TopSky plugin for EuroScope

- version 2.2.1 -

Finland

EuroScope | power of control

Table of Contents

1   Track presentation

The presentation of radar and flight plan tracks consists of the following elements:

- Aircraft position symbol
- History dots
- Prediction line
- Track label, joined to the position symbol with a leader line

1.1   Colors

Most of the track presentation coloring depends on the flight sector state. The states are as follows:

Sector state name	Color name	Condition
Unconcerned	"Unconcerned"	Track will not enter the active sector
Notified	"Concerned"	Track will enter the active sector (> 15 min)
Coordinated	"Coordination"	Track will enter the active sector (< 15 min)
Assumed	"Assumed"	Track is assumed
Transfer Initiated	"Assumed"	Track is being transferred to the next controller
Redundant	"Redundant"	Track has been transferred to the next controller but is still inside the active sector

An unconcerned track can be highlighted based on rules (a combination of departure airport, route and arrival airport) defined in plugin data files. In this case it is drawn with "Informed" color.

Many track label fields have specific coloring rules to indicate various events. Refer to Label fields description for these. For the color definitions, refer to Colors.

1.2   Aircraft position symbol

The position symbol is drawn at the latest known position of the aircraft. The color of the symbol is the flight sector color for an unselected track and "Track Highlight" for a selected one. A number of different symbols are available. To begin with, there are six basic shapes that tell what kind of track is in question:

✕   Flight plan track (position is not based on surveillance data but calculated by EuroScope)

○   Coasted track (no position updates in over 30 seconds, position no longer reliable)

✧   Primary radar track

◇   Secondary radar track without Downlink Aircraft Parameters (DAPs)

▩   Secondary radar track with Downlink Aircraft Parameters (DAPs)

⊠   ADS-B only track

An indication of an SPI (transponder ident) can be added to the last three symbols. It draws a cross over the symbol and prints the text "SPI" above and to the right of the symbol:

 Secondary radar track without DAPs with Special Position Indication

For the last four symbols, a divergence alert will be drawn in case of a RAM or CLAM alert. This is a circle drawn around the symbol (will not be drawn if SPI is active):

 Secondary radar track without DAPs with divergence alert

1.3   History dots

The history dots show the previous positions of the track. The number of displayed dots can be changed via the Track Control Window. The color of the dots is the flight sector color for an unselected track and "Track Highlight" for a selected one. History dots are not displayed for flight plan tracks.

1.4   Prediction line

The prediction line draws the predicted ground track of the aircraft, based on its current track and ground speed. It is a two color line, starting with "Track Highlight" for a selected track and "Track Default" for an unselected track at the position symbol and then alternating with the flight sector color, with every segment representing one minute of flying time. The length of the prediction line can be changed for all tracks via the Track Control Window, or for a single track via the PRL menu. The example below shows a selected track with 5 history dots and a 3-minute prediction line. Prediction lines are not displayed for flight plan tracks.

1.5   Track label

There are four types of track labels that can be displayed: *Standard*, *Reduced*, *Extended* and *Uncorrelated*. In addition, each label except the extended one has an *unselected* and a *selected* state, the *selected* state being shown when the mouse cursor is over the label.

Basically, the *Standard* label is shown for aircraft that are in or will enter the active sector and the *Reduced* label for aircraft that will not enter the active sector. The *Extended* label can be opened from the *Standard* or *Reduced* label and stays open as long as the cursor is within the label area. The *Uncorrelated* label is shown for radar tracks that aren't correlated with a flight plan.

The following descriptions show the positions of the data fields in the different labels of the default sets that are provided with the plugin and the available mouse click areas on them. The contents and any special coloring rules for the data fields are explained in Label fields description. Note that an uncorrelated primary radar track will not show a label at all.

Data fields in grey color can be selected globally on/off via the Track Control Window, or for some of them, for individual tracks via the selected or *Extended* track label. In case of the CFL/PEL field, only the PEL display can be selected off. For the COPN/COPX field, only the COPX display can be selected off. Data fields in parentheses are blank (instead of displaying the field name) when there is no data.

1.5.1 EFIN1 track labels

1.5.1.1 Uncorrelated label

Unselected track   *Selected track*

EMRG ALRT TSSR IDENT AFL a GS

EMRG ALRT TSSR (IDENT) AFL (a) GS (DSFL) (DHDG) (DIAS) (DMACH) (DRC)

1.5.1.2 Reduced label

Unselected track   *Selected track*

EMRG S CALLSIGN AFL a CFL RFL GS

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S CALLSIGN SI N/ATYP /WTC AFL (a) CFL/PEL RFL GS (CRC) AHDG (RWY) ASP ARC (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (OP_TEXT2) (MALRT) (OP_TEXT) [max 2 lines of text]

1.5.1.3 Standard label

Unselected track   *Selected track*

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W CALLSIGN PFREQ SI N/ATYP /WTC AFL a CFL/PEL GS CRC COPN/COPX XFL AHDG RWY ASP ARC NPT PRFL DSFL DHDG DIAS DMACH DRC

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W CALLSIGN (PFREQ) SI N/ATYP /WTC AFL (a) CFL/PEL RFL GS (CRC) COPN/COPX XFL AHDG (RWY) ASP ARC (NPT) (PRFL) (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (OP_TEXT2) (MALRT) (OP_TEXT) [max 2 lines of text]

