Data Dictionary

In the following the different local controller's fields are listed in alphabetic order; for each of these a short description of the strings is given.

Act Bank

1 or **2**
  The value indicates the active memory bank.

Alarm Source (Source)

The alarm sources are described in chapter:
  Fault Detection Procedure

Alarm Type

The alarm types are described in chapter:
  Fault Detection Procedure

Availability State (Av. State)

FAILED
  This state indicates that the equipment is faulty.

IN-TEST
  Not yet managed.

NOT SUPPORTED
  The availability state is not meaningful.

OFF-DUTY
  Not yet managed.

OFF-LINE
  Indicates that the equipment is not yet in-service (e.g.: during the power-on).

POWER-OFF
  Not yet managed.

Bank 1 Sw

Sxx-xxxx/xx.xx.xx
The value indicates the software version loaded in the flash EPROM bank 1.

Bank 2 Sw

Sxx-xxxx/xx.xx.xx
The value indicates the loaded software version in the flash EPROM bank 2.

Boot Eprom

Sxx-xxxx/xx.xx.xx
The value indicates the loaded software version in the boot EPROM present in the unit.

Category

IND
Indicative alarm.

URG_EXT
External and urgent alarm.

URG_INT
Internal and urgent alarm.

NURG_EXT
External and not urgent alarm.

NURG_INT
Internal and not urgent alarm.

Command Status / Command State

Forced to Free-running
A forced switch to the free-running working mode has been executed.

Forced to Holdover
A forced switch to the holdover working mode has been executed.

Forced to Source
  A forced switch to a selected synchronisation source has been executed.

No Request
  No manual or forced switches have been performed.

Manual to Source
  A manual switch to a selected synchronisation source has been executed.

Configuration State

Not Equipped
  The equipment redundancy, the control and the NE type have not been defined yet.

Equipped
  The equipment redundancy, the control and the NE type have been defined.

Cnf. State

NOT EQUIPPED
  The synchronisation source has not been configured.

EQUIPPED
  The synchronisation source has been configured.

DCC Type

DCCr
  Data Communication Channel of the Regenerator section (192Kbit/s).

DCCm
  Data Communication Channel of the Multiplex section (576Kbit/s).

Event Type

Alarm Acknowledge
  One or more alarms have been acknowledged.

Alarm Burst
  The equipment is in alarm congestion status.

Alarm Parking
  The equipment is in alarm parking status.

Eqt Protection Switch
A switch has been performed on one unit involved in the Equipment Protection scheme.

In Ground Contacts
One or more incoming ground contacts have been detected.

Log Full
The log full threshold has been crossed. The value can be set by using the proper window.

MSP Protection Switch
A switch has been performed on one line interface involved in the MSP scheme.

Path Prot. Switch
A switch has been performed on one channel involved in the Path Protection scheme.

Performance Thresholds Cross
A performance threshold relevant to a monitored entity has been crossed.

Sync Switch
A switch has been performed on one configured synchronisation source.

Software Restart
The equipment has performed a software restart.

Unavailable Start/Stop time
Temporary unavailability in the performance data collection.

LAPD Side

Network
The LAPD side of the relevant DCC is "Network" (according to LAP-D protocol).

User
The LAPD side of the relevant DCC is "User" (according to LAP-D protocol).

Loopbacks Num

from **1** to **63**
Port number.

Mode

System

  The outgoing synchronisation signal is derived from the system clock.

Squelched

  The outgoing synchronisation signal is cut off.

Monitoring

DISABLED

  The monitoring of the relevant alarm has been disabled.

ENABLED

  The monitoring of the relevant alarm is enabled.

MS - Protection Role

Not Protected

  The unit or the tributary module is not protected or used as "Worker" in a MSP or equipment protection scheme.

Undefined

  The unit or the tributary module is used as "Worker" or "Protection" in a MSP or equipment protection scheme.

Num

  The number meaning depends on the relevant Unit Id.

Operative State / Op. State

ENABLED

  The state indicates that the equipment is operative.

DISABLED

  The state indicates that the equipment is not operative.

No Alarm

  No alarm is detected.

Signal Fail

In the windows relevant to *MSP*, it means that the equipment has detected one of the following alarms: LOS, LOF, MS-AIS, MS-EXC.

In the windows relevant to *Dropped Connections* or *SNCP*, it means that the equipment has detected one of the following alarms: AU or TU LOP, AU or TU AIS, HO or LO EXC, HO or LO UNEQ, HO or LO TIM.

