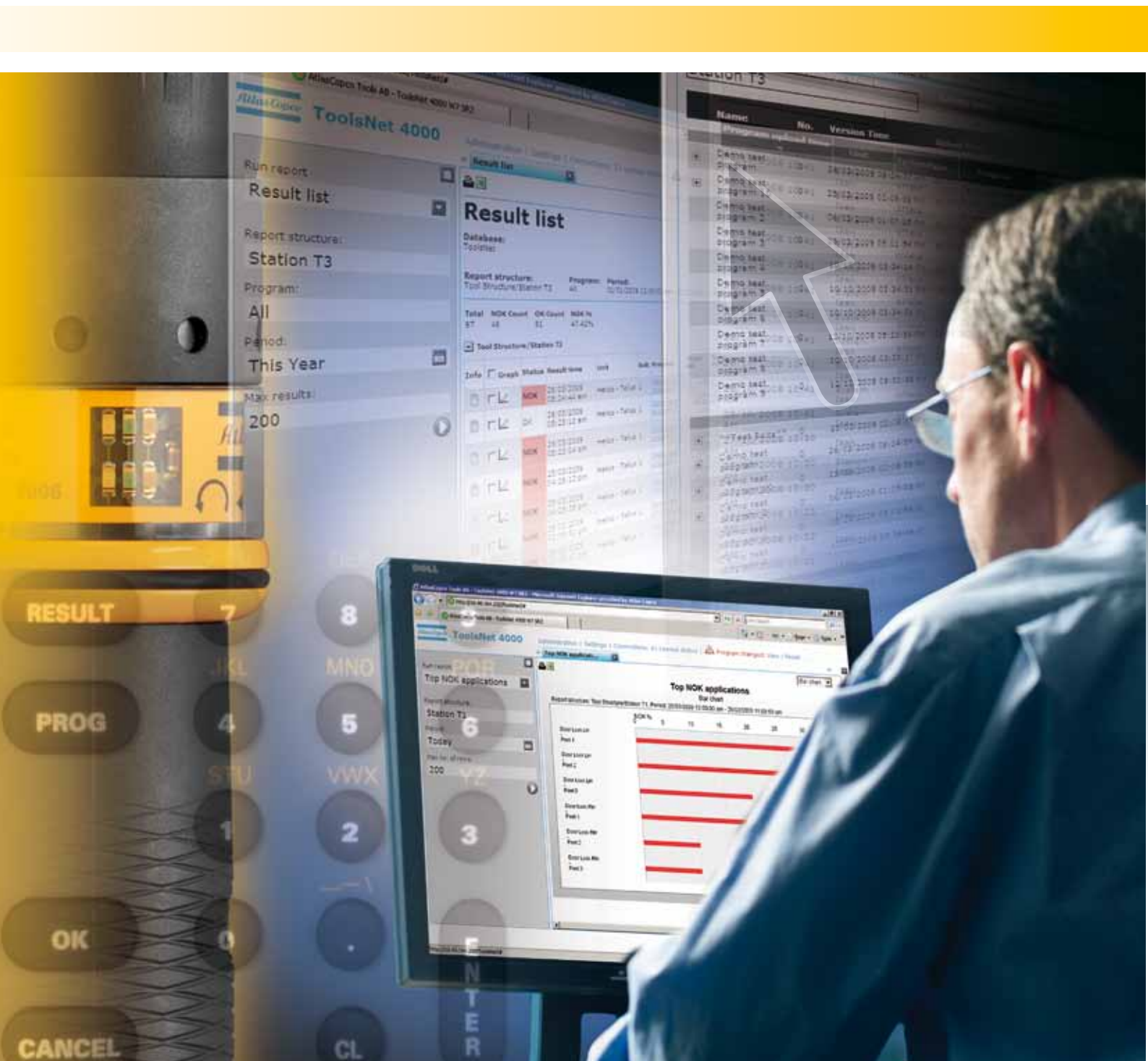


ToolsNet 4000

Process monitoring and analysis software



ToolsNet 4000

Continuous process improvement, major productivity gains

Fewer reworkings, higher end-product quality and maximum uptime on your assembly line. These are just some of the many benefits offered by the new ToolsNet 4000 process monitoring and analysis software. With its impressive new features, this state-of-the-art productivity package will enhance your capability to monitor, document, analyse, and continuously improve the tightening process on your assembly line.

