

# **Program obsługi drukarek fiskalnych**

## **Raport Okresowy**

*Instrukcja użytkownika*

*wersja 1.0*

Warszawa, 29 sierpnia 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 protokołu szeregowego (RS232) po obu stronach (zarówno w komputerze jak i w drukarce) należy wybrać identyczne ustawienia transmisji w przeciwnym wypadku odczyt nie powiedzie się. Jednocześnie urządzenie posiadające wsparcie dla zdalnego logowania musi mieć ten tryb wyłączony na czas wykonywania odczytu.

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: nieparzyste (Niep.), parzyste (Parz.), brak
- Ilość bitów stop: 1 lub 2
- Sposób kontroli przepływu danych: brak, XON/XOFF (programowa), RTS/CTS (sprzętowa)

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 **Wczytaj dane z pliku**. 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 będzie pusty.

## 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 ☒ Raport szczegółowy.

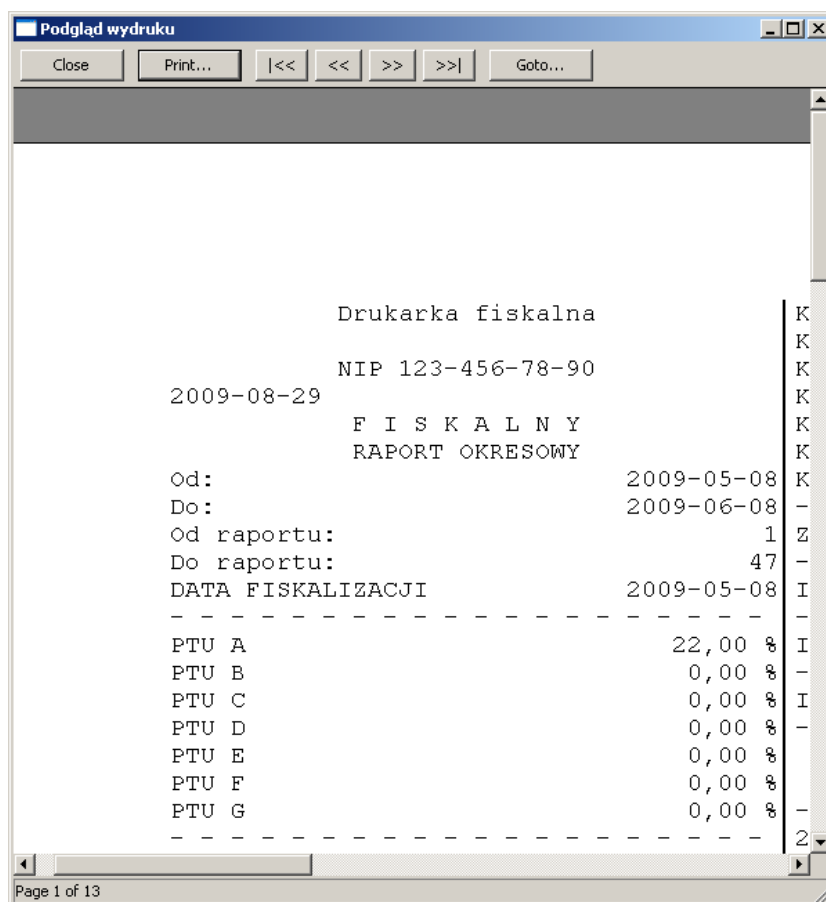
Rysunek 2: Krok 2 - parametry raportu

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

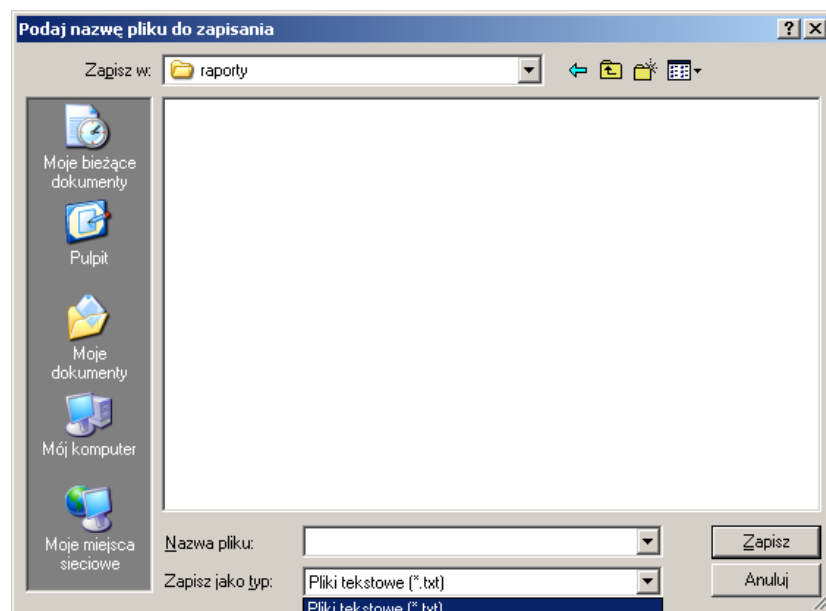
## Krok 3

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

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

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KWOTA PTU A 0,00

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Szukaj

Kierunek

☒ W dół

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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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C++ Portable Types Library (PTypes)

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Hovik Melikyan

[h@melikyan.com](mailto:h@melikyan.com)

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Komponent: Serial library (DLL)

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Serial.cpp - Implementation of the CSerial class

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