

A horizontal banner image featuring a sequence of celestial bodies from left to right: a blue planet with white clouds, a brown planet, a larger brown planet with a cratered surface, a white satellite dish, and a large gas giant planet with a prominent ring system. The text "Planetary Data System" is overlaid in white on the right side of the banner.

Planetary Data System

# **PDS4 Image Grayscale**

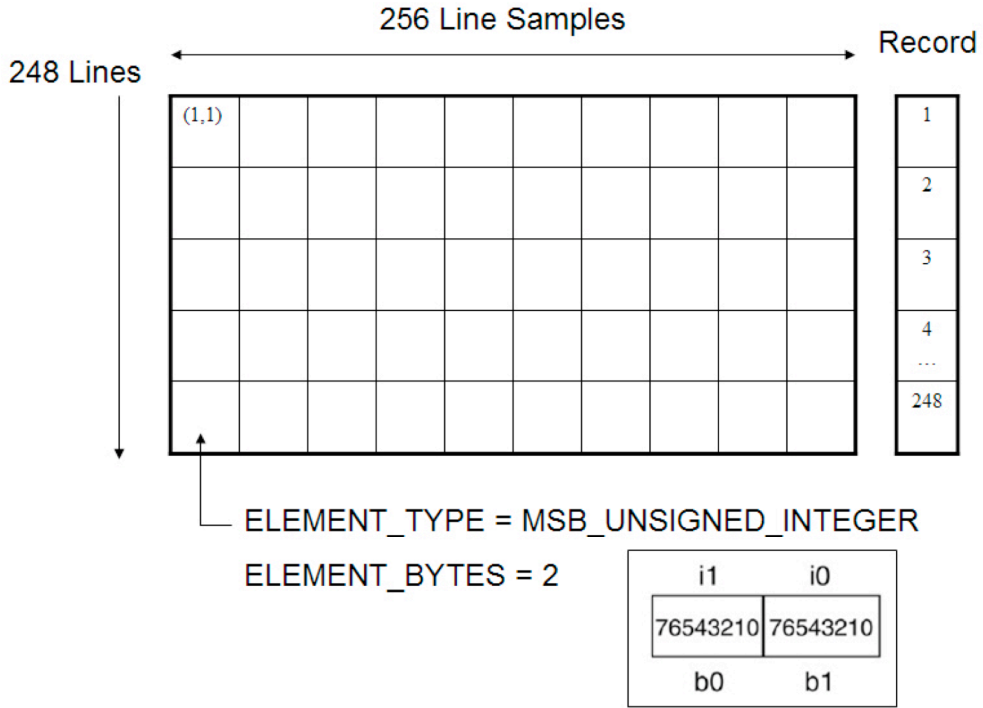
## **Array Base Example**

Elizabeth Rye  
June 10, 2009

# PDS4 Data Formats: Array Base

- Array Base:
  - “Homogeneous N-Dimensional Array of Scalars”
  - Contiguous stream of binary data
  - Each element in the data object is identical in type and represented by an identical storage format

# Image Grayscale – Data Structure



## Image Grayscale - Schema

OBJECT = IMAGE_GRAYSCALE	Required	
DATA_LOCATION	Required	( <i>filename, offset</i> )
LOCAL_IDENTIFIER	Required	
COMMENT	Optional	
AXES_ORDER	Required	FAST2SLOW
BYTE_ORDER	Required	MSBF
FIRST_ELEMENT	Required	TOPLEFT
FILE_TYPE	Required	BINARY
MIN_INDEX	Required	0
NUMBER_OF_AXES	Required	2
ELEMENT_BYTES	Required	
ELEMENT_OFFSET	Optional	
ELEMENT_SCALING_FACTOR	Optional	
ELEMENT_TYPE	Required	
ELEMENT_UNIT	Optional	
AXIS_NAME	Required	
AXIS_LENGTH	Required	
AXIS_SCALE_TYPE	Required	
AXIS_UNIT	Required	
END_OBJECT = IMAGE_GRAYSCALE		

# Image Grayscale – Class Structure

OBJECT = TAGGED\_IMAGE\_GRAYSCALE\_SET

OBJECT = DESCRIPTION\_SECTION                      Optional  
DESCRIPTION    Required  
END\_OBJECT = DESCRIPTION\_SECTION

OBJECT = HEADER    Optional  
DATA\_LOCATION    Required  
  
LOCAL\_IDENTIFIER    Required  
COMMENT    Optional  
BYTES    Required  
DESCRIPTION    Optional  
EXTERNAL\_STANDARD    Required  
FILE\_TYPE    Required  
NAME    Optional  
END\_OBJECT = HEADER

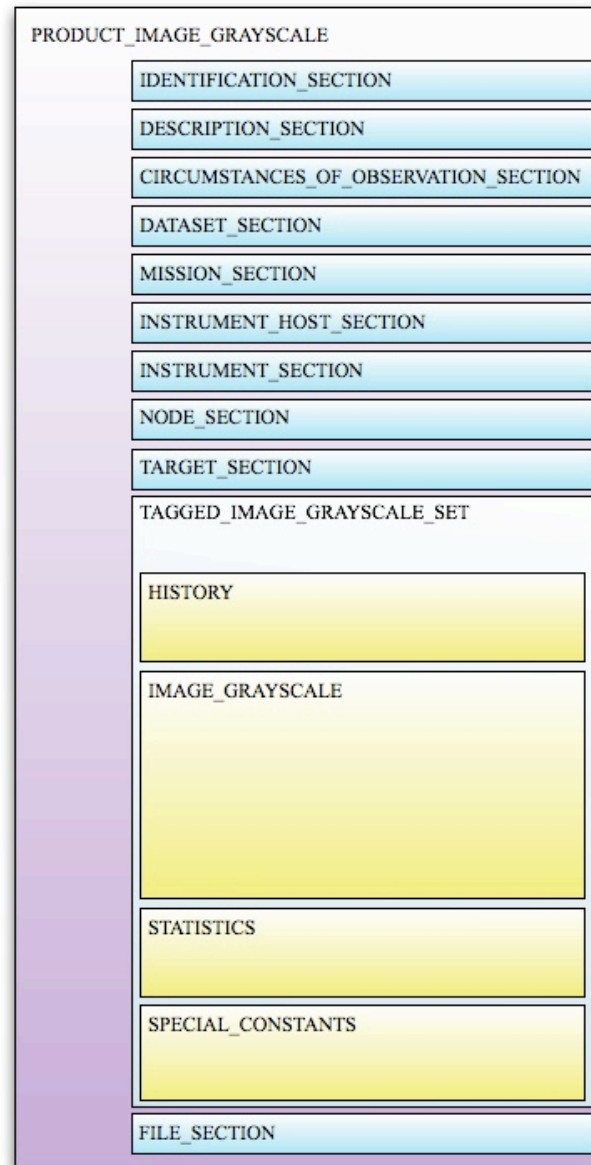
OBJECT = IMAGE\_GRAYSCALE                                      Required  
END\_OBJECT = IMAGE\_GRAYSCALE

OBJECT = OBJECT\_STATISTICS                                      Optional  
LOCAL\_IDENTIFIER    Required  
AVERAGE    Optional  
CHECKSUM    Optional  
MAXIMUM    Optional  
MINIMUM    Optional  
STANDARD\_DEVIATION    Optional  
END\_OBJECT = OBJECT\_STATISTICS

OBJECT = SPECIAL\_CONSTANTS                                      Optional  
ERROR\_CONSTANT    Required  
INVALID\_CONSTANT    Required  
MISSING\_CONSTANT    Required  
NOT\_APPLICABLE\_CONSTANT    Required  
SATURATED\_CONSTANT    Required  
UNKNOWN\_CONSTANT    Required  
END\_OBJECT = SPECIAL\_CONSTANTS

END\_OBJECT = TAGGED\_IMAGE\_GRAYSCALE\_SET

# Image Grayscale Label - Overview



# Image Grayscale Label – Identification Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES            = 512
FILE_RECORDS            = 270

/* POINTERS TO DATA OBJECTS */

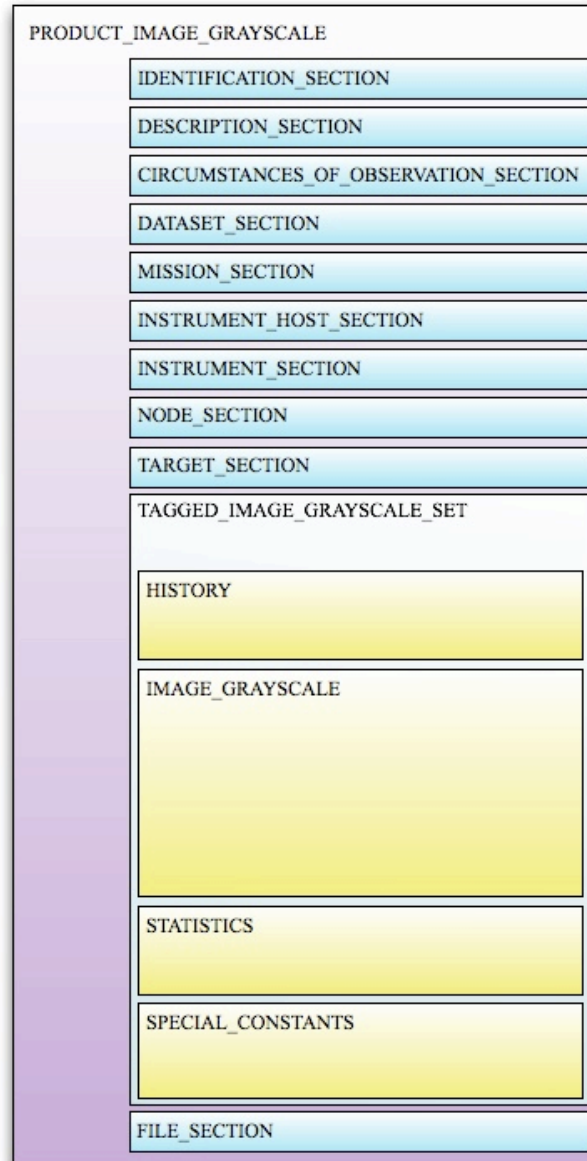
^IMAGE                  = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP-2-EDR-V1.0"
DATA_SET_NAME           = "MPF LANDER"