1.5.1.4 Extended label

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W CALLSIGN (PFREQ) SI N/ATYP /WTC AFL (a) CFL/PEL RFL GS (CRC) COPN/COPX XFL AHDG (RWY) ASP ARC (NPT) (PRFL) (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (OP_TEXT2) (MALRT) (OP_TEXT) [max 2 lines of text] (FIELD15) [max 6 lines of text] (FIELD18) [max 6 lines of text]	COMP_CS TSSR ASSR PSSR IDENT ADEP ADES SQ TAS TRACK

1.5.2   EFIN2 track labels

1.5.2.1   Uncorrelated label

Unselected track   *Selected track*

EMRG ALRT TSSR IDENT AFL a GS

EMRG ALRT TSSR (IDENT) AFL (a) GS (DSFL) (DHDG) (DIAS) (DMACH) (DRC)

1.5.2.2   Reduced label

Unselected track   *Selected track*

EMRG S CALLSIGN AFL a GS CFL ARC RFL AHDG ASP

EMRG ALRT RI COORD COM V W R P Y M • • A ■ C TEL I S TEXT2 CALLSIGN SI N/ATYP /WTC AFL (a) (CRC) GS CFL ARC RFL AHDG RWY ASP (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (MALRT) (OP_TEXT) [max 2 lines of text] (OP_TEXT2)

1.5.2.3   Standard label

Unselected track   *Selected track*

EMRG ALRT RI COORD COM V W R P Y M • • A ■ C TEL I S NSSR CPDLC_E CPDLC_W TEXT2 CALLSIGN PFREQ SI N/ATYP /WTC AFL a CRC COPN/COPX GS CFL/PEL XFL ARC AHDG RWY ASP NPT PRFL DSFL DHDG DIAS DMACH DRC

EMRG ALRT RI COORD COM V W R P Y M • • A ■ C TEL I S NSSR CPDLC_E CPDLC_W TEXT2 CALLSIGN (PFREQ) SI N/ATYP /WTC AFL (a) (CRC) COPN/COPX GS CFL/PEL XFL ARC RFL AHDG RWY ASP (NPT) (PRFL) (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (MALRT) (OP_TEXT) [max 2 lines of text] (OP_TEXT2)

1.5.2.4   Extended label

EMRG ALRT RI COORD COM V W R P Y M • • A ■ C TEL I S NSSR CPDLC_E CPDLC_W TEXT2 CALLSIGN (PFREQ) SI N/ATYP /WTC AFL (a) (CRC) COPN/COPX GS CFL/PEL XFL ARC RFL AHDG RWY ASP (NPT) (PRFL) (DSFL) (DHDG) (DIAS) (DMACH) (DRC) (MALRT) (OP_TEXT) [max 2 lines of text] (OP_TEXT2) (FIELD15) [max 6 lines of text] (FIELD18) [max 6 lines of text]	COMP_CS TSSR ASSR PSSR IDENT ADEP ADES SQ TAS TRACK

1.5.3 EFHK track labels

1.5.3.1 Uncorrelated label

Unselected track   *Selected track*

EMRG ALRT
TSSR IDENT
AFL a GS

EMRG ALRT
TSSR (IDENT)
AFL (a) GS
(DSFL) (DHDG) (DIAS) (DMACH) (DRC)

1.5.3.2 Reduced label

Unselected track   *Selected track*

EMRG S
CALLSIGN SI N/ATYP /WTC
AFL a CFL ASP GS
AHDG RWY
OP_TEXT2

EMRG COM I S
CALLSIGN SI N/ATYP /WTC
AFL (a) CFL ASP GS
AHDG (RWY)
OP_TEXT2
(DSFL) (DHDG) (DIAS) (DMACH) (DRC)

1.5.3.3 Standard label

Unselected track   *Selected track*

EMRG ALRT RI COORD COM V P M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W
CALLSIGN PFREQ SI N/ATYP /WTC
AFL a CFL/PEL ASP GS
AHDG RWY COPN/COPX NPT XFL PRFL
OP_TEXT2
DSFL DHDG DIAS DMACH DRC

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W
CALLSIGN (PFREQ) SI N/ATYP /WTC
AFL (a) CFL/PEL ASP GS
AHDG (RWY) COPN/COPX (NPT) XFL (PRFL)
(OP_TEXT2)
(DSFL) (DHDG) (DIAS) (DMACH) (DRC)

1.5.3.4 Extended label

EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W	COMP_CS
CALLSIGN (PFREQ) SI N/ATYP /WTC	TSSR ASSR PSSR IDENT
AFL (a) CFL/PEL ASP GS	ADEP ADES
AHDG (RWY) COPN/COPX (NPT) XFL (PRFL)	RFL TAS
(OP_TEXT2)	TRACK (CRC) ARC
(DSFL) (DHDG) (DIAS) (DMACH) (DRC)	
(FIELD15) [max 6 lines of text]	
(FIELD18) [max 6 lines of text]	
(MALRT) (OP_TEXT) [max 2 lines of text]	