Already working with ToolsNet 3000?

ToolsNet 4000 process monitoring and analysis software is based on the highly successful ToolsNet 3000. Take a look at the exciting new upgrade described in this brochure, and you will want to migrate to the next generation, ToolsNet 4000.

Networking has never been easier

ToolsNet 4000 provides data collection for all electric tools and pulse tools using Power Focus controllers, Power MACS and STwrenches.

ToolsNet 4000 makes local plant floor data visible globally using standard Internet technology. Important production information can be accessed by production managers and QA engineers working daily with quality control of the tightening process on the assembly line.



TOOLS NET



Install ToolsNet 4000 in one location – quickly and easily

Forget the time-consuming process of installing software on every computer. Install ToolsNet in just one place – on your server. The web interface in the server allows you to access the data simply using Microsoft Internet Explorer or Mozilla Firefox.

Connect Power Focus and Power MACS to the server with standard Ethernet cabling and standard network components, such as Ethernet hubs and switches.

Choose the best format for your environment

ToolsNet uses the worldwide database formats Microsoft SQL or Oracle. The standard database format also allows

you to create your own customized reports in addition to the pre-formatted reports in ToolsNet. The communication from Power Focus and Power MACS to ToolsNet is secured by TCP/IP protocol, as used on the Internet.

ToolsNet 4000: structure

After installing ToolsNet in the server, just set up all your controllers to point to the ToolsNet server and all tightenings will be stored. Any user connected to the network can access ToolsNet by typing the IP address of the server in his Internet web browser. STwrenches can also be connected to ToolsNet network using wireless connection.

ToolsNet 4000

Functionality overview

Features	ToolsNet 4000 Reports	ToolsNet 4000 Alert	ToolsNet 4000 History
ToolsNet open protocol supporting data collection from production equipment	x	x	x
Admin interface for hiding of old controllers	x	x	x
Delete maintenance of results	x	x	x
Result storing	x	x	x
Result list.	x	x	x
Result details. Table view including step information from PowerMACs	x	x	x
NOK summary. Table view.	x	x	x
Admin interface for custom groupings of controllers	x	x	x
Table export to Excel from all reports	x	x	x
Reporting based on custom grouping(s)	x	x	x
Trace storing	x	x	x
Support for multiple databases from same user interface	x	x	x
Scheduled export of data from production to long term database	x	x	x
Result list	x	x	x
NOK summary. Chart view.	x	x	x
Product summary report	x	x	x
Product list report	x	x	x
Product details report	x	x	x
Top NOK applications. Table view and chart view.	x	x	x
NOK trend per day. Table view and chart view.	x	x	x
Cp/Cpk report. Table view.	x	x	x
Trace reports - overlay multiple traces from different bolts.	x	x	x
Error distribution report	x	x	x
Unit change history	x	x	x
Email events to organization		x	x
Delete maintenance of events		x	x
Event list		x	x
Event statistics		x	x
Program change alert			x
Program change admin features			x
Admin interface for storage of safety critical / non safety critical joints			x
Program change summary			x
Program details			x
Program compare feature			x

Total



The right solution for your needs

ToolsNet 4000 has been developed to suit different assembly lines with different needs.

Reports Production / Quality

The first step in achieving traceability is to collect all tightening results and store them in a secure system for post analysis using reports to improve the process.

Alert Production / Quality / Service

To become more productive and efficient, use events generated by the controllers and notify the right person at the right time by triggering e-mail or SMS.

