

**INFO**Online

**Manual**

## Log File Provision (advanced)



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## 1 About the document

This document offers a brief description of the technical details of the INFOnline *log file provision (advanced)* service in the new SZMnG measurement system for apps, mobile websites (MEWs) and stationary sites as well as the data formats of the log files and the options for accessing the data.

**NOTE:** Information on the organisational and contractual conditions of *log file provision (advanced)* service can be found in the document *INFOnline Service description Log File Provision*.

## 2 Service portfolio

### 2.1 Data interface

The log files can be accessed via a web portal at <https://log.ioam.de/<angebotskennung>>. The data can then be accessed via download following HTTP authentication; the data is encrypted and transmitted via SSL. The specific URL for accessing the data and the access info will be sent in the setup e-mail. Customers may only access the log data for their own site or sites. A separate login account with its own password is generated for each individual site.

The log data is available as a compressed text file (gzip). Each file contains the log data for a time interval of five minutes. The time period for the log recording can be identified based on the file name. The file name is composed as follows:

*[siteID]\_[end of log recording for this file as Unix time stamp].gz*

In order to be able to identify individual log files and to enable automatic processing, directory listing on the web server is explicitly permitted.

### 2.2 Data availability

Due to technical issues the data flow log files cannot be made available in real time but with a delay of approx. 5 minutes.

The log files are stored for a max. of 7 days and can be accessed at any point in this period. After the storage period has expired, the files are deleted from the system. The files are not saved beyond the seven day period.

The log files are provided at an availability rate of 99%.

### 2.3 Data formats of log files

Each row of the log file contains different data that is collected by SZMnG / SZMmobil in the measurement impulse. The data collected for stationary websites and MEWs is identical; the data collected for apps contains additional information.

## 2.3.1 Data fields in log files for stationary sites, MEWs and apps

For mobiles and stationary sites, the data fields for a measurement impulse in a log row are separated by a pipe symbol (|, for data that is centrally collected by the measuring system) or an ampersand (&, when collected by the “iam.js” measurement script or for data that is supplemented by the measurement system).

Log files for apps contain additional data in the data fields for each row that is collected by the app’s measuring library (separated by “&”, may be JSON data types).

Not all data fields are always included in a log row. This pertains to data that clients can optionally use in an SZM tag (see Tab. below, Section “**Public / Optional**”) as well as other data.

The volume of data collected by the measurement script or measurement library / supplemented by the measurement system (see Tab. below, Section “**Private...**” and “**Private / apps**”) may differ depending on browser type and the type of measurement (stationary site, MEW, app native or hybrid).

### Example: Excerpt from stationary site log file

```
1380279169.3429|193.46.63.0| |de.ioam.de|OK|000605e97501e61fd50f475930001
|st=infonlin&cp=sus&mg=yes&sv=in&co=ein%20Kommentar&pt=CP&rf=www.infonline.de
&r2=https%3A%2F%2Fwww.infonline.de%2Fde%2Fkunde-werden%2F
&ur=www.infonline.de&xy=1920x1080x24&lo=DE%2FNordrhein-Westfalen&cb=0007&vr=3
&id=qpc1so&lt=1380279168058&ev=&cs=z26cu9&la=1380273421
|i00=00145b9eb35278f965242b3dc0001%3B5242b4a4%3B53c79048
|Mozilla/5.0 (Windows NT 6.1; WOW64; rv:23.0) Gecko/20100101 Firefox/23.0
|https://www.infonline.de/de/service-support/|015|web|OK|OK
```

### 2.3.2 Log file provision advanced

Log file provision advanced extends each log file row with the help of the Device Database from 51Degrees by information from the used device.

The extension of the log row through the DDB information is composed of the following:

```
{„PlatformVersion“: „10.0“, „PlatformName“: „Windows“, „Browsername“: „InternetExplorer“,  
„DeviceType“: „Desktop“, „BrowserVersion“: „7.0“}|DE/Nordrhein-Westfalen
```

One needs to add this information to the existing log row-parameter.