1.5.4 Other track labels

1.5.4.1 *Uncorrelated label*

Unselected track

Selected track

```
EMRG  ALRT
TSSR   IDENT
AFL   a   GS
```

```
EMRG  ALRT
TSSR   (IDENT)
AFL   (a)  GS
(DSFL)  (DHDG)  (DIAS)  (DMACH)  (DRC)
```

1.5.4.2 *Reduced label*

Unselected track

Selected track

```
EMRG  S
CALLSIGN
AFL   a   CFL   GS
```

```
EMRG  COM  I  S
CALLSIGN
AFL   (a)  CFL  GS
AHDG
```

1.5.4.3 *Standard label*

Unselected track

Selected track

```
EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR
CPDLC_E CPDLC_W
CALLSIGN  PFREQ  SI  N/ATYP  /WTC
AFL  a  CFL/PEL  ASP  GS  CRC
AHDG  XFL  COPN/COPX  NPT  PRFL
DSFL  DHDG  DIAS  DMACH  DRC
OP_TEXT2
```

```
EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR
CPDLC_E CPDLC_W
CALLSIGN  (PFREQ)  SI  N/ATYP  /WTC
AFL  (a)  CFL/PEL  ASP  GS  (CRC)
AHDG  XFL  COPN/COPX  (RWY)  (NPT)  (PRFL)
(DSFL)  (DHDG)  (DIAS)  (DMACH)  (DRC)
OP_TEXT2
```

1.5.4.4 *Extended label*

```
EMRG ALRT RI COORD COM V W R P Y M • • A ▮ C TEL I S NSSR CPDLC_E CPDLC_W        COMP_CS
CALLSIGN  (PFREQ)  SI  N/ATYP  /WTC  SQ                      TSSR  ASSR  PSSR  IDENT
AFL  a  CFL/PEL  ASP  GS  (CRC)                              ADEP  ADES
AHDG  XFL  COPN/COPX  (RWY)  (NPT)  (PRFL)                   RFL  TAS  TRACK  ARC
(DSFL)  (DHDG)  (DIAS)  (DMACH)  (DRC)
(OP_TEXT2)
(FIELD15) [max 6 lines of text]
(FIELD18) [max 6 lines of text]
(MALRT)  (OP_TEXT) [max 2 lines of text]
```

1.5.5 Mouse functions in track labels

Data field	Left-click action	Right-click action
■		Open extended label
A		Open extended label
ADES	Open Flight Plan Window	Open ES flight plan dialog
AFL	Open AFL menu	Toggle flight leg display
AHDG	Open AHDG menu	Open CPDLC Current Message Window (if field includes "+")
ARC	Open ARC menu	
ASP	Open ASP menu	Open CPDLC Current Message Window (if field includes "+")
ASSR	Open ASSR menu	Send CPDLC "Squawk SSR" message
C	Toggle inbound clearance flag	
CALLSIGN	Open Callsign menu	Open extended label
CFL/PEL	Acknowledge PEL highlight, Open CFL / COPN altitude menu	Toggle flight leg display
COORD	Open Tactical Transfer menu	Open Tactical Info Window
COPN/COPX	Open Waypoint menu	Toggle flight leg display
CPDLC_E	Open CPDLC Emergency Ack menu	
CPDLC_W	Acknowledge warning / Open CPDLC Pilot Late Acknowledgement menu	Open CPDLC Current Message Window (if field includes "+")
DHDG		Toggle display in unselected label
DIAS		Toggle display in unselected label
DMACH		Toggle display in unselected label
DRC		Toggle display in unselected label
DSFL		Toggle display in unselected label
GS		Toggle display in unselected label
I		Open extended label
M	Toggle military coordination flag	
N/ATYP	Toggle mode S DAPs display	Toggle display in unselected label
NPT	Open NPT menu	Open CPDLC Current Message Window (if field includes "+")
NSSR	Open ASSR menu	Send CPDLC "Squawk SSR" message
OP_TEXT	Edit OP-TEXT	
OP_TEXT2	Edit OP-TEXT2	
PFREQ		Acknowledge monitoring indicator
PRFL	Open RFL menu	Open CPDLC Current Message Window (if field includes "+")
RFL	Open RFL menu	
RWY	Open RWY setup menu	
SI	Open next controller menu	Toggle sector ID/freq display
SQ	Open Sequence number menu	
TEL	Accept manual coordination	
TEXT2		Open extended label
TSSR	Open Callsign menu	Toggle mode S DAPs display
/WTC		Toggle display in unselected label
XFL	Open COPX altitude menu	Toggle flight leg display

1.5.7 Generic Ground S mode labels

All the label sets include the following labels to enable a generic ground radar display. The items and functions in them are all EuroScope default ones.

