The invention relates to a portable field processing equipment (100) processing information on a target system. The target system may be for instance a mobile phone system to be monitored. The field processing equipment (100) comprises a portable rugged field computer (200). The field computer (200) comprises data transmission means (214) for establishing a data transmission connection to another party, and a processing software (302) for processing data collected from the field and data received from the data transmission connection. According to the invention, the equipment additionally comprises data collecting means (218, 222) for collecting data; map means (208) for storing a high-resolution map in compressed form; a map processing software (306) for processing the map directly in compressed form; and a display software (304) for displaying data processed by the processing software by positioning it on the map. The compression of the map is performed by polygon encoding.
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Portable field processing equipment

FIELD OF THE INVENTION

The invention relates to a portable field processing equipment, processing data concerning a target system and comprising a rugged portable field computer, which comprises: data transmission means for establishing a data transmission connection to another party; a processing software for processing data collected from the field and data received from the data transmission connection.

BACKGROUND OF THE INVENTION

Portable computers are well known. Specific ruggedized portable computers, which can withstand harsh environmental conditions, are used for performing measurements in extreme conditions of temperature or humidity. Further, digital representations of maps are known. The maps can be in raster form, in vector form, or they can be a combination of both raster and vector data.

Limitations of data processing in the field are due to a combination of limiting factors. These factors imply lack of accuracy and exactness of map data on account of the difficulty in compensating for data errors occurring when digital raster files are built. These raster files have a very large size, for which reason they cannot generally be stored in the memory of a portable field computer. In addition, processing raster files requires a high processing capability of the field computer.

At this moment, there is no portable field processing equipment meeting the varying requirements of the maintenance and first aid personnel moving in the field. With reference to a preferred embodiment of the invention, no portable field processing equipment is known at present which would offer a view into the telecommunications network to be monitored, could process data concerning the network in real time and would offer an interface to the planning environment of the network, in order that the network planners could optimize the positioning of base stations and the use of frequency band and thus maximize the use of the traffic capacity of the network.

In general, the varying data processing requirements of a mobile phone system engineer working in the field are difficult to meet by a single portable field processing system. Limitations on this equipment are placed by the memory size and the data processing capability of the portable equipment.
A mobile phone system engineer working in the field has to perform a large number of necessary tasks, for instance:

1. To examine locations of new base stations and to photograph the possible locations.
2. To travel to the locations of the base stations in unknown regions
3. To determine the location of the base stations requiring maintenance and the distance between them and the engineer’s own current location.
4. To write reports in the field, in varying environmental conditions.
5. To interpret processing parameters to be received from a base station.
6. To trace faults in the network within the minimum time to predetermined base stations so that the necessary steps of repair can be performed immediately.

Another problem associated with the field personnel’s ability to handle problems relating to the system to be monitored concerns optimized and intelligent data transmission to the field personnel. There is an increasing need to communicate exact, accurate information concerning operational emergencies from a control center to a portable processing equipment carried by a person in the field, thus minimizing the quantity of the data transmission capacity required.

Data transmission systems are well known. At present, there are transceivers of all kinds, which can transmit data signals of all kinds. For example, it is well-known to send digital or analogue data messages by radio or to use more complicated duplex transmissions, such as short message service SMS offered by the present mobile phone systems. Packet-switched networks offer a possibility of requesting time slots for data transmission. Such systems are efficient for simple data transmission.

Nevertheless, as the number of subscribers to a mobile phone system increases, there is a need to transmit data in a more efficient and intelligent manner. It is to be seen that mobile phone users place greater and greater demands on the limited resources of the mobile phone system. Data transmission, specifically in emergency, requires more and more complicated data structures in order that the quantity of transmissions can be minimized and thus made more efficient.
3

At present, the field personnel has very limited means to receive data. In general, it is possible to receive only voice messages, such as normal calls and for instance ASCII files, which have to be interpreted by the field person himself. The inability to offer the person in the field exact data efficiently by using intelligent data structures restricts seriously the ability of the person working in the field to respond rapidly and effectively to situations, for instance to the ability of the telecommunications engineer in the field to trace faults to particular parts of the system in minimum time and to repair these parts.

