
New in Version 5.1

Version 5.1 contains a number of changes and additions which are outlined in the paragraphs below.

The most significant change is that IMPLEX is now a fully integrated ZEN component so all IMPLEX panels are now available from ZEN's browser interface. The full name of this new ZEN component is the *ZEN IP MONITOR - IMPLEX*.

For a transitional period, while WDS is still supporting both this and the previous product levels, this ZEN component will be referred to as both the *ZEN IP MONITOR* and the shorter *ZEN IMPLEX*.

IMPLEX in ZEN

Version 5.1 provides all of the same facilities as the previous version 4.1 with a number of additions and enhancements as outlined in the following sections. However, all IP data displays (that is, excluding the Administration panels) can now be displayed in William Data Systems' integrated ZEN browser interface.

ZEN provides an elegant browser-based interface for displaying data from one or more ZEN components simultaneously on the screen, the only limits being your screen's size (resolution) and storage available to the browser.

ZEN also enables you to display multiple panels from the *same* component simultaneously on its Desktop, even when the panels are of the same type. This means that you have a highly flexible display environment that you can effectively configure and manipulate in any way you choose. You can even save your favorite ZEN Desktop layout, perhaps incorporating panels from multiple ZEN components so that it is displayed immediately after you have signed on to ZEN.

As well as providing the presentation interface for all WDS ZEN components, ZEN also provides other common functions such as Alert Management, Network Routing Services as well as having several display panels of its own covering Tools, Automation, Utilities and Administration functions.

The previous browser GUI has been discontinued since the new ZEN IMPLEX interface provides full functionality (with the exception of the Administration functions which will be added in a later version) as well as all of the benefits of ZEN's own functionality and integration with all other WDS ZEN components such as the ZEN EE MONITOR - FERRET, the ZEN OSA MONITOR and ZEN FTP CONTROL - FTPALERT.

As well as the integration with ZEN, this version has several additional enhancements as detailed on the following pages.

Additional Enhancements in v5.1

Enhancements to Alerting

The Administer Alert panel has been enhanced in this new version of ZEN IMPLEX and now you can choose a new ‘emergency’ option to globally suppress all alerts. Additionally, since this version runs in ZEN, you will be able to use ZEN’s centralized alerting to monitor alerts from ZEN IMPLEX as well as any other ZEN components you might be running, using ZEN’s alert priority highlighting function to draw attention to those alerts you deem most important.

For compatibility with earlier versions, alerts are *also* routed by default according to the ZEN IMPLEX routing settings. ***So, if you have made any specific routing configuration changes that you have carried forward to this version of ZEN IMPLEX, these are still honored.*** For further details of how alert routing is handled see the section “ZEN Only Routing” on page 77 of the Administration manual.

From this version on you will be able to use multiple Alert datasets. The default DD name remains (as in all earlier releases) ALERT. Further Alert datasets can be read from DD names ALERTxxx, where ‘xxx’ is any suffix of your choice. This means that if you want to make local changes to any alerts, you can take copies and store them in your own Alert dataset which can then be updated appropriately and concatenated prior to the ZEN IMPLEX-provided alert dataset. When you upgrade to future versions of ZEN IMPLEX, your modified alerts will remain safe and can be added to the alert dataset provided with the new version.

By assigning a Threshold Group name to an alert (see “Updating Alert Settings” on page 80 of the Administration manual) you can now cause the alert to be active only in the time periods specified for the group (the threshold values themselves are ignored in this case). If the conditions that would normally cause the alert to be issued occur outside the period(s) specified in the group, the alert will not be issued.

Two new alerts have been introduced in this version, both concerned with the connection backlog queue for a service. The first alert (number 28) is issued when ZEN IMPLEX detects connection in the backlog queue for a service; the second (number 29) is issued when connections are being dropped from the backlog queue. This second alert is the more important of the two since it means that some of the connection requests to the service are not being successful.

Finally, so that it is easy to distinguish ZEN IMPLEX’s alerts among alerts for any other ZEN components you might be running, the alert member names have all been prefixed with the letters ‘IPX’.