PRODUCER_ID             = "MIPL OF JPL"
PRODUCER_FULL_NAME     = "ALLAN J. RICE"
PRODUCER_INSTITUTION_NAME = "MULTIMISSILE RESEARCH LABORATORY"

PRODUCT_ID              = "IMP_EDR-12"
IMAGE_ID                = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID                = BOTH
MISSION_NAME            = "MARS PATHFINDER"
INSTRUMENT_HOST_NAME   = "MARS PATHFINDER"
INSTRUMENT_NAME         = "IMAGER FOR MARS"
INSTRUMENT_ID          = "IMP"
TARGET_NAME             = "MARS"
OBSERVATION_NAME       = "FILTER 5 IMAGE"
IMAGE_TIME              = 1997-07-07T13:39:12
PLANET_DAY_NUMBER       = 3
MPF_LOCAL_TIME          = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T13:39:12
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T13:39:12
PRODUCT_CREATION_TIME   = 1998-07-14T00:36:08.000
    
```



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#PDS4#

/* ***** LABEL TEMPLATE - PRODUCT_IMAGE_GRAYSCALE ***** */

OBJECT = PRODUCT_IMAGE_GRAYSCALE;

OBJECT = IDENTIFICATION_SECTION;
DD_VERSION_ID          = "DD_VERSION_ID";
IDENTIFIER              = "MPFL-M-IMP-2-EDR-V1.0:IMP_EDR-V1.0";
LABEL_REVISION_NOTE    = "20090101:1.0 - initial version; 20090102:1.1 - added another version";
PDS_VERSION_ID         = "PDS4.0";
PRODUCT_CREATION_TIME  = 1998-07-14T00:36:08.000;
TITLE                  = "MARS PATHFINDER LANDER Experiment";
URN                    = "http://URN:MPFL-M-IMP-2-EDR-V1.0";
VERSION                = "1.0";
END_OBJECT = IDENTIFICATION_SECTION;

OBJECT = DESCRIPTION_SECTION;
DESCRIPTION             = "ANNOTATION FOR THE PRODUCT IDENTIFICATION SECTION";
END_OBJECT = DESCRIPTION_SECTION;

OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;
COMMENT                 = "Observation Intent";
SPACECRAFT_CLOCK_START_COUNT = "1246943630";
SPACECRAFT_CLOCK_STOP_COUNT  = "N/A";
START_TIME              = "N/A";
STOP_TIME               = "N/A";
END_OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;

OBJECT = DATASET_SECTION;
DATA_SET_ID             = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME            = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;
    
```

# Image Grayscale Label – Description Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES            = 512
FILE_RECORDS            = 270

/* POINTERS TO DATA OBJECTS */

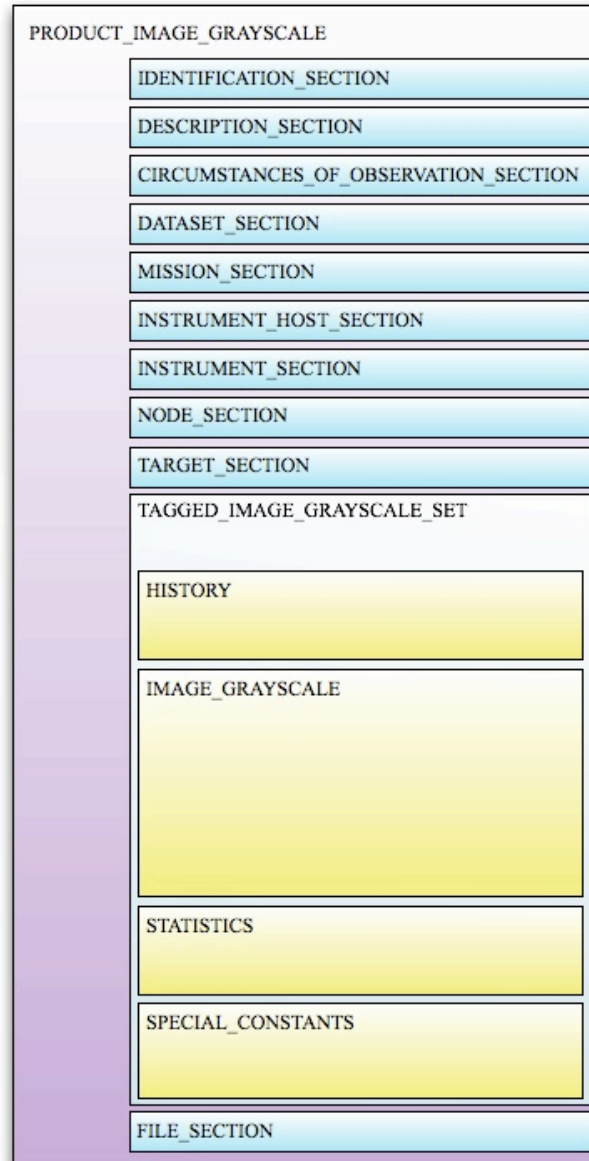
^IMAGE                  = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP-2-EDR-V1.0"
DATA_SET_NAME           = "MPF LANDER"

PRODUCER_ID             = "MIPL OF JPL"
PRODUCER_FULL_NAME     = "ALLAN J. ROBERTS"
PRODUCER_INSTITUTION_NAME = "MULTIMISSILE RESEARCH LABORATORY"

PRODUCT_ID              = "IMP_EDR-12"
IMAGE_ID                = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE  = REGULAR
FRAME_ID                = BOTH
MISSION_NAME            = "MARS PATHFINDER"
INSTRUMENT_HOST_NAME   = "MARS PATHFINDER"
INSTRUMENT_NAME        = "IMAGER FOR MARS"
INSTRUMENT_ID          = "IMP"
TARGET_NAME            = "MARS"
OBSERVATION_NAME       = "FILTER_5_IMAGE"
IMAGE_TIME              = 1997-07-07T13:39:12
PLANET_DAY_NUMBER      = 3
MPF_LOCAL_TIME         = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T13:39:12
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T13:39:12
PRODUCT_CREATION_TIME   = 1998-07-14T00:36:08.000
    
```



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#PDS4#

/* ***** LABEL TEMPLATE - PRODUCT_IMAGE_GRAYSCALE ***** */

OBJECT = PRODUCT_IMAGE_GRAYSCALE;

OBJECT = IDENTIFICATION_SECTION;
DD_VERSION_ID          = "DD_VERSION_ID";
IDENTIFIER             = "MPFL-M-IMP-2-EDR-V1.0:IMP_EDR-V1.0";
LABEL_REVISION_NOTE    = "20090101:1.0 - initial version; 20090102:1.1 - added another version";
PDS_VERSION_ID         = "PDS4.0";
PRODUCT_CREATION_TIME  = 1998-07-14T00:36:08.000;
TITLE                  = "MARS PATHFINDER LANDER Experiment";
URN                    = "http://URN:MPFL-M-IMP-2-EDR-V1.0";
VERSION                = "1.0";
END_OBJECT = IDENTIFICATION_SECTION;

OBJECT = DESCRIPTION_SECTION;
DESCRIPTION             = "ANNOTATION FOR THE PRODUCT IMAGE";
END_OBJECT = DESCRIPTION_SECTION;

OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;
COMMENT                 = "Observation Intent";
SPACECRAFT_CLOCK_START_COUNT = "1246943630";
SPACECRAFT_CLOCK_STOP_COUNT = "N/A";
START_TIME              = "N/A";
STOP_TIME               = "N/A";
END_OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;

OBJECT = DATASET_SECTION;
DATA_SET_ID             = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME            = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;
    
```



