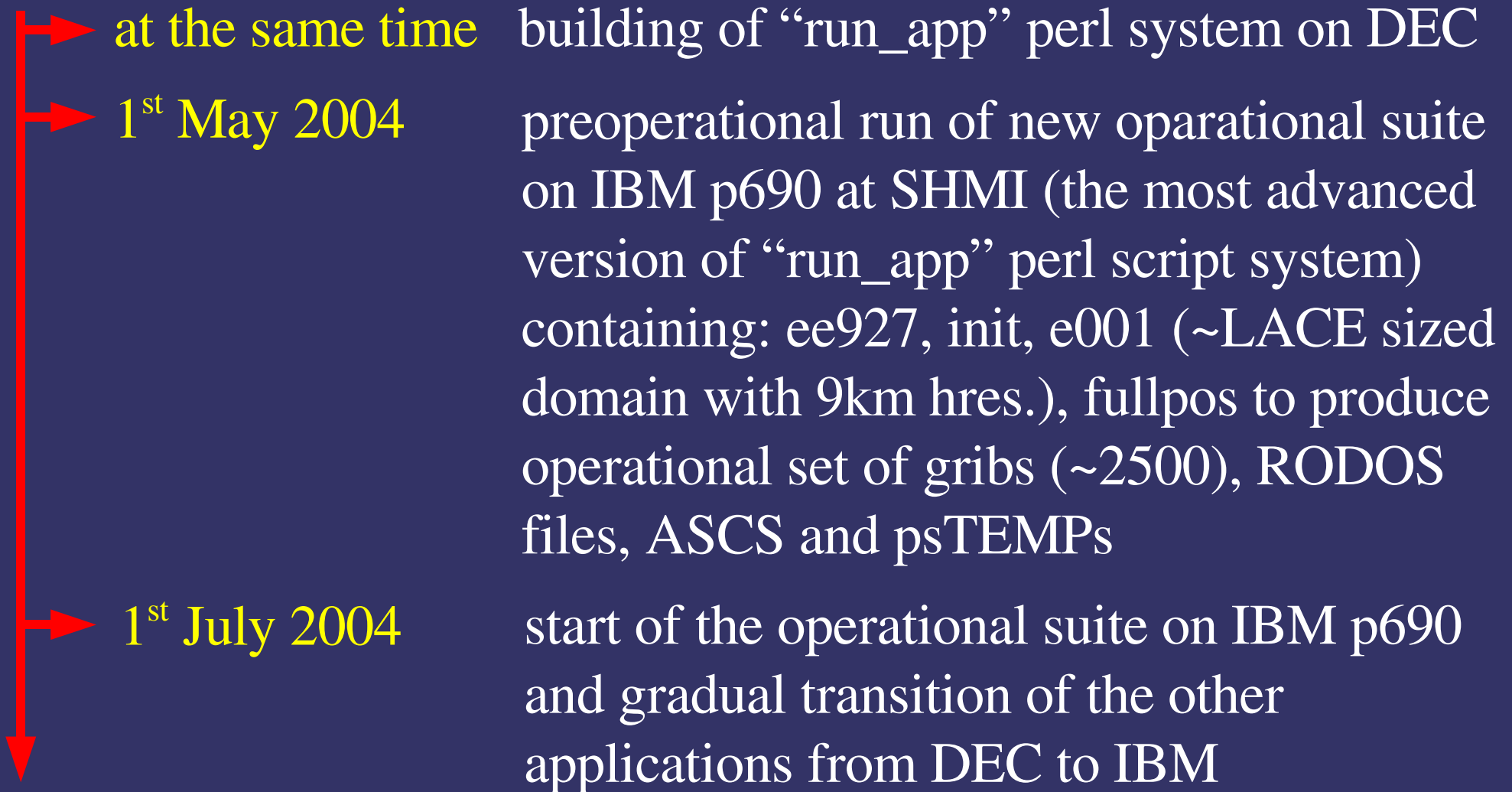
Operational applications at SHMI



Operational suite before and now (1/2)

