



HORIZONT

Comparison IWS/Graph and IWS/WebAdmin for IWSz

Architecture and functions

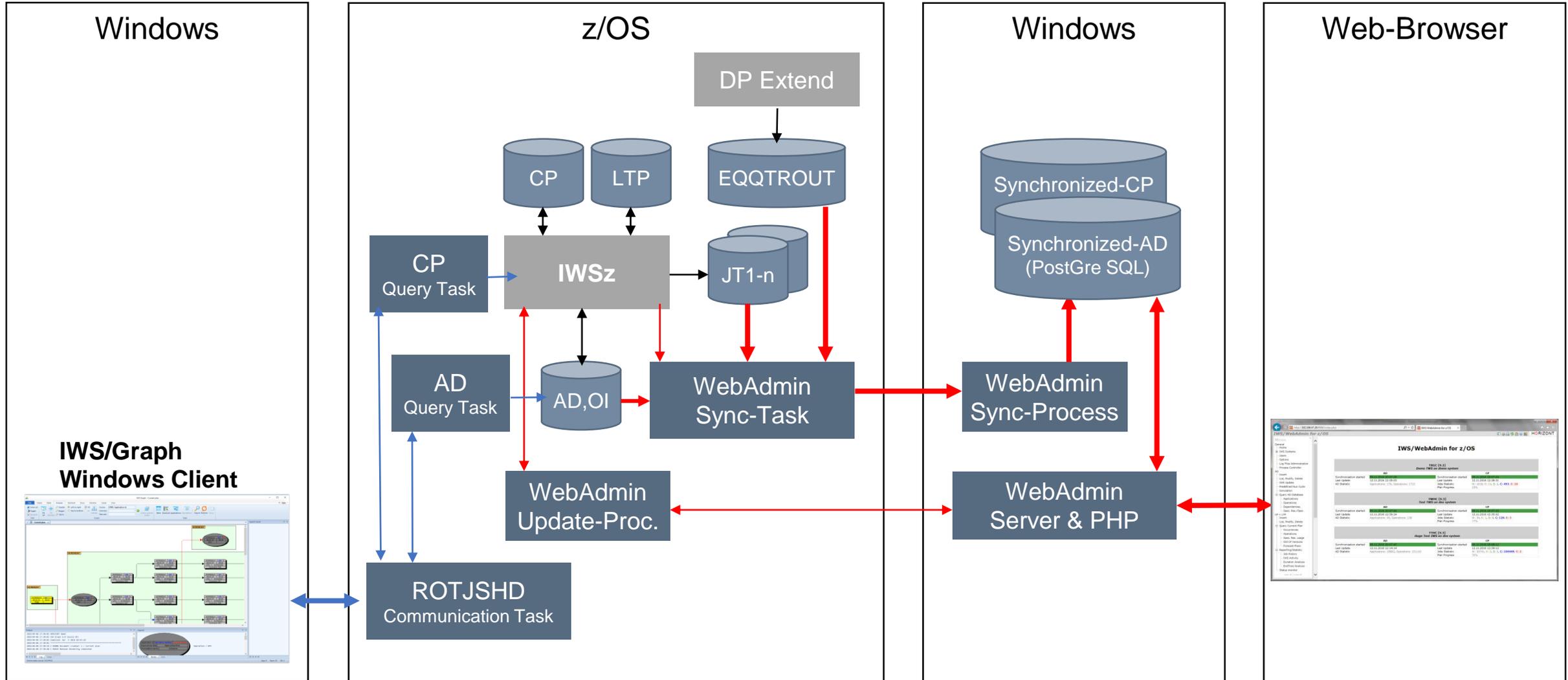
Who and how use the the products

- **Graph is the tool for real experts, the planning team.**
 - You can load and analysis very large netplans, hundred thousands of jobs. And search for critical path etc.
 - But there is no update function, no versions of applications, no job history.
- **WebAdmin is the tool for "everybody", developers etc.**
 - easy query dialogs,
 - you can **update applications**,
 - see and if needed reuse old versions of applications,
 - copy applications from one to another IWS,
 - monitor and restart operations
 - **query when did my jobs run**,
 - use various analysis and statistic reports etc.
 - It's also useful for the planning team.

