



# ATMS Central Software

*Release Notes*

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# Table of Contents

<b>INTRODUCTION .....</b>	<b>2</b>
ATMS 2.4 RELEASE .....	2
ATMS 2.5 RELEASE .....	3
ATMS 2.6 RELEASE .....	5
ATMS 2.7 RELEASE .....	7
ATMS 2.8 RELEASE .....	9
ATMS 2.9 RELEASE .....	13
<i>ATMS 2.9.1 Release</i> .....	<i>16</i>

## Introduction

This document provides a brief description of the enhancements included within each new release of the ATMS central software.

### ATMS 2.4 Release

The following is a list of updates revisions and enhancements from ATMS2.2.

- Google maps available in Web.now module \*
  - Railroad pre-emption features
  - High-Resolution/Purdue Data Module \*
  - VIMOC parking integration \*
  - ATMS database performance improvements
  - Improved Purdue Log record inserting performance \*
  - Add Phase or Overlap selection on Purdue Coordination Diagram report
  - Setup Purdue coordination diagram report on ATMS.now client side \*
  - Export real time controller scan buffer for connected vehicle applications \*
  - Purdue Log Chart: show the start of green assuming all non-coordinated phases max out \*
  - Updated Google Maps performance and feature set, including the Google Map editor
  - Updated Bing Maps feature set including searching from Map.
  - Controller pushpin shows alarm status (different color and flashing) on Bing/Google map.
  - Scan Window and server status application (server activity, communication status and admin events) support multiple customer agencies.
  - Show controller time difference warning on the controller list view.
  - Show controller real time information such as TBC, local counter, pattern etc., on the map.
  - Ability to reset admin server from the client.
  - 33X Configuration Tool for V65 Controller Types
  - CUS168 and CUS169 spread sheet changes in filling in channels for V65 Controller Types
  - Ability for controller defined as offline are still being scanned for real time data
  - Camera Integration Ocularis\*
  - BBS integration
  - Various template changes/additions
  - Master pattern transfer
  - TR Master Email on pattern change
  - New Splits Report showing Force-off, Max Gap for each cycle
  - Wavetronics Integration with Centralized Traffic Responsive Masters\*
- \* Part of an optional module and not included with ATMS by default.

## ATMS 2.5 Release

The following is a list of updates revisions and enhancements from ATMS2.4.

- Added an ATMS Configurator Program residing on the server. It is used to configure various ATMS SQL database items, such as controller type list.
- Added ATMS Status Monitor to the Client window for users to easily view and verify if the Communications Server, Administrator, ATMS Web services (XIPC/IIS), Connected Vehicle and Synchro Green are running.
- New Upload Sync feature which allows StreetSync and Laptop Partner controller synchronizations to be selectively copied to the Permanent database and at the same time be archived.
- Added to the controller database Pattern Plus and Split Plus tabs text description labels for user reference. The labels will be displayed on the List view screen under the Pattern and Split Index columns.
- Various database template additions for V76 controllers to match missing or new fields that were added to version 76\_13x and higher. Parameters such as TS2 Det Faults, High priority Preemptions 7-12, new preemption parameters, Alternate Phase option parameters, Peer Programming, I/O Logic Peer sourcing, etc. were added.
- Added Version 80.x Controller Type Definitions and associated templates.
- Added setting in Controller Definitions to define the Firmware OS Type for ATC or 2070-1C (Linux) or 2070-1B (OS9) hardware for FTP connections.
- Added new CSV export Report to allow CSV files to be created by the user for volumes or Splits. This file can be readily opened in Excel for customized agency use.
- Added a Purdue Split Monitor report featuring the Purdue split monitor diagram
- Enhanced the Purdue Coordination diagram report, creating a report for all phases and adding a Metrics table. In addition a single diagram and per phase Report mode was added.
- Added the Day Plan Report under the Database Utilities section. This utility allows the user to select multiple controllers and view their day plans side-by-side to assure that intersections are lining up with coordination schedules.
- Migration of reports from Crystal reports to Dev Express reports. In particular Field Alarms, Purdue Reports, and Split reports now use this new report mode and format.
- When defining a new Ethernet type controller, enhanced validation testing has been added. Each controller must have a unique ID, IP address and Port number combination or it will not be defined.
- Scan screen status icon reflects signal in Automatic Flash
- Added Flashing Icons on Map view
- Added Transit signal Icons added to Map view
- Excel Template changes for NYSDOT customized sheets
- Added GIS to Bing Map Icon Conversion Tool in the ATMS Configurator to resize icons as per agency preferences.
- Real-Time status report now available via List view
- On List view, the user can now sort the revision number by numeric order, not alphanumeric order
- Database Compare will now display all tabs with differences
- Various Database Conversion Utility bug fixes and enhancements including using same controller ID in conversion process.

