TEST REPORT MIRIAL SOFTPHONE 6.0

GENERAL

Testing Period:
The video conference software Mirial Softphone 6.0 (screenshot) was tested in the VCC in april 2008.

SW-Version
The software Mirial Softphone 6.0 was available in the version 6.0.3.

Device Class
The video conference system Mirial Softphone 6.0 is a software client for the operating systems Windows 2000, XP, 2003 and Vista (also 64 Bit). The software runs only with a valid licence file. A testing version is available on the website of the producer. It is applicable for 30 days without limits with the aid of the testing licence.

The producer provides minimum requirements for the hardware configuration which should be paid attention to for a fluent operation of the software.

- PIII CPU with 800MHz for video conferences in standard resolution (CIF)
- P4 CPU with 2GHz for video conferences with high resolution (4CIF)
- Dual Core CPU with 2,6GHz for video conferences in HD-resolution with H.264 Encoding
- A Dual Core CPU with 3GHz is recommended
- 1Gbyte RAM
- DirectX 9.0c or more

The testing system of the VCC was a Core 2 X6800 (2.93GHz) with 2GByte RAM. The operating system was Windows XP SP2. The employed camera was a Logitech Quickcam Pro 9000.

Scope of Delivery
The software can be purchased on the website of the producer. It is applicable right after installation and after involving the according licence file.

Standard webcams as well as High-Definition webcams with a resolution of up to 1280x1024 can be applied for operation. Furthermore, other camera models can be configured in the software with aid of Firewire or Capture Card. The aspect ratio is identified with all options automatically.

Bandwidths
The video conference system facilitates IP-based video conferences with a maximum speed of 2 Mbps at 30 fps.
INSTALLATION

Installation can be carried out under Windows XP fluently. However, the administrator's password is required. The program itself can be applied without the administrator's password. After completion of the installation process a singular configuration wizzard is started. It is possible to set up all system attributes (camera, protocols, H.323 attributes, network parameters...) with the aid of the wizzard. Configuration can be modified later. Various options need to be activated so as to achieve the full scope of functions of the software. Several options are deactivated by default (e.g. H.264 encoding in sending and receiving direction, 4CIF and 720p resolution, H.239).

The sent picture resolution can be decreased gradually should the performance of the processors not be sufficient during operation. This is displayed in the application window of the software by a red CPU symbol.

Installation in Windows Vista led to an error report on the testing system, but yould be carried out successfully on a second system.

TEST

Operation

The operation of the system is difficult to get used to and not intuitive in contrast to the claims of the data sheet. The design of the user interface (see image) is uninspired, not appealing and creates obstacles for working with the program in the beginning. The icons on the program interface are very small and provide few information on their function.

Numerous functions are solely activatable via keyboard entry (e.g. call of a statistics window by pressing 'S' or control of the remote camera with the cursor keys). Therefore, considering the information in the manual (provided in the installation directory as a PDF-file) is highly recommended. The integrated help is linked on a Quickstart Guide which only describes the basic functions of the program interface.

Changing the size of the program window appears to be difficult, as Miral differs from the used Look and Feel from Windows. Adjusting the window size individually is possible only with the right mouse button. The full screen mode does without all entering options and switches the interlocutor into the full image without additional disturbing graphics.

The possibility to carry out two calls simultaneously is astounding: the interlocutor is on hold in "line B" should a call be carried out in "line A". It is possible to switch from conversation to conversation by pressing a button. The interlocutors can be united in a continuous presence multi-point conference with aid from the integrated MCU-functionality. The call can be transferred too.

Ongoing calls can be recorded and archived. A red status bar informs about the progress of the recording process. The recording can be exported into WMV format (Windows Media Video).

After getting used to the controlling of the system, the required functions can be found quickly. The program can be operated fluently from this point on.

Audio/Video

The majority of the tested connections was encoded in G.711u which is not sufficient any more for up-to-date conference systems. Furthermore, the transferred sound was alloyed in some cases by quaility reductions (disturbing volume fluctuations. The audio protocol G.722 is negotiated only in connections with VCON systems (xPoint and vPointHD 8.0), the CODIAN-MCU as well as with other Mirial clients. Very good sound quality was achieved in these connections.

The video was good or even very good in all tested connections. The reached resolutions vary from QVGA up to HD720p accoring to the remote system.

H.264
Sending and receiving H.264 was possible always up to maximum bandwidth of 2Mbps depending on the remote system.

**H.239**

The presentation via H.239 was always very good when slides were transferred. The quality of the display could always be evaluated as very good. The font was always readable from 8px-10px font size on. All tested connections featured a quick slide change. Only the connections with TANDBERG 990 MXP and TANDBERG 6000 MXP featured inadmissible delay when Mirial sent software.

The achieved resolutions for the presentation transmittal vary from XGA (1024x768) to 720p (1280x720) up to a maximum of 1280x768. The data stream was encoded either with H.263+ or with H.264.

The bandwidth for the transmittal of the slides can be set up individually in the menu. Presentation can be transferred in a video stream so as to increase the picture rates or in case the remote system does not feature H.239-support. The own picture is not transferred in this case.

In most cases, the first-time transferral of a H.239 data stream in receiving direction led to a program crash. After restarting the program, a correct transferral was carried out in the second attempt.

**Remote Control**

The remote control always worked provided the technical requirements at the remote stations in sending direction were met. The remote control did not work in receiving direction.

**MCU**

Cooperation with the CODIAN-MCU of the DFN was carried out fluently up to a maximum bandwidth of 2Mbps. Video was sent and received in HD resolution (720p) with H.264.

**Gatekeeper**

Cooperation with the gatekeepers GNU-GK 2.0.7 and CISCO MCM was carried out fluently and stabil. Registering at the devices worked always.

**Miscellaneous**

None of the connections was encoded. Mirial does not offer the possibility to activate or deactivate encoding. No connection can be established should the remote station ask for encoding.

The CPU-load of the tested system was 70-80% on average. However, peaks of 100% were achieved. The Mirial Software informed with a notification in this case.

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**CONCLUSION**

The system Mirial Softphone is a software-based VC system which is recommended for working place use for video and audio conferences in SD and HD are with H.239 functionality if one can do without usability, opulent graphic menus and encoding. The use of 720p depends heavily on the performance of the processor that is underlying.

**Documentation**

Producer: Mirial (formerly DyLogic)
Distributor: AVN Solution

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