Unselected track

CALLSIGN ATYP WTC OP_TEXT2

Selected track

CALLSIGN ATYP WTC OP_TEXT2

Mouse functions

Data field	Left-click action	Right-click action
CALLSIGN	Open ES flight plan dialog	
OP_TEXT2	Edit scratch pad string	

2   Flight lists

The ES default lists have the following items and functionality (some fields are deselected by default):

2.1   Sector Inbound List (SIL) and Sector Exit List (SEL)

Data field	Left-click action	Right-click action
ETO	Open estimate popup	
COPN	Open Waypoint menu	Toggle flight leg display
PEL	Acknowledge PEL highlight, Open COPN altitude coordination list	Toggle flight leg display
PS	Open next controller popup list	
Callsign	Open Callsign menu	
ASSR	Open ASSR menu	Send CPDLC "Squawk SSR" message
N/ATYP		
WTC		
CFL	Open CFL menu	Toggle flight leg display
RFL	Open RFL menu	Open CPDLC Entire Message Window
ADEP		
ROUTE		
ADES	Open Flight Plan Window	Open ES flight plan dialog
SQ	Open SQ menu	
STAR	Open STAR setup popup list	
RWY	Open RWY setup popup list	
STD	Open Stand menu	
ETA	Open estimate popup	
COPX	Open Waypoint menu	Toggle flight leg display
ETO	Open estimate popup	
XFL	Open COPX altitude coordination list	Toggle flight leg display
NS	Open next controller popup list	

2.2   Departure List

Data field	Left-click action	Right-click action
TIME	Open Time menu	Open FP track status popup
SLOT	Open Time menu	
Callsign	Open Callsign menu	
N/ATYP		
WTC		
STD		
ASSR	Open ASSR menu	Send CPDLC "Squawk SSR" message
CFL	Open CFL menu	Toggle flight leg display
accFL	Open COPN/COPX altitude coordination list	Toggle flight leg display
RFL	Open RFL menu	Open CPDLC Entire Message Window
ADEP		
SQ	Open DSQ menu	Decrease DSQ number by one
RWY	Open RWY setup popup list	
SID	Open SID setup popup list	
AHDG	Open AHDG menu	Open CPDLC Entire Message Window
COPX	Open Waypoint menu	Toggle flight leg display
ROUTE		
ADES	Open Flight Plan Window	Open ES flight plan dialog

CLR	Open PDC Window	
STATE	Open Ground state menu	

2.3 Arrival List

Data field	Left-click action	Right-click action
Callsign	Open Callsign menu	
N/ATYP		
AFL	Open AFL menu	Toggle flight leg display
CFL	Open CFL menu	Toggle flight leg display
ASSR	Open ASSR menu	Send CPDLC "Squawk SSR" message

2.4 Flight Plan List

Data field	Left-click action	Right-click action
Callsign	Open Callsign menu	
ASSR	Open ASSR menu	Send CPDLC "Squawk SSR" message
N/ATYP		
ADEP		
ETD	Open FP track status popup	
ADES	Open Flight Plan Window	Open ES flight plan dialog
RFL	Open RFL menu	Toggle flight leg display
ETA	Open estimate popup	
SI	Open next controller popup list	
STS	Open FP track status popup	

3   Label fields description

Treatment of fields with no data

In the unselected track labels, a data field that contains no data will be blank. An exception to this is the AFL field which will display "AFL" when no altitude data is available for the track. In the selected and extended track labels a field with no data will still be displayed, usually displaying the field name (for example "AHDG"). Exceptions to this are all fields on line 0 and other fields as specified in the label definitions. In flight lists, the display of a field with no data depends on the specific field.

Active and inactive indicators

Some of the indicator characters in line 0 of the track label have active and inactive states. In the inactive state the indicator is not shown on the unselected label, and on the selected and extended labels it is shown after the other indicators and in the normal flight sector color. For example when clicking the Inbound clearance indicator, it changes to inactive state. Clicking the inactive indicator in the selected or extended label will restore it to active state.

Data fields description and coloring

The table below describes the data fields used in the labels and flight lists and their coloring rules, if different from the normal flight sector colors.

Data field	Description	Comments	Color
•	Frequency	"•", set from Callsign menu	Freq Indicator
•	Mark	"•", set from Callsign menu	Warning
■	Field 18 information	"■" if "RMK/" or "STS/" found in FPL remarks field	
A	Manual alerts	"A" if Manual alert(s) active	Warning
a	Attitude indicator	Climbing: up arrow Descending: down arrow Level flight or unknown: blank	
accFL	Planned Entry Level or Exit Flight Level	If logged in as CTR and flight not inside active sector, displays PEL. Otherwise displays XFL. "CA" if Clear for App set, "VA" if Visual App flag set, See AFL field for number format.	Ongoing coordination: Proposition Coordination refused: Warning
ADEP	Departure aerodrome	ICAO code, 4 characters	
ADES	Destination aerodrome	ICAO code, 4 characters	

Data field	Description	Comments	Color
AFL	Actual Flight Level	<u>Nautical:</u> FL's with 3 digits, altitudes "A"+ 3 digits, heights "E"+ 3 digits, in hundreds of feet <u>Metric:</u> FL's with 4 digits, altitudes "M"+ 4 digits, heights "E"+ 4 digits, in tens of meters	When the value has been set manually: Warning

AHDG	Assigned heading	<u>Flight List</u>
		  - Assigned heading ("H" + 3 digits) or direct point name
		<u>Unselected label:</u>
		  - Assigned heading ("H" + 3 digits) or direct point name
		  - Next point on the route
		<u>Selected label:</u>
		  - Assigned heading ("H" + 3 digits) or direct point name
		  - SID name if last point not yet overflown
		  - STAR name if next route point belongs to the STAR
		  - Next point on the route
		
