Sales News

**CENTUM VP Release 5.01
Integrated Production Control System
Order Entry Starts**

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Yokogawa has released CENTUM VP Release 5.01 (R5.01) integrated production control system to the market with new hardware and functional enhancements to realize the VigilantPlant concept. This sales news contains overview of the new and enhanced functions, schedules, and order entry information of CENTUM VP R5.01.

1   CENTUM VP R5.01 Functional Overview

CENTUM VP R5.01 is composed of the new functions, functional improvements, all the fundamental software, optional software, electronic documents, and software media (Model: LHSKM50) as described in this article. Since July 22, 2011, order placements for CENTUM VP R5.01 hardware has already been started. For details of the CENTUM VP R5.01 early order entries, please refer to the sales news No. SPMK11E-121, CENTUM VP R5.01 Accepting Early Order Entry.

1.1   New OS environments

CENTUM VP R5.01 starts supporting the newest OS of Windows 7 and Windows Server 2008 R2. The OS operating environments for each component of CENTUM VP are as described below.

HIS, ENG, GSGW, and SIOS	:	Windows 7 Professional SP1 (64bit)
		Windows Vista Business Edition SP2 (32bit)
		Windows Server 2008 Standard Edition SP2 (32bit)
		Windows Server 2008 Standard Edition R2 SP1 (64bit)
HIS-TSE and APCS	:	Windows Server 2008 Standard Edition SP2 (32bit)
		Windows Server 2008 Standard Edition R2 SP1 (64bit)
UGS	:	Windows Server 2008 Standard Edition R2 SP1 (64bit)

(Note 1) When Windows Server 2008 is installed on a HIS, there are restrictions in display call-up time and alarm buzzers.
(Note 2) Windows Server 2003 Standard Edition SP2 and Windows Server 2003 Standard Edition R2 SP2 can only be applied as a project data base file server.
(Note 3) For upgrading software from CENTUM VP R4 to CENTUM VP R5.01 on Windows Vista, add main memory when it is less than 4GB.

1.2   Selected Network Switches for Vnet/IP

For configuring a highly reliable and stable Vnet/IP network, it is important to use network switches which have been verified to work with Vnet/IP with guaranteed initial settings. These switches supplied by a vendor is described in the selected equipment list and classified as Yokogawa Certified Buyout which have the following benefits.

- Order entries can be done as Yokogawa standard products (via PASSPORT)
- Conformity and adaptability to Vnet/IP is guaranteed.
- Shipped with the initial (default) setting suitable for Vnet/IP
- Guarantees long-term availability
- Yokogawa's service network supports maintenance and repair services.

● For details of Vnet/IP network switches, please refer to the sales new No. SPMK11E-124, CENTUM VP/CS 3000, and ProSafe-RS: Release of Network Switch for Vnet/IP (introducing Yokogawa Certified Buyout).

1.3 Remarks when Configuring Vnet/IP Network

By using V net router(style S3), a network such as Vnet/IP domain + V net domain+ Vnet/IP domain can also be configured.   When connecting Vnet/IP domains via a V net domain, Vnet/IP firmware in all components must be updated to Rev. 16 or later. For more details, refer to the TI 30A10A05-01E Vnet/IP Network Construction Guide which is issued on 19th August.

1.4 Release of the New Field Control Stations (FCS) - AFV30□/AFV40□

A new series of FCS is released for CENTUM VP R5.01.   The new FCSs (AFV30□/AFV40□）has better performances and with larger memory capacity than the previous FCS, to comply with the demands of the field digital era.

（1）   Features of AFV30□/AFV40□
- Strengthening field digital related functions
  I/O signal processing function has been enhanced.   The device data for maintenance, which are not used for process control, can be set swiftly and acquired in large volumes via field digital without disrupting the control functions.
- Improved application storage capacity and processing performance
  - ・ Application storage capacity: 2 times larger than the previous FCS (e.g. AFV10□).
    All the application programs can be performed within the 1 second scan period.
  - ・ Processing performance: 4 times faster than AFV10□
- Cost Reduction
  A total number of FCS can be reduced, thus it saves the initial investment and maintenance costs.
- New features
  Periodic SEBOL function is added to run SEBOL programs while the process is in operation.
  A new function for system function block to notify the FCS performance information to operators is also added.

（2）   Product Line ups related to AFV30□/AFV40□
The CENTUM VP R5.01 new product line ups are as shown below.