Signal Degrade

In the windows relevant to *MSP*, it means that the equipment has detected the following alarm: MS-DEG.

In the windows relevant to *Dropped Connections* or *SNCP*, it means that the equipment has detected the following alarm: HO or LO DEG.

Forced

A forced switch has been executed to the synchronisation source.

Lockout

The use of the synchronisation source has been disabled.

Manual

A manual switch has been executed to the synchronisation source.

No Request

No management operations (i.e. forced switch, manual switch or lockout) have been executed on the synchronisation source.

In Service

The unit is available.

Out Of Service

The unit is not available.

Wait to Restore

The switching conditions have been cleared and the system is waiting to restore normal operation.

Part Number

xxx-xxxx/xx

The value indicates the part number of the relevant unit.

PDH Traff. Rate

2Mb or **1.5Mb**

The traffic rate fir the selected tributary port is 2Mbit/s or 1.5Mbit/s.

34Mb or **45Mb**

The traffic rate of the tributary unit is 34Mbit/s or 45Mbit/s.

PL Expected (hex)

Async

The virtual container is expected to carry 2 or 1.5Mbit/s using asynchronous mapping.

34-45Mb Async

The virtual container is expected to carry 34 or 45Mbit/s using asynchronous mapping.

140Mb Async

The virtual container is expected to carry 140Mbit/s using asynchronous mapping.

Bit Sync

For backward compatibility purposes only, previously interpreted as bit synchronous mapping.

Byte Sync

Byte synchronous mapping is expected to be used to carry 2 or 1.5Mbit/s traffic.

Locked TU

For backward compatibility purposes only, previously interpreted as locked mode byte synchronous mapping.

Not spec

The current payload structure is expected to be not specified on the far end transmitting side. Only a matching value is accepted.

TU Struct

The virtual container is expected to carry low order TU's (for VC-4 only).

Test

The virtual container is expected to carry test traffic for maintenance purposes or any mapping not defined in Recommendation G.707.

ATM Mapping

The virtual container is expected to carry asynchronous transfer mode traffic.

FDDI Mapping

The virtual container is expected to carry FDDI traffic**.**

MAN Mapping

The virtual container is expected to carry metropolitan area network traffic**.**

PL Received (hex)

Async

The virtual container is carrying 2 or 1.5Mbit/s using asynchronous mapping.

34-45Mb Async

The virtual container is carrying 34 or 45Mbit/s asynchronous traffic.

140Mb Async

The virtual container is carrying 140Mbit/s asynchronous traffic.

Bit Sync

Previously interpreted as bit synchronous mapping (not managed any more).

Byte Sync

Byte synchronous mapping is used to carry 2 or 1.5Mbit/s traffic.

Locked TU

Previously interpreted as locked mode byte synchronous mapping (not managed any more).

Not spec

The current payload structure is not specified on the far end transmitting side. This label is always accepted as a valid value.

Test

The virtual container is carrying test traffic for maintenance purposes or any mapping not defined in Recommendation G.707.

TU Struct

The virtual container is carrying low order TU's (for VC-4 only).

Unequipped

The virtual container is not cross connected on the far end transmitting side.

VC AIS

Alarm indication signal in the received virtual container.

ATM Mapping

The virtual container is carrying asynchronous transfer mode traffic.

FDDI Mapping

The virtual container is carrying FDDI traffic**.**

MAN Mapping

The virtual container is carrying metropolitan area network traffic**.**

Priority

from **1** to **10**
   Priority that has been assigned to the selected source.

Probable Cause

Unknown
   The switch cause is unknown.

Fault Operation
   The switch has been performed as consequence of an alarm condition.

Management Operation
   The switch has been performed as consequence of a management operation (i.e. Forced Switch To Protection).

Profile

Profile def
   The used DCC profile is the default set of OSI parameters.

from **1** to **4**
   The used DCC profile is one the predefined set of OSI parameters.

Protected By / Protecting

Trib 1 - Trib 2 - Trib 3
   Tributary unit in sub-rack slot position 2/3/4.

Trib MA - Trib MB
    MOST (A/B) tributary module.

STM1 S11
   Short-haul STM-1 (II window) optical tributary unit or MOST line module.

STM1 L11
   Long-haul STM-1 (II window) optical tributary unit or MOST line module.