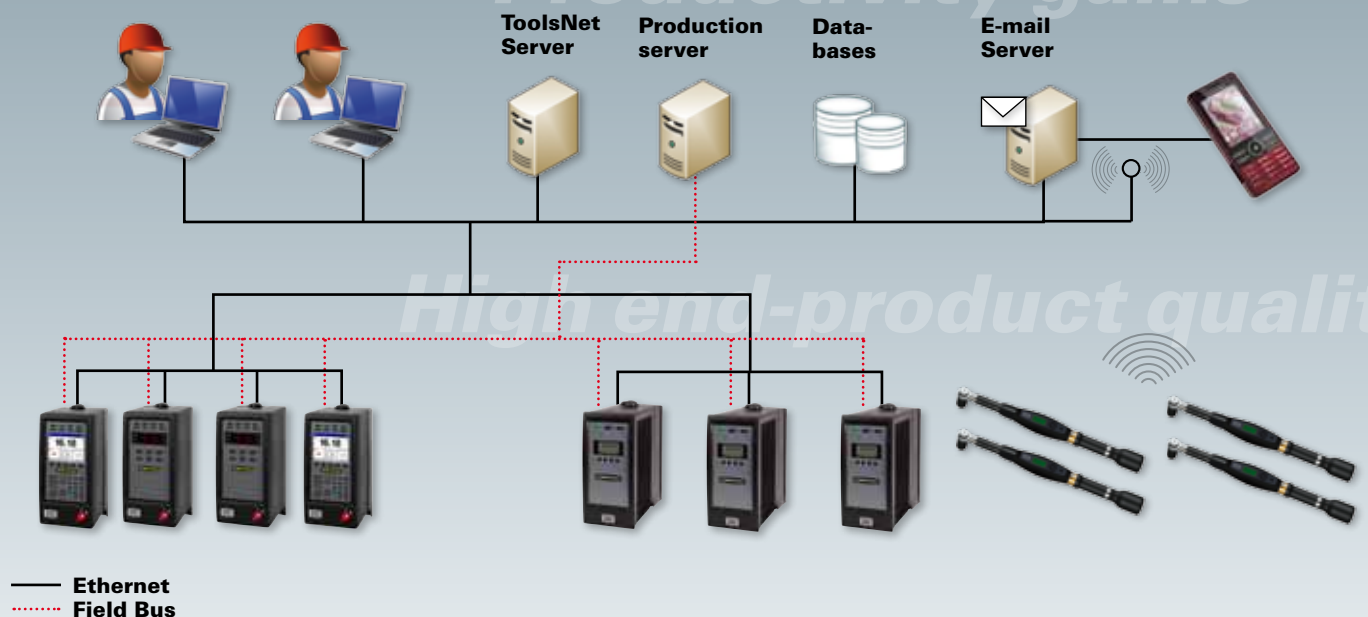
History Production / Quality / Service Development

Further analysis can be carried out by monitoring the changes made in the tightening programs, making it easier to keep track of the changes.

System overview

Productivity gains

High end-product quality



process transparent

Main features

1. Grouping gives an optimum process overview

Assembly lines are usually divided into cells and stations according to the assembly process. Using ToolsNet 4000 Admin access you can easily group controllers in different folders, like using Windows Explorer. If a controller is replaced, instead of deleting it from the group, you simply hide and unhide it, keeping all its results traceable.

2. Tracking program changes reduces production problems

Every change in the programs of Power Focus or Power MACS will send an alert to the users by flashing one top icon on the ToolsNet screen. The icon will stop flashing when it is reset by the administrator who can approve or not approve the change. A program change report can be generated later to see if any not approved program is still running.

3. Reports from different databases in one single web interface

Although all tightening results are stored in the ToolsNet database, sometimes you need more than tightening results to complete your analysis. ToolsNet 4000 has the capability to present reports from different data sources in one single web interface. This makes it possible to access multiple production databases, multiple archive databases and any other database in your network.