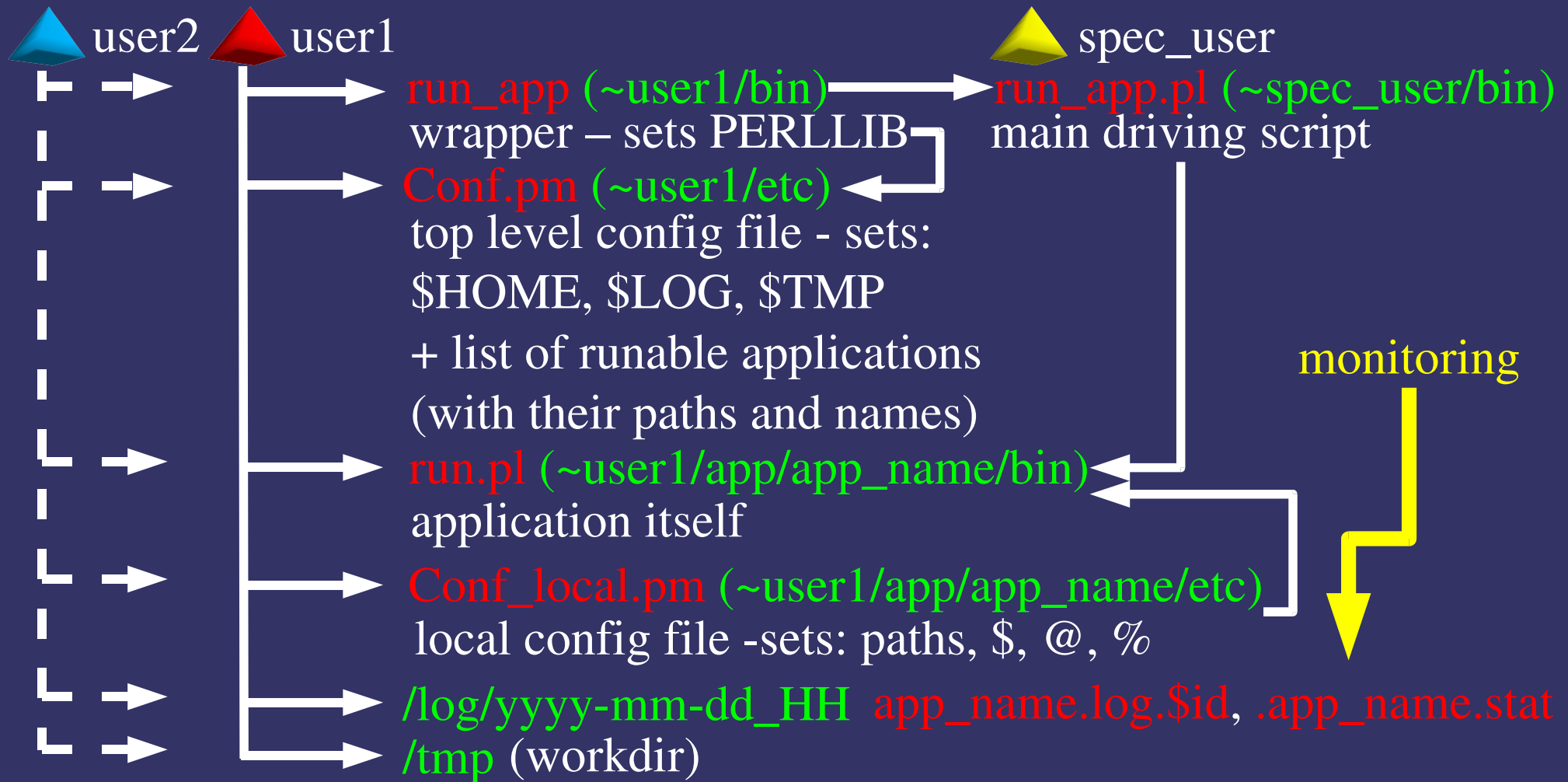
- 
- before 2002 individual shell scripts and applications spreaded among different users (uncomfortable, very difficult to maintain, almost impossible to monitor)
 - 1st January 2003 end of common LACE operational production => cooperation with ZAMG (we were forced to build small “oper” suite on SGI in Vienna to produce the Prague's products) => the first prototype of our suite based on perl scripts

Operational suite before and now (2/2)

