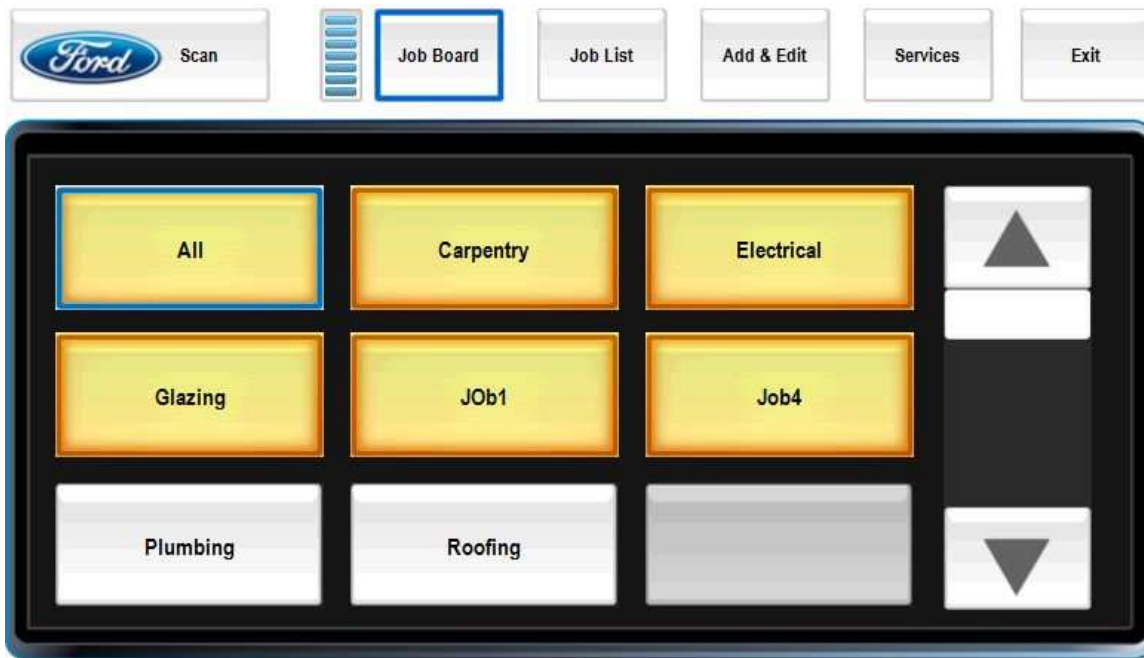


# ToolLink

## User Guide



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# Communication Regulation Information

EMC FCC 47 CFR, Part 15

## Federal Communications Commission Interference Statement

**FCC Compliance:** This equipment complies with Part 15 of the FCC rules for intentional radiators and Class A digital devices when installed and used in accordance with the instruction manual. Following these rules provides reasonable protection against harmful interference from equipment operated in a commercial area. This equipment should not be installed in a residential area as it can radiate radio frequency energy that could interfere with radio communications, a situation the user would have to fix at their own expense.

**Equipment Modification Caution:** Equipment changes or modifications not expressly approved by ThingMagic, Inc., the party responsible for FCC compliance, could void your authority to operate the equipment and could create a hazardous condition.

**Important User Information:** In order to comply with FCC and IC requirements for RF exposure safety, a separation distance of at least 20 cm (7.9 in) needs to be maintained between the radiating elements of the antenna and the bodies of nearby persons.

# Warnings

## Antenna

This device has been designed to operate with the antennas provided with it (MTI MT-262024) and having a maximum gain of 7dBic. Antennas not listed here or having a gain greater than 7dBic are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

To reduce radio interference to other users, the antenna type and its gain is chosen such that the equivalent isotropically radiated power (EIRP) is not more than permitted for successful communication.

## Keep Antennas Connected at All Times

All ports **MUST** be connected to antennas when ToolLink is active. Operating the reader without a proper load may damage the transmitter.

## Don't Block Antennas

**DO NOT** block antennas with metal objects. A large, conductive object directly in front of the antenna may reflect back enough energy to damage the radio transmitter.

# Best Practices

For best results, follow these guidelines when attaching tags to tools.