## ATMS Central Software Release Notes

- Various ATMS Proxy services enhancements and Bug fixes.
  - Various Bing Map and Google Map enhancements and Bug fixes.
  - Various Admin SQL, XIPC and IIS Enhancements and Bug fixes including new pipeline enhancements to handle queued requests.
  - Various Database Conversion Utility bug fixes and enhancements including using same controller ID in conversion process.
  - Enhanced Error logging for Technical Support personnel to assist customers with issues.
- 1.
- Various Web.now module enhancements and bug fixes.\*
  - Wavetronics Integration with Centralized Traffic Responsive Masters\*
  - Integration of Wavetronics Real Time data via FTP from Wavetronics Service Provider\*
  - Bing User Interface for Wavetronics devices\*
  - Connected Vehicle Module Interface including Publisher, Provider and Subscriber modules\*

\* Part of an optional module and not included with ATMS by default.

## ATMS 2.6 Release

The following is a list of updates revisions and enhancements from ATMS2.5.

- Added Connected Vehicle Module including all interface screens. This module provides controller status data to remote subscribers \*
- Added Parking Module including all interface screens. This web based module interfaces with the Cubic/Trafficware Pod detector system to managed parking spaces in an agency selected lot. \*
- Added Center to Center (C2C) integration which establishes a link between two or more ATMS.now Central System for the purposes of exporting Traffic Responsive patterns from one system to enact a trigger event on the other. \*
- Added Signal Performance Measures (SPM) data integration with the SPM website hosted by Cubic/Trafficware as a Cloud solution. \*
- Integration with LADOT ramp meters via third party software by Delcan \*
- Various enhancements and bug fixes in Web.now module. \*
- Various Admin, SQL, XIPC and IIS Enhancements and Bug fixes.
- Various Bug fixes with Bing Map controller definitions
- Various ATMS Configurator and licensing enhancements. This includes a way for the user to view which modules are currently licensed by the agency.
- Added feature in Client Login to allow logging via Host name.
- Enhancements to the Comm server Status screen
- Controller ID enhancement to allow programming of ID's up to 65535.
- Added new On Demand Full Status Scan and On Demand GYR Scan ability typically used for serial controllers.
- Enhancements to the High resolution module including new reports and SPM integration. \*
- Continued Migration of Crystal Reports to the Dev Express report platform.
- Various bug fixes with specific reports including Split reports.
- Added a new report named CSV Export that will export the entire Local Vol/Occ or Split databases to an Excel or a Text file.
- Diagnostic enhancements to disallow downloading of blank or non-existing (deleted) database files
- Diagnostics enhancements to alert the user if an uploaded database has improper or blank data.
- Selected Details Alarm Screen bug fixes

## ATMS Central Software Release Notes

- Added new alarm infrastructure for Preemptions 7 thru 12 for the Detail pane and the Reports.
- Enhanced screen modifications and bug fixes on the Day Plan Report Utility
- Added a new database Edit categories selection of Controller Menu to display the parameters and data in the same order as it is on the controller.
- Added Various V76 and V65 new and missing parameters to database edit screen
- Added Local and Master V41.x controller types including definitions and editing screens for CTDOT.
- Added the Controller ID # to the name field list when editing multiple databases on the database edit screen
- Added Special database names labels to the database editing and view screens
- Added List view and database template screens sorting enhancements including true numerical sorting on alphanumeric columns.
- Diagnostics to alert the user when a field master controller is deleted that there are subsystem locals assigned to it. This will allow the user to modify the Master Field on the configuration definition of each local.
- Turn Phase/Direction configuration Bug fixes
- Time Space diagram enhancements including anchored time scale and access of historical split data from the Archived Split reports.
- Scan screen enhancements including changing the Online status icon to reflect the same status as from the list view

\* Part of an optional module and not included with ATMS by default.