- Hardware
AFV30□	:	Field Control Unit, Duplexed Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type)
AFV40□	:	Field Control Unit, Duplexed Field Control Unit (for Vnet/IP and FIO, with Cabinet)
ANB11□	:	Optical ESB Bus Node Unit (for AFV30□/AFV40□)
ANB10□	:	ESB Bus Node Unit (for FIO)
ANT10U	:	Unit for Optical ESB Bus Repeater Module (for AFV30□/AFV40□)
CP461	:	Processor Module（for AFV30 /AFV40 ）
EC402	:	ESB Bus Coupler Module (for AFV30□/AFV40□, 2-Port)
ANT401	:	Optical ESB Bus Repeater Master Module 5 km (for AFV30□/AFV40□)
ANT502	:	Optical ESB Bus Repeater Slave Module 5 km (for AFV30□/AFV40□)
ANT411	:	Optical ESB Bus Repeater Master Module 5 - 50 km (for AFV30□/AFV40□)
ANT512	:	Optical ESB Bus Repeater Slave Module 5 - 50 km (for AFV30□/AFV40□)
ACB51	:	I/O Expansion Cabinet (for AFV30□/AFV40□)
ACUKT1	:	Cabinet Utility Kit (for Rittal Cabinet, AFV30□)
ACUKT2	:	Cabinet Utility Kit (for CENTUM-XL, AFV30□)
AEPV7D	:	Power Supply Bus Unit, Vertical Type (for Cabinet Mounting)

- Software
LFS1700	:	Control Function for Field Control Station (for AFV30□/AFV40□, Vnet/IP and FIO)
LFS1750	:	Node Expansion Package (for AFV30□/AFV40□)

  * LFS1550 Application Capacity Expansion Package (for AFV10□) is released for R5.01.   A Tokuchu is required for LFS1530 Application Capacity Expansion Package (for AFV10□) when

placing an order for this package for CENTUM VP R4 systems, so as to prevent from ordering LFS1530 for CENTUM VP R5.01 systems.

(3)   Overview of AFV30☐/AFV40☐
- New FCS with larger memory capacity and faster performance (in comparison with previous versions)
  - ・ Two types of new FCS for Vnet/IP
    - - AFV30☐:   Rack-mount type
    - - AFV40☐:   With cabinet
  - ・ Extension of ESB bus communication distance
    AFV30☐/AFV40☐ supports optical ESB bus for long distance communication, instead of ER bus.   With repeaters, an optical ESB bus can be extended up to 50 km.   Including a CPU node, up to 14 node units can be connected on the ESB bus.

- FCS Control License
  By using node expansion package, up to 14 nodes can be connected per FCS.
  - - LFS1700-V11   Control Function for Field Control Station
    (for AFV30☐/AFV40☐, Vnet/IP and FIO) up to 4 nodes（*1）
  - - LFS1750-V11   Node Expansion Package (for AFV30☐/AFV40☐) for 10 nodes (*1)
  - - LFS1750-V21   Node Expansion Package (for AFV30☐/AFV40☐) for 14 nodes (*1)
  - - LFS1750-E31   Node Expansion Package (for AFV30☐/AFV40☐)
    for node expansion   from 10 nodes to 14 nodes (*1)
  - (*1)   CPU node itself is counted as one node.

- ACB51 I/O expansion cabinet
  ACB51 is an I/O expansion cabinet dedicatedly used for AFV40☐.
  - - Mounts up to 12 node units (Front: CPU node + 5 nodes, Rear: 6 nodes)
  - - Includes Node FAN unit (Front 2 units, Rear 2 units)
  - - With HK function (temperature monitoring, FAN monitoring)

1.5 Unified Gateway Station（UGS）is released
UGS enables for HIS to perform operation control and alarm monitoring of STARDOM, PLC, or other subsystems in the same manners as CENTUM systems.   Various interfaces are provided for communicating with various subsystems.
UGS is a successor to the System Integration OPC Client station (SIOS) and it is dedicatedly used for Vnet/IP system station.
UGS controls and monitors subsystem communication data by treating them FCS face plate blocks, as well as those graphics and trends to be handled as CENTUM tags on HIS.   UGS processes up to 100,000 tags or 2,000,000 data items.

The following communication protocols are supported by UGS:
- Modbus RTU, Modbus/TCP
- EtherNet/IP
- OPC DA
- STARDOM (OPC server is not required.)