- DO NOT place directly on metal.
  - Maintain at least 1/4" separation between tag and metallic/conductive objects.
  - Maximize separation from metal.
  - Avoid battery packs
- Can't scan through metal containers
  - Metal drawers must be open at least 3" during scan.
  - Metal lockers must be open during scan.
- Avoid high-traffic, high-contact areas

- e.g., DO NOT place on a gripping surface
- e.g., Place inside a carrying case, rather than outside.

## Job Board

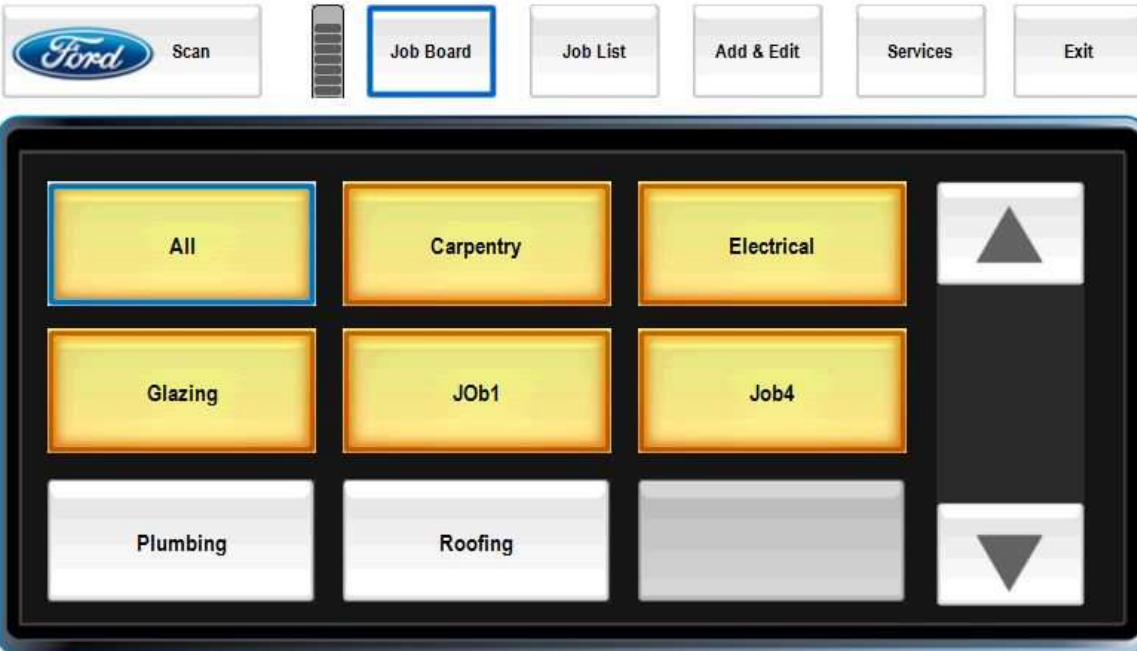


ToolLink opens up in the Job Board screen, which provides an overview of tool inventory. Each group of tools has its own button. Red buttons indicate that tools are missing from a group. Silver buttons indicate that all tools are present.