The field personnel has to rely on limited information on the location of emergency. Availability of up-to-date information on emergency improves greatly the field personnel’s efficiency, e.g. the ability of an ambulance crew to deal with a real emergency. It may be necessary to transmit very complicated information to an ambulance crew in transit in an area jammed by traffic. Further, it is useful to offer information on the location of the ambulance relative to the location of the emergency, up-to-date route information, and as the situation develops, intelligent interpretation of situations at the scene of emergency.

BRIEF DESCRIPTION OF THE INVENTION

Accordingly, an object of the invention is to provide an equipment in such a way that the above problems can be solved. This is achieved by means of an equipment of the type described in the introduction, characterized in that it comprises: data collecting means for collecting data; map means for storing a high-resolution map in compressed form; a map processing software for processing the map directly in compressed form; a display software for displaying the data processed by the processing software by positioning the data on the map.

Another object of the invention is a use of a high-resolution map compressed by polygon encoding in a portable field processing equipment.

An additional object of the invention is a use of short message service for transmitting structured data to a portable field processing equipment.

Still another object of the invention is a method of offering a person in the field information on a target system to be monitored by means of a portable field processing equipment, which comprises: data transmission means for establishing a data transmission connection to another party; a processing software for processing data collected from the field and data received from the data transmission connection.
The method is according to the invention characterized in that, in the method, structured data is transmitted to the field processing equipment by using short message service, and in the field processing equipment, data is processed on the basis of the structured data and information on the target system to be monitored is displayed to the user in plain form.

Preferred embodiments of the invention constitute the objects of the dependent claims.

The invention is based on that a very efficient field processing equipment is provided by using a novel combination of prior art techniques.

Several advantages are achieved by means of the equipment of the invention. The equipment meets the different requirements of the field personnel in a very effective and realizable manner. The maps required can be studied in a very compact stored form and different data collected on the site or received from a data transmission connection can be visualized against a map background. The reliability of the function is improved, because the field personnel receives illustrative accurate information and instructions instead of obscure voice messages.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in more detail by means of preferred embodiments, with reference to the attached drawings, in which

Figure 1 shows an arrangement according to the invention;
Figure 2 shows a portable field processing equipment;
Figure 3 shows an embodiment of a software for the portable field processing equipment;

Figures 4, 5, 6, 7, 8 and 9 show an example of the operation of the field processing equipment;
Figures 5A, 5B, 5C and 5D show layers to be shown on a display.

DETAILED DESCRIPTION OF THE INVENTION

The invention is suitable for meeting all kinds of data processing requirements of the field personnel and for controlling the operation. Depending on the target system to be monitored, the field personnel may include for instance mobile phone system engineers, telecommunication engineers, forest engineers, personnel of electricity plants, water supply plants and gas plants or ambulance crews.
Figure 1 shows an example of an arrangement according to the invention. A person working in the field carries a portable field processing equipment 100. In some special situations, the field processing equipment 100 may also be attached to a vehicle, such as an ambulance.

The operation of the field personnel is controlled from a Control Center 130 (CC). The control center 130 generally comprises a computer system giving information on the status of the target system to be monitored. The control center of a mobile phone system, for instance, contains an Operations and Maintenance Center monitoring the status of a network part and performing settings. The control center 130 processes the information relating to the status of the field environment and decides when an alarm status appears and when information has to be sent to the field person's field processing equipment 100. The control center 130 identifies which alarm status and/or operational directive has to be sent in the same way as any information provided with positioning data. The control center 130 then generates an exact code corresponding to a predetermined alarm status and/or operational directive. The exact code is then sent over the telecommunications network and received by the field processing equipment 100 via a telecommunications link.

According to the invention, structured data can be transmitted between the control center 130 and the field processing equipment 100 both way. In the figure, a data transmission connection has been established such that there is a connection from the control center 130 over a Public Switched Telephone Network 118 (PSTN) to a mobile phone network, where data is transmitted by means of a mobile phone exchange 116, a base station controller 114, a base station 112 and an antenna construction 110 via a bidirectional radio link 122 to the field processing equipment 100. The field processing equipment 100 comprises a transceiver, for instance a normal GSM phone.

