IFFMaster

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Chapter 1

IFFMaster

1.1   IFFMaster.guide

   IFFMaster

   Version 1.5 – Freeware

   (C) 1994, 1995, 1996 by Kay Drangmeister

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1.2   IFFMaster.guide/Introduction

Introduction
****

   IFFMASTER is a program that allows you to have a view inside the
structure of IFF files. It is not yet another picture viewer or sound
sample player, but it displays the internal entities (chunks) of a file.
For example, the headers of pictures (ILBM) or sound samples (8SVX) are
displayed in clear, so you can directly read the size and depth of the
image or the sampling rate.

   From time to time you will find an unknown file on your hard disk,
let's say a preference file. Since preference files are often stored in
IFFormat, there is a chance you can directy examine the contens. There
are some programs which write incorrect IFF files (e.g. the ILBM.CAMG

chunk is a likely candidate), or which write additional information
(e.g. copyright or author chunks). With IFFMASTER you can easily verify
such cases.

   During the last time I implemented some ways to manipulate files,
e.g. delete and move chunks. Chunk contents can be edited using a text
or binary editor depending on the content type. In future versions
(see History) there will be options to add new chunks like a DPI chunk
for images.

   Current features include:
   * MUI application

   * localized GUI (with AmigaOS 2.1 or later)

   * online help, bubble help (with MUI 3.0 or later)

   * Extensive chunk type library (currently 51 form types, 333 known
     chunks, 94 of these with comprehensive structure description)

   * Chunk contents are presented alternatively as structure, text or
     hex dump

   * Bit fields and enumeration types are displayed in clear

   * Fixed point values are printed in decimal (e.g. 8SVX.VHDR.Volume)

   * Callback hooks for special attributes, e.g. the Mode-ID inside the
     CAMG chunk is de-referenced (e.g. PAL: Hires).

   * ARexx interface. E.g. extract Term phonebook entries to the DFA
     data base.

   IFFMASTER is distributed under the concept of freeware. Standard
disclaimer applies to this program.

1.3 IFFMaster.guide/Installation

Installation
****

   Nothing to it: just leave all files and the catalogs directory as
they are in one directory, or alternatively copy the appropriate
iffmaster.catalog to into the system's locale directory (i.e.
LOCALE:Catalogs/yourlanguage/). By the way: if you mixed up catalog
files for different languages, just use IFFMASTER to discover the
catalog's language... :)

   System requirements are:
   * AmigaOS 2.0 (V37)

   * AmigaOS 2.1 (V38) for localized GUI

   * AmigaOS 3.0 (V39) for some extended features, like displaying

colors in ILBM/CMAP chunks.

  * MUI version 2.1 (muimaster.library v8), See MUI.

   If you wish to start IFFMASTER inside the user-startup, you should
do this with runback IFFMaster ICONIFIED. This will cause IFFMASTER to
start as an AppIcon, so that Icons may be dragged onto this Icon.

1.4 IFFMaster.guide/Usage

Usage
*****

  Main Window
  Contents Window
  Preferences Window

1.5 IFFMaster.guide/Main Window

Main Window
===========

   The main window consists of 3 groups. The topmost one is the file
specification group, the middle part ist the chunk list and below there
are the action buttons.

  File Specification
  Chunk List
  Action Buttons

   The current version has some capabilities to manipulate files, but
adding chunks is still not implemented. So the Add button is always
inactive. However, moving (Up, Down), deleting (Del), and editing
(Edit) chunks is possible. Be warned that files may become
unreadable to some applications if you delete mandatory chunks, i.e. if
you delete the ILBM/BMHD chunk of a picture it will become
undecodeable. To activate the manipulation buttons select
Prefs/Editable file from menu. If that menu item is inactive (it can
be locked if you are still unsure about the program's functions) you
can activate it by opening the preferences window and setting the File
editable switch to be off for new files or to be left unchanged, see
Safety.