# Image Grayscale Label – Circumstances of Observation Section

```

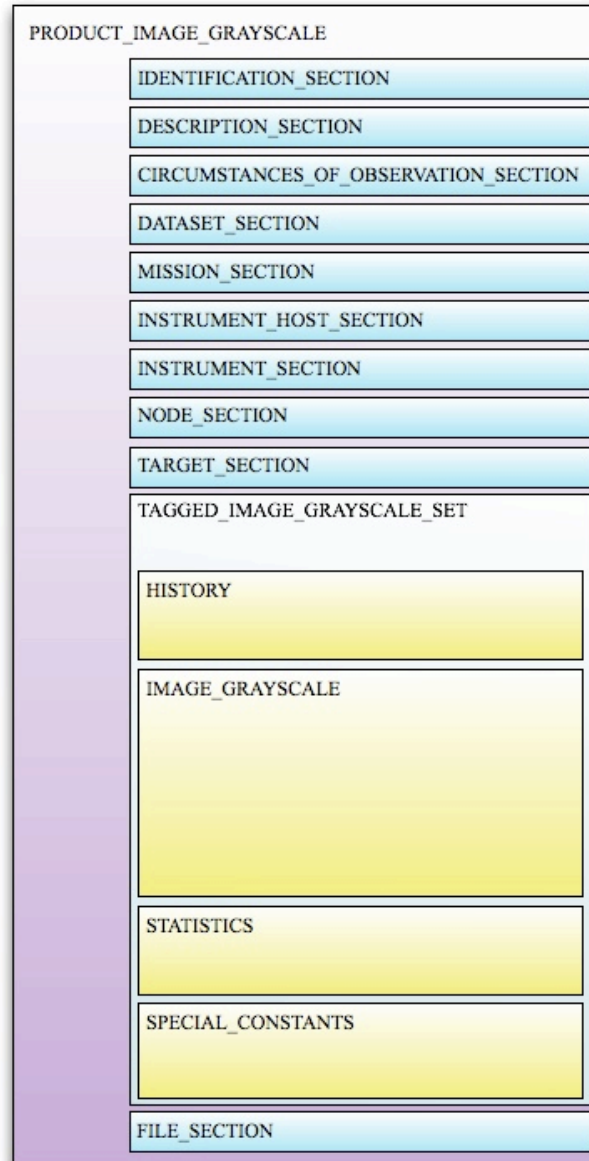
PRODUCER_FULL_NAME      = "ALLAN J. R
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
    LABORATORY

PRODUCT_ID              = "IMP_EDR-12
IMAGE_ID                = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE  = REGULAR
FRAME_ID                = BOTH
MISSION_NAME            = "MARS PATHF
INSTRUMENT_HOST_NAME   = "MARS PATHF
INSTRUMENT_NAME         = "IMAGER FOR
INSTRUMENT_ID          = "IMP"
TARGET_NAME             = "MARS"
OBSERVATION_NAME       = "FILTER 5_I
IMAGE_TIME              = 1997-07-07T
PLANET_DAY_NUMBER       = 3
MPF_LOCAL_TIME          = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T
PRODUCT_CREATION_TIME   = 1998-07-14T

/* DESCRIPTIVE DATA ELEMENTS */

EXPECTED_PACKETS        = 17
RECEIVED_PACKETS        = 17
APPLICATION_PACKET_ID   = 34
APPLICATION_PACKET_NAME = "SCI_IMG_3"
EXPOSURE_DURATION       = 46.0000
EXPOSURE_TYPE           = AUTO
EXPOSURE_COUNT          = 3
AUTO_EXPOSURE_DATA_CUT  = 3000
AUTO_EXPOSURE_PIXEL_FRACTION = 1.0000
ERROR_PIXELS            = 0
FILTER_NAME              = "L670_R670"
FILTER_NUMBER           = 5
INSTRUMENT_TEMPERATURE  = (-12.2836,
INSTRUMENT_TEMPERATURE_COUNT = (162, 16

```



#PDS4#

```

/* ***** LABEL TEMPLATE - PRODUCT_IMAGE_GRAYSCALE *****

OBJECT = PRODUCT_IMAGE_GRAYSCALE;

OBJECT = IDENTIFICATION_SECTION;
DD_VERSION_ID      = "DD_VERSION_ID";
IDENTIFIER          = "MPFL-M-IMP-2-EDR-V1.0:IMP_ED
LABEL_REVISION_NOTE = "20090101:1.0 - initial versi
    20090102:1.1 - added another

PDS_VERSION_ID     = "PDS4.0";
PRODUCT_CREATION_TIME = 1998-07-14T00:36:08.000;
TITLE               = "MARS PATHFINDER LANDER Exper
URN                  = "http://URN:MPFL-M-IMP-2-EDR-
VERSION              = "1.0";
END_OBJECT = IDENTIFICATION_SECTION;

OBJECT = DESCRIPTION_SECTION;
DESCRIPTION          = "ANNOTATION FOR THE PRODUCT C
END_OBJECT = DESCRIPTION_SECTION;

OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;
COMMENT              = "Observation Intent";
SPACECRAFT_CLOCK_START_COUNT = "1246943630";
SPACECRAFT_CLOCK_STOP_COUNT  = "N/A";
START_TIME           = "N/A";
STOP_TIME            = "N/A";
END_OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;

OBJECT = DATASET_SECTION;
DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

```

# Image Grayscale Label – Dataset Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE              = FIXED_LENGTH
RECORD_BYTES            = 512
FILE_RECORDS            = 270

/* POINTERS TO DATA OBJECTS */

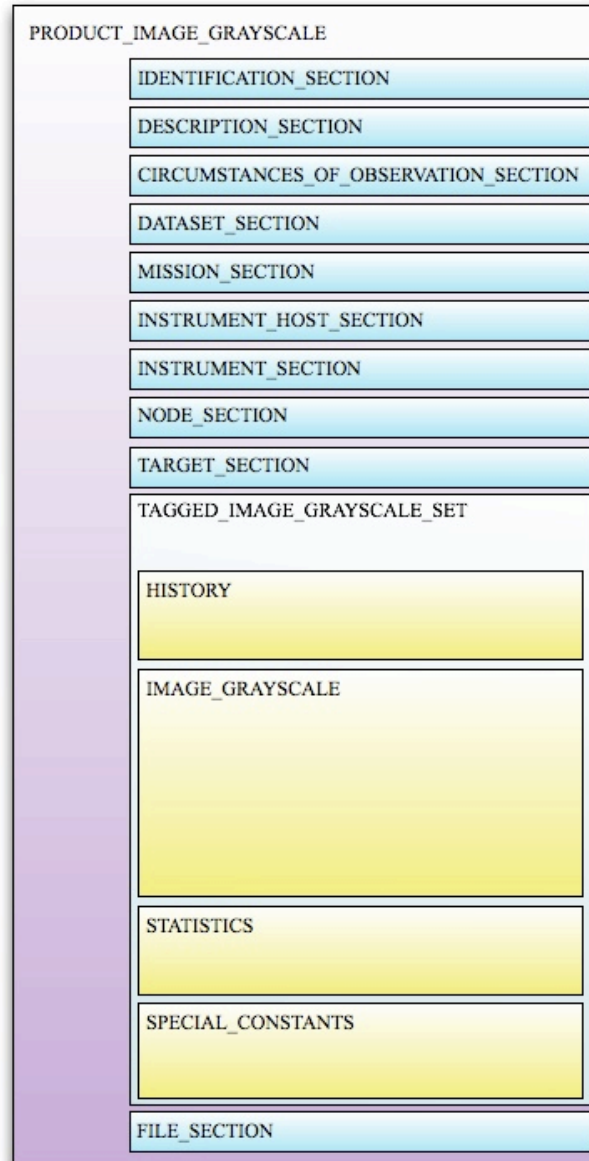
^IMAGE                  = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP-2-EDR-V1.0"
DATA_SET_NAME           = "MPF LANDER"

PRODUCER_ID             = "MIPL OF JPL"
PRODUCER_FULL_NAME     = "ALLAN J. RICE"
PRODUCER_INSTITUTION_NAME = "MULTIMISSILE RESEARCH LABORATORY"

PRODUCT_ID             = "IMP_EDR-12"
IMAGE_ID               = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID              = BOTH
MISSION_NAME           = "MARS PATHFINDER"
INSTRUMENT_HOST_NAME  = "MARS PATHFINDER"
INSTRUMENT_NAME        = "IMAGER FOR MARS"
INSTRUMENT_ID          = "IMP"
TARGET_NAME            = "MARS"
OBSERVATION_NAME       = "FILTER_5_IMAGE"
IMAGE_TIME             = 1997-07-07T13:39:12
PLANET_DAY_NUMBER      = 3
MPF_LOCAL_TIME         = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T13:39:12
EARTH_RECEIVED_STOP_TIME = 1997-07-07T13:39:12
PRODUCT_CREATION_TIME  = 1998-07-14T00:36:08.000
    
```



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#PDS4#

/* ***** LABEL TEMPLATE - PRODUCT_IMAGE_GRAYSCALE ***** */

OBJECT = PRODUCT_IMAGE_GRAYSCALE;

OBJECT = IDENTIFICATION_SECTION;
DD_VERSION_ID          = "DD_VERSION_ID";
IDENTIFIER              = "MPFL-M-IMP-2-EDR-V1.0:IMP_EDR-V1.0";
LABEL_REVISION_NOTE    = "20090101:1.0 - initial version; 20090102:1.1 - added another version";
PDS_VERSION_ID         = "PDS4.0";
PRODUCT_CREATION_TIME  = 1998-07-14T00:36:08.000;
TITLE                  = "MARS PATHFINDER LANDER Experiment";
URN                    = "http://URN:MPFL-M-IMP-2-EDR-V1.0";
VERSION                = "1.0";
END_OBJECT = IDENTIFICATION_SECTION;

OBJECT = DESCRIPTION_SECTION;
DESCRIPTION             = "ANNOTATION FOR THE PRODUCT IMAGE";
END_OBJECT = DESCRIPTION_SECTION;

OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;
COMMENT                = "Observation Intent";
SPACECRAFT_CLOCK_START_COUNT = "1246943630";
SPACECRAFT_CLOCK_STOP_COUNT = "N/A";
START_TIME             = "N/A";
STOP_TIME              = "N/A";
END_OBJECT = CIRCUMSTANCES_OF_OBSERVATION_SECTION;

OBJECT = DATASET_SECTION;
DATA_SET_ID            = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME           = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;
    
```

# Image Grayscale Label – Mission Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES           = 512
FILE_RECORDS           = 270