Another possibility of establishing a data transmission connection is to use a packet data network 120, via which the necessary data is transferred in a packet-switched manner, instead of using circuit-switched data transmission described above. Then there is a connection from the control center 130 to the packet data network 120, instead of the public switched telephone network 118.

Each field processing equipment has a unique identification number for enabling communication with other field processing apparatuses as well. A
person working in the field may thus communicate with other colleagues in the field, if necessary, and, for instance, ask for help for analyzing a difficult fault situation.

Figure 2 illustrates the structure of a field processing equipment in more detail. The main part of the equipment is constituted by a rugged portable field computer 200. The field computer 200 has a colour display 202 of high quality, implemented by liquid crystal technique, for instance. The user interface of the device can be implemented in different ways, e.g. as in the figure, by a keyboard 204 and a mouse 206. The mouse 206 can also be integrated into the equipment, of course, or it may be implemented like a joystick or track ball. Another way of implementing the user interface is to use a touch sensitive display as the display 202, or a light pen can also be used for the control. In special cases, speech control is a possible solution to implement a user interface.

The field computer 200 also comprises a mass memory means (not shown), for instance a hard disk, in which are stored system software of computer, for instance operating system, different kinds of application software, for instance text processing software, and software required by the invention.

By means of an additional card 212, a mobile phone 214 is connected to the field computer 200, which phone can easily attend to the data transmission requirements. A solution is also possible in which the necessary transceiver is integrated directly into the field computer 200 to form a part of that.

In addition, data collecting devices of different kinds can be connected to the field computer 200 directly over serial or parallel ports or by means of adapter cards 216, 220 to be attached to the serial or parallel ports. As examples of the data collecting devices, Figure 2 shows a digital camera 218 and a GPS (Global Positioning System) receiver 222. The location of the field processing equipment 100 at each time can be determined accurately by means of the GPS receiver 222. The digital camera 218 can take photographs of the scene of an accident, for instance, or photographs of the location of the base station to be monitored. The field processing equipment 100 can also be arranged in such a way that, simultaneously with taking a digital photograph, the positioning data of the place where the picture was taken is stored.

Data collecting devices of other kinds are also possible; for instance, when the target system to be monitored is a mobile phone system, field
strength meters and devices for transmitting or collecting statistics of the mobile phone network are required, for instance means for processing network statistics received from an air interface 122. When packet transmission is used for establishing a data transmission connection, a particular apparatus may be necessary. Data collecting devices may be separate devices as described, or they can be integrated into the field computer 200 to form parts of that; the GPS receiver 222, for instance, can be integrated into the mother board of the computer 200.

An essential part of the invention consists in digital maps. The maps are high-accuracy and high-resolution compressed maps. The maps may be in raster and/or vector form. In Figure 2, the maps are stored in a CD-ROM disc 208 positioned in a CD-ROM station 210. Other memory means of the field computer 200, such as the hard disc, can also be used for storing maps.

The raster and vector maps are preferably processed to use the WCS (World Coordinate System), which is logical as a basis of an optimal network planning environment.

Raster and/or vector maps are either created from digital sources of a national mapping service or scanned at high resolution, and subsequently, serious systematic errors occurring in a roller scanning process are corrected. The accuracy of the original source is thus preserved and very accurate raster maps can be created. In addition, maps are converted to use the WCS, in which each coordinate represents a single point of the surface of the earth in relation to the crossing point of the Greenwich Meridian and the Equator. In this way, a basis for map data is created, which enables a storage of very optimized data and a retrieval of data in such a way that the objects of the database can be determined uniquely without confusion.

Data capture, correction of systematic error and conversion into the WCS are followed by processing the raster maps into very compact data structures by polygon encoding of the raster image.

In this manner, a unique raster map is created, which comprises a structure in the form of compact data sets, which data sets can be viewed in this form, the size of the raster image being only about one per cent of the size of a conventional raster image. A typical RGB (Red Green Blue) 256 bits per colour scanned raster image of 150 Mega pixels needs one byte to describe each colour of each pixel, the size of the raster image being 450 Mbytes.
When known error correction, conversion of coordinates and data compression are used, the raster map obtained comprises data sets of 4 to 10 Mbytes. The map shows the same data content as the map of 450 Mbytes and the pixel within each encoded polygon is individually addressable.

