

STEP	Type	TS
ACTION	A1	
DELAY EXPRESSION		
ACTION EXPRESSION		
NOISE1	NOISE START	
	A2	



# AgileDoc<sup>®</sup>

Software Lifecycle Management

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S Y S T E M S



# AgileDoc® SLC Documentation Management

## About AgileDoc®

AgileDoc is a Software Lifecycle (SLC) documentation suite. AgileDoc automatically generates documents from system source code, thus improving speed and accuracy while reducing cost and effort.

AgileDoc imports system source code into a change control database. Authorized users interact with AgileDoc through a secure web client. Users can query and browse system objects, and generate comprehensive reports including Functional Requirements Specifications (FRS), Detail Design Specifications (DDS), configuration documents and test scripts.

AgileDoc is particularly well suited to generating as-built DDS documents. Instant document generation eliminates one of the most time-consuming aspects of traditional documentation approaches, where advanced engineering resources spend countless hours creating word processing files and manipulating spreadsheets.

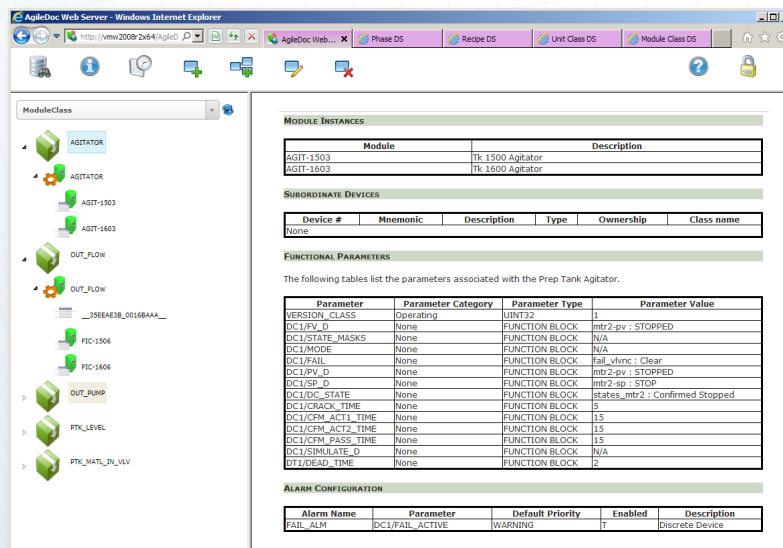
AgileDoc reports can encompass virtually every aspect of an automation system, including sequential logic, continuous logic, control and equipment modules, recipes, formulas, unit configuration and physical network layout. AgileDoc also generates control diagrams in a graphic format that lends itself to scaling and printing.

## Reduce Documentation Costs

AgileDoc drastically reduces the time and effort associated with generating and maintaining SLC documentation.

## Eliminate Human Error

AgileDoc automates tedious documentation tasks that are prone to error.



## Ensure Accuracy and Completeness

AgileDoc ensures that system documentation is always accurate, complete and up-to-date, eliminating audit risk.

## Eliminate Documentation and Code Discrepancies

AgileDoc eliminates discrepancies that may exist between design documents and the actual code, thus avoiding time-

consuming change control and review cycles. AgileDoc can also facilitate code review and the early identification of logical errors.

## Improve Collaboration and Code Reuse

AgileDoc's intuitive web client provides secure read-only access to users who may not otherwise have access to engineering workstations. Users can quickly inspect and compare control strategies associated with multiple systems.

Speed • Accuracy • Consistency • Reuse • Compliance • Collaboration

### Synchronize Control Strategies and Documentation

AgileDoc reads control strategies from process automation systems into an object database where version histories are maintained. Control strategies are organized and documented according to configured object models that correspond to the overall SLC methodology. The AgileDoc upload utility runs as a Windows service, and is well suited to automatically uploading periodic backups. Only changes are committed to the AgileDoc database.

### Web-based User Interface

Authorized users access AgileDoc through standard Internet browsers. Windows and application authentication are supported. AgileDoc can serve as an engineering portal, enabling users throughout a facility or enterprise to securely view control strategies and system configuration information in a format that is suitable for nonexperts.

Users can browse control strategies, view the relationships between various software modules, and generate reports on demand. The UI also enables the user to see the history of each software module.

### Fully Configurable Document Content and Format

AgileDoc incorporates a powerful reporting engine that generates documents conforming to site standards for style and content. Reports can be as simple as control diagrams and parameter summaries, or as detailed as step/action/transition descriptions. Documentation can be generated on the basis of a single object (e.g. phase, module, recipe), or span entire areas or other logical groupings such as unit classes.