/* POINTERS TO DATA OBJECTS */

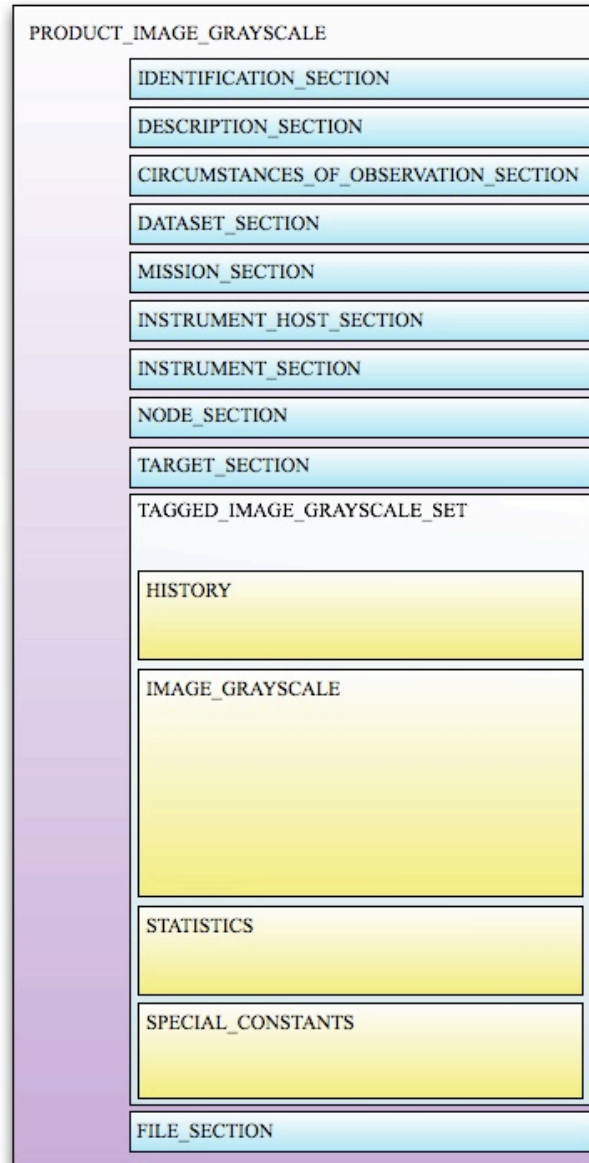
^IMAGE                 = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID            = "MPFL-M-IMP"
DATA_SET_NAME         = "MPF LANDER"

PRODUCER_ID            = "MIPL OF JP"
PRODUCER_FULL_NAME    = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
                        LABORATORY"

PRODUCT_ID             = "IMP_EDR-12"
IMAGE_ID              = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID              = BOTH
MISSION_NAME          = "MARS PATHF
INSTRUMENT_HOST_NAME  = "MARS PATHF
INSTRUMENT_NAME       = "IMAGER FOR
INSTRUMENT_ID         = "IMP"
TARGET_NAME           = "MARS"
OBSERVATION_NAME      = "FILTER_5_I
IMAGE_TIME            = 1997-07-07T
PLANET_DAY_NUMBER     = 3
MPF_LOCAL_TIME        = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME = 1997-07-07T
PRODUCT_CREATION_TIME = 1998-07-14T
    
```



```

OBJECT = DATASET_SECTION;
    DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
    MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

OBJECT = INSTRUMENT_HOST_SECTION;
    INSTRUMENT_HOST_ID   = "MPFL";
END_OBJECT = INSTRUMENT_HOST_SECTION;

OBJECT = INSTRUMENT_SECTION;
    INSTRUMENT_ID_NEW    = "IMP";
END_OBJECT = INSTRUMENT_SECTION;

OBJECT = NODE_SECTION;
    NODE_NAME            = "IMAGING";
END_OBJECT = NODE_SECTION;

OBJECT = TARGET_SECTION;
    TARGET_NAME          = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = IMAGE_GRAYSCALE;
    DATA_LOCATION       = ("MPFL_M_IMP_IMAGE_FILE",
                            "MPFL_M_IMP_IMAGE_FILE");
    LOCAL_IDENTIFIER     = "MPFL_M_IMP_IMAGE";
    AXES_ORDER           = FAST2SLOW;
    BYTE_ORDER           = MSBF;
    FILE_TYPE            = BINARY;
    FIRST_ELEMENT        = TOPLEFT;
    MIN_INDEX            = 0;
    NUMBER_OF_AXES       = 2;
    ELEMENT_BYTES        = 2;
    ELEMENT_OFFSET       = "N/A";
    ELEMENT_SCALING_FACTOR = "N/A";
    ELEMENT_TYPE         = MSB_UNSIGNED_INTEGER;
    ELEMENT_UNIT         = "DATA NUMBER";
        AXIS_LENGTH      = (248, 256);
        AXIS_NAME        = ("LINE", "SAMPLE");
        AXIS_SCALE_TYPE  = ("N/A", "N/A");
    
```

# Image Grayscale Label – Instrument Host Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES            = 512
FILE_RECORDS            = 270

/* POINTERS TO DATA OBJECTS */

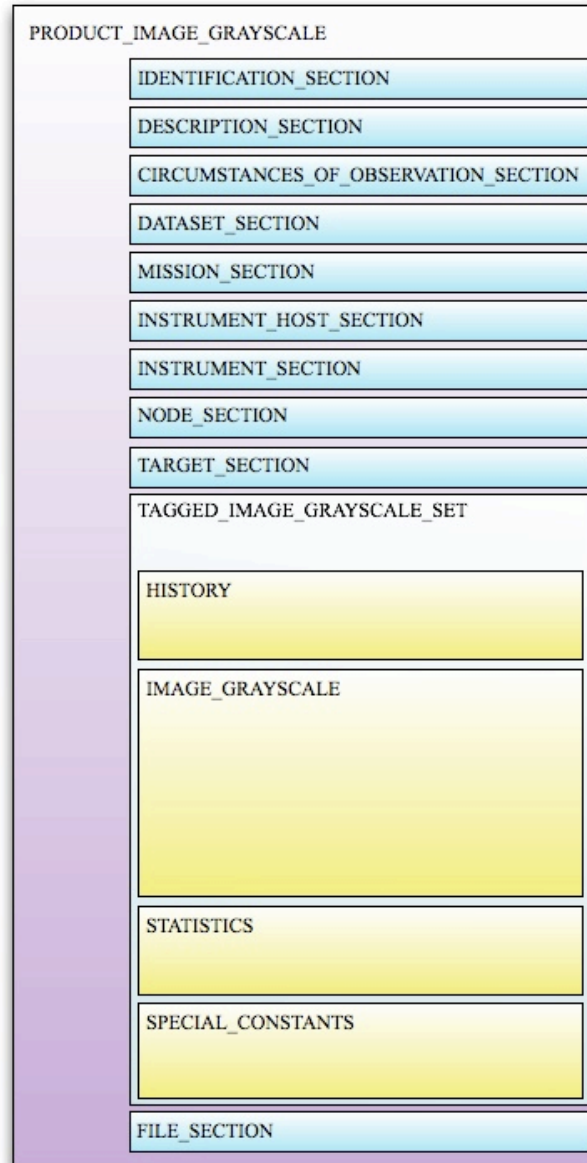
^IMAGE                  = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP"
DATA_SET_NAME           = "MPF LANDER"

PRODUCER_ID             = "MIPL OF JP"
PRODUCER_FULL_NAME     = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
LABORATORY

PRODUCT_ID              = "IMP_EDR-12"
IMAGE_ID                = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE  = REGULAR
FRAME_ID                = BOTH
MISSION_NAME            = "MARS PATHF
INSTRUMENT_HOST_NAME   = "MARS PATHF
INSTRUMENT_NAME         = "IMAGER FOR
INSTRUMENT_ID           = "IMP"
TARGET_NAME             = "MARS"
OBSERVATION_NAME        = "FILTER_5_I
IMAGE_TIME              = 1997-07-07T
PLANET_DAY_NUMBER       = 3
MPF_LOCAL_TIME          = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME = 1997-07-07T
PRODUCT_CREATION_TIME   = 1998-07-14T
    
```



```

OBJECT = DATASET_SECTION;
DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

OBJECT = INSTRUMENT_HOST_SECTION;
INSTRUMENT_HOST_ID  = "MPFL";
END_OBJECT = INSTRUMENT_HOST_SECTION;

OBJECT = INSTRUMENT_SECTION;
INSTRUMENT_ID_NEW   = "IMP";
END_OBJECT = INSTRUMENT_SECTION;

OBJECT = NODE_SECTION;
NODE_NAME           = "IMAGING";
END_OBJECT = NODE_SECTION;

OBJECT = TARGET_SECTION;
TARGET_NAME         = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = IMAGE_GRAYSCALE;
DATA_LOCATION       = ("MPFL_M_IMP_IMAGE_FILE",

LOCAL_IDENTIFIER    = "MPFL_M_IMP_IMAGE";
AXES_ORDER           = FAST2SLOW;
BYTE_ORDER           = MSBF;
FILE_TYPE            = BINARY;
FIRST_ELEMENT        = TOPLEFT;
MIN_INDEX            = 0;
NUMBER_OF_AXES       = 2;
ELEMENT_BYTES        = 2;
ELEMENT_OFFSET       = "N/A";
ELEMENT_SCALING_FACTOR = "N/A";
ELEMENT_TYPE         = MSB_UNSIGNED_INTEGER;
ELEMENT_UNIT         = "DATA NUMBER";
AXIS_LENGTH          = (248, 256);
AXIS_NAME             = ("LINE", "SAMPLE");
AXIS_SCALE_TYPE       = ("N/A", "N/A");
    
```

# Image Grayscale Label – Instrument Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES           = 512
FILE_RECORDS           = 270