Overview technical architecture

IWS/Graph

IWS/WebAdmin IWSz



Differences between product functions - Overview

Function	IWS/Graph	IWS/WebAdmin z
Graphics		
Netplan of Application Description	√	√
Netplan of Current Plan	√	√
Netplan of historical current plan (old CP versions)	Offline, if unloaded to file	√
Netplan of trial plan (forecast CP versions)	Offline, if unloaded to file	√
Bar charts (based on Current Plan)	√ limited	√
Print, export, save netplans	√	√
Database		
IWS AD in own synchronised database	not intended	√
Keep old versions (Audit AD)	not intended	√
IWS CP in own synchronised database	not intended	√
Keep old CP versions	not intended	√
Application Description		
Create, modify and delete applications and operations (Jobs)	not intended	√
Modify/Display Operator Instruction (OI)	√ display only	√
User roles and security concept	not intended	√ limited
Auditable handover workflow through several stages	not intended	not intended
Application description documentation (Report)	√	√
Query dialog for application description (X-Ref)	√ ISPF only	√
Current Plan		
Insert / modify applications in LTP	not intended	√
Insert / modify applications in CP	not intended	√
Insert / modify applications in CP inclusive JCL	not intended	not intended
Edit JCL in CP	not intended	√
Monitoring		
Query dialog current plan (X-Ref)	not intended	√
Common error list (for many TWS systems)	not intended	√
Status Monitoring on business process level and Alarm (email) function for late/error jobs	√	√
Forecast		
Simulation of runtimes after changes	not intended	√
Forecast of any day in the future	√	√
Forecast, based on CP-Trial report	√	√
Loop Analysis	√	√
Reporting, Statistics		
Job runtime history	not intended	√
Activity statistic *	not intended	√
Analysis of job durations, end times and deadlines	not intended	√
Dash Board	not intended	√
Batch		
Batch Interface	√	limited (Scripts, SQL)

Own Database
=

- History
- Comparison
- Simulation
- Statistics

Differences between product functions - Details 1

Function	IWS/Graph	IWS/WebAdmin z
Graphics		
Netplan of Application Description	√	√
Netplan of Current Plan	√	√
Netplan of historical current plan (old)	Offline, if unloaded to file	√
Netplan of trial plan (forecast CP)	Offline, if unloaded to file	√
Bar charts (based on Current Plan)	√ limited	√
Print, export, save netplans	√	√
Database		
IWS AD in own synchronised database	not intended	√
Keep old versions (Audit AD)	not intended	√
IWS CP in own synchronised database	not intended	√
Keep old CP versions	not intended	√
Application Description		
Create, modify and delete applications	not intended	√
(OI)	√ display only	√
User roles and security concept	not intended	√ limited
Auditable handover workflow through documentation (Report)	not intended	not intended
documentation (Report)	√	√
Query dialog for application	√ ISPF only	√

Differences between product functions - Details 2

Function	IWS/Graph	IWS/WebAdmin z
Current Plan		
Insert / modify applications in LTP	not intended	√
Insert / modify applications in CP	not intended	√
Insert / modify applications in CP inclusive JCL	not intended	not intended
Edit JCL in CP	not intended	√
Monitoring		
Query dialog current plan (X-Ref)	not intended	√
Common error list (for many TWS systems)	not intended	√
Status Monitoring on business process level		
Alarm (email) function for late/error jobs	√	√
Forecast		
Simulation of runtimes after changes	not intended	√
Forecast of any day in the future	√	√
Forecast, based on CP-Trial report	√	√
Loop Analysis	√	√
Reporting, Statistics		
Job runtime history	not intended	√
Activity statistic *	not intended	√
Analysis of job durations, end times and deadlines	not intended	√
Dash Board	not intended	√
Batch		
Batch Interface	√	limited (Scripts, SQL)

IWS/WebAdmin for IWSz

Useful additional functions only here

Verify your changes, Compare the Applications

The screenshot shows the TWS/WebAdmin for z/OS interface. The main content area displays a table titled "AD - List of Applications" with the following data:

TWS System	Application id	Description	Valid from	Valid to	Type	Status	Owner	State	Last change date	User	Version	update	
<input checked="" type="checkbox"/>	TXGC	HOR96DEMO	Demo Application	2016/03/28	2071/12/31	A	A	P390K	MODIFIED	2016/03/29 14:23	P390K	5	N
<input checked="" type="checkbox"/>	TXGC	HOR96DEMO	Demo Application	2016/03/28	2071/12/31	A	A	P390K	ACTUAL	2016/03/29 11:07	P390K	4	Y
<input type="checkbox"/>	TXGC	HOR96DEMO	Demo Application	2016/03/28	2071/12/31	A	A	P390K	HISTORY	2016/03/28 13:06	P390K	3	N
<input type="checkbox"/>	TXGC	HOR96DEMO	Demo Application	2016/03/28	2071/12/31	A	A	P390K	HISTORY	2016/03/28 13:00	P390K	2	N

Below the table, there are controls: "Check all | Clear all | Toggle selection" and "[4 row(s) have been found.]". At the bottom, the "Action Buttons" section includes: Modify, Copy, Delete, TWS Update, **Compare**, Netplan, Report, Unlock, and Cancel. A callout bubble points to the "Compare" button with the text: "To see what you have changed, select the applications to be compared and press 'Compare'".