#### Example: excerpt from log file advanced from a stationary site

```
1380279169.3429|193.46.63.0| |de.ioam.de|OK|000605e97501e61fd50f475930001  
|st=infonlin&cp=sus&mg=yes&sv=in&co=ein%20Kommentar&pt=CP&rf=www.infonline.de  
&r2=https%3A%2F%2Fwww.infonline.de%2Fde%2Fkunde-werden%2F  
&ur=www.infonline.de&xy=1920x1080x24&lo=DE%2FNordrhein-Westfalen&cb=0007&vr=3  
&id=qpc1so&lt=1380279168058&ev=&cs=z26cu9&mo=1&la=1380273421  
|i00=00145b9eb35278f965242b3dc0001%3B5242b4a4%3B53c79048  
|Mozilla/5.0 (Windows NT 6.1; WOW64; rv:23.0) Gecko/20100101 Firefox/23.0  
|https://www.infonline.de/de/service-support/|015|web|OK|OK {„PlatformVersion“: „10.0“,  
„PlatformName“: „Windows“, „Browsername“: „InternetExplorer“, „DeviceType“: „Desktop“,  
„BrowserVersion“: „7.0“}|DE/Nordrhein-Westfalen
```

## Explanations of the data fields according to the above example

Example data	Explanation
<b>Collected by measurement system (start of log row, separated by  )</b>	
1380279169.3429	Time stamp (Unix time stamp) for the measurement impulse in seconds
193.46.63.0	Client-IP, truncated by 1 byte
[empty]	Content of the "X-forwarded-for" HTTP header, generally empty, any IPs are truncated by 1 byte (empty here)
de.ioam.de	Host name / name of requested system
OK	status code (possible values: "OK", "N1", "N3"-N8", "N10"-N11", may contain multiple values, see below for explanation)
000605e97501e61fd50f475930001	ID composed of: four digits of the IAM box number in hexadecimal + 13 digits of a random number + time stamp in hexadecimal + four-digit serial number of the cookie sent to the client
<b>Public (set by customer via SZM tag or in the app, separated by &amp;)</b>	
cp=sus	Page code (may also be given using fp= [for Flash], np= [for newsletters], xp= [for testing, not counted])
st=infonlin	Site ID / app ID for app measurement
<b>Public / Optional (optionally set by customer via SZM tag or in the app, separated by &amp;)</b>	
co=ein%20Kommentar	Comment field
ie=	Client fingerprint (not present here) submitted by the customer (website/application)
mc=	Transfer value for MCLIENT process (not present here)
mg=yes	Status of request forwarding to the old SZM system (migration tag)
oc=	Code for old SZM system (migration tag) (not present here)
pt=CP	Pixel type for the old SZM system migration tag
sv=in	Status of FRABO request
tb=	Status of tabbing ID (not present here)
<b>Private (collected by measurement script or measurement library, separated by &amp;)</b>	
cb=0007	Cube number: no. of the measurement server that delivered the "iam.js" script

Example data	Explanation
cs=z26cu9	Checksum: checksum of all transmitted parameters
ev=	Event for apps, animation and audio (empty here)
id=qpc1so	Browser-Fingerprint: The plug-in information transmitted by the browser and the software versions as a Jenkins hash, see <a href="http://en.wikipedia.org/wiki/Jenkins_hash_function">http://en.wikipedia.org/wiki/Jenkins_hash_function</a>
lo=DE%2FNordrhein-Westfalen	Location, country and state
lt=1380279168058	Local client time
r2=https%3A%2F%2Fwww.infonline.de%2Fde%2Fkundes-werden%2F	Non-truncated document referrer
rf=www.infonline.de	Document Referrer
ur=www.infonline.de	Pixel referrer (opened web page for the site)
u2=	[only for certain browsers (Safari)] non-truncated pixel referrer (not present here)
vr=3	Version of the "iam.js" script
xy=1920x1080x32	Resolution and colour depth of client screen
<b>Private (collected by measuring system, separated by &amp;)</b>	
la=1380273421	Last appearance of the cookie
mt=	Time of event registration on the IO measurement server (not present here)
u3=	Hash non-truncated pixel referrer (not present here)
<b>Private / apps (collected by measurement library only, separated by &amp;)</b>	
ae=	[apps native measurement] complex JSON data type, see. Chap. 2.3.3 (not present here)
bo=	[apps hybrid measurement] Unix time stamp on which the DeviceID was written into the browser LSO of the app (not present here)
er=	[apps hybrid measurement] Transmitted error (not present here)
fs=	[apps hybrid measurement] original site ID of the website opened in the app, st= contains the app ID (not present here)