/* POINTERS TO DATA OBJECTS */

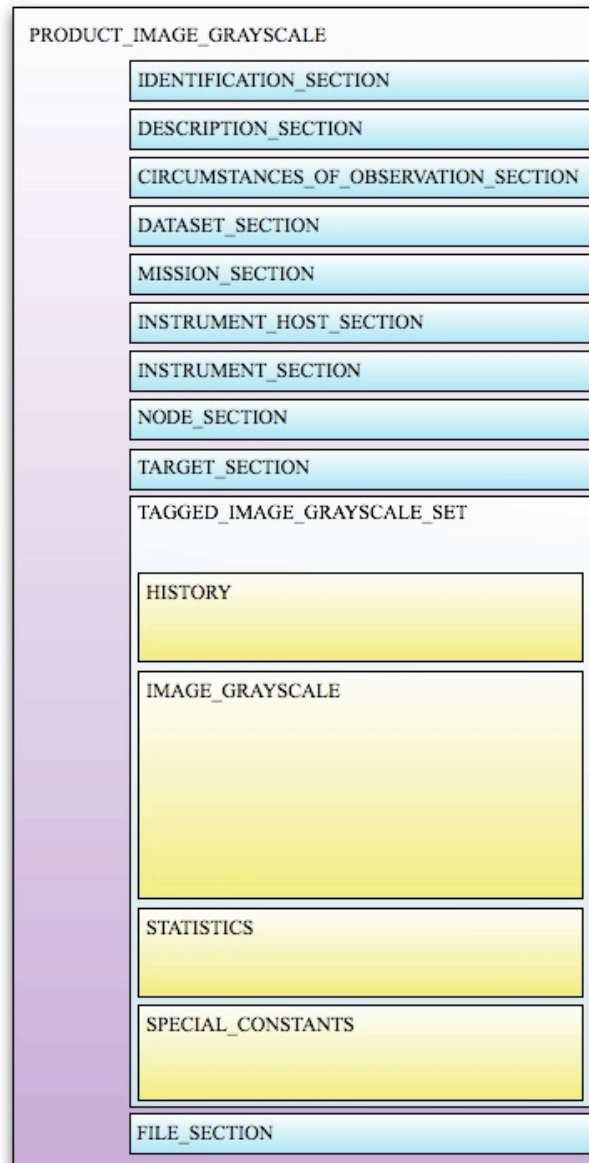
^IMAGE                 = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID            = "MPFL-M-IMP"
DATA_SET_NAME          = "MPF LANDER"

PRODUCER_ID            = "MIPL OF JP"
PRODUCER_FULL_NAME     = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
    LABORATORY

PRODUCT_ID             = "IMP_EDR-12"
IMAGE_ID               = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID               = BOTH
MISSION_NAME           = "MARS PATHF
INSTRUMENT_HOST_NAME   = "MARS PATHF
INSTRUMENT_NAME        = "IMAGER FOR
INSTRUMENT_ID         = "IMP"
TARGET_NAME            = "MARS"
OBSERVATION_NAME       = "FILTER_5_I
IMAGE_TIME             = 1997-07-07T
PLANET_DAY_NUMBER      = 3
MPF_LOCAL_TIME         = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME = 1997-07-07T
PRODUCT_CREATION_TIME  = 1998-07-14T
    
```



```

OBJECT = DATASET_SECTION;
    DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
    MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

OBJECT = INSTRUMENT_HOST_SECTION;
    INSTRUMENT_HOST_ID   = "MPFL";
END_OBJECT = INSTRUMENT_HOST_SECTION;

OBJECT = INSTRUMENT_SECTION;
    INSTRUMENT_ID_NEW    = "IMP";
END_OBJECT = INSTRUMENT_SECTION;

OBJECT = NODE_SECTION;
    NODE_NAME            = "IMAGING";
END_OBJECT = NODE_SECTION;

OBJECT = TARGET_SECTION;
    TARGET_NAME          = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = IMAGE_GRAYSCALE;
    DATA_LOCATION       = ("MPFL_M_IMP_IMAGE_FILE",
        LOCAL_IDENTIFIER = "MPFL_M_IMP_IMAGE";
        AXES_ORDER       = FAST2SLOW;
        BYTE_ORDER       = MSBF;
        FILE_TYPE        = BINARY;
        FIRST_ELEMENT    = TOPLEFT;
        MIN_INDEX        = 0;
        NUMBER_OF_AXES   = 2;
        ELEMENT_BYTES    = 2;
        ELEMENT_OFFSET   = "N/A";
        ELEMENT_SCALING_FACTOR = "N/A";
        ELEMENT_TYPE     = MSB_UNSIGNED_INTEGER;
        ELEMENT_UNIT     = "DATA NUMBER";
        AXIS_LENGTH      = (248, 256);
        AXIS_NAME        = ("LINE", "SAMPLE");
        AXIS_SCALE_TYPE  = ("N/A", "N/A");
    );
    
```

## Image Grayscale Label – Node Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES           = 512
FILE_RECORDS           = 270

/* POINTERS TO DATA OBJECTS */

^IMAGE                  = "I943630R.R"

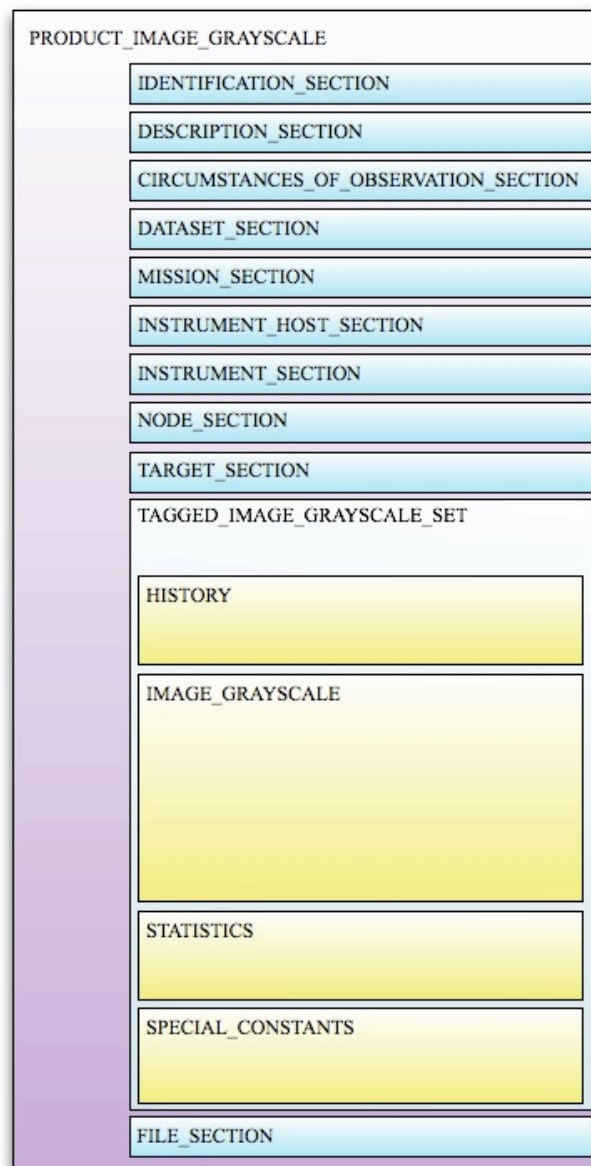
/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID            = "MPFL-M-IMP"
DATA_SET_NAME          = "MPF LANDER"

PRODUCER_ID            = "MIPL OF JP"
PRODUCER_FULL_NAME     = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
                        LABORATORY"

PRODUCT_ID             = "IMP_EDR-12"
IMAGE_ID               = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID              = BOTH
MISSION_NAME           = "MARS PATHF"
INSTRUMENT_HOST_NAME  = "MARS PATHF"
INSTRUMENT_NAME       = "IMAGER FOR"
INSTRUMENT_ID         = "IMP"
TARGET_NAME           = "MARS"
OBSERVATION_NAME      = "FILTER_5_I"
IMAGE_TIME            = 1997-07-07T
PLANET_DAY_NUMBER     = 3
MPF_LOCAL_TIME        = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T
PRODUCT_CREATION_TIME  = 1998-07-14T

```



```

OBJECT = DATASET_SECTION;
DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

OBJECT = INSTRUMENT_HOST_SECTION;
INSTRUMENT_HOST_ID  = "MPFL";
END_OBJECT = INSTRUMENT_HOST_SECTION;

OBJECT = INSTRUMENT_SECTION;
INSTRUMENT_ID_NEW   = "IMP";
END_OBJECT = INSTRUMENT_SECTION;

OBJECT = NODE_SECTION;
NODE_NAME           = "IMAGING";
END_OBJECT = NODE_SECTION;

OBJECT = TARGET_SECTION;
TARGET_NAME         = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = IMAGE_GRAYSCALE;
DATA_LOCATION       = ("MPFL_M_IMP_IMAGE_FILE",

LOCAL_IDENTIFIER    = "MPFL_M_IMP_IMAGE";
AXES_ORDER          = FAST2SLOW;
BYTE_ORDER          = MSBF;
FILE_TYPE           = BINARY;
FIRST_ELEMENT       = TOPLEFT;
MIN_INDEX           = 0;
NUMBER_OF_AXES     = 2;
ELEMENT_BYTES       = 2;
ELEMENT_OFFSET      = "N/A";
ELEMENT_SCALING_FACTOR = "N/A";
ELEMENT_TYPE        = MSB_UNSIGNED_INTEGER;
ELEMENT_UNIT        = "DATA NUMBER";
AXIS_LENGTH         = (248, 256);
AXIS_NAME           = ("LINE", "SAMPLE");
AXIS_SCALE_TYPE     = ("N/A", "N/A");