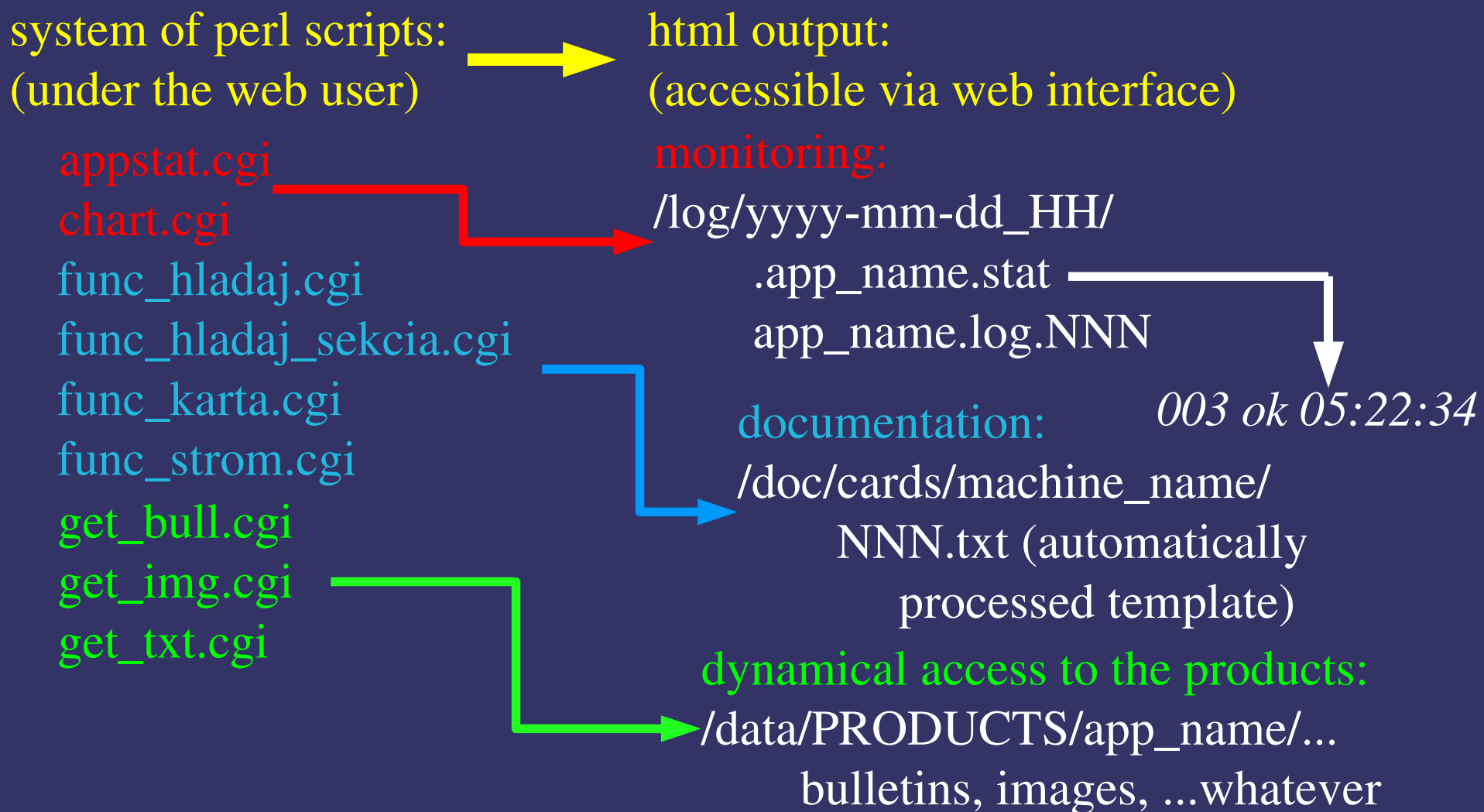


Perl “run_app” operational system

user1\$ **run_app** <app_name> <dd-mm-yyyy_HH> [<arg1> [<arg2> ...]]

