Dynamic Performance Information (DPI)

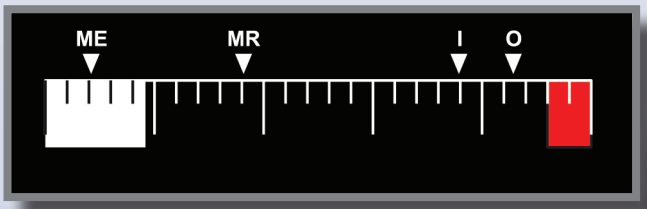
An innovative software solution adaptable to any turbine-powered rotorcraft, DPI provides real-time Dynamic Performance Information for critical mission success.

Features:

- Automated continuous power assurance
- Aircraft real-time performance
- Digital map integration to evaluate go/no go conditions
- En route forecasting

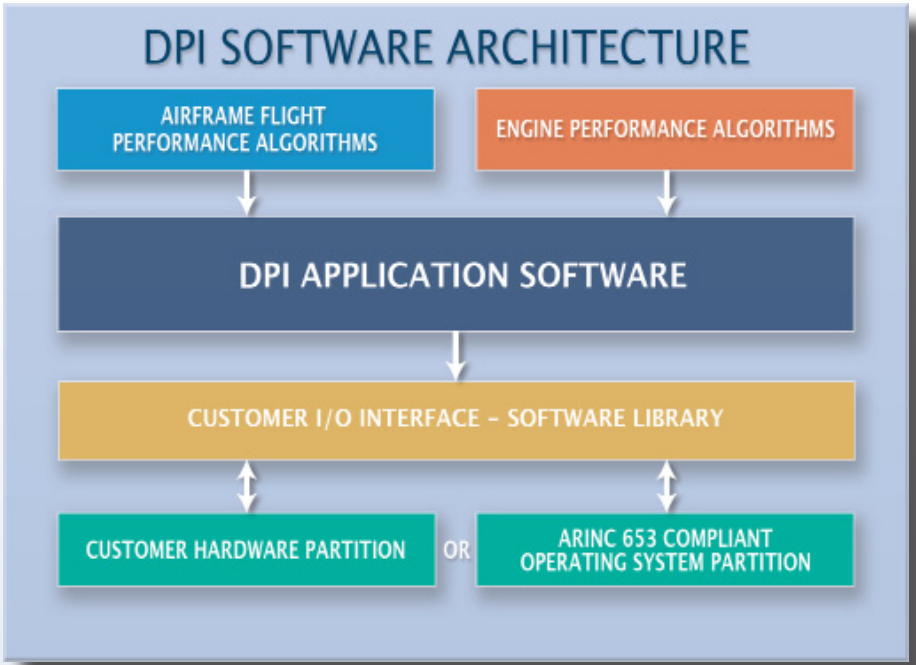
Benefits:

- Simplifies and validates mission planning
- Decreases pilot workload
- Enhances flight safety and operational awareness
- Provides power management for fuel savings and optimum aircraft performance



Pictured right and above right are notional display configurations, providing critical real-time paramaters ME, MR, I, O, and QA.

Howell Instruments, Inc.
8945 South Freeway
Fort Worth, Texas 76140
www.howellinst.com
817-336-7411
Fax: 817-336-7874
info@howellinst.com



SYSTEM REQUIREMENTS:

- ARINC 653 Partition or Integrated into a Monolithic Operator System
- Intel®, PowerPC®, or Embedded Microcontroller with IEEE 754-1985 floating point support
- 100K available RAM
- 400K available code space
- Data entry terminal for manually entered values
- No hard real-time requirements. Output rate is dependant on allotted CPU cycles.

SPECIFICATIONS

	SYSTEM INPUTS	ENROUTE/CRUISE OUTPUTS	LANDING/HOVER OUTPUTS
REAL TIME DATA	Pressure Altitude (ft)	Maximum Endurance (ME) (%)	IGE @ 10 feet (%)
	Free Air Temperature (°C)	Maximum Range (MR) (%)	IGE @ Radar Altitude (%)
	Rotor Speed (%RPM)	Maximum Airspeed (VNE) (KIAS)	OGE @ Head Winds (%)
	Current Airspeed (KIAS)	Minimum Airspeed (KIAS)	OGE @ Zero Winds (%)
	Radar Altitude (ft)	Maximun Airspeed (KIAS)	Maximum ROC Airspeed (KIAS)
	Torque (%)	Maximum ROC Airspeed (KIAS)	Maximum ROC Vertical (ft/min)
	Exhaust Gas Temperature (°C)	Maximum ROC @ Current Airspeed (ft/min)	Maximum ROC @ Maximum ROC Airspeed (ft/min)
	Gas Generator Speed (%RPM)	Maximum ROC @ Maximum ROC Airspeed (ft/min)	IGE Maximum Weight (lbs)
	Anti-Ice Position	OGE @ Zero Wind (%)	OGE Maximum Weight (lbs)
	Customer Bleed Position	Maximum Weight in Flight (lbs)	IGE @ Head Wind (%)
	Rate of Climb (ROC) (ft/min)	Torque Required @ Current Airspeed (%)	Torque Available (%)
MANUAL DATA	Input Airspeed (KIAS)	Torque Required @ Input Airspeed (%)	
	Head Winds (KIAS)	Torque Available (%)	
	Initial Gross Weight (lbs)		
	Engine Torque Factor		
	Initial Gross Weight (lbs)		
	Flat Plate Drag		

Howell Instruments, Inc. • 8945 South Freeway • Fort Worth, Texas 76140
www.howellinst.com • 817-336-7411 • Fax: 817-336-7874 • info@howellinst.com
©2013 Howell Instruments, Inc. PETDPI