VANTAGE

Multi-Discipline Supports

User Bulletin



MDS11.6

Issue 270605 Rev 0

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1 Introduction

This bulletin describes the new and enhanced functionality available in MDS 11.6. It gives an overview of the major changes, which are described in full in new and revised User Documentation. Smaller changes and enhancements are also described in this Bulletin.

Note about hanger manufacturers interfaces

2 Changes

The following describes the changes available in MDS11.6, these changes have been introduced since the last full release of MDS, namely MDS4.1.sp1. MDS users may have seen these changes before in an MDS concession release.

- Introduction of support groups.
    - This gives the MDS user the ability to create a support group. The first member of the group must be a framework. Additional members can be hangers. This is controlled by the application by using a array identifier as a suffix to the support name, i.e. PS100[1], PS100[2] etc. Functionality has been added to create support groups, modify support groups, delete support groups and remove supports from groups.
- Additional filtering of ancillaries
    - The MDS administrator may now setup additional filtering via the DES-SUPP-PARS files for temperature and elevation.
- Trunnions on frameworks and Frameworks below trunnions
    - An extra ancillary for enabling the addition of framework onto a vertical framework has been added called ‘Pipe Rest for Trunnions’
- Guides/Stops on frameworks
    - When selecting a framework the ability to select the guides and stops for trunnions has been added.
- Welding details
    - Automatic welding details can now be added to framework sections and ancillaries.
- Revision control
    - New functionality has been added to the MDS ADP so the user may revise the drawing. The details are remembered when the drawing is regenerated.
- Branch Reinforcements
    - A new section of support for branch reinforcements has been added.
- Preliminary Supports
    - A new section of preliminary supports has been added.
- Auto Naming Enhancements
    - A minimum and maximum index value has been added to the auto naming file.
    - A zone may now have an auto naming file associated with it. When the user reselects the default creation zone, if an auto naming has been associated with the zone the auto naming file will be updated.
- Additional standard framework functionality
    - A new form has been supplied to set support data. i.e. of loads, movements, etc
    - The default view direction of the MDS ADP drawing can be rotated by 180 degrees
    - The user can convert the standard support to a special from the standard form.

The special form will then be initialized.

- The MDS user can set the appearance of the support attas on the isometric drawing.
- The user may identify an existing atta on the support and repeat the same standard on other lines.
- The user may trim a section to an identified surface; the framework dimensions will be updated.

- The MDS administrator may make any dimension configurable via the DES-SUPP-PARS file.
  - A new modify atta properties form has been added to display the configurable dimensions to the user along with the minimum and maximum values.
- Flange Gap functionality
  - New functionality has been added to enable the MDS user control framework creation using flange gaps. A detailed explanation of this new functionality can be found in the MDS user guide.
- Bolt hole dimensions for u-bolts
  - The MDS ADP will automatically add the dimensions of u-bolts to the drawing.
- Additional special framework functionality
  - Copy existing section
  - Include section into special
  - Create, delete and modify stiffener box
  - Enhanced modify special section form
- Framework orientations
  - Frameworks may now be created in all orientations. i.e. FT09, a support frame can be created upside down.
- Modifying the appearance of joints and fittings on the MDS ADP drawing
  - Template joints and fittings can be hidden on the MDS ADP drawing Joints and fittings are then ignored on the drawing material list and are not tagged in the graphical views. This can be used when a joint, which has no physical properties, is used to cut-out a section.
- MDS Scale Override
  - The MDS ADP user may override the scale calculated by MDS; subsequent reproduction of the drawing will use this scale.
- MDS Layer Control
  - The MDS ADP user may control the appearance of individual layer of each view; subsequent reproduction of the drawing will remember the layer setting.
- Update DM Plotfile
  - If a drawing is modified the plot file can be updated Vantage Deliverable Manager, when this is updated any additional process are rerun on the drawing i.e. stickers.
- MDS ADP User Views
  - A MDS ADP user can copy an existing view; subsequent reproduction of the drawing will reproduce the view.
- Enhancements and new tasks to MDS ADP tasks.
  - Several enhancements have been made to the existing MDS ADP tasks. Please refer to the MDS documentation for details of these changes.
- Detailing of ancillary only supports.

