

# **Program obsługi drukarek fiskalnych**

## **Raport Okresowy**

*Instrukcja użytkownika*

*wersja 1.0*

Warszawa, 29 sierpień 2009

## **Wprowadzenie**

Program obsługi drukarek fiskalnych „Raport okresowy” ma za zadanie umożliwić odczyt pamięci fiskalnej oraz wykonywanie raportu okresowego z jej zawartości. Odczyt pamięci fiskalnej wykonywany jest za pośrednictwem standardowego interfejsu komunikacyjnego drukarki, a pobrane dane są zapisywane na dysku lokalnym komputera. Umożliwia to także archiwizację pamięci fiskalnej na dowolnym nośniku danych dostępnym w systemie operacyjnym komputera na którym wykonano odczyt – pamięci wymienne, nośniki optyczne (operacje archiwizacji nie wchodzi w skład aplikacji raportu okresowego – w tym celu należy wykorzystać odpowiednie mechanizmy systemu operacyjnego) oraz wykonywanie raportów okresowych w późniejszym terminie na podstawie zapisanych danych.

Aplikacja raportów okresowych została zaprojektowana w sposób minimalizujący ilość wykonywanych przez użytkownika czynności jednocześnie dostarczając następujących funkcjonalności:

- Odczyt pamięci fiskalnej z urządzenia
- Zapis odczytanych danych w plikach archiwum
- Odczyt pamięci fiskalnej z plików archiwum
- Wykonywanie raportu okresowego według numerów raportu
- Wykonywanie raportu okresowego według dat
- Przegląd wykonanego raportu na ekranie z możliwością wyszukiwania ciągów znaków
- Zapis wykonanego raportu okresowego w postaci pliku tekstowego lub pliku PDF
- Wydruk raportu okresowego na dowolnej drukarce zainstalowanej w systemie

## **Wymagania systemowe**

Aplikacja posiada minimalne wymagania systemowe, przedstawione poniżej:

- System operacyjny Windows, wersja XP z SP2 lub nowszy
- Minimum 512MB pamięci RAM
- Odpowiedni interfejs komunikacyjny, w zależności od odczytywanej drukarki (np. port RS232 tzw. COM dla drukarek szeregowych, może być w postaci konwertera RS232-USB – aplikacja samoczynnie wykrywa dostępne porty)

## **Sposób użytkowania**

Program raportu okresowego został zaprojektowany tak, aby maksymalnie uprościć procedurę wykonywania tego raportu. Proces składa się z trzech kroków (odczyt danych, wykonanie raportu, zapis/przegląd/wydruk raportu), które należy wykonać kolejno. Można także cofnąć się w celu na przykład wykonania ponownego raportu według innego kryterium bez konieczności ponownego odczytu danych. Widok głównego okna programu przedstawia rysunek 1. Kolejno ponumerowane zostały na nim sekcje odpowiedzialne za:

1. Konfigurację urządzenia i parametry komunikacji,
2. Krok pierwszy procedury raportu – odczyt danych z urządzenia/pliku,
3. Krok drugi procedury raportu – wykonanie raportu według kryterium,
4. Krok trzeci procedury raportu – podgląd/zapis i wydruk gotowego raportu.

## **Procedura wykonania raportu okresowego**

Przed przystąpieniem do wykonania raportu okresowego należy w sekcji 1 na rysunku 1 wybrać odpowiedni rodzaj urządzenia fiskalnego, dla którego zostanie wykonany raport. W przypadku odczytu bezpośrednio z urządzenia należy także wybrać rodzaj interfejsu komunikacyjnego oraz

parametry transmisji (w przypadku odczytu z pliku wystarczy jedynie wybrać rodzaj urządzenia). Wybór niewłaściwego rodzaju urządzenia zostanie zasygnalizowany w trakcie odczytu, po jego zakończeniu lub w trakcie wykonywania raportu okresowego, w zależności od rodzaju niezgodności pomiędzy poszczególnymi urządzeniami.