1.6 IFFMaster.guide/File Specification

```
File Specification
------------------
```

   There are different ways to open a file. The most common one is by
selecting Project/Open... from the menu, or by clicking on the popup
gadget beside the string gadget for getting a file requester.
Alternatively, you can simply drag an icon on IFFMASTER's main window
(AppWindow). Furthermore, you can open the file which is currently
in the clipboard by using the menu item Project/Open Clip.

1.7   IFFMaster.guide/Chunk List

```
Chunk List
----------
```

   The chunk list can show several types of information: the left
column shows the chunk ID (e.g. BMHD), then there is the chunk type
(e.g. ILBM), and at the right side there is the size of the chunk.
Below the action buttons there is a cycle gadget labeled Show that
specifies the format of the chunk list. If it states Description you
will get a description of the chunk's purpose (e.g. Bitmap Header), and
Contents will display a short summary of the chunk's contents. You can
advance the cycle gadget by pressing the space key.

   Because it is impossible to display the entire contents of a chunk
in a single line you can get a comprehensive list by first selecting a
chunk in the chunk list and then pressing Info (you can as well
double-click on the chunk). A new window containing the chunk's
contents will appear. You can display the contents either as structure,
plain text or as a hex dump. Change the presentation by using the
register above the contents list, or by pressing cursor left and cursor
right.

   You need not close the contents window to display the contents of
another chunk. Just click on that chunk in the chunk list or press
cursor up or cursor down after having activated the chunk list via the
TAB key. The new contents are displayed using the appropriate data type.

1.8   IFFMaster.guide/Action Buttons

```
Action Buttons
--------------
```

   Each of the buttons in this group performs an action on the currently
active chunk, i.e. the on that is marked by the cursor in the
Chunk List.

   The buttons that are used to modify a file are inactive if the menu
item (switch) File Editable is turned off. This is for safety reasons,

so that the file structure or contents cannot be damaged
unitentionally. Depending on the experience of the user there are
different locking modes for that switch, see Safety.

Info
     The Contents Window will be opened, and additional information
     about the chunk is desplayed in it.

Edit
     Depending on the chunk's contents (text or binary data) a text or
     binary editor is called to let you edit the chunk's contents. See
     General.

Add
     This action is not implemented yet due to extremely low user
     feedback. So this button is always disabled.

Delete
     The active chunk is entirely deleted.

Up
     The chunk is moved before its predecessor. Because chunks can not
     be moved out of their containers, this action will only succed if
     the preceeding chunk is not one of the type FORM, CAT or LIST.
     Furthermore, only chunks containing data can be moved, i.e.
     container chunks (type FORM, CAT or LIST) are not moveable.

Down
     The chunk is moved behind its successor. The same restrictions as
     in Up apply.

Top
     The chunk is moved up as far as possible. The same restrictions
     as in Up apply.

Bottom
     The chunk is moved up as down as possible. The same restrictions
     as in Up apply.

1.9 IFFMaster.guide/Contents Window

Contents Window
===============

   The contents window displays the contents of the active chunk, see
Chunk List. Depending on the type of the contents one of the following
three display types is (automatically) used.

Structure
     This is the most sophisticated method to display the chunk's
     contents. All parts of the content are decoded and displayed line
     by line together with a description.

     Example: A sampled sound (FORM 8SVX) has a header chunk (VHDR)

       that is 20 bytes long. Displayed as a sequence of hex numbers it
       would read: 00021432 00000000 00000020 41560100 00010000.
       Displayed as a structure it reads like this:

                              OneShot HiSamples   136,242
                               Repeat HiSamples   0
                              Samples / HiCycle   32
                                   Samples / s   16,726
                                     # Octaves   1
                          Compression Technique   None
                                 Volume [0,1]   1.00000

Text
       Some chunks contain plain text, e.g. ANNO chunks. Texts are
       formatted block-justified, but no other processing is done.

Hex Dump
       If a chunk contains neither structured data nor text the contents
       are displayed using a hex dump. There are some ways to customize
       the appearence of the dump, see Hexdump.

    You can also switch between some display styles by hand, using the
register gadgets. For example you can have the above mentioned VHDR
chunk displayed as a hex dump instead of a structure. To switch
between the display styles you can also use the cursor left and cursor
right keys, even if the active window is the main window and not the
contents window. This way you can control all display functions from
the main window.

