

In this combined JTAG and Chip-off class, students learn the skills required to successfully perform memory acquisitions using the JTAG and using Advanced BGA Chip-off Techniques. The comprehensive course enables examiners to gain the essential knowledge of the practice and plenty of hands-on time working with devices.

## JTAG FORENSICS

Learn the latest techniques for accessing mobile devices using the JTAG technique for data recovery and device unlocking. The newly designed course incorporates the new Teel Tech JTAG Forensic Certification “TJFC” test, as an option for students. All students receive a Certificate of Attendance, and those who pass the practical examination successfully will earn their TJFC.

Students will learn the ins and outs of JTAG 2.0 such as the latest about today’s memory, and where JTAG is useful for data recovery from mobile phones and other devices.

### New Class Additions

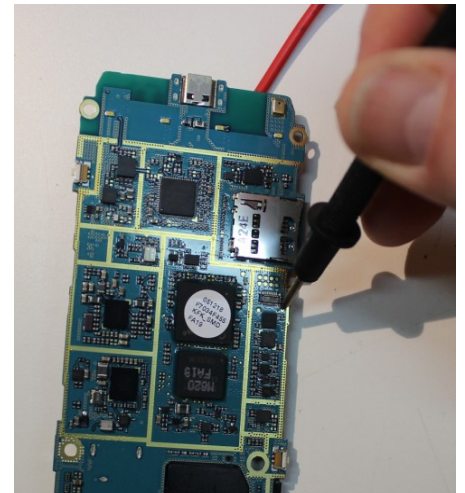
- New probing processes
- Password recovery on newer devices
- New soldering processes
- Students learn on Z3X box, in addition to Riff
- Information on new equipment

### Why do we need JTAG? – JTAG helps us get into these phones:

- Locked Android cell phone with USB Debugging turned off
- Locked Windows phones
- Locked proprietary OS phones
- Physical memory acquisition where tools don’t support this

### Course Essential components:

- Disassembly and assembly of devices
- Extensive soldering lessons, as well as using Molex Adapters.
- Identify the test access points (TAPs) using various means, as well as the supplied Z3X Box
- eMMC Reads – Working directly with eMMC partitions on live phones to save only the data you need.
- Production of a physical dump of a locked / disabled USB Android phone, identification of the password and then restore user data by using your forensics tools.
- Utilizing Python scripts for recovering pattern/pin locks. Introductory information using open source scripts.



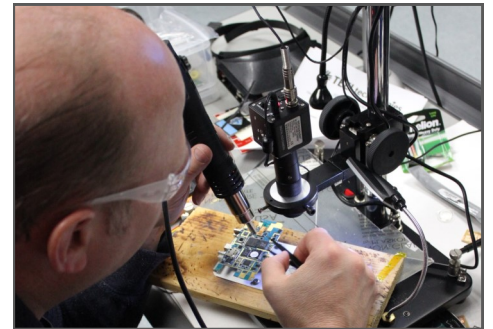
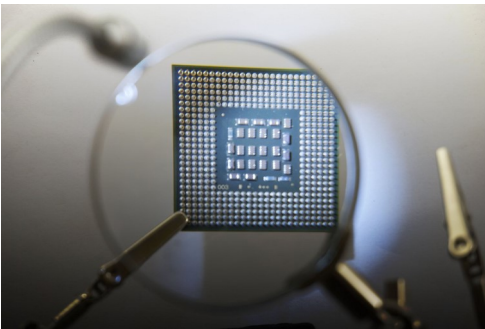
### CHIP-OFF FORENSICS

This course consists of hands-on practicals and theory presentations that encompass proper and safe chip removal and data extraction. All students receive a Certificate of Attendance, and the opportunity to take the TCFC certification test.

Further analysis of the data will be covered, and students shall use leading forensics software in the class to analyze data.

#### Why Chip-Off? Chip-off supports the following:

- Damaged or destroyed devices
- Devices unsupported by commercial tools
- Unsupported advanced data extraction methods



**This class is for Law Enforcement Only (LEO)  
or LEO affiliates ONLY unless otherwise noted.**

#### Students receive with training:

- 1 complimentary TT eMMC Medusa Kit
- 7 complimentary Teel Tech Emate-X EMMC Socket 13-in-1