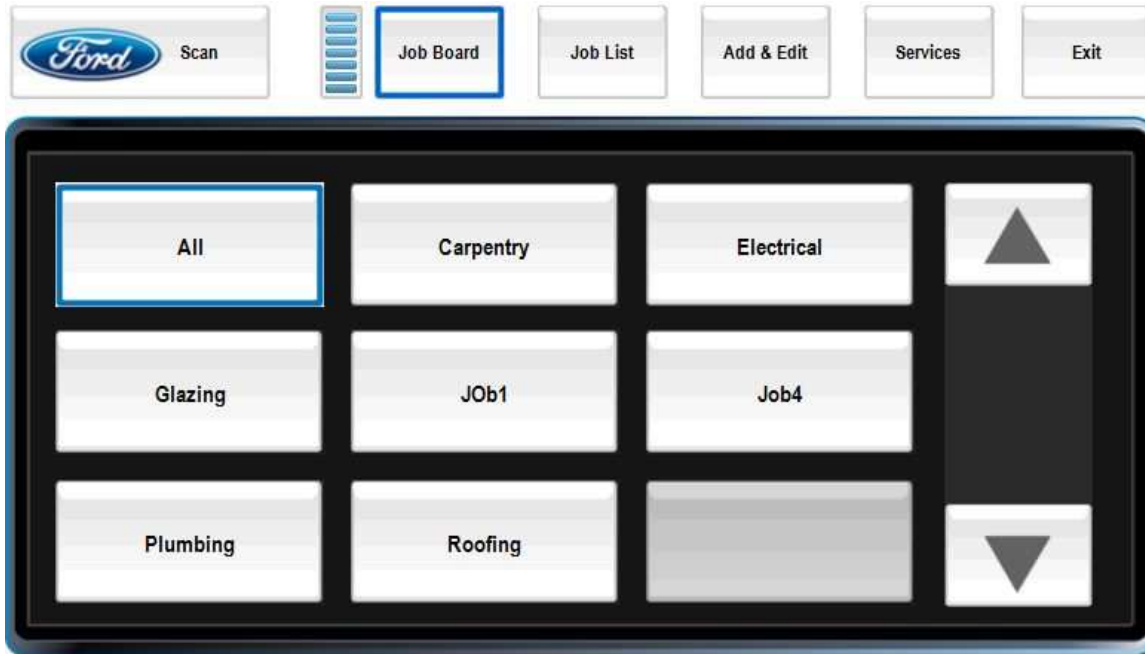
Press Scan to run a fresh tool inventory.



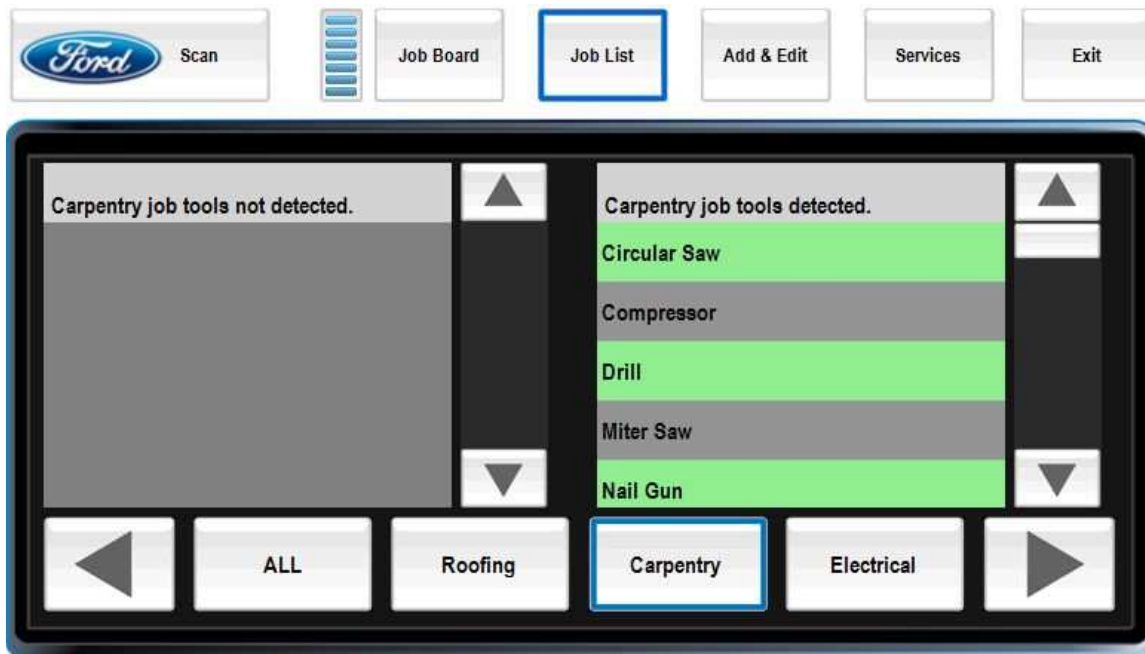
The inventory process takes about 5 seconds. The scan indicator changes color while the inventory is still under way.



After scanning, the tool group buttons update to reflect the results of the inventory.

