SunFish Interface

SunFish supports interfaces with other applications, in which data are imported into or exported from the application. There are several methods to achieve this. Some are SunFish standard features, such as interface with fingerprint devices to collect employee attendance data. Other methods can be customized to fit specific customer needs, such as pushing employee data to another in-house application.

Below are explanations for some of the most commonly used methods:

1. File-based interface
   With this method, there is no direct link between the two applications. One application exports the data into a flat file, usually in the format of a delimited text file or a spreadsheet. The file is then uploaded to the other application. This method can be automated by storing the exported file in a repository that is accessible by both applications. A scheduled task for one application exports data to a file at certain intervals, and another scheduled task for the other application reads the file from the repository and converts the data into its database.

   In SunFish, this method is commonly used for retrieving attendance data from fingerprint device. Files containing raw attendance data are periodically generated by the fingerprint application and stored in a specified folder. SunFish will then periodically check the folder for any new files and import the data.

2. Direct database connection
   This method can be used if a direct database connection to another application is permitted. One application simply needs to establish a database connection to the other application's database using ODBC or JDBC drivers with the supplied credentials. Then it is just a matter of knowing which tables or views to retrieve the data needed, or to write to. This method is commonly used in a one-way interface, when one application only needs to read data from the other application, so the database access level can be limited.

3. Web service
   By using this method, one application retrieves data from the other by invoking a web service provided by the other application. Developers can write objects and functions using each application's specific programming language, and only expose certain functions for exporting data as a web service. They can also define what parameters need to be included in the web service request to retrieve specific data. The produced data are usually in the form of a WDDX packet which is encoded in XML format. The WDDX data can then be converted by the requester application for further

processing. While this method is most technically advanced, it can be difficult to implement and is usually reserved for higher data complexity and multi-directional or cross company interfaces.