		If a heading clearance or request is in progress via CPDLC, displays "[heading]", followed by "+" if the request or answer contains a reason (i.e. DUE TO something).
			<u>Track label:</u>
			If a value is assigned and HOP: Proposition
			
			If a tactical coordination value is accepted but not set: Information
			
			If a CPDLC uplink message has been sent:
			CPDLC UM Clearance
			
			If a CPDLC downlink message has been received:
			CPDLC DM Request
			
			If controller timeout has expired following a CPDLC downlink request:
			CPDLC Controller Late
			
			If a CPDLC warning has been raised: color of the warning

ALRT	Alert message	"MSAW", "APW", "AIW", "CLAM", "RAM", "MTCD" or "DUPE" (in this priority order)	MSAW, APW, AIW and MTCD: Warning
ARC	Assigned vertical rate	<u>Nautical:</u> "R" + 2 digits, in 100's of ft/min, max "R99" <u>Metric:</u> "R" + 2 digits, in m/s, max "R99"	If a value is assigned and HOP: Proposition If a tactical coordination value is accepted but not set: Information

Data field	Description	Comments	Color
ASP	Assigned speed	Mach "M"+ 3 digits, in 1/100's of Ma, max "M999" Nautical: Speed "N"+ 3 digits, in knots, max "N999" Metric: Speed "K"+ 3 digits, in km/h, max "K999" If a speed clearance or request is in progress via CPDLC, displays "[speed]", followed by "+" if the request or answer contains a reason (i.e. DUE TO something).	If a value is assigned and HOP: Proposition If a tactical coordination value is accepted but not set: Information If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC downlink message has been received: CPDLC DM Request If controller timeout has expired following a CPDLC downlink request: CPDLC Controller Late If a CPDLC warning has been raised: color of the warning
ASSR	Assigned mode 3/A code	"A"+ 4 digits. If no code assigned, shows TSSR code if available If a SQUAWK SSR message is in progress via CPDLC, displays the code in brackets, followed by "+" of the answer contains a reason (i.e. DUE TO something).	If different than TSSR: Warning If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC warning has been raised: color of the warning
C	Inbound clearance	"C" if ADES is one of the defined airports -> aircraft needs inbound clearance	Active state: Warning
CALLSIGN	Callsign	If more than one aircraft, suffixed by "+". If correlated to a primary track or to a secondary track with no ASSR code and a non-discrete TSSR code, suffixed by "*". If the flight is CPDLC connected, the callsign is displayed in brackets.	Priority order: STCA alert: Urgency HOP in: Proposition Highlight: Warning If none of the above: Transfer in: Assumed Transfer out: Redundant

Data field	Description	Comments	Color
CFL	Cleared Flight Level	"CA" if Clear for App flag set, "VA" if Visual App flag set, See AFL field for number format. Unselected label: Not shown if equal to AFL ("CFL" option in Track Control Window prevents this hiding) If a level clearance is in progress via CPDLC, displays "[level]", followed by "+" if the answer contains a reason (i.e. DUE TO something).	Departure list: for CTR or FSS if CFL > PEL, for others if CFL > XFL: Warning If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC warning has been raised: color of the warning
CFL/PEL	Cleared Flight Level or Planned Entry Level	PEL is shown for flights in "coordinated" and "ongoing coordination" states, CFL otherwise. "CA" if Clear for App flag set, "VA" if Visual App flag set, See AFL field for number format. Unselected label: PEL: Not shown if equal to AFL and no ongoing coordination. CFL: Not shown if equal to AFL ("CFL" option in Track Control Window prevents this hiding) If a level clearance is in progress via CPDLC, displays "[level]", followed by "+" if the answer contains a reason (i.e. DUE TO something).	PEL: Ongoing coordination: Proposition Change just before ETN: Info Coord Coordination refused: Warning CFL: If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC downlink message has been received: CPDLC DM Request If a CPDLC warning has been raised: color of the warning
CLR	Clearance received flag	"OK" if clearance received, "REQ" if clearance requested via data link, "ACK" if waiting for answer from the aircraft for a sent data link clearance, Empty if no clearance received and no data link clearance in progress "REQ" and "ACK" are blinking when less than 2 minutes are remaining to timeout	"REQ": When request contains free text: Urgency Otherwise: Warning "ACK": When blinking: Warning
COM	Communication type	"r" if voice receive only "t" if text only	Warning
COMP_CS	ICAO RTF callsign	The decoded ICAO RTF callsign	