Rysunek 1: Widok głównego okna programu

## Krok 1


W pierwszym kroku procedury należy odczytać dane pamięci fiskalnej z urządzenia fiskalnego lub z pliku archiwum. W celu odczytu z urządzenia należy użyć klawisza **Odczytaj dane z urządzenia**. Po jego naciśnięciu rozpocznie się procedura odczytu pamięci fiskalnej z urządzenia. Procedura ta może trwać od kilku do kilkudziesięciu minut w zależności od wydajności i obciążenia komputera oraz wybranych parametrów transmisji. Zaleca się w miarę możliwości ustawienie w urządzeniu jak najwyższej prędkości transmisji.

W przypadku połączenia z wykorzystaniem protu szeregowego (RS232) po obu stronach (zarówno w komputerze jak i w drukarce) należy wybrać identyczne ustawienia transmisji w przeciwnym wypadku odczyt nie powiedzie się. Dostępne ustawienia i odpowiadające im ustawienia w drukarce są następujące:

- Szybkość transmisji – od 1200 do 115200 kbps
- Ilość bitów danych – 8 lub 7
- Sposób kontroli parzystości – O – nieparzyste, E – parzyste, N – brak
- Ilość bitów stop – 1 lub 2
- Sposób kontroli przepływu danych – N – brak, S – XON/XOFF (programowa), H – Sprzętowa RTS/CTS

Po prawidłowym odczytaniu danych użytkownik zostanie poinformowany o tym odpowiednim komunikatem oraz odblokowane zostaną operacje dostępne w kroku drugim. Automatycznie zostanie także wykonany zapis odczytanych informacji w plikach archiwum. Są to dwa pliki o nazwach zawierających numer unikatowy kasy oraz rozszerzeniach .fm i .hdr dla danych pamięci i nagłówka. Jeżeli pliki danych dla danego urządzenia już istnieją użytkownik zostanie zapytany o to, czy należy istniejące dane nadpisać.

Alternatywnym sposobem pobrania danych do programu jest wczytanie ich z pliku archiwum. W

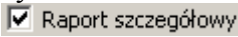
tym celu należy użyć klawisza . Po jego użyciu należy wskazać plik modułu fiskalnego (.fm) do wczytania. Automatycznie wczytany zostanie także plik nagłówka (.hdr) o tym samym numerze unikatowym. W przypadku jego braku użytkownik zostanie o tym fakcie poinformowany stosownym komunikatem, a na wykonywanych raportach nagłówki będą puste.

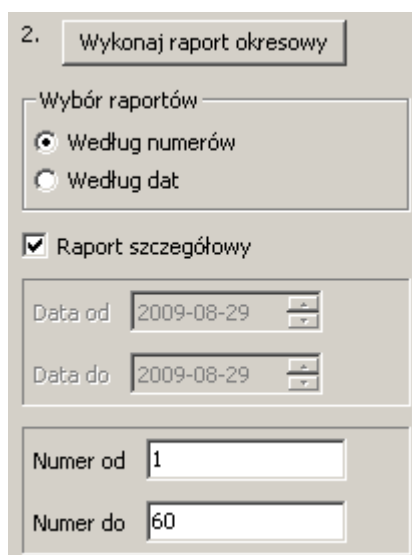
## Krok 2

W następnym kroku na podstawie odczytanych danych można wykonać właściwy raport okresowy. W tym celu w sekcji oznaczonej numerem 3 na rysunku 1 należy wybrać odpowiednie parametry raportu - por. rysunek 2. W sekcji tej można wybrać następujące warianty:

- Raport według numerów – raport okresowy zostanie wykonany w podanym zakresie numerów raportów dobowych
- Raport według dat – raport zostanie wykonany w podanym zakresie dat.

W zależności od wybranego wariantu zostaną odblokowane odpowiednie pola parametrów.

Dodatkowo możliwe jest wybranie wariantu skróconego raportu okresowego (tylko podsumowanie) poprzez odznaczenie pola .



