



# HORIZONT

## IWS/Graph – Product Presentation

The best view to IWS (IBM Workload Scheduler)

# AGENDA

## IWS/Graph – Product Presentation

Introduction

PC Client

Application Documentation

Statusmonitor

Host Programs

Loop Analysis

# What is IWS/Graph?

IWS/Graph is an Add-On to IWS, basic functions are:

- Netplans
- Monitoring
- Documentation
  
- plus some ISPF "goodies" like
  - AD Cross Reference
  - Forecast
  - Loop Analysis

# Who uses IWS/Graph ?

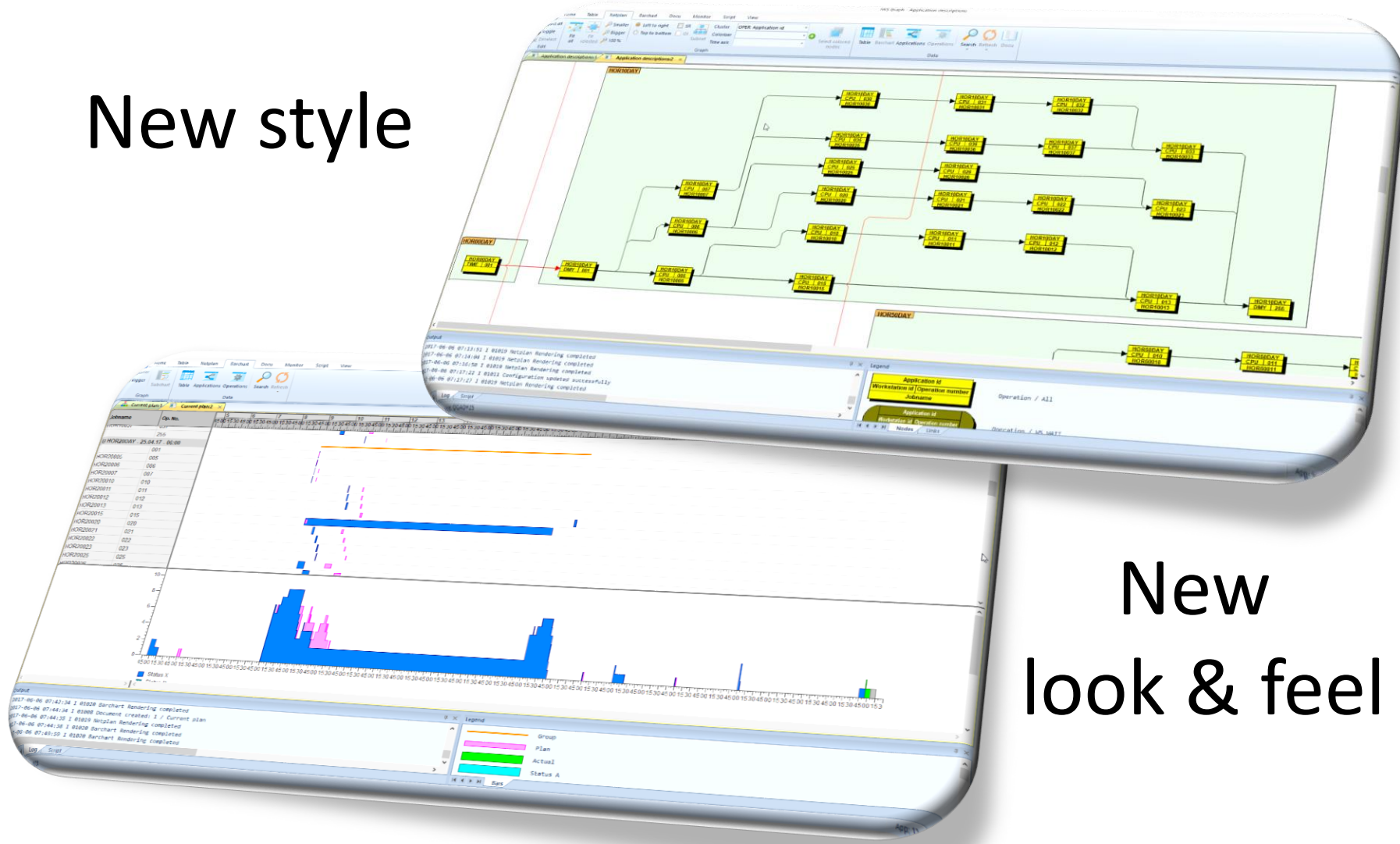
Everyone who is involved with IWS, especially:

- Production Planning and Control
- Application Development
- Operating
- ...

More than 150 Customers (companies) worldwide.