Data field	Description	Comments	Color
COORD	Coordination message	"ROF" if a Request On Frequency message has been received from the next sector The last changed tactical coordination parameter value (AHDG, ASP or ARC)	Coordination Proposed: Proposition Rejected: Warning
COPN	Entry point	A holding clearance is displayed if there is no coordination. It shows the holding point name + " H" or for lat/lon point holdings, "POS H". For a TSA Hold clearance, the area name is shown.	Ongoing coordination: Proposition Coordination refused: Warning
COPX	Exit point	See COPN <u>Departure list:</u> If logged in as CTR and flight not inside active sector, displays COPN	Ongoing coordination: Proposition Coordination refused: Warning
COPN/COPX	Entry point or Exit point	COPN is shown for flights in "coordinated" and "ongoing coordination" states, COPX in "assumed", "transfer initiated" and "redundant" phases. For more information see COPN.	Ongoing coordination: Proposition Coordination refused: Warning
CPDLC_E	CPDLC Emergency	CPDLC emergency messages: "SQ7500", "[MAYDAY]", or "[PAN]"	Urgency
CPDLC_W	CPDLC Warning	CPDLC warning messages: "COMM FAIL" for network failure "<type> ERR" for message failure "<type> NOT CDA" for NOT CURRENT DATA AUTHORITY response "<type> UNA" for UNABLE response "<type> P LATE" for timeout "<type> SBY" for STANDBY response <type> is the type of message: "COF" for communication transfer "CFL" for level clearance "DCT" for direct-to clearance "AHDG" for heading clearance "SSR" for SQUAWK SSR message "SQI" for SQUAWK IDENT message	"COMM FAIL", "<type> ERR" or "<type> NOT CDA": CPDLC Failed "<type> UNA": CPDLC Unable "<type> SBY": CPDLC Standby "<type> P LATE": CPDLC Pilot Late

Data field	Description	Comments	Color
CRC	Computed vertical rate	"C" for climbing, "D" for descending, followed by: Nautical: 2 digits, in 100's of ft/min, range "-99" to "+99" Metric: 2 digits, in m/s, range "-99" to "+99"	
DHDG	Downloaded heading	Magnetic heading as downloaded from the aircraft via mode S DAPs. "H" + 3 digits.	
DIAS	Downloaded indicated airspeed	Indicated airspeed as downloaded from the aircraft via mode S DAPs. Not available on VATSIM.	
DMACH	Downloaded Mach number	Mach number as downloaded from the aircraft via mode S DAPs. Not available on VATSIM.	
DRC	Downloaded rate of climb/descent	Rate of climb/descent as downloaded from the aircraft via mode S DAPs. Not available on VATSIM (computed rate displayed instead, see CRC item).	
DSFL	Downloaded selected flight level	Selected flight level as downloaded from the aircraft via mode S DAPs. Not available on VATSIM.	
EMRG	Emergency	"HI" for squawk 7500, "CF" for squawk 7600, "EM" for squawk 7700	Urgency
ETO	Estimated time of arrival	UTC time in "HHMM" format	
ETO (COPN)	Estimated time over COPN or sector entry time if no COPN	UTC time in "HHMM" format	
ETO (COPX)	Estimated time over COPX or sector exit time if no COPX	UTC time in "HHMM" format	
FIELD15	Speed/Level/Route	The flight plan field 15 data (TAS, RFL and route). Max 270 characters	
FIELD18	Other information	The flight plan field 18 data (remarks). Max 270 characters	
GS	Ground Speed	Nautical: 3 digits, in knots, max "999" Metric: "K"+ 3 digits, in km/h, max "K999"	
I	Flight information	"I" if OP-TEXT has data	
IDENT	Aircraft identification	Callsign as received via mode S	
M	Military coordination	"M" if military coordination is required	Active state: Warning
MALRT	Manual alerts	Displays alerts entered via the Callsign menu	Warning

Data field	Description	Comments	Color
N/ATYP	Number of aircraft / Aircraft type	Unselected label: Number range 2 - 99 Selected label or flight list: Number range 1 - 99 Number can be set by prefixing the aircraft type in the FPL by "X/" where X is the number (max 99)	
NPT	Next route point	Displays the point name when a DCT request or clearance via CPDLC is in progress, followed by "+" if the request contains a reason (i.e. DUE TO something)	If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC downlink message has been received: CPDLC DM Request If controller timeout has expired following a CPDLC downlink request: CPDLC Controller Late If a CPDLC warning has been raised: color of the warning
NS	Next Sector	Next sector identifier. Displayed in brackets if a communications transfer is in progress via CPDLC, followed by "+" if the answer contains a reason (i.e. DUE TO something)	Priority order: Outgoing HOP: Proposition Manually changed next sector: Warning Normal next sector: Coordination If a CPDLC communications transfer uplink message has been sent: CPDLC UM Clearance If a CPDLC warning has been raised: color of the warning
NSSR	SSR warning	Displays ASSR if different from TSSR	Warning If a CPDLC uplink message has been sent: CPDLC UM Clearance If a CPDLC warning has been raised: color of the warning

Data field	Description	Comments	Color
OP_TEXT	Flight information message	User entered text, stored in the flight strip	
OP_TEXT2	OP-TEXT2 message	User entered text, stored in the scratchpad	
P	No P-RNAV capability	"P" if aircraft equipment is not indicating P-RNAV capability	Not approved: Urgency Unknown: Unknown
PEL	Planned Entry Level	"CA" if Clear for App set, "VA" if Visual App flag set, See AFL field for number format.	Ongoing coordination: Proposition Change just before ETN: Info Coord Coordination refused: Warning
PFREQ	Pilot monitored frequency	Displays your primary frequency when transfer of communications was done via CPDLC using the MONITOR option	CPDLC DM Request
PRFL	RFL requested by pilot via CPDLC	Displays "[requested level]", followed by "+" if the request contains a reason (i.e. DUE TO something)	If a CPDLC downlink message has been received: CPDLC DM Request If controller timeout has expired following a CPDLC downlink request: CPDLC Controller Late If a CPDLC warning has been raised: color of the warning
PS	Previous Sector	Tracking controller identifier	
PSSR	Previous mode 3/A code	If not known, shows ASSR if available. Format as ASSR field.	
R	No B-RNAV capability	"R" if aircraft equipment is not indicating B-RNAV capability	Not approved: Urgency Unknown: Unknown
RFL	Requested Flight Level	See AFL field for format In flight lists: If a RFL request is in progress via CPDLC, displays "[requested level]", followed by "+" if the request contains a reason (i.e. DUE TO something)	In flight lists: If a CPDLC downlink message has been received: CPDLC DM Request If controller timeout has expired following a CPDLC downlink request: CPDLC Controller Late If a CPDLC warning has been raised: color of the warning