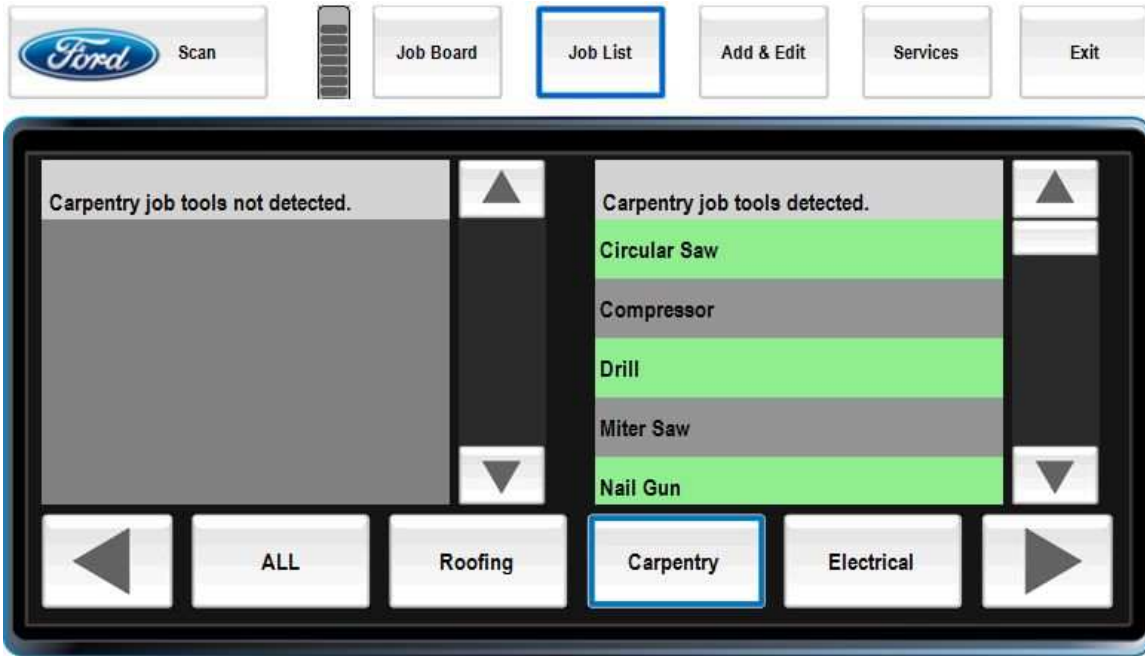


## Job List

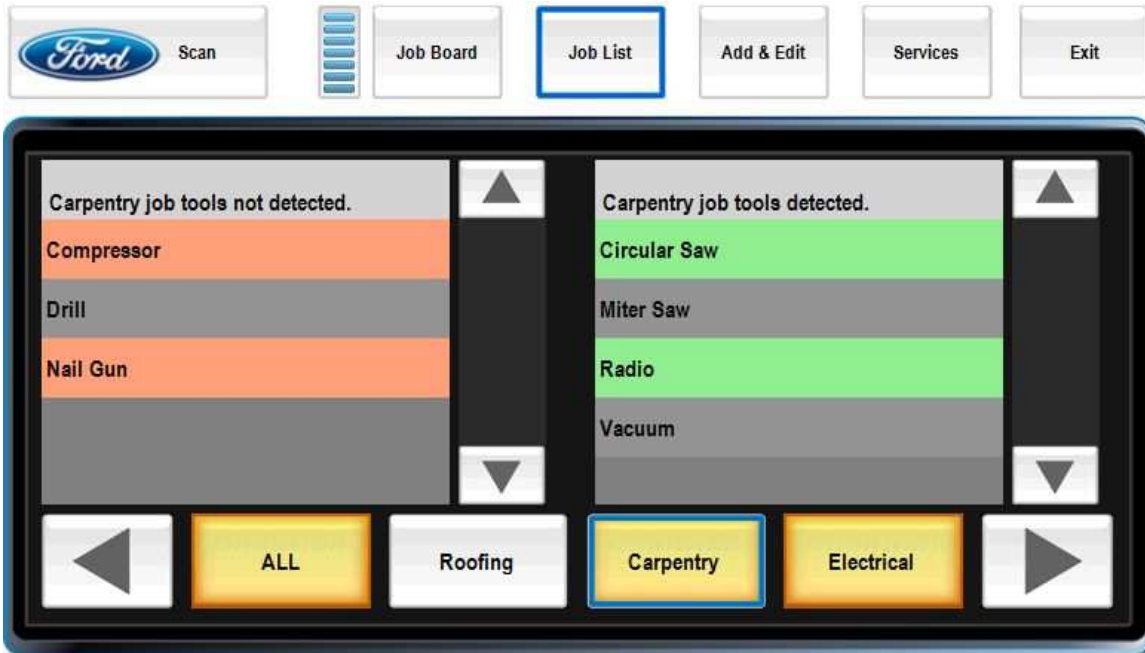


Switch to the job list screen for more detailed results; e.g., what tools are in a group?