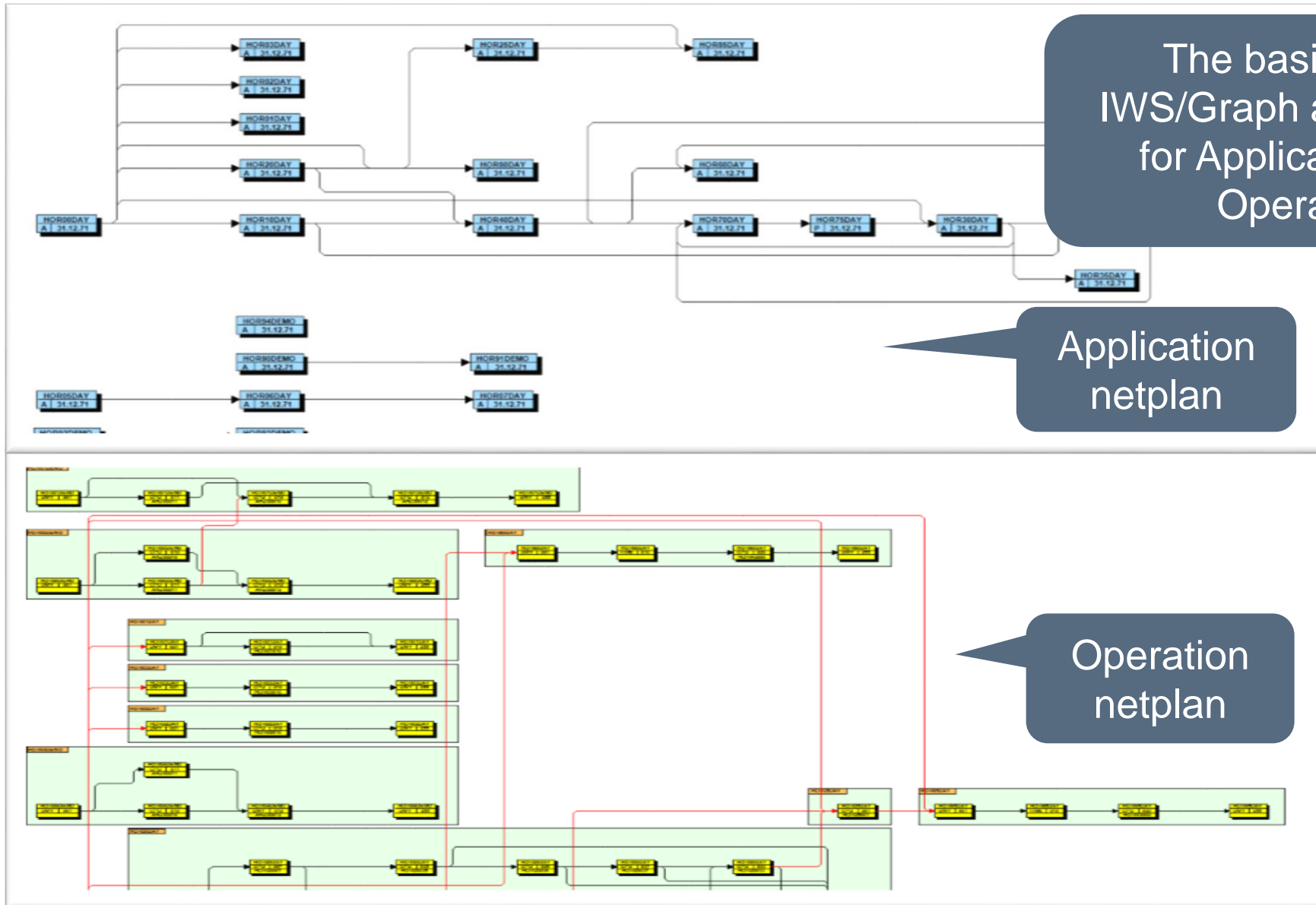
# IWS/Graph – The PC Client

New style



New look & feel

# Netplans

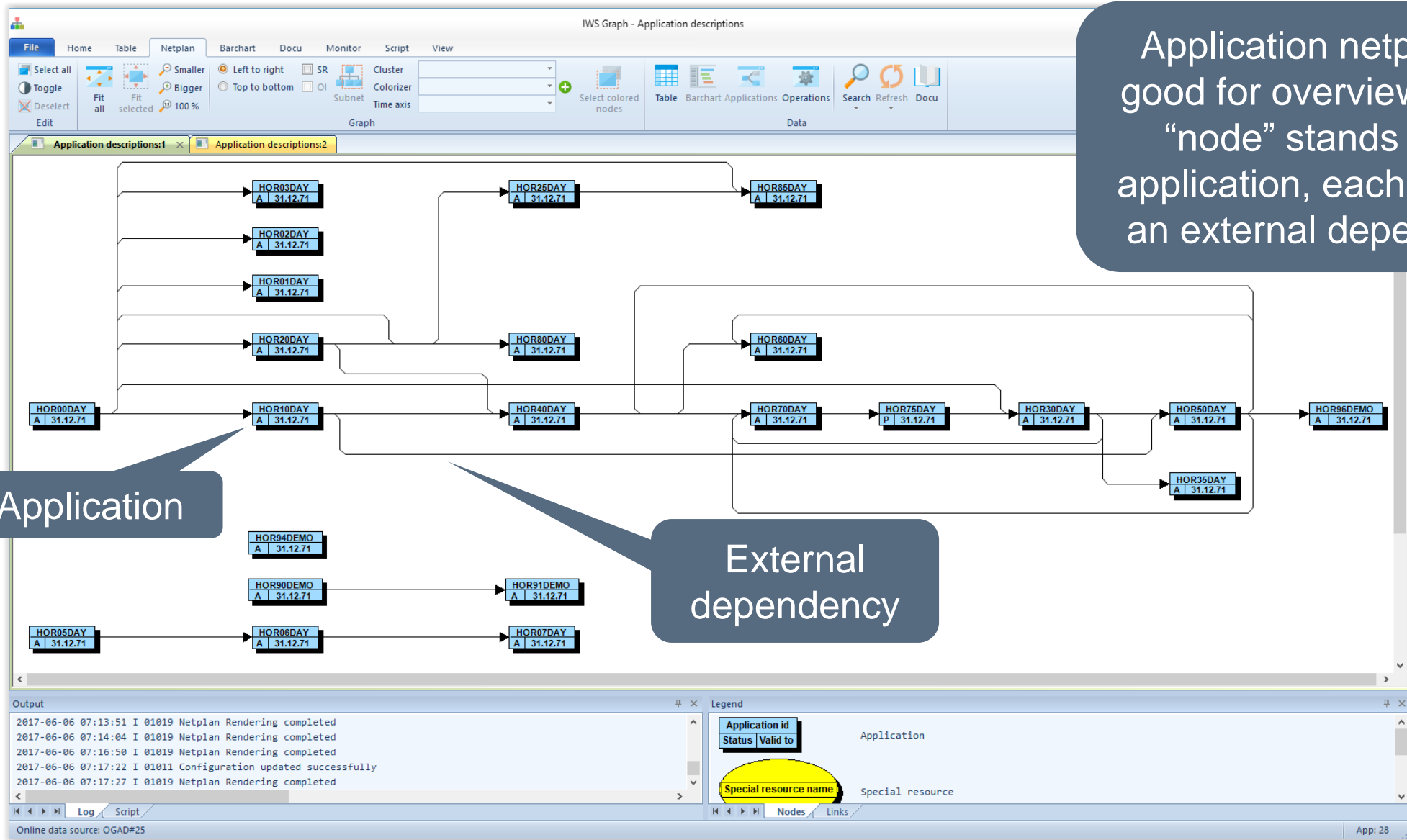


The basic task of IWS/Graph are netplans for Applications and Operations

Application netplan

Operation netplan

# Application Netplan

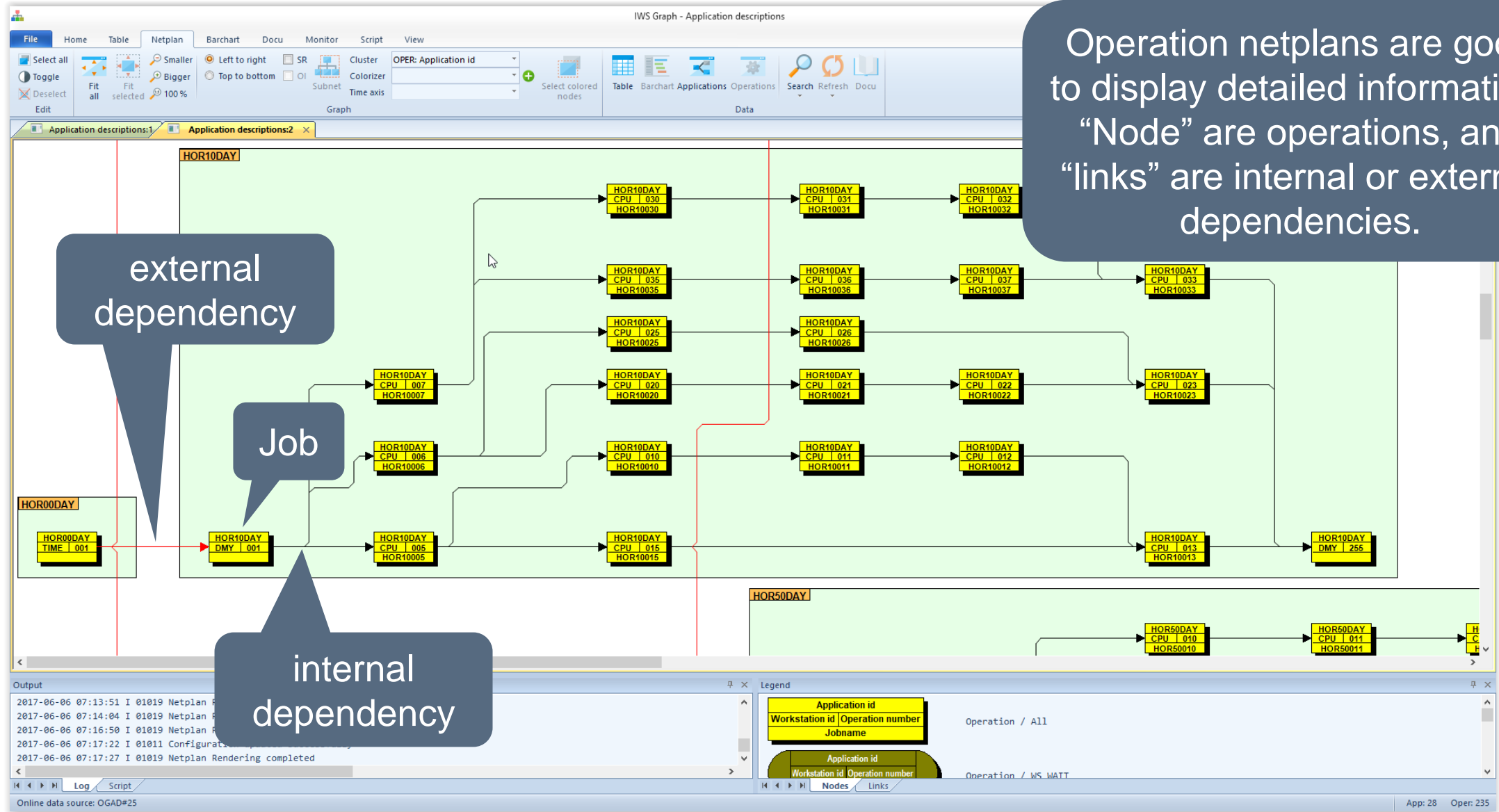


Application netplan are good for overviews. Each “node” stands for an application, each “link” for an external dependency.

Application

External dependency

# Operation Netplan



Operation netplans are good to display detailed information. “Node” are operations, and “links” are internal or external dependencies.

