

CLAIMS

1. A system (1), exhibiting
 - a communication station (3, 4) for communicating with a number of radio tags (7-14) in a time slot communication process, in which a number of time slots (Z1-ZN) per time slot cycle in a repeating sequence are available for communication, and each time slot (Z1-ZN) is characterized by a distinct time slot symbol (ZS1-ZSN), wherein the communication station is designed to send out a synchronization data signal (SD) exhibiting the time slot symbol (Z1-ZN) for the currently present time slot (Z1-ZN), and wherein
 - a radio tag (7-14) is designed:
 - + for changing from a sleep state (S) into an active state (E) at a wakeup instant (TA1), and
 - + for receiving the synchronization data signal (SD) in the active state (E) and,
 - + if the received time slot symbol (ZS1-ZSN) indicates a time slot (Z1-ZN) intended for it, for defining a new wakeup instant (TA2) corresponding to the next appearance of the time slot (Z1-ZN) intended for it in a time slot cycle that follows the currently present time slot cycle.
2. The system (1) according to claim 1, wherein the radio tag (7-14), if the received time slot symbol

(ZS1-ZSN) indicates a time slot (Z1-ZN) not intended for it, is designed to define a new wakeup instant (TA2) in the currently present time slot cycle that corresponds to the next appearance of the time slot (Z1-ZN) intended for it if the time slot (Z1-ZN) intended for it will still appear in the currently present time slot cycle, or in the time slot cycle that follows the currently present time slot cycle if the time slot (Z1-ZN) intended for it will no longer appear in the currently present time slot cycle.

3. The system (1) according to claim 1, wherein the radio tag exhibits a memory stage (26) for storing parameters of the time slot communication process, and the radio tag (7-14) is designed to access and consider these parameters for defining the new wakeup instant (TA2).
4. The system (1) according to claim 1, wherein the radio tag (7-14) exhibits a memory stage (26) for storing a representation of the time slot symbol (ZS1-ZSN) that indicates the time slot (Z1-ZN) intended for it.
5. The system (1) according to claim 4, wherein the representation of the time slot symbol (ZS1-ZSN) is realized with a hardware address of the radio tag (7-14) that clearly identifies the radio tag (7-14), and unchangeably programmed into the memory stage (26).
6. The system (1) according to claim 5, wherein aforesaid representation of the time slot symbol is realized by the least significant bit or least significant byte of the hardware address.

7. The system (1) according to claim 1, wherein the radio tag is designed to check whether a time slot symbol known to it corresponds with one present upon receiving the synchronization data signal.
8. The system (1) according to claim 1, wherein the communication station is designed for generating the time slot symbol as the consecutive number of the respective time slot corresponding to its appearance in the sequence of time slots in the time slot cycle.
9. The system (1) according to claim 1, wherein
 - the communication station (3, 4) is designed to embed address data (AD) into the synchronization data signal (SD), which can be used to individually address a number of radio tags (7-14) per time slot (Z1-ZN) intended for aforesaid radio tag (7-14), and
 - the radio tag (7-14), if the received time slot symbol (ZS1-ZSN) indicates a time slot (Z1-ZN) intended for it, is designed to evaluate the synchronization data signal (SD) for the contained address data (AD), and to check whether it is individually addressed.
10. The system (1) according to claim 9, wherein the communication station (3, 4) is designed to generate the address data (AD) utilizing one or several bits or bytes (B3, B2, B1) of a hardware address of the radio tag (7-14) that distinctly identifies a radio tag (7-14), in particular leaving out the least significant bits or the least significant bytes (B0).

11. The system (1) according to claim 1, wherein
 - the communication station (3, 4) is designed to embed command data (CD) into the synchronization data signal (SD), with which a command can be transmitted to a radio tag (7-14) in a time slot (Z1-ZN) intended for aforesaid radio tag (7-14), and
 - the radio tag (7-15), if the received time slot symbol (ZS1-ZSN) indicates a time slot (Z1-ZN) intended for it, is designed to evaluate the synchronization data signal (SD) for the contained command data (CD) and execute the command.
12. The system (1) according to claim 11, wherein the radio tag (7-14) is designed to evaluate the command data (CD) and execute the command when individually addressed with the help of the address data (AD).
13. The system (1) according to claim 11, wherein
 - the radio tag (7-14) is designed to execute a command as a single time slot command, and conclude the executed command within a single time slot (Z1-ZN) in which the command was received.
14. The system (1) according to claim 13, wherein
 - the radio tag (7-14), during completion of the executed command, is designed to generate confirmation data (ACD) and deliver the confirmation data (ACD) in the time slot (Z1-ZN) in which the command was received.

15. The system (1) according to claim 14, wherein
 - the radio tag (7-14) for delivering the confirmation data (ACD) is formed in a first part (36) of the time slot (Z1-ZN), which is chronologically localized after the synchronization data signal (SD), and leaves an ensuing second part (37) of the time slot (Z1-ZN) untouched prior to the appearance of the synchronization data signal (SD) of the following time slot (Z1-ZN).
16. The system (1) according to claim 11, wherein
 - the radio tag (7-14) is designed for executing a command as a multiple time slot command over several time slots (Z1-ZN).
17. The system (1) according to claim 1, wherein the system (1) realizes an electronic price display system, and a display unit (27) of the radio tag (7-14) serves to display product or price information, etc.
18. The system (1) according to claim 1, wherein
 - the communication system (3, 4) is designed to send out the synchronization data signal (SD) at the beginning of the respective time slot (Z1-ZN).
19. The system (1) according to claim 1, wherein
 - the communication station (3, 4) is designed to embed confirmation time data (DR1-DR3) into the synchronization data signal (SD),

which can be used to determine a confirmation instant within the time slot (Z1-ZN) at which confirmation data (ACD) are expected from the radio tag (7-14), and

- the radio tag (7-14) is designed to deliver the confirmation data (ACD) at the specified instant.

20. The system (1) according to claim 1, exhibiting a plurality of communication stations (3, 4) and a plurality of radio tags (7-14) and a data processing device (2), which is designed to prompt a radio tag (7-14) to end an existing connection with one of the communication stations (3, 4) and enter into a connection with another communication station (3, 4).