The software described is available from the company Geovision A/S, address: Drensrudbekken 31, N-1370 Asker, Norway.

This software is generally used for building mapping files and it can be considered to represent the highest development of this technology. In the application area represented by the portable field processing equipment 100, it provides a basis for an optimized equipment and software by which the previously described processing requirements are met.

An essential part of the present invention consists in processing the polygon encoded raster map described and in combining layered functional windows to support the field person's data processing requirements.

The field processing equipment 100 with its map processing software is capable of processing raster and vector maps in compact form in real time, such that the field person can visualize geographical coordinate data against said maps. The improved accuracy and resolution of the maps improve, in turn, the accuracy of data collection in the field and the accuracy of operations in which events provided with positioning data are referred to a point of a digital map.

This total solution concerns the shortcomings of the present systems to meet the field person's needs and wishes to operate efficiently. Further, this inventive software and HW configuration enables a generation of representation levels of several different data on the basis of data coming from different sources, which representations can be viewed individually or together as differentiated by different colours against the high-accuracy and high-resolution raster map.

In this way, the person operating in the field can create reports of all kinds in the field for instance by applying data with the keyboard 204 to requests created by the software, whereby the system can build geographically encoded data sets as information layers in relation to the geographical map background. Moreover, the display can be improved by using customized user-accessible icons to represent some predetermined features of each layer.

Figure 3 shows a possible way of visualizing the structure of a software according to the invention. By means of a data transmission software
300, data transmission with the control center 130, other field processing apparatuses 100 and data collecting devices is controlled. The actual processing software 302 is that part of the software which varies most depending on the application area. The map processing software 306 was described already above. The display software 304 controls the user interface.

Each separate software offers services to another service mutually, by the use of which services the user of the equipment is offered an intelligent user interface. In this way, the user is offered a layered map display, on which different information layers can be displayed simultaneously and proportioned to the background map display, if necessary. The field processing equipment 100 is also capable of generating its own GPS position and of displaying it as an icon, as a layer on the map display.

The field processing equipment 100 also comprises means for generating displays in accordance with unique codes received from a data transmission connection.

With reference to Figures 4 to 9, a rather wide example of how a field processing equipment 100 described supports the work of a telecommunications engineer in the field is presented in the following.

The control center 130 may be a part of the mobile phone system operations and maintenance center, which has found a base station not operating properly. The control center 130 has identified, not only the base station in question, but also the nature of the fault and the way how the fault should be repaired. In accordance with prior art technique, said information is communicated to the person in the field by means of a mobile phone.

According to the invention, the information may be in the form of a short message, for instance in the form "#BTS 245 E 92". The message comprises the identification number of the base station in question, the number being BTS 245, which can be processed in the field processing equipment 100 and which can be positioned in some particular base station in the map images of the field processing equipment 100. The message further comprises a code of the fault to be corrected.

Accordingly, the field processing equipment 100 receives an information by means of the mobile phone 214 and the data transmission software 300 and creates a processing software 302, a map processing software 306 and a display software 304 for the display by cooperation, which display indicates the location of the person in the field positioned on the map display, and
indicates additionally the positioned faulty base station as a flashing icon. Figure 4 shows in a simplified manner how this can be presented on the display 202. As map background is presented the map of Finland. The own location (OWN LOC) positioned by the GPS device 222 is a city called Kajaani. The identification number of the faulty base station (BTS) is 245. On the basis of the data stored locally in the field processing equipment 100, the location (LOC) of said base station is known to be in a city called Oulu. The fault code (FAULT) of the base station is 92. In addition, the user is shown a route (ROUTE) as a dark line, and the length (DIST) of the route is informed to be 180 km and the estimated driving time (TIME) two hours and ten minutes.

Figure 5 illustrates layered displays. The layers lie on each other and the user may regulate, if necessary, which layers he wishes to see simultaneously. Consequently, the display shown in Figure 4 comprises the map background layer of Figure 5A, the layer of Figure 5B indicating the location of the fault, the layer of Figure 5C indicating own location, and the layer of Figure 5D indicating the route.