Compare Applications

Operations

Operation 001
Hide operation

	001	HOR96DEMO (version 5)	HOR96DEMO (version 4)
Ws id	DMY		DMY
Op no	001		001
Jobname			
Operation Text			
Smoothing Factor			
Feedback Limit			
Highest Return Code	0000		0000
Input arrival day	01		01
Input arrival time	0030		0100
Operation Deadline Day			
Operation Deadline Time			
Resource 1	00		00
Resource 2	00		00
Parallel Servers	01		01
Job Class			
Sysout Class			
Form Number			
Submit	Y		Y
Hold/Release	Y		Y
Suppress if late	N		N
Time Dependent	Y		Y
Error Tracking	Y		Y
Deadline WTO	N		N
Restartable			
Reroutable			
Clean up Type	N		
Workstation Info			
Task Available			
Action Buttons			

open all | close all

Hide Identical Cancel Save to File

The changes are shown in red. Here we changed the "Operation IA time" from 01.00 to 00.30

You can also hide all identical fields and see the changes only

TWS/WebAdmin for z/OS Simulation

New change rule (Demo1)

Change rule

Change rule name: Rule1
Change rule description: +10%

Estimated Duration

Estimated Duration: +10%

Select criteria

TWS System: TWEC

Application id: = TCP*
Owner: = ?
Auth. group: = ?
Job name: = ?
Workstation: = WAIT
Special resource: = ?
Operation Extended Name: = ?
Scheduling Environment Name: = ?
Highest Return Code: = ?
Centralized Script: = ?

Action Buttons: Ok, Reset, Cancel

100%

You can define one or more change rules, e.g. add/subtract a percentage or set a specific duration.

Here we add 10 percent to the duration of operations on WS=WAIT of applications TCP*

Sample use cases for IT-Leader and Analysts

- The Dashboard gives a quick overview about the status of the connected IWS systems
- The Reporting/Statistic part enables analysis like
 - How many Jobs did run last year/month/day/hour
 - When did a job run, how often, successful or in error
 - Which jobs did run 20 percent longer than expected
 - Which jobs ended more than one hour later as scheduled
 - Which jobs passed their deadline
- The Reporting/Statistic part shows trends about
 - Job duration growth
 - Job end times (e.g. if job is ending later and later)
 - Missing deadline prediction

The Dashboard

The screenshot displays the IWS/WebAdmin for z/OS interface. On the left is a navigation menu with categories like General, IWS Systems, AD, and CP + LTP. The main area shows a dashboard for 'Demo TWS on demo system' with a pie chart and a table of job statistics. The pie chart shows 1618 jobs in a grey state, 493 in a blue state, and 23 in a green state. A legend indicates: %Progress (green), #Error (red), #Complete (blue), #Waiting (grey), #Ready (orange), and #Started (light green). A table below shows job statistics for 'TXGC [9.2]' and 'TWHC [9.3]'. A red box highlights '23%' in the table, with a callout pointing to it. Another callout points to the pie chart.

IWS/WebAdmin for z/OS

These figures gives you a quick overview how many jobs are in which status

Click on the percentage to get the pie chart

TXGC [9.2]		TWHC [9.3]	
Demo TWS on demo system		Test TWS on dev system	
AD	CP	AD	CP
Synchronisation started	09.11.2016 20:07:41	Synchronisation started	09.11.2016 20:07:41
Last Update	12.11.2016 14:47:55	Last Update	12.11.2016 14:41:23
AD Statistic	Applications: 176, Operations: 138	AD Statistic	Applications: 45, Operations: 138
Jobs Statistic	W: 1618, R: 14, S: 1, C: 493, E: 10	Jobs Statistic	W: 1618, R: 14, S: 1, C: 493, E: 10
Plan Progress	23%	Plan Progress	76%

IWS Activity Report

IWS Activity Report

Selected criteria
Subsystem *

<< Previous Month October 2016 Next Month >>

Number of Jobs

Days of Month	Number of Jobs
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	5000
9	10000
10	70000
11	80000
12	90000
13	90000
14	85000
15	50000
16	10000
17	70000
18	90000
19	80000
20	75000
21	95000
22	50000
23	15000
24	50000
25	50000
26	120000
27	100000
28	90000
29	50000
30	15000
31	110000

Menu

- General
 - Home
- IWS Systems
- Users
- Options

Reporting/Statistic

- Job History
- IWS Activity**
- Duration Analysis
- EndTime Analysis
- Status monitor

Action Buttons

Show SQL Cancel

This can be done for all jobs of all IWS systems, or for specific ones, e.g. for a specific owner etc.