1.10   IFFMaster.guide/Preferences Window

Preferences Window
==================

    The preferences are grouped on four pages:

  General
  Safety
  Layout
  Hexdump

   After having edited the preferences you may choose to

Save
       For storing the settings on disk. All future invocations of
       IFFMASTER will use that settings.

Use
       For storing the settings in RAM only, so they will only last until
       you reboot your computer.

Cancel
       For aborting the adjustments you made and use the previously stored

settings.

   Closing the window with the close gadget has the same effect as
klicking on Cancel.

1.11   IFFMaster.guide/General

General

   On this page you can specify the editors.

Text Editor
     specifies the editor that is used for chunks containing plain text,
     e.g. ANNO-Chunks. You have to make sure that the editor does not
     spawn itself from the shell, but runs synchronously. If you are
     using e.g. the CYGNUSED you may enter ed -sticky. If you leave
     this gadget empty the editor specified in the environment variable
     EDITOR is used.

Binary Editor
     specifies the editor that is used for chunks containing binary
     data. A common name for these editors is file zapper, and are
     likely to be available on the aminet. This editor has also to run
     synchronously. If you leave this gadget empty the editor
     specified in the environment variable BINEDITOR is used.

1.12   IFFMaster.guide/Safety

Safety

   The following settings are used to prevent inintentional damage to
files. Since numerous 'okay to do...?' requests by the program are
evenly unacceptable you can adjust between the two extremes safety and
ease of use. Beginners and casual users should always use the safe
settings.

File Editable switch
     In the menu Settings there is a switch File Editable which turns
     on or off the file manipulation gadgets, see Action Buttons. You
     can set here the behaviour of that switch.

   off and locked
          is the safest setting. The switch is off and disabled,
          effectively preventing you from accidentally turing on the
          editing buttons.

   off for new files
          turns off the manipulation gadgets each time a new file is

```
       opened.  If you want to edit files only infrequently this is
       a good setting.

   left unchanged
       leaves the switch always in the state you switched it to.  If
       you want to edit many files in a row you have to turn on the
       manipulation gadgets only once.

Overwrite files
     If you want to edit many files without keeping backups you can
     turn the prompting off. Otherwise it is recommended to leave this
     gadget always on the safe prompt position, because since IFFMASTER
     can be fully driven by keyboard it just needs two keypresses like
     Del and s (for Save) to possibly destroy a file.
```

1.13 IFFMaster.guide/Layout

```
Layout
------

   The layout page currently features the following settings:

Bubble help
     If you are familiar with the program's functions you may wish to
     turn off the bubble help. (NB: Bubble help is only supportet in
     MUI 3.0 or later.)

Hex indicator
     lets you choose your favourite pre- or postfix string to indicate
     hexadeximal numbers in the structure page of the contents window.
     For an example file which contains hex numbers open
     ENV:Sys/locale.prefs and select the LCLE chunk. The first 4
     numbers (16 Bytes) are reserved and displayed as hex numbers.

     NB: This setting does not affect the Hexdump.
```

1.14 IFFMaster.guide/Hexdump

```
Hexdump
-------

   This page contains gadgets that affect the appearence of the hex dump
in the contents window.

Limit # bytes
     Building hex dumps of very large chunks (e.g. ILBM.BODY) can take a
     long time. Therefore the number of bytes in a hex dump can be
     limited to a certain ammount. The default limit is 512 bytes.
     Since in most cases hex dumps are not very meaningful you may wish
     to leave this value reasonably low.  To adjust the value you man
```

use the slider or the string gadget to the right of it. With the
check mark button you can turn the limit off, but this is not
recommended.

Offset format
     The leftmost column of the hex dump shows the offset of the first
     byte in each row. Use this gadget to specify if that offset should
     be displayed in deximal or hexadecimal.

Dump characters
     If the (fixed-width) font used in the hex dump contains all 256
     characters you can turn on to print even normally non-printable
     characters like LineFeed, 0x0A, which will then be displayed as an
     inverse 'J' or something like that. If only a rectangle appears
     then your font supports only printable characters and you will
     have to turn on printable only. Then all non-printable characters
     are displayed as a dot.