## ATMS 2.7 Release

The following is a list of updates, revisions and enhancements from ATMS2.6.

- Blue Toad Integration on Bing Map to show travel time, current speed, historical speed, and speed limit. \*
- The user has the ability to define which devices are displayed on the Bing Map at specified zoom levels.
- Connected vehicle module stability improvements \*
- Cubic/Trafficware SPM Cloud Service Integration\*
- Ability to define presets on Bing Map display
- Ability to define which devices are displayed on the Bing Map at specified zoom levels.
- Continued enhancements to v76 2070 edit database functionality. This includes a new user setting that allows the user to display the edit screens data in the same order as is displayed in the controller.
- Time Space Diagram allows the user to change the offset and save it to the controller database.
- Time Space diagram allows the user to print out the diagram
- Database template modifications to accommodate 5 digit subsystem controllers for versions 76 and 61.
- Continued conversion of reports from Crystal to DevExpress.
- Scan Screen stability improvements.
- Bing Maps stability improvements including scaling of Push-pin icons..
- Implemented camera tour functionality for those agencies that do not have IV&C type cameras in the CCTV module. \*
- Reports Module enhancements / issue resolutions including:
  - Resolution of I/O Logic printing issues in database reports.
  - Volume/Occupancy per day / Multi day issue resolution
  - Volume/Occupancy In/Out per Day and Multi day issue resolution
  - Volume/Occupancy by Lane Report issue resolution.
  - Turning Movement Volume Report issue resolution
  - Volume/Occupancy Report issue resolution
  - CSV Export Report Splits data enhancements
  - Turning movement volume graphic report enhancements.

## ATMS Central Software Release Notes

- Edit Database enhancements / issue resolutions including:
  - Column persistence issue resolution.
  - Updates to Overlap B+, Coord Param+, Unit Param, Phase Option Alt Tables.
  - Vehicle Dets and Event Schedule Export data issue resolutions
- Added User specified Reason for doing a download on database download screen
- Column persistence issue resolution in List View
- Conversion tool issue resolution

\* Part of an optional module and not included with ATMS by default.

**ATMS 2.8 Release**

The following table lists updates, revisions and enhancements from ATMS2.7.

#	ATMS 2.8 Features	Comments
	<b>Key Features</b>	
1	ATMS-Synchro Integration	Added a direct connection between ATMS.now and Synchro 10.2 users which enables seamless importing and exporting signal timings from/to either side. Supports v61, v65, v76 and v80 controller software
2	Alarms Dashboard	Added the monitoring and analysis of alarm activations and durations in a new application. A new category in Home module, named Analytics, was added along with a new icon. The Dashboard has the ability to visually display alarm related data concerning the number of activations or duration of alarms. (Please note that Duration was not calculated automatically before in ATMS Field Alarms report)
3	v80 2070 Integration	The complete integration of v80 2070 controller software and its advanced features into ATMS.now. This includes adding all V80 parameters, the parameter naming aligns with the controller, the order of parameters matches the controller and the ATMS.now reports will support the data from new v80 2070 devices.
4	Static/Dynamic Timing Sheets	Added user configurable Timing sheets along with the selection of individual categories, tables, and parameters. Added the ability to save a template with favorite selections per controller type and reuse them at a later time.
5	Peer-to-peer communication status for v80 2070 controllers	The Scan Screen has new tab with Peer-to-peer details
6	90 days Vol/Occ for v80 2070 controllers	V80 controllers will store detector volume/ occupancy data for a minimum of 90 days and ATMS uses this new process to extract that data. It can work with Cubic/Trafficware software on other vendor's processor cards by using FTP, SCP or SCP secure data transfers.
7	Reports Modifications	The TMC reports use correct intervals. The LOS reports are created in Dev Express and show ID and Name. The warning is displayed when thresholds are not set up for the proper Detector Failure Report thresholds. The Headers in the Volume / Occupancy report show volume or occupancy depending on what is selected.
8	Four New Ethernet Status Comm Reports	Daily and multi-day graphs and table reports showing if Ethernet capable devices are responding per user selected threshold.