Enhancements to TN3270 and NTT Monitoring and Displays

This version incorporates significant enhancements to both TN3270 and NTT monitoring panels and alerting functions. In earlier versions of ZEN IMPLEX it was not possible to specify the period over which responses were measured for alerting purposes; both NTT and TN3270 responses for a service were averaged across the day, starting from midnight

(or the time specified for your ‘statistics reset time’ - see “Administer Statistics” on page 141). This could lead to a situation in which you could experience poor responses over a short period of time which ZEN IMPLEX would not alert on because it did not impact the overall average response time for the day.

In this version, you can now specify two new time periods for both TN3270 and NTT monitoring. The first is a rolling time window over which the responses are measured for alerting purposes, for example 10 minutes. This means for this example that ZEN IMPLEX will monitor for and alert on a poor average response over 10 minutes, *even if the average for the day remained within the set thresholds*. In the case of a sudden poor response time you are no longer in danger of failing to be alerted to the situation once you set the new time period. As well as the new monitoring period, you can now also specify another rolling time window over which ZEN IMPLEX will retain the minute by minute response times for display and trend analysis. Note that this new feature is available only at the Service level and not at the host and connection levels where the previous TN3270 monitoring, collection and display remain the same as in version 4.1.

To configure the two new periods, additional time fields have been added to the Administer TN3270 Settings (see “Administer TN3270 Settings” on page 109 of the Administration manual) and Administer NTT Settings panels (see “Administer NTT Settings” on page 131 of the Administration manual). The display panels for TN3270 and NTT at the Service (port) level have also been enhanced to show the historical data minute by minute for the period selected; see the sections “TN3270 Response Time for a Service” on page 226 and “Network Transit Time for a Service” on page 233.

The previously available additional period for which ZEN IMPLEX calculated response times for TN3270 transactions (default 3 minutes) is still available. This period is defined using the Update Service panel - see the section ‘Resptime Interval (Sec)’ on page 15 of the Administration manual and the description in section “TN3270 Response Time for a Service” on page 226.

3270 Panels Command Input Area

A command input area has been added to many of the primary ZEN IMPLEX views, among them the Service and Service Group, Interface and Interface Group, Activity, Gateway and Application views; it is also available on the Connection List and some of the EE and OSPF panels. This new input field uses the same line on which messages are displayed, immediately below the last detail line displayed on the panel.

This input area is provided so that when there are very many entries in the panel you can either key in a number of lines to scroll followed by PF7 (backward by the keyed number of lines) or PF8 (forward by the keyed number of lines); also, the ‘m’ command in conjunction with PF7 or PF8 provides positioning directly to the top or bottom of the panel data

You may also key an identifier related to the primary resource type on the panel, for example a port number or name on the Service View, or a link or device name on the Interface View, and then press Enter to position directly to the keyed identifier. This provides a much more direct way of pinpointing items of particular interest among a large number of similar entries, or jumping directly to the top or bottom of a large list.

Two new PF key functions associated with this facility have also been introduced. PF17 can be used after input has been keyed to perform a ‘repeat find’ for the keyed identifier and PF18 recalls the last keyed data entered. PF18 is particularly useful on panels where there is already data in the new input area, for example the Activity View and Connection List, since it both recalls the keyed data and also removes the data already showing and changes the field from output to input.

Large Screen Support for 3270 Emulated Panels

This version of ZEN IMPLEX supports screen geometries other than the standard models 2, 3, 4, and 5.

With this enhanced 3270 panel support ZEN IMPLEX works with any screen size up to 16K bytes; that is, the product of the rows and columns must be less than 16K. The maximum number of lines that a width of 132 supports is 124, which is 16368 bytes.

If the panel is at least 132 characters wide then certain ZEN IMPLEX displays use the extra space effectively. ZEN IMPLEX will support a screen width greater than 132 but at the moment this space will not be used. Panels that exploit large screen mode are the Summary View, Services View, Interfaces View, Activity View, Alert View, Viewlogs panel and Packet Trace display, all of which show extended or additional fields.

This support is likely to be extended in the future as the product is enhanced and as new versions of z/OS provide new data for display. It is therefore recommended if you are using one of the emulators that provides this support (a list is provided on page 46) and you are not already using a large screen format, that you upgrade your emulator’s definition to do so as soon as is practicable.