     A good way to test this feature is to load a 24 bit ILBM picture.
     These pictures normally contain three CLUT chunks. Normally these
     chunks contain all byte values in increasing order.

1.15 IFFMaster.guide/ARexx Interface

ARexx Interface
****

   Since version 1.5 of IFFMASTER many functions can be accessed via an
ARexx port. This allows you to gain access to internal IFF data from
inside scripts. For example you could list all image (ILBM) files (or
sort them into a directory) whose depth is up to 8 planes. Or you
could save some space if you remove all ANNO chunks from the files in
your sample (8SVX) directory. A few example scripts are in the rexx
directory of the distribution. The port name of IFFMASTER is
IFFMASTER.1. You can get a quick list of IFFMASTER's REXX commands by
running rexx/ShowREXXCommands.rexx.

load   FILE/A
     Loads a file into IFFMASTER.

loadclip
     Loads the clipboard's contents.

saveas   FILE/A
     Saves the project under the given file name. You may wish to turn
     overwrite ON to prevent a requester popping up.

save
     Saves the project under the same name as displayed in the string
     gadget, i.e. under the load file name.

saveclip
     Copies the project to the clipboard.

```
savechunk    FILE/A
     Saves the chunk marked by the cursor under the given file name.

saveform     FILE/A
     Saves the sub-FORM marked by the cursor under the given file name.
     The cursor must be over a FORM, LIST or CAT chunk.

saveformclip
     Copies the sub-FORM marked by the cursor to the clipboard.

entries
     Gives the number of chunk list entries as the RESULT.

cursorpos    ENTRY/N
     Gives the cursor position in the chunk list as the RESULT.

chunkid
     Gives the chunk ID of the chunk marked by the cursor as the RESULT.

chunktype
     Gives the chunk type of the chunk marked by the cursor as the
     RESULT.

chunksize
     Gives the chunk size of the chunk marked by the cursor as the
     RESULT.

chunkdepth
     Gives the chunk' nesting depth of the chunk marked by the cursor
     as the RESULT.

chunkinfo
     Gives short information about the chunk marked by the cursor as
     the RESULT.  The information is the same as the 'contents' column
     in the chunk list.

chunkstruct  SEPSTRING
     Gives the information as in the 'structure' page of the chunk
     contents window on a line-by-line basis.  Since the list has two
     columns (description and contents) you can specify a separator
     string (SEPSTRING) for the two entries. The default SEPSTRING is "
     | ".  See rexx/ImportTERMpbook.rexx for an example usage.

chunktext
     Gives the chunk's contents as a string in RESULT. This makes only
     sense if the chunk is really a text chunk, like ANNO or AUTH.

delete
     Removes the chunk under the cursor from the chunk list. Note that
     you have to turn editable ON to successfully perform a chunk
     deletion.  See rexx/RemoveANNO.rexx for an example usage.

infowindow   ON/S,OFF/S
     If you have a non-interactive REXX script which does not require
     user supervision you may close (OFF) open (ON) the chunk contents
     window.
```

```
mainwindow    ON/S,OFF/S
     Same as above, but closes the main window. Note to turn the window
     back on or quit IFFMASTER if your script terminates, otherwise
     IFFMASTER will stay open with no user interface to quit it. Of
     course the user can quit IFFMASTER by hand by using
     CommoditiesExchange or by sending a break signal to IFFMASTER's
     task or by using the quit REXX command.

editable      ON/S,OFF/S
     Turns the editing facilities on or off.

overwrite     ON/S,OFF/S
     Turns quiet overwriting of files on or off.

showformat    FORMAT/A/N
     Changes the state of the Show cycle gadget that affects the format
     of the chunk list. Following values are possible:
          0.     Id - Type - Size

          1.     Id - Type - Description

          2.     Id - Type - Description - Size

          3.     Id - Type - Contents

          4.     Id - Type - Contents - Size

limithex      ON/S,OFF/S,BYTES/N
     Specify the size limit of the hex dump buffer. OFF turns limitation
     off, ON limits size to value set in the preferences, BYTES/N
     changes the preferences to the specified value. Use limithex BYTES
     16 if you don't need to display hex dumps and want to gain speed
     when processing chunk contents (i.e. moving the cursor).

editor        EDITORNAME
     Specifies the editor to use when editing text chunks.

bineditor     BINEDITORNAME
     Specifies the editor to use when editing binary chunks.

   There are some standard MUI REXX commands that are also useful:
quit          FORCE/S
     Terminates IFFMASTER. If you specify FORCE then no requester pops
     up when there is an unsaved project.

hide
     Iconifies IFFMASTER.

show
     Uniconifies IFFMASTER.

info          ITEM/A
     Gives information about variuos items (e.g. title). Refer to
     MUI.guide/ARexx.

help          FILE/A
     Lists all REXX commands to FILE.  See rexx/ShowREXXCommands.rexx
```