Press Scan to update inventory status, just the same as the Job Board panel.

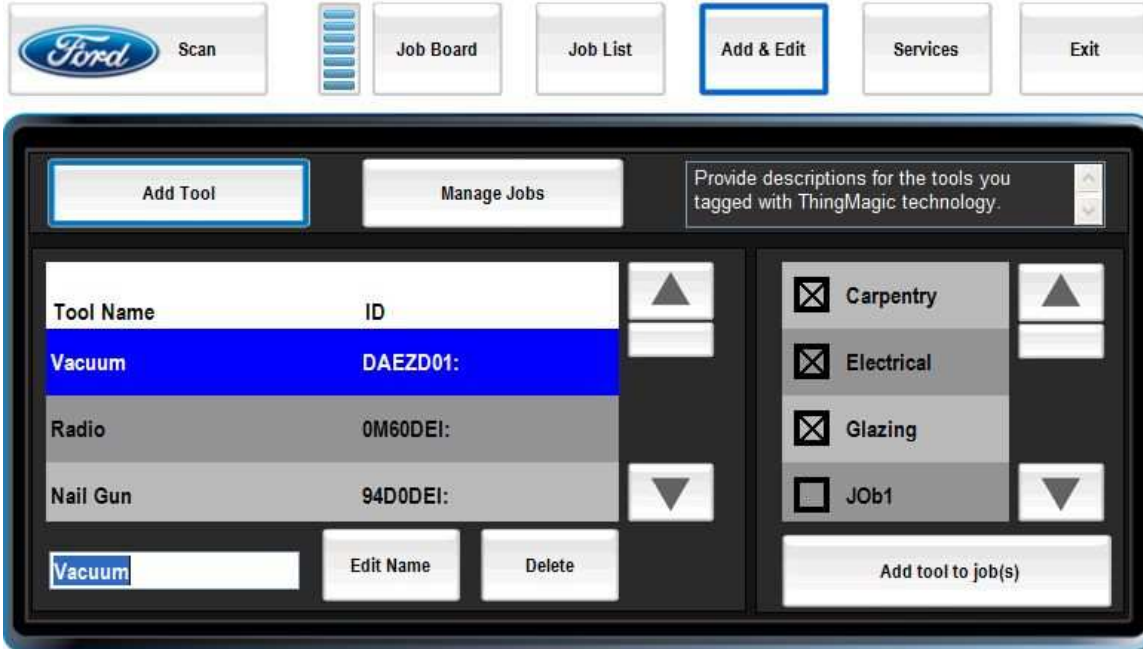


Missing tools appear in red on the left. Present tools appear in green on the right. Tool group buttons appear in the same red and silver color codes as on the Job Board screen.





## Add & Edit / Add Tool



Provide descriptions for the tools you tagged with ThingMagic technology.