  - The option to detail individual support (ancillaries) is now available in the MDS ADP.

- Additional MDS application defaults
  - MDSTRUNCODE, Number of characters to be displayed in trunnion support codes standard.
  - MDSORINOT, Sets if the orientation note on the isometric is displayed.
  - MDSFLAGAP, default flange gapping value

3 New Standards

The standards listed below are now available within this release, for details please see the PDMS plot file for the particular standard. These are stored with the PDMSUI/DES/MDS/PLOT directory below the software.

3.1 AC Standards

MDS Standard	Description
AC50	End Plate 2" to 24"
AC51	Support Plate 2" to 24"
AC52	Stiffener 2" to 24"
AC53	GRE Pipe Clamps for diam 1.1/2" to 40"

3.2 AN Standards

MDS Standard	Description
AN13	HALFEN Anchor HCS RADV NPS 1" 6"
AN17	Anchor U Bolt for Cupro Nickel Lines, NPS 1/2 8.
AN18	Anchor U Bolt for Carbon Steel Lines, NPS 1/2 8.

3.3 AT Standards

MDS Standard	Description
AT56	Clamp for Vertical support NPS 2" to 8"
AT57	HALFEN Pipe Shoe HRG-4 NPS 1/2" 6"
AT58	HALFEN Pipe Shoe HRG-4 with Spacer Clip HCS AHS 5/1 NPS 1/2" 6"
AT59	Trunnion Cold Isolation Block with Integral Base Plate Light
AT60	Flanged Supports for FRP/RTR Lines 1" 32"
AT61	Plate Attachment Vertical Pipe (CS,LTCS,SS Pipes) NPS 12"-48"
AT62	Adjustable Guide Insert Bolts Parallel NPS 2"-48"

AT63	Pipe Strap (Lined) for FRP / RTR Lines NPS 1 8
AT64	Pipe Strap (Lined) for CuNi Lines NPS 1.1/2 8
AT65	Full Encirclement Wrapper Plate (no longitudinal welding) for Pipes NPS 2 48
AT66	Stauff Clamp Heavy Series SPAL **,***,* xxx DPAL-AS NPS 1/2 6"
AT67	Stauff Clamp Heavy Series SPAL/DUB **,***,* xxx DPAL-AS NPS 1/2" 6"
AT68	Trunnion Cold Isolation Block with Integral Base Plate Heavy
AT69	Adjustable Guide Insert Bolts Perpendicular NPS 2"-48"
AT70	Adjustable Guide Insert Offset to Pipe Bolts Parallel NPS 2"-48"
AT71	Adjustable Guide Insert Offset to Pipe Bolts Perpendicular NPS 2"-48"
AT72	CPVC Pipe shoes height 100 to 200 for diam 1-1/2" to 24"
AT73	GRE Pipe shoes height 100 to 200 for diam 26" to 40"
AT74A	CPVC Protection shield for diam 1/2" to 16" TYPE A
AT74B	CPVC Protection shield for diam 1/2" to 16" TYPE B
AT75A	Anti friction sliding plate for diam 1/2" to 40" TYPE A
AT75B	Anti friction sliding plate for diam 1/2" to 40" TYPE B
AT76	Pipe Shoe NPS 10"-20"
AT87	GRE Pipe shoes height 100 to 200 for diam 1-1/2" to 24"
AT93	GRE Pipe Clamps for diam 1.1/2" to 40"
AT94	CPVC Pipe Clamps for diam 1.1/2" to 12"
AT95A	GRE Protection shield for diam 1/2" to 16" TYPE A
AT95B	GRE Protection shield for diam 1/2" to 16" TYPE B
AT96	Welded Shoe for N.P.S. 1" 36"
AT97	Clamped Shoe (Unlined) for N.P.S. 1" 24"
AT98	Welded Shoe with re-pad for N.P.S. 1" 36"
AT99	Clamped Shoe (Lined) for N.P.S. 1" 24"
AT100A	Trunnion Ptfe Faced Slide Unit (Suitable for Acoustic & Vibration Isolation) Type A NPS 1/2 24
AT100B	Trunnion Ptfe Faced Slide Unit (Suitable for Acoustic & Vibration Isolation)