for an example usage.

1.16 IFFMaster.guide/Problems?

```
Problems?
*********
```

Building hex dumps of very large chunks (e.g. ILBM.BODY) can take a
long time. Therefore the number of bytes in a hex dump can be limited
to a certain ammount. The default limit is 512 bytes, it can be
adjusted or turned off in the Preferences, see Hexdump.

Some chunks (e.g. FORM) are container chunks with no contents, and
therefore there is no presentation. Some other chunks (e.g. BODY)
contain raw data, presentation of these chunks is limited to hex dump.

1.17 IFFMaster.guide/Credits

```
Credits
*******
```

I like to thank:

Stefan Stuntz
     for MUI, see MUI.

Eric Totel
     for his great MUIBUILDER, and for keeping MUIBUILDER up with the
     needs of IFFMASTER :). This program would not exist without it.

Francesco Dipietromaria
     for the italian translation

Marcin Orîowski
     for the polish translation

Alessandro Zummo
     for fixing the de-iconify problem with the AppIcon

Andreas Mixich
     for all ARexx scripts

Kai Iske and Walter Dörwald
     for support and betatesting

Thomas Reinhardt, Harald Drangmeister and Ralph Wermke
     for their IFF descriptions

H. Phil Duby, Bryan Ewert, Martin Pfingstl and Klaus Seistrup
     for bug reports, support and comments

1.18 IFFMaster.guide/MUI

```
MUI
===
```

                              This application uses

                            MUI - MagicUserInterface

                      (c) Copyright 1993/94 by Stefan Stuntz

    MUI is a system to generate and maintain graphical user interfaces. With
    the aid of a preferences program, the user of an application has the
    ability to customize the outfit according to his personal taste.

    MUI is distributed as shareware. To obtain a complete package containing
    lots of examples and more information about registration please look for
    a file called "muiXXusr.lha" (XX means the latest version number) on
    your local bulletin boards or on public domain disks.

            If you want to register directly, feel free to send

                            DM 30.- or US$ 20.-

                                    to

                              Stefan Stuntz
                          Eduard-Spranger-Straße 7
                              80935 München
                                 GERMANY

1.19 IFFMaster.guide/History

```
History
*******

Version 1.0
     First release

Version 1.1
     FIX
          version 1.0 was compiled with option 68030 - sorry!

     NEW
          many new chunk types

     NEW
          menu (moved about and prefs into the menu, gaining some space)
```

NEW
        specifying file names at command line

NEW
        loading files directly from clipboard

NEW
        improved keyboard handling

Version 1.2
    NEW
        fully localized GUI

    NEW
        chunk contents can be saved

    NEW
        AppWindow and AppIcon, command line option iconified

    NEW
        improved formatting capabilities for structure entries

    NEW
        sophisticated IFF parser, even brain-dead formats like
        EMOD.EMIC are handeled appropriately

    NEW
        chunks now have nominal length, a message is displayed if a
        chunk is too short or too long

    BUG
        Beta testers reported problems with de-iconify function when
        an icon was dropped onto the AppIcon. I removed the said
        call, so you have to double-click the AppIcon after dropping
        an icon.