Example data	Explanation
ls=	[apps hybrid measurement] LSO identifier (not present here)
mi=	[apps hybrid measurement] complex JSON data type, see Chap. 2.3.3 (not present here)
<b>Collected by measurement system (end of log row, separated by  )</b>	
i00=00145b9eb35278f965242b3dc0001%3B5242b4a4%3B53c79048	Value of the i00 cookie of the "ioam.de" domain
Mozilla/5.0 (Windows NT 6.1; WOW64; rv:23.0) Gecko/20100101 Firefox/23.0	User agent string of the browser used
https://www.infonline.de/de/service-support/	Website URL accessed by the user (HTTP referrer)
015	No. of the measurement server that received the request
web	Measurement type (currently possible: "web", "mew", "app", "hyb")
OK	Result of locallist cross-check (possible values: OK, ERR)
OK	Result of user agent white list cross-check (possible values: OK, ERR)

### Additional data fields using the log file provision service advanced

<b>Compiled by DDB (End of log file, separated by ,)</b>	
„PlatformVersion“: „10.0“,	Gibt die Version des eingesetzten Betriebssystems an
„PlatformName“: „Windows“	Gibt das eingesetzte Betriebssystem an
„Browsername“: „InternetExplorer“	Gibt den eingesetzten Browser an
„DeviceType“: „Desktop“	Gibt den Devicetyp an, mögliche Einträge: Desktop, SmartPhone, Tablet, Mobile, SmallScreen, EReader, Tv, MediaHub, Console
„BrowserVersion“: „7.0“	Gibt die verwendete Browserversion an
DE/Nordrhein-Westfalen	Geolokalisierung durch DDB

## Explanation of status code

Status code	Meaning	Effect
OK	No error (when no error occurs, notifications (Nx) are possible)	normal
N1	No uuid found, inside ae or mi	normal
N3	uuid found, ie set	normal
N4	i00-Cookie not set	normal
N5	Renew cookie, because of lower serial	normal
N6	mi found, ie set (hybrid measurement)	normal
N7	ls found, ie set (iPhone-Hack)	normal
N8	no id found, using hash	normal
N9	JavaScript-Fingerprint additional used for IP+XFF+UA-Hash	normal
N10	LSO not accessible	normal
N11	aid.io fault	normal
N12	Marking for IPv6 (preparation of IPv6)	normal
N13	Code type is missing in call, then it is set to CP and the standard empty code is set (JS- functionality)	normal
N14	Cookie defect, has been reseted	normal

### 2.3.3 JSON data fields in app log files

Additional data is generated with each measurement impulse when measuring apps. This data is made available to the INFOnline measurement library in the JSON data file format.

This data is found in the “ae” / “mi” data fields that are added to a log row.

The “ae” data field is generated by the measuring library for events in the native part of an app (native measurement). If, on the other hand, content from the Internet is loaded and displayed by the app (hybrid measurement), the measurement library will only make the “mi” data field available within the log.

### Example: Excerpt from an app log file

```
1349866706.1954|193.46.63.0| |de.ioam.de|OK E1|57d09c28fa217aefe182752f679c1230000|
ae={"library":{"configVersion":"1.1","libVersion":"1.0.0","debug":true,"offerIdentifier":"iamtest"},
"application":{"package":"com.infonline.testapp","versionCode":1,"versionName":"1.0"},
"protocolVersion":1,"client":{"platform":"samsung,Galaxy Nexus,maguro,google,tuna,yakju",
"screen":{"size":2,"dpi":320,"resolution":"720x1184"},"osVersion":"4.1.1",
"osIdentifier":"android","uuids":{"androidId":"7c607f21b570e99fe9f8d1c6ef8606d",
"installationId":"3e35412c254769ea2d829bf6de29f0ba",
"wifiMac":"543e8f2c6960651119652a45ce44cd24","imei":"57d09c28fa217aefe182752f679c123"},
"carrier":"Telekom.de","language":"de","network":1,"country":"DE"},
"stats":{"overallDroppedEvents":0},"events":{"timestamp":1349866705,"state":"disappeared",
"ad":0,"comment":"einKommentar","paid":0,"category":"mainscreen","identifier":"view","network":1}}
&ie=57d09c28fa217aefe182752f679c123&st=iamtest&lt=1349866705
&ev=view-disappeared&cp=mainscreen&xy=720x1184x| |Dalvik/1.6.0 (Linux; U; Android 4.1.1;
Galaxy Nexus Build/JRO03C)| |002|app|OK|ERR
```