To use this capability, a 3270 emulator that supports these dynamic screen sizes is required and a number are available, probably the most commonly used of which is IBM’s Personal Communications. For IBM’s Personal Communications the configuration file on your PC needs to be manually edited if you want a screen size other than the standard IBM offerings.

Further information regarding large screen support can be found in the chapter “Large Screen Support” on page 45.

Packet Trace Panel Improvements

Improvements have been made to the color-coding on the Packet Trace display and packets of certain types are now displayed in color to make them more easily identifiable. For example, ICMP packets are displayed in blue, UDP in white, retransmissions and fragments in red and so on. A full list is available in the section “Packet Trace Analysis” on page 439.

The filtering panel for the Packet Trace has also been enhanced and now provides filters for retransmissions, fragments, ‘special’ packets (such as SYN, SYNACK, FIN, RSET). Further, new protocol filters are provided for Enterprise Extender packets (EE) and Generic Routing Encapsulated (GRE) packets.

New Delete OSPF Router Function Key

A new PF10 key assignment has been added to the OSPF Router Detail panel which enables you to delete the router from the display. The deletion is a logical one, so if traffic is detected in the IP stack for that router in the future it will reappear on the panel. This new function can be useful in a situation where the OSPF router configuration is changed leading to 'old' routers still showing in the display. This situation can also lead to irrelevant alerts being raised by ZEN IMPLEX such as the 149 alert "No OSPF hello from *local_router_IP* in dead interval".

Enhancements to Enterprise Extender Alerting

An additional facility has been added to the EE Alerting capability for Gap packets and Fault segments. For these two event types ZEN IMPLEX can raise an alert when the specified type of error packet is detected in the EE traffic. You can now make this check more restrictive by specifying a percentage value for these two events in which case the alert will not be raised until the percentage of the specified packets in its standard one minute monitoring interval is reached.

Enhancements to Date Format in 3270 Panels

Two new date display options have been added to the Administer IMPLEX System panel, MMMDD and DDDMM. These enable dates in the 3270 panels to be displayed similarly to those in the panels when shown in ZEN, for example 23 Jan 10 or Dec 24 09.

Configuration File Enhancement

In previous versions of ZEN IMPLEX, configuration files were read on DDNAMEs CONFIGx where 'x' could be 1 thru 9, or A thru F. This limit of sixteen on the number of configuration files has been removed by extending the suffix to two characters of your choice. Now, DDNAMEs CONFIGxx are read in the order in which they are defined in your ZEN IMPLEX procedure. For further information see the section "General Configuration File Information" on page 15 of the Configuration manual.

Ping Results Panel Changes

The accuracy of the results from the ZEN IMPLEX Ping Utility has been improved and now all the ping responses and RTT statistics are shown to six decimal places rather than the three used in previous releases.

Improvement to the Interface and Service Group View

The Interface Group panel now displays the interface link name as well as the IP address on the panel. In previous versions, although these were both available they were shown separately by using the PF10 Alt/Name key. A similar enhancement has been made to the Service Group View which now displays the port number, name and type simultaneously. Both panels have improved text descriptions, enhanced graphics, and the command input area has also been implemented.

Group Delete and Add Service Group Ports by Server

There have been some enhancements to the handling of Service and Interface groups. Prior to this version it was not possible to remove a group using standard ZEN IMPLEX panels, instead you had to ensure no ports or interfaces belonged to the group which then removed the group from the relevant group view. You could then permanently remove the group from the product by editing the Export dataset and WARM starting the Data Space Manager. In this version, a new 'Pending Deletion' field has been added to both the Service and Interface Group Views. By settings this field to 'Yes', and providing there are no ports/interfaces defined for the group, it will be deleted the next time the Data Space Manager is restarted.

A new facility has also been introduced for Service Groups. You have always been able to add ports to a service group individually, or in a defined port range. From this version you can cause ports to be automatically assigned to a group according to the listening server name. This is achieved by specifying the name in a new 'Server name' field on the Service Group Update panel. For full details see the section "Updating Group Settings" on page 24 of the Administration manual.