## ATMS Central Software Release Notes

#	ATMS 2.8 Features	Comments
9	Time-Space Diagram Modifications	Creating Time-Space diagrams by selecting controllers of different types is enabled again. Issues with the wrong offset values when the starting time has been changed is now resolved. TS diagrams can now be printed.
10	EDI CMU 2018KClip and CMUip212 support	Integration by launching ECCOM (EDI's software) after user double-clicks a CMU icon on the map.
11	Added subtract detectors concept	Introducing a new group of fields in the Edit Turn Phase Movement Definitions whereas the user will be able to specify detector number whose actuations will be subtracted from some another detector's or set of detectors actuations. Replaces subtract from left/right feature from earlier versions of ATMS
12	Bike and Rail scan elements added to Bing Maps	New scan elements that can be tied to controller channels and show signal indication status.
13	Strong Password enforcement is introduced	When creating new users, password has to satisfy certain criteria: be between 8-15 characters long, have at least one capital letter, at least one number and at least one special character.
14	Detaching allowed	The Details Pane and all its tabs can individually be detached and used as a separate window.
15	A button to revert column order in the List view to default is added	In case the has user rearranged the column order in list view and wants to revert to the default list view settings, only one click on "Reset Column Order" button is necessary.
17	Alpha FXM 2000 UPS (BBS) device is integrated in AMTS	Part of the Alpha Module. The map view and definitions module now uses the updated device type that supports both the existing FXM 1100 type and newly added FXM 2000 type BBS devices.
	<b>Additional Improvements and issues that have been addressed</b>	
18	Low priority Preemption data editing enhancements	Preempt LP shows "TRANS" selection instead of a "3"

## ATMS Central Software Release Notes

#	ATMS 2.8 Features	Comments
19	UDP port number for Peer-to-peer shows correctly	UDP port number for Peer-to-peer is now displayed correctly in various database templates.
20	Web.now module enhancements	Always keep camera image (video) on top of the screen in front of ATMS.
21	Coordination Diagnostics bug fixed	Repaired Coordination Diagnostics calculations so that it does not show errors every time it is run
22	Database Lock User feature modifications	Issue resolved where a user was allowed to edit a database when another user was editing it at the same time. Once a database is locked, other users are locked out until the editing is completed by the original user.
23	Communications Failure/ Communications Restore alarm reporting modifications	Eliminated multiple communications restores that were being reported after a failure.
24	V76 controller database template enhancements	DSRC, Host and External Patterns parameters are included in the V76 controller database programming screens.
25	Navigation through Edit Database for v80 2070 controllers by using controller menu numbers	Tabs in ATMS Edit database screen can display numbers that are necessary to be pressed on the controller keyboard to reach a specific menu. Tabs are organized in ascending order.
26	Database Comparison report enhancements	The Database Comparison report has been converted to a Dev Express report
27	Volume / Occupancy per Lane report enhancements	The Volume / Occupancy per Lane report now shows totals and percentages in the summary at the end of the report
28	Report selection menu modifications	Resolved issue such that when the "Reset All" selection is pressed in the Reports selection window, all categories will reset
29	Volume/Occupancy Report resolution enhancements	New aggregation interval of 5 minute has been added for the Volume/Occupancy Report (formerly the resolution interval was 15 minutes).
30	Transit Priority Report Modifications	This report is converted to Dev express. In addition via the selection menu, the user will be able to generate a report not only per controller but also per Flex Group.

## ATMS Central Software Release Notes

#	ATMS 2.8 Features	Comments
31	User Login and Transactions report modifications	User Login and Transactions reports have been converted to Dev Express
32	Congestion line mapping enhancements	This includes the ability for the user to change the directions of congestion lines manually. The user can also change the properties, and change the original direction that was automatically assigned by ATMS to whatever the user needs. In addition a real-time dialog box will appear if the user has 2 congestion lines utilizing the same direction.
33	Congestion level threshold validation modifications	Validation of congestion threshold programming. For Example Occupancy has a value range of 0-200, Speed 0-100 and Volume 0 - not limited. Also, there is a validation that does not allow user to enter a larger value for Medium compared with High congestion.
34	Scan Builder for GIS bug fixed.	Users will be able to create and edit scan elements again.
35	Alarm definitions have been updated	Various alarms have been validated with the controller alarms.
36	Windows Authentication log-in	ATMS recognizes the user by his Windows credentials so user does not have to insert username or password to log in to ATMS in that case
37	V61 template modifications	Blank Categories from the v61 template are removed as well as Duplicate references

**ATMS 2.9 Release**

The following table lists updates, revisions and enhancements from ATMS2.8.