Version 1.3
    FIX
        prefs window: close gadget now functioning, see
        Preferences Window.

    FIX
        cycle chain (TAB) now works in all windows

    NEW
        new chunk IDs: IAND, IANM, DR2D, RGB8, RGBN, SPLT

    NEW
        hex numbers get a user-chosen indicator, construction of hex
        dumps is now more than 3 times faster, see Hexdump.

    NEW
        IFFs can be saved, even nested FORMs, e.g. images inside
        animations

    NEW
        implemented some editing capabilities (delete chunks), see

        Action Buttons.

    NEW

        preferences can be saved, see Preferences Window.

Version 1.4
    NEW

        Completely changed to GNU-C. Differences are: new startup
        code, no more ANSI-C functions like sprintf() used, enabling
        some things like localized output of floating point numbers.

    FIX

        should finally run without locale.library

    NEW

        Online help

    NEW

        new chunk IDs: AMBA, AMDE, AMIN, AMHU, AMUN, EQE1, RESO,
        VARS, ...

    NEW

        complete structure descriptions of system preference files,
        some new hooks. Be sure to try out e.g. IFFMaster
        ENV:sys/locale.prefs.

    NEW

        color descriptions (RGB values) are now also displayed as a
        colorfield, if you have WB 3.0. Check out IFFMaster
        ENV:sys/palette.prefs or any ILBM/CMAP. NOTE: You need some
        free pens for this feature, so you may need to specify a deep
        screen for IFFMASTER inside MUIPREFS.

    FIX

        <Clipboard> is now accepted as a name for the clipboard. So
        Save now works as Save Clip when working on a clipboard file.
        As a side-effect you can now enter IFFMaster "<Clipboard>" at the
        command line to load directly from the clipboard.

    FIX

        button key definitions did overlap

    NEW

        'non-printable' characters can now be displayed in the hex
        dump, if the font comprises 256 characters, see Hexdump.
        (Requested by Walter Dörwald)

    NEW

        some more editing capabilities (move chunks), see
        Action Buttons.

    NEW

        Chunks containing text or binary data can be edited via text
        or binary editors, see Action Buttons.

    NEW

        new icon, which is also used as AppIcon now

```
Version 1.5
    NEW
            ARexx interface. E.g. extract Term phonebook entries to the
            DFA data base.

    NEW
            Bubble help available (MUI 3.0).

    FIX
            File editable switch now also enables/disables edit button.

    NEW
            New Chunks: MUI Prefs,

    NEW
            Support for IEEE 96 bit floats (ILBM.MAND)

    FIX
            Key o works again (activates string gadget)

    FIX
            AppIcon problem hopefully solved (thanks to Alessandro Zummo)
```

I would greatly appreciate new ideas and enhancement requests. If you
discover any chunk unknown to IFFMASTER, please let me know (i.e. try
to send me that (short) file or even a description of the chunk's
structure, if known). If you dare to translate the catalog to your
language, please have a look at translators.readme first.

