

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

- Compatibility, Migration .....4**
  - 1. Will it be possible to migrate a project designed with a EcoStruxure Hybrid DCS version to a more recent version? .....4
  - 2. I am an existing end user or system integrator and I have built my control standards using UAG. For my next project, I would like to maintain these standards. Is it possible for me to convert them to use with EcoStruxure Hybrid DCS? .....4
- Configuration specifications .....4**
  - 3. For system integrators, is it possible to have several versions of EcoStruxure Hybrid DCS installed on a single machine? .....4
  - 4. Does EcoStruxure Hybrid DCS allow the installation of several servers on a single machine? .....4
- Features – Application .....4**
  - 5. Are there any recommendations when using instance name inheritance? .....4
  - 6. How can I duplicate a function (an object instance)? .....4
  - 7. Is it possible to instantiate a control service template instead of a control module template? .....4
  - 8. What is the scope covered by the export/import service of an application? .....4
  - 9. What is the purpose of the link editor: is it a high level editor to design process strategies, or is it to connect functions (process objects) to each other and to devices, or is there also another purpose? .....5
  - 10. What is the difference between "update" and "replace" an object template? .....5
  - 11. Is there an editor in EcoStruxure Hybrid DCS to define interlocks or to create additional logic? .....5
  - 12. Does EcoStruxure Hybrid DCS allow propagation of changes selectively to the instances? .....5
- Features - Deployment and Execution .....5**
  - 13. Does EcoStruxure Hybrid DCS provide a partial deployment? .....5
  - 14. Do I have to stop my Operating System while upgrading it? .....5
  - 15. Can we prepare the modifications (Version N+1) of a running control system while it is running the Version N to deploy at a later date? .....5
  - 16. What are the possibilities for online changes to the hardware configuration? .....5
  - 17. What are the tools proposed by EcoStruxure Hybrid DCS to perform on line debugging? .....6
  - 18. Is it possible to jump from an alarm to the graphical page where is located the object origin of this alarm? .....6
  - 19. Is it possible to upload the EcoStruxure Hybrid DCS control project from the controller (it's running so it's the right version) and apply the required modifications? .....6
- Features – Libraries .....6**
  - 20. Which libraries are delivered with EcoStruxure Hybrid DCS? .....6
  - 21. Do we allow customers to modify the existing object templates that come out-of-the-box with EcoStruxure Hybrid DCS? .....6
  - 22. How is the complex knowledge of a component packaged into a reusable object? For example, is it possible to model a tank in a dairy application? .....6
  - 23. How does EcoStruxure Hybrid DCS manage the update of a library once a user has made modifications to a template to create his own custom one? .....6
  - 24. How can I handle Library openness & DFB locked? .....6
  - 25. How can I lock my own development to protect my knowledge? (For Process OEMs) .....7

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

<b>Features – Project</b> .....	<b>7</b>
26. Can you assign in one action all the functions (object instances) created in an application folder both to a control project and a supervision project? .....	7
27. Is it possible to design control projects with SFC and/or LD languages?.....	7
28. How do you hide the intermediate objects in the object browser and show only the control modules? ....	7
29. Is it possible to include a standalone control project (already designed with the standalone version of Unity Pro) inside a control system application designed with EcoStruxure Hybrid DCS?.....	7
30. Does EcoStruxure Hybrid DCS provide native diagnostics pages from the supervision? .....	7
31. Is there a way to import a page with Genies created with a previous application? .....	7
<b>Features – System</b> .....	<b>7</b>
32. Does EcoStruxure Hybrid DCS support an audit trail? .....	7
33. Is it possible to manage several control systems simultaneously with EcoStruxure Hybrid DCS?.....	8
34. How can two EcoStruxure Hybrid DCS systems be merged into a single plant system? .....	8
35. How can I navigate from one view of the control system to another view during the engineering (e.g from the application view to the project view)? .....	8
36. How can the design of a control system application be shared with several designers at the same time? .....	8
37. Is there a “Differentiator” tool in EcoStruxure Hybrid DCS to compare two control system applications? .	8
38. How do I backup my EcoStruxure Hybrid DCS project? .....	8
39. How does EcoStruxure Hybrid DCS inform the user about the status of the system (how many tags, devices, objects, PLCs memory consumption...)? .....	8
<b>Features – Topology</b> .....	<b>9</b>
40. Does EcoStruxure Hybrid DCS support safety controllers? .....	9
41. How does EcoStruxure Hybrid DCS ensure Ethernet I/O architectures work properly with the right level of performance? .....	9
42. Is the integration of Electrical Devices possible with EcoStruxure Hybrid DCS? .....	9
43. Is it possible to include Schneider legacy controllers in a EcoStruxure Hybrid DCS application? .....	9
44. Does EcoStruxure Hybrid DCS provide the capability to integrate 3rd party controllers? .....	9
45. Which controller platforms (PAC) are supported in EcoStruxure Hybrid DCS? .....	9
46. Which kind of high availability can be deployed with EcoStruxure Hybrid DCS?.....	9
47. How do we manage devices that aren't in the libraries? .....	9
48. Does EcoStruxure Hybrid DCS manage instrumentation?.....	9
49. Can we access documentation about a device located on a server through the selection of that device in the system?.....	9
50. EcoStruxure Hybrid DCS architectures are based on Ethernet; Does EcoStruxure Hybrid DCS support ModBus/TCP or EIP?.....	10
<b>Offer, positioning, catalogue</b> .....	<b>10</b>
51. What is the name of Schneider Electric DCS offer for Hybrid Industries and what is it exactly? .....	10
52. What is the positioning of EcoStruxure Hybrid DCS with regard to a traditional DCS? What are the main differences? .....	10
53. What is the positioning of Schneider Electric and former-Invensys' different DCS offerings? .....	10
54. Are there plans to embed the WonderWare offer inside EcoStruxure Hybrid DCS? .....	10