```

# Image Grayscale Label – Target Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES           = 512
FILE_RECORDS           = 270

/* POINTERS TO DATA OBJECTS */

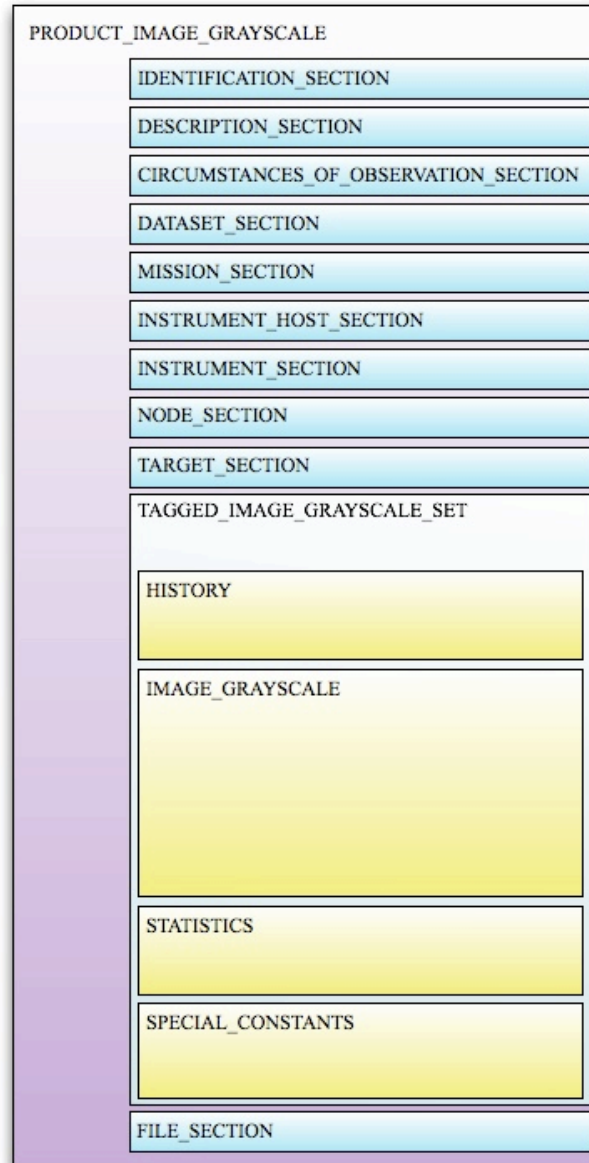
^IMAGE                  = "I943630R.R"

/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP"
DATA_SET_NAME          = "MPF LANDER"

PRODUCER_ID            = "MIPL OF JP"
PRODUCER_FULL_NAME     = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
    LABORATORY

PRODUCT_ID             = "IMP_EDR-12"
IMAGE_ID               = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE = REGULAR
FRAME_ID              = BOTH
MISSION_NAME           = "MARS PATHF
INSTRUMENT_HOST_NAME  = "MARS PATHF
INSTRUMENT_NAME       = "IMAGER FOR
INSTRUMENT_ID         = "IMP"
TARGET_NAME          = "MARS"
OBSERVATION_NAME      = "FILTER_5_I
IMAGE_TIME            = 1997-07-07T
PLANET_DAY_NUMBER     = 3
MPF_LOCAL_TIME        = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T
PRODUCT_CREATION_TIME  = 1998-07-14T
    
```



```

OBJECT = DATASET_SECTION;
    DATA_SET_ID          = "MPFL-M-IMP-2-EDR-V1.0";
END_OBJECT = DATASET_SECTION;

OBJECT = MISSION_SECTION;
    MISSION_NAME         = "MARS PATHFINDER";
END_OBJECT = MISSION_SECTION;

OBJECT = INSTRUMENT_HOST_SECTION;
    INSTRUMENT_HOST_ID  = "MPFL";
END_OBJECT = INSTRUMENT_HOST_SECTION;

OBJECT = INSTRUMENT_SECTION;
    INSTRUMENT_ID_NEW   = "IMP";
END_OBJECT = INSTRUMENT_SECTION;

OBJECT = NODE_SECTION;
    NODE_NAME           = "IMAGING";
END_OBJECT = NODE_SECTION;

OBJECT = TARGET_SECTION;
    TARGET_NAME         = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = IMAGE_GRAYSCALE;
    DATA_LOCATION       = ("MPFL_M_IMP_IMAGE_FILE",
        LOCAL_IDENTIFIER = "MPFL_M_IMP_IMAGE";
        AXES_ORDER       = FAST2SLOW;
        BYTE_ORDER       = MSBF;
        FILE_TYPE        = BINARY;
        FIRST_ELEMENT    = TOPLEFT;
        MIN_INDEX        = 0;
        NUMBER_OF_AXES   = 2;
        ELEMENT_BYTES    = 2;
        ELEMENT_OFFSET   = "N/A";
        ELEMENT_SCALING_FACTOR = "N/A";
        ELEMENT_TYPE     = MSB_UNSIGNED_INTEGER;
        ELEMENT_UNIT     = "DATA NUMBER";
        AXIS_LENGTH      = (248, 256);
        AXIS_NAME        = ("LINE", "SAMPLE");
        AXIS_SCALE_TYPE  = ("N/A", "N/A");
    );
    
```

# Image Grayscale Label – Tagged Image Grayscale Set

```

INST_CMPRS_BLK_SIZE      = (8, 8)
INST_CMPRS_BLOCKS       = 992
INST_CMPRS_MODE         = 8
INST_CMPRS_PARAM        = 250
INST_CMPRS_QUALITY      = 250
INST_CMPRS_QUANTZ_TBL_ID = "INTERNAL_0
INST_CMPRS_QUANTZ_TYPE  = TABULAR
INST_CMPRS_SYNC_BLKs    = 1024
INST_CMPRS_NAME         = "JPEG DISCR
INST_CMPRS_RATE         = 2.0187
INST_CMPRS_RATIO        = 5.9446
PIXEL_AVERAGING_HEIGHT  = 1
PIXEL_AVERAGING_WIDTH   = 1
RICE_START_OPTION       = -1
RICE_OPTION_VALUE       = -1
SQRT_MINIMUM_PIXEL      = 0
SQRT_MAXIMUM_PIXEL      = 0

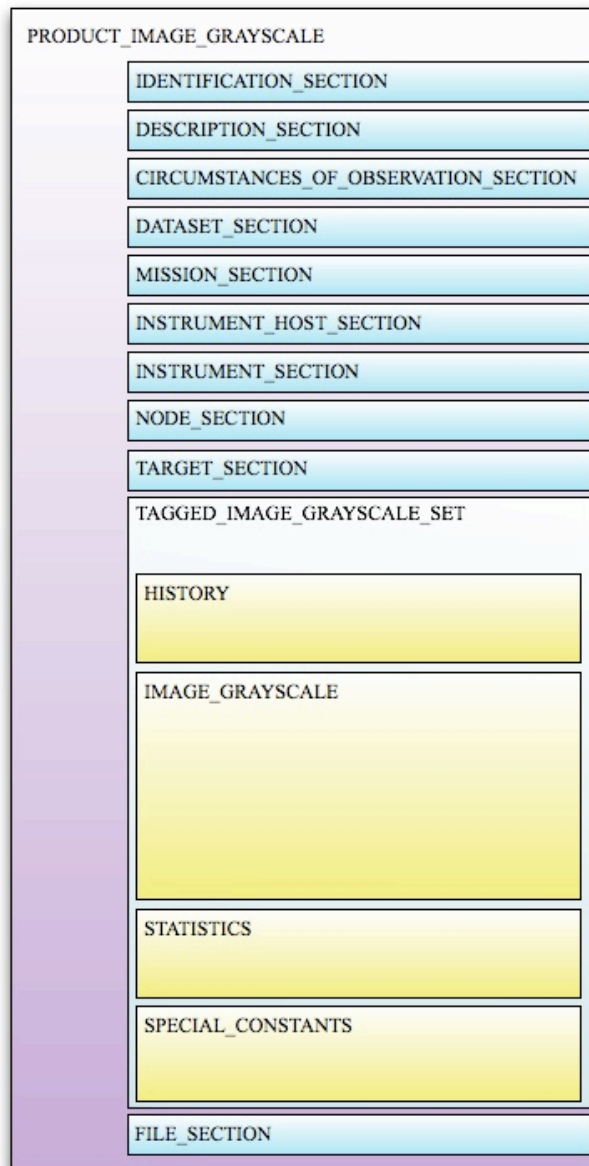
```

/\* IMAGE OBJECT DATA ELEMENTS \*/

```

OBJECT                = IMAGE
INTERCHANGE_FORMAT    = BINARY
LINES                 = 248
LINE_SAMPLES          = 256
BANDS                 = 1
SAMPLE_TYPE           = MSB_UNSIGNE
SAMPLE_BITS           = 16
SAMPLE_BIT_MASK       = 2#000011111
MAXIMUM               = 4095
MEAN                  = 1385.3000
MEDIAN                = 894
MINIMUM               = 145
STANDARD_DEVIATION    = 538.0290
FIRST_LINE            = 3
FIRST_LINE_SAMPLE     = 1
CHECKSUM              = 8427608
END_OBJECT            = IMAGE
END

```