1.20 IFFMaster.guide/Chunks

```
Chunks
******
```

Following chunks are currently known to IFFMASTER:

```
[anywhere]
     CSET, FVER, ANNO, AUTH, CHRS, HLID, NAME, TEXT, (c)

3DDD
     OBJE

8SVX
     ATAK, BODY, CHAN, FADE, PAN , RLSE, SEQN, VHDR

ANIM
     ANSQ

AVCF
     AVFH, GDAT

AVCO
     CDAT, FLAG, IMAG
```

```
AVEV
     ACTS, CDAT, FLAG, IMAG, PARS, REFL

CDAF
     BODY, FILE

CDVR
     VARS

COPR
     COPI, WAIT, MOVE

CPRO
     3DIM, GFRA, SFRA

CTLG
     LANG, STRS

CYBR
     CMON, MD08, MD16, MD24, VER

DECK
     RESO

DEEP
     DBOD, DGBL, DLOC, DPEL

DR2D
     ATTR, CMAP, CPLY, DASH, DRHD, FONS, OPLY, PPRF

DTYP
     DTHD, DTCD

EMOD
     8SMP, EMIC, PATT

ENVL
     LFOI, COEN, VOEN, PIEN, NOEN, REEN, PHEN

EQED
     EQE1

FAX3
     FXHD, GPHD, PAGE

FAXX
     FXHD, GPHD, PAGE

FTXT
     CYGD, FONS

GXGA
     GADA

GXMN
     MEDA
```

```
GXUI
     GGUI

GXWD
     WDDA

IAND
     BPCT, CMAP, BODY

IANM
     BMHD, CAMG, BODY

ILBM
     3DIM, ANHD, ASDG, BHCP, BHSI, BMHD, BODY, CAMG, CCRT, CLUT, CMAP,
     COLC, CRNG, DEST, DLTA, DMMY, DPAN, DPI , DPPS, DPPV, DRNG, EQE1,
     FCMP, FFEX, FITR, FXCO, FXD2, FXPL, GFRA, GRAB, IMRT, JUNK, MAND,
     SFRA, SPRT

ISTG
     MAXF, SOBJ

KCXM
     VERS, PREF

LWOB
     PNTS, POLS, SRFS, SURF

MCXB
     PREF, VERS

MCXP
     PREF, VERS

MTRX
     ARRY, BODY, DTYP, STRU

NAIL
     NBDY, NDSC, NHDR

PREF
     ALRT, AMBA, AMDE, AMIN, AMHU, AMUN, CONF, CTRY, DFSS, EVNT, ETXT,
     FLOP, FONT, GENA, GENC, GTCO, GUI, ICTL, INPT, JFIF, KEYS, LCLE,
     MENU, MIDI, MUIC, MUIW, OPER, OSCN, PALT, PATH, PDAT, PGFX, PNTR,
     PRHD, PSPD, PTRN, PTXT, PUNT, SCRM, SERL, SHMN, SOND, TMAC, TMDO,
     TMEX, TMIC, TMIM, TMMO, TMSO, VERS, WBCF, WBPC, XDOS

PTCH
     INPF, OUTF, PSEQ, VERS

REAL
     RANI, RATT, RMTR, ROBJ, RSCR, RSET, RVRS, RWIN

RGB8
     BMHD, BODY, CAMG, CMAP, IMRT

RGBN
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    BMHD, BODY, CAMG, CMAP, IMRT

SC3D
    EDGE, FACE, HIER, LAMP, LNAM, OBSV, PATH, VERT, VNAM, WRLD

SMUS
    SHDR, INS1, INST, SNX1, TRAK

SPLT
    INFO, BODY

SWRT
    ASCI, ATTR, BIBD, BIBH, BIBP, BOXP, DINF, DOC , DSP2, ENDP, FDTA,
    FNTD, FNTH, GINF, GRMR, HFDA, HYPH, IDXD, IDXH, IDXP, LINP, LMST,
    OUTD, OUTH, OUTP, OVLP, PAG3, PASD, PASH, PICP, PNDA, PRGH, PRN3,
    RMST, RULE, SAVP, SEC1, SHD1, SHPP, SPEL, SWCL, TABS, TBDY, TBLK,
    TOCD, TOCH, TOCP, TOID, TOIH, TOIP, TSSD, TSSH, TXOB

TACF
    TPAR, TPBR, TPCA, TPCM, TPMA, TPP1, TPPA, TPPX, TPSC, TPSE, VERS

TAKE
    TFRM, THDR

TDDD
    INFO, OBJ

TERM
    CLIP, COMD, CPTR, DATE, DIAL, EMLN, FAST, FILE, MISC, MODM, PATH,
    PHON, RECV, SCRN, SEND, SERL, SOUN, SPEK, TRML, TRNS, VERS, WINF,
    WIND, XFER

TVP2
    TVRX

VILL
    CRC , MODE, MONI, VER

   I am still looking for descriptions for the chunks in smaller print.
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1.21 IFFMaster.guide/Author

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Author
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  PGP Fingerprint =  5A 88 30 0F BF D7 0F F3  F9 31 A0 88 AB E4 38 66
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