	Type B NPS 1/2 24
AT101A	Ptfe Faced Slide Unit (Suitable for Acoustic & Vibration Isolation) Type A NPS 1/2 24
AT101B	Ptfe Faced Slide Unit (Suitable for Acoustic & Vibration Isolation) Type B NPS 1/2 24
AT102	Pipe Strap
AT103A	Clamped Pipe Shoe Pihasa 2134 IPE 160 NPS 1/2 4
AT103B	Clamped Pipe Shoe Pihasa 2134 IPE 200 NPS 1/2 16
AT103C	Clamped Pipe Shoe Pihasa 2134 IPE 240 NPS 3 16
AT103D	Clamped Pipe Shoe Pihasa 2134 IPE 270 NPS 5 16
AT104A	Clamped Pipe Shoe Pihasa 2136 Small NPS 1.1/2 30
AT104B	Clamped Pipe Shoe Pihasa 2136 Large NPS 1.1/2 30
AT105	Reinforcing Pad for straight pipe/elbow for C.S. pipe.
AT108A	Lisega Type 49xx11 Pipe Clamp Base 0 to 350 deg.C NPS 15 150
AT108B	Lisega Type 49xx12 Pipe Clamp Base 0 to 350 deg.C NPS 15 125
AT108C	Lisega Type 49xx13 Pipe Clamp Base 0 to 350 deg.C NPS 175 900
AT108D	Lisega Type 49xx14 Pipe Clamp Base 0 to 350 deg.C NPS 15 900
AT108E	Lisega Type 49xx25 Pipe Clamp Base 350 to 500 deg.C NPS 15 900
AT108F	Lisega Type 49xx35 Pipe Clamp Base 450 to 560 deg.C NPS 15 900
AT108G	Lisega Type 49xx45 Pipe Clamp Base 560 to 600 deg.C NPS 15 900
AT108H	Lisega Type 49xx64 Pipe Clamp Base 100 to 350 deg.C NPS 15 125
AT108AX	Lisega Type 49xx11 (Larger Pipe Outside Diameter) Pipe Clamp Base 0 to 350 deg.C NPS 65,100,125,150 ONLY
AT108BX	Lisega Type 49xx12 (Larger Pipe Outside Diameter) Pipe Clamp Base 0 to 350 deg.C NPS 65,100,125 ONLY
AT108CX	Lisega Type 49xx13 (Larger Pipe Outside Diameter) Pipe Clamp Base 0 to 350 deg.C NPS 250,350,400 -ONLY
AT108DX	Lisega Type 49xx14 (Larger Pipe Outside Diameter) Pipe Clamp Base 0 to 350 deg.C NPS 65,100,125,150,250,350,400 -ONLY
AT108EX	Lisega Type 49xx25 (Larger Pipe Outside Diameter) Pipe Clamp Base 350 to 500 deg.C NPS 65,100,125,150,250,350,400 ONLY
AT108FX	Lisega Type 49xx35 (Larger Pipe Outside Diameter) Pipe Clamp Base

	450 to 560 deg.C NPS 65,100,125,150,250,350,400 ONLY
AT108GX	Lisega Type 49xx45 (Larger Pipe Outside Diameter) Pipe Clamp Base 560 to 600 deg.C NPS 65,100,125,150,250,350,400 ONLY
AT108HX	Lisega Type 49xx64 (Larger Pipe Outside Diameter) Pipe Clamp Base 100 to 350 deg.C NPS 65,100,125 ONLY
AT109	Pipe Strap
AT111	Slider Pad for diam 1/2" to 40"

3.4 BR Standards

MDS Standard	Description
BR01	2 Way Brace for Open Ended Connection to Pipe.
BR02	2 Way Brace for Open Ended Connection to Flange.
BR03	Bracing for Orifice Connections.
BR04	4 Way Brace for Open Ended Connection to Pipe.
BR05	3 Way Brace for Open Ended Connection to Flange.
BR06	4 Way Brace for Open Ended Connection to Flange.