4. Generate customized reports using structure selection

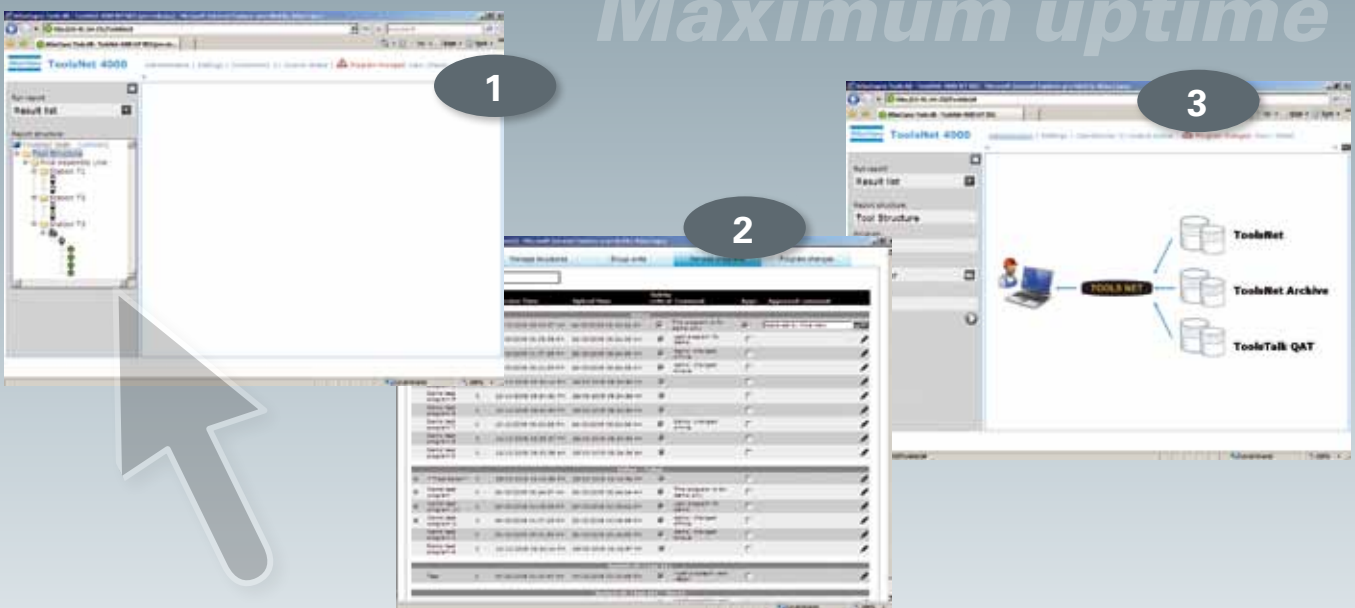
Customized reports can be generated by choosing different structures (lines) and/or folders (cells) and/or sub-folders (stations). In case of a day report of the complete production line, select the complete structure. If a problem is found in a specific station, select only that folder and see its specific results.

5. Advanced filters save time and reduce your work

Reduce your work by filtering the results with period (start and end date and time), barcode/ID, maximum results and minimum and maximum torque, angle and program. Save time and effort searching for specific results in the database with all the tightening data.

6. Tailored reports help you find information faster

All assembly lines perform thousands of tightenings per day. Looking for a specific tightening is not an easy task and can be very time consuming. For this reason, ToolsNet 4000 comes with several reports ready to be used. These reports were carefully developed to help quality, production and service technicians to find the correct information faster with better visualization.



Maximum uptime

ToolsNet previous users will easily adapt to the new and improved interface

ncy with ToolsNet 4

7. Long-term traceability minimizes recall costs

Production can be followed in real-time or monitored through different reports. The Product Summary report and Product List provide information on every tightening related to a specific product. In the event of warranty recalls, ToolsNet 4000 provides access to critical information which can minimize the extent of any recall.

8. New user interface

- Flashing top icon notifying program changes
- Reports shown on tabs for easy visualization
- Advanced features for traces visualization
- Summary of all connections and messages in the system

9. Instant events in your e-mail

Increase productivity by discovering problems earlier or identify possible future problems by sending emails according to the event type registered in the controllers. The relevant personnel – production, quality, or service – can be notified of the event immediately by e-mails or SMS messages to their cell phones.

There is no need to wait until the end of the day or for the report to be generated to find the problems in your assembly line. Be informed in real time and take immediate action. Save time and money!

Get even more!

Simple distribution of reports

Export all your reports to Excel.

Detailed tightening information

Get all information including traces.

Traces analysis

Overlay multiple traces selectively.

Store every tightening

Individually numbered tightenings.

Store tool information

Every tightening stored with the tool serial number.

Store your product ID/VIN number

Store ID/VIN number with every tightening.

ToolsNet Open Protocol

Allows other controllers to report.