1.6 Functional enhancements in consolidated alarm management system (CAMS for HIS)
Alarm set-point management function has been added as enhancements to the CAMS for HIS.   Alarm set-point can be defined by the builder function, which enables an integrated alarm set-point management on the HIS.   By using this function, operators are able to compare the differences between the alarm master value defined by the builder and the current value, and engineers are able to feedback the current value to the master value at ease.

1.7 Introducing a New Software License Management
From CENTUM VP R5.01, the software license management system has been changed.   All the software licenses are ordered and delivered by the Project ID, instead of by the stations.   The keycode file is no

longer required.   Which software package is to be applied on which station is managed by Project ID using a software.   Once the software licenses are delivered, all the packages are to be stored on a license management station (PC) and distributed to the stations once those software packages are assigned respectively.

(1)   Characteristics of the new software license management
- Order entry procedure is simplified.
  The order entry procedure is simplified because orders of the software packages can be placed by the project, instead of by the station.   Domain numbers and station numbers are no longer required for ordering any more.   Quantity of the required packages can be consolidated per project for ordering.
- License transfer after delivery is simplified.
  It is possible to relocate software packages without additional ordering process when moving a software package from one station to another.   A Tokuchu for license transfer is no longer required.   Even when the license transfer takes place, reinstallation of the software is not required.
- Easy to add software packages
  When a new software package is added, software re-installation is no longer required.   It only requires to save and to distribute the new software package to the station where the software package is needed.
- Media management is simplified.
  The total number of license media (CD-R) is reduced, which makes media management easier.   From CENTUM VP R5.01, only one media per system (= Project ID) will be shipped, instead of one keycode CD-R per HIS.

1.8 Standardization of Subsystem communication package (including HART communication)

From CENTUM VP R5.01, subsystem communication software (incl. HART communication) is integrated as a part of the standard functions.   When the subsystem communication hardware (communication module) is purchased, it is not necessary to place orders for those subsystem communication packages by the FCS.

Along with this change in providing the subsystem communication package, the prices for subsystem communication module (hardware) has been modified.   At the same time, prices for the subsystem communication packages for CENTUM VP R4, CENTUM CS 3000 R3, and ProSafe-RS R1 and R2 are also modified.   For further details, please refer to the sales news No. SPMK11E-068, CENTUM VP/CS 3000, ProSafe-RS / Price Change in Communication Modules and Communication Packages.

1.9 Style Changes for Hardware Products

Models	Styles	Remarks
ESB Bus Coupler Module EC401 (*1)	S2→S3	The old (S2) connector is independent from the module, and it is integrated into the module in the new style (S3). Both old and new modules are compatible, and both styles can be resided in the same node for configuring redundant operation. There is no price impact by the style change.
Duplexed V net Router AVR10D (*1)	S2→S3	When using the new style mode, it is possible to specify either Vnet/IP or V net as a upper-level domain. (With the older styles, the supervisory domain is fixed for Vnet/IP side only.) For further details, a separate sales news will be released.
Communication Module for V net Router VI451	S2→S3	Ditto
ESB Bus Node Unit ANB10□ (*1)	S1→S2	With ISA Standard G3 option and temperature option has been added to the suffix codes by this style change.

(*1) : Obtaining both explosion proof and marine certificates for the new styles are in process; it means these standards are not complied yet.   In case the explosion proof and/or marine certificates are required, please place orders of the products by specifying the old styles.

Note: On and after September 22, 2011, all the above products are shipped with the new style unless particularly specified for older style.

1.10 Termination of supporting Active X Control Graphic Interface

Microsoft has terminated its support for Active X Control, a graphic interface, for the user development environment.   For CENTUM VP R5.01, please use .NET components, instead of Active X Control, for creating graphic interface control.   Descriptions related to Active X Control are removed from instruction manuals (IM) of the CENTUM VP R5.01.   Active X Control programs have been included in the CENTUM VP R5.01 software, thus the Active X Control components still run on R5.01.   However, when the OS of the PC is replaced, please confirm if those Active X Control components runs appropriately on the CENTUM VP R5.01.

1.11 Project ID License and Software Media

The suffix codes of project ID license and the model of software media are changed for CENTUM VP R5.01.