```

OBJECT = TARGET_SECTION;
TARGET_NAME = "MARS";
END_OBJECT = TARGET_SECTION;

```

```
OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;
```

```
OBJECT = IMAGE_GRAYSCALE;
```

```
DATA_LOCATION = ("MPFL_M_IMP_IMAGE_FILE", 1)
```

```

LOCAL_IDENTIFIER      = "MPFL_M_IMP_IMAGE";
AXES_ORDER            = FAST2SLOW;
BYTE_ORDER            = MSBF;
FILE_TYPE             = BINARY;
FIRST_ELEMENT         = TOPLEFT;
MIN_INDEX             = 0;
NUMBER_OF_AXES       = 2;
ELEMENT_BYTES        = 2;
ELEMENT_OFFSET       = "N/A";
ELEMENT_SCALING_FACTOR = "N/A";
ELEMENT_TYPE         = MSB_UNSIGNED_INTEGER;
ELEMENT_UNIT         = "DATA NUMBER";
AXIS_LENGTH           = (248, 256);
AXIS_NAME             = ("LINE", "SAMPLE");
AXIS_SCALE_TYPE       = ("N/A", "N/A");
AXIS_UNIT             = ("N/A", "N/A");
END_OBJECT = IMAGE_GRAYSCALE;

```

```
OBJECT = OBJECT_STATISTICS;
```

```

LOCAL_IDENTIFIER      = "MPFL_M_IMP_STATISTICS";
AVERAGE              = 894;
CHECKSUM              = 8427608;
MAXIMUM               = 4095;
MINIMUM               = 145;
STANDARD_DEVIATION    = 538.0290;
END_OBJECT = OBJECT_STATISTICS;

```

```
END_OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;
```

```
OBJECT = FILE_SECTION;
```



# Image Grayscale Label – Image Grayscale

```

INST_CMPRS_BLK_SIZE      = (8, 8)
INST_CMPRS_BLOCKS       = 992
INST_CMPRS_MODE         = 8
INST_CMPRS_PARAM        = 250
INST_CMPRS_QUALITY      = 250
INST_CMPRS_QUANTZ_TBL_ID = "INTERNAL_0
INST_CMPRS_QUANTZ_TYPE  = TABULAR
INST_CMPRS_SYNC_BLKs    = 1024
INST_CMPRS_NAME         = "JPEG DISCR
INST_CMPRS_RATE         = 2.0187
INST_CMPRS_RATIO        = 5.9446
PIXEL_AVERAGING_HEIGHT  = 1
PIXEL_AVERAGING_WIDTH   = 1
RICE_START_OPTION       = -1
RICE_OPTION_VALUE       = -1
SQRT_MINIMUM_PIXEL      = 0
SQRT_MAXIMUM_PIXEL      = 0

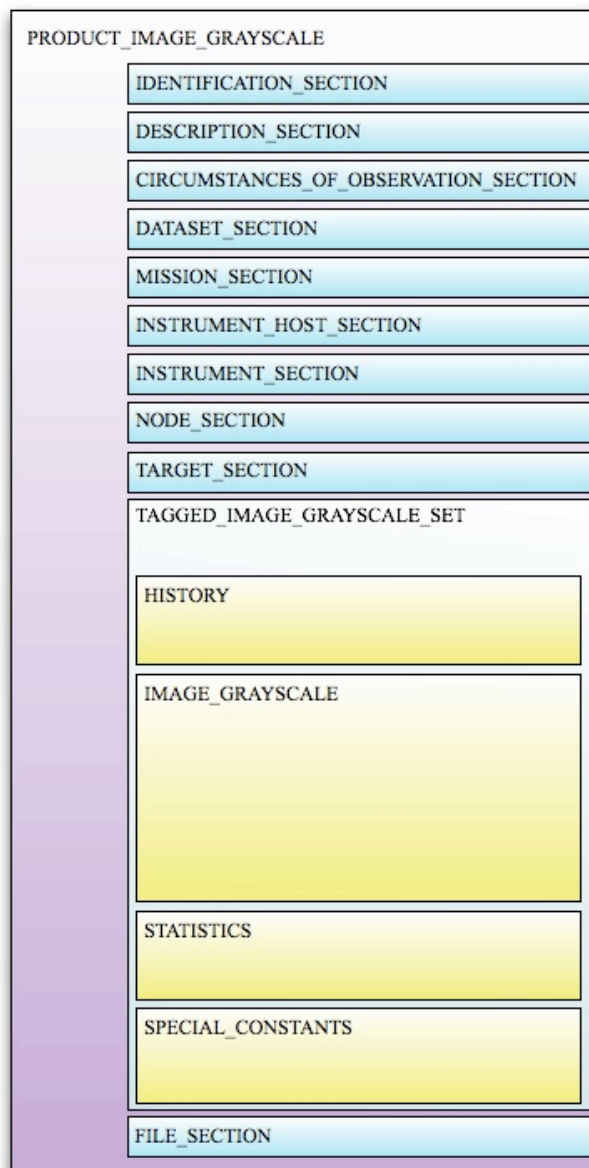
```

/\* IMAGE OBJECT DATA ELEMENTS \*/

```

OBJECT                   = IMAGE
  INTERCHANGE_FORMAT     = BINARY
  LINES                  = 248
  LINE_SAMPLES          = 256
  BANDS                 = 1
  SAMPLE_TYPE           = MSB_UNSIGNE
  SAMPLE_BITS           = 16
  SAMPLE_BIT_MASK       = 2#000011111
  MAXIMUM               = 4095
  MEAN                  = 1385.3000
  MEDIAN                = 894
  MINIMUM               = 145
  STANDARD_DEVIATION    = 538.0290
  FIRST_LINE            = 3
  FIRST_LINE_SAMPLE     = 1
  CHECKSUM              = 8427608
END_OBJECT              = IMAGE
END

```



```

OBJECT = TARGET_SECTION;
  TARGET_NAME      = "MARS";
END_OBJECT = TARGET_SECTION;

```

```
OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;
```

```
OBJECT = IMAGE_GRAYSCALE;
```

```
  DATA_LOCATION      = ("MPFL_M_IMP_IMAGE_FILE", 1)
```

```

  LOCAL_IDENTIFIER    = "MPFL_M_IMP_IMAGE";
  AXES_ORDER          = FAST2SLOW;
  BYTE_ORDER          = MSBF;
  FILE_TYPE           = BINARY;
  FIRST_ELEMENT       = TOPLEFT;
  MIN_INDEX           = 0;
  NUMBER_OF_AXES     = 2;
  ELEMENT_BYTES       = 2;
  ELEMENT_OFFSET      = "N/A";
  ELEMENT_SCALING_FACTOR = "N/A";
  ELEMENT_TYPE        = MSB_UNSIGNED_INTEGER;
  ELEMENT_UNIT        = "DATA NUMBER";
  AXIS_LENGTH         = (248, 256);
  AXIS_NAME           = ("LINE", "SAMPLE");
  AXIS_SCALE_TYPE     = ("N/A", "N/A");
  AXIS_UNIT           = ("N/A", "N/A");
END_OBJECT = IMAGE_GRAYSCALE;

```

```
OBJECT = OBJECT_STATISTICS;
```

```

  LOCAL_IDENTIFIER    = "MPFL_M_IMP_STATISTICS";
  AVERAGE            = 894;
  CHECKSUM            = 8427608;
  MAXIMUM             = 4095;
  MINIMUM             = 145;
  STANDARD_DEVIATION  = 538.0290;
END_OBJECT = OBJECT_STATISTICS;

```

```
END_OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;
```

```
OBJECT = FILE_SECTION;
```

# Image Grayscale Label – Object Statistics

```

INST_CMPRS_BLK_SIZE      = (8, 8)
INST_CMPRS_BLOCKS       = 992
INST_CMPRS_MODE         = 8
INST_CMPRS_PARAM        = 250
INST_CMPRS_QUALITY      = 250
INST_CMPRS_QUANTZ_TBL_ID = "INTERNAL_0
INST_CMPRS_QUANTZ_TYPE  = TABULAR
INST_CMPRS_SYNC_BLKs    = 1024
INST_CMPRS_NAME         = "JPEG DISCR
INST_CMPRS_RATE         = 2.0187
INST_CMPRS_RATIO        = 5.9446
PIXEL_AVERAGING_HEIGHT = 1
PIXEL_AVERAGING_WIDTH  = 1
RICE_START_OPTION      = -1
RICE_OPTION_VALUE      = -1
SQRT_MINIMUM_PIXEL     = 0
SQRT_MAXIMUM_PIXEL     = 0

