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The ITU-R Handbook on the technical specifications of ITU-R teletext systems

Teletext systems provide the means to supplement an analogue television broadcast with digitally coded data signals carried in the vertical interval. The data signals can be displayed on the viewers receiver as printed text or diagrammes, or possibly more elaborate multimedia.

This publication describes four systems currently in use worldwide as defined in ITU-R Recommendations. They are described in four Sections in a similar way, so that readers can understand the differences and similarities.

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A number of systems have been developed throughout the world for teletext delivery over the last 25 years. Teletext systems provide the means to supplement an analogue television broadcast with digitally coded data signals carried in the vertical interval. The data signals can be displayed on the viewers receiver as printed text or diagrammes, or possibly more elaborate multimedia. The systems normally function as a carousel, providing a "magazine" of pages in a rotating cycle. The viewer's receiver can grab the page it wishes when its turn comes around on the carousel.

The original teletext systems had several different philosophies. In two cases the system uses a variable length packet (System A and System C), so that they can most efficiently transmit pages and lines of text of varying length. In the other case (System B), the system uses a fixed length packet because of the data ruggedness it provides. Each of the approaches has advantages and disadvantages. In a fourth case (System D), the system was specifically designed to cope with the character set used for the Japanese language. The four systems are specified in the four Sections of this handbook.

Efforts have been made to describe the systems in a similar way in each of the four Sections, so that readers can understand the differences and similarities. To achieve this, the systems were described by means of an ISO layer 7-layer reference model (ISO 7489). These demarcations are not perfect, because the OSI layer model was intended to describe two-way data interchange systems. Nevertheless, the categories fit tolerably well, and are helpful in giving a coherent description of the systems. Each Section includes Appendices to describe the systems.

As for all technical specifications, the reader should always be conscious of the dates on which the specifications were prepared, and of the possibility that refinements have been subsequently made.

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