LHSPJT-V51   : Project ID License for CENTUM VP
LHMPJT-V51   : Project ID License for CENTUM VP Entry Class

LHSKM50-V11   : Software Media

2 Schedule

Order Entry Start :   August 19, 2011 (See article 3.1 for additional information.)
First Delivery   :   September 22, 2011 (planned, shipped out from YAS) (*1)

(*1)   The first delivery date is subject to change depending on the development progress.

3 Ordering Information

3.1 For Hardware

Placing hardware orders for CENTUM VP R5.01has already been started since July 22, 2011 due to the prolonged production lead time caused by the concentration of the demands.   For details of the CENTUM VP R5.01 early order entries, please refer to the sales news No. SPMK11E-121, CENTUM VP R5.01 Accepting early order entry.

3.2 Delivery Registration

In order to collect project information that requires CENTUM VP R5.01, the delivery registration website is created.

For those orders that CENTUM VP R5.01 hardware/software are mandatory due by October 31, 2011, please register to the designated website prior to order entries following the instructions described below.

In case the first delivery slips from the planned FD date of September 22, 2011, YHQ considers to ship the preliminary version of the CENTUM VP R5.01 software for the projects registered to the delivery registration website.

For other projects (not registered to the delivery registration, which means CENTUM VP R5.01 is not mandatory), the latest revision available at the delivery due date will be shipped.   (e.g. When CENTUM VP R5.01 has been approved, R5.01 will be shipped, unless otherwise, R4.03.00 will be shipped.)

Refer to the following table as the summary of the relationship between the delivery schedule and the CENTUM VP software revisions.

Software Revision ＼ Delivery Due	Until September 21, 2011	After September 22, 2011
Projects for R4.03 （When functions of R5.01are not required.）	R4.03 See article 3.4 (1).	R4.03 See article 3.4 (1).
Projects that R5.01 Functions are mandatory.	― (R5.01 is not available.)	In case the software delivery criteria approval is delayed, YHQ considers shipping a preliminary version, if possible. ・ With the delivery criteria approved, R5.01 will be shipped.

3.3 Delivery Registration
Please register delivery information via "CENTUM VP R5.01 Delivery Registration" in the Questionnaire System of the global Yokogawa web site.

   URL : http://gappli01.jp.ykgw.net/ENQ_ALL/F_index.aspx
      (GlobalCyber --> Info-service / Questionnaire)
    * Use your CyberDoc e-mail newsletter ID for registration.

      Note: Once you logged on to the delivery registration system, please complete the registration within 30 minutes, unless otherwise the registration session will be terminated.   In case the registration cannot be completed within 30 minutes, please save the data.

3.4 Remarks for Ordering Procedures
(1)   For ordering CENTUM VP R4 software licenses
When the CENTUM VP Release 4 (R4.**.**) software licenses are required after R5.01 delivery commenced, please specify Version, Revision and Sub Revision numbers in 2-digit numbers each when ordering R4.

         Example: When CENTUM VP R4.03.00 is required.
               Version   :   04
               Revision   :   03
               Sub Revision :   00

For ordering the latest software licenses of CENTUM VP Release 5 (R5.**.**), it is not necessary to specify Version, Revision, or Sub Revision numbers.   (Leave those columns blank.)

(2)   Project ID Licenses for New Projects (new orders)
For a new order of CENTUM VP Release 5 (R5.**.**), please make sure that the Project ID License (LHSPJT1-V51 or LHMPJT1-V51) and software licenses (packages) are placed under the same (factory) order number.   This rule is not changed from Release 4 (R4.**.**).   A CENTUM VP project cannot be divided into separate order entries.   When doing so, please place appropriate quantity of software licenses.   In case placing an order for additional software licenses to the existing HIS, or a new HIS is added to the existing project, please specify the Project Name and the Project ID Number of the existing project in the column of "Project Name."

4 Documentation Schedule

GS   :   August 19, 2011
Price Sheet (PS) :   May 10, 2011 (Already published with May 10, 2011 as effective date.)
Quotation WS   :   August 19, 2011
Bulletin   :   August 19, 2011
IM   :   September 22, 2011 (planned)
TI   :   August 19, 2011

5 Version Up to R5.01 (from existing systems)

5.1 Version up from the existing system to R5.01 by Tokuchu

The existing software licenses for CENTUM CS 1000/CS 3000, and CENTUM VP R4 can be upgraded to CENTUM VP R5.01 by Tokuchu.   Please apply a Tokuchu to "01 DCS software Package" through the below URL with attachment of the keycode information file (System.csv, MergeKeyCodeList.csv, and FcsList.csv).   In this case, please version up the entire system to R5.01.   For details of version up Tokuchu, please refer to the below website.