Data field	Description	Comments	Color
RI	Release Indicator	"F" fully released "C" released for climb "D" released for descent "T" released for turns Incoming release disappears 3 min after track is assumed, outgoing when track is no longer redundant.	During transfer: Proposition
ROUTE	Flight plan route	If departing from EFxx: first 15 characters If arriving at a clearance flag airport: last 15 characters Else: first 15 characters	
RWY (track labels)	Arrival runway	Arrival runway identifier	
RWY (Departure List)	Departure runway	Departure runway identifier	If the runway is not an active departure runway: Clearance flag not set: Proposition Clearance flag set: Information
RWY (SIL & SEL)	Arrival runway	Arrival runway identifier	
S	Mode S mismatch indicator	"S" if downloaded callsign is different than coupled flight plan callsign	Warning
SI	Sector Indicator	Assumed track: Next sector identifier or frequency. Displayed in brackets if a communications transfer is in progress via CPDLC, followed by "+" if the answer contains a reason (i.e. DUE TO something). The frequency display is forced on during a transfer via CPDLC. Other tracks: Tracking controller identifier or frequency.	Priority order: Outgoing HOP: Proposition Manually changed next sector: Warning Normal next sector: Coordination If a CPDLC communications transfer uplink message has been sent: CPDLC UM Clearance If a CPDLC warning has been raised: color of the warning
SID	Assigned/planned SID	SID identifier	
SQ (Departure List)	Departure sequence number		
SQ (SIL & SEL)	Arrival sequence number	A number from 1 to 50	
STAR	Assigned/planned STAR	STAR identifier	
STATE	Ground state	"ON FREQ", "DEICE", "START UP", "TAXI", "LINE UP" or "TAKE OFF"	

Data field	Description	Comments	Color
STD	Departure or arrival stand		Changed arrival stand: Emergency (ES default)
TAS	Flight Plan TAS	See GS field for format	
TEL	Manual coordination flag (EuroScope default tag item)	Displays a telephone symbol when ongoing coordination has been attempted with a controller not using EuroScope. Coordinate manually (using text messages, interphone, etc.) and then click the symbol to accept the coordination values.	ES Symbology dialog -> Datablock -> information (should be set to same as plugin color "Warning")
TEXT2	OP-TEXT2 message	If more than 6 characters, then shows first 5 + "+"	
TIME	Estimated Off Block Time	UTC time in "HHMM" format	
TRACK	True track	"T" + the aircraft's current ground track in degrees true	
TSSR	Aircraft transponded mode 3/A code	"A"+ 4 digits	
V	Flight rules	"V" if VFR, "Y" if first IFR and later VFR, "Z" if first VFR and later IFR	
W	No RVSM capability	"W" if aircraft equipment is not indicating RVSM capability	Not approved: Urgency Exempt: Information Unknown: Unknown
WTC	Wake turbulence category	"J" for Super, "H" for Heavy, "M" for Medium, "L" for Light	
/WTC	Wake turbulence category	"/J" for Super, "/H" for Heavy, "/M" for Medium, "/L" for Light	
XFL	Exit Flight Level	"CA" if Clear for App set, "VA" if Visual App flag set, See AFL field for number format. Unselected label: Not shown if equal to CFL/PEL and no ongoing coordination. ("XFL" option in Track Control Window prevents this hiding)	Ongoing coordination: Proposition Coordination refused: Warning
Y	No 8.33kHz capability	"Y" if aircraft equipment is not indicating 8.33kHz capability	Not approved: Urgency Exempt: Information Unknown: Unknown

4 Colors

The following table shows the plugin defined colors (and where applicable, their EuroScope counterparts, which should be set the same for best results). The Usage column indicates where the colors are used (the list may not be complete). In the aircraft colors "Labels" means track labels and any lists where aircraft information is displayed, "Tracks" radar position symbols, history dots, prediction lines and divergence symbols.

All the EuroScope colors in the table can be found in the *Datablock* group in the *Symbology* dialog except the active and inactive sector backgrounds which are in the *Sector* group.

