

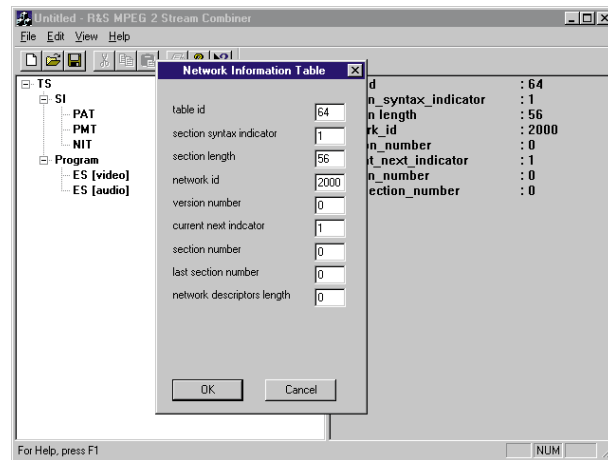
PC software for MPEG2 dream team DVG/DVMD

The two software products Stream Combiner (option for MPEG2 Generator DVG) and Stream Explorer (option for MPEG2 Measurement Decoder DVMD) allow very flexible handling of MPEG2 transport streams. Variation and analysis of data streams is possible down to bit level and overview is guaranteed thanks to the user-friendly Windows interface.

MPEG2 Generator DVG* is especially popular because of its ease of operation and applications: you simply switch it on, select the desired transport stream, and the MPEG2 signal is promptly available. All this is possible with a single unit without a PC, encoder or multiplexer being required. The transport streams supplied by DVG cover the most common types of application. With the **Stream Combiner** software, users with individual applications now have a tool to generate their own specific transport streams by combining elementary streams and by configuring system parameters (FIG). The software offers the following functions:

- Compilation of new transport streams from the supplied elementary stream library; all the elementary streams are coded in a special way such that they can be multiplexed to an endless data flow in DVG.
- Insertion of user-specific elementary streams (MPEG2-coded data files).
- Free creation of MPEG2 system parameters (ie selecting PIDs, editing PAT and PMT, setting the repetition rates of tables).
- Selection and edition of service information including all DVB tables and their descriptors (eg program name and supplier).

* Fischbacher, M.; Weigold, H.: MPEG2 Generator DVG and MPEG2 Measurement Decoder DVMD – Test equipment for digital TV in line with MPEG2. News from Rohde & Schwarz (1996) No. 152, pp 20–23



Editing network information table with Stream Combiner software

- Generation of specific errors or non-conformal states in the transport stream.

Windows software **Stream Explorer** supplements the functions of **MPEG2 Measurement Decoder DVMD***. While the concept of DVMD is tailored to the realtime analysis of MPEG2 transport streams in compliance with MPEG2 and DVB, Stream Explorer is intended for the detailed analysis of the structure, contents and system parameters of transport streams. To this effect, it evaluates transport stream data provided by DVMD to the PC. A great variety of data filtering as well as access to preprocessed data stored in DVMD provide fast and clear results. The results shown in graphics or tables relate to the MPEG2 transport stream applied to DVMD.

The Stream Explorer **functions** are concentrated on the following three areas:

- **Representation and interpretation of stream contents;** forms of representation are the tree structure for the whole transport stream and the hexadecimal display of individual transport stream packages. The detailed but clear representation for all syntax elements of a transport stream is of central interest.

- **Trigger on error;** Stream Explorer makes use of this function supported by DVMD. If a trigger event occurs in the applied transport stream, the data in the area of the irregularity will be stored in the measurement decoder and sent to Stream Explorer for evaluation.
- **Visualization of system parameters of transport stream;** in addition to the structure and contents, Stream Explorer also displays the system parameters of the transport stream by means of the bar and trace diagrams. Data rates of the elementary streams or the jitter of the time references are typical examples. Moreover, it is possible to display and monitor the buffer fullness of the system target decoder as defined in MPEG2.

Besides these functions Stream Explorer supports the full remote control of DVMD. DVMD, originally conceived for monitoring tasks, is upgraded by Stream Explorer to a versatile instrument for the comprehensive and detailed analysis of MPEG2 transport streams.

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