#	ATMS 2.9 Features	Comments
	<b>Key Features</b>	
1	Data segregation per jurisdictions is completely implemented	Jurisdictional associations for data the database tables and data displayed on the client have been implemented. These displays and tables include: Recent Alarms, Alarm History, Current Alarms, Copy database, Upload (Streetsync) Sync, Database Conversion list, Controllers via Bing maps, GIS maps, Alarm Notification, Group, Flex Group, Offline List, Incident Trigger, Scheduler lists (by controller, by flex group, by group) Controller List in reports (both Crystal and DevExpress), and the Saved Criteria for reports now consider jurisdictions, In addition the controller list in SynchroGreen now consider jurisdictions.
2	The Device List has been updated	Via the Definitions module, the device list displays status, device type, latitude / longitude, last date/time of when the device was communicating successfully and the number of successful pings vs number of communications attempts per hour. The list can be sorted per each column.
3	Movement labels added to the Reports->Database-> Timing Sheet ATC v76 report	
4	Server IP addresses will no longer be used in email titles	Instead, customers can configure the email title in the SQL database
5	Reason for download is displayed in the list of archived databases	
6	New Tab for High Res files status added	The original SPM module tab has been replaced by the High-Res tab on the ribbon bar. Inserted the new Icon and this sub tab shows all the signals that are uploaded to the cloud with the last file name and the timestamp that the data was retrieved form the controller. Added High-Res Status action: The High-Res has a new Icon and this sub tab displays the Last file name and the Interval that the signals are uploading from the Purdue service.
7	An updated DevExpress command bar is integrated in the Reports Module	In addition, the command bar stays visible even when user scrolls to the bottom of the report page.

## ATMS Central Software Release Notes

#	ATMS 2.9 Features	Comments
	<b>Key Features</b>	
8	New Intersection Layout configuration tool and features have been introduced	A new User Interface (UI) and a new workflow has been introduced. This UI and workflow describes the intersection by creating movement, phase, direction and congestion definitions. The UI's data model supersedes and is completely changed compared to Turn Phase Movement Definitions. This new model has additional data points that are now available. IN addition, a tool has also been built to run the conversion of the existing Turn Phase movement data and Scan Element data for existing customers to this New Intersection Layout format. The updated intersection layout data will be used in various reports, Time-Space diagrams, congestion reports and congestion thresholds, timing sheets and editing database movements. Scan elements will be generated and populated automatically after the Intersection layout is saved. Users can define templates and load them to intersections where the layout has not yet been set. Each lane/movement can be optionally displayed on the map as per the user's preference. New data points will become available to the subscribers using the Connected Vehicle (CV) and the TidalWave modules. A new icon available in the configuration section or via a right click when selecting an intersection in the list view or the map view.
9	All device and event icons are now scalable on Bing Maps	Bing Maps only, Scalability is not available on GIS or Google maps.
10	Excel Export txt file now has unique names for every parameter	The advantage is that once each parameter name is modified, the Excel Export will become resilient to device template modifications since position of a parameter is irrelevant if names are unique (always search the entire range of data). Work will continue on changing the Excel template parameters to the new names.
11	Device type icon size can be modified on the Maps	
12	The Scan element Properties window has been modified with new features.	The sequence and priority fields allow user entry of numbers in addition to moving the slider bar. Additional display data for Arrows, Ped Man, Ped Hand and Detectors symbols has been added to reflect the data defined in the Intersection Layout configuration screen.
13	Additional Scan elements have been created	Bike, No Left Turn, No Right Turn, U-turn, sharp left, sharp right, U-turn + Left turn, Left-Thru-Right, and Left & Right symbols have been added.
14	Pattern Purpose and Pattern Description fields have been added to Edit Database Pattern Plus tab	<p>For Pattern Purpose , a string text selection has been added. This includes: Not Assigned, Free, TOD Coordinated, Traffic Responsive coordinated, SynchroGreen Coordinated and Other.</p> <p>For Pattern Description, a String text selection has been added. This includes: AM Peak, PM Peak, Midday, Off Peak, Traffic Responsive, SynchroGreen Traffic Adaptive, Special Events, Evacuation and Other.</p> <p><b>Note: Pattern Plus category description changes, "Pattern Name, Pattern Purpose and Pattern Description" are not displayed in StrestSync due to specific database differences.</b></p>