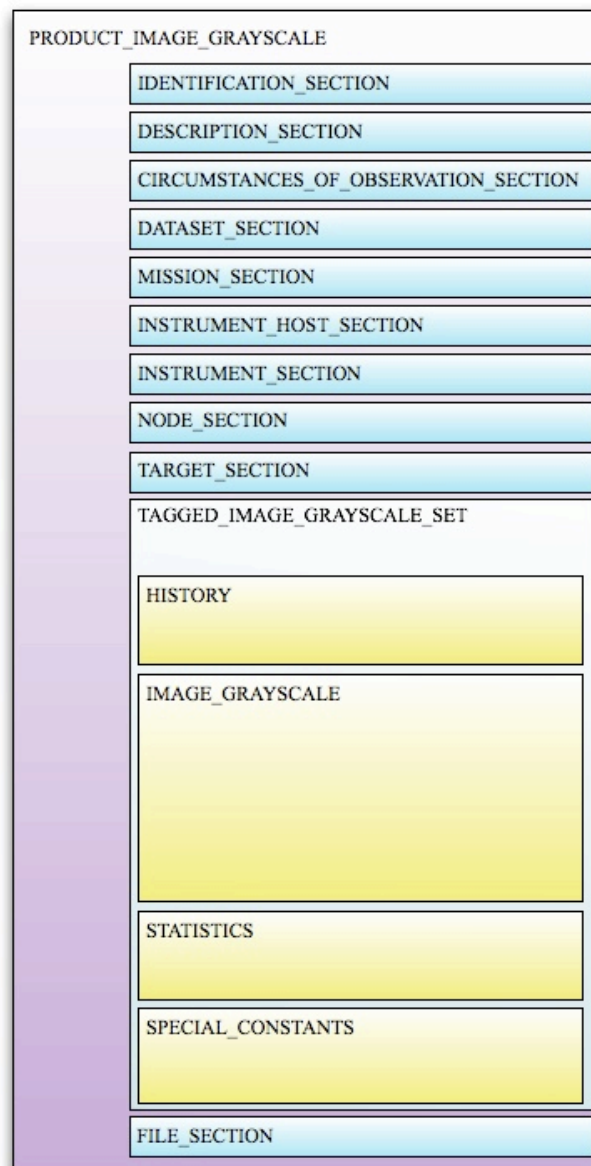
```

/\* IMAGE OBJECT DATA ELEMENTS \*/

```

OBJECT                = IMAGE
  INTERCHANGE_FORMAT  = BINARY
  LINES               = 248
  LINE_SAMPLES       = 256
  BANDS              = 1
  SAMPLE_TYPE        = MSB_UNSIGNE
  SAMPLE_BITS        = 16
  SAMPLE_BIT_MASK    = 2#000011111
  MAXIMUM            = 4095
  MEAN               = 1385.3000
  MEDIAN             = 894
  MINIMUM            = 145
  STANDARD_DEVIATION = 538.0290
  FIRST_LINE         = 3
  FIRST_LINE_SAMPLE  = 1
  CHECKSUM           = 8427608
END_OBJECT           = IMAGE
END

```



```

OBJECT = TARGET_SECTION;
  TARGET_NAME      = "MARS";
END_OBJECT = TARGET_SECTION;

OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

  OBJECT = IMAGE_GRAYSCALE;
    DATA_LOCATION = ("MPFL_M_IMP_IMAGE_FILE", 1)

    LOCAL_IDENTIFIER = "MPFL_M_IMP_IMAGE";
    AXES_ORDER       = FAST2SLOW;
    BYTE_ORDER       = MSBF;
    FILE_TYPE        = BINARY;
    FIRST_ELEMENT    = TOPLEFT;
    MIN_INDEX        = 0;
    NUMBER_OF_AXES   = 2;
    ELEMENT_BYTES    = 2;
    ELEMENT_OFFSET   = "N/A";
    ELEMENT_SCALING_FACTOR = "N/A";
    ELEMENT_TYPE     = MSB_UNSIGNED_INTEGER;
    ELEMENT_UNIT     = "DATA NUMBER";
    AXIS_LENGTH      = (248, 256);
    AXIS_NAME        = ("LINE", "SAMPLE");
    AXIS_SCALE_TYPE  = ("N/A", "N/A");
    AXIS_UNIT        = ("N/A", "N/A");
  END_OBJECT = IMAGE_GRAYSCALE;

  OBJECT = OBJECT_STATISTICS;
    LOCAL_IDENTIFIER = "MPFL_M_IMP_STATISTICS";
    AVERAGE         = 894;
    CHECKSUM        = 8427608;
    MAXIMUM         = 4095;
    MINIMUM         = 145;
    STANDARD_DEVIATION = 538.0290;
  END_OBJECT = OBJECT_STATISTICS;

END_OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = FILE_SECTION;

```

# Image Grayscale Label – File Section

```

PDS_VERSION_ID          = PDS3

/* FILE CHARACTERISTICS */

RECORD_TYPE             = FIXED_LENGTH
RECORD_BYTES            = 512
FILE_RECORDS            = 270

/* POINTERS TO DATA OBJECTS */

^IMAGE                  = "I943630R.R"

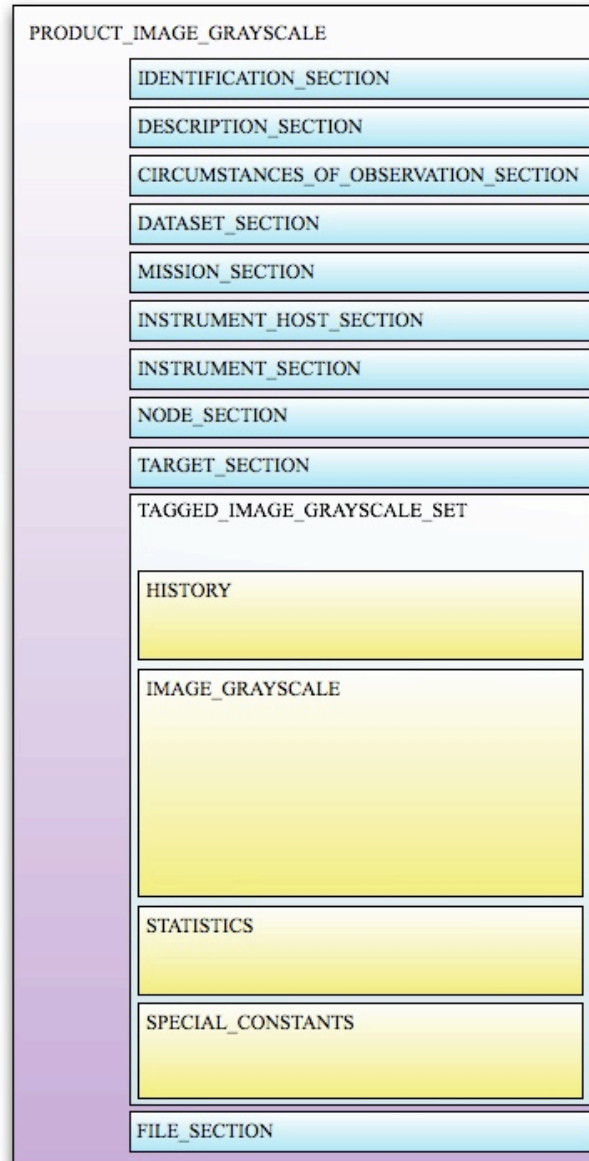
/* IDENTIFICATION DATA ELEMENTS */

DATA_SET_ID             = "MPFL-M-IMP"
DATA_SET_NAME           = "MPF LANDER"

PRODUCER_ID             = "MIPL OF JP"
PRODUCER_FULL_NAME     = "ALLAN J. R"
PRODUCER_INSTITUTION_NAME = "MULTIMISSI
LABORATORY

PRODUCT_ID              = "IMP_EDR-12"
IMAGE_ID                = 74051101
COMMAND_SEQUENCE_NUMBER = 74
IMAGE_OBSERVATION_TYPE  = REGULAR
FRAME_ID                = BOTH
MISSION_NAME            = "MARS PATHF"
INSTRUMENT_HOST_NAME   = "MARS PATHF"
INSTRUMENT_NAME        = "IMAGER FOR"
INSTRUMENT_ID          = "IMP"
TARGET_NAME             = "MARS"
OBSERVATION_NAME       = "FILTER_5_I"
IMAGE_TIME              = 1997-07-07T
PLANET_DAY_NUMBER       = 3
MPF_LOCAL_TIME          = 13:39:12
SPACECRAFT_CLOCK_START_COUNT = 12469436
EARTH_RECEIVED_START_TIME = 1997-07-07T
EARTH_RECEIVED_STOP_TIME  = 1997-07-07T
PRODUCT_CREATION_TIME   = 1998-07-14T

```



```

FILE_TYPE                = BINARY;
FIRST_ELEMENT            = TOPLEFT;
MIN_INDEX                = 0;
NUMBER_OF_AXES          = 2;
ELEMENT_BYTES           = 2;
ELEMENT_OFFSET          = "N/A";
ELEMENT_SCALING_FACTOR  = "N/A";
ELEMENT_TYPE            = MSB_UNSIGNED_INTEGER;
ELEMENT_UNIT            = "DATA NUMBER";
AXIS_LENGTH              = (248, 256);
AXIS_NAME                = ("LINE", "SAMPLE");
AXIS_SCALE_TYPE          = ("N/A", "N/A");
AXIS_UNIT                = ("N/A", "N/A");
END_OBJECT = IMAGE_GRAYSCALE;

OBJECT = OBJECT_STATISTICS;
LOCAL_IDENTIFIER        = "MPFL_M_IMP_STATISTICS";
AVERAGE                 = 894;
CHECKSUM                 = 8427608;
MAXIMUM                  = 4095;
MINIMUM                  = 145;
STANDARD_DEVIATION      = 538.0290;
END_OBJECT = OBJECT_STATISTICS;

END_OBJECT = TAGGED_IMAGE_GRAYSCALE_SET;

OBJECT = FILE_SECTION;
OBJECT = FILE_BINARY_FIXED;
LOCAL_IDENTIFIER        = "MPFL_M_IMP_IMAGE_FILE";
CHECKSUM                 = "0ff0a5dd0f3ea4e104b0eae";
FILE_SIZE                = 12345;
FILE_NAME                = "N2075WE02R.FIT";
FILE_TYPE                = BINARY;
MAX_RECORD_BYTES        = 512;
RECORD_TYPE              = FIXED;
END_OBJECT = FILE_BINARY_FIXED;

END_OBJECT = FILE_SECTION;
END_OBJECT = PRODUCT_IMAGE_GRAYSCALE;

```