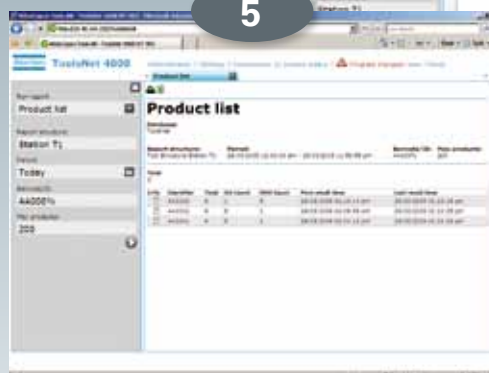
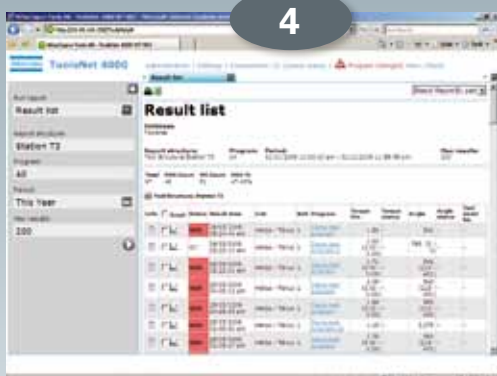
Redundant data collection

Controller memory stores data locally in case of temporarily lost network.

Client/server solutions

Unlimited number of users.
Well-proven technology and products.

Fewer reworkings



interface. It was developed to make their work much easier and faster.

4000

ToolsNet – Process improvement Pre-formatted reports in web browser

Result list report

One row for each result that has been reported from the connected controllers.

Product summary report

Summary of products with OK and NOK rate per product identifier.

Product list

List of produced products with OK and NOK results per product identifier.

Event List

One row for each event that has been reported from the connected controllers.

Top NOK applications

Top-down summary of NOK rate per application, either as graph or as a data table.

NOK summary

Summary of NOK for the controllers in the line segment during a specified period.

NOK trend per day

Trend of NOK for the controllers in the line segment for a specified period.

Cp and Cpk report

Result summary for the combination unit, bolt and program that shows calculated Cp and Cpk values.

Program change summary

Program name, unit, date/time of change and comments if program has been approved or not.

Result overview

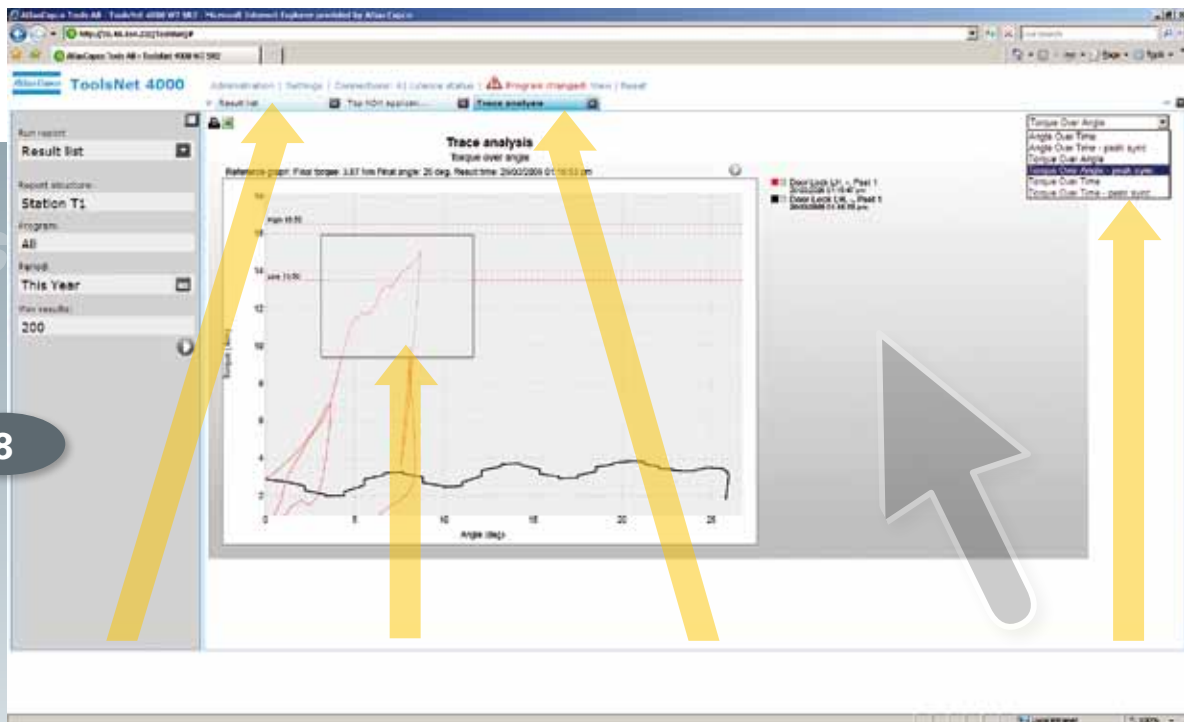
Applications, programs, number of results and products filtered by final torque and/or angle.