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

- 55. Does EcoStruxure Hybrid DCS replace the existing Controllers and Scada offers from Schneider Electric? ..... 10
- 56. What is the difference between EcoStruxure and EcoStruxure Hybrid DCS? ..... 10
- 57. Is there a EcoStruxure Hybrid DCS subscription service? ..... 10
- 58. What are the key EcoStruxure Hybrid DCS marketing messages for system integrators? ..... 11
- 59. Can we state that EcoStruxure Hybrid DCS is compliant with ISA S88? ..... 11
- 60. What is the EcoStruxure Hybrid DCS licensing model? ..... 11
- 61. Do I need to be a specialist in each software participant in the system in order to use the system? ..... 11
- 62. Is there a single installation regardless of the content to be installed? ..... 11
- 63. Is it possible to quantify potential benefits and the types of applications where EcoStruxure Hybrid DCS will deliver benefits? ..... 11
- 64. How does EcoStruxure Hybrid DCS provide significant savings in the engineering of a project? ..... 11
- Openness..... 12**
- 65. Is it possible to manage a control system application based on several parts (main process is engineered as one system and the other parts are engineered by other companies and OEMs)? Can I operate and maintain the overall control system as one application? ..... 12
- 66. How do you import a PI&D diagram in EcoStruxure Hybrid DCS? ..... 12
- 67. Are any of the Industry partners (CAPP) software offers integrated in EcoStruxure Hybrid DCS? ..... 12
- 68. Can UAG be embedded? ..... 12
- 69. Does EcoStruxure Hybrid DCS include a Historian tool / historian function? ..... 12
- 70. Does EcoStruxure Hybrid DCS include a change management function? Are we using or are we compliant with MDT Software? ..... 12
- 71. Is it possible to develop workarounds by hand if the feature isn't yet available in EcoStruxure Hybrid DCS? ..... 12
- 72. Is it possible to include third-party controllers in a EcoStruxure Hybrid DCS application? ..... 12
- 73. Does EcoStruxure Hybrid DCS include or collaborate with a Batch software? ..... 12
- 74. What about MES within EcoStruxure Hybrid DCS? ..... 12

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## Compatibility, Migration

1. Will it be possible to migrate a project designed with a EcoStruxure Hybrid DCS version to a more recent version?

Yes, EcoStruxure Hybrid DCS includes all the software tools to migrate the database from one version to another. This migration is also provided for the embedded libraries. Depending on the enhancements from one release to another, the migration will be done in one step (automatically following the installation of the new release) or in two steps: one before uninstalling the former release and the second step after the new release installation.

2. I am an existing end user or system integrator and I have built my control standards using UAG. For my next project, I would like to maintain these standards. Is it possible for me to convert them to use with EcoStruxure Hybrid DCS?

Yes, this is possible although there is no “push of the button” automated tool available. The standards must be converted into EcoStruxure Hybrid DCS objects. Schneider Electric can provide a Service to allow a painless conversion from UAG standards to EcoStruxure Hybrid DCS standards. This needs to be analysed case by case. Anyway, the evolution cost from UAG to EcoStruxure Hybrid DCS will be lower than to any competitor offer.

