GexCon
A company in the CMR group

MINUTES OF MEETING

Meeting : **FLACS USER GROUP**

Venue : **CMR, BERGEN**

Dates : **March, 2000**

Prepared by : **Are Bratteteig**

Distribution:

Veronique Vaslier	Gaz de France
Pierre Foisselon	Gaz de France
Chris Savvides	BP International Ltd
Vincent Tam	BP International Ltd.
Stian Høiset	Hydro ASA
Olav Sæter	Hydro ASA
Sandra Nilsen	Hydro ASA
Doug Hissong	Exxon Production Research Co.
Solveig R. Ryum	Dovre Safetec
Karl Ove Ingebrigtsen	Scandpower AS
Ingar Fossan	Scandpower AS
Bjørn Hekkelstrand	Scandpower AS
Inger Maren Tveit	Det norske Veritas AS
Asmund Huser	Det norske Veritas AS
Arve A. Kvien	Det norske Veritas AS
Lene Stavseng	Det norske Veritas AS
Trond Elvehaug	Det norske Veritas AS
Thor Egil Foyn	Det norske Veritas AS
Øystein Palmgren	Aker Engineering
Jan Terje Birkeland	Aker Engineering
Lars Bak	Aker Engineering
Olga Merete Slyngstad	Aker Engineering
Kari Frederichsen	Aker Engineering
Idar Storvik	CMR AS
Bjørn Arntzen	CMR AS
Kees van Wingerden	CMR AS
Thor Gjesdal	CMR AS
Tor Langeland	CMR AS
Simen Armond	CMR AS
Olav R. Hansen	CMR AS
Øystein Skaar	GexCon AS
Are Bratteteig	GexCon AS

Hans-Christen Salvesen	GexCon AS
Ole Jacob Taraldset	GexCon AS
Jan Roar Bakke	GexCon AS
Einhild Eliassen	GexCon AS
Michael Rifkind	MEPTEC/MPN Offshore Capital

1. Adoption of Agenda
The Agenda was adopted without changes.

2. Minutes of Previous Meeting
Question was raised in regards to missing actions from previous meeting.
Jan Roar Bakke said he would comment upon this during the meeting.

3. Presentations from CMR and GexCon

3.1 Future development of FLACS
Idar Storvik gave a presentation of new features and bug fixes in future versions of FLACS. An electronic copy of the presentation is placed on the FLUG web site.
Key points:

CASD 5 with hard ware accelerated graphics
rd-mapping between different grids
Deliverables of new FLACS version are not yet determined
Flowvis and Casd: minor bug fixes
FlACS burning velocity: change in data set
Panels: (minor)

- **Delivery of FLACS99**
  Target date for delivery of FLACS99 beta version to owners and GexCon is set to May 1, and the full release September 1.

3.2 Demonstration of CASD 5 (with hard ware accelerated graphics)
Gro Grov Sørdal gave a demonstration of CASD 5. The following comments were raised during the demonstration:

1. Save walk through for presentation purposes:
   Make it possible to log a walk through path to file, so that it can be replayed later.
2. User interaction:
   Functionality for selecting many primitives at a time for texturing.
   (Will probably be implemented in CASD 2000 as a part of "Improved user interaction")
3. Output formats:
   Additional output formats: GIF, JPEG and MPEG (for animations).
4. Include Volume visualisation functionality
5. Test Stereo viewing
   (Open Inventor supports stereo viewing with shutter glasses.)
6. Visualise maximum values

Reply to comments, by Tor Langeland: Points 1,3,4 and 6 are not included in this year's plan. Point-5 is a simple test and will be performed

3.3 Validation of FLACS
Simen Armond gave a presentation on how validation of FLACS is performed and specifically what has been done in validating recent developments in FLACS. An electronic copy of the presentation is placed on the FLUG web site.

3.4 FLACS in the future
Olav R. Hansen gave a presentation on how CMR foresees the future development of FLACS with respects to explosion, blast and dispersion simulations. An electronic copy of the presentation is placed on the FLUG web site.

3.5 Use of Q5 instead of ERfac
Olav R. Hansen <olav@cmr.no> gave a presentation on why the Q5 should be used instead of Erfac for the transition from dispersion to explosion simulation.
An electronic copy of the presentation is placed on the FLUG wed site.

4. Presentations from FLUG members

4.1 GexCon (Are Bratteteig)
Are Bratteteig held a presentation on geometry optimisation using FLACS.
Q: Olav Sæter asked for validation for using FLACS to run ventilation simulations.
An electronic copy of the presentation is placed on the FLUG wed site.

5. General discussion
The following actions were summarized.

5.1 Actions
- GexCon will evaluate and report feasibiliy of FLUG wishes.
- GexCon to prepare proposal for FLACS development
- GexCon will advise on necessary and optimum hardware and software requirements for running CASD 5 and the price of such (in Norway).
- GexCon will ask GSP to release a public version of the validation report for FLACS98 and later FLACS99.
- Place FLUG presentations on FLUG's web site.
- Come up with requirements for validation of FLACS ventilation simulations. GexCon will ask the FLUG members to contribute with data for validation of ventilation simulation.
- Enable user to specify temperature of gas cloud/release independent of temperature of surrounding air.
- Enable continous ignition
- Enable more than one gas monitor region and plotting utility for such, in Flowvis.
- Enable monitoring of maximum pressure, with location, during the simulation.
- Increase number of monitor panels.
- FLACS I and II courses should to held once a year (if there are enough participants and the courses should be held in connection with the FLUG meetings.
- GexCon will supply a list of relevant declassified CMR-reports.
- Next FLUG meeting will be held in 6 months time, in connection with the next GSP meeting (preferably on a Friday).