

Regional Register Diabetes Mellitus

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Abstract

The project RRDM aims at the realization of a client/server tool that allows exporting diabetes mellitus patients' data from medical centres to a server and collecting them. The export is completely transparent to the final user (a doctor or a nurse) and it does not need any user intervention to start the export, connect to the server and even to install or update it. This tool, once configured, does all the job automatically. RRDM runs as a Windows® service and can start export at a scheduled time, connect to the server when needed and export data in a compressed (with GZIP) and encrypted way (with SSL). Data are sent in an XML file so that it can be read from any XML enabled software and, from a configuration file, it can be configured which data have to be sent or not. If something goes wrong in transmission the tool simply finds the exception, restarts the connection and retries data-export, all automatically. There is even an option to allow automatic download of updates that are released from the server. RRDM finds available updates, installs them and restarts itself all automatically when needed. The power of the RRDM tool is that it is completely independent from the data-source, or even the server database. In fact, it has a plug-in architecture that allows it to access different database types, from PostgreSQL to Microsoft SQL Server and so on. The user has only to decide which database he wants to connect to (it depends from the application the doctor uses to store patients data) and to specify connection parameters (user name and password to access the software); the selected plug-in does all the work. By now has been implemented only a plug-in that connects to a Microsoft SQL Server (the one used by EuroTouch in Umbria Diabetes Centres). RRDM Tool has been completely written in Java (SDK 5) and can run on all Java 5 enabled systems. Even if this tool is still in beta version (it has to be improved with missing features as data linkage with multiple sources), it is used in a European project (B.I.R.O.) to collect data from Umbria Regional Database Register.