3.5 BT Standards

MDS Standards	Description
BT06	U Bolt Guide for Cupro Nickel Lines, NPS 1/2 8.
BT07	U Bolt Guide for Carbon Steel Lines, NPS 1/2 8.
BT09	Lined U-Bolt guided 2" TO 8"

3.6 CA Standards

MDS Standards	Description
CA02A	Cable Clip with Angles
CA02B	Cable Clip

3.7 FT Standards

MDS Standard	Description
FT44	GRE/CPVC Pipes 150vertical valve support pipe 2" to 20" dia\PIPE-REST
FT45	GRE/CPVC Pipes 150valve support and anchor pipe 2" to 20" dia\PIPE-REST
FT46	GRE/CPVC Pipes Base support at flange (150#) pipes 2" to 16" dia\PIPE-REST
FT47	Supports for Flanged Valves NPS 2.1/2" to 24"
FT48A	Pedestal support for 2" to 24" pipes.
FT48B	Pedestal support for 2" to 24" pipes.
FT48C	Pedestal support for 2" to 24" pipes.
FT48D	Pedestal support for 2" to 24" pipes.
FT49	Support frame for vertical pipes with lugs LT13 or LT15 2.1/2" to 48" pipes
FT50	Support Bar and Clamp for 2.1/2" to 24" pipes
FT51	Goal Post with vertical or Angled Legs

3.8 GT Standards

MDS Standard	Description
GT25	HALFEN Guide HCS RADDV NPS 1" 6"
GT26	Guide Lugs for Support shoes Light Angle/Channel Sections NPS 3/4-36.
GT27A	Pipe A Base Support Guide Hold Down Heavy NPS 2-36
GT27B	PIpe R Base Support Guide Hold Down Heavy NPS 2-36
GT28	Guide Lugs for Support shoes Heavy Angle/Channel Sections NPS 3/4-36.
GT29	CPVC Pipes Flat Clamp 2" to 6"
GT38	GRE Pipes Flat Clamp 2" to 6"
GT39	Guides for pipes without insulation 2" to 6"
GT40	Band Guides for pipes 2" to 24"
GT44	Guide and Hold down welded 2" TO 12"

GT45	Guide for bare pipe 2" TO 24"
GT46	Pipe Guide, welded, for pipe shoe with sliding package 2" TO 24"
GT47	Guide, Clamped to steel, Type A
GT48	Clamped Guide on steel structure, Type B
GT49	Guide welded extended height
GT50	XS Strap Guided 6" TO 28"

3.9 LT Standards

MDS Standard	Description
LT08A	Rod Hanger Welded Pipe Lug for 1/2" Pin/Bolt Diameter NPS 2-18
LT08B	Rod Hanger Welded Pipe Lug for 5/8" Pin/Bolt Diameter NPS 2-18
LT08C	Rod Hanger Welded Pipe Lug for 3/4" Pin/Bolt Diameter NPS 3-18
LT08D	Rod Hanger Welded Pipe Lug for 7/8" Pin/Bolt Diameter NPS 3-18
LT08E	Rod Hanger Welded Pipe Lug for 1" Pin/Bolt Diameter NPS 3-18
LT08F	Rod Hanger Welded Pipe Lug for 1.1/8" Pin/Bolt Diameter NPS 4-18
LT08G	Rod Hanger Welded Pipe Lug for 1.3/8" Pin/Bolt Diameter NPS 4-18
LT08H	Rod Hanger Welded Pipe Lug for 1.5/8" Pin/Bolt Diameter NPS 6-18
LT09	GRE / CPVC Pipes Vertical Support on Platforms for Diam 2" to 8"
LT10	GRE / CPVC Pipes saddle shear lug bearing for Diam 1 1/2" to 24" (Type A) Vertical only
LT11	GRE / CPVC Pipes saddle shear lug bearing for Diam 1 1/2" to 24" (Type B) Horizontal only
LT12	GRE Pipes saddle shear lug bearing for Diam 26" to 40" (Type C) Horizontal only
LT13A	Welded Lugs (1 Lug) for Carbon Steel and Stainless Steel 2" to 24"
LT13B	Welded Lugs (4 Lugs) for Carbon Steel and Stainless Steel 2" to 24"
LT14A	Welded Lugs (2 Lugs) for Carbon Steel and Stainless Steel 2.5" to 24"
LT14B	Welded Lugs (1 Lug) for Carbon Steel and Stainless Steel 2.5" to 24"
LT15	Welded Lugs (4 Lugs) for guide for Carbon Steel and Stainless Steel 2" to