## Configuration specifications

3. For system integrators, is it possible to have several versions of EcoStruxure Hybrid DCS installed on a single machine?

No, but an alternative should be to run EcoStruxure Hybrid DCS on a virtual machine. A technical note describes how to configure the system.

4. Does EcoStruxure Hybrid DCS allow the installation of several servers on a single machine?

Yes, this flexibility is provided to users. For example, the EcoStruxure Hybrid DCS system server can be on the same machine as an operation server (SCADA server).

## Features – Application

5. Are there any recommendations when using instance name inheritance?

Inheritance of the hierarchy in the instance name is based on folders and the instance itself. To limit the size of the name, it is possible to associate an alias to any folder, an alias that will be used for the instance naming. As many levels are allowed in the hierarchy of folders, the recommendation is to limit the instance name to 18 characters' maximum.

6. How can I duplicate a function (an object instance)?

The most useful way to duplicate an object instance is to copy and paste an existing instance. Export and import of an instance can be done as well. It is possible to easily duplicate a sub tree of the application tree through Copy/Paste. In this case the object instances are automatically renamed.

7. Is it possible to instantiate a control service template instead of a control module template?

By default, EcoStruxure Hybrid DCS lists all the object templates at a level of composition corresponding to control modules, to reduce the list of templates. But it is possible to list all of them, up to the facet level. Any level of composition can be instantiated in an application.

8. What is the scope covered by the export/import service of an application?

The current release of EcoStruxure Hybrid DCS allows you to wholly or partially export and import any kind of information from a control system: Application tree and instances, Topology, including networks, Projects (control and supervision). It is also possible to export and import templates.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

9. What is the purpose of the link editor: is it a high level editor to design process strategies, or is it to connect functions (process objects) to each other and to devices, or is there also another purpose?

The link editor enables the service to link object instances graphically. And so it is a high level editor to design process strategies. The purpose is not the substitute the FBD editor. The result from the project generation is that objects instances are connected automatically in the FBD program section. An alternative is to create these links between instances during the refinement of the control logic with the FBD editor.

10. What is the difference between "update" and "replace" an object template?

Update means to use the last version of the template. Replace allows the user to use any version of the template.

11. Is there an editor in EcoStruxure Hybrid DCS to define interlocks or to create additional logic?

No, there is no dedicated editor. Adding interlocks or building additional logic is done during the "refinement" phase with the Control Editor, providing full flexibility to manage the required logic.

12. Does EcoStruxure Hybrid DCS allow propagation of changes selectively to the instances?

Several levels of change propagations are possible with EcoStruxure Hybrid DCS:

1. Object template change with versioning management, allows you to manage several versions of the template within a control system
2. Propagation of an object template change to all or a selection of instances
3. Propagation in the projects, allowing you to deploy step by step changes in a control system.

## Features - Deployment and Execution

13. Does EcoStruxure Hybrid DCS provide a partial deployment?

Yes, the deployment can be done at many levels:

1. Create object instances in the application, but they are not assigned to a project. In that case, a partial application is executed and some objects are ready to be used later in the application
2. Objects instances are assigned to a project, but they are not mapped to any hardware. In that case, it allows you to perform simulation without or with a subset of the hardware
3. Deployment of the application in some controllers only, to test a subset of the application.

All these three uses can be combined.

14. Do I have to stop my Operating System while upgrading it?

Yes, it is necessary to stop the system to upgrade EcoStruxure Hybrid DCS to a newer version. The offer provides the tools to migrate the application to newer versions with a minimum of effort.

15. Can we prepare the modifications (Version N+1) of a running control system while it is running the Version N to deploy at a later date?

Yes, it is possible. EcoStruxure Hybrid DCS allows you to plan modifications and deploy them later, it is also possible to perform on-line modifications. The user can prepare the modifications in their office, creating the version N+1 of the application. Then they go on site and connect the engineering station to the controller (to the version N). "Deploy changes" command allows the user to connect in on-line mode and perform the updates in the controllers. The user can decide to deploy all the changes or only a subset of them (the user has the list of changes and they can decide what must be downloaded). Another way is to prepare the modifications on site with the engineering station while EcoStruxure Hybrid DCS is running and deploy the changes at the appropriate point in time.