The field processing equipment 100 controls the user's travel to the site of fault correction. According to Figure 6, the display 202 may show the person's own location as an icon in the form of a car, the location of the base station can be shown as an icon in the form of an antenna. It is also possible to indicate to the user by arrows in which direction he must go, in the figure, for instance, he has to turn to the street called Linnanmaantie. In addition, the same thing can also be expressed as a verbal instruction: TAKE NEXT EXIT!

When a person arrives at the location of the base station, he may be shown the information according to Figure 7 on the display 202. Figure 7 shows a digital photograph of a building in which the equipment of the base station is situated. The user is given an instruction how to find the equipment: BTS IS IN THE 3RD FLOOR. ENTER HERE!

The structural diagrams of the base station, comprising the details of HW configuration, for instance wiring diagrams, may be stored in the field processing equipment 100, diagrams of software configuration may also be included. According to Figure 8, the telecommunications engineer is then shown at the equipment, on the display 202, a simplified diagram of the structure of the base station and informed of which part is the faulty one: CARD 5 MAL-FUNCTION. REPLACE THE CARD! Alternatively, the engineer may connect his field processing equipment 100 to the equipment of the base station and
analyze the operation of the base station in order to find the fault by means of analyzing and data collecting software contained in the field processing equipment.

According to Figure 9, the display 202 may present information on the progress of the repair. The data can be received either by means of an analyzing and data collecting software attached to the base station or it may be received via a data transmission connection from the control center 130. The example of Figure 9 tells that an automatic self test of the changed part was performed successfully (CARD 5 SELFTEST OK), and that the base station now functions (BTS 245 REPAIR SUCCESSFUL), as well as the subnet-work in question (NETWORK IN ORDER). Further, the telecommunications engineer is informed of that no new tasks are in queue (NO NEW TASKS) and the connection to the control center is disconnected (NOW DISCONNECTING FROM CONTROL CENTER).

The following list, given as an example, contains functions described above and new functions offered by the field processing equipment 100 to the field personnel:

1. A tool for discovering the locations of base stations.
2. A data collecting tool.
3. A tool for finding the shortest route.
4. A tool for a real time analysis of statistics of a telecommunications network to be monitored.
5. A data transmission tool for communication with a control center and other field processing apparatuses.
6. A tool for tracing a fault in the network
7. A network planning tool for visualizing existing conditions of a telecommunications network to be planned, such as cell size, frequency planning, radio field pattern around a particular base station, etc.
8. A file transfer tool for transferring information provided with positioning data, for instance network planning data and reports written in the field.
9. A tool for emergency service indicates the location of emergency on the map in order that supporting vehicle and helicopter rescues on land and in the sea could be possible.

Besides for being used by a telecommunications engineer as described above, the invention is suitable for meeting the data processing requirements of, for instance, public utilities (gas plant, water supply plant and
electrical power plant) engineers, forest engineers and emergency service personnel (ambulance, fire department, air rescue). Menu displays and data processing software are developed separately for each application area.

Though the invention has above been described with reference to the example of the attached drawings, it is obvious that the invention is not restricted to it, but it can be modified in many ways within the scope of the inventive idea set forth in the attached claims.
CLAIMS

1. A portable field processing equipment (100), processing data concerning a target system and comprising a rugged portable field computer (200), which comprises:

   data transmission means (214) for establishing a data transmission connection to another party;
   a processing software (302) for processing data collected from the field and data received from the data transmission connection;
   characterized in that it comprises:

2. A system according to claim 1, characterized in that the target system is a mobile phone system.

3. A system according to claim 1, characterized in that the map is in raster form.

4. A system according to claim 3, characterized in that the compression is performed by polygon encoding.

5. A system according to claim 1, characterized in that a digital map uses the World Coordinate system.

6. A system according to claim 1, characterized in that the compression ratio of the map is very great.

7. A system according to claim 6, characterized in that the compression ratio is about 1:100.

8. A system according to claim 1, characterized in that the map is in vector form.

9. A system according to claim 1, characterized in that the display software (304) displays data in real time or almost in real time.

10. A system according to claim 1, characterized in that the display software (304) displays data in layers.

11. A system according to claim 10, characterized in that the layers differ from each other by different shades of grey or colours.
12. A system according to claim 1, characterized in that the data collecting means comprise a digital camera (218).