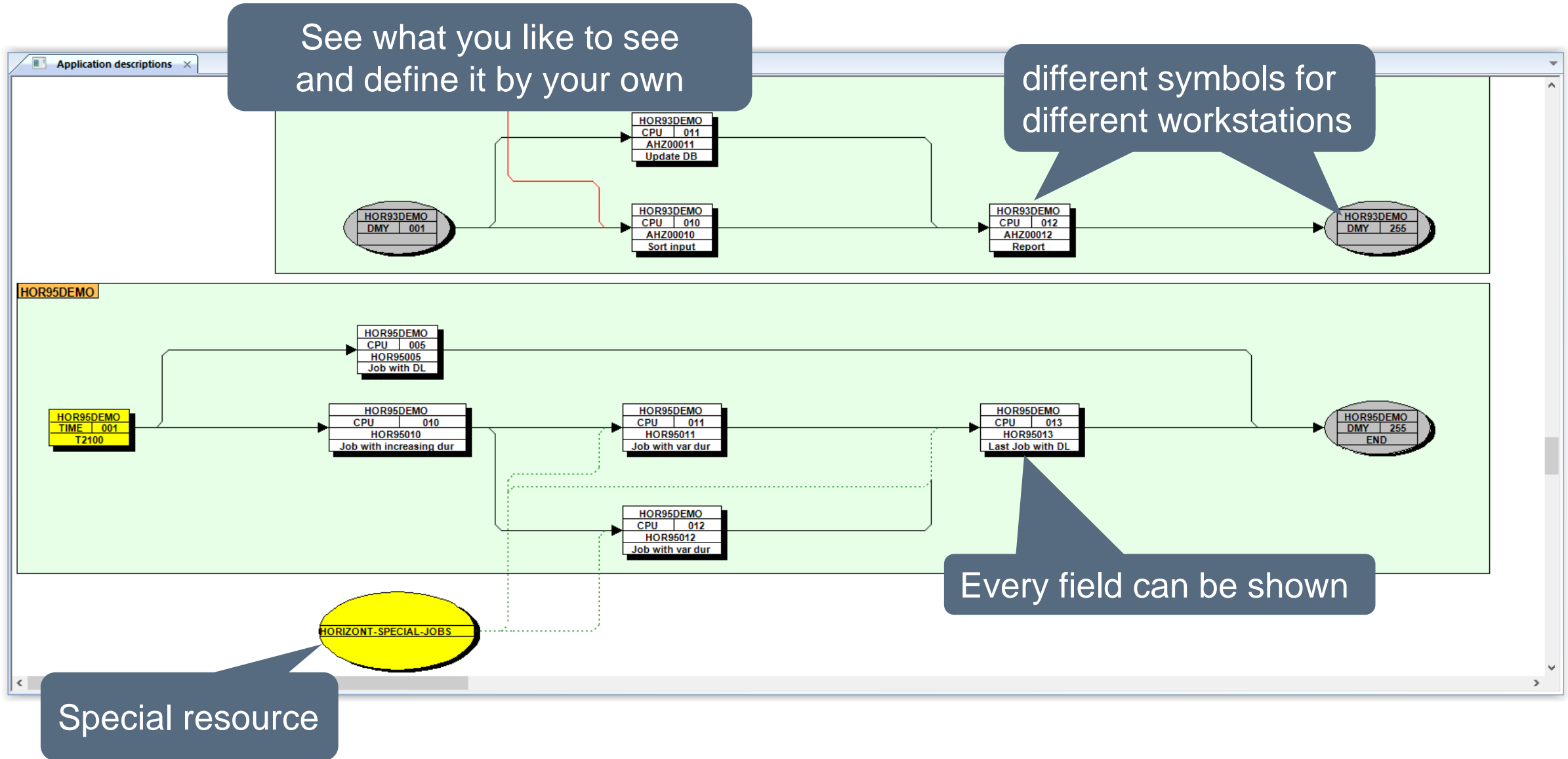
external dependency

Job

internal dependency



# Operation Netplan



# Operation Netplan

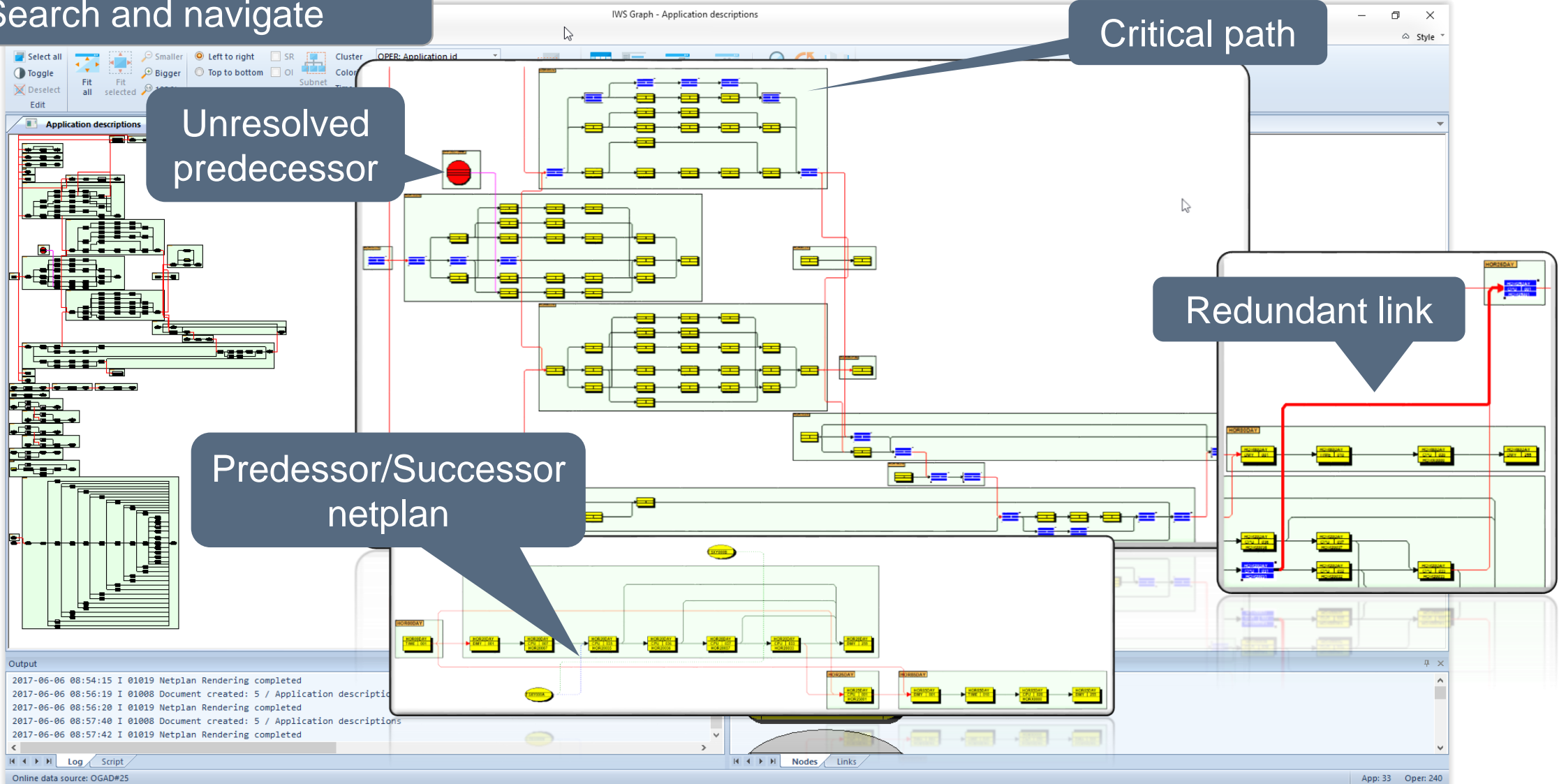
Search and navigate

Critical path

Unresolved predecessor

Redundant link

Predecessor/Successor netplan



# Barcharts



Barcharts are displaying the planned and actual start- and end times.

Application

Application runtime

Job

Planned time

Actual start time

# Offline or Online

The screenshot displays the IWS Graph application window. On the left, an 'Open' dialog box is open, showing a file explorer view of the 'Data' folder. Three files are listed: 'TWSGRAPH.AD', 'TWSGRAPH.CP.D170426', 'TWSGRAPH.CP.D170606', and 'TWSGRAPH.CP.D171002'. The three CP files are highlighted with a red box. A callout bubble points to this box with the text 'Save your own history'. At the top of the IWS Graph window, a callout bubble says 'IWS/Graph works offline or online.'. On the right, the 'Database selection' dialog is open. The 'Connection' dropdown menu is highlighted with a red box and labeled 'Define Connections'. Below it, the 'User name' field contains 'p392h' and the 'Password' field is masked with dots. A callout bubble points to these fields with the text '... or ONLINE'. At the bottom left, an 'Output' window shows log messages. A callout bubble at the bottom center says 'OFFLINE ...'. The status bar at the bottom left indicates 'Online data source: OGAD#25'.

IWS/Graph works offline or online.

Define Connections

Save your own history

OFFLINE ...

... or ONLINE

# Save your options

The screenshot shows the 'Options' dialog box with a tree view on the left and a main configuration area on the right. The tree view is highlighted with a red rounded rectangle. The main area is titled 'Basic general options' and contains sections for Logging, Files and Directories, OR operator, Default view, and Encoding. A 'Node styles' dialog box is also open in the foreground, showing a preview of a node with a table of data.

**Options**

- General
  - Basic general options
  - Netplan/Tree general options
- Current plan
  - General options
  - Columns in the report
  - Barchart
  - Application netplan
    - Graph options
    - Node styles
    - Link styles
    - External programs
  - Operation netplan
    - Graph options
    - Node styles
    - Link styles
    - External programs
  - Application descriptions
    - General options
    - Columns in the report
    - Application netplan
      - Graph options
      - Node styles
      - Link styles
      - External programs
    - Operation netplan
      - Graph options
      - Node styles
      - Link styles

**Basic general options**

Logging

Log message level: 3

Maximal number of log lines: 10000

Log network communication

Log trace messages

Files and Directories

Log directory: C:\Users\jensw\AppData\Roaming\IWS Graph\

Temp directory: R:\IWS Graph\

Local configuration: C:\Users\jensw\AppData\Roaming\IWS Graph\Setting.xml

Admin configuration: t:\test\horizont\jwsg2\Admin.xml

OR operator: |

Default view: Graphic

Encoding

Code page: (O)

**Node styles**

Properties

Field name: Application id

Shadow  Striked through

Line color: Black

Background color: White

Text color: Black

Shape: Rectangle

Alignment: Center

Field width: [ ] Auto

Line count: 1 Auto

Line thickness: 1

Font: Sample text

Application id  
Workstation id | Operation number  
Jobname  
Operation description

OK Cancel

Define and remember your own options

User options

Installation options

Node styles

# Batch Interface

**Automate your Queries**

**Define and test in the client**

```
1 // Data from AD or CP
2 database=CP
3 // Presentation APP or OP
4 netplan_type=OP
5
6 // Coded logon account and connection data
7 logon="T:\TEST\HORIZONT\IWSG2\BIF\P392H_CP.LGN"
8
9 // Selection
10 selection_file="T:\TEST\HORIZONT\IWSG2\BIF\101\selection.sel"
11
12 // Result output file
13 create_png_file="T:\TEST\HORIZONT\IWSG2\BIF\101>List_Error-Op_and_Succ.png"
```

**Encrypted Logon information**

**Selection**

```
CP
EXT_PRED=N
EXT_SUCC=Y
SR=N
OI=N
CPOPST=EQE
```

**Result**

**Output**

2017-06-14 08:39:...

All you need is defined and created in the client

The interface shows a script editor with various tabs (File, Home, Table, Netplan, Barchart, Docu, Monitor, Script, View) and a toolbar with icons for Cut, Copy, Paste, Undo, Redo, Find, Replace, Unmark, Check, and Run. The script content is displayed in a text area, and the output is shown in a separate window at the bottom. A callout box labeled 'Result' points to a flowchart diagram showing a sequence of steps with decision points and data flow.

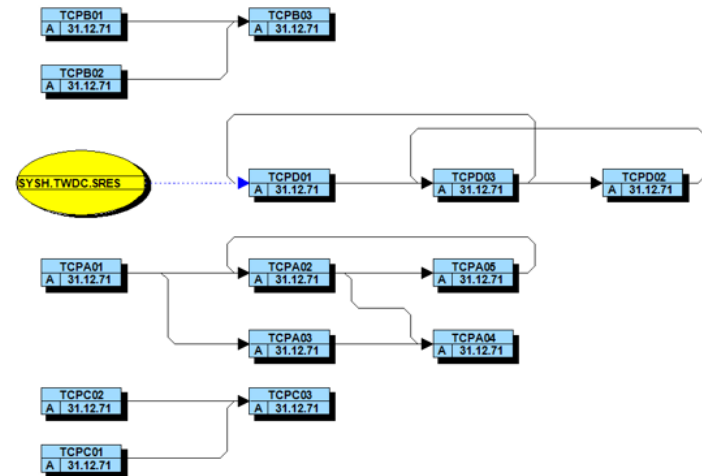
## APPLICATION DESCRIPTION,

### INPUT SELECTION CRITERIA

TCPB01	A991231
TCPB02	A991231
TCPD01	A991231
TCPA04	A991231
TCPC03	A991231
TCPA01	A991231
TCPD02	A991231
TCPC02	A991231
TCPA05	A991231
TCPC01	A991231
TCPA03	A991231
TCPD03	A991231
TCPA02	A991231
TCPB03	A991231

### SELECTED TOPICS

- Run Cycles
- Run Days
- Operation Text
- Operation Details
- Operation Predecessors
- Operation Successors
- Special Resources
- JCL Library Member
- JCL with procedures
- JCL Dataset Table
- Operator Instructions



### Index

TCPA05	A 12.09.12
TCPC01	A 12.09.12
TCPC02	A 12.09.12
TCPC03	A 12.09.12
TCPD01	A 09.10.12
TCPD02	A 09.10.12

The AD Docu is a HTML document, it is generated automatically by IWS/Graph.

# Docu "On Demand"

The screenshot shows the IWS Graph - Application descriptions application window. The interface includes a menu bar (File, Home, Table, Netplan, Barchart, Docu, Monitor, Script, View) and a toolbar with various icons for editing and viewing. The main workspace displays a network diagram with nodes and connections. The nodes are organized into several groups:

- TCPA Group:** TCPA01 (A | 31.12.71) connects to TCPA02 (A | 31.12.71) and TCPA03 (A | 31.12.71). TCPA02 connects to TCPA04 (A | 31.12.71) and TCPA05 (A | 31.12.71).
- TCPB Group:** TCPB01 (A | 31.12.71) and TCPB02 (A | 31.12.71) both connect to TCPB03 (A | 31.12.71).
- TCPC Group:** TCPC01 (A | 31.12.71) and TCPC02 (A | 31.12.71) both connect to TCPC03 (A | 31.12.71).
- TCPD Group:** A yellow oval labeled SYSH.TWDC.SRES connects to TCPD01 (A | 31.12.71). TCPD01 connects to TCPD03 (A | 31.12.71), which in turn connects to TCPD02 (A | 31.12.71).

Two callout boxes provide instructions:

- A blue callout box on the right says "... and click 'Docu'".
- A blue callout box at the bottom right says "Select Applications ...".



# Docu "On Demand"

The screenshot displays the IWS Graph - Application descriptions interface. The main window shows a network diagram with nodes like TCPA01, TCPA02, TCPA03, TCPA04, TCPA05, TCPB01, TCPB02, TCPB03, TCPC01, TCPC02, TCPC03, and TCPC02, along with a yellow oval node labeled SYSH.TWDC.SRES. A blue callout bubble points to the diagram with the text "Select the needed topics ...".

Overlaid on the right is the "Create documentation" dialog box. It has a "Select objects" section with a list of checkboxes, all of which are checked. A blue callout bubble points to the "Create HTML file" option with the text "Select HTML". The "Options" section includes a "Start" date field (17 / 06 YY/MM) and a "Create HTML file" checkbox (checked) with a text field containing "C:\Users\JensW\Documents\IWS Graph\index.htm". A red rectangle highlights the "Create HTML file" checkbox and its text field. Below this is a "Max image size" field set to "1200 px". At the bottom are "OK", "All", and "Cancel" buttons.