16. What are the possibilities for online changes to the hardware configuration?

On-line modifications of the hardware are possible when the controller accepts them and is supported by Unity Pro. EcoStruxure Hybrid DCS is able to accept on-line changes to the hardware configuration of a controller, but this is not fully mastered by the system platform. Manual interaction is required to reproduce in the topology of EcoStruxure Hybrid DCS exactly with all the modifications that were done during a refinement with Unity Pro.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

The operating mode will be enhanced to completely handle the changes from EcoStruxure Hybrid DCS, in a later version.

## 17. What are the tools proposed by EcoStruxure Hybrid DCS to perform on line debugging?

EcoStruxure Hybrid DCS relies on the services embedded in the software participants without restriction. For example, debug services of Unity Pro can be used from EcoStruxure Hybrid DCS environment. In addition, embedded simulation capabilities in the object libraries, combined with object faceplates in supervision pages, enable you to emulate part of the process without real hardware. In addition, EcoStruxure Hybrid DCS adds new services as navigation services in the application from the SCADA and filtering of the alarm according to the application tree, which eases the debug during commissioning.

## 18. Is it possible to jump from an alarm to the graphical page where is located the object origin of this alarm?

This feature is not available in the current release.

## 19. Is it possible to upload the EcoStruxure Hybrid DCS control project from the controller (it's running so it's the right version) and apply the required modifications?

Uploading the control project from the controller to do modification is not the right mode operation, because the reference application is the one in the EcoStruxure Hybrid DCS database (modifications will be lost through a download from EcoStruxure Hybrid DCS).

## Features – Libraries

### 20. Which libraries are delivered with EcoStruxure Hybrid DCS?

EcoStruxure Hybrid DCS provides built-in process, communication and devices libraries. These ready-to-use libraries reduce the design time of the application. It is called GPL (General Purpose Library) and delivered with the system platform.

Moreover, the added value of optional segment / vertical libraries with EcoStruxure Hybrid DCS provides application-specific benefits (Water, MMM F&B ...). Energy management is also provided through optional libraries to be used with EcoStruxure Hybrid DCS.

### 21. Do we allow customers to modify the existing object templates that come out-of-the-box with EcoStruxure Hybrid DCS?

Customers can create a copy of any existing object templates and use that template accordingly. EcoStruxure Hybrid DCS enables the ability to copy and paste a template at any level. Nevertheless, management of device communication requires specific management and modifications are not allowed.

### 22. How is the complex knowledge of a component packaged into a reusable object? For example, is it possible to model a tank in a dairy application?

The concept of the “Application Template” allows the promotion of a sub tree of the application (e.g. a tank or a complete machine) as a template. This feature is not yet available, but it is planned in a next release. The existing release of EcoStruxure Hybrid DCS allows you to duplicate a sub-tree of an existing application and all the instances are duplicated with a new name, while keeping the properties of the copied object instances.

### 23. How does EcoStruxure Hybrid DCS manage the update of a library once a user has made modifications to a template to create his own custom one?

EcoStruxure Hybrid DCS is able to create multiple versions of a single template. By using the “Update Template” feature, the user can select the required version and update it where and whenever required. EcoStruxure Hybrid DCS also provides services to import and export user objects.

### 24. How can I handle Library openness & DFB locked?

Up to now, the code of each template is locked for protection purposes (both for IP protection and more importantly to ensure that these objects, which have been validated by Schneider Electric, maintain the desired behaviour and performance). We understand that for various reasons, it is also necessary to make some modifications to templates to adapt to application context specifics. So now, it is possible to copy an original object template and then from the copy, customize it.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## 25. How can I lock my own development to protect my knowledge? (For Process OEMs)

A designer of parts of a software program can lock them when they design them in DFBs (Derived Function Blocks). This is a feature provided by Unity Pro, which is also valid for EcoStruxure Hybrid DCS. Consequently, it is possible to protect a piece of programming embedded in a DFB in Read only or not readable at all.

## Features – Project

### 26. Can you assign in one action all the functions (object instances) created in an application folder both to a control project and a supervision project?

It is not possible to assign object instance in one action to both the control project and the supervision project. It is possible to assign all object instances at once to the control project using the assignment editor. Similarly, it is possible to assign all the object instances at once to the supervision project using the assignment editor. When changes are done in an instance (for example, add a service like failure conditions), it is possible to automatically assign this additional service to the same project and program section as the other facet of this instance.