Tool Name	ID	
Vacuum	DAEZD01:	▲
Radio	0M60DEI:	
Nail Gun	94D0DEI:	▼

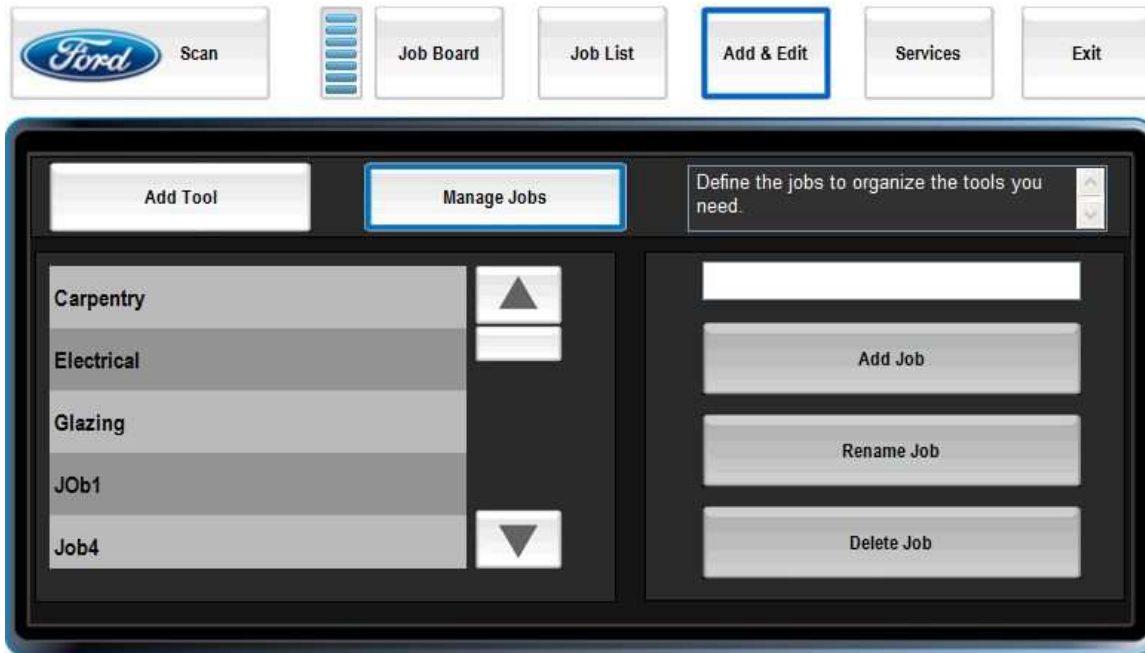
Vacuum Edit Name Delete

Carpentry ▲  
 Electrical ▲  
 Glazing ▲  
 JOB1 ▼

Add tool to job(s)

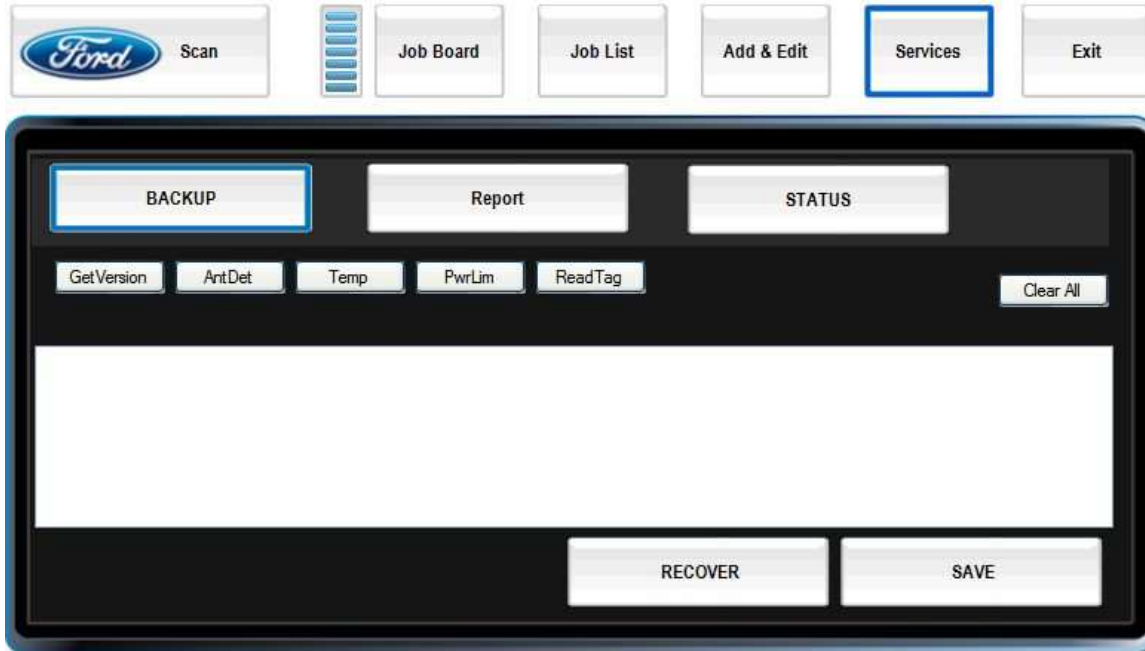
To add new tools, search for their tag IDs in the Add Tool screen. Click on the row with the right ID, type the tool's name, and press Edit Name.