STM1 L12-3
   Long-haul STM-1 (III window or III window shifted dispersion) optical tributary unit or MOST line module.

STM1 Ele
    STM-1 electrical tributary unit or MOST line module.

Prot.Role

Not Protected
The DCC is not protected.

Protected
The DCC is protected.

Protection State / MSP Condition Type

In the following the term "*object*" stands for:

♦ **Line**: in case of MSP protection.

♦ **Unit**: in case of Equipment protection.

♦ **Channel**: in case of SNC Protection or Drop and Continue connections.

No Request
A Management Operation has been cleared.

Do Not Revert
The switching conditions have been cleared in the local system, but the protection working mode has been defined as "Not Revertive". Then the operation is not automatically reverted to the worker *object*.

Manual Sw. To Worker
A manual switch to the worker *object* has been performed in the local system.

Manual Sw. To Prot.
A manual switch to the protection *object* has been performed in the local system.

Auto Sw. SF To Prot.
An automatic switch to the protection *object* has been performed in the local system; the cause is signal fail.

Auto Sw. SD To Prot.
An automatic switch to the protection *object* has been performed in the local system; the cause is signal degrade.

Auto Sw. SF To Worker
An automatic switch to the worker *object* has been performed in the local system; the cause is signal fail.

Auto Sw. SD To Worker
An automatic switch to the worker *object* has been performed in the local system; the cause is signal degrade.

Forced Sw. To Prot.

A forced switch to the protection *object* has been performed in the local system.

Forc. Sw. To Worker

A forced switch to the worker *object* has been performed in the local system.

Lockout

The use of the *object* involved in the protection has been disabled in the local system.

Auto Sw. OOS To Prot.

An automatic switch to the protection *object* has been performed as a consequence of an Out Of Service of the worker *object*.

Auto Sw. OOS To Worker

An automatic switch to the worker *object* has been performed as a consequence of an Out Of Service of the protection *object*.

Wait To Restore

The switching conditions have been cleared and the local system is waiting the complete expiration of the WTR time before restoring normal operation.

Remote Do Not Revert

The switching conditions have been cleared in the remote system, but the protection working mode has been defined as "Not Revertive". Then the traffic is not automatically reverted to the worker *object*.

Remote Manual Sw. To Worker

A manual switch to the worker *object* has been performed in the remote system.

Remote Manual Sw. To Prot.

A manual switch to the protection *object* has been performed in the remote system.

Remote Auto Sw. SF To Prot.

An automatic switch to the protection *object* has been performed in the remote system; the cause is signal fail.

Remote Auto Sw. SD To Prot.

An automatic switch to the protection *object* has been performed in the remote system; the cause is signal degrade.

Remote Auto Sw. SF To Worker

An automatic switch to the worker *object* has been performed in the remote system; the cause is signal fail.

Remote Auto Sw. SD To Worker

An automatic switch to the worker *object* has been performed in the remote system; the cause is signal degrade.

Remote Forced Sw. To Prot.

A forced switch to the protection *object* has been performed in the remote system.

Remote Forc. Sw. To Worker

A forced switch to the worker *object* has been performed in the remote system.

Remote Lockout

The use of the *object* involved in the protection has been disabled in the remote system.

Remote Wait To Restore

The switching conditions have been cleared and the remote system is waiting the complete expiration of the WTR time before restoring normal operation.

Protection Type / Prot. Type

No Protection

The protection is not defined for the selected resource.

1:1 Equipment Protection

1:1 unit protection (one worker resource protected by one protection resource).

1:2 Equipment Protection

1:2 unit protection (two worker resources protected by one protection resource).

MSP Unidirectional

1+1 Multiplexing Section Protection of 155Mbit/s line signals (the automatic protection switch is performed on the link side that detects the switching condition).

MSP Bidirectional

1+1 Multiplexing Section Protection of 155Mbit/s line signals (the automatic protection switch is performed on both link sides; the APS protocol is enabled and carried by K1 and K2 bytes).

Inherent

The connection is operating in Inherent mode.

Not Intrusive

The connection is operating in Not Intrusive mode.

Protection Unit

The protection unit can be one of the units belong to **Unit Id**.

QL Forced

PRC
  Primary Reference Clock (G.811 - quality level 1).

SSUT
  Synchronisation Supply Unit - Transit (G.812T - quality level 2).

SSUL
  Synchronisation Supply Unit - Local (G.812L - quality level 3).