2. Wykonaj raport okresowy

Wybór raportów

☒ Według numerów  
☐ Według dat

☒ Raport szczegółowy

Data od: 2009-08-29  
Data do: 2009-08-29

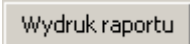
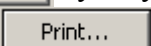


Numer od: 1  
Numer do: 60

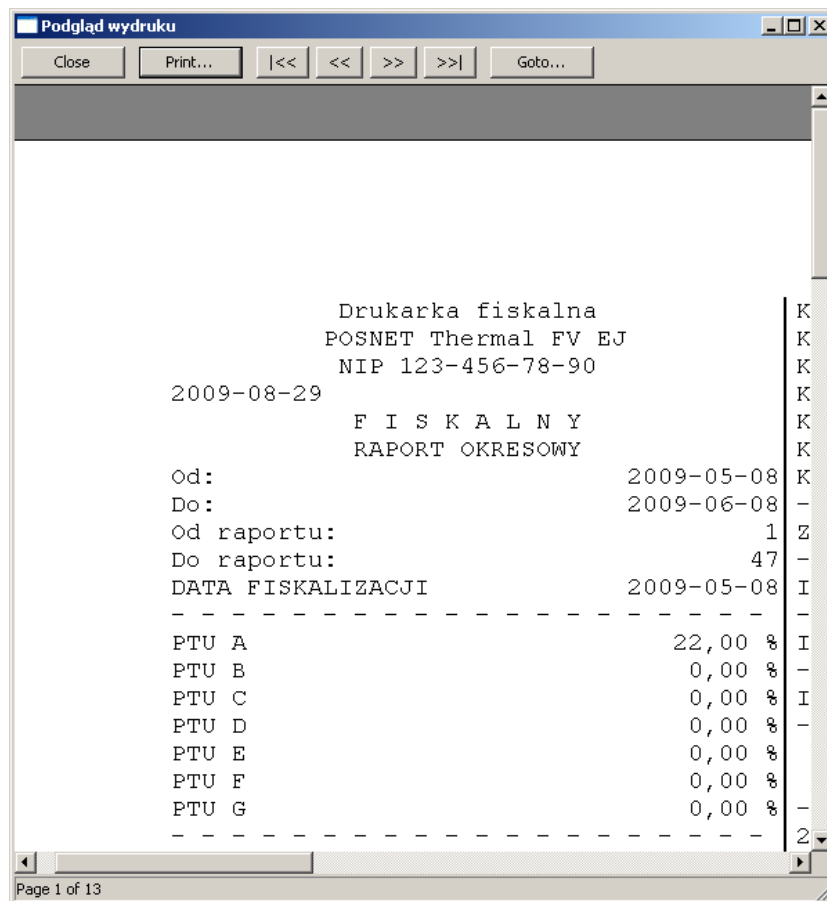
Rysunek 2: Krok 2 - parametry raportu

Wykonanie raportu okresowego zostanie zakomunikowane odpowiednim komunikatem, oraz zostanie odblokowana sekcja 4.