The activity report shows you how many Jobs did run in a year/month/day/hour



Job Duration Analysis

Browser: TWS/WebAdmin for z/OS | http://192.168.47.28:8088/index.php

Job Duration Analysis

Filter: All | Critical Predictions | Positive Trends | Negative Trends

Total Duration, Average, „#“ means no. of runs, Trend, DL prediction
Last month
Last week

Jobname	Application	Subsystem	Total					Month					Week				
			Duration	Average	#	Trend %	Pred	Duration	Average	#	Trend %	Div %	Duration	Average	#	Trend %	Div %
END	HOR95DEMO	TXGC	00:00:00	00:00:00	23	0	n/a	00:00:00	00:00:00	23	0	0	00:00:00	00:00:00	6	0	0
HOR95005	HOR95DEMO	TXGC	00:57:30	00:02:30	23	4.42	>3 years	00:57:30	00:02:30	23	4.42	0	00:13:30	00:02:15	6	-9.92	-10
HOR95010	HOR95DEMO	TXGC	04:58:30	00:12:58	23	51.08	>2 years	04:58:30	00:12:58	23	51.08	0	01:27:30	00:14:35	6	50	12.47
HOR95011	HOR95DEMO	TXGC	00:43:45	00:01:54	23	7.41	>10 years	00:43:45	00:01:54	23	7.41	0	00:10:15	00:01:42	6	38.73	-10.53
HOR95012	HOR95DEMO	TXGC	00:41:00	00:01:46	23	7.12	>10 years	00:41:00	00:01:46	23	7.12	0	00:10:15	00:01:42	6	21.84	-3.77
HOR95013	HOR95DEMO	TXGC	00:00:23	00:00:01	23	0	n/a	00:00:23	00:00:01	23	0	0	00:00:06	00:00:01	6	0	0
T2100	HOR95DEMO	TXGC	00:00:00	00:00:00	23	0	n/a	00:00:00	00:00:00	23	0	0	00:00:00	00:00:00	6	0	0

[7 row(s) between four ...] [SQL: 0.047 sec, PHP: 0.375 sec]

Action Buttons:

Selected jobs

Click on that symbol shows the trend graphically (next slide)

Growing trends are marked red, shrinking green

Job End Time Analysis and Deadline Prediction

Again, calculations for total (all runs), last month, week

Job EndTime Analysis

Filter: All | Critical Predictions | Positive Trends | Negative Trends

Jobname	Application	Subsystem	Total					Month				Week			
			#	Trend %	Pred	Prog %	Tempo	#	Trend %	Div %	Tempo	#	Trend %	Div %	Tempo
END	HOR95DEMO	TXGC	27	38.5	>2 years	89.82	+ 00:00:12	26	37.06	-0.01	+ 00:00:07	6	7.86	-0.17	+ 00:00:03
HOR95005	HOR95DEMO	TXGC	27	-2.92	n/a	98.64	+ 00:00:01	26	-3.43	-0	- 00:00:01	6	-26.87	0.02	- 00:00:11
HOR95010	HOR95DEMO	TXGC	27	50.2	>3 years	89.46	+ 00:00:12	26	50.49	-0.01	+ 00:00:12	6	51.28	-0.22	+ 00:00:12
HOR95011	HOR95DEMO	TXGC	27	40.76	>2 years	89.71	+ 00:00:12	26	41.16	-0.01	+ 00:00:13	6	44.44	-0.2	+ 00:00:25
HOR95012	HOR95DEMO	TXGC	27	31.96	>2 years	89.75	+ 00:00:12	26	29.5	-0.02	+ 00:00:02	6	-40.73	-0.17	- 00:00:22
HOR95013	HOR95DEMO	TXGC	27	38.5	>3 months	98.51	+ 00:00:12	26	37.06	-0.01	+ 00:00:07	6	7.86	-0.17	+ 00:00:03
T2100	HOR95DEMO	TXGC	26	24.78	>10 years	88.24	+ 00:00:01	25	25.56	-0	+ 00:00:01	6	56.35	-0.01	+ 00:00:02

[7 row(s) have been found.] [SQL: 0.047 sec, PHP: 0.36 sec]

Click on the symbol, it shows the trend for this job, which is a critical end job. Prediction in this case: In 3 months, it will reach it's deadline.

Action Buttons: Show SQL, Save to File, Reset, Cancel

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 in dark grey. The background is light grey with a large red curved shape on the left and several faint geometric shapes (squares and a triangle) scattered around the text.

HORIZONT

Please feel free to visit us in Munich or send an email to
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