SEC
  SDH Equipment Clock (G.813 - quality level 4).

DNU
  Do Not Use for synchronism (quality level 5).

QL Rx

Not Supported
  The S1 byte is not received (i.e. PDH or 2MHz sources).

Supported
  The S1 byte is correctly received (according to ITU-T Recommendations).

QL Rx Enabled

Enabled
  The synchronism status message is read in the received S1 byte (in case of STM-1 sources only).

<Empty>
  In case of PDH or 2MHz sources.

Received Mode

ASCII String
The received trace identifier is managed as string in ASCII code (15 characters and a CRC-7 parity check).

Fixed Byte
The received trace identifier is managed as a single byte.

Slot

from **1** to **7**
Displaying the unit sub-rack position.

Source / Active Source

Trib 1 - Trib 2

The synchronisation source is extracted from a tributary signal of a tributary unit (slot position 2 or 3).

Trib MA - Trib MB

The synchronisation source is extracted from a tributary signal of the MOST (A or B) module.

Line0 MA - Line1 MA

The synchronisation source is extracted from the line signal of the MOST A module (line 0 or line 1).

Line0 MB - Line1 MB

The synchronisation source is extracted from the line signal of the MOST B module (line 0 or line 1).

--------- If the field doesn't contain one of the above described strings, but it shows an alarm string, refer to chapter " Fault Detection Procedure".

Standby State

In the following the term "*object*" stands for:

♦ **Unit**: in case of Equipment protection or MS Protection.

♦ **Channel**: in case of SNC Protection or Drop and Continue connections.

StandBy

The *object* involved in the protection scheme is the protection one.

Providing Service

The *object* involved in the protection scheme is the worker one.

State

Active

The synchronisation source is either available and in use.

ActiveAck

The alarm has been detected in the equipment and it has been acknowledged by the Operator.

ActiveNotAck

The alarm has been detected in the equipment and it has not been yet acknowledged by the Operator.

Inactive
  The alarm has disappeared.

In service
  The synchronisation source is available but not in use.

Not Usable
  The DCC is not available.

Out Of Service
  The synchronisation source is failed.

Usable
  The DCC is available but not yet used.

Used
   The DCC is available and used.

Undefined
  The synchronisation source state is not available.

Wait To Restore
  The synchronisation source state is again available, after an Out Of Service period, but the WTR time has not expired yet.

Status

---------   In the "Abnormal Condition" window this field is not managed yet.

Free-running
  The system oscillator is using its own internal frequency.

Holdover
  The system oscillator is using a stored average reference.

Normal
  In the *System* folder: the system oscillator is locked to one of the configured sources.
  In the *Ext. Output* folder: the outgoing synchronisation signal is properly transmitted.

Squelched
  The outgoing synchronisation signal is cut off.

Tx AIS
  The outgoing synchronisation signal is replied with AIS (not yet managed).

Tx AIS
  The outgoing synchronisation signal carries the DNU synchronism status message (not yet managed).

Unit Id

Trib 1 - Trib 2 - Trib 3
  Tributary units in sub-rack slot position 2/3/4.

Trib MA - Trib MB
  MOST (A/B) tributary module.

Line0 MA - Line1 MA
  MOST A line (0/1) module.

Line0 MB - Line1 MB
  MOST B line (0/1) module.

Aux
  Auxiliary Unit.

Comm
  Communication Unit.

Shelf
  End of Shelf main MOST circuits.

Unit Type

16x2Mb
  16x2Mbit/s MOST tributary module.

32x2Mb
  32x2Mbit/s tributary unit or MOST tributary module.

63x2Mb
  63x2Mbit/s tributary unit.

1x140Mb
  140Mbit/s tributary unit.

3x45Mb
  3x45Mbit/s tributary unit.

3x34Mb
  3x34Mbit/s tributary unit.

STM1 Ele
   STM-1 electrical tributary unit.

STM1 S11
  Short-haul STM-1 (II window) optical tributary unit or MOST line module.

STM1 L11
  Long-haul STM-1 (II window) optical tributary unit or MOST line module.

STM1 L12-3

Long-haul STM-1 (III window or III window shifted dispersion) optical tributary unit or MOST line module.

Control MA - Control MB

MOST (A/B) control sub-unit.

Comm

Communication unit.

Worker Unit

The worker unit can be one of the units belong to **Unit Id**.