

OPI File Definition

| Version | Date | Author | Comments |
|---------|----------|--------|--------------|
| 1.00 | 20130503 | mpeng | 1. Original. |
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Introduction

This document defines opi file format, or raw file format as saved by the memory module reader or the real-time viewer. This file format was done in the spirit of transparency and ease of use.

File Name and Extension

The file name is adopted to straightforward, but easily identifiable.

1. The first character is always the letter “D” signifying data.
2. The next 8 digits specify 4 digit year, 2 digit month, and 2 digit day of the when the first data was taken.
3. An underscore follows.
4. The time when the first data was taken follows. Time is in the format of 2 digit 24 hour format hour, 2 digit minutes, and 2 digit seconds.
5. Another underscore follows.
6. The next field of 2 or 3 alphanumeric digits represents the source of data.
 - a. If the field is composed of 2 or 3 numeric digits, then this indicates the device Paired Device Number (PDN) that provided the data.
 - b. If the field is “TAG”, then this indicates a tag/event file and was gotten from a unified controller.
7. The extension of the file is “.opi”.

Example: “D20120928_080000_44.opi” signifies that it is a data file taken at 08:00:00 on September 8, 2012 with a sensor that has the PDN decimal “44”.

File Format

The file format is in binary and does not have the common text file features such as an end of line and carriage return coding for a new line. This is to keep the file as small as possible.

File Header

The header of the binary file is 512 bytes. The first part of the header is the exact same output as the Unified Controller status payload when a “status” is requested from the unified controller. This is 127 bytes. Please refer to the OPI Wired Frame Definition document for this format. The remaining bytes are 0xFF and are reserved for future use.

File Body

The rest of the file is OPI Link wrapped packets that could come from the Unified Controller. These usually contain data and are dictated by the data codes and sub data-codes as defined by the OPI Wired Frame Definition.