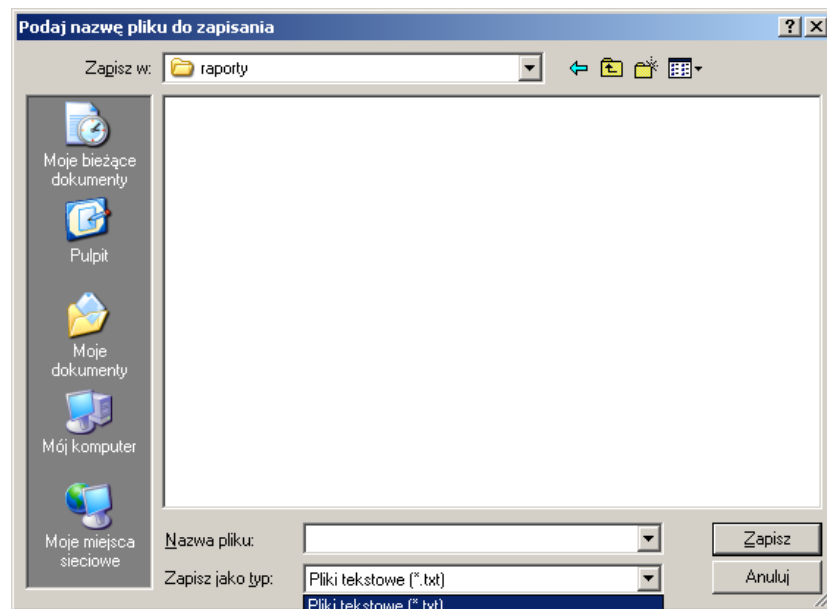
## Krok 3

W trzecim kroku możliwe jest zapoznanie się z wykonanym raportem okresowym. Możliwe są następujące operacje:

- **Wydruk raportu na drukarce** – poprzez użycie klawisza  wywoływane jest okno podglądu wydruku (rysunek 3) w którym używając klawisza  możemy raport ten wydrukować na dowolnej zainstalowanej w systemie drukarce,
- **Zapis raportu** – poprzez użycie klawisza  wywołujemy standardowe okno wyboru nazwy pliku do zapisania (rysunek 4), w którym należy podać nazwę pliku do zapisania oraz wybrać format tego pliku (tekstowy czy PDF) korzystając z pola wyboru poniżej nazwy pliku,
- **Podgląd raportu** – poprzez użycie klawisza  wywołujemy okno podglądu raportu (rysunek 5), w którym możemy zapoznać się z treścią wygenerowanego raportu oraz wyszukiwać fragmenty tekstu.



Rysunek 3: Okno podglądu wydruku



Rysunek 4: Okno wyboru pliku do zapisu

Podgląd raportu

Drukarka fiskalna

POSNET Thermal FV EJ

NIP 123-456-78-90

2009-08-29

F I S K A L N Y

RAPORT OKRESOWY

Od:

2009-05-08

Do:

2009-06-08

Od raportu:

1

Do raportu:

47

DATA FISKALIZACJI

2009-05-08

PTU A

22,00 %

PTU B

0,00 %

PTU C

0,00 %

PTU D

0,00 %

PTU E

0,00 %

PTU F

0,00 %

PTU G

0,00 %

2009-05-08

1

SPRZEDAŻ OPODATK. PTU A

0,00

SPRZEDAŻ OPODATK. PTU B

0,00

SPRZEDAŻ OPODATK. PTU C

0,00

SPRZEDAŻ OPODATK. PTU D

0,00

SPRZEDAŻ OPODATK. PTU E

0,00

SPRZEDAŻ OPODATK. PTU F

0,00

SPRZEDAŻ OPODATK. PTU G

0,00

SPRZEDAŻ OPODATK. PTU AFV

0,00

SPRZEDAŻ OPODATK. PTU BFV

0,00

SPRZEDAŻ OPODATK. PTU CFV

0,00

SPRZEDAŻ OPODATK. PTU DFV

0,00

SPRZEDAŻ OPODATK. PTU EFV

0,00

SPRZEDAŻ OPODATK. PTU FFV

0,00

SPRZEDAŻ OPODATK. PTU GFV

0,00

KWOTA PTU A

0,00

KWOTA PTU AFV

0,00

ŁĄCZNA KWOTA PTU

0,00

Szukaj

Kierunek

W dół

W górę

Znajdź

Zamknij

Rysunek 5: Okno podglądu raportu

## Oprogramowanie do odczytu pamięci fiskalnej wykorzystuje komponenty na następujących licencjach:

Komponent: wxWidgets, wxPdfDocument, wxSqlite3

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Komponent: PTypes

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C++ Portable Types Library (PTypes)

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<http://www.melikyan.com/ptypes/>

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Hovik Melikyan

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Komponent: Serial library (DLL)

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Serial.cpp - Implementation of the CSerial class

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SQLITE is Public Domain

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a

charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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