

Media Release
For immediate release

FISH AND CHIP – Now becomes a reality

**Underwater World Singapore becomes world's first oceanarium to implement a
Radio Frequency Identification System in an Exhibit**

Singapore, 22 May 2007 – While we would address our pets through personalized names, visitors to Underwater World Singapore (UWS) will now be able to do just that, with some members of the aquatic family! As part of its continuing efforts to introduce more exciting and interactive oceanarium experiences to its visitors, UWS has catalyzed the integration of aquatic science and technology to introduce the Radio Frequency Identification (RFID) System making it the world's first oceanarium to do so.

RFID is an automatic identification technology, relying on storing and remotely retrieving data using devices called RFID tags or transponders. An RFID tag is an object that can be attached to or embedded into an object, animal, or person for the purpose of identification using radio waves. Similarly, all the seven species of fishes in the Living Fossils tank such as the Arapaima (*Arapaima gigas*), Alligator Gar (*Lepisosteus spatula*), Pacu (*Piaractus brachipomum*), Redtail Catfish (*Phractocephalus hemiliopterus*), Flower Ray (*Potamotrygon sp.*) and the Shovelnose Catfish (*Pseudoplatystoma sp.*) and Walking Catfish (*Clarias bartruchus*) are embedded with RFID tags. The tags were generously supplied by Texas Instrument.

The RFID tag implanted in each fish will enable it to be sensed by antennas that are fitted on the front of the exhibition tank. When the fish swims within detectable range, the RFID tag sends a signal to the antenna, which then relays a signal to a touch screen computer. The computer will then display the name of the fish such as Tiny the Arapaima. Visitors will also be able to navigate through all the detailed information about the fish such as its origin, diet and characteristics by clicking on the appropriate icon on the computer screen.

Dr Jeffrey Mahon, Curatorial Director of UWS commenting on the rationale behind the RFID, "When you have a tank containing several similar looking fish, it is ideal to have a way to identify each of them, so you can track their medical history and treatment record. RFID tags have been used for this purpose for several years now, but the range was very small, and to

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identify a fish you had to catch it out of the tank, which causes stress. With the latest RFID innovation (half-duplex) and a cutting-edge antenna design, we can get over one half metre of range in water, allowing us to identify every fish in the tank. We are also using this technology to allow our visitors to learn more about our exhibits."

About Underwater World Singapore

Underwater World Singapore is a wholly owned subsidiary of Haw Par Corporation. Situated on Sentosa Island, this leisure and educational attraction showcases the rich variety of marine life to be found around the region, with educational and recreational activities available here.

The Dolphin Lagoon, an attraction of Underwater World Singapore houses the Indo-Pacific Humpbacked Dolphins, commonly known as pink dolphins for its coat of "bubbly" pink in contrast to the usual grey appearance of dolphins. At the "Meet-the-Dolphin" sessions, visitors can enjoy a close encounter with these adorable pink creatures.

At Underwater World Singapore, our mission goes beyond making our guests aware of the fascinating marine life. Our commitment to marine conservation and environmental awareness is demonstrated through our work in public education, breeding, rescue and rehabilitation, and research. Underwater World Singapore reinforces its environmental efforts through educational exhibits and a variety of education programmes to children and other guests. School visits are actively supported, and a number of new educational programmes are planned. Underwater World Singapore has also been very active in providing special programmes and assistance to the physically and mentally disabled.

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