Color name	Corresponding ES color	Default color	Usage
Aircraft colors			
Assumed	assumed		Labels, Tracks
Concerned			Labels, Tracks
Coordination	notified		Labels, Tracks
Freq Indicator			Labels
Info Coord			Labels
Information			Labels, Windows
Informed			Labels, Tracks
Proposition			Labels
Redundant	redundant		Labels, Tracks
Track Default			Tracks
Track Highlight			Tracks (when selected)
Unconcerned	non concerned		Labels, Tracks
Unknown			Labels
Urgency			Labels, CARD callsign STCA background
Warning	information		Labels, Windows
CPDLC colors			
CPDLC Controller Late			Labels, Windows
CPDLC Discarded			Windows
CPDLC DM Request			Labels, Windows
CPDLC Failed			Labels, Windows
CPDLC Pilot Late			Labels, Windows
CPDLC Standby			Labels, Windows
CPDLC UM Clearance			Labels, Windows
CPDLC Unable			Labels, Windows
CPDLC Urgency			Labels, Windows
Aircraft related items on the radar screen			
Flight Leg			Part of flight leg without MTCD and SAP coverage
FPLSEP Tool 1			Flight plan separation tool 1
FPLSEP Tool 2			Flight plan separation tool 2
FPLSEP Tool 3			Flight plan separation tool 3
FPLSEP Tool 4			Flight plan separation tool 4
FPLSEP Tool 5			Flight plan separation tool 5
Heading Vector			Heading vector
Information FL			Part of flight leg with no MTCD or SAP problems
Potential FL			Part of flight leg with MTCD or SAP potential conflict
QDM			QDM vector

Color name	Corresponding ES color	Default color	Usage
SEP Tool 1			Minimum separation tool 1
SEP Tool 2			Minimum separation tool 2
SEP Tool 3			Minimum separation tool 3
SEP Tool 4			Minimum separation tool 4
SEP Tool 5			Minimum separation tool 5
Urgency FL			Part of flight leg with MTCD or SAP conflict
Warning FL			Part of flight leg with MTCD or SAP risk
Map colors			
Active Map			Active TSA map border
Active Map Type 1			TSA map border/fill
Active Map Type 2			TSA map border/fill
Active Map Type 3			TSA map border/fill
Active Map Type 4			TSA map border/fill
Active Map Type 5			TSA map border/fill
Active Map Type 6			TSA map border/fill
Active Map Type 7			TSA map border/fill
Active Map Type 8			TSA map border/fill
Active Map Type 9			TSA map border/fill
Active Map Type 10			TSA map border/fill
Active Map Type 11			TSA map border/fill
Active Map Type 12			TSA map border/fill
Active Map Type 13			TSA map border/fill
Active Map Type 14			TSA map border/fill
Active Map Type 15			TSA map border/fill
Active Map Type 16			TSA map border/fill
Active Map Type 17			TSA map border/fill
Active Map Type 18			TSA map border/fill
Active Map Type 19			TSA map border/fill
Active Map Type 20			TSA map border/fill
Active RD Infill Map			Active R or D map fill
Active RD Map			Active R or D map border
Active Text Map			Active TSA map text
Map 1			Auto-generated maps
Map 2			Auto-generated maps
Map 3			Auto-generated maps
Map 4			Auto-generated maps
Map Hotspot			Map hotspots
Map Info			Range rings, range marker
Preactive Map			Pre-active map border
Preactive Text Map			Pre-active map text
Predisplay Map			Pre-display map border
Rwy App Line Inuse			Runway approach line for runways in use
Rwy App Line Not Inuse			Runway approach line for runways not in use
TSA Border Highlight			Highlighted TSA map border
Window and menu colors			
Arm			Inactive window texts
Active Sector	active sector background		Stack Manager Window, VAW
Background			Background

Color name	Corresponding ES color	Default color	Usage
Border			Various lines in windows
BottomShadow			3D effects in windows
CARD Conflict Number			CARD conflict numbers
CARD Time Vector			CARD time vectors
Field Highlight	active item background		Selected field
Flight Highlight	detailed background		Selected item
Foreground			Window titles, menu items, active texts, close/min/resize boxes
Global Menu Highlight			Highlighted items in the Global Menu
Inactive Sector	inactive sector background		CARD and VAW background
Overflown			Overflown points in Complete Route Window
Potential			Potential conflicts in VAW
Selected			Active filters in Radar menu
Selected Group			Group of TSA areas in multi edit mode
Selected Period			Active areas text in area window
SMW Level Band			AFL-CFL boxes in SMW
SMW Overflight			Overflight lines in SMW
SMW Overlap			Overlapping AFL-CFL boxes in SMW
SMW Overlap Box			Multiple same CFL's box in SMW
SMW Overshoot			Level bust AFL-CFL boxes in SMW
TopShadow			3D effects in windows
Trough			Slider area background, active selections
TSA Active			Active areas background in area window
TSA Filter			Active categories in area window
TSA Preactive			Pre-active areas background in area window
VAW Profile			Selected aircraft profile in VAW
VAW Sector Limits			Sector boundaries in VAW
VAW Track Position			Selected aircraft position in VAW
WM Active Fg			Active window title text
WM Bg			Window title bar background
WM Border			Window border line
WM Fg			Window texts
WM Frame			Window frame when dragging
Other colors			
Raw Video 1			Raw radar video youngest plots
Raw Video 2			Raw radar video
Raw Video 3			Raw radar video
Raw Video 4			Raw radar video
Raw Video 5			Raw radar video
Raw Video 6			Raw radar video
Raw Video 7			Raw radar video oldest plots
Text Notes			Text notes