13. A system according to claim 12, characterized in that the digital camera is arranged to store positioning data as well.

14. A system according to claim 1, characterized in that the data collecting means comprise a positioning system (222).

15. A system according to claim 14, characterized in that the positioning system is GPS.

16. A system according to claim 1, characterized in that the data collecting means comprise a field strength meter.

17. A system according to claim 1, characterized in that the data collecting means comprise a mobile phone (214).

18. A system according to claim 1, characterized in that the display software indicates the location of the field processing equipment (100) on the map.

19. A system according to claim 1, characterized in that the display software (304) indicates the route to next destination on the map.

20. A system according to claim 1, characterized in that the display software (304) indicates a fault in a part of the mobile phone system on the map.

21. A system according to claim 1, characterized in that the display software (304) indicates a more accurate image of the location of a part of the mobile phone system.

22. A system according to claim 1, characterized in that the display software (304) displays the structure of a part of the mobile phone system.

23. A system according to claim 22, characterized in that the display software (304) shows how a fault in the structure of the part of the mobile phone system is corrected.

24. A system according to claim 1, characterized in that the display software (304) shows information on the conditions of the network.

25. A system according to claim 24, characterized in that the conditions of the network comprise at least one of the following factors: cell sizes, frequency planning, radio field patterns around base stations.
26. A system according to claim 1, characterized in that the data transmission means (214) are arranged to transmit data with the control center.

27. A system according to claim 26, characterized in that the data to be transmitted comprises performance data of the network.

28. A system according to claim 26, characterized in that the data to be transmitted comprises control code sequences provided with positioning data.

29. A system according to claim 28, characterized in that the display software displays data on the map on the basis of the control code sequences.

30. A system according to claim 28, characterized in that control code sequences inform of alarms.

31. A system according to claim 1, characterized in that the data transmission means (214) are arranged to transmit data with some other field computer.

32. A system according to claim 31, characterized in that each field processing equipment (100) has an identification separating it from other field processing apparatuses.

33. A system according to claim 1, characterized in that the data transmission means (214) are arranged to transmit data in a packet-switched manner.

34. A system according to claim 33, characterized in that packet-switched data transmission uses short message service.

35. A use of a high-resolution map compressed by polygon encoding in a portable field processing equipment (100).

36. A use of short message service for transmitting structured data to a portable field processing equipment (100).

37. A method of offering a person in the field information on a target system to be monitored by means of a portable field processing equipment (100), which comprises:

- data transmission means (214) for establishing a data transmission connection to another party;
- a processing software (302) for processing data collected from the field and data received from the data transmission connection,
characterized in that, in the method, structured data is transmitted to the field processing equipment (100) by using short message service and, in the field processing equipment (100), data is processed on the basis of the structured data and information on the target system to be monitored is displayed to the user in plain form.

38. A method according to claim 37, characterized in that the information comprises a high-resolution map compressed by polygon encoding.
BTS = 245
LOC  = OULU
FAULT = 92

ROUTE
DIST = 180 KM
TIME = 2 H 10 MIN

OWN LOC = KAJAANI
BTS = 245
LOC = OULU
FAULT = 92

BTS IS IN THE 3RD FLOOR
ENTER HERE!
CARD 5 MALFUNCTION
REPLACE THE CARD!
CARD 5 SELFTEST OK.

BTS 245 REPAIR SUCCESSFUL.

NETWORK IN ORDER.

NO NEW TASKS.

NOW DISCONNECTING FROM CONTROL CENTER.
### INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

**IPCG:** G06F 15/02, G01S 5/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

**IPCG:** G06F, G08G, G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Relevant to claim No.</th>
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<td>EP 0650125 A1 (DAISHININSTRUMENT CO., LTD.), 26 April 1995 (26.04.95), see &quot;summary of the invention&quot;</td>
<td>1-38</td>
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<td>A</td>
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<td>See patent family annex.</td>
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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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**Date of the actual completion of the international search:** 28 October 1998

**Date of mailing of the international search report:** 29-10-1998

**Name and mailing address of the ISA/Authorized officer**

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**Telephone No. +46 8 782 25 00**

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