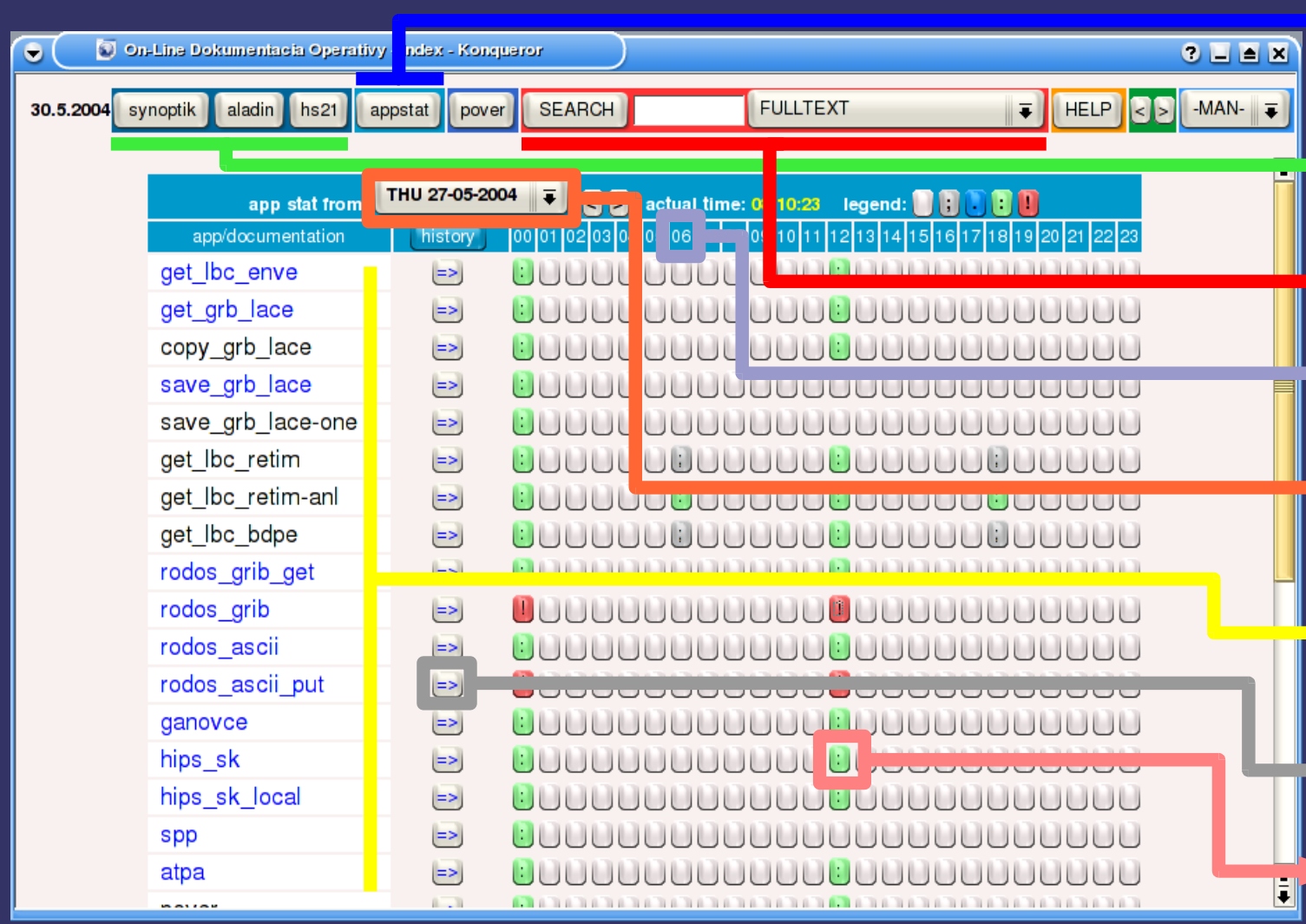


Online documentation and monitoring (1/3)



Online documentation and monitoring (2/3)

web interface (main screen – main functions):



monitoring
button

different
servers

searching engine

range/hour

monitored
date

documentation
card for app.

application
history

application status

Online documentation and monitoring (3/3)

Complex app. monitoring:

The screenshot displays a complex web-based monitoring interface. On the left, a sidebar titled 'On-Line Dokumentacia Operativy - Index - Konqueror' shows a list of application components with their status (green or red) and control buttons. The main content area is divided into three sections:

- Terminal Window:** Shows the execution of a script to download LBC files. The output includes:


```

      ---> Downloading LBC files: 26-05-2004 00 UTC
      Waiting for exclusive lock ... OK
      Downloading file: PFNASULACE+0012
      Downloading file: PFNASULACE+0018
      Downloading file: PFNASULACE+0024
      Downloading file: PFNASULACE+0030
      Downloading file: PFNASULACE+0036
      Downloading file: PFNASULACE+0042
      Downloading file: PFNASULACE+0048
      All LBC files were downloaded successfully.
      
```
- Application Status Table:** Titled 'get_lbc_enve along last 20 days: 11.05.2004 - 30.05.2004'. It features a grid of status indicators (green/red) for each day of the month.

date / hist:	31	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
11.05.2004 TUE		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
12.05.2004 WED		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
13.05.2004 THU		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
14.05.2004 FRI		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
15.05.2004 SAT		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
16.05.2004 SUN		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
17.05.2004 MON		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
18.05.2004 TUE		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
19.05.2004 WED		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
20.05.2004 THU		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
21.05.2004 FRI		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
22.05.2004 SAT		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
23.05.2004 SUN		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
24.05.2004 MON		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
25.05.2004 TUE		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
- Bar Chart:** Titled 'get_lbc_enve 00UTC (30.04.04 till 30.05.04)'. It shows a daily data series with a significant peak on May 12th, 2004, reaching approximately 08:00. The y-axis represents time from 00:00 to 09:00.

The main features of “run_app” system

- ✓ Modularity (it is very easy to expand the system and to add new applications)
- ✓ portability (perl scripts and modules independent on platform)
- ✓ easy modifications through config. files
- ✓ unified system of running, logging and monitoring of the applications (everything is managed by the top level driving script)
- ✓ using environmental variables for communication between the scripts at the different levels
- ✓ developed by our nwp group (full control over the system, modifications according to our needs)

Offline presentation of D&M system

...here comes the offline presentation, don't go away!