## Add & Edit / Manage Jobs



To add new tool groups, enter a name in the Manage Jobs screen and press Add Job.

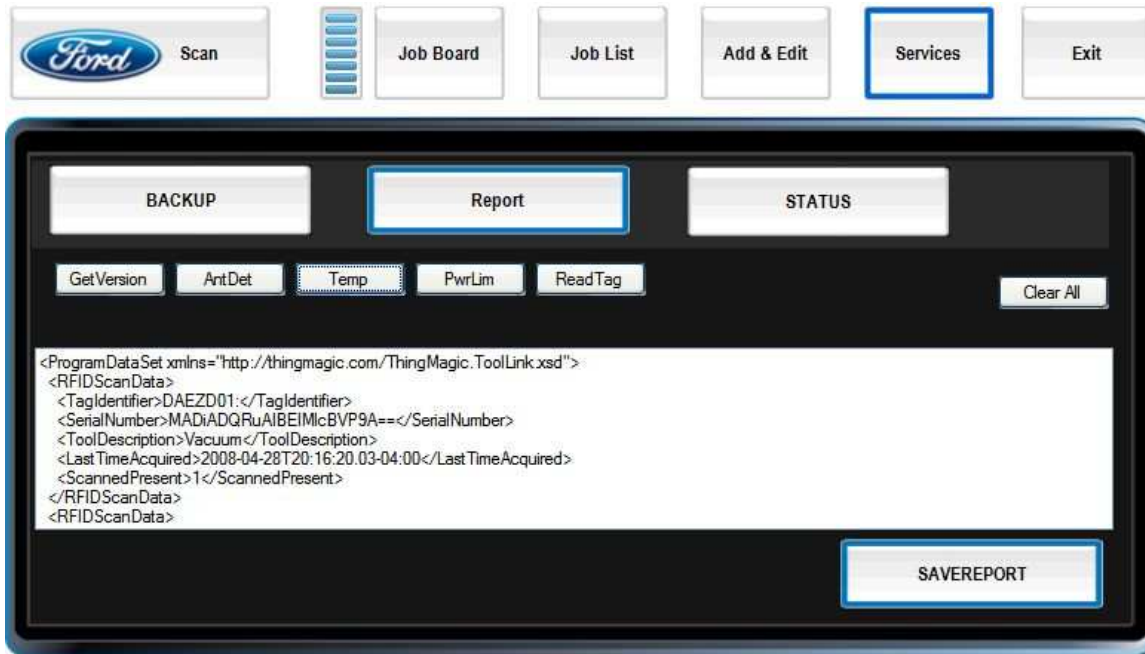
## Services / Backup



To make a copy of your ToolLink information for safekeeping, go to the Services / Backup screen and press Save. Your information will be saved to a file of your choosing.

To bring data back into ToolLink, press Recover in the Services / Backup screen and select a previously-saved file.