# Docu "On Demand"

← → ↻ | file:///C:/Users/JensW/Documents/IWS%20Graph/index.htm

## APPLICATION DESCRIPTION, 09.06.17

### INPUT SELECTION CRITERIA

```
TCPD01      A991231
TCPD02      A991231
TCPD03      A991231
```

### SELECTED TOPICS

- Run Cycles
- Run Days
- Operation Text
- Operation Details
- Operation Predecessors
- Operation Successors
- Special Resources
- JCL Library Member
- JCL with procedures
- JCL Dataset Table
- Operator Instructions

**Overview**

**Index**

TCPD01	A 09.10.12
TCPD02	A 09.10.12
TCPD03	A 09.10.12

## APPLICATION: TCPD01 A 09.10.12

```
Status      : A
Description  : Test crit path
Type        : A
Calendar    : DEFAULT
Valid       : 09.10.12 - 31.12.71
Priority     : 5
Owner       : P390K
Ownertext   : Helmut
Auth. Group :
Group Definition :
Last update user : P390K
Last update date : 24.01.13
Last update time : 12:24
```

### RUN CYCLES

Period	Offset	Start Time	End Time	F	T	In Effect	Out Effect	Variables
DAY	+001	06:00	01 05:59	4	N	09.10.12	31.12.71	
DAY	+001	12:00	01 11:59	4	N	09.10.12	31.12.71	

F=free day rule 1=before free day, 2=after free day, 3=on free day, 3=on free day, 4=not on free day

### RUN DAYS

June 2017							July 2017						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
						01 02							03 04 05 06 07
05	06	07	08	09			10	11	12	13	14		
12	13	14	15	16			17	18	19	20	21		
19	20	21	22	23			24	25	26	27	28		
26	27	28	29	30			31						

September 2017 | October 2017

**with calendar !**

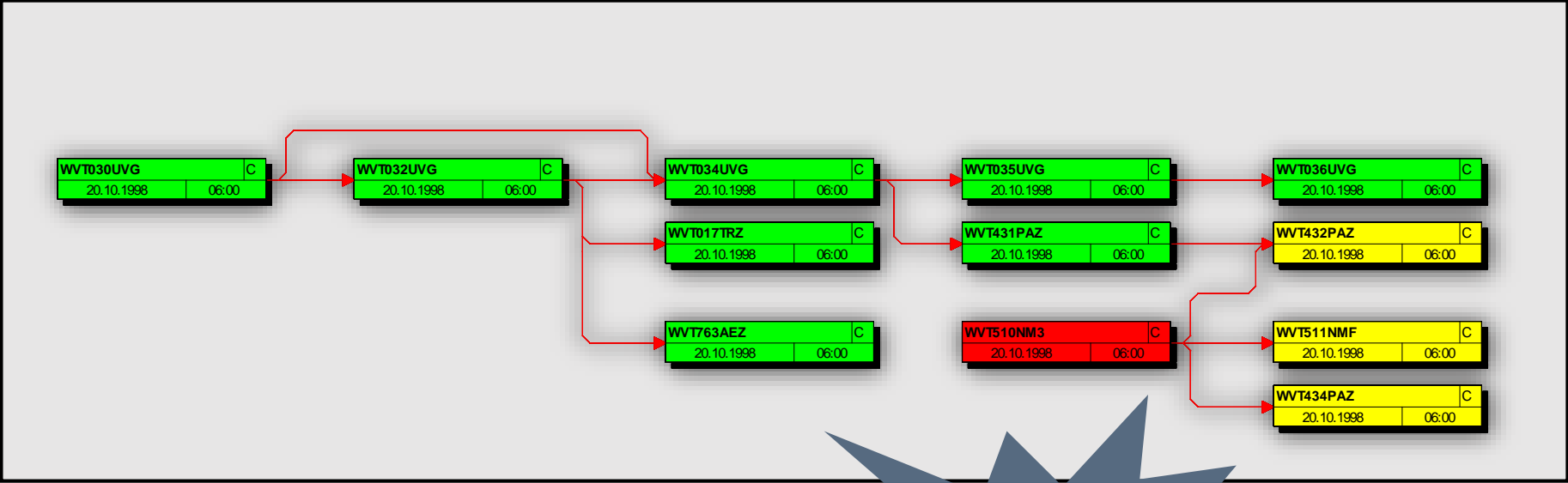
Details each Application

Overview

with calendar !



# Statusmonitor



Error!

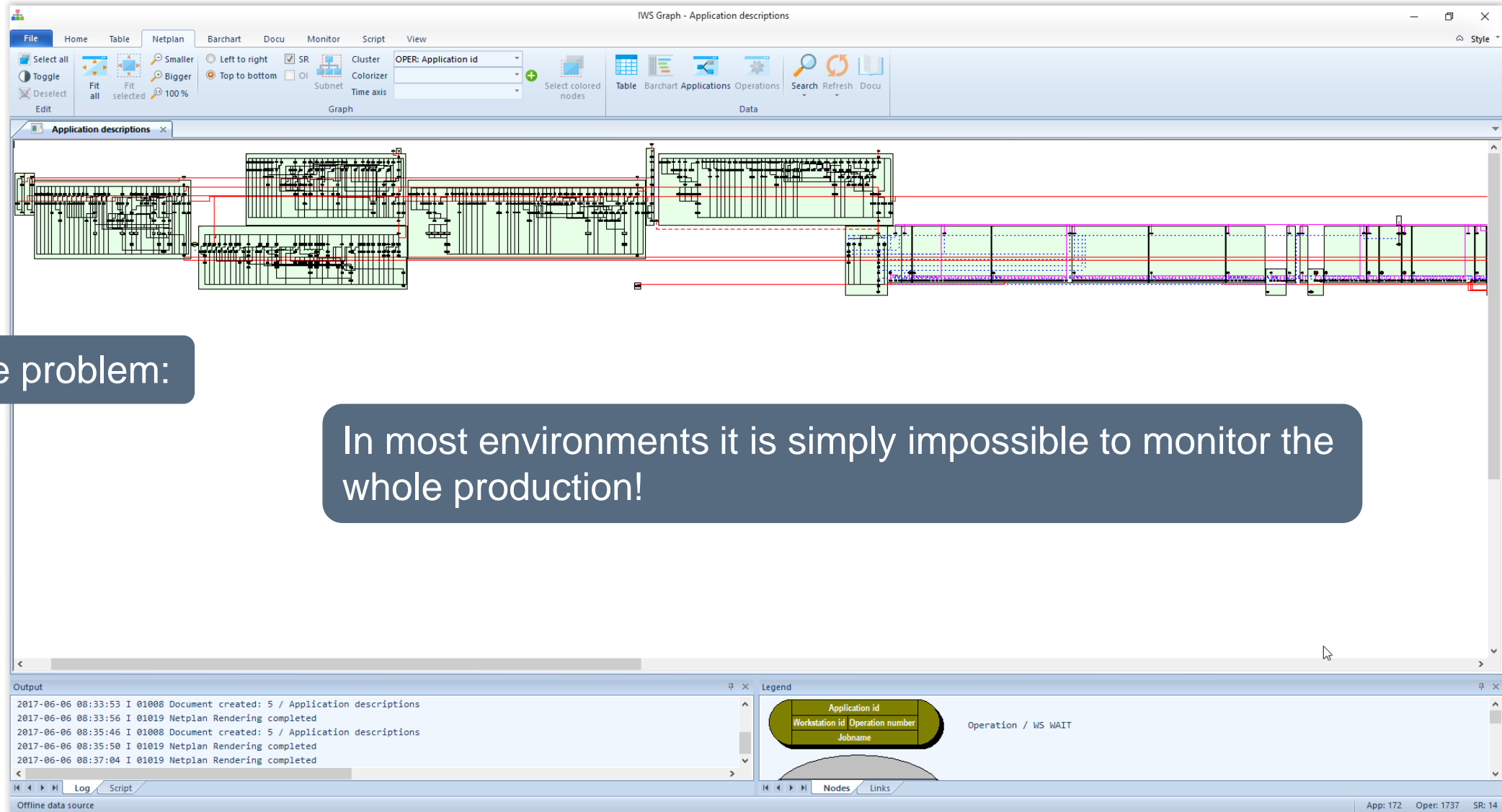
# Is it possible ...

Is it possible to monitor the whole production?



Technically yes,  
but ...

# Monitor complete Production?



The screenshot displays the IWS Graph - Application descriptions interface. The main window shows a dense network diagram with numerous nodes and connections, rendered in a light green and blue color scheme. The interface includes a menu bar (File, Home, Table, Netplan, Barchart, Docu, Monitor, Script, View) and a toolbar with various icons for editing and viewing. A text box on the left side of the diagram reads "The problem:". A larger text box in the center of the diagram reads "In most environments it is simply impossible to monitor the whole production!". At the bottom of the window, there is an "Output" pane with log messages and a "Legend" pane with a diagram of a node structure.

The problem:

In most environments it is simply impossible to monitor the whole production!

Output

```
2017-06-06 08:33:53 I 01008 Document created: 5 / Application descriptions
2017-06-06 08:33:56 I 01019 Netplan Rendering completed
2017-06-06 08:35:46 I 01008 Document created: 5 / Application descriptions
2017-06-06 08:35:50 I 01019 Netplan Rendering completed
2017-06-06 08:37:04 I 01019 Netplan Rendering completed
```

Legend

Application id  
Workstation id Operation number  
Jobname  
Operation / WS WAIT

Nodes Links

Offline data source

App: 172 Open: 1737 SR: 14

# Monitor the Critical Path!

The screenshot displays the IWS Graph software interface for a project named 'StatusMonitor\_Test.lst'. The main workspace shows a network diagram with nodes representing different project activities. The nodes are color-coded and labeled as follows:

- Production:** Applications (red), HOR1\* (blue), HOR2\* (red), HOR3\* (red), HOR4\* (grey), HOR5\* (grey), TEST01 (grey), HOR6\* (grey), HOR50005 Late (grey), HOR70DAY End (purple).
- Maintenance:** IWS Maintenance (green), SMF Maintenance (purple), DB2 Maintenance (grey), XINFO Maintenance (purple).
- Test:** Test1 (purple), SMF Applikation (green), Ready (yellow), HOR60DAY TIME (yellow), WS-Pred (grey), TEST08 (grey), DCPA12 (green), ADH\* (grey), AHZ0003 (grey), Test2 (purple).
- General STATUS:** Error + Started (red), Error (red), Started (blue), Error + ext.mon (grey).

Two callout boxes provide key information:

- The solution:** A dark blue box with white text.
- Monitor critical jobs, and not the whole production!** A larger dark blue box with white text.