Product and station overview

Stations/units results grouped by product identifier.

Unit change history

Name changes for units and where in the reporting structure they are currently connected.



8

Reports shown on tabs for easy visualization

Advanced features for traces analysis

Connections, license status and flashing icon notifying program changes

Different torque analyses, e.g., Torque Over Time

ToolsNet 4000

Ordering numbers

New Version	Ordering Number	Upgrade W05-W07 Version	Ordering Number
ToolsNet 4000 Reports		ToolsNet 4000 Reports Upgrade*	
05 Spindle License	8092 1410 05	05 Spindle License	8092 1510 05
10 Spindle License	8092 1410 10	10 Spindle License	8092 1510 10
25 Spindle License	8092 1410 25	25 Spindle License	8092 1510 25
50 Spindle License	8092 1410 50	50 Spindle License	8092 1510 50
75 Spindle License	8092 1410 75	75 Spindle License	8092 1510 75
125 Spindle License	8092 1410 80	125 Spindle License	8092 1510 80
200 Spindle License	8092 1410 85	200 Spindle License	8092 1510 85
350 Spindle License	8092 1410 90	350 Spindle License	8092 1510 90
500 Spindle License	8092 1410 95	500 Spindle License	8092 1510 95
Plant License	8092 1410 00	Plant License	8092 1510 00
ToolsNet 4000 Alert		ToolsNet 4000 Alert Upgrade**	
05 Spindle License	8092 1411 05	05 Spindle License	8092 1511 05
10 Spindle License	8092 1411 10	10 Spindle License	8092 1511 10
25 Spindle License	8092 1411 25	25 Spindle License	8092 1511 25
50 Spindle License	8092 1411 50	50 Spindle License	8092 1511 50
75 Spindle License	8092 1411 75	75 Spindle License	8092 1511 75
125 Spindle License	8092 1411 80	125 Spindle License	8092 1511 80
200 Spindle License	8092 1411 85	200 Spindle License	8092 1511 85
350 Spindle License	8092 1411 90	350 Spindle License	8092 1511 90
500 Spindle License	8092 1411 95	500 Spindle License	8092 1511 95
Plant License	8092 1411 00	Plant License	8092 1511 00
ToolsNet 4000 History		ToolsNet 4000 History Upgrade***	
05 Spindle License	8092 1412 05	05 Spindle License	8092 1512 05
10 Spindle License	8092 1412 10	10 Spindle License	8092 1512 10
25 Spindle License	8092 1412 25	25 Spindle License	8092 1512 25
50 Spindle License	8092 1412 50	50 Spindle License	8092 1512 50
75 Spindle License	8092 1412 75	75 Spindle License	8092 1512 75
125 Spindle License	8092 1412 80	125 Spindle License	8092 1512 80
200 Spindle License	8092 1412 85	200 Spindle License	8092 1512 85
350 Spindle License	8092 1412 90	350 Spindle License	8092 1512 90
500 Spindle License	8092 1412 95	500 Spindle License	8092 1512 95
Plant License	8092 1412 00	Plant License	8092 1512 00

* ToolsNet 3000 W5 is required to upgrade

** ToolsNet 3000 W5, Event Monitor W5 and E-Mail Module are required to upgrade

*** ToolsNet 3000 W5, Event Monitor W5, E-Mail Module and Program History are required to upgrade

