WHAT IS CLAIMED IS:

1. A method for performing a visual inspection of a gas turbine engine, the method comprising:

inserting a plurality of optical probes through a plurality of access ports of the gas turbine engine, the plurality of access ports being spaced apart axially along a longitudinal axis of the gas turbine engine such that the plurality of optical probes provide internal views of the gas turbine engine from a plurality of different axial locations along the gas turbine engine;

coupling the plurality of optical probes to a computing device;

rotating the gas turbine engine about the longitudinal axis as the plurality of optical probes are used to simultaneously obtain images of an interior of the gas turbine engine at the plurality of different axial locations; and

receiving, with the computing device, image data associated with the images obtained by each of the plurality of optical probes at the plurality of different axial locations,

wherein rotating the gas turbine engine comprises transmitting, by the computing device, control signals to a motor rotatably coupled to the gas turbine engine such that the motor rotates the gas turbine engine at a controlled speed about the longitudinal axis, and

wherein an orientation of a probe tip of each of the plurality of optical probes is adjustable within the gas turbine engine, further comprising adjusting, with the computing device, the orientation of at least one of the probe tips as images of the interior of the gas turbine engine are being obtained.

2. The method of claim 1, wherein the plurality of access ports are spaced apart axially along at least a portion of a compressor of the gas turbine engine such that each access port is located at or adjacent to a different stage of a plurality of stages of the compressor.

3. The method of claim 2, wherein rotating the gas turbine engine comprises rotating the gas turbine engine about the longitudinal axis as the plurality of optical probes are used to obtain images of a plurality of compressor blades located at each of the plurality of stages of the compressor.

4. The method of claim 3, further comprising inspecting the plurality of compressor blades for defects or damage based on the image data associated with the obtained images.

5. The method of claim 1, wherein the plurality of access ports are spaced apart axially along at least a portion of a turbine of the gas turbine engine such that each access port is located at or adjacent to a different stage of a plurality of stages of the turbine.

6. The method of claim 5, wherein rotating the gas turbine engine comprises rotating the gas turbine engine about the longitudinal axis as the plurality of optical probes are used to obtain images of a plurality of turbine blades located at each of the plurality of stages of the turbine.

7. The method of claim 6, further comprising inspecting the plurality of turbine blades for defects or damage based on the image data associated with the obtained images.

8. The method of claim 1, further comprising providing for display, by the computing device, the image data on a display device.

9. The method of claim 1, further comprising storing the image data within a memory associated with the computing device.

10. The method of claim 1, wherein each of the plurality of optical probes corresponds to one of a borescope, a videoscope or a fiberscope.

11. The method of claim 1, wherein each of the plurality of optical probes includes a light source for illuminating the interior of the gas turbine engine.

12. A method for performing a visual inspection of a gas turbine engine, the method comprising:

inserting a plurality of optical probes through a plurality of access ports of the gas turbine engine, the plurality of access ports being spaced apart axially along a longitudinal axis of the gas

turbine engine such that the plurality of optical probes provide internal views of the gas turbine engine from a plurality of different axial locations along the gas turbine engine;

coupling the plurality of optical probes to a computing device;

transmitting, by the computing device, control signals to a motor rotatably coupled to the gas turbine engine such that the motor rotates the gas turbine engine at a controlled speed about the longitudinal axis as the plurality of optical probes are used to simultaneously obtain images of an interior of the gas turbine engine at the plurality of different axial locations;

receiving, with the computing device, image data associated with the images obtained by each of the plurality of optical probes at the plurality of different axial locations; and

transmitting, with the computing device, the image data to a data center located remote to the computing device,

wherein an orientation of a probe tip of each of the plurality of optical probes is adjustable within the gas turbine engine, further comprising adjusting, with the computing device, the orientation of at least one of the probe tips as images of the interior of the gas turbine engine are being obtained.

13. The method of claim 12, wherein the plurality of access ports are spaced apart axially along at least a portion of a compressor of the gas turbine engine such that each access port is located at or adjacent to a different stage of a plurality of stages of the compressor.

14. The method of claim 13, wherein rotating the gas turbine engine comprises rotating the gas turbine engine about the longitudinal axis as the plurality of optical probes are used to obtain images of a plurality of compressor blades located at each of the plurality of stages of the compressor.

15. The method of claim 14, further comprising inspecting the plurality of compressor blades for defects or damage based on the image data associated with the obtained images.

16. The method of claim 12, wherein the plurality of access ports are spaced apart axially along at least a portion of a turbine of the gas turbine engine such that each access port is located at or adjacent to a different stage of a plurality of stages of the turbine.

17. The method of claim 16, wherein rotating the gas turbine engine comprises rotating the gas turbine engine about the longitudinal axis as the plurality of optical probes are used to obtain images of a plurality of turbine blades located at each of the plurality of stages of the turbine.

18. The method of claim 17, further comprising inspecting the plurality of turbine blades for defects or damage based on the image data associated with the obtained images.