The bottom of the interface features an 'Output' window with the following log entries:

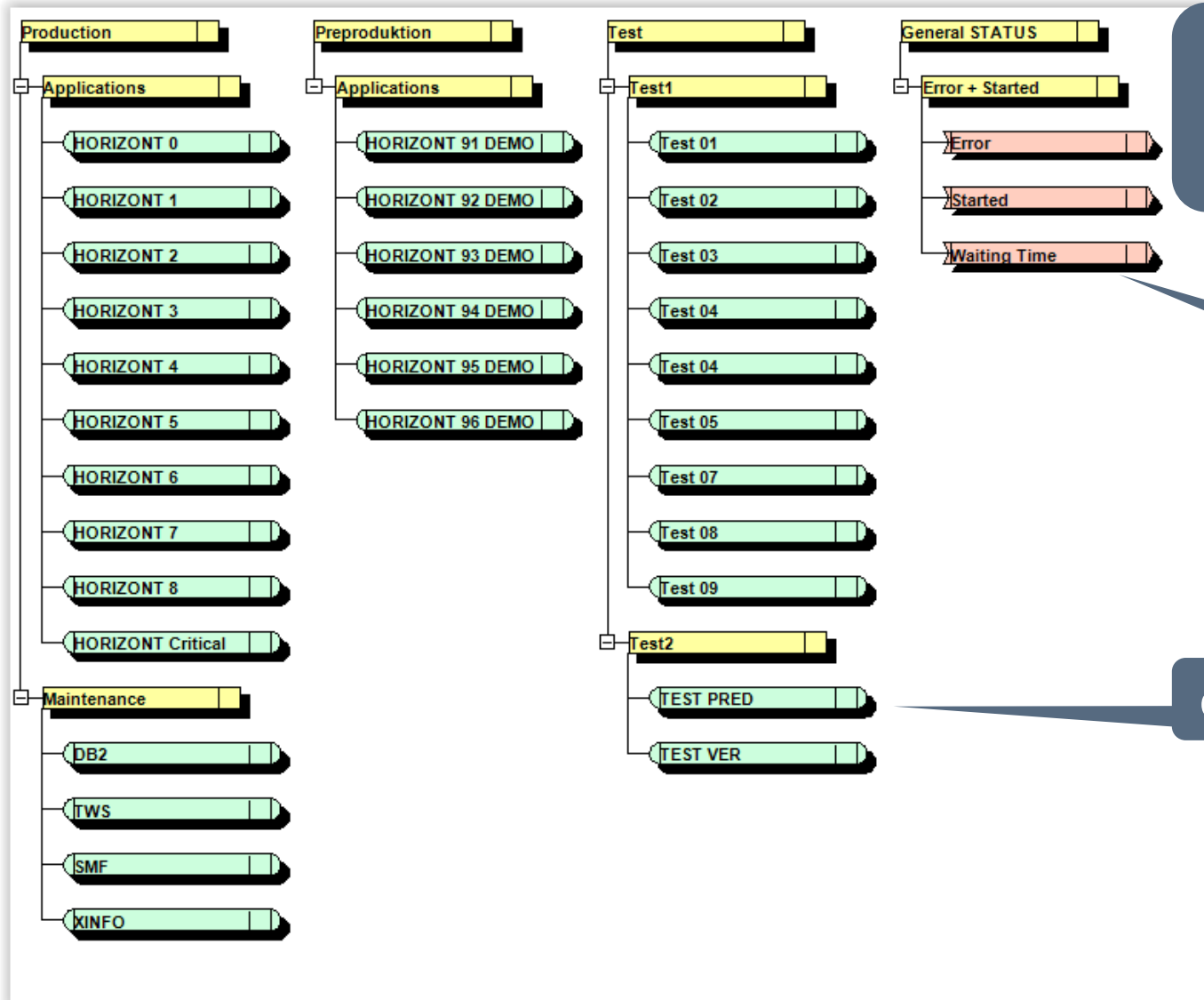
```
2017-06-06 10:57:01 I 01006 GUI message: Invalid predecessor level is entered.
2017-06-06 10:57:18 I 01006 GUI message: Invalid predecessor level is entered.
2017-06-06 10:57:53 I 01006 GUI message: Invalid predecessor level is entered.
2017-06-06 10:58:08 I 01010 Document saved: T:\TEST\HORIZONT\IWSG2\StatusMonitor_Test.lst
2017-06-06 10:58:19 I 01034 Updating the status monitor
```

The 'Legend' window at the bottom right shows the following entries:

- Description | Real status | Group / #Monitor
- Status monitor id | Real status | Group / All
- Description | Real status | ETT triggered | Application / #Monitor

At the bottom of the window, it shows 'Online data source: OGCP#25' and 'Group: 9 App: 3 Oper: 26'.

# How to monitor the critical Path



Create a structure that show the critical applications by groups

critical jobs

critical application

# Specify Selection Criteria

The screenshot shows the IWS Graph software interface. The main window displays a project hierarchy with nodes like 'Production', 'Preproduktion', 'Test', and 'General STATUS'. A dialog box titled 'Edit application' is open, showing configuration options for monitoring. The dialog has two sections: 'General parameters' and 'Application selection criteria'. In the 'General parameters' section, the 'Description' is 'HORIZONT Critical', 'Late time' is '14:30', and 'Late origin' is 'Occurence deadline'. The 'Application selection criteria' section shows 'Application id' as '%CRIT\*' and 'Owner id' as an empty field. The 'Input arrival time from' and 'Input arrival time to' are both set to '14:00'. The dialog has 'OK' and 'Cancel' buttons.

Output

```
2017-06-06 13:41:00 IWS Graph 6.0 (build 7)
2017-06-06 13:41:00 Compiled: May 30 2017 14:
2017-06-06 13:41:00 *****
2017-06-06 13:41:11 I 01008 Document created:
2017-06-06 13:41:11 I 01033 Tree Rendering co
```

... use IWS selection criteria to specify what should be monitored ...



# Starting the Monitor

... define the settings

... and start running

Create HTML files every run

Connection

TXGC Demo

Options

Update frequency 5 Minutes

Status priority Error, Late

HTML Status t:\test\horizont\data\iws2\_mon\statusmon.html

Create HTML file

Detailed information

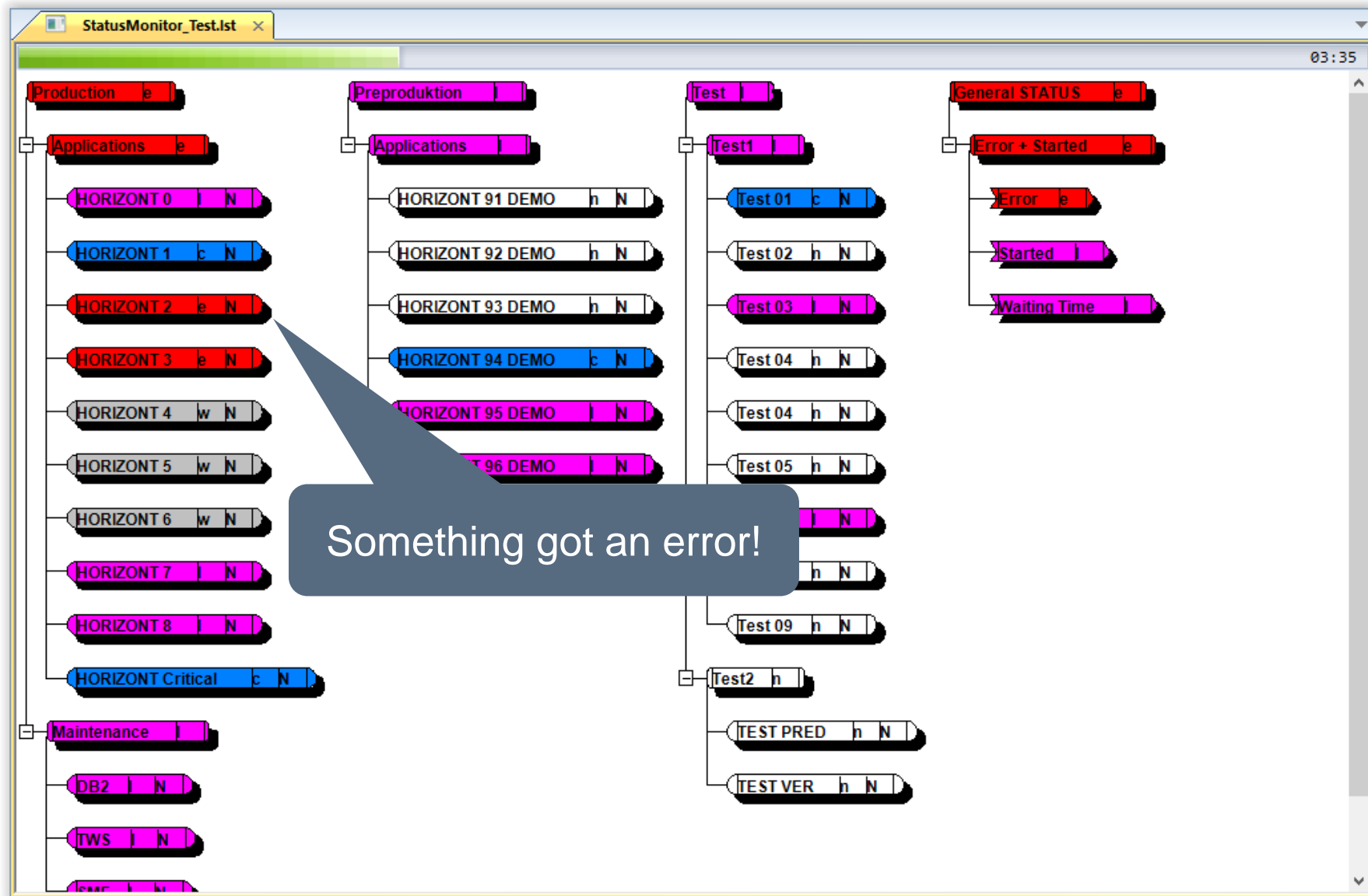
Ignore list

In use	Application id	Jobname	Op. No.	Input arrival date
--------	----------------	---------	---------	--------------------

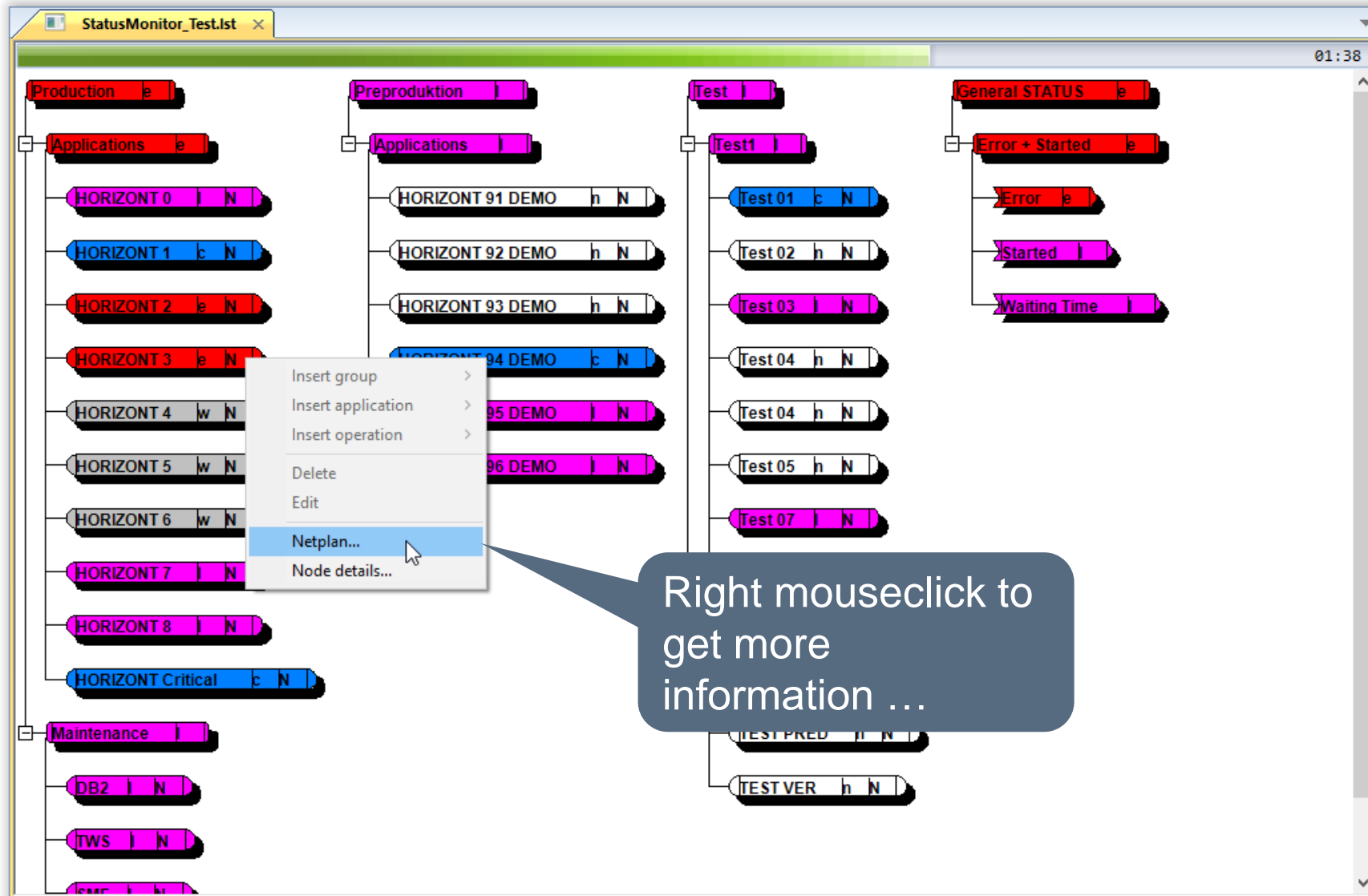
Output

```
2017-06-06 13:50:38 I 01032 HTML file created: t:\test\horizont\da
2017-06-06 13:50:38 I 01032 HTML file created: t:\test\horizont\da
2017-06-06 13:50:39 I 01032 HTML file created: t:\test\horizont\da
2017-06-06 13:50:39 I 01032 HTML file created: t:\test\horizont\da
2017-06-06 13:50:39 I 01032 HTML file created: t:\test\horizont\da
```