### 27. Is it possible to design control projects with SFC and/or LD languages?

No. Currently all instances are generated in FBD language only. Indirect support for SFC and LD is available, because it is possible to create and modify SFC and LD sections during the refinement. These sections are not managed as entities belonging to the EcoStruxure Hybrid DCS system platform but in the final generated/build project these sections can be seen and refined. During modifications of the EcoStruxure Hybrid DCS application, SFC and LD sections are preserved "as is" in the project.

### 28. How do you hide the intermediate objects in the object browser and show only the control modules?

The strategy is to display the list of object templates that correspond to control modules. But any level of composition can be displayed to be used as template in projects. Check boxes "Composites" and "Facets" are available, in the object browser, we can select these to see either composites or facets or both.

### 29. Is it possible to include a standalone control project (already designed with the standalone version of Unity Pro) inside a control system application designed with EcoStruxure Hybrid DCS?

Yes, an existing project can be imported inside an existing EcoStruxure Hybrid DCS project. Furthermore, it is possible to extend this project with object instances in dedicated program sections. But the imported project doesn't benefit from the services brought by EcoStruxure Hybrid DCS.

### 30. Does EcoStruxure Hybrid DCS provide native diagnostics pages from the supervision?

When designing an application, the user creates object instances with a graphical "facet" representing this object (e.g.: a pump, a valve,). These instances are available to the graphic designer to design the pages, drawing the layout and taking objects from a browser to build the page. Communication with control and object configuration for diagnostics are implicitly done as well. On the other hand, EcoStruxure Hybrid DCS doesn't automatically build diagnostic pages.

### 31. Is there a way to import a page with Genies created with a previous application?

Yes. The CTZ file of a previous application can be included in EcoStruxure Hybrid DCS by using the option "Include projects" available under the Supervision project. However, these pages and genies will not be managed by EcoStruxure Hybrid DCS (navigation services cannot be provided for these graphical objects).

## Features – System

### 32. Does EcoStruxure Hybrid DCS support an audit trail?

Audit trail covers two areas: log activities during Engineering to track the changes in the application and log activities during operation, tracking user operations (e.g., change of data). A first level of services is already implemented inside EcoStruxure Hybrid DCS, enabling the logging of user activities with time stamping on the screen.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## 33. Is it possible to manage several control systems simultaneously with EcoStruxure Hybrid DCS?

EcoStruxure Hybrid DCS is able to manage several control systems in its environment. Thanks to the multi-user capabilities, the current release allows the editing of several control systems at the same time and working concurrently on them.

## 34. How can two EcoStruxure Hybrid DCS systems be merged into a single plant system?

This is possible with the export/import functionality. A repository as the final system must be defined and then it will be possible to include information from several sources. Several users can work in parallel in a part of the application (for example: design and implementation of a functional sub part of the application) and then merge their job in a single project. Partial import can be done for the topology also.

## 35. How can I navigate from one view of the control system to another view during the engineering (e.g. from the application view to the project view)?

Several possibilities are offered to the user:

1. From the user interface itself: possibility to open several editors in parallel with EcoStruxure Hybrid DCS.
2. From contextual menus, as shortcut: from a selected element (e.g. an object instance to view all the assignments or in the reverse from an assignment, where the object instance is located in the application).

## 36. How can the design of a control system application be shared with several designers at the same time?

Two possibilities are offered to users to design a control system:

1. Several users can work concurrently on the same control system from several client machines connected to the EcoStruxure Hybrid DCS System server that is embedded in the application.
2. Distribute the design to several users. Pieces of the control system application that are designed with EcoStruxure Hybrid DCS can be merged to create one single system or project (import/export features).

## 37. Is there a "Differentiator" tool in EcoStruxure Hybrid DCS to compare two control system applications?

There is no "Differentiator" tool as such. But when the user proceeds to changes in a control project, there is a service that shows all the differences between the running application in the controller and changes that are ready to be deployed. So the user is able to check the modifications and decide what are the changes to be deployed.

## 38. How do I backup my EcoStruxure Hybrid DCS project?

Two possibilities are offered to back up user's data:

1. EcoStruxure Hybrid DCS offers the possibility to backup and restore the database. In that case one or more control systems are saved
2. EcoStruxure Hybrid DCS offers the possibility to backup and restore a control system. In that case, only one system is saved at a time.

## 39. How does EcoStruxure Hybrid DCS inform the user about the status of the system (how many tags, devices, objects, PLCs memory consumption...)?

An information menu gives the number of object instances used in all the projects that are stored within the EcoStruxure Hybrid DCS environment. It allows you to check the number of instances created against the number of instances allowed in the environment, according to the license installed. Through the refinement of a control project or a supervision project, it is also possible to get the information about the memory consumption in a controller or the number of tags used in a supervision project.



# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## Features – Topology

### 40. Does EcoStruxure Hybrid DCS support safety controllers?

It is possible to add safety controllers on the network and have them supervised by the operator interface. In such cases, these controllers are not managed by EcoStruxure Hybrid DCS as part of the control system application. The integration of the new M580 controller is planned in our roadmap, in a later version.

### 41. How does EcoStruxure Hybrid DCS ensure Ethernet I/O architectures work properly with the right level of performance?

There is no service to estimate the performance of scanning I/O over Ethernet in the current version. There is a plan to integrate a network management tool that may include such a feature in the future. A TVDA provides typical architectures and the rules to correctly configure Ethernet networks. It helps the designer of the architecture to correctly scale the control system.

### 42. Is the integration of Electrical Devices possible with EcoStruxure Hybrid DCS?

EcoStruxure Hybrid DCS supports serial devices and Ethernet devices. The libraries are embedded with ready-to-configure objects either for automation and electrical (Power) devices, like SEPAM and Power meters, circuit breakers. Most common devices are modelled by a template. Other devices can be managed by a generic template that is able to define the configuration to fit with the data that is managed by the device.

### 43. Is it possible to include Schneider legacy controllers in a EcoStruxure Hybrid DCS application?

EcoStruxure Hybrid DCS is embedded with communication object templates that can operate to set up the communication between the legacy controllers and the supervision with Ethernet Modbus/TCP; the user has to define the set of data to be exchanged. With the exception of this feature and the possibility to include the projects of the legacy controllers in the EcoStruxure Hybrid DCS application, there is no service to design the legacy controller project.

### 44. Does EcoStruxure Hybrid DCS provide the capability to integrate 3rd party controllers?

It is possible to manage the communication of 3rd party controllers through the configuration of a generic template that must be designed in order to define the set of data that must be exchanged. It may apply to any device, including third party devices. These controllers are not known in the control systems managed in EcoStruxure Hybrid DCS.

### 45. Which controller platforms (PAC) are supported in EcoStruxure Hybrid DCS?

M580 standalone configuration, M580 redundant, Quantum, Quantum HSBY and M340 are the controllers supported in the current release of EcoStruxure Hybrid DCS.

### 46. Which kind of high availability can be deployed with EcoStruxure Hybrid DCS?

The supervision can be redundant (operation servers and clients) to provide the high availability of the operations in the control rooms. Redundant networks and redundant controllers (Quantum or M580) provide the high availability of the control itself. High availability of the system server is not available in this release.

### 47. How do we manage devices that aren't in the libraries?

Generic device templates exist to support generic devices on Ethernet. In addition, the user has the possibility to design templates for unknown devices. But the design of template requires advanced training.

### 48. Does EcoStruxure Hybrid DCS manage instrumentation?

Instrumentation from a partner (Krohne) is supported through a set of dedicated device objects.

Instruments from other suppliers can be used in EcoStruxure Hybrid DCS architectures by using generic device profiles or design specific templates.

### 49. Can we access documentation about a device located on a server through the selection of that device in the system?

Thanks to the object model, EcoStruxure Hybrid DCS is able to provide navigation services in Operation, enabling access to any information related to a graphical element selected on a SCADA page that represents an object instance. It is possible to associate documents to a given instance; these documents are stored on a specific location on the system server. In a next release, it is planned to enlarge this capability with a new kind of facet to an object. This facet will contain all the information to access locally or remotely to documents.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

50. EcoStruxure Hybrid DCS architectures are based on Ethernet; Does EcoStruxure Hybrid DCS support ModBus/TCP or I/P?

Ethernet Modbus/ TCP is available in the current release to manage Devices on Ethernet as a fieldbus and also peer to peer communication between controllers. Support of Ethernet I/P is planned for a next release.

## Offer, positioning, catalogue

51. What is the name of Schneider Electric DCS offer for Hybrid Industries and what is it exactly?

The Schneider Electric Process Automation System for Hybrid Industries is called EcoStruxure Hybrid DCS. It includes all the software for engineering, operation and maintenance and the automation architectures based on Modicon controllers.

52. What is the positioning of EcoStruxure Hybrid DCS with regard to a traditional DCS? What are the main differences?

EcoStruxure Hybrid DCS as a DCS provides integrated services to engineer, operate, diagnose and maintain a control system application. The engineering has object-oriented configuration thanks to libraries of object templates. A DCS is "integrated" with little flexibility to extend with add-ons coming from third-parties except when they have already been planned (for example, partnerships).