	24"
LT16A	Welded Lugs (4 Lugs) for Carbon Steel and Stainless Steel 2.5" to 24"
LT16B	Welded Lugs (6 Lugs) for Carbon Steel and Stainless Steel 2.5" to 24"

3.10 PR Standards

MDS Standard	Description
PR01	Preliminary Anchor
PR02	Preliminary Guide
PR03	Preliminary Constant Effort Spring Hanger
PR04	Preliminary Fixed Hanger
PR05	Preliminary Variable Spring Hanger
PR06	Preliminary Hold Down
PR07	Preliminary Rest
PR08	Preliminary Stop
PR09	Preliminary xxxx
PR10	Preliminary xxxx
PR11	Preliminary xxxx
PR12	Preliminary xxxx
PR13	Preliminary xxxx
PR14	Preliminary xxxx
PR15	Preliminary xxxx
PR16	Preliminary xxxx
PR17	Preliminary xxxx
PR18	Preliminary xxxx

3.11 ST Standards

MDS Standards	Description

ST14	Axial Stop Type A Restraint on Dummy legs for Diam 2" to 24"
ST15	Axial Guide Type B Restraint on Dummy legs for Diam 2" to 24"
ST16	Bilateral Guide Type C Restraint on Dummy legs for Diam 2" to 24"
ST20	Shoe stop
ST24A	Pipe Stop I Section With Reinforcing Plate for uninsulated pipes for Diam 2.1/2" to 24".
ST24B	Pipe Stop I Section With Reinforcing Plate and Adjustment for uninsulated pipes for Diam 2.1/2" to 24".
ST24C	Pipe Stop I Section for uninsulated pipes for Diam 2.1/2" to 24".
ST24D	Pipe Stop I Section With Adjustment for uninsulated pipes for Diam 2.1/2" to 24".
ST30	Axial stop clamped to pipe 2" TO 24"
ST31	Axial stop bolted to shear lug 2" TO 28"
ST32	Axial Stop Pipe on Clamped pipe shoe 2" TO 6"
ST33	Axial stop bolted with spacer to base plate 2" TO 24"

3.12 TT Standards

MDS Standards	Description
TT27	Trunnion With Integral Guide for 2" 24"
TT28	Base Support Anchor for RTR Pipe NPS 2-14 with Bearing Plate
TT29	GRE Pipes Vertical Dummy Leg for diam 2" 24"
TT30	CPVC Pipes Vertical Dummy Leg for diam 2" 24"
TT31	GRE Pipes Trunnion for 2" 24"
TT32	CPVC Pipes Trunnion for 2" 24"
TT33	GRE Pipes Stanchion for 2" 24"
TT34	CPVC Pipes Stanchion for 2" 24"
TT35	Vertical Dummy Leg for diam 2" 24"
TT36	Trunnion NB 1 1/2" 30"
TT37	Adjustable Trunnion NB 2" 12"

TT38	Base Support Welded to pipe 2" TO 24"
TT39	Base Support Welded to elbow 2" TO 24"

3.13 VT Standards

MDS Standards	Description
VT20	Cantilever support from vertical & horizontal vessel for 2" to 10" N.B. Pipe.
VT21	Braced cantilever support from vertical & horizontal vessel for 2" to 10" N.B. Pipe.
VT22	Cantilever support from vertical vessel for vertical pipes with lugs LT13 or LT15 2.1/2" to 20" N.B. Pipe.
VT23	Cantilever support from vertical vessel for vertical pipes with Trunnions 2.1/2" to 14" N.B. Pipe.
VT24	Cantilever braced support from vertical vessel for vertical pipes with Trunnions 2.1/2" to 14" N.B. Pipe.

4 UPGRADING FROM PREVIOUS RELEASES

The upgrade procedure is not supplied with this release but will be supplied at a later date as a specific upgrade application. For details of the release schedule of this application please contact the AVEVA support desk.

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