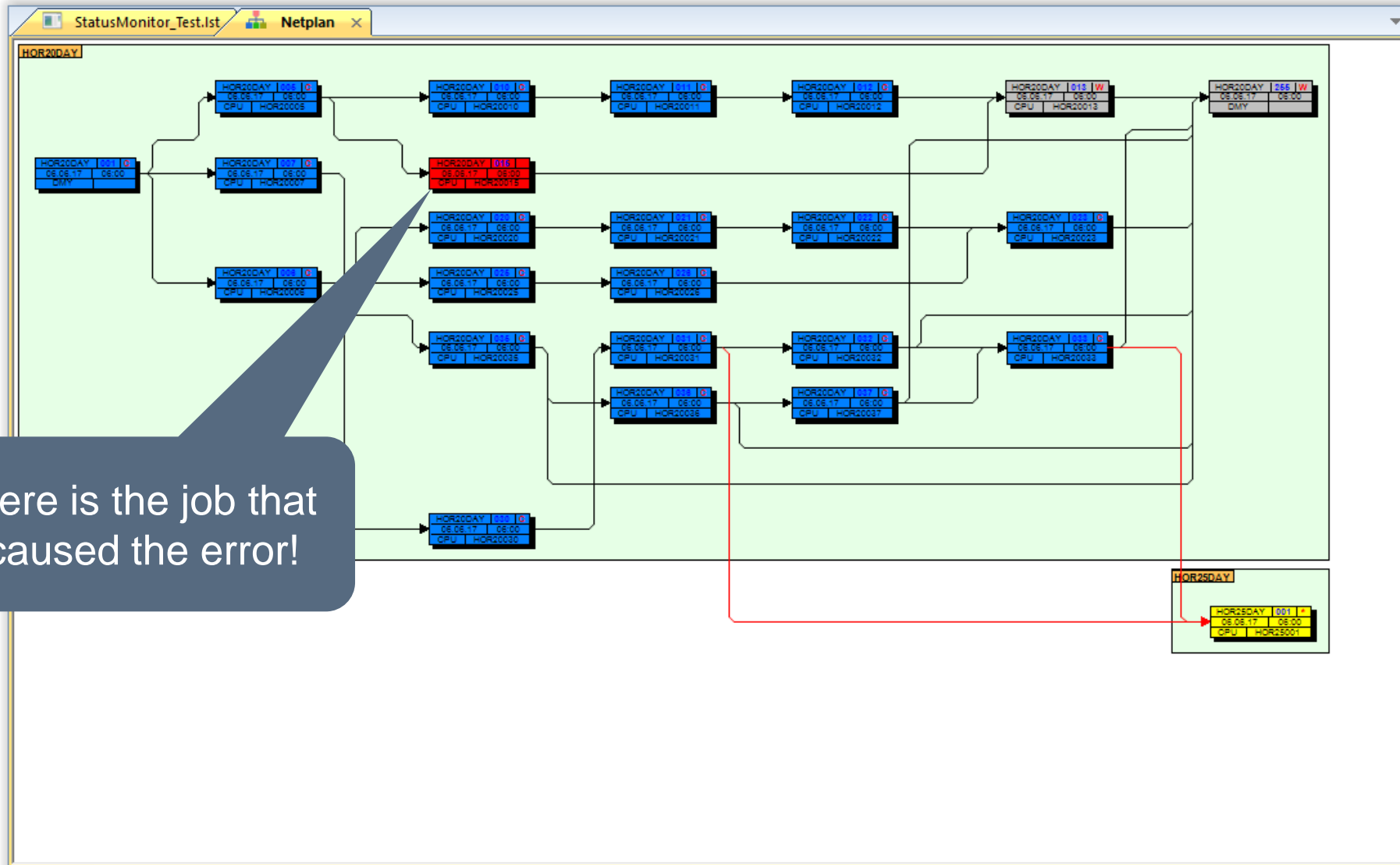
# The monitor is up and running



# How to get more Information



# Displaying a Job Netplan



Here is the job that caused the error!

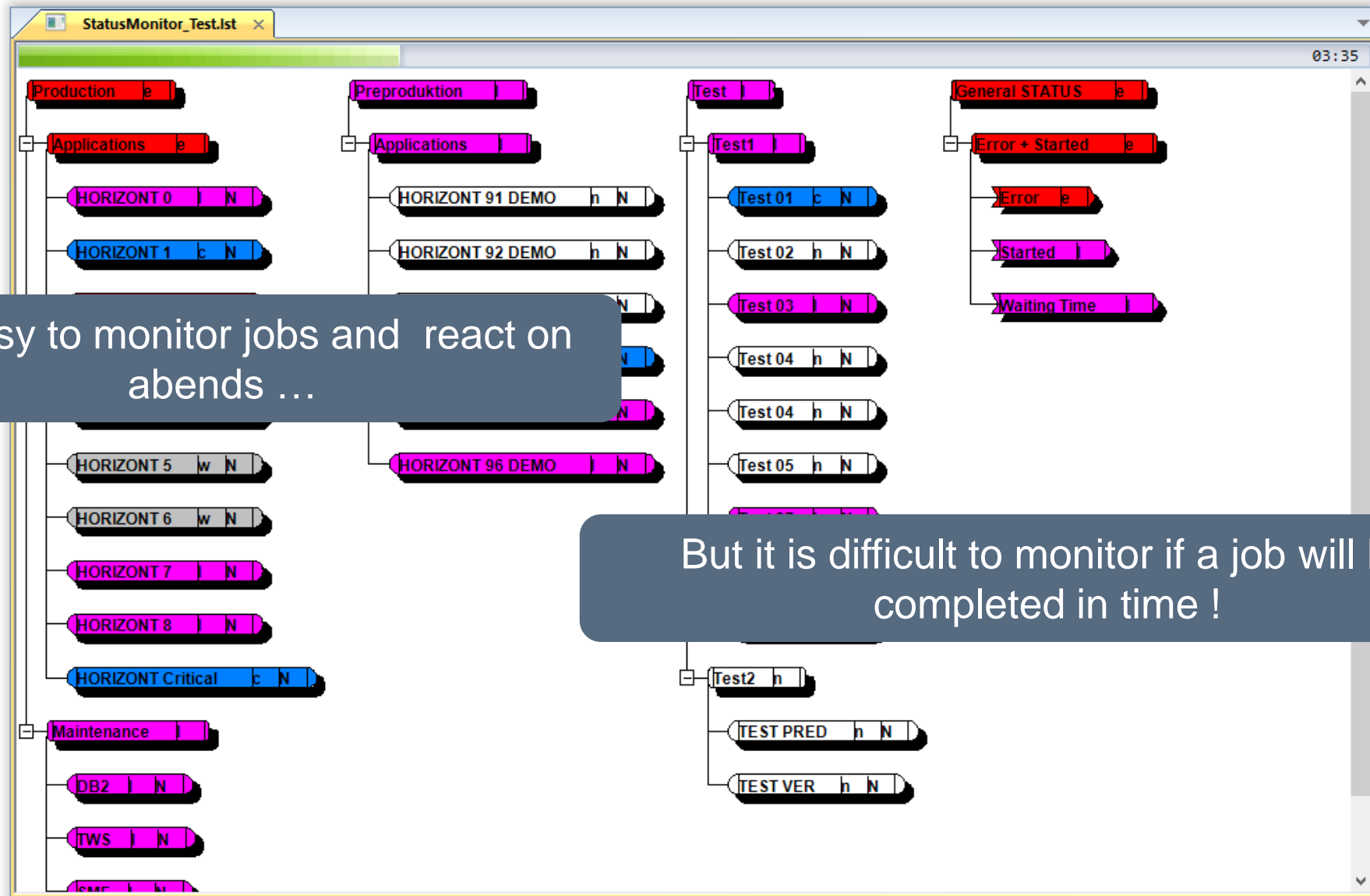
# Alerts

IWS/Graph is able to call external programs. That option can be used to generate messages in case of IWS related events.

## Examples:

- Job “ABC” is in error:  
Send an e-mail to PAUL@ATHOME.COM
- Now it is 15:00, and CICS is not up:  
Generate a problem record

# How to monitor late jobs ?



It is easy to monitor jobs and react on abends ...

But it is difficult to monitor if a job will be completed in time !