CENTUM Tokuchu Web: http://globalcyber.jp.ykgw.net/PMK/TOKUCHUweb-e/4-measures.htm

5.2 Version up of CENTUM Tokuchu + Semi-Tokuchu software

When upgrading software from CENTUM VP R4.03 or earlier to R5.01, it is necessary to version up CENTUM Tokuchu and Semi-Tokuchu software.   Please apply a Tokuchu to "74:   DCS: Tokuchu Software Generation."

5.3 Promoting Version Ups from CENTUM VP R4 to R5

A special campaign price is offered for promoting the version ups from CENTUM VP R4 into CENTUM VP R5.01.   This special price is set to accelerate the version ups.   Do not miss this opportunity to offer the latest CENTUM VP to your customers.

Version Up Cost: SP US$300.00/system

● This version up cost covers the software version up for the entire system (by the Project ID), and it does not fluctuate by the scale of the system (i.e. number of HIS).

5.4 Restrictions in using Windows XP

When the existing systems (CENTUM CS 3000 R3 or CENTUM VP R4) use Windows XP for OS, it is strongly recommended to upgrade the OS to Windows 7 along with the version up to CENTUM VP R5.01.   In this case, the replacement of the PC itself may be required depending on the PC's specifications.
If it is desperately necessary to keep using Windows XP for version up from CENTUM CS 3000 R3 or CENTUM VP R4 to CENTUM VP R5.01, Windows XP Professional SP3 is applicable as the operating environment.   Please be reminded that Microsoft has already terminated its main stream support for Windows XP, and Yokogawa may not be able to fix the problems caused by this OS.   Also there may be cases that some of the CENTUM VP R5.01 functions cannot be used under Windows XP environment. (For these reasons, Windows XP for CENTUM VP R5.01 shall not appear in the GS.)
Please clarify this statement with customers and agree on prior to using CENTUM VP R5.01 on windows XP.   For further details, a separate document will be released on CENTUM INQUIRY PORTAL.

6 Residing Old Versions (R3 and R4) with R5.01 in a Single Project (system)

Databases of CENTUM CS 3000 R3 and CENTUM VP R4 have upward compatibility with R5.01. (Where there is no new function added, additional engineering work for version up is not required.)
Use the same version of the components in the same project (system), which is the primary suggestion by Yokogawa. However, if in case it is not possible to apply the identical software for some reason, the different versions of the software can be resided in the same project (system) in the following manners.

- ・ All the engineering related functions must use R5.01.
- ・ All components in a system are required to have the same version as an HIS with engineering functions. As for the HIS with only the operation and monitoring functions can temporarily remained with the older version while the version up work is in progress.
- ・ FCSs which are in operation can remain with the older versions than the engineering functions. Online maintenance is also available.

7 Engineering Fee

There is no change in the way of calculating engineering fees in association with CENTUM VP R5.01 release. Please quote referring to the Price Sheets accordingly.

8 Tokuchu-related issues in association with CENTUM VP R5.01 Release

(1) Issuance of the new project ID licenses for CENTUM VP R4
In order to promote CENTUM VP R5, issuance of the new project ID licenses for CENTUM VP R4 (LHSPJT-V11 or LHMPJT1-V11) is done by Tokuchu. After the first delivery date of CENTUM VP R5.01, please apply Tokuchu for placing orders of CENTUM VP R4 Project ID licenses with the reason(s) that R4 is mandatory. Send the Tokuchu to "01: DCS Software Package."

(2) Upgrading CENTUM CS 1000 to CENTUM VP Entry Class R5.01 (LHMGVP-V10)
It requires Tokuchu for upgrading software from CENTUM CS 1000 to CENTUM VP Entry Class R5.01 (LHMGPJT-V11) to adapt to the order entry procedure for the new software license management. The special upgrade fee continues to be offered only when CENTUM CS 1000 is upgraded into CENTUM VP Entry Class R5. Please apply Tokuchu to 01: DCS Software Package with keycode information file (System.csv, MergeKeyCodeList.csv, and FcsList.csv). For the purpose of accelerating the sales of CENTUM VP Entry Class R5, the special price offered for upgrading from CENTUM CS 1000 into CENTUM VP Entry Class R4 is terminated. When upgrading to R4 is required, please (also) issue Tokuchu.