## Services / Report



Scan Job Board Job List Add & Edit **Services** Exit

BACKUP **Report** STATUS

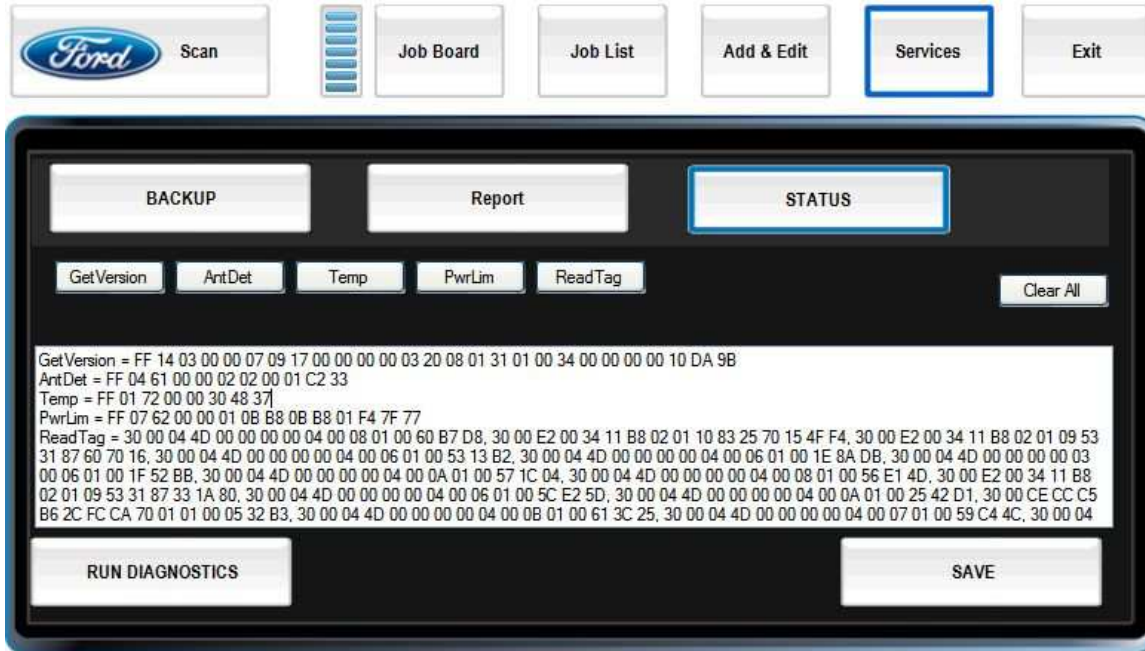
GetVersion ArtDet **Temp** PwrLim ReadTag Clear All

```
<ProgramDataSet xmlns="http://thingmagic.com/ThingMagic.ToolLink.xsd">
<RFIDScanData>
<TagIdentifier>DAEZD01:</TagIdentifier>
<SerialNumber>MADiADQRuAIBEIMcBVP9A==</SerialNumber>
<ToolDescription>Vacuum</ToolDescription>
<LastTimeAcquired>2008-04-28T20:16:20.03-04:00</LastTimeAcquired>
<ScannedPresent>1</ScannedPresent>
</RFIDScanData>
<RFIDScanData>
```

SAVEREPORT

The Report screen produces an XML-formatted file containing all the ToolLink information. This file can be read by other software.

## Services / Status



Scan Job Board Job List Add & Edit **Services** Exit

BACKUP Report **STATUS**

GetVersion AntDet Temp PwrLim ReadTag Clear All

```
GetVersion = FF 14 03 00 00 07 09 17 00 00 00 00 03 20 08 01 31 01 00 34 00 00 00 10 DA 9B
AntDet = FF 04 61 00 00 02 02 00 01 C2 33
Temp = FF 01 72 00 00 30 48 37
PwrLim = FF 07 62 00 00 01 08 B8 08 B8 01 F4 7F 77
ReadTag = 30 00 04 4D 00 00 00 00 04 00 08 01 00 60 B7 D8, 30 00 E2 00 34 11 B8 02 01 10 83 25 70 15 4F F4, 30 00 E2 00 34 11 B8 02 01 09 53
31 87 60 70 16, 30 00 04 4D 00 00 00 00 04 00 06 01 00 53 13 B2, 30 00 04 4D 00 00 00 00 04 00 06 01 00 1E 8A DB, 30 00 04 4D 00 00 00 00 03
00 06 01 00 1F 52 B8, 30 00 04 4D 00 00 00 00 04 00 0A 01 00 57 1C 04, 30 00 04 4D 00 00 00 00 04 00 08 01 00 56 E1 4D, 30 00 E2 00 34 11 B8
02 01 09 53 31 87 33 1A 80, 30 00 04 4D 00 00 00 00 04 00 06 01 00 5C E2 5D, 30 00 04 4D 00 00 00 00 04 00 0A 01 00 25 42 D1, 30 00 CE CC C5
B6 2C FC CA 70 01 01 00 05 32 B3, 30 00 04 4D 00 00 00 00 04 00 0B 01 00 61 3C 25, 30 00 04 4D 00 00 00 00 04 00 07 01 00 59 C4 4C, 30 00 04
```

RUN DIAGNOSTICS SAVE

The Status screen shows diagnostic codes and runs tests to help troubleshoot ToolLink problems.