# How to monitor late jobs

Edit application

General parameters

Description: HORIZONT 8

Late time: 18:00 HH:MM    Late origin: Today

ETT triggered

Application selection criteria

Application id: HOR8\*    Input arrival time from:    HH:MM

Owner id:    Input arrival time to:    HH:MM

OK    Cancel

The jobs is „late“, if it is not complete until 18:00

Edit application

General parameters

Description: HORIZONT Critical

Late time: 12:00 HH:MM    Late origin: Occurrence input arrival

ETT triggered

Application selection criteria

Application id: %CRIT\*    Input arrival time from:    HH:MM

Owner id:    Input arrival time to:    HH:MM

OK    Cancel

These job(s) are „late“, if they are not complete until 18:00.  
06:00 (=IA) + 12:00 h. = 18:00

# "Late" Monitor is up and running

The top level is still red, because ERROR has higher priority than LATE (priority can be changed)

Jobs are in "error"

Jobs are "late"

Output

```
2017-06-06 13:50:41 I 01032 HTML file created: t:\test\horizont\data\iws2_mon\ix17066
2017-06-06 13:50:41 I 01032 HTML file created: t:\test\horizont\data\iws2_mon\17.html
2017-06-06 13:50:41 I 01032 HTML file created: t:\test\horizont\data\iws2_mon\36.html
2017-06-06 13:50:41 I 01032 HTML file created: t:\test\horizont\data\iws2_mon\21.html
2017-06-06 13:50:41 E 06017 Failed to parse detailed information of object: 34
```

Legend

Description	Real status	Group / #Monitor
Status monitor id	Real status	Group / All
Description		Group / All
Description	Real status	ETT triggered
		Application / #Monitor

Online data source: OGCP#25

Group: 10 App: 31 Oper: 3

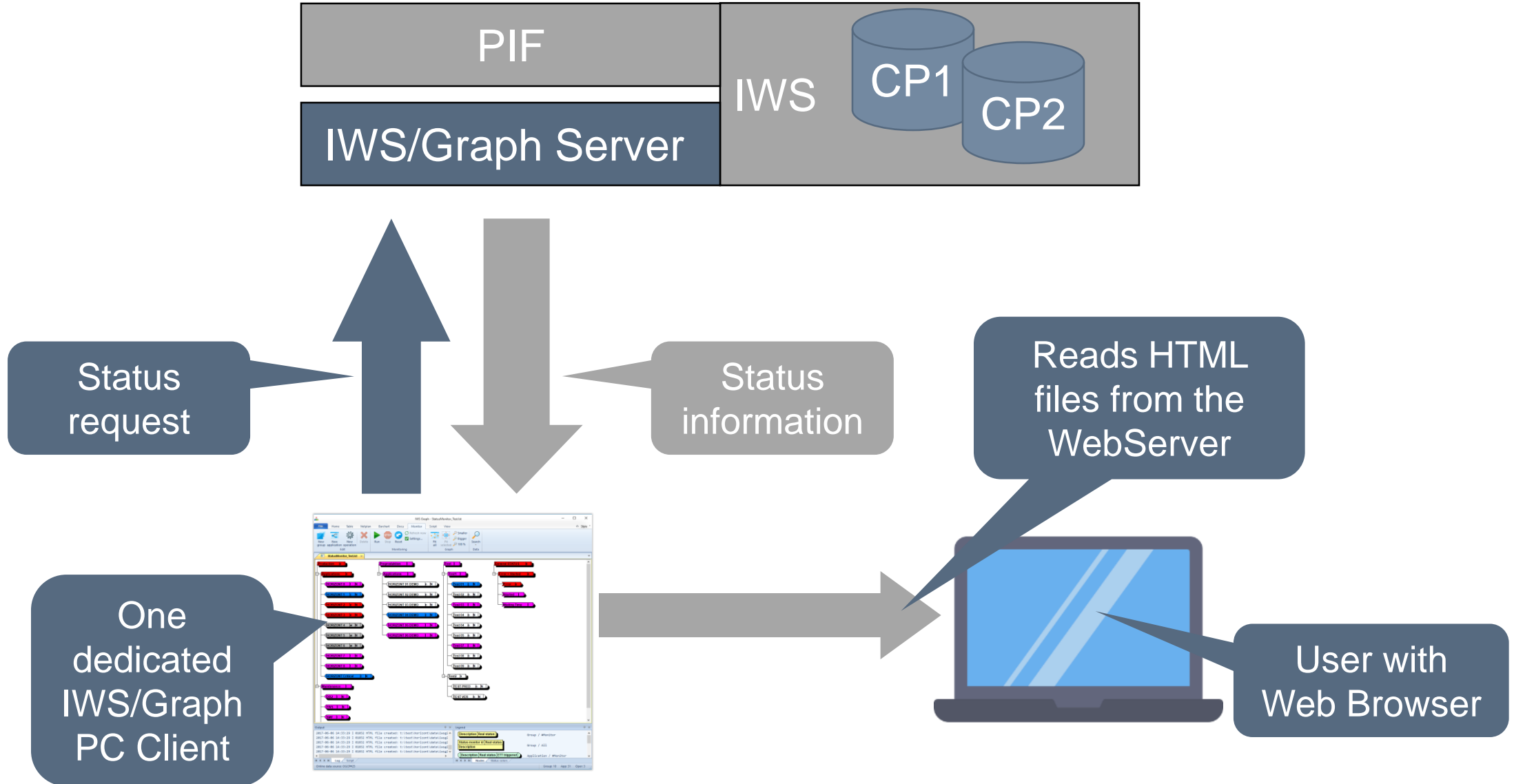


# HTML files

In addition to the treechart all information is presented in HTML files. Benefits are:

- End user needs no host connection
- End user can access status information from anywhere

# HTML Files - Technical Overview



# HTML files

Root

Description	Type	Application id	Owner id	Jobname	Op. no.	Ws. id	Status	Absolute late time
<a href="#">Production</a>	G	-	-	-	-	-	e	-
<a href="#">Preproduktion</a>	G	-	-	-	-	-	l	-
<a href="#">Test</a>	G	-	-	-	-	-	l	-
<a href="#">general STATUS</a>	G	-	-	-	-	-	e	-

Legend:

A	Active
S	Started
C	Complete
E	Error
W	waiting
N	Not planned
L	Late
R	Ready

Click for more information

Root - Production

Description	Type	Application id	Owner id	Jobname	Op. no.	Ws. id	Status	Absolute late time
<a href="#">Applications</a>	G	-	-	-	-	-	e	-
<a href="#">Maintenance</a>	G	-	-	-	-	-	l	-

Root - Production - Applications

Description	Type	Application id	Owner id	Jobname	Op. no.	Ws. id	Status	Absolute late time
<a href="#">HORIZONT_0</a>	A	HOR0*DAY	-	-	-	-	l	00:00
<a href="#">HORIZONT_1</a>	A	HOR1*	-	-	-	-	c	-
<a href="#">HORIZONT_2</a>	A	HOR2*	-	-	-	-	e	-
<a href="#">HORIZONT_3</a>	A	HOR3*	-	-	-	-	e	-
<a href="#">HORIZONT_4</a>	A	HOR4*	-	-	-	-	w	06:00
<a href="#">HORIZONT_5</a>	A	HOR5*	-	-	-	-	w	06:00
<a href="#">HORIZONT_6</a>	A	HOR6*	-	-	-	-	w	06:00
<a href="#">HORIZONT_7</a>	A	HOR7*	-	-	-	-	l	00:00
<a href="#">HORIZONT_8</a>	A	HOR8*	-	-	-	-	l	00:00
<a href="#">HORIZONT Critical</a>	A	%CRIT*	-	-	-	-	c	-

EXAMPLE

# IWS/Graph Statusmonitor

Let us summarize the benefits of IWS/Graph's integrated Status Monitor:

- Easy to install
- Allows to monitor deadlines
- No system modifications needed (exits etc.)
- Allows to select exactly what should be monitored by using IWS fields, e.g. the input arrival time

# Is it possible to monitor a whole production?



Do you have any  
question about  
IWS/Graph?

# IWS/Graph - Host

```
----- APPLICATION-DESCRIPTION REPO ----- Enter required field
Command ==>
top :enter OPT command for print options
bottom:select topics with S
- Run cycles
- Run days
- Operation description
- Operation details
- Predecessors
- Successors
- Special resources
- JCL Dataset Table
- JCL Library Member
- JCL with Procedures
- Operator Instructions

Run days start ==> 17 06      First month to calculate run days ( YY MM )
Output-style ==> L          L LIST, H HTML
Edit job ==> E              S submit job, E edit job before submit
```

```
----- APPLICATION DESCRIPTION SELECTION -----
Command ==> _
top: APP to edit the application list

Application id ==> * _____ A application, G group
Name ==> _____
App id ==> _____
Status ==> _____ A active, P pending
Priority group id ==> _____ 1 - 9
From - to ==> _____ YYMMDD
Order id ==> _____
Definition ==> _____

Wildcards * and % are allowed in all selection fields!
```

```
----- TWS/Graph FUNCTIONS -----
Command ==> _
1 AD UNLOAD - Generate files for the PC out of the Application Description
2 CP UNLOAD - Generate files for the PC out of the Current Plan
3 CP FORECAST - Generate files for the PC out of a future Current Plan
4 CP LOOP - Generate files for the PC to analyse loops in the Current Plan
5 CP DEP - Generate dependency list
6 AD DOCU - Generate a HTML Documentation of the Application Description
7 AD XREF - Cross Reference for the Application Description
```

TWS/Graph 5.4  
HORIZONT GmbH Munich  
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# What is IWS/Graph Host?

IWS/Graph Host are ISPF programs in addition to the PC client:

- IWS/XRef, a cross reference for the AD
- IWS/Forecast, a forecast function for the CP
- IWS Loop Analysis

# What is IWS/XRef ?

IWS/XRef is an ISPF program to create cross references out of your AD including:

- User defined reports
- Search for Applications, Run-Cycles, Operations, Pred, Succ, SR ...
- Use wildcards "\*" and "%"
- Use operators AND, OR, GT, LT, EQ ...



# IWS/XRef - Query Examples

Typical question answered by IWS/XRef are:

- Which operations are using special resource "A.B.C" or "X.Y.Z"?
- Which applications are using calendars other than "DEFAULT"?
- Which applications have period "WEEKLY" and offset "+001" or use calendar "SPECIAL"?

# IWS/XRef - Input panel

```
----- ENTER SELECTION CRITERIA ----- page 1 of 1
Command ==>                               Scroll ==> PAGE

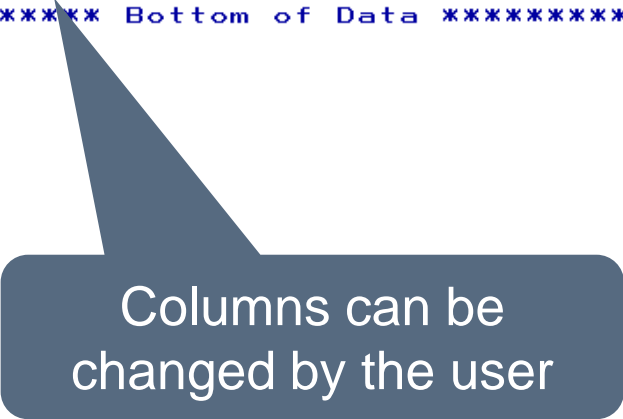
Top   : EXEC -Foreground, BATCH -Submit, RESET(ALL) -Reset input fields,
        OR -Next "OR"-page, COPY -Copy this page
Bottom: Selection ( * , % , BLANK =_* ), Operator ( EQ NE GE GT LE LT NX )
                Selection criteria                               Operator
App Id          ==> _____ EQ
Op workstation name ==> _____ EQ
Op number       ==> _____ EQ
Op job name     ==> _____ EQ
Pre Application Id ==> _____ EQ
Pre workstation name ==> _____ EQ
Pre Op number   ==> _____ EQ
Pre job name    ==> *NOTFND*_ EQ
***** Bottom of data *****
```

Each AD field can be added or removed by the user



# IWS/XRef - Output Panel

```
Menu Utilities Compilers Help
BROWSE      P392H.TWSXREF.LIST          Line 00000000 Col 001 080
Command ==> _____ Scroll ==> CSR
***** Top of Data *****
Application      WS   Op   Job      Pre      Pre   Pre
Id              Id   No   Name     Appl Id   WsId OpNo Job Name
-----
ESMAPPLICATS01  CPU  010  ESMJOB01 EBMAPPLI5 CPU  010 *NOTFND*
ESMAPPLICATS02  CPU  010  ESMJOB02 EBMAPPLICATS01 CPU  010 *NOTFND*
ESMAPPLI1       CPU  050  ZAD1H0   EBMAPPLI5 CPU  060 *NOTFND*
ESMAPPLI10      CPU  025  ZP9PJ1   EBMAPPLI2 CPU  030 *NOTFND*
ESMAPPLI3       CPU  025  ZP9PJ1   EBMAPPLI2 CPU  030 *NOTFND*
ESMAPPLI4       CPU  010  ESMJOB05 EBMAPPLI1 CPU  010 *NOTFND*
ESMAPPLI4       CPU  025  ZRRRJA   EBMAPPLI2 CPU  030 *NOTFND*
ESMAPPLI44      CPU  010  ESMJOB05 EBMAPPLI1 CPU  010 *NOTFND*
ESMAPPLI44      CPU  025  ZRRRJA   EBMAPPLI2 CPU  030 *NOTFND*
HOR10DAY        CPU  010  HOR10010 APPLNOTTHERE CPU  100 *NOTFND*
PETRTTEST01    CPU  010  TEST01   APPLNOTTHERE CPU  100 *NOTFND*
TEST01          CPU  010  TEST01   APPLNOTTHERE CPU  100 *NOTFND*
***** Bottom of Data *****
```



# Forecast

The forecast is useful to analyse special planning periods, e.g. "end of month" or "end of year"

- Create netplans for any day in the future
- Database is the existing LTP or a temporary LTP
- Needs no test - IWS!