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PTK\_LEVEL  
Module Class Design Specification

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SYSTEMS  
Date: 01-Oct-2016 00:00:00

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**MODULE CLASS DIAGRAM**

PTK\_LEVEL

**MODULE INSTANCES**

Module	Description
LIC-1504	Tk 1500 Level Ctrl
LIC-1604	Tk 1600 Level Ctrl

**SUBORDINATE DEVICES**

Device #	Mnemonic	Description	Type	Ownership	Class name
1	BLOCK1	Control Module Class	Embedded Module	SHARED	OUT_FLOW

**FUNCTIONAL PARAMETERS**

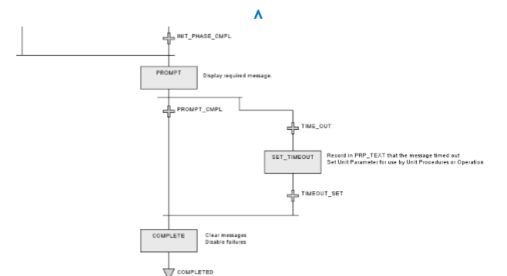
The following tables list the parameters associated with the Prep Tank Level Control.

Parameter	Parameter Category	Parameter Type	Parameter Value
FIC_404_PV	None	EXTERNAL_REFERENCE	N/A
VERSION_CLASS	Operating	UNIT32	1
PID1/CONTROL_OPTS	None	FUNCTION_BLOCK	control_opts
PID1/OUT_SCALE	None	FUNCTION_BLOCK	N/A
PID1/PV_SCALE	None		
PID1/OV_LO_LIM	None		
PID1/GAIN	None		

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SYSTEMS

Detailed Design Specification  
System - Building A123  
Message Phase (MESSAGE)  
Control System Name: DeltaV

11301-0214-0  
Revision: 0  
Issue Date: 22-Jan-2016  
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#### 6.1. Hold Logic

##### 6.1.1. Hold Logic Actions

Type	Name	Description
STEP	HOLD_LOGIC	
TRANSITION	HOLDING	Start HOLD logic Sequence Steps to DSP_FAILMSG
TRANSITION EXPRESSION		
TRUE		
STEP	DSP_FAILMSG	
ACTION	A1	Display failure message
DELAY EXPRESSION		
N/A		
ACTION EXPRESSION		
<pre>                 ^/#UNIT_MOD#/OP_MSG/MSG_TYPE.CV := 'a_msgtype:FAILURE';                 ^/#UNIT_MOD#/OP_MSG/MESSAGE.CV := "FAILURE - " + ^/FAIL_MONITOR/TEXT.CV;             </pre>		
ACTION	A2	Store failure
DELAY EXPRESSION		
N/A		
ACTION EXPRESSION		
<pre>                 ^/FRP_TEXT.CV := "FAILURE: " + ^/FAIL_MONITOR/TEXT.CV;             </pre>		

# AgileDoc®

AgileDoc automatically generates Software Lifecycle (SLC) documentation directly from automation system source code. Documentation is always up-to-date, complete and accurate, while the effort to create and maintain the documents is drastically reduced.

## AgileDoc® for DeltaV™

AgileDoc includes extensive support for the Emerson Process Management DeltaV Digital Automation System. A significant portion of document content can be generated automatically from DeltaV Control Studio output. Typical report content includes phase logic, control and equipment modules, recipes, formulas and unit classes. Generated documentation can include virtually anything that is available through Control Studio and Recipe Studio, in conjunction with meta data such as revision histories and text annotation that can be managed outside of DeltaV.

AgileDoc regenerates control diagrams including Sequential Function Charts (SFC), Procedure Function Charts (PFC) and Function Block Diagrams (FBD) in formats that are well suited to scaling, printing and editing in Microsoft Visio. Microsoft Office integration is further supported with a Word conversion utility.

## SPECIFICATIONS

4002	AgileDoc SLC Server Bundle <sup>(1)(2)(3)</sup>
4020	AgileDoc Configurator
4110	AgileDoc DeltaV FHX Parser
4011	AgileDoc Object Database
4051	AgileDoc Web Server
4111	AgileDoc SLC Instance License <sup>(3)(4)</sup>
4060	AgileDoc Office Utilities
4161	Word Conversion Utility
4162	Visio Diagram Generation

## EXAMPLE REPORT TEMPLATES

4210	Recipe DS Report Template
4220	Phase DS Report Template
4230	Module DS Template
4240	Module Class DS Template
4250	Module Instance DS Template
4260	Unit Class DS Template
4270	Control Network Configuration Template

<sup>(1)</sup>AgileDoc SLC Server Bundle license required per site

<sup>(2)</sup>AgileDoc SLC Server Bundle license includes the first Production DeltaV System

<sup>(3)</sup>License for a DeltaV development system is included in conjunction with the corresponding production system license.

<sup>(4)</sup>AgileDoc is licensed on a per-system basis. A license and corresponding database instance is required for each DeltaV database. An AgileDoc Instance can be installed on an existing AgileDoc Server to support an additional DeltaV system.

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2560 Ninth Street  
Berkeley, CA 94710 USA

121 Chanlon Road  
New Providence, NJ 07974 USA

1.908.918.0111 • [www.informetric.com](http://www.informetric.com)

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