EcoStruxure Hybrid DCS is based on the collaboration of different software (called "participants") and a single database for the control system application, with the capability to accept new participants and third-party components. As such, EcoStruxure Hybrid DCS is much more open and flexible than a DCS offer "pure player." EcoStruxure Hybrid DCS is a Platform Automation System which goes beyond the pure values of a DCS.

53. What is the positioning of Schneider Electric and former-Invensys' different DCS offerings?

The Foxboro Evo process automation system meets the needs of complex and highly automation intensive industries that require large amounts of advanced process control, integration with critical or custom applications that may or may not be in real time, and highly integrated batches.

EcoStruxure Hybrid DCS provides an option to meet customer needs that are more focused on flexibility and openness, and where a mix of process, sequential, manufacturing and assembly functions are required."

54. Are there plans to embed the WonderWare offer inside EcoStruxure Hybrid DCS?

Yes, in our roadmap we have planned to include WonderWare System technology as a supervisory environment in EcoStruxure Hybrid DCS. It will not replace Vijeo Citect, but enables Customers to select one or other supervision when designing a control system. EcoStruxure Hybrid DCS is a single environment to configure an application either with Vijeo Citect or WSP as supervision.

55. Does EcoStruxure Hybrid DCS replace the existing Controllers and Scada offers from Schneider Electric?

No. EcoStruxure Hybrid DCS is fully complementary to Schneider Electric's existing offers for process automation. EcoStruxure Hybrid DCS provides a single environment, which also requires a specific configuration approach.

Our integrated Distributed Control System approach is part of our "standalone architecture" approach and shares the same hardware platforms and Ethernet architectures. This provides maximum flexibility of choice and freedom for customers to choose either option.

56. What is the difference between EcoStruxure and EcoStruxure Hybrid DCS?

EcoStruxure is Schneider Electric's automation architecture for industrial and infrastructure customers.

EcoStruxure Hybrid DCS is Schneider Electric's innovative Distributed Control System and is part our EcoStruxure architecture, sharing the same hardware platforms and Ethernet architectures.

57. Is there a EcoStruxure Hybrid DCS subscription service?

Yes, Subscription service is part of a comprehensive portfolio of services available for EcoStruxure Hybrid DCS. It includes telephone support, live chat, case management, access to a knowledge database through a Web site, and software updates. The entry level service (technical support) needs to be included in any project the first year.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## 58. What are the key EcoStruxure Hybrid DCS marketing messages for system integrators?

Reduction in the configuration time thanks to the object-oriented design consistently filling information for control and operator interface

- Safe design and better quality thanks to a guaranteed consistency and a single database
- Change propagation consistently and safely performed in the overall control system application
- A single repository of the whole control system application to make maintenance easier
- Pre-tested general purpose, advanced and segment libraries minimizing testing, even for Process aware objects or equipment
- Open objects allowing customization of the application delivered

## 59. Can we state that EcoStruxure Hybrid DCS is compliant with ISA S88?

Yes, we comply with ISA S88 because the application engineers are able to fulfil these rules with EcoStruxure Hybrid DCS. The application manager in EcoStruxure Hybrid DCS makes it possible to organize the process control application in a hierarchical tree, with naming conventions for object instances and variables that belong to a given folder of the tree. But EcoStruxure Hybrid DCS doesn't restrict the compliance to S88, making it possible to also comply with other models.

## 60. What is the EcoStruxure Hybrid DCS licensing model?

The licensing model is based on two parameters:

1. The topological architecture deployed at the customer site for servers and clients. Each of them requires a license. No license is attached to controllers
2. The size of the project deployed onsite (runtime). The parameter is the number of object instances independent from the topology.

A specific offer dedicated to SIs enables them to design and test the application without having to order the End User configuration deployed on site.

## 61. Do I need to be a specialist in each software participant in the system in order to use the system?

The design of a control system, is based on an object-oriented configuration with object instances used from libraries of templates, but not requiring expertise in the software participants. A good knowledge of the objects is required in order to configure them correctly. Nevertheless, the object configuration doesn't cover 100% of the design, and the refinement of the program and the edition of the supervision pages require the knowledge of Unity Pro and Vijeo Citect respectively.