## ATMS Central Software Release Notes

#	ATMS 2.9 Features	Comments
	<b>Additional Improvements and issues that have been addressed</b>	
15	Time-Space Diagram Fixes	After changing the start time of the Time-Space diagram the offset value will not change. The Invalid Link Information error has also been resolved.
16	The Print/Export issue under the "Vehicle Detection" menu has been resolved	
17	The Advanced Schedule tab - printing issue has been resolved	
18	Every other blank row in the exported excel file for reports has been removed	
19	The calculated Red time in the Transit Priority report is reporting accurately	The calculated value is not getting rounded to lower decimal value which was the cause of the inaccurate data.
20	Conflict between User Group and User IDs resolved.	When creating a new User Group from another User Group and using the ID of a User, the User was deleted from the system. There is no warning that ID is already in use so the deletion occurred. This is now resolved.
21	Signal name not truncated anymore on the right side of Edit Database screen	If the user enters a long name under the controller definition, the name was truncated. When the user hovers over the controller name with his mouse, then the complete name of the controller is displayed using the tooltip.
22	Database Comparison report displays entries chronologically	When user modifies the size of one device icon, all devices of that type will be affected at the same time.
23	Fixes in Dynamic timing Sheet	Includes the Day Plan category which was added for the v76 2070 controller type. In addition, the Enable Alarms and Enable Events tabs have been expanded to be easier to read.
24	Data from v61 controllers are now enabled in TidalWave.	
25	Resolved issue with creating the Exchange Folder for the ATMS/Synchro Integration.	The folders will be successfully created and an email will be sent to the user.
26	Number of channels for a v76 controller has been modified	v76 controllers display 24 channels

**ATMS 2.9.1 Release**

The following table lists updates, revisions and enhancements from ATMS2.9.

#	ATMS 2.9.1 Features	Comments
	<b>Key Features</b>	
1	Scout Controller Type	A v85 Scout controller type has been introduced
2	Scan Screen additions	A Channel as a parameter option in the dropdown is added for Arrow, Ped Crossing (Ped Man or Hand-Do not Walk) and the detector scan elements.
3	Parking Module	A new feature has been added for the ATMS Parking module where user can set up a parking facility to automatically receive updates from pods or to manually declare that the parking facility is open or closed.
	<b>Additional Improvements and issues that have been addressed</b>	
4	Time Space Diagram Enhancements	The speed on the outward facing approach for the first and the last intersection of a corridor does not need to be defined in order to generate Time-Space diagram.
5	Time Space Diagram Enhancements	The errors with generating link and arterial bands in Time-Space diagram when cycle lengths and offsets are changing have been resolved.
6	Volume report Enhancements	Volume related reports have been updated to not show values when no data has been received and to show "0" values only when a received value is zero.
7	V76 Database Template additions	New parameters related to Flashing Yellow Operations have been introduced in the database editor for v76 controller types.
8	ATMS-Synchro Enhancements	The databases of v76 2070 type controller can be exported via Enhanced ATMS-Synchro Integration
9	Database Configuration Enhancements	The Database Configuration dropdown has been expanded to show archived database names in its entirety.

## ATMS Central Software Release Notes

10	Reports Module Fixes	The appearance of duplicate entries from Detector failure, volume/occupancy and database comparison reports have been resolved.
11	Field Alarm Report document generation	Field Alarms report generates the document when large majority of alarms are selected manually from the list
12	Synchro Time interval Changes	The correct time intervals for export of volumes to Synchro via UTDF are being used (previously offset by one) and "60 Minute Counts" is added to reflect that ATMS will always export data for 1 hour. If a user selects shorter or longer period of time than 1 hour, the data will be averaged or extrapolated as needed.
13	Connected Vehicle Module Fixes	After editing the subscriber in CV module, a user will be sent back to the list of subscribers and not the main menu.
14	Archive Database Fixes	The issue with loading of Archived databases for controllers has been resolved.
15	Volume/Occupancy report Enhancements	The controller Names are ordered alphabetically in the Volume/Occupancy report.
16	Selected Details Notes Fixes	Notes entered by users will not be repeated multiple times, and in case they are deleted, the system notes will automatically disappear from all clients.