# Forecast

```
----- FORECAST BASED ON TRIAL CURRENT PLAN -----
Command ==>

top : RESET restore default values, JC change jobcards
Forecast Period
  From - To ==> 170608 0600 - 170609 0559  YYMMDD HHMM
Input
  Database ==> E L Existing Long Term Plan, F Forecast
  Subsystem ==> TXGC TWS Subsystem (E2E only)
  Scriptlib ==> _____ (E2E only)
  Parmlib ==> _____ (E2E only)
  Topology ==> _____ Topology parameter (E2E only)
  AD VSAM ==> SYSH.TXGC.AD
  WS VSAM ==> SYSH.TXGC.WS
  RD VSAM ==> SYSH.TXGC.RD
  SI VSAM ==> SYSH.TXGC.SI
  LT VSAM ==> SYSH.TXGC.LT
  CX VSAM ==> SYSH.TXGC.CX
Output
  DPREPORT ==> P392H.TWSGRAPH.CP.LIST
  PC-File ==> P392H.TWSGRAPH.CP
  Submit ==> E S submit job, E edit before submit
```

Create CP netplans for future planning periods ...

# Forecast

The image displays two overlapping windows from the IWS Graph software. The top window, titled "IWS Graph - Application Descriptions", shows a complex network diagram with nodes labeled "HORIZONDAY" and "HORIZONDAY\_OPR\_1001" through "HORIZONDAY\_OPR\_1010". The bottom window, titled "IWS Graph - Current plan", shows a barchart with a table of job names and operation numbers. The barchart has a time axis from 05:30 to 19:30 and a status axis from 0 to 10. A blue bar indicates the duration of operations. A dark blue callout bubble points to the barchart with the text "... and display the result in a barchart ...". Another dark blue callout bubble points to the network diagram with the text "... or in a netplan!".

Jobname	Op. No.	Start Time	End Time	Status
HORIZONDAY	001	05:30	06:00	Completed
HORIZONDAY	005	06:00	06:30	Completed
HORIZONDAY	006	06:30	07:00	Completed
HORIZONDAY	007	07:00	07:30	Completed
HORIZONDAY	010	07:30	08:00	Completed
HORIZONDAY	011	08:00	08:30	Completed
HORIZONDAY	012	08:30	09:00	Completed
HORIZONDAY	013	09:00	09:30	Completed
HORIZONDAY	015	09:30	10:00	Completed
HORIZONDAY	020	10:00	10:30	Completed
HORIZONDAY	021	10:30	11:00	Completed
HORIZONDAY	022	11:00	11:30	Completed
HORIZONDAY	023	11:30	12:00	Completed
HORIZONDAY	025	12:00	12:30	Completed
HORIZONDAY	026	12:30	13:00	Completed
HORIZONDAY	027	13:00	13:30	Completed
HORIZONDAY	028	13:30	14:00	Completed
HORIZONDAY	029	14:00	14:30	Completed
HORIZONDAY	030	14:30	15:00	Completed
HORIZONDAY	031	15:00	15:30	Completed
HORIZONDAY	032	15:30	16:00	Completed
HORIZONDAY	033	16:00	16:30	Completed
HORIZONDAY	034	16:30	17:00	Completed
HORIZONDAY	035	17:00	17:30	Completed
HORIZONDAY	036	17:30	18:00	Completed
HORIZONDAY	037	18:00	18:30	Completed
HORIZONDAY	038	18:30	19:00	Completed
HORIZONDAY	039	19:00	19:30	Completed

... and display the result in a barchart ...

... or in a netplan!

# Loop-Analysis

Problem:

You are extending the Current Plan, the result is:

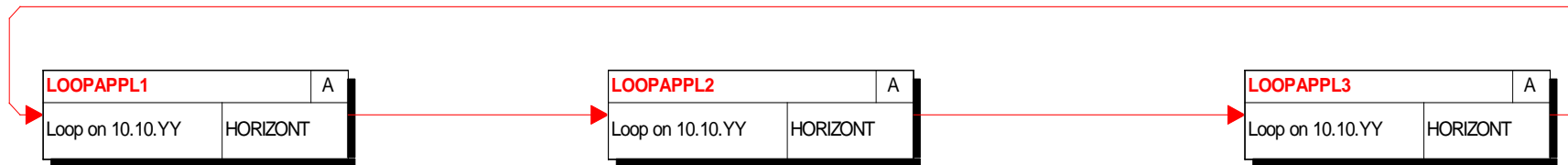
```
EQQ0384E DEPENDENCY LOOP FOUND IN AN Auftrags-NETWORK
EQQ0384E LIST OF Operationen CONTAINED IN LOOP FOLLOWS:
EQQ0384E LOOP:OP 0001 IN APPL LOOPAPPL3 IA 161010 0600
EQQ0384E LOOP:OP 0010 WAIT10 IN APPL LOOPAPPL3 IA 161010 0600
EQQ0384E LOOP:OP 0099 IN APPL LOOPAPPL2 IA 161010 0600
EQQ0384E LOOP:OP 0014 WAIT10 IN APPL LOOPAPPL3 IA 161010 0600
EQQ0384E LOOP:OP 0010 RC12 IN APPL LOOPAPPL1 IA 161010 0600
EQQ0384E SUGGESTED DEPENDENCIES CAUSING LOOP ARE:
EQQ0384E LOOPAPPL2 0014 WAIT10 161010 0600 PATH
```

Loop!  
What now?

# Loop-Analysis

Solution:

You can analyse the Loop with IWS/Graph!





# Loop-Analysis

Selection method

Choose a method of data selection

Selection

- Enter selection criteria
- All applications
- Applications from a list
- Predecessors and successors
- From/To
- Applications on loops (from IWS report analysis)

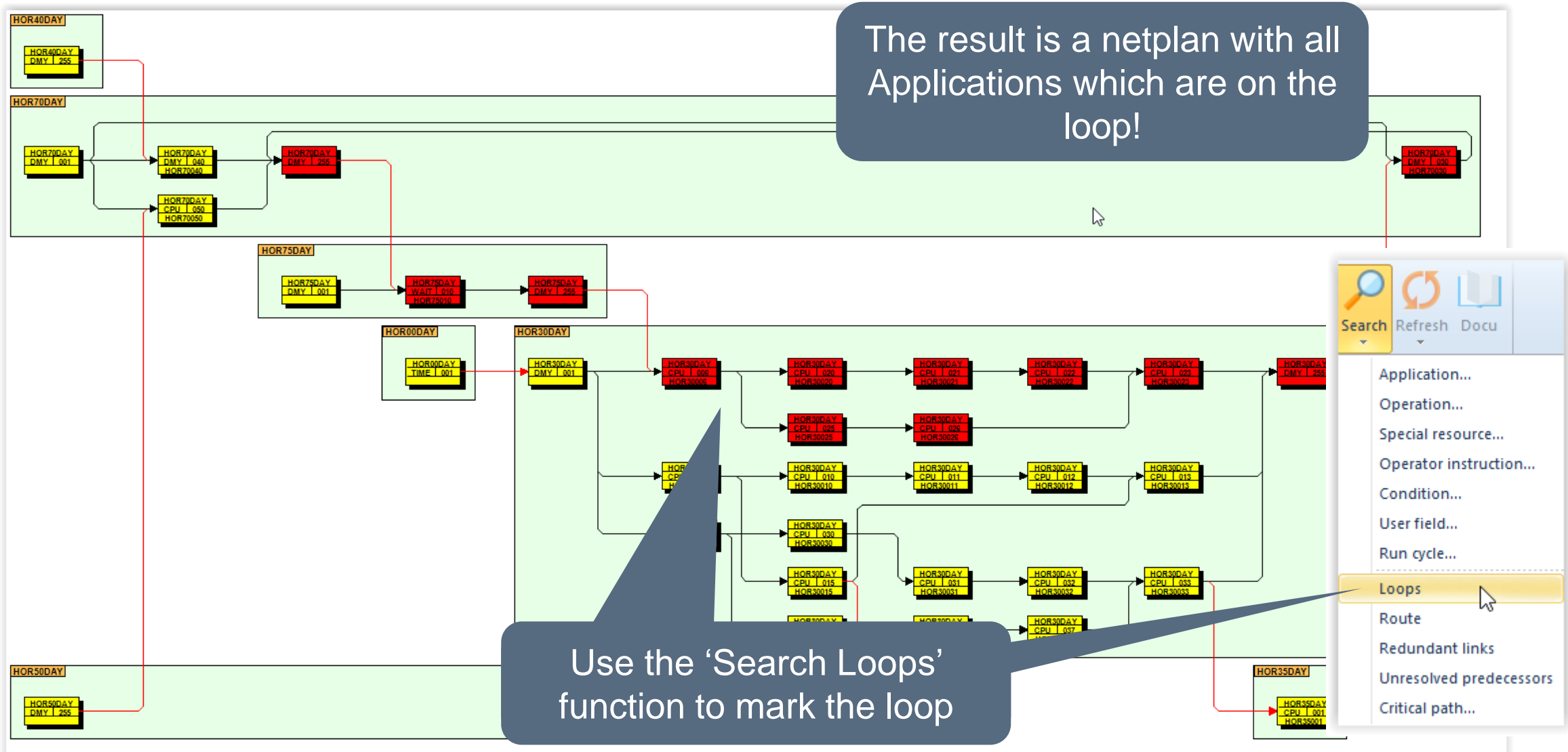
EQQLOOP      SYSH.TXGC.LOOP

Application id	Status	Valid to
HOR30DAY	A	31.12.2071
HOR70DAY	A	31.12.2071
HOR75DAY	P	31.12.2071

1) Specify the name of the report containing loop messages ...

2) Select applications

# Loop-Analysis



Thanks for your attention! Do you have any questions?

The logo for 'HORIZONT' features the word in a bold, sans-serif font. The letter 'O' is highlighted in red, while the other letters are dark grey. A large red curved shape is on the left side of the slide, and several small, semi-transparent geometric shapes (squares and a triangle) are scattered in the background.

**HORIZONT**

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