## 62. Is there a single installation regardless of the content to be installed?

Yes, a single installation of the engineering environment is provided for EcoStruxure Hybrid DCS. As well, EcoStruxure Hybrid DCS delivery provides all the software components to be installed on the respective machines playing the role of operation server and operation client. The software components installation of the overall infrastructure from a single location is not yet available.

## 63. Is it possible to quantify potential benefits and the types of applications where EcoStruxure Hybrid DCS will deliver benefits?

EcoStruxure Hybrid DCS provides benefits during engineering, operation and maintenance:

- Reduces the design time thanks to a powerful object model and libraries. Data for control and supervision are created consistently and change propagations are managed by the system platform. The outcome is better quality design.

## 64. How does EcoStruxure Hybrid DCS provide significant savings in the engineering of a project?

In design, the object-oriented configuration makes it possible to create consistent data for the control and the SCADA systems at once.

Propagation of changes is managed by the system platform, when a modification is done either in an object template or by changing the settings of object parameters.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## Openness

65. Is it possible to manage a control system application based on several parts (main process is engineered as one system and the other parts are engineered by other companies and OEMs)? Can I operate and maintain the overall control system as one application?

Two possibilities are offered to users to design a control system:

1. Several users can work concurrently on the same control system from several client machines connected to the EcoStruxure Hybrid DCS System server that is embedded in the application.
2. Distribute the design to several users and import pieces of the control system application in one project through import/export features.

66. How do you import a PI&D diagram in EcoStruxure Hybrid DCS?

XML files are the standard format used in EcoStruxure Hybrid DCS. A ready-to use software tool allows you to import the process description coming from the PI&D diagram through an Excel file into EcoStruxure Hybrid DCS. The description format is documented for the application level to enable the data exchange with other application software.

67. Are any of the Industry partners (CAPP) software offers integrated in EcoStruxure Hybrid DCS?

EcoStruxure Hybrid DCS manages a XML format as a capability to exchange static data with other application software. OFS that is a standardized OPC driver, is our solution to exchange real time data with third-party applications.

68. Can UAG be embedded?

EcoStruxure Hybrid DCS is the new offer replacing UAG, offering new features thanks to engineering and operation services. For these reasons, there is no reason to embed UAG in EcoStruxure Hybrid DCS.

69. Does EcoStruxure Hybrid DCS include a Historian tool / historian function?

Integration of Historian is not available. Nevertheless, it is possible to tag information in EcoStruxure Hybrid DCS in order to get the historization of the data easily. So installation of Historian aside EcoStruxure Hybrid DCS provides services of data historization, even if not fully integrated.

70. Does EcoStruxure Hybrid DCS include a change management function? Are we using or are we compliant with MDT Software?

A basic level of Change Management is embedded inside EcoStruxure Hybrid DCS: who is making a change and which section the changes were made is tracked in the notification panel and this log can be saved.

Change management is considered as a key service for users and will be integrated as a core function of the offer. It is planned in our roadmap, but not available in the current release. Nevertheless, it is possible to administer the changes both for supervision and control projects thanks to a third party software named "MDT Software". This software is able to manage changes of projects individually.

71. Is it possible to develop workarounds by hand if the feature isn't yet available in EcoStruxure Hybrid DCS?

Yes, of course. as EcoStruxure Hybrid DCS is based on EcoStruxure Hybrid DCS software participants and architectures. So it is possible to integrate non supported controllers and devices in EcoStruxure Hybrid DCS. For example, the integration of Quantum Safety controllers in a EcoStruxure Hybrid DCS architecture is possible, but additional manual work has to be done.

72. Is it possible to include third-party controllers in a EcoStruxure Hybrid DCS application?

Yes, it is possible to have third-party controllers in a EcoStruxure Hybrid DCS architecture. In that case, manual work has to be done to manage the communication with the operator interface. However, obviously a unique database is not possible for that data.

73. Does EcoStruxure Hybrid DCS include or collaborate with a Batch software?

EcoStruxure Hybrid DCS collaborates with EcoStruxure Hybrid DCS. A built-in object template to create sequences is included in the EcoStruxure Hybrid DCS library. It is planned to install batch client software in EcoStruxure Hybrid DCS to get runtime services from a EcoStruxure Hybrid DCS Operation station. A TVDA is planned to describe this configuration.

# EcoStruxure™ Hybrid DCS - FAQ - System Integrator

## 74. What about MES within EcoStruxure Hybrid DCS?

The current plan is to provide openness and a certain level of synergies / collaboration in future versions, rather than a full integration of a MES application system.