### Example: Excerpt from log file advanced for an app

```
1349866706.1954|193.46.63.0| |de.ioam.de|OK E1|57d09c28fa217aefe182752f679c1230000|
mi={"library":{"configVersion":"1.1","libVersion":"1.0.0","debug":true,"offerIdentifier":"iamtest"
"customerData":"xyz","debug":true},"application":{"package":"com.infonline.testapp","versionCode":
1,"versionName":"1.0"},
"protocolVersion":1,"client":{"platform":"samsung,Galaxy Nexus,maguro,google,tuna,yakju",
"screen":{"size":2,"dpi":320,"resolution":"720x1184"},"osVersion":"4.1.1",
"osIdentifier":"android","uuids":{"androidId":"7c607f21b570e99fe9f8d1c6ef8606d",
"installationId":"3e35412c254769ea2d829bf6de29f0ba",
"wifiMac":"543e8f2c6960651119652a45ce44cd24","imei":"57d09c28fa217aefe182752f679c123"},
"carrier":"Telekom.de","language":"de","network":1,"country":"DE"},
"stats":{"overallDroppedEvents":0},"events":{"timestamp":1349866705,"state":"disappeared",
"ad":0,"comment":"einKommentar","paid":0,"category":"mainscreen","identifier":"view","network":1}}
&ie=57d09c28fa217aefe182752f679c123&st=iamtest&lt=1349866705
&ev=view-disappeared&cp=mainscreen&co=einKommentar&xy=720x1184x| |Dalvik/1.6.0 (Linux;
U; Android 4.1.1;
Galaxy Nexus Build/JRO03C)| |002|app|OK|ERR|{"PlatformVersion": "4.1.1", "PlatformName":
"Android", "BrowserName": "Android", "DeviceType": "SmartPhone", "BrowserVersion": "4.1.1"}|
DE/Nordrhein-Westfalen
```

## Example: “ae” value for an app on Android (reformatted for better legibility)

```

ae={
  "library":{
    "configVersion":"1.1",
    "libVersion":"1.0.0",
    "debug":true,
    "offerIdentifier":"iamtest"
  },
  "application":{
    "package":"com.infonline.testapp",
    "versionCode":1,
    "versionName":"1.0"
  },
  "protocolVersion":1,
  "client":{
    "platform":"samsung,Galaxy Nexus,maguro,google,tuna,yakju",
    "screen":{
      "size":2,
      "dpi":320,
      "resolution":"720x1184"
    },
    "osVersion":"4.1.1",
    "osIdentifier":"android",
    "uuids":{
      "androidId":"7c607f21b570e99fe9f8d1c6ef8606d",
      "installationId":"3e35412c254769ea2d829bf6de29f0ba",
      "wifiMac":"543e8f2c6960651119652a45ce44cd24",
      "imei":"57d09c28fa217aefe182752f679c123"
    },
    "carrier":"Telekom.de",
    "language":"de",
    "network":1,
    "country":"DE"
  },
  "stats":{
    "overallDroppedEvents":0
  },
  "events":{
    "timestamp":1349866705,
    "state":"disappeared",
    "ad":0,
    "comment":"einKommentar",
    "paid":0,

```

```

    "category":"mainscreen",
    "identifier":"view",
    "network":1
  }
}

```

**Example: “mi” value for an app on iOS (reformatted for better legibility)**

```

mi={
  "library":{
    "libVersion":"0.5.2",
    "configVersion":"1.1",
    "offerIdentifier":"mapinfon",
    "hybridIdentifier":"hybtest",
    "customerData":"xyz",
    "debug":true
  },
  "client":{
    "osIdentifier":"iOS",
    "uuids":{
      "en0mac":"f34673f4e5962c58b13054ab38d5a08",
      "advertisingIdentifier":"85bc4efae0badd530c9369f3698884c"
    },
    "screen":{
      "resolution":"1024x768",
      "scale":1.0
    },
    "language":"de",
    "country":"DE",
    "osVersion":"5.1.1",
    "platform":"iPhone4,1",
    "network":1,
    "carrier":"Telekom.de"
  }
}

```

## Explanation of JSON data

JSON data structure	Explanation
<b>Collected by measurement library</b>	
application	[ae] info on app version
client	[ae, mi] info on client (OS, OS version, country, language, carrier etc.)
client/screen	[ae, mi] info on client screen resolution
client/uuids	[ae, mi] Div. UUIDs des Clients (z. B. „advertisingIdentifier“ bei iOS oder „androidId“ bei Android)
events	[ae] OS event that triggered the measurement impulse
library	[ae, mi] info on measurement library version
protocolVersion	[ae] Version of the JSON object
stats	[ae] event handling error

## 3 Contact

You can contact the Service & Support team any working day between 9 a.m. and 6 p.m. by

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